Gateway to the Great Books

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Gateway to the Great Books

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Gateway to the Great Books

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Introduction & Syntopical Guide

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GATEWAY TO THE GREAT BOOKS

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INTRODUCTION

SYNTOPICAL GUIDE

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Note on Texts and Text Illustrations

The spelling and punctuation of certain texts in this set have been changed in accordance with modern British and American usage. Translations and transliterations added by the editors are enclosed in brackets. Text illustrations in Volumes 8 and 9 have been revised and adapted to show modern equipment.

Portraits of authors in Volumes 2 through 10 are by Fred Steffen of Chicago

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Introduction

I
The Ways—and Whys—of Reading

Great Books and the Gateway to Them

The works in this set are outstanding creations of the human mind, but they are not of the same order as the works included in *Great Books of the Western World*. They consist of short stories, plays, essays, scientific papers, speeches, or letters; and in some cases they are relatively short selections from much larger works. In contrast, *Great Books of the Western World* generally contains whole books or extensive collections of books.

The works in that set not only have a certain magnitude, but they also occupy a unique place in the formation and development of Western culture. Each of them represents a primary, original, and fundamental contribution to our understanding of the universe and of ourselves. It has been said of them that they are books which never have to be written again, that they are inexhaustibly rereadable, that they are always contemporary, and that they are at once the most intelligible books (because so lucidly written) and the most rewarding to understand (because they deal with the most important and profound subjects). It has also been said of them that they are the repository and reservoir of the relatively small number of great ideas which we have forged in our efforts to understand the world and our place in it; and that they are over everyone's head all of

the time, which gives them the inexhaustible power to elevate all of us who will make the effort to lift our minds by reaching up to the ideas they contain.

The works included in *Gateway to the Great Books* have some of the special attributes which distinguish the great books. Some of the things which have been said of the great books can also be said of them. The works in this set are, each of them, masterpieces of the imagination or intellect. Many of them are modern, even recent; some were written in ages past; but they are all forever contemporary. In whatever time or place we live, they speak to us of our own condition. Like the great books, they are readable again and again, with renewed pleasure and added profit. And like the great books, they throw light on as well as draw light from the great ideas. They, too, have the power to lift our minds up to new levels of enjoyment, new levels of insight, new levels of understanding. They have that power by virtue of holding out more to understand than most of us can manage to understand in a first reading. And if we make the effort to understand more in subsequent readings, they sustain such effort by the intellectual excitement they afford us—the excitement and the challenge of coming to closer grips with the great mysteries of nature and human nature, the order of the universe and the course of human history.

Like the great books in these respects, the selections included in this set are entitled to be regarded as proper companions to the greatest works of the human mind. That, however, does not fully describe the function they are intended to perform. They are more than just companion pieces. We have another and what seems to us a more important reason for associating the contents of these volumes with the contents of *Great Books of the Western World.*

Because this set consists of much shorter works and, on the whole, of things somewhat easier to read, we think that the reading of the selections here included will effectively serve as an introduction to the reading of the great books. That is why we have called this set a *gateway* to the great books. Readers who open their minds to all, or even to some, of the works in this set, have opened the gates for themselves and are on the high road to the world of ideas and the lifetime of learning which the great books make accessible.

More than half of the contents of this set consists of stories and plays, essays, speeches, and letters. Good writing of this kind almost has to be about things and experiences and feelings which are famil-

iar to every human being; and when the writing is of a high order of excellence, as it is in the case of all the selections here included, it deals with the familiar aspects of life in a way that is at once lively and illuminating. Readers are quickly entertained and, to the extent that they are entertained (which means that their attention is held with delight), they read—and learn.

While the political, scientific, and philosophical readings in *Gateway to the Great Books* must be read with more conscious effort to attend to what they try to teach us, they nevertheless remain easier than the basic political, scientific, and philosophical treatises in *Great Books of the Western World*. In part, this is due to their brevity; in part, it must be also said that what they try to teach us is more readily grasped.

All the works included in this set are comprehensible to any reader who will give them the measure of attention which they require. That requirement is easy to fulfill, and can be fulfilled with pleasure, precisely because all these works have the quality of entertainment. Entertaining books invite and sustain our attention, delighting us at the same time that they profit us. The pleasure and profit that readers derive from this set of books should—and, the editors think, will—help them to develop the habits and improve the skills which should make the great books easier for them to read, some at the same time, some later.

Kinds of Reading Matter

Different kinds of reading matter call for different kinds of reading. Readers must, first of all, decide what type of reading matter they have at hand; and they must then read it accordingly. Every piece of reading matter that comes before our eyes is not equally worth reading; nor do all make equal claims on our attention. All do not deserve from us the same devotion to the task of considering what the writer has in mind—what he is trying to teach us or to make us feel.

A telephone book, an airline timetable, or a manual for operating a washing machine may be useful or even indispensable reading, requiring attention to certain details; but these certainly do not deserve sustained study or devoted consideration. Most periodicals that come our way do not deserve more than passing attention. And what is called "light reading" is no different from most television

programs or motion pictures, which succeed only if they give us the relaxation that we seek from them. Whatever use or value these things may have for us, they are seldom worth reading twice, and none of them is worth reading over and over again.

The great books, and the smaller masterpieces that constitute a gateway to them, exert a whole series of claims upon us that other kinds of reading seldom make. They have treasures to yield, and they will not yield their treasures without our digging. They will not give something to us unless we give something to them. Such works command our interest, our humility, and our fidelity. They have much to teach us—if we want to learn.

These are the works which are most worth reading for the first time, precisely because we will find, on that first reading, that they deserve to be read over and over again. It might almost be said that a book which is not worth rereading one or more times is not really worth reading carefully in the first place. Like the great books, the works in this set are not idle-hour affairs, mere time passers like picture magazines. None of them is a sedative compounded of paper and ink. Every one of them calls for and deserves active, as contrasted with merely passive, reading on our part.

Young people—and older ones—who in ages past had access to only a few books in a lifetime knew how to read them without being told. We all know to what good use young Abraham Lincoln, by the light of the log fire, put the Bible, Euclid, Blackstone, Bunyan, and a few other books. He, and others like him, read not only with eyes wide open but also with a mind fully awake—awake because it was intensely active in an effort to get, by reading, everything that the writer had to offer.

We need to remind ourselves of this bygone situation in which a book was a lifelong treasure, to be read again and again. Deluged as we are with a welter of printed words, we tend to devaluate all writing, to look at every book on the shelf as the counterpart of every other, and to weigh volumes instead of words. The proliferation of printing, on the one hand a blessing, has had, on the other, a tendency to debase (or, in any case, homogenize) our attitude toward reading.

What was true centuries ago is still true: there are great books and masterpieces of writing which can entertain us while they enlighten us; there are merely useful books or printed materials which we go to only for specific facts or instruction; there are trivial books which,

like the average detective story, amuse us briefly or help us pass the time, and then disappear forever from mind and memory; and there is trash, like many magazine, paperback, or even hardcover romances which actually dull our taste for better things. Of these, only the first constitute the readables which deserve our effort to keep as wide awake as possible while reading. We can do that only by reading as actively as possible.

How does one do that? The answer is easier to give than to apply, but readers who want to get the most out of the works that are most worth reading can do what is required, if they apply their wills to the task. And the more they are willing to do what is required, the easier they will find it to do.

What is required of readers who wish to be wakeful and active in the process of reading is simply the asking of questions. They must ask questions while they read–questions which they themselves must try to answer in the course of reading. The art of reading a book or piece of writing consists in asking the right questions in the right order. They are as follows: (1) What is this piece of writing about? What is its leading theme or main point? What is it trying to say? (2) How does it say what it is trying to say? How does the writer get his central point across? How does he tell his story or argue for his conclusion to produce the effect in us that he is aiming at? (3) Is it true–factually or poetically–in whole or part? Has the writer won our assent or sympathy? And if not, what reasons do we have for disagreeing with or rejecting his view of things? (4) What of it? What meaning does it have for us in the shape of opinions or attitudes that we are led to form for ourselves as the result of reading this piece?

These four questions underlie and motivate all the specific things that we have to do in order to read well what is worth reading well. We shall state these more specific recommendations presently; but first it is necessary to observe the difference between fiction and nonfiction as objects of our active attention in reading; and, among nonfiction works, the difference between writings in the field of history and politics, writings in the sphere of natural science and mathematics, and writings in the realm of philosophy.

The Four Colors

In the binding of *Gateway to the Great Books,* four different colors, based on traditional academic insignia for the various arts and sciences, are used to signify four types of subject matter to be found in this set. Yellow in the binding signifies works of the imagination–epic and dramatic poetry, novels, and essays. Blue in the binding signifies biographies and histories, treatises in politics, economics, and jurisprudence. Green in the binding signifies major contributions to the fields of mathematics and the natural sciences. Red in the binding signifies the great works in philosophy and theology.

Gateway to the Great Books is divided into these four kinds of writing for good and sufficient reason. We have but to consider the subject matter of the various courses that we take in high school and college–no matter what their titles–to realize that most of those of importance fall into one or another of these four categories. Nor is there any mystery about it: all writing may be thus partitioned because the resulting parts represent four aspects of ourselves as we use words to communicate what we know, think, feel, or intend.

First, we are all storytellers, listeners to stories, and critics of the stories we hear. Imaginative literature, represented by Volumes 2–5 of this set, is native to the life of every human being.

Second, as free people and citizens, we have always had the responsibility, now heavier than ever before, to deal with the social and political problems which are considered in Volumes 6 and 7. We are called upon to examine ourselves in the light of our past and future. These are illuminated by the historical and biographical writings contained in Volumes 6 and 7.

Third, the most distinctive characteristics of our modern world are the product of inventions and technology which are, in turn, the product of scientific discovery and mathematical theory, the two inseparable subjects dealt with in Volumes 8 and 9. Some understanding of these fields is essential if we wish to feel at home in the rapidly changing environment of the twentieth century.

Finally, every man and woman who has ever lived has asked, from childhood and youth on, What am I? How should I think? What is the meaning of life? How should I live? These are some of the philosophical questions which persons of wisdom, in every age, have considered and tried to answer. Such considerations appear in Volume 10 of *Gateway to the Great Books.*

To say that these are four different kinds of writing—writings about four different kinds of subjects—is not enough. They represent four different kinds of thinking, too. And they reflect four different aspects of our one human nature. They are four in one, at once different and the same. Since these four kinds of writings all spring from the human mind, and since that is a unity, so in the end all thought is unified.

The mind is not four separate compartments. No single thought is unrelated to any other. Our ideas, beliefs, sentiments, and fancies do not exist in isolation, to be collected artificially and arbitrarily. Neither is a set of volumes representing all the major aspects of human thought and feeling an aggregation of snippets. For all its diversification of content, *Gateway to the Great Books* has an underlying unity—the unity of the human mind itself.

Most of the writers in this set, though they lived at different times and had special interests and abilities, are talking to each other across the centuries. Like the authors of the great books, they are engaged in a continuing conversation. They are talking to each other through the walls that seem to separate the physicist from the novelist, the philosopher from the historian; for all are involved in a common adventure—the unending exploration of the human condition, of the mind and imagination, of our earth-home, and of the illimitable cosmos of which we are, though a small part, by far the most interesting members. Those who read and reread all the selections in this whole set—and that may take a long time—will in the end gain a vision of this common adventure and sense the unity which underlies the whole.

But in the beginning, as readers thread their way among the many different strands here woven together, they would be well advised to observe the differences in the four kinds of writing included in this set. They have to be read differently. Each of them has to be approached with a special attitude, a particular frame of mind. Confusion and bewilderment would result from our addressing a poet as if he were a mathematician, a philosopher as if he were a historian, or a historian as if he were a scientist. So, too, we would tend to confuse and bewilder ourselves if we failed to distinguish between fiction and nonfiction, or between philosophy and science, history and mathematics, and read them as if they were all the same.

These different kinds of writing require different kinds of reading on our part, because to read them well—with an active mind—we

must ask different sorts of questions as we read. Unless we know what to look for (and how to look for it) in each kind of reading that we do, we shall demand of fiction knowledge it cannot give us, ascribe to history values it does not have, ask science for opinions that lie wholly outside its scope, and expect philosophy to produce a mode of proof that is impossible for it to achieve.

Some Rules of Reading

So basic are the differences among various kinds of writing that it is almost impossible to formulate rules of reading which are general enough to apply to every kind of writing in the same way. But there is one rule which takes account of this very fact; for it recommends that we pay attention, first of all, to the character of the writing before us. Is it fiction or nonfiction? And if the latter, what sort of expository writing is it—criticism, history, political theory, social commentary, mathematics, science, or philosophy?

There is one other rule which applies to every piece of writing, insofar as it has the excellence that is common to all pieces of writing that are works of art, whether they are imaginative or expository writing. A work of art has unity. Readers must apprehend this unity. It may be the unity of a story or of a play, or the unity of a historical narrative, a scientific theory, a mathematical analysis, a philosophical argument. But whatever it is, it can be stated simply as a kind of summary of what the whole work or piece of writing is about. Readers should make the effort to say what the whole is about in a few sentences. When they have done this, they have answered for themselves the first of the four questions which should be asked about anything worth reading actively and with a mind fully awake.[1] Since a work of art is a complex unity, a whole consisting of parts, readers should also try to say what the major parts of the work are, and how they are ordered to one another and to the whole.

The rules to which we now turn apply most readily to nonfiction (expository writing of all sorts), though, as we shall presently see, corresponding rules can be stated for guidance in the reading of imaginative literature.

The writer of an expository work is usually engaged in solving a problem or a set of problems. Hence the reader, in dealing with such

[1]See p. 5 above for an enumeration of the four questions.

works as wholes, should try to summarize the problems which the author posed and tried to solve. What are they? How are they related to one another? Knowing the author's problems is necessary to any understanding of the answers he tries to give and to the judgment we make of his success or failure in giving them.

Examining a piece of writing as a whole and as an orderly arrangement of parts is only one approach to it. It constitutes one way of reading a book or anything less than a book which has artistic unity. A second approach involves attention to the language of the author, with concern not only for his use of words and the manner in which he expresses his meaning, but also for the verbal formulation of his opinions and the reasons that he has for holding them. Here readers should do a number of things, in successive steps, each a way of trying to get at the thought of the writer by penetrating through his language to his mind.

Readers should, first of all, try to come to terms with the author, that is, try to discover the basic terms which express the author's central notions or ideas. This can be done only by noting the words carefully and discovering the five or ten (rarely more than twenty) which constitute the author's special vocabulary. Finding such words or phrases will lead readers to the writer's basic terms. Thus, for example, a careful reader of Calhoun's "The Concurrent Majority" from *A Disquisition on Government* (Volume 7) can come to terms with Calhoun only by discovering what he means by such words or phrases as "constitution," "numerical majority," "concurrent majority," "interposition," "nullification," and "veto."

A term is a word used unambiguously. It is a word tied down to a special meaning which does not change within the context of a particular piece of writing. We come to terms with an author by noting the one or more meanings with which he uses the words in his own special vocabulary. Good writers are usually helpful, indicating explicitly by verbal qualifications—such as quotation marks, underlining, or parenthetical explanations—that a word is now being used in one sense and now in another; but even the best writers frequently depend upon the context to provide such qualifications. This requires the reader to do the work of interpretation which is involved in coming to terms.

Language is a difficult and imperfect medium. For the transmission of thought or knowledge, there must be communication, which can occur only when writer and reader have a common understand-

ing of the words which pass from one to the other. Terms made by the one and discovered by the other produce communication.

Coming to terms underlies all the subsequent acts of interpretation on the part of the reader. Terms are the building blocks of propositions, and propositions are put together in arguments. The next two steps in the process of interpretation concern the author's propositions and arguments–represented on the printed page by sentences and paragraphs, just as terms are represented there by words and phrases.

Readers should try to find out what the author is affirming and denying–what his bedrock assertions are. To do this, they must spot the crucial sentences in the text, the sentences in which the author expresses the opinions which are central in his mind. Most of the sentences in a piece of writing are not crucial. Only a few set forth the propositions which the author is undertaking to defend. Spotting these is not enough. We must know what they mean.

There are two simple ways in which we can test our understanding of the crucial sentences in an author's work. First, can we say precisely in our own words what the author is saying in his; that is, can we extract the author's meaning from his words by translating it into another form of speech? Second, can we think of examples that clearly illustrate the author's meaning or apply it to concrete experiences?

The third step of interpretative reading requires us to look for and find the key paragraphs which express the writer's basic arguments in support of the opinions that he wishes to persuade us to accept. An argument is a sequence of propositions, having a beginning in principles and an end in conclusions. It may be simple, or it may be complex, having simpler arguments as parts. Sometimes the writer will put his whole argument down in one place in the form of a summary paragraph; but more frequently the reader must piece together the parts of the argument by connecting sentences, or parts of paragraphs, which are on different pages.

The first of the suggested approaches to reading a book or piece of writing is analytical: it dissects a whole work into its parts and relates the parts. The second is interpretative: it attempts to construe what a writer means from what he says. There is a third approach, which should follow and complement the other two. It is critical.

Here the task is to judge a piece of writing in terms of the truth and falsity of its basic propositions, both its principles and its

conclusions, in terms of the cogency or soundness of its arguments, and in terms of the adequacy or completeness of its analysis. It is at this stage or in this phase of reading that readers must decide whether they agree or disagree with the writer, or determine the extent of this agreement or disagreement. In doing this, they should be governed by a number of rules or maxims.

The first is that readers should neither agree nor disagree with an author until they are sure that they understand what the author is saying. To agree with what you do not understand is inane; to disagree in the absence of understanding is impertinent. Many readers start to disagree with what they are reading almost at once—before they have performed the tasks of analysis and interpretation which should always precede that of criticism. In effect, they are saying to an author: "I don't know what you are talking about, but I think you are wrong." It would be just as silly for them to say "right" as it is for them to say "wrong." In either case, they are expressing prejudices rather than undertaking genuine criticism, which must be based on understanding.

This rule calls for patience and humility on the reader's part. If we are reading anything worth reading—anything which has the power to instruct us and elevate our minds—we should be loath to judge it too soon, for it would be rash to presume that we have so quickly attained an adequate understanding of it. If we suspect that we have fallen short in our understanding, we should always blame ourselves rather than the author. Not only is that the proper attitude if the author is worth reading at all; but, in addition, such an attitude may keep our mind on the task of interpretation. There is always time for criticism after that is well done.

A second maxim by which we should be guided can be stated thus: there is no point in winning an argument if we know, or even suspect, that we are wrong. This is an important rule of intellectual behavior in face-to-face discussions—one, unfortunately, which is frequently violated. It is even more important in the very special one-way conversation that a good reader carries on with an author. The author is not there to defend himself. Disagreement with an author demands the utmost in intellectual decency on the part of the reader.

A third closely related maxim recommends to readers that they should not undertake criticism unless they are as willing to agree as to disagree—unless they are prepared to agree intelligently as well

as to disagree intelligently. In either case, critical readers should be able to give reasons for the position that they take.

The reasons for disagreement can be roughly grouped under four headings. We may disagree (1) because we think that the author is uninformed on some essential point that is relevant to his conclusions; or (2) because we think that he is uninformed about some equally essential consideration, which would alter the course of his argument if he were aware of it; or (3) because we think that he has committed some fallacy or error in reasoning; or (4) because we think that his analysis, however sound in its bases and its reasoning, is incomplete. In every one of these instances, we are under an obligation to be able to prove the charge that we are making. Authors and their works are finite and fallible, every last one; but a writer of eminence is ordinarily more competent in his field than the reader, upon whom, therefore, the heavy burden of proof is imposed.

The foregoing rules, as already pointed out, apply primarily to expository writing rather than to imaginative literature–fiction in the form of novels, short stories, or plays. Nevertheless, they do suggest analogous recommendations for the reader to follow in reading fiction. As terms, propositions, and arguments are the elements involved in the interpretative approach to expository writing, so the cast of characters, their actions and passions, their thought and speech, the sequence of events, and the plot together with its subplots are the things with which readers must concern themselves in interpreting a work of fiction. As factual truth and logical cogency are central considerations in the criticism of expository writing, so a narrative's verisimilitude or credibility (its poetic truth) and its unity, clarity, and coherence (its artistic beauty) are important objects of criticism in the case of fiction.

It is possible to offer a few other recommendations that are especially appropriate to imaginative literature, and applicable to the varied assortment of stories and plays in Volumes 2, 3, and 4.

In every piece of fiction to be found there, the subject matter of the writer is men and women. But this subject matter is approached in a way that is quite different from that employed by the historian, the psychologist, or the moral philosopher, all of whom are concerned with human character and conduct, too. The imaginative writer approaches this subject matter indirectly and, in a sense, subjectively.

Writers of fiction see men and women partially, in terms of their

own limited temperaments, their own overriding passions, and also in terms of the willingness of the characters, as it were, to subject themselves to the particular pattern or frame that the author has in mind. Dickens, in *The Pickwick Papers,* and Mark Twain, in *The Man that Corrupted Hadleyburg,* are placed side by side in Volume 2. But in other ways they are far apart. To sense the distance separating them, readers need only ask this simple question after they have read these two stories: Which seems to *like* mankind more? Readers will then become aware that these two storytellers hold different views of mankind—each has a personal, partial view with its own partial truth.

To read fiction with pleasure, readers must abandon themselves for the moment to the writer's partial vision. As we read more and more imaginative literature, we will begin, almost unconsciously, to obtain new insights from each of the authors.

Finally, it may be helpful to point out a few differences between imaginative and expository literature, from the point of view of what is involved in reading them carefully and well.

A story must be apprehended as a whole, whereas an expository treatise can be read in parts. One cannot read enough of a story, short of the whole, "to get the idea"; but one can read a portion of a scientific or philosophical work and yet learn something of what the author is driving at.

An expository work may require us to read other works by the same or different authors in order to understand it fully, but a story requires the reading of nothing outside itself. It stands entirely by itself. It presents a whole world—for us to experience and enjoy.

The ultimate unity of an expository work, especially in the fields of political theory, natural science, mathematics, and philosophy, lies in a problem or a set of related problems to be solved. The unity of a narrative lies in its plot.

There is a fundamental difference in the use of language by imaginative and expository writers. In exposition, the aim of a good writer is to avoid ambiguity by a literal or precise use of words. Imaginative writers often seek to utilize ambiguity, and they do this by recourse to metaphor and simile and other figures of speech. The use of language moves in one direction when its ultimate aim is to accord with fact, and in another when its ultimate aim is to give wings to fancy.

And, lastly, the difference between imaginative literature and ex-

pository writing calls for different types of criticism on the reader's part. Aristotle pointed out that "the standard of correctness is not the same in poetry and politics," which we can generalize by saying that the soundness of a fictional narrative is not to be judged in the same way as the soundness of a scientific or philosophical exposition. In the latter, the standard is objective truth; in the former, internal plausibility. To be true in its own way, fiction need not portray the world as it actually is. Its truth is not that of simple factual realism or representation. Its truth depends upon an internal necessity and probability. Characters and action must fit together to make the narrative a likely story. However fanciful the story may be, it has the ring of truth if it is believable as we read it–if we can feel at home in the world that the imaginative writer has created for us.

The differences that we have pointed out between imaginative and expository writing should not be allowed to obscure the fact that there are mixed works–works which somehow participate in the qualities of both types. One example of this will suffice. Historical narratives are, in a way, mixtures of poetic and scientific or philosophical writing. They offer us knowledge or information about the past, gained by methodical investigation or research, but that knowledge or information comes to us in the form of a story, with a sequence of events, a cast of characters, and a plot. Hence histories must be read in both ways. They must be judged by the standard of objective truth–truth of fact–and also by the standard of internal plausibility–truth of fiction.

Some Further Suggestions to the Reader

One way of putting into practice the rules of reading outlined in the preceding pages is to read with a pencil in hand–to mark the pages being read, without scruples about damaging the volume. Marking a book is not an act of mutilation, but one of love. Of course, no one should mark a book that one does not own. But the books that we buy, we are at liberty to mark or write in as we read.

Buying a book is only a prelude to owning it. To own a book involves more than paying for it and putting it on the shelf in one's home. Full ownership comes only to those who have made the books they have bought part of themselves–by absorbing and digesting them. The well-marked pages of a much-handled volume constitute one of the surest indications that this has taken place.

Too many persons make the mistake of substituting economic possession or physical proprietorship for intellectual ownership. They substitute a sense of power over the physical book for a genuine grasp of its contents. Having a fine library does not prove that its legal owner has a mind enriched by books. It proves only that he was rich enough to buy them. If someone has a handsome collection of volumes–unread, untouched–we know that this person regards books as part of the home furnishings. But if the books, many or few, are dog-eared and dilapidated, shaken and loosened by continual use, marked and scribbled in from cover to cover, then we know that the owner has come into the full ownership of the books.

Why is marking a book so important a part of reading it? It helps to keep you awake while reading–not merely conscious, but mentally alert. And since reading, if it is an active process, involves thinking, and thinking tends to express itself in words, spoken or written, writing in the book enables readers to express their thoughts while reading. Marking a book thus turns the reader into a writer, engaged, as it were, in a conversation with the author.

There are many ways of marking a book intelligently and fruitfully. As one discovers the terms, propositions, and arguments in an expository work, one can mark them by underlining or by asterisks, vertical lines, or arrows in the margin. Key words or phrases can be circled; the successive steps of an argument can be numbered in the margin. Imaginative works can be similarly treated: underlining or marginal notations can be used to mark significant developments in character, crucial turns in plot, or revelations of insight by the author himself. In addition, one should not hesitate to use the margin, or the top or bottom of the page, to record questions that the text arouses in one's mind, or to jot down one's own comments about the significance of what is being read.

The margins of a book, or the space between its lines, may not afford enough room to record the thoughts of intensive readers. In that case, they should read with a scratch pad in hand. The sheets of paper on which the notations have been made can then be inserted into the book at appropriate places.

The person who marks a book cannot read it as quickly as one who reads it passively or merely flips its pages inattentively. Far from being an objection to marking books, this fact constitutes one of the strongest recommendations for doing it. It is a widely prevalent fallacy that speed of reading is a measure of intelligence.

There is no right speed for intelligent reading. Some things should be read quickly and effortlessly, some should be read slowly and even laboriously. The sign of intelligence in reading is the ability to read different things differently according to their worth. With regard to the great books, or with regard to the selections in this set, the point is not to see how many of them you can get through, but rather to see how many can get through you–how many you can make your own.

Most things worth reading carefully are likely to present some difficulties to the reader on a first reading. These difficulties tend to slow us up. But we should never allow them to stop us in our tracks. Readers who bog down completely because they cannot fully understand some statement or reference in the course of their reading fail to recognize that no one can be expected to achieve complete understanding of a significant work on the first go at it. A first reading is bound to be a relatively superficial one, as compared with the reading in greater and greater depth that can be done when one rereads the same work later.

Readers who realize this should adopt the following rule in reading worthwhile materials for the first time. The rule is simply to read the work through without stopping to puzzle out the things one does not fully understand on that first reading. Failure to clear all the hurdles should not lead one to give up the race. The things which may be stumbling blocks on the first reading can be surmounted on later readings, but only if they are not allowed to become insuperable obstacles that prevent the first reading from being completed.

Readers should pay attention to what they can understand, and not be stopped by what they do not immediately grasp. Go right on reading past the point where you have difficulties in understanding, and you will soon come again to paragraphs and pages that you readily understand. Read the work through, undeterred by paragraphs, arguments, names, references, and allusions that escape you. If you let yourself get tripped up by any of these stumbling blocks, if you get stalled by them, you are lost. In most cases, it is not possible to puzzle the thing out by sticking to it. You will have a much better chance of understanding it on a second reading, but that requires you to have read the work *through* at least once.

Reading it through the first time, however superficially, breaks the crust of the book or work in hand. It enables readers to get the feel or general sense of what they are reading, and some grasp,

however incomplete, of what it is all about. It is necessary to get some grasp of the whole before we can see the parts in their true perspective—or, sometimes, in any perspective at all.

Most of us were taught in school to pay attention to the things we did not understand. We were told to go to a dictionary when we met with an unfamiliar word. We were told to go to an encyclopedia or some other reference work when we were confronted with allusions or statements we did not understand. We were told to consult footnotes, scholarly commentaries, or other secondary sources in order to get help. Unfortunately, we never received worse advice.

The tremendous pleasure that comes from reading Shakespeare was spoiled for generations of high school students who were forced to go through *Julius Caesar* or *Macbeth* scene by scene, to look up all the words new to them in a glossary, and to study all the scholarly footnotes. As a result, they never read a play of Shakespeare's. By the time they got to the end of it, they had forgotten the beginning and lost sight of the whole. Instead of being forced to take this pedantic approach, they should have been encouraged to read the play through at one sitting and discuss what they got out of that first quick reading. Only then, if at all, would they have been ready to study the play carefully, and closely, because they would have understood enough of it to be able to learn more.

What is true of reading a play by Shakespeare applies with equal force to all the works included in this set, both the fiction and the nonfiction. What first readers of these works will understand by reading each of them *through*—even if it is only 50 percent or less—will help them to make the additional effort later to go back to the difficult places which they wisely passed over on the first reading. Even if they do not go back, understanding 50 percent of something really worth reading is much better than not understanding it at all, which will certainly be the case if they allow themselves to be stopped by the first difficult passage they come to.

There are some technical books—usually written by professors for professors, and in the jargon of the trade—which are not only difficult for first readers, but impossible for the nonprofessional to understand by any means. Such books are difficult because they are written in a way that is not intended for the person of ordinary background and training. In contrast, the great books, and to a lesser extent the masterpieces included in this set, are difficult for a quite different reason.

It is not because the author has not tried to be clear to the ordinary reader. It is not because the author is not a good writer. The difficulty, where it exists, lies in the subject matters being treated and in the ideas being conveyed. Precisely because the authors of *Great Books of the Western World* and the writers represented in *Gateway to the Great Books* have a mastery of these difficult subject matters or ideas, do they have the power to deal with them as simply and clearly as possible. Hence they make such material as easy as it can be made for the reader.

No major subject of human interest, nor any basic idea, need be a closed book to the ordinary person. On every one of them, there exist great books or masterpieces of writing which afford enlightenment to anyone who will make the effort to read them. However difficult the subject matter being treated or the idea being expounded, these writings help ordinary and inexpert readers to make some headway in understanding if they will only follow the rule of cracking a tough nut by applying pressure at the softest spot. That, in other words, is the rule of paying maximum attention to what you do understand, and not being deterred by what you fail to understand, on the first reading of these works.

A Word About What Follows

The succeeding sections of this introductory essay will attempt to acquaint the reader with the four types of subject matter which are represented in *Gateway to the Great Books.* Section II will discuss the works of the imagination that are included in Volumes 2–5; Section III, the writings about man and society that are included in Volumes 6 and 7; Section IV, the works in natural science and in mathematics that are included in Volumes 8 and 9; and Section V, the philosophical writings that are included in Volume 10.

Each of these sections will try to provide a general framework in which the writings indicated above can be read. Illustrative materials from *Great Books of the Western World,* as well as references to particular selections in *Gateway to the Great Books,* will be utilized to bring readers face to face with the ideas and themes appropriate to each kind of writing, and to fill them in on the basic background in each field. In addition, reference will be made from time to time to the *Syntopicon,* the index to the great ideas, which comprises Volumes 1 and 2 in *Great Books of the Western World.* The quotations

from the *Syntopicon* are drawn from the introductions which open its chapters, 102 in all, one on each of the great ideas.[2]

A word should be said about the style of the references that will appear in parentheses in the pages to follow.

Where the reference is to a passage in *Great Books of the Western World,* it is indicated by the letters GBWW, followed by the number of the volume in that set. Where references are made to authors or works included in this set, they will be accompanied simply by a parenthetical citation of the number of the appropriate volume in *Gateway to the Great Books.* And where reference is made to the *Syntopicon,* the reference will be to either Volume 1 or Volume 2 in GBWW.

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[2]The reader who wishes to become acquainted with the 102 great ideas will find them listed on the rear endpapers of the volumes of the *Syntopicon* in *Great Books of the Western World.* The list of authors included in that set appears in the front endpapers of those volumes.

II
Human Imagination

What Is Imagination?

"Tell me a story," says the child, and the storyteller begins. In an instant, the world of common reality is left behind, and a new reality–more captivating, more intense, more real–catches up the listener on the wings of imagination.

We never, as long as we live, stop saying, "Tell me a story." Our hunger is never satisfied; the more we read, the more we want to read; and the richer the feast, the hungrier we grow. For the master of creative imagination evokes the creativity in all of us, makes us all shareholders in the treasure that literature brings to life. The story–in prose or poetry, in art or music–is the magic of everyone's life. By comparison, the most staggering achievements of science and industry and statesmanship seem to some people bodiless and cold.

Charles Darwin writes in *The Descent of Man* that, while reason is the greatest of all human faculties, "The *Imagination* is one of the highest prerogatives of man. By this faculty he unites former images and ideas . . . and thus creates brilliant and novel results. . . . The value of the products of our imagination depends . . . to a certain extent on our power of voluntarily combining them. As dogs, cats, horses, and probably all the higher animals, even birds have vivid dreams . . . we must admit that they possess some power of imagination. There must be something special, which causes dogs to howl in the night, and especially during moonlight, in that remarkable and melancholy manner called baying" (GBWW, Vol. 49).

What is the imagination, which produces both the howling of a dog and Mozart's *Magic Flute,* the dream of a cat and Dante's *Divine Comedy*? Psychologists ancient and modern agree with Darwin that it is common to man and to some other animals, and that it is peculiarly linked with memory. In Chapter 56 of the *Syntopicon* on

MEMORY AND IMAGINATION (GBWW, Vol. 2), we learn that the two powers "depend upon sense perception or upon previous experience. Except for illusions of memory, we do not remember objects we have never perceived or events in our own life, such as emotions or desires, that we have not experienced. The imagination is not limited in the same way by prior experience, for we can imagine things we have never perceived and may never be able to."

How is this possible, when our imagination depends upon sense perception or upon previous experience? We do not know, except that we have both the involuntary instinct (as in dreams) and the voluntary power of *combining*. "Even when imagination outruns perception," the *Syntopicon* continues, "it draws upon experience for the materials it uses in its constructions. It is possible to imagine a golden mountain or a purple cow, though no such object has ever presented itself to perception. But, as Hume suggests, the possibility of combining a familiar color and a familiar shape depends upon the availability of the separate images to be combined."

The *Syntopicon* quotes Hume–some of whose shorter works we read in Volumes 5 and 7 of this set–as saying, "When we think of a golden mountain, we only join two consistent ideas, *gold* and *mountain,* with which we were formerly acquainted. . . . All this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience." Congenitally colorblind persons who lived entirely in a world of grays would not be able to imagine a golden mountain or a purple cow, though they might be able to imagine other things as unreal as these.

The object imagined, then, need not be located in the past like the object remembered, though the former depends upon the memory of the objects combined to produce it. But the imagined object need not have any definite location in time and space. It need have no actual existence. It may be a mere possibility, unlike the kind of object which cannot be known without being known to exist; it is a *figment* or construction. Having seen horses, we do not imagine a horse; we remember it. Having seen both horses and birds, we cannot remember a winged horse, but we can all imagine one. Memory preserves those things which are no longer present or no longer exist. Imagination evokes those things which have never existed, and, maybe, never will.

". . . in which he dwells delighted."

Consider for a moment what memory and imagination mean to our human experience and our civilization. Without them, says the *Syntopicon,* "man would live in a confined and narrow present, lacking past and future, restricted to what happens to be actual out of the almost infinite possibilities of being." But what imagination means to the life of each of us is perhaps best stated by a master of the art. In *The Lantern-Bearers* (Vol. 7), Robert Louis Stevenson asserts that, "Justice is not done to the versatility and the unplumbed childishness of man's imagination. . . . His life from without may seem but a rude mound of mud; there will be some golden chamber at the heart of it, in which he dwells delighted. . . ."

To the poet Shelley the imagination is the key to all goodness: "The great secret of morals is love; or a going out of our own nature, and an identification of ourselves with the beautiful which exists in thought, action, or person, not our own. A man, to be greatly good, must imagine intensely and comprehensively: he must put himself in the place of another and of many others; the pains and pleasures of his species must become his own. The great instrument of moral good is the imagination . . . We want the creative faculty to imagine that which we know; we want the generous impulse to act that which we imagine; we want the poetry of life . . ." (*A Defence of Poetry,* Vol. 5).

Let us recall the shipwrecked sailor in Stephen Crane's *The Open Boat* (Vol. 3). Doomed, as he thought, in a tiny lifeboat which could not make land, he suddenly remembered a poem of his childhood that began, "A soldier of the Legion lay dying in Algiers," and only now, for the first time, understood it; for the first time he felt sorry for that soldier now that he himself "lay dying." His own mortal experience brought that soldier before him. What Shelley insists upon is that all men, so few of whom have such an experience, use their imaginations to put themselves "in the place of another and of many others."

This is what poetry—the traditional term for what we call "fiction"—does for us. The poet's imagination takes us into the heart of another, of a person, a place, an event, and in doing so moves and lifts us. Volumes 2, 3, and 4 of *Gateway to the Great Books* are a collection of masterpieces of the imagination, Volume 5 a collection of the great critical and imaginative essays which enlighten our appreciation and enjoyment of what we read.

We emphasize appreciation and enjoyment, in addition to understanding, because the test of an imaginative work is its beauty. The French expression for such works, both stories and essays, is *belles-lettres;* literally untranslatable, it would have to be rendered something like "beautiful knowledge." But the test of knowledge is truth, not beauty; does this mean that poetry is false? And–if it is–how can it possibly serve us? We say that a person has "let his imagination run away with him" when we don't believe him. What then, if fiction or poetry be untrue, can it profit us?

The apparent contradiction has never been more clearly resolved than in Aristotle's little treatise *On Poetics* (GBWW, Vol. 8). "The poet's function," he says, "is to describe, not the thing that has happened, but a kind of thing that might happen, *i.e.,* what is possible. . . . The distinction between historian and poet is not in the one writing prose and the other verse–you might put the work of Herodotus into verse, and it would still be a species of history; it consists really in this, that the one describes the thing that has been, and the other a kind of thing that might be. Hence poetry is something more philosophic and of graver import than history, since its statements are of the nature rather of universals, whereas those of history are singulars. By a universal statement I mean one as to what such or such a kind of man will probably or necessarily say or do–which is the aim of poetry, though it affixes proper names to the characters; by a singular statement, one as to what, say, Alcibiades did or had done to him" (*ibid.*).

". . . a kind of thing that might happen"–this is poetry, fiction, the work of the imagination. Not the actual here and now, or yesterday, or in 1776, nor *this* man, John Smith of 1332 State Street, Philadelphia; but the possible, today, tomorrow, yesterday, here or anywhere, as it might happen to such and such a *kind* of person. And insofar as we see ourselves as such a kind of person, and those we know as this or that kind, we are moved emotionally, to sympathy, to pity, forgiveness, love, noble deeds and impulses (and, conversely, to fear and hate and cruelty and ignoble deeds and impulses). But what moves us–through its beauty–is the universal truth of the tale; in it we recognize ourselves or others. It is the possible, and the possible cannot be false.

Thomas De Quincey calls imaginative works "the literature of power" as opposed to the literature of knowledge. The function of the latter is to teach us, of the former to move us. In his *Literature of Knowledge and Literature of Power* (Vol. 5), he asks, "What do you

learn from *Paradise Lost*? Nothing at all. What do you learn from a cookery-book? Something new." What we owe the immortal author of the first, he goes on, is power—the materialization of our own latent capacity to move and be moved. "Were it not that human sensibilities are ventilated and continually called out into exercise by the great phenomena . . . of literature . . . it is certain that, like any animal power or muscular energy falling into disuse, all such sensibilities would gradually droop and dwindle. It is in relation to these great moral capacities of man that the literature of power, as contradistinguished from that of knowledge, lives and has its field of action." He points out that the Psalmist asks the Lord to give him not understanding, but an "understanding heart."

After attending a theater for the first time as a child, Charles Lamb tells us that he "knew nothing, understood nothing, discriminated nothing. I felt all, loved all, wondered all—*Was nourished, I could not tell how*" (*My First Play,* Vol. 5). What had happened to him?—The play had brought his heart into contact with those peculiar sources of joy which, in the cultivation of the intellect alone, tend, according to psychologist William James, to dry up and leave us "stone-blind . . . to life's more elementary . . . goods" (*On a Certain Blindness in Human Beings,* Vol. 7). Literature, says Stevenson in *The Lantern-Bearers,* moves us with "something like the emotions of life . . . Not only love, and the fields, and the bright face of danger but sacrifice and death and unmerited suffering humbly supported touch in us the vein of the poetic. We love to think of them, we long to try them, we are humbly hopeful that we may prove heroes also."

This is what the great works of the imagination do to us, and their effect is not without its dangers. The human heart is at once the best and worst of our blessings. So readily and so mysteriously moved, and in turn moving us to the great actions of life, its power may carry us to beatitude or perdition—depending on the goal to which it is moved and the means we choose to reach the goal.

This is where criticism comes in. The critic or essayist is part "poet" and part "historian," who comprehends the imagination and analyzes its output. The critic may deal (as De Quincey and others do in Vol. 5) with specific works or forms of literature, or (like Francis Bacon) with mankind itself. In either case, the writer examines and instructs or admonishes. Like preachers, critics want to direct and deepen our view of beauty; like scientists, they inquire into the truth of that view.

What Makes a Book Good?

The great issue here is the existence or nonexistence of standards of criticism. Can we say of a literary work that it is "good" or "bad," or "true or false," as we can of a pot or a pan—or a mathematical formula? And, if we can, with what degree of certainty? Can we say that it is "good" or "bad" only here and now, for our time or for our place; or can we criticize it in universal terms of time and place? And, if we can, what are the standards by which we do it, and how are they arrived at? What—or who—is the ultimate authority?

In Volume 5 of *Gateway to the Great Books* Sainte-Beuve looks at the history of criticism and reminds us that "the greatest names to be seen at the beginning of literatures are those which disturb and run counter to certain fixed ideas of what is beautiful and appropriate in poetry. For example, is Shakespeare a classic? Yes, now, for England and the world; but in the time of Pope he was not considered so. Pope and his friends were the only pre-eminent classics; directly after their death they seemed so forever. At the present time they are still classics, as they deserve to be, but they are only of the second order, and are forever subordinated and relegated to their rightful place by him who has again come to his own on the height of the horizon" (*What Is a Classic*?).

We are all familiar with the famous aphorisms, the Latin *de gustibus non est disputandum* ("there is no disputing about tastes") and the French *chacun á son goût* ("each to his taste"). But Hume (*Of the Standard of Taste,* Vol. 5) is willing to say that there *is* a way to measure literature: ". . . strong sense, united to delicate sentiment, improved by practice, perfected by comparison, and cleared of all prejudice, can alone entitle critics to this valuable character; and the joint verdict of such, wherever they are to be found, is the true standard of taste and beauty."

But the difficulties are at once apparent: How do we determine "strong sense"? How do we define "delicate sentiment"? How does a man, that creature of prejudice, clear himself of all prejudice? What if the verdict of such men is not joint at all, but divided?

While different forms of literature are to be criticized differently—see Schopenhauer's essays *On Style* and *On Some Forms of Literature* (Vol. 5)—we can generally accept the traditional view that the unity and completeness of an imaginative work—plus the harmony of its construction—serve as criteria under the experi-

enced examination of the critic. To these there may be added the usually paired criteria of universality and durability applicable to all works of the mind. But many critics take the position that artistic taste has no absolute validity but is relative to the conditions under which it is produced or "consumed." Among them are the Marxists, who maintain that *all* values are determined by the economic form of the society.

In his essay on Montaigne (Vol. 5), Sainte-Beuve says, "He was like Socrates, who did not consider himself a citizen of one city but of the world . . . he embraced the universality of countries and of ages . . . To get away from the present state of feeling, to restore lucidity and proportion to our judgments, let us read every evening a page of Montaigne." [Montaigne's collected essays may be found in Vol. 23 of *Great Books of the Western World*.] But the relativists would say that "there ain't no such animal" as this man who embraces countries and ages, that Socrates reflected the master-slave civilization of ancient Athens and that Montaigne reflected the feudal society of sixteenth-century France.

The issue is, in all probability, never to be resolved, for it involves the ultimate mystery of human nature we call the heart. And of all disputes that go on endlessly, that of taste in art is the most complicated, for art is man's modification of nature. Were the materials to form themselves into a finished work, like a mountain or a sea, our view of their beauty might be more dispassionate. As it is, they bear the touch and the genius of human beings, and the problem of reflexivity, which besets ethics and politics, also bedevils art: we are judging ourselves and our own handiwork, and our passions, from which our view of the nonhuman may be free, are inextricably interwoven with our judgment.

The purpose of our reading the great critics is, then, to become better critics ourselves; not merely to distinguish better between good and bad writing, and thus improve our own, but also to get the most pleasure out of everything we read, adding new dimensions to our own imagination. Criticism is the expressed response of the mind *and* the emotions of the critic to a work of art. It tends to awaken in us the sensibilities of which De Quincey speaks, to build Stevenson's golden chamber at the heart of the "rude mound of mud" of our lives, to lead us to brighter enjoyment. Coleridge was a kind of walking essay to William Hazlitt, who rhapsodizes on the effect of their conversations on him: "I was at that time dumb, inarticulate, helpless, like a worm by the wayside, crushed, bleed-

ing, lifeless; but now . . . my ideas float on winged words" (*My First Acquaintance with Poets,* Vol. 5).

On the Perilous Edge

In the weird scenes at the close of Goethe's masterpiece, Faust, in extreme old age, still bound by the sale of his soul to the Devil, envisions a people living behind a dike. On the other side of the dike the raging waters gnaw away at the wall and the community lives on the alert in constant danger and constant trial. And the savant who has now seen and done everything–with Mephistopheles for escort and councilor–sees "wisdom's final fruit" in the spectacle of the constantly imperiled city:

> None is of freedom or of life deserving
> Unless he daily conquers it anew.
>
> (*Faust,* in GBWW, Vol. 45).

So dream we all of conquering anew every day, the waters, the mountains, the heavens, far countries, and topless towers; would-be heroes all of us. But like Walter Mitty, we dream; and the waking life of most of us (of nearly all of us) is a round of routine which, as Bacon says, denies the satisfaction to the mind "in those points wherein the nature of things doth deny it, the world being in proportion inferior to the soul; by reason whereof there is, agreeable to the spirit of man, a more ample greatness, a more exact goodness, and a more absolute variety [in reading fiction] than can be found in the nature of things" (*Advancement of Learning,* in GBWW, Vol. 28).

We are nearly all of us shut-ins of a sort, rich and poor and in between, city people and even country people, bound to the commonplace affairs of the workaday world. Adventurers we would be–for humans have an adventurous nature–but the four walls of home and work and family confine us all our lives. This is the common fate, and always was. The frontiersmen are the few, and the new frontiersmen confront the redskins from their rocking chairs. So we read about daredevils going to the bottom of the sea, the center of the earth, the limits of the universe. We are all ground-floor astronauts, air-conditioned explorers, nineteenth-hole champions, careening over the highways in our aerodynamic, turbo-charged automobiles, to arrive at work in time to make our meetings and generate our reports. We have our splendid adventures second hand; have them we must, "the world being in proportion inferior to the soul."

Of all the adventurers who ever were–or were ever imagined–

two of the world's favorites are Homer's Odysseus (Ulysses) and Daniel Defoe's Robinson Crusoe. Homer and Defoe lived thousands of years apart, but *The Odyssey* and *Robinson Crusoe* continue to fascinate the old and the young in every language and in every land. They are the all-time best-selling adventure stories. *The Odyssey* (along with *The Iliad*) constitutes Volume 3 of *Great Books of the Western World,* and sections of Crusoe's classic (in spite of everyone's having read it as a child) have their place (in Vol. 2 of this set) in the living library of every young and old adult.

Ulysses was a divinely descended king, Crusoe a common sailor boy. Their adventures were in some ways radically different: Ulysses had his men and his ships, and wherever he went his life was thronged with companions lovely or terrible, human or divine; Crusoe, shipwrecked on a desert island, lived without the sound of human voice or the sight of human face until his "man Friday" came and relieved the solitude in which he faced and mastered fate. But the two figures are essentially more alike than different: In Dante's *The Divine Comedy* (GBWW, Vol. 19) the shade of Ulysses bemoans the fact that neither fondness for his small son nor piety for his father nor the love of his wife had been able to overcome "the longing that I had to gain experience of the world"—an ardor which delayed his return home from the Trojan War by ten years. And Crusoe, cursing his restlessness and curiosity as "the general plague of mankind," says that half of men's miseries flow from their "not being satisfied with the station wherein God and Nature hath placed them."

Ulysses deliberately sought out every challenge that man or god could muster, and Crusoe, all alone, tamed primeval nature to his civilized wants. Such heroes, increasing their stature to giant size, vicariously increase the size of those who read of their exploits. Men ourselves, we say, "mind you, a mere man did this." Crusoe's ingenious devices for carving a home for himself out of next to nothing have their echo in the do-it-yourself kit with which we moderns construct or repair an implement we could have bought cheaper at the store; we are all Crusoes and Ulysseses and our small adventures spring from their great ones. "Neither in the theoretic nor in the practical sphere," says William James (*The Principles of Psychology,* in GBWW, Vol. 53), "do we care for, or go for help to, those who have no head for risks, or sense for living on the perilous edge. . . . We draw new life from the heroic example."

The sedate philosopher John Stuart Mill tells us in the opening chapters of his *Autobiography* (Vol. 6) how the young Crusoe enriched his own sheltered childhood in which raw adventure had no place. So all of us, sheltered from the most primitive trials of life, are enriched by the youngster who would not and could not be kept to a way of life calculated for "peace and plenty . . . moderation, quietness," the way in which "men went silently and smoothly through the world, and comfortably out of it. . . ." Like him, we all rebel against the smooth, silent way, but he, unlike us, was pushed on by fate, "born," he says, "to be my own destroyer."

The Adventure of Comedy

The heroism of all adventure stories is essentially comic: It is read for delight, and its pervasive character is the happy ending. It *pleases* us. But where the adventurer increases our own stature vicariously, the comic victim (even while we are laughing at him) reduces it. "This, too," we say again, "is a mere man, like me," and thus Marcus Aurelius, in *The Meditations* (GBWW, Vol. 11), finds comedy useful in "reminding men to beware of insolence." It enables one (says Melville in *Moby Dick,* in GBWW, Vol. 48), to take "this whole universe for a vast practical joke . . . at nobody's expense but his own."

But it has a much higher aim, according to Schiller (*On Simple and Sentimental Poetry,* Vol. 5); it enables man to liberate himself "from the influence of violent passions, and taking a calm and lucid survey of all that surrounds him, and also of his own being, and of seeing everywhere occurrence rather than fate or hazard, and ultimately rather smiling at the absurdities than shedding tears and feeling anger at sight of the wickedness of man."

This certainly sounds as if comedy has a purpose beyond mere entertainment, though perhaps we should consider these the *effects* of comedy rather than its *aim.* Still, comedy may be a way of communicating a deadly serious message. Works like Dickens' *The Pickwick Papers* (Vol. 2) involve a sharp–if often hilarious–critique of the deplorable social situation in England in the nineteenth century. Sheridan's *The School for Scandal* and Molière's *The Misanthrope* and *The Doctor in Spite of Himself* (all three plays in Vol. 4) are "drawing-room comedies" in which we are seen saying and doing the opposite of what we feel. The comedy of manners (such as those

just mentioned) more often than not involves the traditionally and universally amusing, but none the less real, "battle of the sexes," with the helpless woman winning.

The characters in comedy do not bleed when they are pricked–their suffering is usually mere embarrassment–and the authors are making fun. But in making fun of human foibles they are nevertheless *arguing*. They seem to have no purpose, no message, no moral, but Sainte-Beuve, in his *What Is a Classic?* (Vol. 5) reminds us that Goethe said that Molière "is so great that he astonishes us afresh every time we read him." The king of critics (as Sainte-Beuve calls him) would hardly have spoken thus of a writer whose power was limited to making us laugh. The fact is that when we reject every sermon, every plea, and every scientific proof, and cling obstinately to our prejudices, comedy may still reach us where the other forms of discourse fail.

It is at this point that comedy gives rise to its most purposeful–and often savage–form in what is known as satire. The writer is a satirist, says Schiller (*On Simple and Sentimental Poetry,* Vol. 5), "when he takes as subject the distance at which things are from nature, and the contrast between reality and the ideal . . . he may place earnestness and passion, or jests and levity, according as he takes pleasure in the domain of the will or in that of the understanding. In the former case it is avenging and pathetic satire; in the second case it is sportive, humorous, and mirthful satire. . . . In satire the real as imperfection is opposed to the ideal, considered as the highest reality," But of *all* satire we may certainly say that it has a purpose, and that its purpose, unlike that of pure comedy, is never nebulous or concealed.

Voltaire's little satire, *Micromégas* (Vol. 2), for instance, brings a gigantic visitor to earth from the stars to inspect and make mock of the tiny dwellers on our tiny planet. The device of size to take us down a peg is, of course, also used by Jonathan Swift in the greatest of all satires, *Gulliver's Travels* (GBWW, Vol. 34). Nothing so well illustrates the saying that "there is no such thing as a children's book" as does *Gulliver's Travels*. Beloved of youngsters the world over, it says infinitely more to the world of adults than it does to children.

But where Voltaire in his disillusionment is "sportive, humorous," Swift, in his, is "avenging and pathetic." We have only to turn to Volume 7 and read the great Irishman's *A Modest Proposal for Preventing the Children of Ireland from Being a Burden to Their*

Parents or Country to see how satire can be the agonized cry of a great heart against man's inhumanity to man. Hazlitt (*On Swift,* Vol. 5) says of this "children's" writer that "the ludicrous in Swift arises out of his keen sense of impropriety, his soreness and impatience of the least absurdity. He separates, with a severe and caustic air, truth from falsehood. . . . His better genius was his spleen. It was the biting acrimony of his temper that sharpened his other faculties."

Which is the more effective, gentle or sharp satire? In the latter category we find Shaw's *The Man of Destiny* (Vol. 4), which, like Aristophanes' renowned *Lysistrata* (GBWW, Vol. 4), is a theater piece mirthfully satirizing the most terrible of all human activities, war. Here we are seen deluding ourselves with grandiose aims and purposes, justifying our most monstrous behavior by the highest ideals. "When [an Englishman] wants a thing," says Shaw, "he never tells himself that he wants it. He waits patiently until there comes into his mind, no one knows how, a burning conviction that it is his moral and religious duty to conquer those who possess the thing he wants." In both Shaw and Aristophanes, the heart of the satire is the victory of "helpless" woman over both warriors and war.

Satire may play an effective role in all works of social criticism, even in the construction of literary utopias–imaginary places where people live under ideal conditions. The most famous utopias (included in *Great Books of the Western World*) are Plato's *The Republic* (Vol. 6), founded on virtue; St. Augustine's *The City of God* (Vol. 16), founded on the Christian faith; and Francis Bacon's *New Atlantis* (Vol. 28), founded on science. But Machiavelli, that hardest-boiled of all hard-boiled realists, is scornful of such depictions of "republics and principalities which in fact have never been known or seen, because how one lives is so far distant from how one ought to live, that he who neglects what is done for what ought to be done, sooner effects his ruin than his preservation" (*The Prince,* in GBWW, Vol. 21).

This dim view of the confection of ideal commonwealths whose inhabitants exist under perfect conditions inspired one great utopian reformer to produce his plan in the form of a satire. This is Samuel Butler's *Erewhon* (Vol. 2 of this set). *Erewhon*–an anagram of "nowhere"–is borrowed directly from the word "utopia," compounded from the Greek οὐ, not, and τόπος, a place. Butler uses the device of holding a mirror to our institutions so that we see them in reverse: In Erewhon, disease, misfortune, debt, and poverty are

treated as crimes against society and are punished. But what *we* call crimes are treated as diseases–as, indeed, many modern psychologists think they are–and are treated as such by men trained in "soul-craft" (we would say "psychiatry") called "straighteners" (our "therapists").

The reason for satire is plain: Whoever is moved to criticize humans and their ways has to choose between a direct and a devious approach to the audience. The satirist chooses the latter, in the hope that, by entertaining them the while, he can circumvent the resistance they ordinarily display to criticism. He tries to "kid" them into facing their defects, where the moralist or preacher tries to compel them to face them. The literature of social protest tries to compel, to shock people into awareness. As *belles-lettres* it is rarely successful, but in Henrik Ibsen it reaches its artistic peak. In *An Enemy of the People* (Vol. 4) we see the protagonist on his feet fighting social evil. He is beaten but he is never stupid, as he is in satire, or ridiculous, as he is in comedy.

The Society–and the Person

In social protest we always see a minority pitted against what John Stuart Mill calls "the tyranny of the majority." (See *On Liberty,* in GBWW, Vol. 40.) "The strongest man in the world," says the heroic (some would say bullheaded) Dr. Stockmann in Ibsen's classic, "is he who stands most alone," echoing Walt Whitman's words in his *Preface to Leaves of Grass* (Vol. 5): "take off your hat to nothing known or unknown, or to any man or number of men." Standing alone against the commercial cupidity of the whole community–including the government and the press–Ibsen's honest physician is destroyed, but in his destruction we read his triumph. He has triumphed over the materialism of a civilization which teaches a man, says Matthew Arnold in his *Sweetness and Light* (Vol. 5), "to value himself not on what he *is* . . . but on the number of the railroads he has constructed, or the bigness of the tabernacle he has built."

What a person is brings us to the heart of literature and to the heart of life: the individual. Social criticism focuses on society and, insofar as it treats of the Dr. Stockmanns, portrays the worth and nobility of human nature in, if not the many, then at least the few. It shows us people daring alone, the adventurers. So, too, comedy, though it mocks our professions and our professional humbug (the

law, in Dickens' "A Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," from *The Pickwick Papers,* Vol. 2; medicine, in Molière's *The Doctor in Spite of Himself,* Vol. 4; philosophy, in Voltaire's *Micromégas,* Vol. 2). Deflating our pretenses and exposing our hypocrisies, comedy and light satire still say to us: "Man knows better, is better, than he says or does"; thus puffing us up (even as adventure does) while it lets the straw out of the stuffed shirt front. But the somber—and universal—adventure of every individual's life is still to be dealt with.

Kipling's *Mowgli's Brothers* (Vol. 2) and Balzac's *A Passion in the Desert* (Vol. 3) show humans confronting the world of beasts and pitting themselves against the arid waste. Conrad's *Youth* (Vol. 2), Crane's *The Open Boat* (Vol. 3), Victor Hugo's dreadful "The Battle with the Cannon" (Vol. 2) use the ferocious sea as the adversary. So, of course, does Homer's *Odyssey* and many another classic, including Melville's incomparable story of the hunt for the white whale (*Moby Dick,* in GBWW, Vol. 48). But the ferocity of the struggle with "nature in the raw" is child's play compared with the struggle with man in the raw—the struggle of man with himself. "Consider," says Melville (*ibid.*), "the subtleness of the sea; how its most dreaded creatures glide under water . . . treacherously hidden beneath the loveliest tints of azure. . . . Consider . . . the universal cannibalism of the sea; all whose creatures prey upon each other, carrying on eternal war since the world began. Consider all this; and then turn to this green, gentle, and most docile earth; consider them both, the sea and the land; and do you not find a strange analogy to something in yourself? For as this appalling ocean surrounds the verdant land, so in the soul of man there lies one insular Tahiti, full of peace and joy, but encompassed by all the horrors of the half-known life. God keep thee! Push not off from that isle, thou canst never return!"

Many are the masterpieces of literature that deal with some soul "pushing off" from a peaceful Tahiti and then trying forever to return, but lacking the power to do so. Physically such "souls" may never have ventured from home, but pride and ambition and greed and lust cut them loose from their moorings and launch them upon the treacherous waters of violence or deceit or injustice. The two sides of our nature—the docile earth and the subtle sea—tear us to pieces. "If each . . . could but be housed in separate identities," says Stevenson in his most famous short story, *The Strange Case of Dr.*

Jekyll and Mr. Hyde (Vol. 2), "life would be relieved of all that was unbearable." Alas, both are housed in each of us. But our misfortune is also our freedom, for, as Hegel says, in *The Philosophy of Right* (GBWW, Vol. 43), "It is only man who is good, and he is good only because he can also be evil." Only man is free.

Or is he? Plato thought that no man "voluntarily does evil and dishonourable actions" (*Protagoras,* in GBWW, Vol. 6), and Aristotle insisted that "every wicked man is ignorant of what he ought to do and what he ought to abstain from, and it is by reason of error of this kind that men become unjust . . ." (*Nicomachean Ethics,* in GBWW, Vol. 8); and so the great debate over good and evil begins. In the masterpieces of the imagination we see the struggle *within ourselves* imperishably illustrated. In Volumes 2 and 3 of this set, Poe's *The Tell-Tale Heart,* George Eliot's *The Lifted Veil,* Hawthorne's *Rappaccini's Daughter* take us into the awful mystery of ourselves; and stories of a less somber character, like Mark Twain's *The Man That Corrupted Hadleyburg,* portray human nature as a poor thing and human beings as ignoble.

In Tolstoy's *The Death of Ivan Ilyitch* (Vol. 3), human suffering consists of self-deception; as soon as one realizes (too late to repair it) that one's life was lived wrong, salvation begins. So, too, old Maurya, in Synge's *Riders to the Sea* (Vol. 4), when her last son is lost beneath the waves, is strengthened by the realization that life can do no more to her. Henry James discovers this insight in children who suffer in an atmosphere of adult exploitation (*The Pupil,* Vol. 3). But the dawn of true consciousness is less often the theme of the great storytellers than is the bewilderment that overtakes people when they see things go wrong.

Bunin's *The Gentleman from San Francisco* (Vol. 3) can only mutter, "This is dreadful." The characters in Chekhov's *The Cherry Orchard* (Vol. 4)—an invariable hit when it is revived on the modern stage—refuse to look at their desperation and go to the end of the road in an attitude of complete unreality. But Akaky in Gogol's wonderful story of *The Overcoat* (Vol. 2) has accepted loneliness, insignificance, and poverty, and the incident that brightens his wretched existence just before he is crushed is enough to sustain him to the end. More often we see suffering—suffering locked within the heart of an individual—as the consequence of one's being trapped by social bonds that one *might* have burst, as in the haunting account of Frank Ashurst in Galsworthy's *The Apple-Tree* (Vol. 3), in

Sir Walter Scott's *The Two Drovers* (Vol. 2), and in Isak Dinesen's *Sorrow-Acre* (Vol. 3).

Opposing "necessity" and the persistent theme of fate among the ancients is the doctrine of moral freedom under the servitude of God, notably illustrated by Tolstoy's *What Men Live By* and *The Three Hermits* (both in Vol. 3). In the former strange story the angel sent to live with the shoemaker has come to earth to learn the truth about humans. He learns that they live by their love for each other, and not by caring for themselves. This is likewise the motive of the French master Flaubert, in whose *Legend of St. Julian the Hospitaller* (Vol. 3) a man who has lived a life of violence and accidentally kills his parents becomes a beggar in penitence and achieves salvation by absolute charity. The power of faith reaches its heights here, as it does in Tolstoy's hermits, who simply cannot learn the outward forms of prayer the mighty bishop tries to teach them.

The ultimate human adventure is tragedy, and so is the ultimate achievement in storytelling. Each of the greatest tragedies of literature weaves a web of action around a man or woman who plays the role of the tragic hero; a role so universal in its appeal that the spectator is filled, as Aristotle says, with pity and fear (*On Poetics,* in GBWW, Vol. 8); pity for the character which, without being really wicked, suffers the worst of punishments, fear lest what befalls an Oedipus or a Macbeth, mighty kings, might all the more easily befall ourselves.

Why do we read of such macabre matters? Why do we *enjoy* reading of them—enjoy them more than we enjoy light comedy or dazzling adventure? Aristotle says in his famous analysis (*ibid.*) that the spectacle serves as a catharsis, evoking and purging us of our most dreadful emotions. The passions of comedy are small, of tragedy great; and thus the relief we obtain from comedy is less than that which we find in tragedy. "It is difficult," says Shelley, "to define pleasure in its highest sense; the definition involving a number of apparent paradoxes. . . . Sorrow, terror, anguish, despair itself are often the chosen expressions of an approximation to the highest good. Our sympathy in tragic fiction depends on this principle; tragedy delights by affording a shadow of that pleasure which exists in pain" (*A Defence of Poetry,* Vol. 5).

In *Gateway to the Great Books* we encounter tragedy in many of the stories in Volumes 2 and 3, in Scott's *The Two Drovers,* in Dinesen's *Sorrow-Acre,* above all in Herman Melville's *Billy Budd.* Is

young Billy wrongly condemned to die? Was he actually innocent? His commander, who judged him and sent him to his death, never knew; nor do we, though there is no mystery (in the ordinary sense) about the events that lead to the climax. Is Billy the tragic hero, or is Captain Vere? Whose plight is the worse? Who suffers the more? Which of the two is wrong, or right? We may read *Billy Budd* many times and still ask ourselves these questions; *this* is the nature of tragedy.

Instead of saying that truth is stranger than fiction, we may say, after reading these masterpieces, that fiction is as strange as truth, and that the best fiction is closer to truth than the commonplace events we encounter every day of our lives. Closer to truth, so to say, than truth itself, for it speaks to us of the worlds within us that the white light of day rarely or never illuminates. Everything that *can* happen–for good or ill–is buried within us and directs our dreams, our desires, our ambitions, our choices with its unseen hand. The masters of imagination, entertaining us the while, bring us always nearer to the possession of the "understanding heart" which the Psalmist besought of God.

III
Human Society

Neither a Beast nor a God

Humans have always lived in society; we are social animals. True, there have been occasional hermits or "solitaries," whether by their own intent or, like Robinson Crusoe, accidentally, but they have come *out of* the society to which people generally belong. Being by nature a member of a community, the individual does not, and normally cannot, set up personal standards of thought or conduct without reference to others. Human history is the history of individuals whose lives mold, and are molded by, the community.

Nor is it a mere relationship, like that of a citizen and the government, or even that of a husband and wife, a relationship of independent entities which may be broken leaving each of them intact. It is integral, and the view of the Greeks that one who lives outside society is not human, but "a beast or a god," is a basic assumption of many political theorists. For them, living in society is indispensable to living humanly. Individual morality and politics (in the highest sense of the word) are inseparable, for the moral person is, among other things, just, and justice is the bond of people in communities.

History, then, is the account of that unique society compounded of sameness (in that humans, like the bees, are invariably social) and differences (in that humans form a variety of societies, public and private, and in constantly changing forms). *Gateway to the Great Books* includes the shorter works of some of the greatest historians of the ages, *Great Books of the Western World* the long masterpieces beginning with Herodotus, "the father of history," who tells us that he has written his account of the Persian War "in the hope of thereby preserving from decay the remembrance of what men have done . . ." (*The History,* in GBWW, Vol. 5).

Is this all that history can do? No, says Hume, in his *Of the*

Study of History (Vol. 7); it also "amuses the fancy . . . improves the understanding . . . strengthens virtue."

But isn't it also the key to the future? Here is where historians—and we with them—get into deep water. If only people would, like the bees, do tomorrow what they did yesterday, history would be an infallible guide and solve our problems for us. But will people do tomorrow what they did yesterday? The second great ancient historian, Thucydides, seemed to think so; at the opening of his marvelous account of the long war between Athens and Sparta—which ended in the ruin of both—he says he will be content if his book be judged useful "by those inquirers who desire an exact knowledge of the past as an aid to the interpretation of the future, which in the course of human things must resemble if it does not reflect it . . ." (*The History of the Peloponnesian War,* in GBWW, Vol. 5).

"Peoples and governments never have learned anything from history, or acted on principles deduced from it," says the great German philosopher of history, G. W. F. Hegel. "Each period is involved in such peculiar circumstances, exhibits a condition of things so strictly idiosyncratic, that its conduct must be regulated by considerations connected with itself, and itself alone" (*The Philosophy of History,* in GBWW, Vol. 43).

But surely there are situations in our own day which, as Thucydides says, resemble the past? No doubt. But so, too, each individual confronts personal situations which at least resemble those the preceding generation confronted, and we know how hard it is for parents to persuade their children, on the basis of their own experience, to a course of action or a way of life. The fact seems to be that we are so variable a creature, so strong-willed and individualistic, that we must learn, if at all, from our own experience alone.

The Road We Have Traveled

If history cannot prophesy the future, it should at least be able to show us the road we have traveled thus far; we ought then to be able to say something, however unsurely, about the next stages in the journey. But even here we appear to be asking more of Clio—the mythological muse of history—than she can tell us. The ancients thought of history as a kind of cycle, or a repetitious round which people mistook for change. But when science and technology began to alleviate the hardships of human life, the idea of historical

progress was born. Toward the close of the eighteenth century Gibbon concluded his study of ancient Rome with "the pleasing conclusion that every age of the world has increased and still increases the real wealth, the happiness, the knowledge, and perhaps the virtue, of the human race" (*The Decline and Fall of the Roman Empire,* in GBWW, Vol. 38).

Far from having caught (or from having been caught by) this pleasing conclusion, Rousseau at the same time reached the unpleasing conclusion that "Man is born free; and everywhere he is in chains" (*The Social Contract,* in GBWW, Vol. 35). His "noble savage" was better, and better off, than modern man. A century later a leading exponent of the doctrine of progress answered Rousseau: "To believe," said Darwin in 1859, "that man was aboriginally civilized and then suffered utter degradation in so many regions, is to take a pitiably low view of human nature. It is apparently a truer and more cheerful view that progress has been much more general than retrogression; that man has risen, though by slow and interrupted steps, from a lowly condition to the highest standard as yet attained by him in knowledge, morals and religion" (*The Descent of Man,* in GBWW, Vol. 49).

These same three traditional readings of human history–the cyclical, the progressive, and the retrogressive–appear in many of the great writers in *Gateway to the Great Books.* Of the three views, the cyclical is, in modern times, least often taken. Tacitus (as might be expected of an ancient historian) sees no great change in things; he tells us how the Romans led the conquered Britons "step by step . . . to things which dispose to vice . . . All this in their ignorance they called civilization, when it was but a part of their servitude" (*The Life of Gnaeus Julius Agricola,* Vol. 6). But Guizot, in nineteenth-century France, is convinced that "all the great developments of the internal man have turned to the profit of society; all the great developments of the social state to the profit of individual man" ("Civilization," Vol. 6). On the eve of the twentieth century Ruskin's *An Idealist's Arraignment of the Age* (Vol. 7) attacks this optimistic attitude (especially as it springs from scientific progress) with consummate eloquence–and scorn.

Can we say, then, that there is a science of history? Again we have no agreement of historians or philosophers of history. Karl Marx of course believes that there is, or at least that there are discoverable laws that flow from history, that "the economic formation of society

is . . . a process of natural history . . .” (*Capital,* in GBWW, Vol. 50). Hume in *An Enquiry Concerning Human Understanding* (GBWW, Vol. 33) agrees that history is a collection of “experiments, by which the politician or moral philosopher fixes the principles of his science,” but William James seems to reflect the overwhelming majority of thinkers on the subject when he calls it folly “to speak of the ‘laws of history’ as of something inevitable, which science has only to discover . . .” (*Great Men and Their Environment,* Vol. 7).

One of the central difficulties is assessment of the role played by the “great man” in history. The extent to which humans have freedom to act in the drama of history has long been debated. Some say we are governed completely by necessity, while some, according to the *Syntopicon,* say the “motions of men are directed by laws which leave [men] free to work out a destiny which is determined by, rather than determines, the human spirit” (GBWW, Vol. 1).

William James believes that the *opportunity* and the *man* are inseparable: “The relation of the visible environment to the great man is in the main exactly what it is to the ‘variation’ in the Darwinian philosophy. It chiefly adopts or rejects, preserves or destroys, in short *selects* him. And whenever it adopts and preserves the great man, it becomes modified by his influence in an entirely original and peculiar way. He acts as a ferment, and changes its constitution . . .” (*Great Men and Their Environment,* Vol. 7).

But, says James, “Not every ‘man’ fits every ‘hour.’ . . . A given genius may come either too early or too late.” This, says Carlyle in *The Hero as King* (Vol. 6), was the fate of Cromwell; he was too great for his time. “One man, in the course of fifteen hundred years; and this was his welcome. He had adherents by the hundred or the ten; opponents by the million. Had England rallied all round him—why, then, England might have been a Christian land! As it is, vulpine knowingness sits yet at its hopeless problem, ‘Given a world of Knaves, to educe an Honesty from their united action’; how cumbrous a problem.”

Thoreau’s *A Plea for Captain John Brown* (Vol. 6) compares the fanatical hero of the Abolition movement with Cromwell, his little band of men with Cromwell’s troops, and his speeches with Cromwell’s, closing his plea by quoting from Brown himself: “‘I think, my friends, you are guilty of a great wrong against God and humanity, and it would be perfectly right for anyone to interfere with you so far as to free those you willfully and wickedly hold. . . . I

pity the poor in bondage that have none to help them; that is why I am here; not to gratify any personal animosity, revenge, or vindictive spirit. It is my sympathy with the oppressed and the wronged, that are as good as you, and as precious in the sight of God.'" John Brown may also have been too great for his time–but his time came soon after him.

The influence of a great man may lie, after all, with his distant heirs far removed from the age in which he lives. So Walt Whitman, in his *Death of Abraham Lincoln* (Vol. 6), finds that "the final use of the greatest men of a nation is, after all, not with reference to their deeds in themselves, or their direct bearing on their times or lands. The final use of a heroic-eminent life–especially of a heroic-eminent death–is its indirect filtering into the nation and the race, and to give, often at many removes, but unerringly, age after age, color and fiber to the personalism of the youth and maturity of that age, and of mankind."

The Way to Write History

The schoolboy definition of history as "what happened next" suggests that nothing in the world would be easier to write. But serious consideration of the problem reveals that just the opposite is the case. The first issue is the relationship of the historian in time and place to the events of which he writes. He may write of events in which he participated personally. (An example in Vol. 6 of this set is Xenophon's famous "March to the Sea," from *The Persian Expedition.* Here the author relates the movements of the Greek army, a portion of which he commanded, and his account has a real ring of authenticity.) Or he may write of his own times, using the evidence of eyewitnesses, if possible, or as near to eyewitnesses as he can obtain. (The letter of Pliny the Younger to Tacitus in Vol. 6, describing the eruption of Vesuvius, is a case in point. The letter tells of the death of his uncle, Pliny the Elder, at Pompei during the eruption, and ends by saying, "I have faithfully related to you what I was either an eye-witness of myself or received immediately after the accident happened, and before there was time to vary the truth.")

More often, the historian would find material through both means, *i.e.,* personal experience, and through the experience of others who had left some record of it. The great early historians, Herodotus, Thucydides, and Tacitus, used this technique. The work

of Tacitus on Agricola in this set (Vol. 6) is an example. Julius Agricola was Tacitus' father-in-law, and many of the details of his life were certainly known personally to Tacitus. It is obvious, however, that much of the material he presents on the Roman general's life must also have come from other sources.

Finally, the historian may write wholly of the past, and one view (the great historians of antiquity notwithstanding) is that the loss involved in doing so is more than compensated by the detachment of the scholar. True, the flesh-and-blood vividness of personal knowledge has to be sacrificed, but the history gains both impartiality and depth by the writer's distance from the passions of the occasion, the time, and the place. Prescott's "The Land of Montezuma" (Vol. 6) is such a history, relating the approach of Cortez and his men to the rich and lush heartland of Montezuma, the Aztec ruler. It is clear that Prescott has done immense research to bring us the picture of the reckless daring of the tiny band of Spaniards, as well as Montezuma's fear and paralysis as the Spaniards approach his capital.

History, says Lucian, "is nothing from beginning to end but a long narrative" (*The Way to Write History,* Vol. 6). But the story of history is restricted because it depends on facts, and the historian must balance the role of storyteller with the role of investigator. If it concentrates only on facts, the history is deadly dull. If it concentrates on story, the author may be tempted to sacrifice truth to entertainment. And there is no doubt in Lucian's mind that the historian's first duty is truth: "The historian's one task is to tell the thing as it happened."

A contrary view is presented by the great historian Macaulay, in his essay on Machiavelli (Vol. 7). "The best portraits," says Macaulay, "are perhaps those in which there is a slight mixture of caricature, and we are not certain that the best histories are not those in which a little of the exaggeration of fictitious narrative is judiciously employed. Something is lost in accuracy; but much is gained in effect. The fainter lines are neglected; but the great characteristic features are imprinted on the mind for ever."

J. B. Bury goes so far as to claim that Herodotus was more of an epic poet than a historian: "He had a wonderful flair for a good story . . . It is fortunate for literature that he was not too critical; if his criticism had been more penetrating and less naive, he could not have been a second Homer" (*Herodotus,* Vol. 6). "The classical histories," says Macaulay, "may almost be called romances founded in

fact." If they were *purely* factual, they would have had few readers. And though popularity should be sacrificed to truth, we have only to reflect for a moment to realize that it is impossible to write a factual history that tells the truth. The facts themselves are *in fact* hearsay; do we know that "Columbus discovered America" when and where and how we say he did? Indeed we do not. We have it from participants, to be sure, but do we know (or do we simply assume) that they were telling the truth, or that any one of them actually *saw* the events he describes? Historical facts turn out to be slippery; in general they are based on a consensus of individual reports, any or all of which may be false.

But the difficulty is greater than this. The truth of an event includes the feelings and the spirit of the participants and the onlookers; indeed, these nonfactual ingredients are often the most significant in any historical recital. Consider, for example, the Nazi invasion of Poland on September 1, 1939, which followed a number of clashes on the border between the two countries. Hitler was clearly the aggressor on that day and subsequently, but he and his followers claimed that the Poles had attacked them and that they were defending their country. The *truth* not only includes, but includes above all else, the real attitude and intentions of the German and Polish leaders and the sentiments of the two peoples, and such definitive things are so close to impossible to know (even if there are written records purporting to reveal them) that they probably will be argued by historians to the end of time.

The Way to Read History

The writer of history cannot present *only* the facts—or *all* the facts. He has to weigh and judge them. As the *Syntopicon* puts it (GBWW, Vol. 1), the historian "tries to make credible statements about particular past events. He makes an explicit effort to weigh the evidence himself or, as Herodotus so frequently does, to submit conflicting testimony to the reader's own judgment. 'Such is the account which the Persians give of these matters,' he writes, 'but the Phoenicians vary from the Persian statements'; . . . or 'such is the truth of this matter; I have also heard another account which I do not at all believe'; or again, 'thus far I have spoken of Egypt from my own observation, relating what I myself saw, the ideas that I formed, and the results of my own researches. What follows rests

on accounts given me by the Egyptians, which I shall now repeat, adding thereto some particulars which fell under my own notice.'"

The historian is human (or shall we say "only human"). The judgment and interpretation of the relevance or irrelevance of the materials that are examined, of the weight to assign to Document A or Witness B, are the judgment and interpretation of a human, not a god. We should suppose that the historian ought to be dispassionate, a neutral. But whoever is dispassionate or neutral? Who lives today, or ever has, or ever will, who meets the requirements established for the historian by Lucian?–". . . fearless, incorruptible, independent, a believer in frankness and veracity; one that will call a spade a spade, make no concession to likes and dislikes, nor spare any man for pity or respect or propriety; an impartial judge, kind to all, but too kind to none; a literary cosmopolite with neither suzerain nor king, never heeding what this or that man may think, but setting down the thing that befell" (*The Way to Write History,* Vol. 6).

"Setting down the thing that befell"–as if history were an almanac, and an endless almanac at that! "Clearly," the *Syntopicon* says, "the historians have different criteria of relevance in determining the selection and rejection of materials and different principles of interpretation in assigning the causes which explain what happened. These differences are reflected in the way each historian constructs from the facts a grand story, conceives the line of its plot and the characterization of its chief actors." The writer of history is not an Olympian–or even a Martian. The historian is a citizen of one nation or another, conditioned, like all of us, by the values and habits of time and place. Above all, the historian is an individual human being, with human biases: a person dealing with the actions of humans, and whose view of historical actions can hardly help but reflect personal views of human action in general.

The best he–and we–can hope for is his consciousness of his biases. If he is unconscious of them, he can do nothing to correct them; if he is conscious of them, he can submit his judgment and interpretation to colleagues who, if not unbiased, are at least blessed with biases contrary to his own. He may even warn the reader against himself, but perhaps that is too much to hope, of the historian or of anyone. Bury, finding in Herodotus a strong bias for the Athenians in the only history we have of the earth-shaking Persian War, says that "it was the work of a historian who cannot help being

partial; it was not the work of a partisan who becomes a historian for the sake of his cause" (*Herodotus,* Vol. 6).

Perhaps no historian can help being partial; in which case what Bury said of Herodotus may be said of every great historian and of all great history. Bertrand Russell long ago urged that a country's history used for study in the schools should be written by citizens of other countries than that in which it is studied, and in an age like ours, deluged on all sides by government propaganda, the student of history, present or past, has got to read sharply, if not suspiciously. Consciousness of the forms which human bias takes—including one's own—is imperative. The study of the great historians and philosophers of history in *Gateway to the Great Books* (and then in *Great Books of the Western World*) will serve the reader in the development of that consciousness so crucial to a realistic apprehension and a balanced appraisal of the modern world.

The Domain of Liberty

Much of human history—and certainly its most stirring episodes—involves the struggle for human liberty. But the meaning of liberty is itself controversial, and always has been; more so today, perhaps, than ever before, in spite of the fact that the greatest thinkers of every age have argued it. One point should be kept in mind: individual liberty and national independence must never be confused. Though the American Revolution was fought both for human liberty and national independence, it was not fought for the latter alone, as indeed, many colonial revolutions, or uprisings against the oppression of a foreign power, have been. An *independent* government may exist without human liberty.

What individual liberty is, how much of it there should be, and why, are questions that raise a host of other questions. And the questions it raises take us always more deeply into all of the great ideas dealing with human beings. What is man? What is God? What is the will? The soul? What is fate? Necessity? Law? Justice? Equality? Slavery? Government? The State? Society? Happiness? Pursuing these ideas through the *Great Books of the Western World*—the passages dealing with them are all indexed under these terms in the *Syntopicon*—we are sooner or later drawn to almost every one of the other great ideas. And nowhere is the dispute among thinkers hotter than it is in connection with this one concept, liberty.

Most of the works in Volumes 6 and 7 of *Gateway to the Great Books* deal with liberty, as do many of the writings in the other volumes. The collection in Volume 6 entitled *Great Documents* is as good a starting point as any for the reader's study. Proceeding from *The English Bill of Rights* (1689) to the *Universal Declaration of Human Rights* in 1948, we may trace the development of the theory of liberty in the past two and a half centuries since John Locke, the English philosopher whose essay *Concerning Civil Government* (GBWW, Vol. 33) promulgates the doctrine that each person has a natural right to "life, health, liberty [and] possessions"—a phrase which the authors of the American *Declaration of Independence* borrowed and amended to read, "life, liberty, and the pursuit of happiness" (Vol. 6).

The liberties of Englishmen are held in the 1689 document to rest mainly with the sovereignty of Parliament against the king. Their statement, expanded through the successive documents in Volume 6, culminates in the United Nations' statement, which in addition to the general rights asserted by the earlier documents, asserts the freedom of residence and movement, both within one's own country and for the purpose of leaving one's country or any other (*and* to return to one's own country). It asserts the freedom of association—and the freedom *not* to associate. It maintains the universal right to work, free choice of employment, the right to form and join trade unions, "just and favorable conditions of work," protection against unemployment, social security, education, and a "standard of living adequate for the health and well-being of [every individual] and of his family."

Can these be said to be rights in any strict sense? Who is to guarantee them? Government? And if not government, who? And how is, for example, a "standard of living adequate for health and well-being" to be guaranteed by government (or any other power) in the underdeveloped and overpopulated societies in which most people live on or over the brink of starvation?

We may note that these "rights" are not only a spelling-out of the political liberties implied in the older documents but include economic conditions which the older documents do not touch; conditions which, in fact, cannot be guaranteed in the same way as political liberty. What the *Universal Declaration of Human Rights* reveals is the growing power in the world of the doctrine, so boisterously maintained by the Communists, but also embraced by the

hungry of the new nations of Africa and Asia, that economic "rights" take precedence over the political. The *Declaration* must, indeed, be considered in the context of the divided world in which we live. Like its predecessors—including *The Declaration of Independence*—it may be taken to be a statement of an ideal rather than a statutory or contractual commitment.

The *Declaration* was adopted by the United Nations by a 48–0 vote, with several abstentions, including those of the Communist countries in which such liberties as assembly, association, employment, and travel were rigidly restricted, and in which the *Declaration's* "freedom of opinion and expression" ranged from curtailment to nonexistence. But it is clear in any case that the extension of the basic political liberties is only a sentiment in behalf of a vision of what might be, since most governments maintain the policy of refusing passports to certain of their citizens. Indeed, it cannot be gainsaid that no society now exists, or ever has, in which all the rights of the *Declaration* are fully protected.

What does appear as we peruse the historic statements of liberty is the development of the modern idea that it includes self-government as one of its essentials. Beginning with the assertion in *The English Bill of Rights* that "the pretended power of suspending of laws, or the execution of laws, by regal authority, without consent of parliament, is illegal," the doctrine of self-government reaches its full flower two and a half centuries later in the United Nations *Declaration:* "Everyone has the right to take part in the Government of his country, directly or through freely chosen representatives. . . . The will of the people shall be the basis of the authority of government; this shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage."

How is the sovereignty of the people to be exercised? "By representative government," wrote James Mill, in his *Essay on Government* a century and a half ago. "For though the people, who cannot exercise the powers of government themselves, must entrust them to some one individual or set of individuals, and such individuals will infallibly have the strongest motives to make bad use of them, it is possible that checks may be found sufficient to prevent them." But only a generation later his still more renowned son, John Stuart Mill, is worrying whether checks, not on the government but on the people themselves, may be found: "In a representative body actually deliberating, the minority must of course be overruled; and

in an equal democracy . . . the majority of the people, through their representatives, will outvote and prevail over the minority and their representatives. But does it follow that the minority should have no representatives at all?" (*Representative Government,* in GBWW, Vol. 40.)

This concern over the "tyranny of the majority" is also found in Tocqueville's study of the United States in the early nineteenth century. He concludes that "the advantage of democracy [over aristocracy] is not, as has sometimes been asserted, that it protects the interests of the whole community, but simply that it protects those of the majority" ("Observations on American Life and Government," Vol. 6).

Thus we encounter in America, prior to the Civil War, the doctrine of "the concurrent majority" in John C. Calhoun's essay by that name (Vol. 7). Calhoun, representing the minority view of the slaveholders, argues that the majority-elected government may be kept from oppressing the minority by "dividing and distributing the powers of government," and giving "to each division or interest, through its appropriate organ, either a concurrent voice in making and executing the laws or a veto on their execution." An adaptation of this "state's rights" principle may be seen in the *Charter of the United Nations,* in which the veto by any one permanent member of the Security Council blocks action.

But then it is plain that society does not have one indivisible government but is a federation of sovereign powers. This scheme may indeed protect minorities against the majority in a democratic society, but will it hold the society together? Here is the central issue in the United Nations, as it was in the League of Nations. Here was the issue of the American Civil War. The twin dangers–of too much power or too little, of dictatorship or anarchy–are argued throughout the Federalist papers written by Hamilton, Madison, and Jay in support of the new American *Constitution* after the War of Independence (GBWW, Vol. 40).

With absolute majority rule, what guarantee of rights can there ever be? Representative democracy established the rights of all against a tyrannical government; how are the rights of the minority to be maintained against the majority? The minority may be 49.99+% of the electorate–in which event it is hard for the majority to oppress it–or it may be a very small percentage of numerically helpless dissenters. Or it may be a single individual, asserting the

rights of the individual against society. This figure we see among the heroes and martyrs of history, beginning with Socrates and Christ. Their "rights" are crushed. But can we expect *any* form of social organization to allow one individual to hamstring its activities?

This is the hard question to which Henry David Thoreau addresses himself in his powerful essay, *Civil Disobedience* (Vol. 6). Thoreau refused to pay his taxes because a portion of them supported the Mexican War and slavery in the United States. He was sent to prison and released when his friend Emerson (whose essay on Thoreau we read in Vol. 6), paid his taxes for him. Thoreau, seeing the one individual at the mercy of the majority, asks if democracy as we know it is "the last improvement possible in government? Is it not possible to take a step further toward recognizing and organizing the rights of man? There will never be a really free and enlightened state until the state comes to recognize the individual as a higher and independent power."

But can there be such a State? Would it still be a State? Would it not instantly dissolve into anarchy? Washington in his *Farewell Address* (Vol. 6) says that until the *Constitution* is changed it is "sacredly obligatory upon all." Abraham Lincoln, taking the oath as President in the dreadful year 1860, asserts in his *First Inaugural Address* (Vol. 6) that "it will be much safer for all, both in official and private stations, to conform to, and abide by, all those acts which stand unrepealed, than to violate any of them. . . ." But John Brown claimed that he had a more sacred obligation than the *Constitution* and the laws, an obligation to free the slaves; and as Thoreau defends the abolitionist (*A Plea for Captain John Brown,* Vol. 6), so Carlyle, in *The Hero as King* (Vol. 6), defends the words of Oliver Cromwell against the scandal they produced: "If the King should meet me in battle, I would kill the King."

Land of the Free—and Equal

The state so consecrated to human liberty that it long stood on the brink of anarchy—and the one and only state ever so established—was the United States of America. Elsewhere the rights of man have been won piecemeal: the tree of liberty was watered by the blood of millions, from the time of the slave revolutions like that of Spartacus in Rome (Plutarch, *The Lives of the Noble Grecians and Romans,* in GBWW, Vol. 13). In America, it was planted by the men who

founded the new nation and nurtured by the waves of the oppressed of Europe who swarmed to her open shores.

The United States is the case history of a human community hewn out of the wilderness to serve as a laboratory for utopianism then and thereafter. The American experiment staggered mankind and triggered all the revolutions that followed it. And it is a relatively new revolution and a new history, its beginnings voluminously recorded by capable writers and keen observers; a historian's paradise. A geographical paradise, too: a "vast tract of continent," as George Washington said, "comprehending all the various soils and climates of the world, and abounding with all the necessaries and conveniences of life." An Eden, with an indigenous population so small and scattered as to be routed by what, in military terms, were merely skirmishes.

An empty paradise, in effect, into which poured all the national and racial stocks of the earth in a process of self-selection. Only those came who wanted to start life anew, build "new heavens and a new earth," in the words of Christopher Columbus taken from the Book of Isaiah. "Here," says the American chronicler Crèvecoeur, "individuals of all nations are melted into a new race of men, whose labours and posterity will one day cause great changes in the world" ("The Making of Americans," Vol. 6). None of the nations of the earth had been (or has up to now been) populated by peoples so diverse in background as America; nor of any other nation, past or present, may it be said that its people were there because they wanted to be there *and went there.*

In *Gateway to the Great Books,* we read the works of many Americans and commentators on America. Among the former are its greatest men of letters, Hawthorne, Emerson, Thoreau, Mark Twain, Melville, Poe, Whitman, James; among the latter such European geniuses as Tocqueville, whose "Observations on American Life and Government" (Vol. 6) should be studied by every American interested to know his own country as only a stranger can study a country and know it. The America that fascinated Tocqueville in the 1830's fascinates us today, with its people and their manners and attitudes brilliantly delineated, their accomplishments, their shortcomings, and their perils both seen and unseen in their utopian form of government and the spirit of their society. ("Observations on American Life and Government" is an excerpt of *Democracy in America,* which appears in full as Vol. 44 of *Great Books of the Western World.*)

Urged by a variety of motives–high and low–the dissatisfied came pouring into the new land. Crèvecoeur, who saw them come, found that in the new land: "Everything has tended to regenerate them; new laws, a new mode of living, a new social system; here they are become men: in Europe they were as so many useless plants, wanting vegetative mold, and refreshing showers; they withered, and were mowed down by want, hunger, and war; but now by the power of transplantation, like all other plants they have taken root and flourished!" ("The Making of Americans," Vol. 6.) There was room for everybody, and room for everybody to go on and up. The "new world," it was called; it was the old dream at long last come true, and it uncoiled the springs in the hearts of men "within half an hour after landing at New York," as Henry Adams said ("The United States in 1800," Vol. 6).

They were the "laboring poor" of Europe, who were suddenly numbered as free and independent citizens, for the first time in history the equal of every other man. There was all the work they wanted, and no unemployment, and they had only to work and save for a few years to become independent farmers and tradesmen. They came to think of themselves as individuals, and to be moved by individual self-interest to get ahead and always further ahead. Under their suddenly animated hands the economy sprang to life, and the sanctity of private property, the right to acquire it in free competition, to improve it, to dispose of it as one wished, grew at the center of the American faith, a doctrine shared enthusiastically by statesmen as different from one another as Thomas Jefferson and Herbert Hoover.

The rich open country afforded men good land cheap and even free–men whose ancestors had from time immemorial slaved on other men's land in Europe. Freedom of speech and press and assembly and worship created a society in which, as Tocqueville noted, everyone talked politics all the time and everyone joined associations of every kind. And freedom to exercise one's talents and ambitions released in these new men and women a materialism pent up for generations; people whose parents had starved to death dreamed of seeing their children rich. And that, too, came to pass.

But at the heart of the phenomenon lay something other than the love of freedom, said Tocqueville: "I think that democratic communities have a natural taste for freedom; left to themselves, they will seek it, cherish it, and view any privation of it with regret. But for equality, their passion is ardent, insatiable, incessant, invincible:

they call for equality in freedom; and if they cannot obtain that, they still call for equality in slavery. They will endure poverty, servitude, barbarism, but they will not endure aristocracy" ("Observations on American Life and Government," Vol. 7).

The passion for equality was fortified by the country's freedom from the militarism which had formed the base of all European caste and class. The puny thirteen American colonies had repulsed the British Empire; behind the moat of the two oceans they could not be successfully attacked. Maintaining that a militia would be enough to defend the new country, Washington in his *Farewell Address* (Vol. 6) warned against "those overgrown military establishments which under any form of government are inauspicious to liberty, and which are to be regarded as particularly hostile to republican liberty"; an echo of the assertion in the great *Virginia Declaration of Rights* (Vol. 6) that "standing armies, in time of peace, should be avoided as dangerous to liberty."

Believing, according to Adams, that "in the long run interest, not violence, would rule the world, and that the United States must depend for safety and success on the interests they could create, [the early Americans] were tempted to look upon war and preparations for war as the worst of blunders; for they were sure that every dollar capitalized in industry was a means of overthrowing their enemies more effective than a thousand dollars spent on frigates or standing armies. The success of the American system was, from this point of view, a question of economy. If they could relieve themselves from debts, taxes, armies, and government interference with industry, they must succeed in outstripping Europe in economy of production; and Americans were even then partly aware that if their machine were not so weakened by these economies as to break down in the working, it must of necessity break down every rival" ("The United States in 1800," Vol. 6).

We may say now that these men were optimists; but they had reason to be. Everything–except history–was propitious to their experiment. Above all, they believed in it–and not just the eminent leaders but the millions and more millions who came to participate in it. They believed that it was, in Jefferson's words, "the world's best hope" (*First Inaugural Address,* Vol. 6); in Washington's, "a most conspicuous theater, which seems to be peculiarly designated by Providence for the display of human greatness and felicity" (*Circular Letter to the Governors of All the States on Disbanding the*

Army, Vol. 6). And Adams observed that European travelers in this early America "noticed that everywhere, in the White House at Washington and in log cabins beyond the Alleghenies, except for a few Federalists, every American, from Jefferson and Gallatin down to the poorest squatter, seemed to nourish an idea that he was doing what he could to overthrow the tyranny which the past had fastened on the human mind."

The Shadow of War

In the 1830's Alexis de Tocqueville wrote the following remarkable words: "There are, at the present time, two great nations in the world which seem to tend towards the same end, although they started from different points: I allude to the Russians and the Americans. . . . Their starting point is different and their courses are not the same; yet each of them seems to be marked out by the will of Heaven to sway the destinies of half the globe" ("Observations on American Life and Government," Vol. 6).

What Tocqueville did not predict–nor did anyone else–was that the hostility of Russia and America would one day threaten the extinction of the human race. There was little his imagination failed to grasp, but its grasp did not reach to the scientific development in which weapons, which in his time measured their carrying power in yards, would carry their deadly message for thousands of miles across oceans and continents.

On the contrary, he appeared to see a prospect for world peace in the fact that "the nations seem to be advancing to unity. Our means of intellectual intercourse unite the most remote parts of the earth; and it is impossible for men to remain strangers to each other, or to be ignorant of the events which are taking place in any corner of the globe." If this was true in 1835, how much truer it is today! Never has the world been so close to unification as now; never before could unification be imagined on an other than utopian basis. But this so nearly unified world continues to be divided by aggression and wars.

"Certain attitudes toward war between states seem to recur in every century," according to the *Syntopicon*'s introduction to the subject of WAR AND PEACE (GBWW, Vol. 2). "In the face of the ever-present fact of war, men deplore its folly or find some benefit to compensate for its devastation. But throughout most of the tradition, those who see only suffering, no less than those who celebrate the

martial spirit, seem to accept the necessity of war. Good or bad, or a mixture of the glorious and the horrible, war seems, to most of those who write about it, an inevitable thing–as ineradicable as disease and death for the living body, as inescapable as tragedy. Only in recent times has the inevitability of war been questioned, and the possibility of lasting peace proposed."

If war between individuals can be controlled by the establishment of the civil commonwealth, why cannot the war of state against state be placed under a world organization of law and order? Must we say that the nation-state is the ultimate development of human society? Is an association beyond it impossible to man? Or is it a stage in social progress, requiring decades or centuries before men will subordinate national interests and customs to those of the world unified by technology?

In *Gateway to the Great Books* there are several selections which bear on this question. Clausewitz, in his *What Is War?* (Vol. 7), represents the viewpoint of war's inevitability. To him, it is a natural part of the political intercourse between nations; for no moral force exists apart from the conception of a state and law. "We have to think of war not as an independent thing, but as a political instrument. . . . We see," he says, "that war is not merely a political act but a real political instrument, a continuation of political intercourse, a carrying out of the same by other means. . . . for the political design is the object, while war is the means, and the means can never be thought of apart from the object." He sees human intelligence concerned only with the question of when to use war, not with its elimination.

Malthus is an unhappier apologist for war. In his essay, "The Principle of Population," in Volume 7, he expounds his theory that "the power of population is indefinitely greater than the power in the earth to produce subsistence for man," and that war is one of the means by which this imbalance is corrected. Even so, he noted that "the commission of war is vice, and the effect of it misery," but adds: "To prevent the recurrence of misery, is, alas! beyond the power of man."

But there have always been men–more today than ever before–who have refused to concede that the misery of war is beyond man's power to prevent. And the commonwealth *within which* peace prevails has long since suggested to poets and philosophers (and more recently to many "practical" men) that a commonwealth of the

whole earth is the solution. The argument for world government as a means to world peace was first made by Dante himself in the thirteenth century in his "On World Government," in Volume 7 of this set. "Wherever there can be contention," he wrote, "there judgment should exist. . . . Between any two governments, neither of which is in any way subordinate to the other, contention can arise. . . . Therefore there should be judication between them. And since neither can know the affairs of the other, not being subordinated (for among equals there is no authority), there must be a third and wider power which can rule both within its own jurisdiction.

"This third power is either the world government or it is not. If it is, we have reached our conclusion; if it is not, it must in turn have its equal outside its jurisdiction, and then it will need a third party as judge, and so ad infinitum, which is impossible. So we must arrive at a first and supreme judge for whom all contentions are judiciable either directly or indirectly. . . . Therefore, world government is necessary for the world."

He realized that the obstacles were formidable: "O race of men, how many storms and misfortunes must thou endure, and how many shipwrecks, because thou, beast of many heads, strugglest in many directions! Thou art sick at heart and sick in mind, both theoretical and practical! No irrefutable arguments appeal to thy theoretical reason, and no amount of experience to thy practical intelligence, and even thine emotions are not moved by the sweet, divine persuasiveness which sounds to thee from the trumpet of the Holy Spirit."

Centuries later Immanuel Kant, in his *Perpetual Peace* (Vol. 7), found that nature's "mechanical march evidently announces the grand aim of producing among men, against their intention, harmony from the very bosom of their discords." Here he refers to the fact that man's warlike nature has forced him to submit to coercive laws in his own self-interest, and not as a matter of morality, resulting in societies and states. But perpetual peace requires "moral politicians," he says, reminding us of the immortal dictum of Socrates that only when kings are philosophers and philosophers kings will society know surcease.

As to the form the future world organization would take, Kant thinks that "the public right ought to be founded upon a federation of free states." The *ideal* would be "a society of nations" which would "submit themselves to coercive laws," but as this is a practical impossibility, "there can only be substituted, to the positive idea of

an universal republic (if all is not to be lost) the negative supplement of a permanent alliance . . .”; in short, a federation, not a union.

The Issue of Our Time

And this–federation or union–is the heart of the issue. Rousseau, in his *A Lasting Peace through the Federation of Europe* (Vol. 7), in the eighteenth century proposed a European *federation* (since, he said, Europe was already homogenous because of geography, trade and commerce, habit and custom, and religion), but it was actually a federal *union,* with a legislative body with power to pass binding laws, a coercive force to enforce laws and prohibitions, and the power to prevent the withdrawal of any member. But he concluded gloomily that such an organization could never be established except by a revolution. “That being so,” he says, “which of us would dare to say whether the League of Europe is a thing more to be desired or feared? It would perhaps do more harm in a moment than it would guard against for ages.”

If the problem of conflicting sovereignties is to be resolved, all conflicts which arise between states must be submitted to a higher power for arbitration, and, as in civil society, this power must have the force to ensure that its decisions are obeyed. An *indissoluble* community requires a government superior to any or all of its components. This was the issue of the American Civil War, and before that, the heart of the greatest of the great debates in American history–whether to adopt the *Constitution* in place of the unworkable *Articles of Confederation.* It has continued to be a fundamental issue in our time in the efforts to create the European Community.

In the *Charter of the United Nations* (Vol. 6), the preamble states that the people are “determined to save succeeding generations from the scourge of war. . . .” But Chapter I, Article 2, Paragraph 1, asserts that “the Organization is based on the principle of the sovereign equality of all its Members”–just as were the ill-fated American *Articles of Confederation.* And after establishing the all-powerful Security Council, Paragraph 3 of Article 27 provides, in effect, that any permanent member may prevent action by the Security Council by casting a negative vote–the power of veto. And the veto is coupled with a still broader assertion of national sovereignty, which provides that “nothing contained in the present Charter shall authorize the United Nations to intervene in matters

which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter" (Chap. I, Art. 2, Par. 7).

But these are the same guarantees of sovereignty which, as "state's rights," had wrecked the confederation of American states after the Revolution. Similar guarantees of national sovereignty undid the League of Nations. Germany quit the League in 1935, just as South Carolina had seceded from the American Union in 1860–both of them on the principle of sovereignty which forbade interference in their domestic affairs or organizational action without their consent. Can we say that a community from which a member resigns when it is charged with an offense is a true community?

Like the League, and like every federation of sovereigns before it, the United Nations was destined to great achievements *in matters on which the sovereign members could agree.* The United Nations could, and did, prevent or end "small wars," and, in so doing, earned the gratitude of all mankind. The war it could not prevent was the big one on the verge of which the world teetered after 1948. None of the heads of the three great powers (Britain, the U.S.A., and the U.S.S.R., who agreed to the veto at Yalta in 1945) nor, in all probability, their peoples, were able to move beyond Hegel's conception of the nation-state as "the absolute power on earth" (*The Philosophy of Right,* in GBWW, Vol. 43).

Like war, chattel slavery was for thousands of years regarded as part of the order of the universe. An Aristotle thought it was natural (*Politics,* in GBWW, Vol. 8); a John Locke accepted it as a concomitant of conquest (*Concerning Civil Government,* in GBWW, Vol. 33); a Thomas Jefferson wrote *The Declaration of Independence* (Vol. 6) without denouncing it. But it was destroyed at last, partly, to be sure, by machinery that was cheaper even than slaves, but partly by the slowly evolving moral and religious sentiment of mankind. The combination of man's self-interest and morality may do away with war–before war does away with man.

IV
Science and Mathematics

Product and Process

Every day, every hour, every minute, we feel the accelerating impact of science on our lives. Science has a hand in nearly everything which affects us—our food, clothing, shelter, job, amusements, and cultural pursuits. The very air we breathe has been changed by the combustion engine and by nuclear fission. Our whole environment is constantly being altered.

Should we not, then, try to understand science? Why? Why should we not be content, rather, simply to read the instructions on the outside of the package, and forget about the ideas, the techniques, and the processes that went into the making of the product? Are not the findings, after all, the only things that need concern us? We read a poem written two thousand years ago because it still has something to tell us. But science is progressive and rapidly outdated; why read about ideas that have been superseded by two thousand years, or even two years? And if science is a mystery story, why not just read the last page?

But the last page has not yet been written, the mystery is still not solved. Perhaps it will never be; and if it is, it may turn out that the clues were in the first chapter. And in all the chapters, from the first to the latest, there is the story of one of the most important human activities: the struggle to comprehend the universe.

Humans are question-asking animals, and our first questions are about the world we see around us, the "world of science." We wonder, and our wonder will not let us rest. We feel that we are growing when we are inquiring and investigating and only when we are inquiring and investigating. We want to know—and always to push beyond the known. We are a "natural-born" frontier people. Let us discover a new world, and we push on to a new planet, a new universe. To ask is to be excited. To be excited is to live.

True, this curiosity is not evenly distributed among all persons. All of us possess it in insatiable quantity at birth. Unfortunately, most of us lose it, or stifle it, as we grow older. A few men and women retain it, and are activated by it, all their lives. They become the persistently, professionally curious whose curiosity changes the world. This is the fraternity to which the great scientists–like the great poets and philosophers–belong.

The rest of us need not be content with only the end product of science. We may all know the why and the how. True, the terminology of science and technology is "another language," but it is a language which we can comprehend, above all when we tackle the original masterpieces–the exposition of the fundamental discoveries upon which the highly technical applications are all based. And our comprehension is facilitated by the fact that many such works are expounding theories which, once strange and spectacular, have long since become familiar to us.

It is in the presentation of a new concept that scientists are most precise, clear, and simple. They are not, at this point, speaking to specialists and technicians–this will come later–and they are not talking shop with colleagues. At the great turning points in the advance of science there is no inside group waiting to receive the word in language that only it can understand. Here the scientists come closest to speaking to everyone; it is here that they are most eloquent and lucid.

A scientific theory is like a shelter against chaos. It is designed to hold in some sort of order the known facts of the universe. New facts require a little juggling of the old, the addition of a new wing or second story; some sections may have to be torn down and rebuilt. Increasingly inadequate, the structure stands, representing a world view, a comfort to us who cannot rest until we perceive that nature has a pattern.

Then, one day, there is a crisis. The foundation begins to crumble. A hypothesis that has been brought in to "save the appearances" has become an embarrassment, and is now a skeleton in the closet. But most pressing of all, new knowledge has been acquired that does not fit in anywhere. It is time for a move.

Rescuing materials that will be useful in building anew, the scientist starts all over again to build a shelter; never entirely from scratch, for something is always salvaged, often a great deal. It is in the salvaged material that the continuity of science exists. There are

no complete breaks in the story. There are dormant periods, blind alleys, revolutions, and crises, but no breaks.

Sometimes the new structure can be built only because the framework had been created decades, or even centuries, before by mathematicians, who, pursuing mathematical knowledge for its own sake, foresaw no possible applications of their formulas to science. The idea of conics was for more than 1,500 years a purely intellectual exercise. Euclid, Archimedes, and Apollonius investigated the mathematical properties of these curves, which were not then known in nature. Then, early in the seventeenth century, when Kepler discovered that planets move in elliptical orbits, the language in which to express his theory was found in conics.

The story of science could be told in a series of such crises. "There are no eternal theories in science," Albert Einstein and Leopold Infeld write in "The Rise and Decline of Classical Physics" (Vol. 8). "It always happens that some of the facts predicted by a theory are disproved by experiment. Every theory has its period of gradual development and triumph, after which it may experience a rapid decline. . . . Nearly every great advance in science arises from a crisis in the old theory, through an endeavor to find a way out of the difficulties created. We must examine old ideas, old theories, although they belong to the past, for this is the only way to understand the importance of the new ones and the extent of their validity."

The establishment and development in the seventeenth century of classical physics, to which Einstein and Infeld refer, represented just such a crisis—a break with the past. It began, as so often happens, with a revolution, the "Copernican revolution." The new structure was imposing, and the architects were giants. Copernicus, Galileo, Kepler, and Newton outlined the material framework for the world in which we lived from the second half of the seventeenth century to the end of the nineteenth.

The Greek astronomer Ptolemy was a great synthesizer of knowledge, and his system of the world also represented a break with the past. Before Ptolemy, astronomy consisted largely of a mass of more or less unconnected observations of the movements of the heavenly bodies. Ptolemy's theory imposed a unity upon these masses of data and was adequate to the phenomena then observable. The shift from Ptolemy, who believed that the earth was the center of the universe, to Copernicus, who offered the simpler hypothesis that the sun was at the center, and therefore that the earth was only a small part

of a vast cosmic arrangement, was a shock to the imagination. The trust that one placed in one's senses seemed to be undermined; things were not as they appeared to be. Still worse, the belief that the universe had been created especially for mankind seemed to be shaken by the new theory.

Sigmund Freud characterizes this change as the first "great outrage" upon humanity's "naïve self-love . . . when it realized that our earth was not the centre of the universe, but only a tiny speck in a world-system of a magnitude hardly conceivable; this is associated in our minds with the name of Copernicus . . ." (*A General Introduction to Psycho-Analysis,* in GBWW, Vol. 54). This "outrage" expressed itself in the form of fear and resistance. Sometimes it grew so strong and so bitter that it burst forth as outright persecution. Galileo was a brilliant scientist, whose monumental contributions in the fields of astronomy and physics had kept the Copernican revolution surging ever forward. His investigations were so disturbing that he was finally accused of defying religious authority.

Tommaso Companella, in his seventeenth-century defense of Galileo, described the objections to Galileo in the following manner: "Holy Scripture counsels us to 'seek nothing higher, nor attempt to know more than it is necessary to know'; that we 'leap not over the bounds which the fathers set'; and that 'the diligent searcher of majesty is overcome by vain-glory.' Galileo disregards this counsel, subjects the heavens to his invention, and constructs the whole fabric of the world according to his pleasure. Cato rightly taught us to 'leave secret things to God, and to permit Heaven to inquire concerning them; for he who is mortal should concern himself with mortal things'" ("Arguments for and against Galileo," Vol. 8). But to Galileo, subjecting the heavens to the "spyglass" he had invented, it seemed "a matter of no small importance to have ended the dispute about the milky way by making its nature manifest to the very senses as well as to the intellect" (*The Starry Messenger,* Vol. 8).

"To Venture Forth"

The human spirit is resilient, and gains courage from knowledge. Though Pascal says that he is frightened when he sees himself "engulfed in the infinite immensity of spaces of which I am ignorant and which know me not," he also writes: "It is not from space that I must seek my dignity, but from the government of my thought. I

shall have no more if I possess worlds. By space the universe encompasses and swallows me up like an atom; by thought I comprehend the world" (*Pensées,* in GBWW, Vol. 30). Mankind slowly learned to accept the continuing questioning of science, even when it produced profoundly disquieting and bewildering results.

Having once and for all been thrown out of the center of the universe, humankind lost a throne, but achieved mobility. The modern conception of our status, located somewhere between the edge of infinity in one direction and the nucleus of the atom in the other, is presented pictorially in *Cosmic View,* by Kees Boeke (Vol. 8). The ability to measure ourselves in space is scientific and modern; the insight that bridges distances and dispels the terror of immensity is philosophical and ancient. Centuries ago, Marcus Aurelius wrote: "Whether the universe is a concourse of atoms, or nature is a system, let this first be established, that I am a part of the whole which is governed by nature . . ." (*Meditations,* in GBWW, Vol. 11).

Modern scientists claim the "right to venture forth in the world of ideas [as well as] to extend . . . horizons in the physical universe" (*Beyond the Googol,* Vol. 9). This right has been won. And the world of ideas includes such once "dangerous" concepts as the idea of the end of the world. But nowadays, even such a prediction of ultimate natural catastrophe arouses no condemnation and produces no martyrs of science. It is neither delivered, nor received, with terror or anguish. Arthur Eddington, for instance, sees the universe as inexorably running down, with no possibility of its being wound up again to repeat the cycle. So be it, he says. He would rather "that the universe should accomplish some great scheme of evolution and, having achieved whatever may be achieved, lapse back into chaotic changelessness, than that its purpose should be banalised by continual repetition. I am an Evolutionist, not a Multiplicationist" (*The Running-Down of the Universe,* Vol. 8).

Modern scientific theory is flexible, making no claim to being the last word, or even, except provisionally, the right word. Modern science says: This is the way we describe things—today. Copernicus upset a world that had been saying: This is the way things are—forever. The world that he upset was the world that had been ruled by the thought of Aristotle for over 1,500 years.

Since the beginning of the seventeenth century, almost every scientific advance has had to begin with a refutation of some Aristotelian doctrine. Why is Aristotle now regarded as having long

imposed a barrier to scientific progress? Is it because, as the *Syntopicon* suggests, he relied too strongly on his senses? "Just as Ptolemy's astronomy conforms to what we see as we look at the heavens, so Aristotle's physics represents a too simple conformity with everyday sense-experience. We observe fire rising and stones falling. Mix earth, air, and water in a closed container, and air bubbles will rise to the top, while the particles of earth will sink to the bottom. To cover a multitude of similar observations, Aristotle develops the theory of the natural motions and places of the four terrestrial elements—earth, air, fire, and water. Since bodies move naturally only to attain their proper places, the great body which is the earth, already at the bottom of all things, need not move at all. Being in its proper place, it is by nature stationary" (GBWW, Vol. 1).

The fate that Aristotle suffered at the hands of his successors, who took his tentative conclusions as a rounded body of complete knowledge rather than as incentives to inquiry and further discovery, indicates that science is the making of knowledge, and not knowledge as such. And in the making of knowledge, modern science uses two tools that Aristotle did not use—experiment and mathematics.

Experiment and Observation

While the scientific method employs both experiment and observation, it is clear that not all branches of science are experimental. As the *Syntopicon* points out: "It is not always possible for the scientist to perform experiments, as, for example, in astronomy, where the phenomena can be methodically observed and exactly recorded, but cannot be manipulated or controlled. Among the great books of natural science, the biological writings of Hippocrates, Aristotle, Galen, and Darwin, the astronomical works of Ptolemy, Copernicus, Kepler, and Newton, and the clinical studies of Freud are examples of scientific works which are more or less empirical, but not experimental" (GBWW, Vol. 1).

Due, however, to the great strides made by physics and chemistry from the middle of the nineteenth century, experiment has gained so much prestige that it has been hailed by some as the only method of obtaining knowledge of any kind, scientific or otherwise. Furthermore, it has been said that questions which cannot be answered by scientific methods are not only unanswerable: they should not even be asked.

In *The Great Conversation* (a book that accompanies *Great Books of the Western World*), we find a discussion of the question whether the scientific method can be extended beyond the natural sciences. "Consider, for example, statements about God's existence or the immortality of the soul. These are answers to questions that cannot be answered—one way or the other—by the experimental method. If that is the only method by which probable and verifiable knowledge is attainable, we are debarred from having knowledge about God's existence or the immortality of the soul. If modern man, accepting the view that he can claim to know only what can be demonstrated by experiment or verified by empirical research, still wishes to believe in these things, he must acknowledge that he does so by religious faith or by the exercise of his will to believe; and he must be prepared to be regarded in certain quarters as hopelessly superstitious."

The author of *The Great Conversation* goes on to consider what is meant by the scientific method. "If all that is meant is that a scientist is honest and careful and precise, and that he weighs all the evidence with discrimination before he pronounces judgment, then we can agree that the scientific method is the only method of reaching and testing the truth in any field." But, he adds, these methods have been used by historians, philosophers, and theologians since the beginning of time, and it is misleading to name after science a method used in so many fields.

Does the scientific method mean the observing and collecting of facts? Though facts are indispensable, they are not sufficient. "To solve a problem it is necessary to think. It is necessary to think even to decide what facts to collect. Even the experimental scientist cannot avoid being a liberal artist, and the best of them, as the great books show, are men of imagination and of theory as well as patient observers of particular facts."

Whatever is meant by scientific method, the writer continues, "the issue remains whether the method associated with experimental science, as that has developed in modern times, is the only method of seeking the truth about what really exists or about what men and societies should do."

Questions raised by the experimental method are not confined to its use outside of natural science. There is also a feeling that even within certain branches of science, it is no longer sufficient unto itself. This is the attitude of Max Planck, one of the giants of

contemporary physics. (He is the "father" of quantum mechanics.) "Scientists," says Planck, "have learned that the starting point of their investigations does not lie solely in the perceptions of the senses, and that science cannot exist without some small portion of metaphysics. Modern physics impresses us particularly with the truth of the old doctrine which teaches that there are realities existing apart from our sense perceptions, and that there are problems and conflicts where these realities are of greater value for us than the richest treasures of the world of experience" (*The Universe in the Light of Modern Physics,* reprinted in *The Great Ideas Today* 1962).

All through the great books, we find examples of the authors' efforts to seek the truth about the world and themselves, and the boundary line between the scientific and the nonscientific method is not always clear. Consider, for instance, the collecting of facts. Since facts are beyond number, and since a scientist must make a judgment about *which* facts to consider, on what basis is this judgment made? It is the aesthetic sensibility that chooses, says Henri Poincaré. "It may be surprising to see emotional sensibility invoked *à propos* of mathematical demonstrations which, it would seem, can interest only the intellect. This would be to forget the feeling of mathematical beauty, of the harmony of numbers and forms, of geometric elegance. This is a true aesthetic feeling that all real mathematicians know, and surely it belongs to emotional sensibility" (*Mathematical Creation,* Vol. 9).

Considering the application of mathematics to science, Campbell touches on the same point when he says that "relations which appeal to the sense of the mathematician by their neatness and simplicity are found to be important in the external world of experiment. . . . The expert mathematician has a sense about symbols, as symbols; he looks at a page covered with what, to anyone else, are unintelligible scrawls of ink, and he immediately realizes whether the argument expressed by them is such as is likely to satisfy his sense of form; whether the argument will be 'neat' and the results 'pretty.'" The author believes that "the only way to understand what Einstein did is to look at the symbols in which his theory must ultimately be expressed and to realize that it was reasons of symbolic form, and such reasons alone, which led him to arrange the symbols in the way he did and in no other" (*Numerical Laws and the Use of Mathematics in Science,* Vol. 9).

The same application of mathematical order and neatness to data resulted in the discovery of another important piece of scientific knowledge–the periodic law of the chemical elements ("The Genesis of a Law of Nature," Vol. 8). Are scientists, then, for all their devotion to cold, hard facts, essentially artists? Where do the patterns lie from which they construct their models of reality? In nature, or in their minds?

Whose Footprint?

The interplay between the mind and the universe–which governs which?–may be subject for the philosophers, but scientists also have their philosophical moods. Tobias Dantzig (selections from his work are in Vol. 9 of this set) asks, "Has the universe an existence *per se* or does it exist only in the mind of man?" Giving a tentative answer to the age-old dilemma, he continues: "To the man of science, the acceptance of the one hypothesis or the other is not at all a question of 'to be or not to be'; for from the standpoint of logic either hypothesis is tenable, and from the standpoint of experience neither is demonstrable. So the choice will forever remain a matter of expediency and convenience. The man of science will act *as if* this world were an absolute whole controlled by laws independent of his own thoughts or acts; but whenever he discovers a law of striking simplicity or one of sweeping universality or one which points to a perfect harmony in the cosmos, he will be wise to wonder what role his mind has played in the discovery, and whether the beautiful image he sees in the pool of eternity reveals the nature of this eternity, or is but a reflection of his own mind" (*Number, The Language of Science,* 4th ed., Macmillan, 1962).

Arthur Eddington said, in *Space, Time, and Gravitation* (Cambridge University Press, 1987 edition), "We have found a strange footprint on the shores of the unknown. We have devised profound theories, one after another, to account for its origin. At last, we have succeeded in reconstructing the creature that made the footprint, And Lo! it is our own."

The question of the actual existence of the objects of scientific inquiry is nowhere more puzzling than in the field of mathematics. Do mathematical truths reside in the external world, or are they man-made inventions? The answers reflect the dual role that mathemat-

ics plays—appearing sometimes as servant of science, sometimes as queen in her own right.

To Bertrand Russell, mathematics is independent of mankind, and her true role is that of queen. "To those who inquire as to the purpose of mathematics, the usual answer will be that it facilitates the making of machines, the travelling from place to place, and the victory over foreign nations, whether in war or commerce." Russell regards these ends of doubtful value, and adds: "As respects those pursuits which contribute only remotely, by providing the mechanism of life, it is well to be reminded that not the mere fact of living is to be desired, but the art of living in the contemplation of great things. . . . Mathematics, rightly viewed, possesses not only truth, but supreme beauty—a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. . . . The contemplation of what is non-human, the discovery that our minds are capable of dealing with material not created by them, above all, the realization that beauty belongs to the outer world as to the inner are the chief means of overcoming the terrible sense of impotence, of weakness, of exile amid hostile powers . . ." (*The Study of Mathematics,* Vol. 9).

But it is about mathematics as the servant of science that Lancelot Hogben writes when he says that mathematics is a language, a *size* language, developed in response to man's material needs: "Plato's exaltation of mathematics as an august and mysterious ritual had its roots in dark superstitions which troubled, and fanciful puerilities which entranced, people who were living through the childhood of civilization, when even the cleverest people could not clearly distinguish the difference between saying that 13 is a 'prime' number and saying that 13 is an unlucky number. His influence on education has spread a veil of mystery over mathematics and helped to preserve the queer freemasonry of the Pythagorean brotherhoods, whose members were put to death for revealing mathematical secrets now printed in school-books" (*Mathematics, the Mirror of Civilization,* Vol. 9).

It was from the "queer freemasonry" of the Pythagorean teachers that Plato derived the so-called "Platonic bodies," the five regular polyhedra that have equal sides and equal angles. The teachings of the Pythagoreans, who held that numbers have a real and separate

existence, may seem fanciful now, but fancies have often been of value to science. It was from consideration of the "Platonic bodies" that Kepler developed the first unitary scheme of the universe (*Epitome of Copernican Astronomy,* in GBWW, Vol. 15).

In addition to having a reality apart from man, mathematics had, for Plato, "something in them which is necessary and cannot be set aside," something of "divine necessity." Plato believed that the necessities of knowledge which are divine and not human are "those of which he who has no use nor any knowledge at all cannot be a God, or demi-god, or hero to mankind, or able to take any serious thought or charge of them. And very unlike a divine man would he be, who is unable to count one, two, three, or to distinguish odd and even numbers . . ." (*Laws,* in GBWW, Vol. 6).

An opposing view about the nature of mathematics is presented by Henri Poincaré. With the development of non-Euclidean geometries, it seems reasonable to ask which geometry is true. But the question is without meaning, says Poincaré. "Geometry is not true, it is advantageous." But does not one geometry come closest to being true? "One geometry cannot be more true than another; it can only be *more convenient*" (*Space,* Vol. 9). But this seems to say that the mathematician builds a habitation for himself rather than (as the Platonists believe) finds one eternally standing.

Such questions may be unanswerable, but even unanswerable questions serve as beacons. We cannot, for instance, know the *why* of things, says Claude Bernard. Absolute knowledge of the very essence of phenomena will always remain beyond our reach. "When we know that friction and that chemical action produce electricity, we are still ignorant of the primary nature of electricity." But, he continues, the search is not unfruitful. If a man of science carries experimental analysis far enough, he will see that though he is ignorant of the cause of the phenomenon, he will become its master. "The instrument at work is unknown, but [he] can use it" (*Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8).

Mankind's reluctance to believe that the universe may be without plan is centuries old. "Either it is a well-arranged universe or a chaos huddled together," admitted Marcus Aurelius. "But," he asked, "can a certain order subsist in thee, and disorder in the All?" (*Meditations,* in GBWW, Vol. 11). The persistence of the question indicates that, although much of modern science is directed toward

controlling our environment, scientific inquiry is based, at least partly, on our desire to know what we ourselves are.

Evicted Again

Displacement from the center of the universe was only the first disruption of our concept of our place in the scheme of nature. According to Freud, "The second was when biological research robbed man of his peculiar privilege of having been specially created, and relegated him to a descent from the animal world, implying an ineradicable animal nature to him: this transvaluation has been accomplished in our own time upon the instigation of Charles Darwin . . ." (*A General Introduction to Psycho-Analysis,* in GBWW, Vol. 54).

No scientific theory has ever extended so rapidly into every field of human endeavor as the theory of evolution. The substance of the theory is expounded in Volume 49 of *Great Books of the Western World;* the story of the author is told in Darwin's *Autobiography* in Volume 8 of *Gateway to the Great Books.* The influence of the theory continues to manifest itself in history, biology, sociology, medicine, geology, psychology, and other fields of study.

The raging controversies aroused by Darwin's theory of evolution in no way diminished scientific activity. In such fields as chemistry, anatomy, paleontology, and geology, the probing continued. The combined effect of all these areas of investigation was to present an ever-changing, sometimes radically-changing, picture, not only of the physical world, but of the very nature of life itself–and man's attitudes changed with that picture and are still changing. It is claimed, for example, that the discovery of DNA requires an entirely new conception of life.

The work of Friedrich Wöhler (*On the Artificial Production of Urea,* Vol. 8) has already weakened the arguments of the vitalists, who, dating from Aristotle, explained the nature of life as being due to a vital force peculiar to living organisms. Claude Bernard (*Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8) developed the theory that chemical laws are valid for living organisms. Comparative anatomy, the beginnings of which are found in the works of Aristotle and Galen, was used by Thomas H. Huxley to bolster the theory of man's kinship to the animals (*On the Relations of Man to the Lower Animals,* Vol. 8). And although

the mechanism of heredity was unknown in Darwin's day, statistical methods had been devised and applied in such works on the subject as Francis Galton's "The Classification of Human Ability," from *Hereditary Genius* (Vol. 8).

Charles Lyell, who deeply influenced Darwin's whole thought and work, had suggested that natural forces still at work could account for the present structure of the earth. His glimpses into the past, revealed by the study of fossils, contributed to biological researches on which were based the concept of evolution ("Geological Evolution," Vol. 8). To Huxley, geology opened a book, whose authority could not be impeached. "There is a writing upon the wall of cliffs at Cromer, and whoso runs may read it," he says (*On a Piece of Chalk,* Vol. 8). For Huxley the writings pointed toward a connection between the physical changes of the world and the changes in its living inhabitants.

From the time of Galileo, many persons have held that the worth of a science or a philosophy could be estimated by the degree to which it could be presented under mathematical formulas. David Hume, the eighteenth-century philosopher, went so far as to say, at the end of *An Enquiry Concerning Human Understanding:* "If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames: for it can contain nothing but sophistry and illusion" (GBWW, Vol. 33).

Yet in the nineteenth century it was the nonmathematical geologists and biologists who framed most precisely the questions: What is man? What is his past and what is his future? If he is part of the animal world, does he differ from animals in having a soul? Does the doctrine of the survival of the fittest apply to human institutions? Does evolution necessarily mean progress? A large part of the essay on MAN in the *Syntopicon* is devoted to the questions that arise when man is considered in connection with the idea of evolution. The chapters on SOUL, EVOLUTION, PROGRESS, and NATURE are relevant, too.

The study of mankind is an ancient one and is the only study in which the knower and known are one. It may be that this unique relationship poses insoluble problems, and that the quest for knowledge will forever travel in a circle. But the *Syntopicon* says that

the "ultimate questions which man asks about himself are partly answered by the very fact of their being asked. The answer may be that man is the measure of all things; that he is sufficient unto himself or at least sufficient for the station he occupies and the part he plays in the structure of the universe. The answer may be that man is not a god overlooking the rest of nature, or even at home in the environment of time and space, but rather that he is a finite and dependent creature aware of his insufficiency, a lonely wanderer seeking something greater than himself and this whole world. Whatever answer is given, man's asking what sort of thing he is, whence he comes, and whither he is destined symbolizes the two strains in human nature–man's knowledge and his ignorance, man's greatness and his misery" (GBWW, Vol. 2).

The whole structure of science is now so vast that no one person can hope to comprehend it. The scientist tends to specialize more and more intensely *within* a field–and to flounder as helplessly as any layman outside it. But the original thinking that characterized the early "greats" of science is still to be found in our time. Such thinking–in contrast to the work of the specialist or technician–inevitably leads the scientist to the ultimate questions about the universe. At the center of these questions stands humankind. Who are we and what is the purpose of life? Once we ask *these* questions, we enter into the realm of philosophy.

V
Philosophy

Questions Without Answers?

How ought we to live? Or is there an "ought"? Is there in fact a good (or right) way of life, and where are we to look for the knowledge of it? Is it demonstrable knowledge, like that of mathematics? Are we bound in reason to accept it as we are the findings of the scientists based on controlled experimentation and observation? If so, why don't we all cleave to its truth as we do to the physicist's or the engineer's? If not, are we to conclude that the realm of living is only a matter of speculation, in which one person's opinion is as good as another's and knowledge does not exist at all?

A true science (as we use the term today) does not tell us that we ought to do anything. Its business is to tell us what is, not what should be or should be done. Engineers do not tell us whether we ought to build a bridge. They say, "If you want to build a bridge, we can tell you how," and if we say, "But should we build a bridge rather than a school or a school rather than a hospital?" they say, "That's not for us to say. We're only engineers." So, too, the physicians. They may tell us to stop smoking if we want to live longer, but when we say we'd rather smoke than live longer, they shrug their shoulders and say, "That's up to you. We're only physicians."

Who is there who is not only an engineer, or a physician, or someone who can answer all the questions but the hard ones? Who can help us make moral choices and political decisions? If there is a science of living, there should be a scientist whose "field" is just that, who can tell us what life is and what the right way to live is. If there is an applied science (or art) of living, there should be, not just a Doctor of Medicine, but a Doctor of Life, who can tell us with doctoral authority not how to live longer but how to live well. If there is a science or art of human life, it would certainly be the queen

of all the sciences and merit the concentration of every young (and old) man and woman.

We sometimes speak of "a philosophy of life," as if philosophy is that science. But is it in fact a science, or even an art derived from the conclusions of science? Where are its laboratories in which rigorous experimentation is carried on by highly trained specialists under rigidly controlled conditions? Where are its proofs, to which every reasonable person must yield? Where are its experts, whose judgments are made on certain and indisputable knowledge? Or is it a science in a different sense? Or is it something else entirely?

These are the questions to which the selections in Volume 10 of *Gateway to the Great Books* lead us. Nor need we read very far before we discover that there are two disciplines which claim to have the knowledge—as surely as science has knowledge—of the way men ought to live: philosophy and theology. Neither need we read very far before we discover that not the least of the difficulties both of them have in maintaining their claims is their frequent and bitter opposition (in modern times) to each other. In his famous *History of Western Philosophy,* philosopher-mathematician Bertrand Russell (whom we read on mathematics in Vol. 9 of this set) tries to define the fields and their opposition and their problems thus:

"Philosophy . . . is something intermediate between theology and science. Like theology, it consists of speculations on matters as to which definite knowledge has, so far, been unascertainable; but like science, it appeals to human reason rather than to authority, whether that of tradition or that of revelation. All *definite* knowledge—so I should contend—belongs to science; all *dogma* as to what surpasses definite knowledge belongs to theology. But between theology and science there is a No Man's Land, exposed to attack from both sides; this No Man's Land is philosophy.

"Almost all the questions of most interest to speculative minds are such as science cannot answer, and the confident answers of theologians no longer seem so convincing as they did in former centuries. Is the world divided into mind and matter, and, if so, what is mind and what is matter? Is mind subject to matter, or is it possessed of independent powers? Has the universe any unity or purpose? Is it evolving towards some goal? Are there really laws of nature, or do we believe in them only because of our innate love of order? Is man what he seems to the astronomer, a tiny lump of impure carbon and water impotently crawling on a small and unimportant planet? Or is

he what he appears to Hamlet? Is he perhaps both at once? Is there a way of living that is noble and another that is base, or are all ways of living merely futile?" (*A History of Western Philosophy,* Simon and Schuster, 1972.)

To such questions, as Russell says, no answers can be found in the laboratory. Where can they be found? Whose business is the answering of them? If they are unanswerable–unanswerable by science, theology, and philosophy–are we not in a fine fix indeed? What boots it to be able to answer the lesser questions of the physical and biological worlds if we cannot answer the greater?

Immanuel Kant, at the opening of his famous *The Critique of Pure Reason,* maintains that we have no choice: the questions bedevil us, and we cannot dodge them. "Human reason," he says, "is called upon to consider questions, which it cannot decline, as they are presented by its own nature, but which it cannot answer, as they transcend every faculty of the mind" (GBWW, Vol. 39). Thus, as the *Syntopicon* notes in the Introduction to Chapter 66: "Socrates speaks of philosophy as the love of wisdom, implying thereby its pursuit rather than its attainment. A man would not be called a scientist in a particular field–mathematics, let us say–unless he actually had some mathematical knowledge; but a man who is not actually wise can be called a philosopher by virtue of his effort to become wise" (GBWW, Vol. 2). What kind of learning is this that is a form of *love*? What is this pursuit of the unattainable?

Thunderbolts of the Gods

It is through the dialogues of Plato that we come to know the "father" of philosophy, the incomparable Socrates. Socrates, though he always denied that he had any knowledge, when he was on trial for his life warned the judges of Athens that they should not offer him acquittal on the condition that he cease to inquire and speculate. To such an offer, he says, he would have to reply, "Men of Athens, I honour and love you; but I shall obey God rather than you, and while I have life and strength I shall never cease from the practice and teaching of philosophy, exhorting any one whom I meet and saying to him after my manner: You, my friend,–a citizen of the great and mighty and wise city of Athens,–are you not ashamed of heaping up the greatest amount of money and honour and reputation, and caring so little about wisdom and truth and the greatest improvement

of the soul, which you never regard or heed at all?" (*Apology,* in GBWW, Vol. 6). He seems to believe that philosophy is useful, nay, indispensable to life, and as he defends himself in court he makes one of the most celebrated assertions in history: "The unexamined life is not worth living."

Socrates speaks of "god" and the "soul," but we must remember that he was a pagan who, at his trial, steadfastly denied that he disbelieved in the gods of the state. We must also remember that "soul" to the Greeks was a metaphysical, not a theological concept; it was simply the essence of a living thing, that which, when we are alive, makes us what we are. When it leaves a man, he is no longer a man but the mere shell of a man.

The first great pagans did not separate philosophy from the mysticism of religion. But in the Roman philosopher Lucretius we have the lineal forerunner of the modern religious skeptic, agnostic, or atheist, who, like Russell, wants to save man from "fairy tales" by a philosophy which has no help from the scientist's laboratory and has no certainty of its own. The materialism of Lucretius, says Santayana in his essay on him (Vol. 10), "carries with it no commandments and no advice. It merely describes the world . . ." but Lucretius himself believes that he provides a remedy for the deepest of human ills by "freeing the mind from the close bondage of religion."

The philosophy of Lucretius is known as Epicureanism because it followed the thinking of the Greek Epicurus. Lucretius saw (as the *Syntopicon* puts it) that men feared the thunderbolts of the gods, their intervention in the course of nature and human affairs, and the punishments of afterlife in the pagan religion. Before Epicurus taught the mortality of the soul and the atomic character of all things–including the mind and its thinking–"human life," says Lucretius, "Lay foully grovelling on earth, weighed down/By grim Religion. . . . [O]ur darknesses of mind/Must be dispelled . . . by insight into nature, and a scheme/Of systematic contemplation" (*The Way Things Are,* in GBWW, Vol. 11).

We read in the *Syntopicon* (GBWW, Vol. 2): "Except for Lucretius, the triumph of philosophy over religion does not seem to be central to ancient conceptions of philosophy's contribution to the mind and life of man. In the pagan world, religious belief is either combined with philosophy to constitute the worship of the gods, which seems to be Plato's view in the *Laws;* or it represents

the superstitions of the ignorant as opposed to the sophistication of the educated. Gibbon [in his *Decline and Fall of the Roman Empire* (GBWW, Vols. 37 and 38)] describes the rift between religion and philosophy not as a matter of intellectual controversy, but as a division of society into classes lacking or having the benefits of education—or, what is the same in the ancient world, instruction in philosophy.

"But in the medieval world, the distinction between philosophy and religion seems to be essential to the consideration of the nature and value of philosophy. The importance of the distinction appears alike in the great books of the Christian tradition and in the great writings of the Islamic and Jewish cultures—in Augustine and Aquinas, Avicenna, Averroës, and Maimonides—though the problem of philosophy's relation to religion and theology may be quite differently solved by each. In all three religious communities secular learning and sacred doctrine are set apart by their origin—the one from the efforts of human reason, the other from the word of God as revealed to the faithful. Even when it is held in highest esteem as the best achievement of secular learning, philosophy is for the most part regarded as inferior to the teachings of religion."

The reason is obvious: the medieval culture of Europe was unified by religious faith. Before the Dark Ages fell upon Europe a great burst of light appeared in the person of Augustine (whose *Confessions* and *City of God* we read in Vol. 16 of *Great Books of the Western World*). The next volume in *Great Books of the Western World* is written eight hundred years later—the formidable *Summa Theologica* of Thomas Aquinas. In the interval between them, and until the renaissance of classical learning long after Aquinas, philosophy (like all other manifestations of the ancient Mediterranean civilization) was preserved by the Church and by churchmen. St. Augustine is one of the Fathers of the Christian Church, St. Thomas the "holy doctor" and his *Summa* the thirteenth-century capstone of the Middle Ages.

No one denies that these two towering figures were great philosophers; nor that they were first of all men of religious faith.

In Augustine's view (according to the *Syntopicon*) philosophy "can . . . be dispensed with in all the major concerns of knowledge, love, or action. But Augustine does not argue that it should therefore be discarded. 'If those who are called philosophers,' he says, 'and especially the Platonists, have said aught that is true and in harmony

with our faith, we are not only not to shrink from it, but to claim it for our own use from those who have unlawful possession of it,' even as the spoils of the Egyptians belong to the Jews."

The *Syntopicon* continues: "Though Augustine and Aquinas conceive the relation of faith and reason differently, they seem to share a conception of philosophy as the handmaiden of theology when faith seeks understanding. For Aquinas this does not appear to imply lack of dignity or even the loss of a certain autonomy on the part of philosophy. On the contrary, so highly does he regard the demonstrations of Aristotle, whom he calls 'the philosopher,' that he opens the *Summa Theologica* with the question 'Whether, besides the philosophical sciences, any further doctrine is required.'

"He answers that 'it was necessary for the salvation of man that certain truths which exceed human reason should be made known to him by divine revelation. Even as regards those truths about God which human reason can investigate, it was necessary that man be taught by a divine revelation. For the truth about God, such as reason can know it, would only be known by a few, and that after a long time, and with the admixture of many errors; whereas man's whole salvation, which is in God, depends upon the knowledge of this truth . . .' " (GBWW, Vol. 2).

Two Kind of Theology

Thus the need of the "sacred science," theology. But here it is necessary to make the classical division of theology itself–a division which the modern skeptics deny or, more often, ignore. Theology has two branches–the dogmatic and the natural. Dogma is based upon the revelation of the Scriptures. God does not argue with Moses, or try to prove the validity of the Ten Commandments; he says, "Thou shalt" and "Thou shalt not"; he is laying down the Law. So, too, Christ's ever-repeated phrase, "*I say unto you* . . ." is the voice of authority which neither reasons nor appeals to reason (however "reasonable" or "unreasonable" the commandments may be). Moses and Christ are not philosophers.

Dogmatic theology is the explication of the articles of faith; it belongs wholly to religion proper, and draws upon reason only to reach conclusions from premises established by the Word of God. But natural theology rests wholly upon reason. It may serve faith; in any case, reason must reach the same conclusions as faith (though

it may not reach so far) if faith is taken to be true; in the religious view, faith and the *power* of reason both proceed from God, Who, being perfect, is without falsehood or contradiction. But the problems of natural theology are in no sense whatever dogmatic. They are independent of religion, and they are studied and argued by men of all religions and of none.

Whoever wants to see natural theology in operation should open the *Summa Theologica* to page 12d (GBWW, Vol. 18) and study the short passage which begins with the celebrated words, "*I answer that,* the existence of God can be proved in five ways." The famous "five proofs" are all of them drawn from reason alone, and, indeed, they draw most heavily upon the thinking of the great Greek pagan, Aristotle. They are not all of them easy to comprehend at every point–far from it–and some of them are subject of philosophical attack. But in no respect does any one of them at any step rely upon revelation or faith. And Henry Adams, in his essay on Aquinas (Vol. 10), expounding on the great struggle between theology and science, points out that "the quality that rouses most surprise in Thomism is its astonishingly scientific method."

As philosophy attacks theology, so science attacks philosophy; and on the same ground, namely, that it cannot demonstrate its procedures or verify its conclusions in the way that the natural sciences do. The phrase "armchair philosophy" makes the point; without the laboratory and its controlled experimentation and demonstration *in action* no knowledge is really binding upon the reason, and no claim to knowledge can be validated. The ancient and medieval scientists called themselves philosophers, but the giants of modern science–beginning with Galileo, Newton, Huygens, and, in the eighteenth century, Lavoisier and Fourier–made the distinction of calling their work "experimental philosophy."

"In this phrase," according to the *Syntopicon* (GBWW, Vol. 2), "lies the root of the distinction between philosophy and science as that distinction is generally understood by writers since the 18th century. The word 'experimental' applied to philosophy signifies a radical difference in the method of inquiry and even in the objects to be investigated, for certain objects can be known only by experimental or empirical research. Kant appears to be the first (in the great books at least) to make a sharp separation between the investigation of either nature or mind by what he calls 'empirical' as opposed to 'rational' methods. He still uses the name 'science' for

both sorts of investigation, but he appears to restrict 'philosophy' to the latter—the pure, the *a priori,* the rational sciences.

"Kant's innovations in vocabulary plainly announce the separation of philosophy from mathematics and experimental science, which is only intimated by earlier modern writers. . . . The final step is taken in the 19th century when the word 'science' is restricted to mathematics and to such knowledge of nature, man, and society as can be obtained by the methods of experimental or empirical research. William James, for example, stresses the fact that he is trying to expound psychology as one of the natural sciences, and to that end he tries to separate the problems which are capable of empirical investigation from those which belong to philosophical speculation. For Freud that separation is an accomplished fact, and one which leaves to philosophy no problem that can be solved by science.

"According to Freud, 'it is inadmissable to declare that science is one field of human intellectual activity, and that religion and philosophy are others, at least as valuable, and that science has no business to interfere with the other two.' On the contrary, Freud thinks it is right for scientific research to look 'on the whole field of human activity as its own,' and to criticize the unscientific formulations of philosophy. The trouble with philosophy is that 'it behaves itself as if it were a science . . . but it parts company with science, in that it clings to the illusion that it can produce a complete and coherent picture of the universe.' It is this illusion which science continually punctures, since, in Freud's opinion, 'that picture must needs fall to pieces with every new advance in our knowledge.'"

It is questionable whether the nineteenth-century scientist who said that he "never saw a soul in a test tube" would accept either James's psychology or Freud's psychoanalysis as science; but it is clear that he would accept neither theology *nor* philosophy. So, too, the atheist of our own time, observing, as did the Soviet cosmonaut Titov, that he "saw no God or angels" during his orbits of the earth may find himself drawn all the way back to the outright materialism of the ancient Roman Lucretius, who, though his view of the world was not as sophisticated as the modern physicist's, believed that the universe and everything in it could be explained by the constitution and motion of atoms. The denial of the existence in humans—or anywhere else—of the *immaterial* leads ineluctably to the denial not only of the Greek or Christian ideas of soul, but also of the

concept of the existence of mind apart from brain cells and central nervous system.

Mind Looks at Itself

The age-old effort to comprehend the mind and catch it "red-handed" in the act of thinking has resulted in some of the most penetrating inquiry of both philosophers and, in modern times, psychologists. In *The Principles of Human Knowledge* (GBWW, Vol. 33), the eighteenth-century English philosopher Berkeley staunchly refuses to concede that there is *any* question that the mind cannot answer. "I am inclined to think," he says, "that the far greater part . . . of those difficulties which have . . . blocked up the way to knowledge, are entirely owing to ourselves–that we have first raised a dust and then complain we cannot see." But Berkeley's optimism has not been justified–at least not yet. We are still asking, two hundred years later, what the mind is and how it works.

Modern psychology, particularly in America, though it may not have advanced the inquiry, has produced an approach to it that had not previously been emphasized, in either ancient or modern Europe. "The Americans," the *Encyclopædia Britannica* says, "were bound to be practical and functional, to see mind in terms of its use for the survival of the organism in the struggle of the race for existence and in the social competition of the individual for success." Hence in the United States, at the end of the nineteenth century, there emerged a functional–or "is-for"–view of the human mind.

This view, which first appears in William James's *The Principles of Psychology* (GBWW, Vol. 53) is the basis of pragmatism, the philosophy which appears in his writings (in Vols. 7 and 10 of this set and in full in GBWW, Vol. 55). But its most famous exponent is the late John Dewey, whose influence on American philosophy was almost as great as his "progressive" influence in education.

Dewey does not ask what the mind *is;* he asks what it is *for*. Thinking, he asserts, is a process that appears in response to one's need to make a more adequate adjustment to the environment. It is aimed at straightening out tangles in the achievement of goals. Mankind wants something, and the activity of the mind is directed at getting it. The value of thinking lies in the fact that it makes action possible. "There is," says Dewey ("The Process of Thought," Vol. 10), "a challenge to understanding only when there is either a

desired consequence for which means have to be found by inquiry, or things . . . are presented under conditions where reflection is required to see what consequences can be effected by their use."

It is our desire to get what we want that underlies philosophy and all philosophical systems, says James: "Pretend what we may, the whole man within us is at work when we form our philosophical opinions. Intellect, will, taste, and passion cooperate just as they do in practical affairs; and lucky it is if the passion be not something as petty as a love of personal conquest over the philosopher across the way. . . . It is almost incredible," he goes on to say, "that men who are themselves working philosophers should pretend that any philosophy can be, or ever has been, constructed without the help of personal preference, belief, or divination. How have they succeeded in so stultifying their sense for the living facts of human nature as not to perceive that every philosopher, or man of science either, whose initiative counts for anything in the evolution of thought, has taken his stand on a sort of dumb conviction that the truth must lie in one direction rather than another . . . ?" (*The Sentiment of Rationality,* Vol. 10).

This view that intellectual objectivity is impossible would be familiar to the great philosophers of earlier times and equally to the natural scientists of our own day. A nuclear physicist might object to being told that he has "taken his stand on a sort of dumb conviction." Yet there is a sense in which philosophy long ago posited something analogous to the "dumb conviction" as the indispensable first step in thinking, and that is in regard to first principles. First principles, or statements of ultimate ends, are classically the starting points of all thought. And from Aristotle's argument that first principles are apprehended intuitively to Mill's assertion that no first principle can be proved, philosophers ancient and modern have maintained that these foundations of reasoning are not to be discovered by the reasoning process.

Whence, then, come first principles? What is meant by "intuition," a term commonly held in contempt? Is it the same in everyone, or different from society to society (or even from individual to individual)? Traditionally philosophy has taken the view that it proceeds from *natural law*–not to be confused with the laws which govern the physical universe. Natural law (which theology also recognizes) is thought to be inherent in the mind of every person. One–anyone anywhere–has but to consult reason to discover, at

once, or intuitively, the principles of the natural law and the ends to which life is directed. The natural law is what each of us is, so to say, born knowing.

Is it sufficient without human law? No; human law is required in society to explicate it, to spell out the natural law in terms of the varied and complicated circumstances of society. Is it sufficient without faith? The believer would say No, insofar as we are directed to an end beyond nature, but natural theology would say that it is sufficient for this life.

When the authors of *The Declaration of Independence* speak of "the separate and equal station to which the laws of nature . . . entitle" a people (Vol. 6), they are referring to the natural law, not to the "laws of nature" by which the physical universe seems to operate. What is the relation between these laws of nature and the natural law? Ralph Waldo Emerson's essay on *Nature*–perhaps his most famous piece of work–is published in Volume 10 of this set. In it Emerson sees man and everything he is and does to be a part of nature. "If," he says, "we consider how much we are nature's, we need not be superstitious about towns, as if that terrific or benefic force did not find us there also, and fashion cities. Nature, who made the mason, made the house. . . . A man does not tie his shoe without recognizing laws which bind the farthest regions of nature. . . ." J. S. Mill, in his essay by the same name (also in Volume 10), disagrees. Nature is reckless. Nature is cruel. Nature is the enemy, frustrating our best efforts, and to follow it would be irrational, wasteful, and immoral. Almost everything that makes life endurable is a work of art; nature must be rejected as the measure of right and good because "the course of natural phenomena being replete with everything which when committed by human beings is most worthy of abhorrence, anyone who endeavoured in his actions to imitate the natural course of things would be universally seen and acknowledged to be the wickedest of men."

Rx: Consult the Heart

But what we have created with our arts–above all, with those arts we nowadays call science–we fear will destroy us. And even if it does not destroy us, we feel ourselves being engulfed by it. The urge to "get away from it all" overwhelms every sensitive person from time to time. William James, commenting on the "modern me-

chanico-physical philosophy of which we are all so proud, because it includes the nebular cosmogony, the kinetic theory of heat and gases, etc., etc.," laments that, "The sentimental facts and relations are butchered at a blow" (*Principles of Psychology,* in GBWW, Vol. 53). And he adds: "Science can tell us what exists; but to compare the *worths,* both of what exists and what does not exist, we must consult not science, but what Pascal calls our heart. Science herself consults her heart when she lays it down that the infinite ascertainment of fact and correction of false belief are the supreme goods for man" (*The Will to Believe,* Vol. 10 in this set).

But where–and what–is this "heart" that we must consult instead of science when we ask about the worth of things? Is it philosophy? Religion? What? It is easy to speak of the heart, and James shows us that even scientists find their first principles there; but to bring the mind to bear upon it, even to locate it intellectually, is less easy. If the laws of nature (which science investigates in order to achieve its mastery of nature) do not disclose the "heart" to us, what does? Is it the anciently accepted–and more often rejected today–natural law which reason reveals to him "who will but consult it"? Is the nature of mankind something entirely other than the nature of the physical universe? Is the secret of life locked up in it beyond the power of anything more scientific than intuition?

In his *Ethics of Belief* (Vol. 10), W. K. Clifford refuses to accept these indemonstrables. He is not satisfied with James's "heart," and he protests that, "It is wrong in all cases to believe on insufficient evidence; and where it is presumption to doubt and to investigate, there it is worse than presumption to believe." He says "It [belief] is desecrated when given to unproved and unquestioned statements, for the solace and private pleasure of the believer; to add a tinsel splendour to the plain straight road of our life and display a bright mirage beyond it; or even to drown the common sorrows of our kind by a self-deception which allows them not only to cast down, but also to degrade us."

But how are we to live, when the things we are able to know on "sufficient evidence" are inadequate to our happiness? Whither shall we turn to meet our needs in this life?

Philosophy has always called us back to ourselves, to the study and knowledge of our own natures, and to the law of life which we discover there. Noting that "all men plume themselves on the improvement of society, and no man improves," Emerson, in his

passionate essay on *Self-Reliance* (Vol. 10), summons the individual to "learn to detect and watch that gleam of light which flashes across his mind from within . . ." He who does—and he only—will be a man. But to be a man, Emerson insists, is to be a nonconformist to society: "To be great is to be misunderstood."

There is something of the ancient Stoic philosophy in this acceptance of self even if it means rejection by the world. Plutarch (*Contentment,* Vol. 10) points out that whatever may happen to a person is largely beyond that person's control; but how he reacts to what happens is within his own power: "Fortune can infect a man with sickness, take his money away, malign him to his countrymen or a tyrant; but she cannot make a good and virile and high-spirited man a poltroon or mean-spirited or ignoble or envious." And the most stoical of all the Stoics, Epictetus, declares that, "You can be unconquerable if you enter into no combat in which it is not in your own power to conquer" (*The Enchiridion,* Vol. 10).

Is this the way to live—or is it the counsel of escape from the challenge of life? Epicurus, in his *Letter to Menoeceus* (Vol. 10), reveals how close to Stoicism is the Epicurean doctrine that pleasure is the end of life. For pleasure here involves, above all, one's freeing oneself from desire for external things: "Independence of desire we think a great good—not that we may at all times enjoy but a few things, but that, if we do not possess many, we may enjoy the few in the genuine persuasion that those have the sweetest pleasure in luxury who least need it, and that all that is natural is easy to be obtained, but that which is superfluous is hard."

Here the serenity which Plutarch counsels seems to be the ultimate goal and the key to successful living. Philosophy appears in its role of consolation and solace which Clifford disdains, enabling us to accept life rather, perhaps, than to live. But Santayana, in his essay on Goethe (Vol. 10), finds another moral entirely in *Faust:* "To live, to live just as we do, that—if we could only realize it—is the purpose and the crown of living." So, too, Walter Pater in "The Art of Life" (Vol. 10): "Not the fruit of experience, but experience itself, is the end. . . . To burn always with this hard, gemlike flame, to maintain this ecstasy, is success in life." The service of philosophy to the human spirit, he adds, "is to rouse, to startle it to a life of constant and eager observation."

However philosophy may serve the human spirit—or whether it serves it at all—the fact is that we are all philosophers. Our

philosophy may be good or bad, profound or nonsensical, useful or useless, but we cannot help asking the questions *it* asks: What and who am I? What is life for and how should I live it? What is right and what is wrong? What are my rights and duties toward others? What is happiness, and how is it to be pursued, obtained, and secured? In a word, we all philosophize, and philosophy, unlike the so-called "exact" sciences, deals with all the commonplace problems of everyone's life. In this sense every good book we read, every painting, every sunset, every symphony is philosophical: It says something to us about the questions we cannot help asking.

We are all philosophers and, it may be, theologians. We may not know it; we may not like it; we may call ourselves agnostics (know-nothings) or atheists (disbelievers); but whether we affirm or deny God's existence, or say that we simply don't know, we are saying something about a theological subject. Willingly or unwillingly, wittingly or unwittingly, we are moving in the realm of natural theology. Are we all dogmatists, too? Believers? The atheist *believes* that there is no God. The motorist driving at high speed *believes* that there won't be a blowout. The scientist *believes* that it is good to know.

But there are things none of us know "for sure," and other things we cannot know at all. The future is hidden from us, and prediction and prophecy fail. We plan—and catastrophe (or a stroke of good fortune) smashes our plan to smithereens. Today's sixteen-year-old is old enough to know how radically different the world is today from what we thought it would be, *intended* it to be, at, say, the end of World War II. And it would be a reckless person indeed who was ready to predict with confidence what the world will be like a year from now.

Of Youth and Age

Amid the uncertainties of life, this much is certain: Whoever lives long enough will grow old. This too: Whoever grows old will first grow older.

What follows from this succession of obvious certainties is the commonsense conclusion that we should prepare ourselves for all of life, and not just for that part that passes fastest.

It is not *impossible* to form new mental habits in middle life, or even in old age; but it is an achievement of note, an exception.

On the other hand, we all know of a person whose mental powers, developed in youth, were more acute than ever in their eighties and even in their nineties–from Sophocles in the fourth century B.C. to Justice Oliver Wendell Holmes in our own time. Sophocles must have been ninety, when, according to Cicero in his *On Old Age* (Vol. 10), "his sons brought him into court to get a judicial decision depriving him of the management of his property on the ground of weak intellect. . . . Thereupon the old poet is said to have read to the judges the play he had on hand and had just composed–*Oedipus Coloneus* [*Oedipus at Colonus,* GBWW, Vol. 4]–and to have asked them whether they thought that the work of a man of weak intellect. After the reading he was acquitted by the jury."

What we all want is a satisfying life. Assuming a modest economic sufficiency, one who is happy (or as happy as one may be expected to be in this life) is everywhere esteemed rich, and one who is unhappy poor. Nor have the philosophers dismissed wealth, power, or fame as the condition of human happiness simply because these goods are unworthy, but, rather, because they are achieved and lost by chance, because they depend on others for their achievement and loss, and because, like the pleasures of the moment, they are transient.

When, then, we think of happiness over a whole life and ask ourselves what course we should take in youth that will be most likely to produce it, the wisdom of the ages commends to us the path of Socrates, who in his old age was sent to his death by an Athens whose chief glory he is today. While his trial, imprisonment, and execution are set forth in those three magic dialogues of Plato, the *Apology,* the *Crito,* and the *Phaedo* (GBWW, Vol. 6), another of his contemporaries, Xenophon, tells us ("The Character of Socrates," Vol. 6) of a conversation the great philosopher held with his friend Hermogenes just before the trial:

"When Meletus had actually formulated his indictment," Hermogenes told Xenophon, "Socrates talked freely in my presence, but made no reference to the case. I told him that he ought to be thinking about his defence. His first remark was, 'Don't you think that I have been preparing for it all my life?' And when I asked him how, he said that he had been constantly occupied in the consideration of right and wrong, and in doing what was right and avoiding what was wrong, which he regarded as the best preparation for a defence. Then I said, 'Don't you see, Socrates, that the juries in our courts are apt to be misled by argument, so that they often put the

innocent to death, and acquit the guilty?' 'Ah, yes, Hermogenes,' he answered, 'but when I did try to think out my defence to the jury, the deity at once resisted,' 'Strange words,' said I; and he, 'Do you think it strange, if it seems better to God that I die now? Don't you see that to this day I never would acknowledge that any man had lived a better or a pleasanter life than I? For they live best, I think, who strive best to become as good as possible: and the pleasant life is theirs who are conscious that they are growing in goodness.'"

There may be those who think that Socrates was wrong—or who live as if they did—but there are few who want to argue the point with him. Most of us, rather, as we grow older, spend our time putting the blame on others—or on bad luck—for our failure to live as he did and enjoy as pleasant a life. But the abiding pleasure of a whole life is not entirely in our stars, but in ourselves. There are none of us so persistently ridden by misfortune that we have not had the occasion, again and again, to choose freely this fork in the road or that one, to resist or to yield, to say "Yes" or "No" and affect our own fates accordingly.

To most people the last years of life, says Cicero in his *On Old Age* (Vol. 10), "are so hateful that they declare themselves under a weight heavier than Aetna." He points out the contradiction that old age is something "to which all wish to attain, and at which all grumble when attained," and examines the contradiction in the form of a dialogue, the most beautiful ever written on the subject, between the great Marcus Cato as an old man and two of his younger friends who come to inquire what the end of life is like. Jonathan Swift, in his *Resolutions when I Come to Be Old* (Vol. 7), means "Not to be peevish, or morose, or suspicious" but at the end of his resolutions indicates that he is likely to be all of them.

Cicero, however, does not find Cato unhappy. The great Roman's secret of happiness in old age is simply that people "keep their minds active and fully employed," thus retaining the power of their intellects. Reminding his young friends that the aged Solon grew old "daily learning something new," he asks them which of the two they would rather have given to them—the bodily strength of Milo, who stepped into the Olympics carrying a live ox on his shoulders, or intellectual strength like that of Pythagoras.

Of Death

There is one more certainty in life—the absolute of all absolutes—and that is death. This one certainty overrides our lives from the first time we have seen a sparrow, or a worm, that doesn't move no matter how we prod it. But we do not know what it is to die—nor do we know if we shall know even at the moment of death—nor what it is to be dead. What little we know of death is physiological: the dust returneth to dust. For the rest, we believe. We are, we must be, dogmatists, however we try to escape.

And death colors our view of life—and more than colors it. It forms it. It lies at the very center of all our philosophy. It tells us some of the answers to some of the hardest questions philosophy asks. It tells us—as Sir Thomas Browne says—of our "vanity, feeding the wind, and folly." In his deathless dissertation on death ("Immortality," from *Urn-Burial,* Vol. 10), this seventeenth-century doctor-philosopher-theologian celebrates the futility of monuments and of man's every effort to be great, in life no less than in memory. Those who would build themselves monuments would be well advised to live according to the precepts of philosophy: Had the builders of their own mausoleums "made as good provisions for their names as they have done for their relics, they had not so grossly erred in the art of perpetuation. . . . Happy are they whom privacy makes innocent, who deal so with men in this world that they are not afraid to meet them in the next, who, when they die, make no commotion among the dead."

Browne's notable essay will ring strange in youthful ears. It is a classic contribution to the literature of melancholy, and youth is more properly addicted to mirth, adventure, success, and the stars. So philosophy is hard to "sell" to young people; but it is young people above all who have the courage to confront it, and to be undismayed by the questions that are hardest to answer. The key to philosophy is nothing more than this: since every child philosophizes, youth is not a moment too soon to enter the company of the great philosophers and partake of the banquet they spread before us.

VI

The Endless Journey

In *The Republic,* Plato outlines an ideal system of education. Here is the timetable: up until the age of twenty, music and gymnastics, for the development of a useful body and sharpened sensibilities; between twenty and thirty, the liberal arts, grammar, rhetoric, logic, and especially mathematics, for the training of a disciplined mind, a mind skilled in the operations of learning and thinking; between thirty and fifty, a period devoted to the world's work, engagement in the various activities of civic life, experience of the pains and frustrations of practical problems, personal and public; and then, finally, at fifty, return to the academy for ten years of the study of philosophy. Then—and only then—is anyone fit to govern the state!

Plato's scheme is as Utopian now as it was in his day. It nevertheless makes the point that there is no way to rush maturity; understanding in its deepest sense, of things both theoretical and practical, requires the long, hard experience that the years alone provide.

To say that a young man or woman is intellectually mature is only to say that the mind well-disciplined and self-disciplined is as perfect an instrument for operating on the materials of thought as it ever will be. But the materials are not yet available, nor can they be made available, by theoretical procedures or by imitations of real life.

The problems that confront older persons are more complex than those of youth; and the consequences of their decisions are more far-reaching. The young adult can choose wrongly and rectify an error; life still lies ahead. The older adult has a harder time rectifying errors and "starting over," for too much of life is over; the price has risen; and others are profoundly affected by our failures and successes.

There is something poignant about understanding; the deeper it sinks itself into our lives the sadder we are, thinking of the good use we might have made of it had we had it earlier. Poignant, too, is the effort of the old to impress their understanding on the young, for the young are unable to comprehend it; intellectually, yes; emotionally,

no. Adventure beckons us when we are young, reflection upon adventure enlightens us later on. Without adventure, human progress would be impossible; without reflection it might be disastrous.

The thinking of great writers does more than elevate our own. It throws a light on our own experiences and our own lives that inspires us. What we learn, as experience and reflection accumulate, is to examine ourselves; and it is with self-examination that the way to wisdom is hewn. Wisdom does not come packaged nor does another person's wisdom attach itself to us uninvited. Neither do we put it on all at once like a suit of clothes. Rather it grows as we grow, organically. The cross-examination to which the great books submit us has a friendly, not a punitive, purpose: to lead us to cross-examine ourselves and to test our own thinking.

This is education. And in this sense it may be said without qualification that only adults can become educated. Young people fresh from school or college do not know that they do not know. How could they? Have they not spent ten or fifteen years doing nothing but learning? Have they not had the benefit of the best schools, the best teachers—even, for argument's sake, the best books? If there were anything important to teach them, would not a first-class school system have found it out "by this time"? The older person cannot resist smiling—nor can the young person ten or twenty years afterward.

Here is the paradox of our existence. The soil which education requires—maturity—is never ready for it. To be mature is to have finished growth; a mature apple is a ripe apple. Its maturity lasts, so to say, for a moment. Before that moment it was green; after that moment it begins to die. When does a human being reach that perfect and evanescent state of his development?

The mature person is one, strictly, who has as nearly as possible become ripe, the adult potentialities fully developed. But some people are cut off at eighty or ninety by physical death while they are still maturing. The growth of a Sophocles or a Holmes, who are still at work when the end comes, is far from finished when death interrupts it. People who stop growing intellectually and spiritually at thirty or forty are as mature as they will ever be, however long they live. But they have not really grown up, for they are satisfied with less than they might have. We spend our adult lives, then, approaching maturity. We never reach it. Strictly speaking, the mature person has never existed.

"It is better," says John Stuart Mill, "to be a human being dissatisfied than a pig satisfied . . . And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides."

It may be objected, Mill goes on, "that many who begin with youthful enthusiasm for everything noble, as they advance in years sink into indolence and selfishness. But I do not believe that those who undergo this very common change, voluntarily choose the lower description of pleasures in preference to the higher. I believe that before they devote themselves exclusively to the one, they have already become incapable of the other. Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance; and in the majority of young persons it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favourable to keeping that higher capacity in exercise" (*Utilitarianism,* in GBWW, Vol. 40). The dissatisfied person, in other words, is the one who is continuously maturing, one who has embarked on a journey without an end.

We never fully grow up, but we must continue to try to. The earlier the habit of reading good books is formed, the sooner it becomes habitual. It enables us even in youth, and all the more so as we go on in years, to be at home in the world of clear thinking and exalted imagination. A schooled and skilled people is a free people in the fullest sense only when it is a thinking people. The societies of the West, America above all, are not distinctively contemplative; they are societies of great action whose triumphs of discovery, invention, and production have changed the face of the earth. Now they must turn, not to the stars, but to themselves, to make of life a rich experience and of the world a livable place. If anything is clear to us today, it is that the rising generation will have to think, and to think hard and straight.

Neither the random romping of a child, nor the porcine satisfaction of a pig, nor yet the dreadful monotony of an empty adulthood will serve ourselves or the family of man. What will serve both is the constant employment of our highest faculties, at once assuaging and aggravating the divine discontent of the thinker. So far may human happiness extend over the whole of a long life. This set is published with the faith that all human beings, of whatever age, can achieve that happiness, and in the hope that they will.

Syntopical Guide

As its name implies, this guide to the contents of *Gateway to the Great Books* is based on the *Syntopicon,* which comprises Volumes 1 and 2 of *Great Books of the Western World.*

The *Syntopicon* serves the readers of the Great Books in a number of ways. It contains 102 essays introducing readers to the great ideas as these are discussed in the Great Books. It contains lists of additional readings on each of the 102 great ideas. It provides readers with useful bibliographical information. But what it does principally is to enable them, on any subject of special interest, to read *in* the Great Books in a way that relates what various authors have to say on the subject. This mode of reading is quite different from reading a single book *through.* Without the *Syntopicon,* it would be impossible to do this kind of syntopical reading, for unless you had already read through the whole set, not once, but many times, you could not even begin to assemble all the related passages in the Great Books on a particular topic.

The Syntopical Guide to *Gateway to the Great Books* is a similar device, enabling readers to do another kind of syntopical reading. For any particular selection in this set which happens to interest you, the Syntopical Guide directs you to other related selections in Gateway; it recommends the reading of related sections or passages in *Great Books of the Western World;* and it relates all these selections in Gateway and passages in Great Books to the great ideas, or, more strictly, to certain topics under the great ideas which happen to be major themes in the particular selection with which the reader began.

The Syntopical Guide thus provides directions for reading *in* this set of books before one has read the whole set *through.* It does more than that for the person who also has *Great Books of the Western*

World on his shelves. It makes it possible to go from each selection in Gateway to the most germane of related passages in Great Books.

Anyone who examines the Syntopical Guide will quickly see why this set is a gateway to the great books; anyone who uses the Syntopical Guide will have opened the gates. It is the key—and one that is quite easy to turn.

In Section I of the Introduction, on ways of reading, some rules are recommended. It is there suggested that the active reading of a work requires us to ask—and try to answer—four questions about it: (1) What is the piece about? What is it trying to say? (2) How does it say what it is trying to say? (3) Is it true in whole or part? What reasons do we have for disagreeing with it? (4) What of it? What meaning does it have for us? (See page 5, above.) In addition, a whole series of rules are proposed for reading any piece of literature, whether narrative or expository, in a number of ways—analytically, interpretatively, and critically. (See pp. 8–14, above.) All these rules or recommendations serve the reader well when the aim is to read one book or one piece of writing as throughly as possible—*but by itself and in isolation from other books or pieces of writing.* Good readers, however, usually have one further question in mind, a question which goes beyond the four questions proposed in the Introduction. They ask themselves how the particular piece that they are reading is related to other pieces of writing. Or, to put the question another way, they want to know what other pieces of writing deal with the same general themes—themes which are central in the piece they are reading now.

The Syntopical Guide answers this question for them, at least so far as two large sets of books are concerned, comprising in all more than 650 works. The rules proposed earlier give the reader guidance on how to read a single work, whereas the Syntopical Guide shows how to read not just one but two large collections of works.

To do this, the Syntopical Guide has been organized in the following manner. It lists in alphabetical order each of the authors who has one or more writings in Gateway. It thus provides an alphabetical index, by authors' names, to the contents of this set. (The endpapers, to be found in each volume of the set, indicate the contents of the several volumes by listing the names of the authors in the order in which they appear in that volume.)

The authors' names constitute what we shall call the main entries in the Syntopical Guide. There are 133 of them. The operative units

of the Guide are more numerous, for they are constituted by the one or more works of each author included in this set.

For example, in the case of Charles Darwin, one selection–his *Autobiography*–constitutes the syntopical unit. In the case of Ralph Waldo Emerson, there are four such units, *i.e.,* one for each of the four of his essays included in this set: *Thoreau, Nature, Self-Reliance,* and *Montaigne; or, the Skeptic.* In the case of David Hume, there also happen to be four units, but one of these units comprises three essays which are grouped together because they all deal with the same general themes; thus here the four syntopical units are as follows: (1) *Of the Standard of Taste;* (2) *Of Refinement in the Arts;* (3) *Of Money, Of the Balance of Trade,* and *Of Taxes;* (4) *Of the Study of History.* Wherever two or more selections, whether singly or grouped, constitute distinct syntopical units under a main entry (*i.e.,* a particular author), the units are placed in an order that corresponds to the order in which the several selections appear in the volumes of this set.

So much for the overall structure of the Syntopical Guide–its 133 main entries (one for each author) and the one or more syntopical units under each of these. Now let us turn to the structure of the syntopical units, of which there are 214. Each of these is divided into three principal parts. The first part carries the heading SUGGESTED READINGS IN THE *Syntopicon;* the second part, the heading RELATED AUTHORS AND WORKS IN *Great Books of the Western World;* the third part, the heading RELATED AUTHORS AND WORKS IN *Gateway to the Great Books.* In certain instances, there is a fourth heading, which usually consists of a reference to other works by the author in question when these are included in *Great Books of the Western World.* For example, in the case of Darwin, this fourth heading reads "For other works by Darwin in *Great Books of the Western World,* see Vol. 49." And when a selection in Gateway deals with an author in Great Books, this fourth heading refers to the works of the latter. For example, in the case of Macaulay's essay on Machiavelli, the fourth heading reads "For Machiavelli's *The Prince* in *Great Books of the Western World,* see Vol. 21."

The fourth heading needs no further explanation, but something more must be said about the three principal headings of each syntopical unit. Let us take these up in the order in which they occur.

(1) SUGGESTED READINGS IN THE *Syntopicon.* Here the subordinate entries consist of the names of one or more of the great ideas, concerning each of which there is a separate chapter in the *Syntopicon.* The great ideas referred to are listed in the alphabetical order in which they appear in the *Syntopicon.* In every case, the reference to a great idea is followed by the citation of the volume in the *Syntopicon* where that great idea is treated.

For example, an entry may read as follows: "CUSTOM AND CONVENTION, Vol. 1." The opening section in each chapter of the *Syntopicon* consists of an essay on the great idea that is the subject of that chapter, giving an account of its meanings, its development, and the major issues or problems that have been discussed. *If you own a* Syntopicon *it is strongly recommended that you read the essays on whatever ideas are cited under the first heading in the syntopical unit with which you happen to be dealing.*

In most cases, but not always, the citation of a chapter in the *Syntopicon* is followed by reference to one or more topics that are especially of interest to the reader in connection with the work in Gateway under consideration. For example, in the case of Darwin's *Autobiography,* the user of the Syntopical Guide will find a reference that runs as follows:

> EVOLUTION, Vol. 1 especially
> Topic 5: The facts of evolution: evidences bearing on the history of life on earth

The user will also find a reference which involves two or more topics, as follows:

> SCIENCE, Vol. 2, especially
> Topic 2*b*: The comparison of science with poetry and history
> Topic 5*a*: The role of experience; observation and experiment

The one or more topics referred to in each case will be found in that section of a *Syntopicon* chapter which is called "*OUTLINE OF TOPICS.*" This always immediately follows the essay with which the chapter opens. It in turn is immediately followed by a section called "*REFERENCES.*" Here owners of the *Syntopicon* will again find the particular topics to which they have been referred, but now under each topic are listed references to the relevant passages in *Great*

Books of the Western World. Hence they can look up for themselves passages in Great Books that are related to the selection in Gateway in which they happen to be interested; and they can do this in the light of the topic under which these passages are assembled.

Readers of Gateway who do not own a *Syntopicon* cannot, of course, make the aforementioned use of these references to the great ideas and topics under them; but they should not therefore dismiss them entirely. They have considerable significance, inasmuch as they indicate the principal themes or subjects being discussed or treated in the Gateway selection under consideration. In addition, they control the content of the next two parts of the syntopical unit. The related authors or works in *Great Books of the Western World* or in *Gateway to the Great Books* are related to the Gateway selection under consideration precisely because they are relevant to the same general themes or subjects—those indicated by the ideas and topics cited under the first principal heading of each syntopical unit.

(2) RELATED AUTHORS AND WORKS IN *Great Books of the Western World.* Here the subordinate entries consist of references to authors in the Great Books set, listed in the order in which they appear in that set, according to volume number. In addition to giving the number of the volume in which the author appears, the reference always gives the title of the work by the author who is being referred to. Sometimes the whole work is cited, but more frequently the reference is to a relatively short passage or series of passages. Where the work as a whole is cited, the reference is simply to the volume number; but where a short passage is cited, the reference will sometimes give the part of the work from which it is taken as well as the volume number. The following examples represent three different typical styles of reference:

(i) Shakespeare, Vol. 24, *Romeo and Juliet*
(which is a reference to the whole play)
(ii) Plato, Vol. 6, *Apology*
(which is a reference to one of the dialogues)
(iii) Lucretius, Vol. 11, *The Way Things Are,* Bk. I and Bk. II
(which is a reference to two passages in the work)

(3) RELATED AUTHORS AND WORKS IN *Gateway to the Great Books.* Here the subordinate entries consist of references to authors in the Gateway set, listed in alphabetical order—the order in which they appear in the Syntopical Guide. As contrasted with the refer-

ences above to related authors in the Great Books set, most of which cite relatively short passages rather than whole works, the references to related authors in the Gateway set always cite the whole selection as it appears in Gateway.

Readers of Gateway who also own Great Books will be able to make use of the references given under the first and second headings. For them, the second heading supplements the first in the following fashion.

The references given under the second heading recommend works or passages in the Great Books set which, in the judgment of the editors, are most germane to the selection in Gateway under consideration; *i.e.,* they are works or passages which are most relevant to the ideas or topics treated in that Gateway selection. Under the first heading, those same ideas or topics are cited. Readers who look up all the passages in the Great Books cited under the ideas and topics mentioned will have undertaken the fullest possible exploration of related passages, and will necessarily have found passages varying widely in degree of relevance, not just the ones that are most germane.

Thus the entries under the first heading provide readers with a way of making the fullest possible exploration of related passages in the Great Books set, whereas the entries under the second heading enable them to confine themselves to the most relevant of related passages, selected by the editors. The latter entries are clearly not meant to be exhaustive. Readers who wish to make a more exhaustive exploration of related passages in Great Books can do so by using the *Syntopicon* with the guidance of the entries under the first heading.

So much for readers who own both sets. We have already pointed out the significance of the first heading for readers who have only *Gateway to the Great Books* (see page 96, above). For such readers, the second heading has only the minimum utility of calling to their attention, for later study, related authors and works in Great Books. So far as further syntopical reading is concerned, it is the entries under the third heading which are of maximum utility at once; for, by using them, readers can turn from the selection in Gateway that they are reading to other related selections in this set.

A syntopical reading of the contents of Gateway is, of course, not the only way to read this set. Another way, which many readers may prefer, is suggested elsewhere—dipping in here and there, accord-

ing to one's individual taste or fancy. There is still another way of reading the materials here contained: Start with the easiest or most readable selections and go on, in progressive stages of reading, to more and more difficult ones.

For those who wish to proceed in this latter fashion, the Plan of Graded Reading (set forth in the Appendix, which follows the Syntopical Guide) lists the selections in Gateway in an order that roughly corresponds to ascending grades of difficulty. This Plan enables the individual to pursue an organized course of readings in this set.

It differs from the Syntopical Guide in that it recommends the reading of whole works, one after another, *without regard* to their special relevance to one another (though the Plan does group the readings in Gateway according to the type of literature to which they belong); whereas, in contrast, the Syntopical Guide recommends the reading of related works *without regard* to their level of difficulty.

HENRY ADAMS, 1838–1918

"The United States in 1800"

from *History of the United States of America*
Vol. 6, pages 322–359

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 2: The derogation of democracy: the anarchic tendency of freedom and equality

LABOR, Vol. 1, especially
Topic 7*f*: The relation of economic to political freedom: economic democracy

LIBERTY, Vol. 1, especially
Topic 6*a*: The historical significance of freedom: stages in the realization of freedom; the beginning and end of the historical process

PROGRESS, Vol. 2, especially
Topic 1: The idea of progress in the philosophy of history
Topic 6: Intellectual or cultural progress: its sources and impediments; the analogy of cultural progress to biological evolution

STATE, Vol. 2, especially
Topic 4: The physical foundations of society: the geographic and biologic conditions of the state
Topic 9*a*: Commerce and trade between states: commercial rivalries and trade agreements; free trade and tariffs
WEALTH, Vol. 2, especially
Topic 3: The production of wealth in the political community

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VIII
Smith, Vol. 36, *Wealth of Nations,* Bk. IV, Chap. I
Articles of Confederation, Vol. 40
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 13–14
Hegel, Vol. 43, *Philosophy of Right,* Third Part; *Philosophy of History,* Fourth Part
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chaps. 7–8

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Calhoun, "Concurrent Majority," Vol. 7
Crèvecoeur, "Making of Americans," Vol. 6
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Great Documents, *Virginia Declaration of Rights; Declaration of Independence,* Vol. 6
Guizot, "Civilization," Vol. 6
Jefferson, *First Inaugural Address,* Vol. 6
Lincoln, *Address at Cooper Institute,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Washington, *Farewell Address,* Vol. 6

St. Thomas Aquinas

Vol. 10, pages 422–450

SUGGESTED READINGS IN THE *Syntopicon*

GOD, Vol. 1, especially
Topic 2*b*: The evidences and proofs of God's existence
Topic 5*a*: God as first and as exemplar cause: the relation of divine to natural causation
Topic 5*g*: God's will: divine choice
MIND, Vol. 2, especially
Topic 2*a*: The immateriality of mind: mind as an immaterial principle, a spiritual substance, or as an incorporeal power functioning without a bodily organ

WILL, Vol. 2, especially
Topic 4*a*: The relation of the divine will and intellect
Topic 6*b*: The distinction between the will's freedom of exercise and the will's freedom of choice

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 1–11
Dante, Vol. 19, *Divine Comedy,* Paradise, Cantos I, X–XII, XXXIII
Montaigne, Vol. 23, *Apology for Raymond Sebond*
Descartes, Vol. 28, *Meditation III*
Spinoza, Vol. 28, *Ethics,* Part I
Pascal, Vol. 30, *Pensées,* Sect. IV, VII, VIII
Locke, Vol. 33, *Essay Concerning Human Understanding,* Bk. II, Chaps. XXI, XXIII
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. XI
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture 35

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Ethics of Belief,* Vol. 10
Eliot, T. S., *Dante,* Vol. 5
Emerson, *Nature,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Mill, J. S., *Nature,* Vol. 10
Singer, *Spinoza of Market Street,* Vol. 3
Tolstoy, *Three Hermits,* Vol. 3

For Aquinas' *Summa Theologica* in *Great Books of the Western World,* see Vols. 17–18

SHERWOOD ANDERSON, 1876–1941

I'm a Fool

Vol. 2, pages 511–520

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 5*b*: The effect of custom on the training and character of men
Topic 7*d*: The influence of custom on the liberty of the individual: the force of discipline
DESIRE, Vol. 1, especially
Topic 2*b*: The objects of desire: the good and the pleasant

Topic 2*c*: Desire as a cause of action: motivation, purpose, ambition; voluntariness
HAPPINESS, Vol. 1, especially
Topic 2*b*(5): The importance of friendship and love for happiness
TRUTH, Vol. 2, especially
Topic 8*c*: Truth and falsehood in relation to love and friendship: the pleasant and the unpleasant truth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Symposium*
Montaigne, Vol. 23, *Of giving the lie*
Shakespeare, Vol. 24, *Much Ado About Nothing; As You Like It*
Pascal, Vol. 30, *Pensées,* Sect. II
Melville, Vol. 48, *Moby Dick,* Chap. 10

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Balzac, *Passion in the Desert,* Vol. 3
Bunin, *Gentleman from San Francisco,* Vol. 3
Conrad, *Youth,* Vol. 2
Dostoevsky, *White Nights,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Plutarch, *Of Bashfulness,* Vol. 7
Turgenev, *First Love,* Vol. 3

ANONYMOUS, *c.* early 13th century

Aucassin and Nicolette

Vol. 2, pages 523–551

SUGGESTED READINGS IN THE *Syntopicon*

ETERNITY, Vol. 1, especially
Topic 4*d*: The eternity of Heaven and Hell: everlasting life and death
Topic 5: The knowledge and imagery of eternity
LOVE, Vol. 1, especially
Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force
Topic 2*c*: Romantic, chivalric, and courtly love: the idealization and supremacy of the beloved

POETRY, Vol. 2, especially
Topic 1: The nature of poetry: its distinction from other arts
Topic 6*a*: The expression of emotion in poetry
Topic 7*d*: Spectacle and song in drama

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plotinus, Vol. 11, *Third Ennead,* Seventh Tractate
Dante, Vol. 19, *Divine Comedy,* Paradiso, Canto II
Chaucer, Vol. 19, *Troilus and Criseyde,* Bk. II
Shakespeare, Vol. 24, *Romeo and Juliet*
Milton, Vol. 29, *Psalm LXXXVII; Paradise Lost,* Bk. III
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. IV–VI
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Of Love,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Chekhov, *Darling,* Vol. 3; *Cherry Orchard,* Vol. 4
Dostoevsky, *White Nights,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Turgenev, *First Love,* Vol. 3

LUCIUS APULEIUS, fl. 2nd century A.D.

"Cupid and Psyche"
from *The Golden Ass*
Vol. 3, pages 197–212

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 3: Beauty in relation to desire and love, as object or cause
Topic 4: Beauty and ugliness in relation to pleasure and pain or good and evil
GOD, Vol. 1, especially
Topic 1*a*: The nature and existence of the gods
Topic 1*c*: The intervention of the gods in the affairs of men: their judgment of the deserts of men

LOVE, Vol. 1, especially
Topic 1*d*: The aims and objects of love
Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Cratylus; Symposium*
Virgil, Vol. 12, *Aeneid,* Bk. IV
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto V
Chaucer, Vol. 19, *Troilus and Criseyde*
Shakespeare, Vol. 24, *Romeo and Juliet*
Freud, Vol. 54, *On Narcissism; The Ego and the Id*
Mann, Vol. 59, *Death in Venice*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Anonymous, *Aucassin and Nicolette,* Vol. 2
Bacon, *Of Beauty,* Vol. 5; *Of Love,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
Dostoevsky, *White Nights,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Pater, "Art of Life," Vol. 10
Turgenev, *First Love,* Vol. 3

MATTHEW ARNOLD, 1822–1888

The Study of Poetry

Vol. 5, pages 19–41

SUGGESTED READINGS IN THE *Syntopicon*

POETRY, Vol. 2, especially
Topic 2: The origin and development of poetry: the materials of myth and legend
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet
Topic 8*a*(2): Poetic truth: verisimilitude or plausibility; the possible, the probable, and the necessary
TRUTH, Vol. 2, especially
Topic 4*b*: Truth in science and poetry: the truth of fact and the truth of fiction

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *On Poetics*
Montaigne, Vol. 23, *Of books*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 32, 47–50
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Descartes, Vol. 28, *Discourse on Method,* Part I
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
James, W., Vol. 53, *Principles of Psychology,* Chap. XXI
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Beauty,* Vol. 5; *Of Truth,* Vol. 10
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Eliot, T. S., *Dante; Tradition and the Individual Talent,* Vol. 5
Hazlitt, *My First Acquaintance with Poets; Of Persons One Would Wish to Have Seen,* Vol. 5
Johnson, *Preface to Shakespeare,* Vol. 5
Lamb, *Sanity of True Genius,* Vol. 5
Mill, J. S., "Childhood and Youth," Vol. 6
Pater, "Art of Life," Vol. 10
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Santayana, *Lucretius; Goethe's Faust,* Vol. 10
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Style,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Whitman, *Preface to Leaves of Grass,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

Sweetness and Light

Vol. 5, pages 42–61

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 1*a*: The beautiful and the good: beauty as a kind of fitness or order
PROGRESS, Vol. 2, especially
Topic 1*b*: Optimism or meliorism: the doctrine of human perfectibility
Topic 6: Intellectual or cultural progress: its sources and impediments; the analogy of cultural progress to biological evolution
VIRTUE AND VICE, Vol. 2, especially
Topic 4*d*(4): The influence on moral character of poetry, music, and other arts: the guidance of history and example

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Symposium*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 47–50
Bacon, Vol. 28, *Advancement of Learning*
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* First Part
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. VIII–X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Beauty,* Vol. 5
Chekhov, *Darling,* Vol. 3
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Epictetus, *Enchiridion,* Vol. 10
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Guizot, "Civilization," Vol. 6
Hume, *Of the Standard of Taste,* Vol. 5
Pater, "Art of Life," Vol. 10
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Tolstoy, *What Men Live By,* Vol. 3
Voltaire, "English Men and Ideas," Vol. 7
Whitman, *Preface to Leaves of Grass,* Vol. 5

SIR FRANCIS BACON, 1561–1626

Of Beauty

Vol. 5, page 94

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 1*a*: The beautiful and the good: beauty as a kind of fitness or order
Topic 1*c*: The elements of beauty: unity, proportion, clarity
TRUTH, Vol. 2, especially
Topic 1*c*: The relation of truth, goodness, and beauty

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus*
Plotinus, Vol. 11, *First Ennead,* Sixth Tractate
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 5, Art. 4; Part I–II, Q 27, Art. 1

Pascal, Vol. 30, *Pensées,* Sect. I
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. I
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Apuleius, "Cupid and Psyche," Vol. 3
Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
De Quincey, *On the Knocking at the Gate in Macbeth,* Vol. 5
Fabre, *Laboratory of the Open Fields,* Vol. 8
Hume, *Of the Standard of Taste,* Vol. 5
Pater, "Art of Life," Vol. 10
Schopenhauer, *On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5

Of Discourse

Vol. 5, pages 95–96

SUGGESTED READINGS IN THE *Syntopicon*

DIALECTIC, Vol. 1, especially
Topic 2*b*(2): The technique of question and answer
OPINION, Vol. 2, especially
Topic 2*c*: Reasoning and argument concerning matters of opinion: comparison of demonstration and persuasion, principles and assumptions, axioms and postulates
RHETORIC, Vol. 2, especially
Topic 2*a*: The devices of rhetoric: figures of speech; the extension and contraction of discourse

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. VI–VII
Aristotle, Vol. 7, *Topics,* Bk. VIII; Vol. 8, *Rhetoric,* Bk. I, Chaps. 1–2; Bk. II, Chaps. 18–26
Montaigne, Vol. 23, *Of the art of discussion*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Mill, J. S., Vol. 40, *On Liberty,* Chap. 2

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Dewey, "Process of Thought," Vol. 10
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
Kipling, *Mowgli's Brothers,* Vol. 2
Mill, J. S., "Childhood and Youth," Vol. 6
Tolstoy, *Three Hermits,* Vol. 3
Voltaire, "Philosophy of Common Sense," Vol. 10

Of Studies

Vol. 5, pages 97–98

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 5*c*: The nature of learning: its several modes
MIND, Vol. 2, especially
Topic 1*a*(3): The functioning of intellect: the acts of understanding, judgment, and reasoning

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. VI–VII
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q. 85, Art. 1–Q. 87, Art. 3
Montaigne, Vol. 23, *Of books*
Bacon, Vol. 28, *Advancement of Learning,* First Book
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rules VIII–XII; *Discourse on Method,* Part I
Dewey, Vol. 55, *Experience and Education*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Mill, J. S., "Childhood and Youth," Vol. 6
Saint-Beuve, *What Is a Classic?,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5; *On Education,* Vol. 7
Tolstoy, *Three Hermits,* Vol. 3
Woolf, *How Should One Read a Book?,* Vol. 5

Of Youth and Age

Vol. 7, pages 3–4

SUGGESTED READINGS IN THE *Syntopicon*

FAMILY, Vol. 1, especially
Topic 6*c*: The condition of immaturity
Topic 6*e*: The initiation of children into adult life
MAN, Vol. 2, especially
Topic 6*c*: The ages of man: infancy, youth, maturity, senescence; generational conflict

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. I, VI, VII

Aristotle, Vol. 7, *On the Soul,* Bk. I, Chap. 4; Vol. 8, *Nicomachean Ethics,* Bk. I, Chap. 4; Bk. VI, Chap. 8; *Politics,* Bk. VII, Chap. 13; Bk. VIII, Chap. 7; *Rhetoric,* Bk. II, Chaps. 12–16
Montaigne, Vol. 23, *Of age; All things have their season; On some verses of Virgil*
Shakespeare, Vol. 24, *As You Like It,* Act II, Scene VII; Vol. 25, *King Lear,* especially Act I, Scene I
Swift, Vol. 34, *Gulliver's Travels,* Part III, Chap. X
Hamilton, Madison, Jay, Vol. 40; *Federalist,* No. 79
Boswell, Vol. 41, *Life of Samuel Johnson*
Twain, Vol. 48, *Adventures of Huckleberry Finn*
Tolstoy, Vol. 51, *War and Peace,* Bk. 8, Chaps. II–IV; Bk. 13, Chap. XVII
Ibsen, Vol. 52, *Wild Duck*
James, W., Vol. 53, *Principles of Psychology,* Chaps. XI, XV, XXIV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Cicero, *On Old Age,* Vol. 10
Conrad, *Youth,* Vol. 2
Galsworthy, *Apple-Tree,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Lamb, *Dream Children,* Vol. 5
Mill, J. S., "Childhood and Youth," Vol. 6
Plutarch, *Of Bashfulness,* Vol. 7; *Contentment,* Vol. 10
Singer, *Spinoza of Market Street,* Vol. 3
Swift, *Resolutions When I Come to be Old,* Vol. 7
Turgenev, *First Love,* Vol. 3

Of Parents and Children
Of Marriage and Single Life

Vol. 7, pages 5–8

SUGGESTED READINGS IN THE *Syntopicon*

FAMILY, Vol. 1, especially
Topic 4: The institution of marriage: its nature and purpose
Topic 4*c*: Matrimony and celibacy
Topic 6: Parents and children: fatherhood, motherhood
Topic 6*a*: The desire for offspring: the birthrate
Topic 7*c*: Patterns of friendship in the extended family
Topic 8: Historical observations on the institution of marriage and the family
LOVE, Vol. 1, especially
Topic 2*b*(4): Patterns of love and friendship in the family
Topic 2*d*: Conjugal love: its sexual, fraternal, and romantic components

VIRTUE AND VICE, Vol. 2, especially
Topic 4*d*(1): The influence of parental authority on the formation of character

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. V
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. VIII, Chaps. 7–14; *Politics,* Bk. VII, Chaps. 16–17
Chaucer, Vol. 19, *Canterbury Tales,* Wife of Bath's Prologue; Merchant's Prologue; Epilogue to the Merchant's Tale
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 1–11; Bk. II, Chap. 8; Bk. III, Chaps. 9–49; Bk. IV, Chap. 9
Montaigne, Vol. 23, *Of the affection of fathers for their children; On some verses of Virgil*
Shakespeare, Vol. 24, *King Henry IV,* First Part, Act III, Scene II; Vol. 25, *King Lear*
Molière, Vol. 31, *School for Wives*
Locke, Vol. 33, *Concerning Civil Government,* Chap. VI
Tolstoy, Vol. 51, *War and Peace,* Bk. 3, Chaps. I–VI; First Epilogue, Chaps. V–XVI
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part I, Bk. I; Bk. II, Chap. 6; Bk. III, Chap. 9; Part II, Bk. IV, Chap. 2; Part III, Bk. VIII, Chap. 4; Part IV, Bk. XI, Chaps. 7–8; Bk. XII
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture 33
Woolf, Vol. 60, *To the Lighthouse*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Chekhov, *Darling,* Vol. 3
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
Dinesen, *Sorrow-Acre,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Lawrence, *Rocking-Horse Winner,* Vol. 3
Mill, J. S., "Childhood and Youth," Vol. 6
Molière, *Doctor in Spite of Himself,* Vol. 4
Synge, *Riders to the Sea,* Vol. 4
Turgenev, *First Love,* Vol. 3

Of Great Place

Vol. 7, pages 9–11

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
- Topic 2: Honor and fame in the life of the individual
- Topic 2*b*: Honor as an object of desire and as a factor in virtue and happiness: flattery, imitation, or emulation
- Topic 3: The social realization of honor and fame
- Topic 3*b*: The conditions of honor or fame and the causes of dishonor or infamy
- Topic 5*a*: Honor as a motivation of heroism

STATE, Vol. 2, especially
- Topic 8: The functions of the statesman, king, or prince
- Topic 8*b*: The qualities or virtues necessary for the good statesman or king
- Topic 8*e*: The advantages and disadvantages of participation in political life

VIRTUE AND VICE, Vol. 2, especially
- Topic 7*d*: The virtues which constitute the good or successful ruler: the vices associated with the possession of power

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Seventh Letter*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. IV, Chap. 4
Epictetus, Vol. 11, *Discourses,* Bk. I, Chaps. 19, 21
Aurelius, Vol. 11, *Meditations,* Bk. I
Machiavelli, Vol. 21, *Prince,* Chaps. XV–XXV
Montaigne, Vol. 23, *Of glory; Of the disadvantage of greatness*
Shakespeare, Vol. 24, *King Richard II; King Henry IV,* First Part; *King Henry V,* Act IV, Scene I; *Julius Caesar,* Act III, Scene II
Tolstoy, Vol. 51, *War and Peace,* Bk. 3, Chap. XIX; Bk. 6, Chaps. IV–VI, XVIII; Bk. 9, Chap. I; First Epilogue, Chaps. I–IV
Weber, Vol. 58, *Essays in Sociology,* Chap. IV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Carlyle, *Hero as King,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
James, W., *Great Men and Their Environment,* Vol. 7
La Bruyère, *Characters,* Vol. 6
Long, *Power within Us,* Vol. 6
Macaulay, *Machiavelli,* Vol. 7
O'Neill, *Emperor Jones,* Vol. 4
Plutarch, *Contentment,* Vol. 10
Shaw, *Man of Destiny,* Vol. 4
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Washington, *Farewell Address,* Vol. 6

Of Seditions and Troubles

Vol. 7, pages 12–17

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 3: The causes of degeneration or instability in aristocracies: aristocracy and revolution
CONSTITUTION, Vol. 1, especially
Topic 7: The preservation of constitutions: factors tending toward their dissolution
OLIGARCHY, Vol. 2, especially
Topic 3: The instability of oligarchic government
REVOLUTION, Vol. 2, especially
Topic 1*b*: The definition of treason or sedition: the revolutionist as a treasonable conspirator
Topic 3*b*: Ways of retaining power: the suppression and subversion of revolutions by tyrants, despots, and totalitarian states

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Thucydides, Vol. 5, *History of the Peloponnesian War,* Bk. III, Chap. IX
Plato, Vol. 6, *Republic,* Bks. VIII–IX
Aristotle, Vol. 8, *Politics,* Bk. V
Machiavelli, Vol. 21, *Prince,* Chaps. VIII, XXVI
Hobbes, Vol. 21, *Leviathan,* Part II, Chaps. 29–30
Shakespeare, Vol. 24, *King Richard II; Julius Caesar;* Vol. 25, *Coriolanus*
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XVI–XIX
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 9–10
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chap. 10
Marx and Engels, Vol. 50, *Manifesto of the Communist Party*
Tolstoy, Vol. 51, *War and Peace,* First Epilogue, Chap. XIV
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Hugo, "Battle with the Cannon," Vol. 2
Lincoln, *Address at Cooper Institute; First Inaugural Address; Letter to Horace Greeley; Gettysburg Address,* Vol. 6
Macaulay, *Machiavelli,* Vol. 7
O'Neill, *Emperor Jones,* Vol. 4
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Thoreau, *Plea for Captain John Brown,* Vol. 6

Washington, *Circular Letter to the Governors of All the States on Disbanding the Army; Farewell Address,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

Of Custom and Education

Vol. 7, pages 18–19

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 2: The origin, development, and transmission of customs
Topic 5*b*: The effect of custom on the training and character of men
Topic 7*d*: The influence of custom on the liberty of the individual: the force of discipline
Topic 8: Custom in relation to order and progress: the factors of tradition and invention
EDUCATION, Vol. 1, especially
Topic 4*c*: The role of the state in moral education: law, custom, public opinion
GOOD AND EVIL, Vol. 1, especially
Topic 6*d*: The possibility of moral knowledge: the subjectivity or conventionality of judgments of good and evil
HABIT, Vol. 1, especially
Topic 6: The force of habit in human life
Topic 7: The social significance of habit: habit in relation to law
LAW, Vol. 1, especially
Topic 5*f*: The relation of positive law to custom
VIRTUE AND VICE, Vol. 2, especially
Topic 4*d*(3): The guidance of laws and customs: the limits of positive law with respect to commanding virtue and prohibiting vice

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. II, Chaps. 1–4; Bk. X, Chap. 9; *Politics,* Bk. VII, Chap. 13–Bk. VIII, Chap. 7
Augustine, Vol. 16, *Confessions,* Bk. I
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q. 97, Art. 3
Montaigne, Vol. 23, *Of custom; Of cannibals; Of practice; Of cruelty; Of virtue*
Descartes, Vol. 28, *Discourse on Method,* Parts I, II, III
Spinoza, Vol. 28, *Ethics,* Part I, Appendix
Mill, J. S., Vol. 40, *On Liberty,* Chap. 3

Nietzsche, Vol. 43, *Beyond Good and Evil,* Part Five
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chap. 2
James, W., Vol. 53, *Principles of Psychology,* Chap. IV
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. VIII
Dewey, Vol. 55, *Experience and Education*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Faraday, *Observations on Mental Education,* Vol. 7
Kipling, *Mowgli's Brothers,* Vol. 2
Mill, J. S., "Childhood and Youth," Vol. 6
Pater, "Art of Life," Vol. 10
Schopenhauer, *On Education,* Vol. 7
Swift, *Essay on Modern Education,* Vol. 7
Twain, "Learning the River," Vol. 6

Of Followers and Friends

Vol. 7, pages 20–21

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 4*c*: Honor as a political technique: the uses of praise, prestige, public opinion
JUSTICE, Vol. 1, especially
Topic 9*e*: The just distribution of honors, ranks, offices, suffrage
LOVE, Vol. 1, especially
Topic 2*b*(3): The types of friendship: friendships based on utility, pleasure, or virtue

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Lysis*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. VIII, Chaps. 2–8; Bk. VIII, Chap. 13
Machiavelli, Vol. 21, *Prince,* Chaps. XVII, XXI–XXII
Montaigne, Vol. 23, *Of honorary awards*
Shakespeare, Vol. 25, *King Lear,* Act III
Gibbon, Vol. 38, *Decline and Fall of the Roman Empire,* Chap. LIII
Weber, Vol. 58, *Essays in Sociology,* Chap. VII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Cicero, *On Friendship,* Vol. 10
La Bruyère, *Characters,* Vol. 6
Maupassant, *Two Friends,* Vol 2
Molière, *Misanthrope,* Vol. 4
Sheridan, *School for Scandal,* Vol. 4

Of Usury

Vol. 7, pages 22–24

SUGGESTED READINGS IN THE *Syntopicon*

JUSTICE, Vol. 1, especially
Topic 8*d*: Justice and the use of money: usury and interest rates
WEALTH, Vol. 2, especially
Topic 5*e*: The rate of interest on money: factors that determine the rate of interest; the effect of interest rates on the economy; the condemnation of usury
Topic 6*d*(1): The distinction of profit from rent, interest, and wages

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Politics,* Bk. I, Chaps. 9–10
Shakespeare, Vol. 24, *Merchant of Venice,* Act I, Scene III
Pascal, Vol. 30, *Provincial Letters,* Letter VIII
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chap. IX
Marx, Vol. 50, *Capital,* Part VIII, Chap. XXXI
Keynes, Vol. 57, *General Theory of Employment, Interest and Money,* Chaps. 13–14, 23

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Hume, *Of Money,* Vol. 7

Of Riches

Vol. 7, pages 25–27

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
Topic 2*b*(1): The contribution of the goods of fortune to happiness: wealth, health, longevity
JUSTICE, Vol. 1, especially
Topic 8*d*: Justice and the use of money: usury and interest rates
NATURE, Vol. 2, especially
Topic 5*b*: Natural inclinations and natural needs with respect to property and wealth
NECESSITY AND CONTINGENCY, Vol. 2, especially
Topic 5*e*: Economic necessities or luxuries
VIRTUE AND VICE, Vol. 2, especially
Topic 6*c*: The relation of virtue to wealth: the religious basis of economic behavior; the work ethic
WEALTH, Vol. 2, especially
Topic 10: The moral aspects of wealth and poverty

Topic 10*a*: The nature of wealth as a good: its place in the order of goods and its relation to happiness
Topic 10*c*: Temperance and intemperance with respect to wealth: liberality, magnificence, miserliness, avarice; the corrupting influence of excessive wealth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Wealth*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. IV, Chaps. 1–2; *Politics,* Bk. I, Chaps. 9–12
Montaigne, Vol. 23, *That the taste of good and evil depends in large part on the opinion we have of them*
Pascal, Vol. 30, *Provincial Letters,* Letter XII
Molière, Vol. 31, *Miser*
Dickens, Vol. 47, *Little Dorrit,* Bk. I, Chaps. 33–36; Bk. II, Chap. 13
Marx and Engels, Vol. 50, *Manifesto of the Communist Party,* Chap. II
Tolstoy, Vol. 51, *War and Peace,* Book 14, Chap. XII
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chap. 5; Bk. VI, Chap. 3
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 1–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bunin, *Gentleman from San Francisco,* Vol. 3
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Hume, *Of Money,* Vol. 7
La Bruyère, *Characters,* Vol. 6
Lawrence, *Rocking-Horse Winner,* Vol. 3
Pushkin, *Queen of Spades,* Vol. 3
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

The Sphinx

Vol. 8, pages 2–4

SUGGESTED READINGS IN THE *Syntopicon*

KNOWLEDGE, Vol. 1, especially
Topic 2: Man's natural desire and power to know
Topic 8: The use and value of knowledge
MAN, Vol. 2, especially
Topic 2*b*: The sciences of human nature: anthropology and psychology; ethnography and ethnology; rational and empirical psychology; experimental and clinical psychology
Topic 10*c*: Man as an integral part of the universe: his station in the cosmos
REASONING, Vol. 2, especially

Topic 5*b*: Scientific reasoning: the theory of demonstration
SCIENCE, Vol. 2, especially
Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit
Topic 3: The relation of science to action and production
Topic 4: The nature of scientific knowledge
Topic 7: The evaluation of science

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Oedipus the King*
Descartes, Vol. 28, *Discourse on Method,* Part VI
Kant, Vol. 39, *Critique of Pure Reason*
Goethe, Vol. 45, *Faust,* Part One
Weber, Vol. 58, *Essays in Sociology,* Chap. V
Lévi-Strauss, Vol. 58, *Structural Anthropology,* Introduction; Chap. XVII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Measurement,* Vol. 9
Emerson, *Nature,* Vol. 10
Guizot, "Civilization" Vol. 6
Mill, J. S., *Nature,* Vol. 10
Tyndall, "Michael Faraday," Vol. 8

Of Truth

Vol. 10, pages 346–347

SUGGESTED READINGS IN THE *Syntopicon*

TRUTH, Vol. 2, especially
Topic 4*b*: Truth in science and poetry: the truth of fact and the truth of fiction
Topic 8*a*: Prevarication and perjury: the injustice of lying or bearing false witness
Topic 8*e*: The love of truth and the duty to seek it: the moral distinction between the sophist and the philosopher; martyrdom to the truth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Protagoras*
Aristotle, Vol. 7, *Metaphysics,* Bk. IV, Chaps. 4–8; Vol. 8, *On Poetics,* Chaps. 24–26
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 16
Montaigne, Vol. 23, *Of liars; It is folly to measure the true and false by our own capacity; Of giving the lie; Of the useful and the honorable*
Pascal, Vol. 30, *Provincial Letters,* Letter XV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Arnold, *Study of Poetry,* Vol. 5
Campanella, "Arguments for and against Galileo," Vol. 8
Clifford, *Ethics of Belief,* Vol. 10
Emerson, *Montaigne; or, the Skeptic,* Vol. 10
James, W., *Will to Believe,* Vol. 10
Melville, *Billy Budd,* Vol. 3
Sheridan, *School for Scandal,* Vol. 4
Twain, *Man That Corrupted Hadleyburg,* Vol. 2
Voltaire, "Philosophy of Common Sense," Vol. 10

Of Death

Vol. 10, pages 348–349

SUGGESTED READINGS IN THE *Syntopicon*

IMMORTALITY, Vol. 1, especially
Topic 1: The desire for immortality: the fear of death
LIFE AND DEATH, Vol. 1, especially
Topic 7: The causes and occurrence of death: the transition from life to death; homicide
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Oedipus at Colonus; Antigone*
Plato, Vol. 6, *Apology; Crito; Phaedo*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. III, Chaps. 6–9
Lucretius, Vol. 11, *Way Things Are,* Bk. III
Augustine, Vol. 16, *Confessions,* Bk. IX
Montaigne, Vol. 23, *That to philosophize is to learn to die; That the taste of good and evil depends in large part on the opinion we have of them; A custom of the island of Cea; Apology for Raymond Sebond*
Shakespeare, Vol. 25, *Hamlet; Measure for Measure*
Spinoza, Vol. 28, *Ethics,* Part V, Props. 38–40
Goethe, Vol. 45, *Faust,* Part One; Part Two, Act V
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chap. XVI
Freud, Vol. 54, *Thoughts for the Times on War and Death*
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chap. XI
Hemingway, Vol. 60, *Short Happy Life of Francis Macomber*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Browne, "Immortality," Vol. 10
Butler, "Customs and Opinions of the Erewhonians," Vol. 2

Cicero, *On Old Age,* Vol. 10
Crane, *Open Boat,* Vol. 3
Epictetus, *Enchiridion,* Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Hemingway, *Killers,* Vol. 2
Maupassant, *Two Friends,* Vol. 2
O'Neill, *Emperor Jones,* Vol. 4
Pliny, "Eruption of Vesuvius," Vol. 6
Poe, *Masque of the Red Death,* Vol. 2
Santayana, *Lucretius,* Vol. 10
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3
Whitman, *Preface to Leaves of Grass,* Vol. 5; *Death of Abraham Lincoln,* Vol. 6

Of Adversity

Vol. 10, page 350

SUGGESTED READINGS IN THE *Syntopicon*

OPPOSITION, Vol. 2, especially
Topic 5*d*: Opposition or strife as a productive principle or source of progress
PLEASURE AND PAIN, Vol. 2, especially
Topic 8*a*: Pleasure and pain in relation to virtue: the restraints of temperance and the endurance of courage

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Augustine, Vol. 16, *City of God,* Bk. V, Chaps. 11–26
Spinoza, Vol. 28, *Ethics,* Part IV, Props. 46–73
Milton, Vol. 29, *Areopagitica*
Hegel, Vol. 43, *Philosophy of History,* Second Part
Goethe, Vol. 45, *Faust,* Part Two, Act V
Eliot, G., Vol. 46, *Middlemarch*
Tolstoy, Vol. 51, *War and Peace,* Bk. 13, Chap. XII; Bk. 14, Chap. XII; Bk. 15, Chaps. XII–XIII
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Crane, *Open Boat,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Emerson, *Self-Reliance,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Gogol, *Overcoat,* Vol. 2
Hugo, "Battle with the Cannon," Vol. 2

Ibsen, *Enemy of the People,* Vol. 4
James, W., *Energies of Men,* Vol. 7
Long, *Power within Us,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
O'Neill, *Emperor Jones,* Vol. 4
Synge, *Riders to the Sea,* Vol. 4
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Xenophon, "March to the Sea," Vol. 6

Of Love

Vol. 10, pages 351–352

SUGGESTED READINGS IN THE *Syntopicon*

LOVE, Vol. 1, especially
Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force
Topic 2*a*: Erotic love as distinct from lust or sexual desire
Topic 2*b*: Friendly, tender, or altruistic love: fraternal love

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus; Symposium*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bks. VIII–IX
Augustine, Vol. 16, *Confessions,* Bk. VIII
Dante, Vol. 19, *Divine Comedy,* Purgatorio, Cantos XVI–XVII
Shakespeare, Vol. 24, *Much Ado About Nothing; As You Like It;* Vol. 25, *Othello*
Spinoza, Vol. 28, *Ethics,* Part III, Props. 15–50, 59
Goethe, Vol. 45, *Faust,* Part One
Tolstoy, Vol. 51, *War and Peace,* Bk. 6, Chaps. II, XVI–XVII, XIX, XXI–XXIV; Bk. 8, Chaps. X–XXII; Bk. 10, Chaps. XXXVI–XXXVII; Bk. 11, Chaps. XXXI–XXXII; Bk. 12, Chaps. XIV–XVI
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. VI; Part III, Bk. VII, Chap. 4
Freud, Vol. 54, *Civilization and Its Discontents*
Proust, Vol. 59, *Swann in Love*
Cather, Vol. 59, *Lost Lady*
Mann, Vol. 59, *Death in Venice*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Balzac, *Passion in the Desert,* Vol. 3
Chekhov, *Darling,* Vol. 3
Cicero, *On Friendship,* Vol. 10

Dinesen, *Sorrow-Acre,* Vol. 3
Dostoevsky, *White Nights,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Molière, *Misanthrope,* Vol. 4
Sheridan, *School for Scandal,* Vol. 4
Singer, *Spinoza of Market Street,* Vol. 3
Tolstoy, *What Men Live By,* Vol. 3
Turgenev, *First Love,* Vol. 3
Wilde, *Happy Prince,* Vol. 2

Of Friendship

Vol. 10, pages 353–358

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 2*e*: Honor as the pledge of friendship: the codes of honor among social equals
LOVE, Vol. 1, especially
Topic 2*b*: Friendly, tender, or altruistic love: fraternal love
Topic 3*a*: Friendship and love in relation to virtue and happiness
Topic 3*d*: The heroism of friendship and the sacrifices of love
TRUTH, Vol. 2, especially
Topic 8*c*: Truth and falsehood in relation to love and friendship: the pleasant and the unpleasant truth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. XVI–XVIII, XXIII
Plato, Vol. 6, *Lysis*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bks. VIII–IX
Augustine, Vol. 16, *Confessions,* Bk. VII
Montaigne, Vol. 23, *Of friendship*
Spinoza, Vol. 28, *Ethics,* Part IV, Props. 70–73; Appendix I–XVII
Melville, Vol. 48, *Moby Dick,* Chaps. 3–4, 10
Twain, Vol. 48, *Adventures of Huckleberry Finn,* Chaps. 32–43
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chap. XIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Cicero, *On Friendship,* Vol. 10
Kipling, *Mowgli's Brothers,* Vol. 2
La Bruyère, *Characters,* Vol. 6
Maupassant, *Two Friends,* Vol. 2

Molière, *Misanthrope,* Vol. 4
Scott, *Two Drovers,* Vol. 2
Wilde, *Happy Prince,* Vol. 2

Of Anger

Vol. 10, pages 359–360

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
Topic 2*a*: Definitions of particular passions
Topic 2*b*: The order and connection of the passions
SIN, Vol. 2, especially
Topic 2*c*(1): The classification and order of mortal sins

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. I, XVIII–XXIV
Sophocles, Vol. 4, *Ajax*
Plato, Vol. 6, *Euthyphro*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. II, Chaps. 5–9; *Rhetoric,* Bk. II, Chaps. 2–4
Plotinus, Vol. 11, *Fourth Ennead,* Fourth Tractate
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto VII; Purgatorio, Canto XVI
Hobbes, Vol. 21, *Leviathan,* Part I, Chap. 6
Montaigne, Vol. 23, *Of anger*
Shakespeare, Vol. 25, *King Lear; Timon of Athens*
Spinoza, Vol. 28, *Ethics,* Part IV, Props. 34–37, 45–46
Milton, Vol. 29, *Paradise Lost,* Bk. I
Locke, Vol. 33, *Essay Concerning Human Understanding,* Bk. II, Chap. XX
James, W., Vol. 53, *Principles of Psychology,* Chap. XXIV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Plutarch, *Contentment,* Vol. 10
Poe, *Tell-Tale Heart,* Vol. 2
Scott, *Two Drovers,* Vol. 2

For other works by Bacon in *Great Books of the Western World,* see Vol. 28

HONORÉ DE BALZAC, 1799–1850

A Passion in the Desert

Vol. 3, pages 436–447

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1*a*(1): Animal sensitivity: its degrees and differentiations
Topic 1*c*(2): Comparison of animal with human intelligence
Topic 12*a*: The taming of animals: domestic breeds
Topic 13: The attribution of human qualities or virtues to animals: personification in allegory and satire; the transformation of humans into animals
EMOTION, Vol. 1, especially
Topic 1*c*: Instinctive emotional reactions in animals and men
Topic 5*b*: The acquisition and retention of power: love or fear
SIGN AND SYMBOL, Vol. 2, especially
Topic 1*c*: The things of nature functioning symbolically: the book of nature
Topic 3*a*: Verbal ambiguity: indefiniteness or multiplicity of meaning

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Odyssey,* Bk. XVII
Aristotle, Vol. 8, *History of Animals,* Bk. IX, Chaps. 1, 44; *Nicomachean Ethics,* Bk. VI, Chap. 7
Montaigne, Vol. 23, *Of cruelty; Apology for Raymond Sebond*
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Melville, Vol. 48, *Moby Dick,* Chaps. 132–135
Darwin, Vol. 49, *Descent of Man,* Part I, Chaps. III–IV
Conrad, Vol. 59, *Heart of Darkness*
Kafka, Vol. 60, *Metamorphosis*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Sphinx,* Vol. 8; *Of Love,* Vol. 10
Emerson, *Thoreau,* Vol. 6
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Kipling, *Mowgli's Brothers,* Vol. 2
Lawrence, *Rocking-Horse Winner,* Vol. 3

For Balzac's *Cousin Bette* in *Great Books of the Western World,* see Vol. 45

CLAUDE BERNARD, 1813–1878

Experimental Considerations Common to Living Things and Inorganic Bodies

Vol. 8, pages 266–290

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1*e*: The conception of the animal as a machine or automaton
CAUSE, Vol. 1, especially
Topic 2: Comparison of causes in animate and inanimate nature
Topic 5*b*: Cause in philosophical and scientific method: the role of causes in definition, demonstration, experiment, hypothesis
EXPERIENCE, Vol. 1, especially
Topic 5: The theory of experimentation in scientific method
HYPOTHESIS, Vol. 1, especially
Topic 4: The role of hypotheses in science
LIFE AND DEATH, Vol. 1, especially
Topic 2: Continuity or discontinuity between living and nonliving things: comparison of vital powers and activities with the potentialities and motions of inert bodies
MECHANICS, Vol. 2, especially
Topic 4*c*: The mechanistic versus the organismic account of nature
MEDICINE, Vol. 2, especially
Topic 2*a*: The scientific foundations of the art of medicine: the contrast between the empiric and the artist in medicine

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Hippocrates, Vol. 9, *Oath; On Ancient Medicine*
Galen, Vol. 9, *On the Natural Faculties,* Bk. I
Descartes, Vol. 28, *Discourse on Method,* Part V
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Preface, Bk. III
James, W., Vol. 53, *Principles of Psychology,* Chap. V
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture 35
Poincaré, Vol. 56, *Science and Hypothesis,* Part IV
Schrödinger, Vol. 56, *What Is Life?*
Waddington, Vol. 56, *Nature of Life*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Pavlov, *Scientific Study of the So-Called Psychical Processes in the Higher Animals,* Vol. 8
Wöhler, *On the Artificial Production of Urea,* Vol. 8

KEES BOEKE, 1884–1966

Cosmic View

Vol. 8, pages 600–644

SUGGESTED READINGS IN THE *Syntopicon*

ELEMENT, Vol. 1, especially
Topic 3*a*: Element and atom: qualitative and quantitative indivisibility
INFINITY, Vol. 1, especially
Topic 3*d*: The infinite extent of space or space as finite yet unbounded
Topic 4*b*: The infinite divisibility of matter: the issue concerning atoms or elementary particles
MATHEMATICS, Vol. 2, especially
Topic 5*a*: The art of measurement
QUANTITY, Vol. 2
WORLD, Vol. 2, especially
Topic 2: The universe and man: macrocosm and microcosm
Topic 5: The number of worlds: the uniqueness of this world; the possibility or actuality of other worlds
Topic 7: The space of the world: astronomical theories concerning the size or extent of the universe; the universe as finite yet unbounded; the universe as expanding or contracting

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Protagoras; Timaeus*
Pascal, Vol. 30, *Pensées,* Sect. II; *On Geometrical Demonstration*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy*
Faraday, Vol. 42, *Experimental Researches in Electricity*
Eddington, Vol. 56, *Expanding Universe*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Measurement,* Vol. 9

Epicurus, *Letter to Herodotus,* Vol. 10
Galileo, *Starry Messenger,* Vol. 8
Haldane, *On Being the Right Size,* Vol. 8
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9
Santayana, *Lucretius,* Vol. 10
Voltaire, *Micromégas,* Vol. 2; "English Men and Ideas," Vol. 7

SIR THOMAS BROWNE, 1605–1682

"Immortality"
from *Urn-Burial*
Vol. 10, pages 575–580

SUGGESTED READINGS IN THE *Syntopicon*

IMMORTALITY, Vol. 1, especially
Topic 1: The desire for immortality: the fear of death
Topic 6*b*: Enduring fame: survival in the memory
LIFE AND DEATH, Vol. 1, especially
Topic 8*e*: The ceremonials of death: the rites of burial in war and peace

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bk. XXIV
Aeschylus, Vol. 4, *Libation Bearers*
Sophocles, Vol. 4, *Antigone*
Euripides, Vol. 4, *Alcestis*
Herodotus, Vol. 5, *History,* Ninth Book
Plato, Vol. 6, *Symposium; Phaedo*
Montaigne, Vol. 23, *That to philosophize is to learn to die; Apology for Raymond Sebond*
Shakespeare, Vol. 25, *Hamlet; Winter's Tale*
Bacon, Vol. 28, *Advancement of Learning,* First Book
Frazer, Vol. 58, *Golden Bough,* Chap. LXVII, Part 4
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chap. XI
Shaw, Vol. 59, *Saint Joan,* Epilogue

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Cicero, *On Old Age,* Vol. 10
Emerson, *Thoreau,* Vol. 6
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Maupassant, *Two Friends,* Vol. 2

Poe, *Masque of the Red Death,* Vol. 2
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3
Whitman, *Death of Abraham Lincoln,* Vol. 6

IVAN BUNIN, 1870–1953

The Gentleman from San Francisco

Vol. 3, pages 102–123

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
- Topic 2*b*(1): The contribution of the goods of fortune to happiness: wealth, health, longevity
- Topic 4*b*: The attainability of happiness: the fear of death and the tragic view of human life
- Topic 5*a*: The happiness of the individual in relation to the happiness or good of other men

OPPOSITION, Vol. 2, especially
- Topic 4*e*: Conflict in human life: opposed types of men and modes of life
- Topic 5*b*: The class war: the opposition of the rich and the poor, the propertied and the propertyless, capital and labor, producers and consumers

WEALTH, Vol. 2, especially
- Topic 10*a*: The nature of wealth as a good: its place in the order of goods and its relation to happiness
- Topic 10*c*: Temperance and intemperance with respect to wealth: liberality, magnificence, miserliness, avarice; the corrupting influence of excessive wealth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. I
Tacitus, Vol. 14, *Annals,* Bks. II, III
Molière, Vol. 31, *Miser*
Goethe, Vol. 45, *Faust,* Part One; Part Two, Act I
Dickens, Vol. 47, *Little Dorrit*
Marx, Vol. 50, *Capital,* Part II, Chap. IV; Part VII, Chap. XXIV; Marx and Engels, *Manifesto of the Communist Party,* Chap. II
Fitzgerald, Vol. 60, *Great Gatsby*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2

Anonymous, *Aucassin and Nicolette,* Vol. 2
Bacon, *Of Riches,* Vol. 7
Cicero, *On Old Age,* Vol. 10
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hume, *Of Money,* Vol. 7
Lawrence, *Rocking-Horse Winner,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Plutarch, *Contentment,* Vol. 10
Pushkin, *Queen of Spades,* Vol. 3
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *What Men Live By,* Vol. 3
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

EDMUND BURKE, 1729–1797

Letter to the Sheriffs of Bristol

Vol. 7, pages 237–271

SUGGESTED READINGS IN THE *Syntopicon*

GOVERNMENT, Vol. 1, especially
Topic 5*b*: The government of dependencies: colonial government; the government of conquered peoples
JUSTICE, Vol. 1, especially
Topic 6*c*: The inalienability of natural rights: their violation by tyranny and despotism
Topic 9*b*: Justice as the moral principle of political organization: the bond of men in states
LAW, Vol. 1, especially
Topic 7*d*: Tyranny and treason or sedition as illegal acts: the use of force without authority
LIBERTY, Vol. 1, especially
Topic 6*c*: The struggle for sovereign independence against the yoke of imperialism or colonial subjugation
REVOLUTION, Vol. 2, especially
Topic 6*a*: The right of rebellion: the circumstances justifying civil disobedience or violent insurrection
Topic 7: Empire and revolution: the justification of colonial rebellion and the defense of imperialism
WAR AND PEACE, Vol. 2, especially
Topic 4*b*: The factors responsible for civil strife

Topic 11*b*: Justice and fraternity as principles of peace among men

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Thucydides, Vol. 5, *History of the Peloponnesian War,* Third Book, Chap. IX
Machiavelli, Vol. 21, *Prince,* Chaps. IV–IX
Smith, Vol. 36, *Wealth of Nations,* Bk. IV, Chap. VII
Kant, Vol. 39, *Science of Right,* Second Part
Constitution of the United States of America, Vol. 40, Art. I, Sect. 9; Art. III, Sect. 3; Amendments I–X
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 84
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 17–18
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chaps. 7–10

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles,* Vol. 7
Calhoun, "Concurrent Majority," Vol. 7
Carlyle, *Hero as King,* Vol. 6
Great Documents, *Virginia Declaration of Rights; Declaration of Independence; Declaration of the Rights of Man and of the Citizen,* Vol. 6
Jefferson, "Virginia Constitution"; *First Inaugural Address,* Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Paine, "A Call to Patriots–December 23, 1776," Vol. 6
Washington, *Farewell Address,* Vol. 6

JOHN BAGNELL BURY, 1861–1927

Herodotus

Vol. 6, pages 364–383

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 3: The conflict of customs: their variation from place to place
HISTORY, Vol. 1, especially
Topic 1: History as knowledge and as literature: its kinds and divisions; its distinction from poetry, myth, philosophy, and science
Topic 3: The writing of history: research and narration; the influence of poetry

Topic 4*a*(2): Material forces in history: economic, physical, and geographic factors
Topic 5*a*: The relation of the gods or God to human history: the dispensations of providence
TIME, Vol. 2, especially
Topic 8: Historical time

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. I–II
Aeschylus, Vol. 4, *Prometheus Bound; Agamemnon; Eumenides*
Thucydides, Vol. 5, *History of the Peloponnesian War,* First Book, Chap. I
Aristotle, Vol. 8, *On Poetics,* Chap. 9
Plutarch, Vol. 13, *Pericles*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire,* Chaps. IX–X, XXVI; Vol. 38, Chap. XLVIII
Melville, Vol. 48, *Moby Dick,* Extracts; Chaps. 45, 55–57, 82–83
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chap. I
Lévi-Strauss, Vol. 58, *Structural Anthropology,* Introduction

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Hume, *Of the Study of History,* Vol. 7
Lucian, *Way to Write History,* Vol. 6
Sainte-Beuve, *What Is a Classic?,* Vol. 5

For Herodotus' *History* in *Great Books of the Western World,* see Vol. 5

SAMUEL BUTLER, 1835–1902

"Customs and Opinions of the Erewhonians"

from *Erewhon*
Vol. 2, pages 483–506

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 3: The conflict of customs: their variation from place to place
Topic 6*b*: The force of custom with respect to law
Topic 7*d*: The influence of custom on the liberty of the individual: the force of discipline
JUSTICE, Vol. 1, especially

Topic 1*f*: Justice as a custom or moral sentiment based on considerations of utility
Topic 9*c*: The criteria of justice in various forms of government and diverse constitutions
LAW, Vol. 1, especially
Topic 5*f*: The relation of positive law to custom
Topic 6*e*(1): The nature and causes of crime
Topic 6*e*(3): The punishment of crime

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Wasps*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. V, Chaps. 1–2, 6–8
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 52–57
Bacon, Vol. 28, *New Atlantis*
Swift, Vol. 34, *Gulliver's Travels*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Custom and Education,* Vol. 7; *Of Death,* Vol. 10
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
Great Documents, *Declaration of Independence; Universal Declaration of Human Rights,* Vol. 6
Ibsen, *Enemy of the People,* Vol. 4
Molière, *Misanthrope; Doctor in Spite of Himself,* Vol. 4
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Sheridan, *School for Scandal,* Vol. 4
Thoreau, *Civil Disobedience,* Vol. 6
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

JOHN C. CALHOUN, 1782–1850

"The Concurrent Majority"
from *A Disquisition on Government*
Vol. 7, pages 276–290

SUGGESTED READINGS IN THE *Syntopicon*

CONSTITUTION, Vol. 1, especially
Topic 9*b*: Types of representation: diverse methods of selecting representatives
DEMOCRACY, Vol. 1, especially
Topic 2*a*: The tyranny of the majority: lawless mob rule

Topic 5*b*(1): Majority rule and minority or proportional representation
Topic 5*c*: The distribution of functions and powers: checks and balances in representative democracy; the uses of patronage
GOVERNMENT, Vol. 1, especially
Topic 1*a*: The origin and necessity of government: the issue concerning anarchy
Topic 1*h*: Self-government: expressions of the popular will; elections; voting

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. VI
Aristotle, Vol. 8, *Politics,* Bk. I, Chap. 2; Bk. III, Chaps. 1–5
Hobbes, Vol. 21, *Leviathan,* Part I, Chaps. 13–14
Rousseau, Vol. 35, *Social Contract,* Bk. IV, Chaps. 4–7
Smith, Vol. 36, *Wealth of Nations,* Bk. IV, Chap. VII
Constitution of the United States of America, Vol. 40
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 41–51, 85
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 6–7
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chaps. 5–8; Part II, Chap. 7
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue, Chaps. IV–V
Weber, Vol. 58, *Essays in Sociology,* Chap. IV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Ibsen, *Enemy of the People,* Vol. 4
Jefferson, "Virginia Constitution," Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Thoreau, *Civil Disobedience,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Washington, *Farewell Address,* Vol. 6

TOMMASO CAMPANELLA, 1568–1639

"Arguments for and against Galileo"

from *The Defenses of Galileo*
Vol. 8, pages 359–364

SUGGESTED READINGS IN THE *Syntopicon*

ASTRONOMY AND COSMOLOGY, Vol. 1, especially

Topic 4: Astronomy, cosmology, and theology: astronomy as affecting views of God, creation, the divine plan, and the moral hierarchy
Topic 11: Astronomy as the study of the universe as a whole: cosmology
Topic 13: The history of astronomy
SCIENCE, Vol. 2, especially
Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit
Topic 2*a*: The relation between science and religion: the conception of sacred theology as a science
Topic 6*b*: The place of science in society: the social conditions favorable to the advancement of science

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *On the Heavens*
Ptolemy, Vol. 15, *Almagest,* Bk. I
Copernicus, Vol. 15, *On the Revolutions of the Heavenly Spheres,* Introduction–Bk. I
Kepler, Vol. 15, *Epitome of Copernican Astronomy,* Bk. IV
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences*
Descartes, Vol. 28, *Discourse on Method,* Parts V–VI
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. I, IX, XII
Eddington, Vol. 56, *Expanding Universe*
Weber, Vol. 58, *Essays in Sociology,* Chap. V

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Truth,* Vol. 10
Galileo, *Starry Messenger,* Vol. 8
Voltaire, "English Men and Ideas," Vol. 7

For Galileo's *Dialogues Concerning the Two New Sciences* in *Great Books of the Western World,* see Vol. 26

NORMAN ROBERT CAMPBELL, 1880–1949

Measurement

Vol. 9, pages 204–221

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 2*b*: The being of mathematical objects: their real, ideal, or mental existence

Topic 5*a*: The art of measurement
MECHANICS, Vol. 2, especially
Topic 3*a*: Number and the continuum: the theory of measurement; Euclidean and non-Euclidean continua
QUANTITY, Vol. 2, especially
Topic 6*b*: Mathematical procedures in measurement: superposition, congruence; ratio and proportion; parameters and coordinates
Topic 6*c*: Physical procedures in measurement: experiment and observation; clocks, rules, balances

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VII
Euclid, Vol. 10, *Elements,* Bk. V
Nicomachus, Vol. 10, *Introduction to Arithmetic,* Bk. I
Berkeley, Vol. 33, *Principles of Human Knowledge*
Einstein, Vol. 56, *Relativity: The Special and the General Theory*
Bohr, Vol. 56, *Discussion with Einstein on Epistemological Problems in Atomic Physics*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Sphinx,* Vol. 8
Boeke, *Cosmic View,* Vol. 8
Dantzig, *Fingerprints; Empty Column,* Vol. 9
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9
Russell, *Definition of Number,* Vol. 9
Voltaire, *Micromégas,* Vol. 2

Numerical Laws and the Use of Mathematics in Science

Vol. 9, pages 222–238

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 5: The applications of mathematics to physical phenomena: the utility of mathematics
MECHANICS, Vol. 2, especially
Topic 3: The use of mathematics in mechanics: the dependence of progress in mechanics on mathematical discovery
PHYSICS, Vol. 2, especially
Topic 3: Mathematical physics: observation and measurement in relation to mathematical formulations
SCIENCE, Vol. 2, especially

Topic 5*c*: The use of mathematics in science: calculation and measurement

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Timaeus*
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences,* Third Day
Bacon, Vol. 28, *Novum Organum,* First Book
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. II, Sects. I–III
Kant, Vol. 39, *Critique of Pure Reason*
Whitehead, Vol. 55, *Science and the Modern World,* Chap. II; Vol. 56, *Introduction to Mathematics,* Chaps. 3–4
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Euler, *Seven Bridges of Königsberg,* Vol. 9
Forsyth, *Mathematics in Life and Thought,* Vol. 9
Haldane, *On Being the Right Size,* Vol. 8
Helmholtz, *On the Conservation of Force,* Vol. 8
Mendeleev, "Genesis of a Law of Nature," Vol. 8
Poincaré, *Mathematical Creation,* Vol. 9
Russell, *Study of Mathematics,* Vol. 9
Whitehead, "On Mathematical Method"; *On the Nature of a Calculus,* Vol. 9

THOMAS CARLYLE, 1795–1881

The Hero as King

Vol. 6, pages 110–145

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 1*a*: Aristocracy as a good form of government
Topic 4: Aristocracy and the issue of rule by men as opposed to rule by law
HISTORY, Vol. 1, especially
Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
HONOR, Vol. 1, especially
Topic 3*a*: The reaction of the community to its good or great men
Topic 5*b*: Hero-worship: the exaltation of leaders

Topic 5*d*: The estimation of the role of the hero in history
LAW, Vol. 1, especially
Topic 6*b*: The exemption of the sovereign person from the coercive force of law
LIBERTY, Vol. 1, especially
Topic 6*b*: The struggle for civil liberty and economic freedom: the overthrow of tyrants, despots, and oppressors
MONARCHY, Vol. 2, especially
Topic 2: The theory of royalty
Topic 3: The use and abuse of monarchical power

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad*
Sophocles, Vol. 4, *Oedipus the King*
Plato, Vol. 6, *Republic,* Bks. V–VI; *Statesman*
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 14–18
Virgil, Vol. 12, *Aeneid*
Machiavelli, Vol. 21, *Prince,* especially Chaps. 15–21
Hobbes, Vol. 21, *Leviathan,* Part II, Chap. 29
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bks. I–II
Montaigne, Vol. 23, *Of the inequality that is between us; Of coaches*
Shakespeare, Vol. 24, *King Henry VI, First Part; King Henry VI,* Second Part; *King Henry VI,* Third Part; *King Richard III; King Richard II; King Henry IV,* First Part; *King Henry IV,* Second Part; *King Henry V; Julius Caesar;* Vol. 25, *Antony and Cleopatra; Coriolanus*
Locke, Vol. 33, *Concerning Civil Government,* Chaps. VII, VIII, XIV, XVII–XIX
Hegel, Vol. 43, *Philosophy of History,* Introduction III; Second Part; Fourth Part
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Weber, Vol. 58, *Essays in Sociology,* Chap. IX
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. I–II, VI–VII
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place,* Vol. 7
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Emerson, *Self-Reliance,* Vol. 10
Galton, "Classification of Human Ability," Vol. 8
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hume, *Of the Study of History,* Vol. 7
Ibsen, *Enemy of the People,* Vol. 4
James, W., *Great Men and Their Environment,* Vol. 7

Jefferson, "Biographical Sketches," Vol. 6
Macaulay, *Machiavelli,* Vol. 7
O'Neill, *Emperor Jones,* Vol. 4
Shaw, *Man of Destiny,* Vol. 4
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Washington, *Circular Letter to the Governors of All the States on Disbanding the Army; Farewell Address,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

RACHEL L. CARSON, 1907–1964

The Sunless Sea

Vol. 8, pages 132–146

SUGGESTED READINGS IN THE *Syntopicon*

EVOLUTION, Vol. 1, especially
Topic 4*a*: The struggle for existence: its causes and consequences
Topic 5*b*: The geographic distribution of the forms of life in relation to the genealogy of existing species
SCIENCE, Vol. 2, especially
Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit
Topic 2*b*: The comparison of science with poetry and history

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus*
Aristotle, Vol. 8, *History of Animals,* Bks. V–VI, VIII, IX
Darwin, Vol. 49, *Origin of Species,* Chaps. III–IV, XII–XIII
Dobzhansky, Vol. 56, *Genetics and the Origin of Species,* Chaps. V–VI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Conrad, *Youth,* Vol. 2
Crane, *Open Boat,* Vol. 3
Darwin, *Autobiography,* Vol. 8
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Haldane, *On Being the Right Size,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals; On a Piece of Chalk,* Vol. 8
Lyell, "Geological Evolution," Vol. 8
Malthus, "Principle of Population," Vol. 7

ANTON CHEKHOV, 1860–1904

The Darling

Vol. 3, pages 452–462

SUGGESTED READINGS IN THE *Syntopicon*

CHANCE, Vol. 1, especially
- Topic 6*a*: Chance and fortune in the life of the individual: gambling and games of chance

DESIRE, Vol. 1, especially
- Topic 2*d*: The satisfaction of desire: possession and enjoyment
- Topic 4*b*: The attachment of desires: fixations, projections, identifications, transferences

HAPPINESS, Vol. 1, especially
- Topic 2*b*(5): The importance of friendship and love for happiness

LOVE, Vol. 1, especially
- Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Symposium*
Montaigne, Vol. 23, *On some verses of Virgil*
Shakespeare, Vol. 24, *Romeo and Juliet,* Act II
Balzac, Vol. 45, *Cousin Bette*
Proust, Vol. 59, *Swann in Love*
Mann, Vol. 59, *Death in Venice*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Marriage and Single Life,* Vol. 7; *Of Love,* Vol. 10
Galsworthy, *Apple-Tree,* Vol. 3
Plutarch, *Contentment,* Vol. 10
Turgenev, *First Love,* Vol. 3
Wilde, *Happy Prince,* Vol. 2

The Cherry Orchard

Vol. 4, pages 249–294

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
- Topic 7: Historic and poetic exemplifications of aristocracy

CHANGE, Vol. 1, especially

Topic 12*b*: The love and hatred of change and the unchanging
HISTORY, Vol. 1, especially
Topic 4*b*: The laws and patterns of historical change: cycles, progress, evolution
PROGRESS, Vol. 2, especially
Topic 5: Forces operating against social progress: emotional opposition to change or novelty; political conservatism

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aeschylus, Vol. 4, *Eumenides*
Sophocles, Vol. 4, *Antigone*
Montaigne, Vol. 23, *Of vanity*
Rousseau, Vol. 35, *Discourse on the Origin of Inequality*
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire,* General Observations
Boswell, Vol. 41, *Life of Samuel Johnson*
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Ibsen, *Enemy of the People,* Vol. 4
La Bruyère, *Characters,* Vol. 6
Pater, "Art of Life," Vol. 10
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6

For Chekhov's *Uncle Vania* in *Great Books of the Western World,* see Vol. 59

CICERO, 106–43 B.C.

On Friendship

Vol. 10, pages 286–316

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 2*e*: Honor as the pledge of friendship: the codes of honor among social equals
LOVE, Vol. 1, especially
Topic 2*b*(3): The types of friendship: friendships based on utility, pleasure, or virtue
Topic 3*a*: Friendship and love in relation to virtue and happiness
STATE, Vol. 2, especially

Topic 3*e*: Love and justice as the bond of men in states: friendship and patriotism

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. XVI–XVIII, XXIII
Plato, Vol. 6, *Lysis*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bks. VIII–X, Chap. 4
Montaigne, Vol. 23, *Of friendship*
Cervantes, Vol. 27, *Don Quixote,* Chaps. 33–34
Spinoza, Vol. 28, *Ethics,* Part II, Props. 22, 35, 41–44; Part IV, Props. 35–36
Melville, Vol. 48, *Moby Dick,* Chaps. 3–4, 10
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chap. XIII
James, W., Vol. 53, *Principles of Psychology,* Chap. X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Followers and Friends,* Vol. 7; *Of Love; Of Friendship,* Vol. 10
Kipling, *Mowgli's Brothers,* Vol. 2
La Bruyère, *Characters,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Scott, *Two Drovers,* Vol. 2

On Old Age

Vol. 10, pages 317–343

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
Topic 2*b*(1): The contribution of the goods of fortune to happiness: wealth, health, longevity
IMMORTALITY, Vol. 1, especially
Topic 1: The desire for immortality: the fear of death
LIFE AND DEATH, Vol. 1, especially
Topic 5: Normal vitality and its impairment by disease, degeneration, and enfeeblement with age
Topic 6*c*: The biological and psychological characteristics of the stages of life
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr
MAN, Vol. 2, especially
Topic 6*c*: The ages of man: infancy, youth, maturity, senescence; generational conflict

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Oedipus at Colonus*

Aristophanes, Vol. 4, *Acharnians*
Plato, Vol. 6, *Republic,* Bks. I, VII
Aristotle, Vol. 8, *Rhetoric,* Bk. II, Chap. 13
Lucretius, Vol. 11, *Way Things Are,* Bks. II, III
Montaigne, Vol. 23, *That to philosophize is to learn to die; Of age; Of the affection of fathers for their children; All things have their season; On some verses of Virgil*
Shakespeare, Vol. 25, *King Lear*
Swift, Vol. 34, *Gulliver's Travels,* Part III, Chap. X
Boswell, Vol. 41, *Life of Samuel Johnson*
Tolstoy, Vol. 51, *War and Peace,* Bk. 1, Chap. XXV; Bk. 5, Chap. XIV; Bk. 10, Chap. XVI; Bk. 13, Chap. XVII
Hemingway, Vol. 60, *Short Happy Life of Francis Macomber*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Youth and Age,* Vol. 7; *Of Death,* Vol. 10
Browne, "Immortality," Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Epictetus, *Enchiridion,* Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Pater, "Art of Life," Vol. 10
Plutarch, *Contentment,* Vol. 10
Singer, *Spinoza of Market Street,* Vol. 3
Swift, *Resolutions when I Come to be Old,* Vol. 7
Tolstoy, *Death of Ivan Ilyitch; Three Hermits,* Vol. 3
Whitman, *Death of Abraham Lincoln,* Vol. 6

KARL VON CLAUSEWITZ, 1780–1831

What Is War?

Vol. 7, pages 479–497

SUGGESTED READINGS IN THE *Syntopicon*

WAR AND PEACE, Vol. 2, especially
Topic 1: War as the reign of force: the state of war and the state of nature; the martial spirit
Topic 3*a*: The distinction between just and unjust warfare: wars of defense and wars of conquest
Topic 7: The inevitability of war: the political necessity of military preparations

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad*
Plato, Vol. 6, *Republic,* Bk. II
Machiavelli, Vol. 21, *Prince,* Chaps. XII–XIV
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Chaps. 25–33
Locke, Vol. 33, *Concerning Civil Government,* Chaps. II–III, XVI
Kant, Vol. 39, *Science of Right,* Second Part
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 3–9
Hegel, Vol. 43, *Philosophy of Right,* Third Part, Sub-sect. III
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part III, Chaps. 22–26
Tolstoy, Vol. 51, *War and Peace,* Bk. 9, Chaps. I, IX–XI; Bk. 10, Chaps. I, XIX, XXV; Bk. 11, Chaps. I–V; Bk. 13, Chaps. I–X, XVII–XIX; Bk. 14, Chaps. I–II; Bk. 15, Chaps. IV–V; First Epilogue, Chaps. I–IV
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. V
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Dante, "On World Government," Vol. 7
Great Documents, *Charter of the United Nations,* Vol. 6
Hugo, "Battle with the Cannon," Vol. 2
Kant, *Perpetual Peace,* Vol. 7
Lincoln, *Meditation on the Divine Will,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Prescott, "Land of Montezuma," Vol. 6
Rousseau, *Lasting Peace Through the Federation of Europe,* Vol. 7
Shaw, *Man of Destiny,* Vol. 4
Washington, *Circular Letter to the Governors of All the States on Disbanding the Army,* Vol. 6

WILLIAM KINGDON CLIFFORD, 1845–1879

The Postulates of the Science of Space

Vol. 9, pages 243–259

SUGGESTED READINGS IN THE *Syntopicon*

HYPOTHESIS, Vol. 1, especially
Topic 3: The foundations of mathematics: postulates, assumptions
MATHEMATICS, Vol. 2, especially
Topic 1*c*: The certainty and exactitude of mathematical knowledge: truth in mathematics; the *a priori* foundations of arithmetic and geometry

Topic 4*b*: The operations of geometry
QUANTITY, Vol. 2, especially
Topic 3: The magnitudes of geometry: the relations of dimensionality
Topic 3*a*: Straight lines: their length and their relations; angles, perpendiculars, parallels
Topic 3*d*: Surfaces
Topic 5*a*: Space: the matrix of figures and distances
SPACE, Vol. 2, especially
Topic 3*c*: Geometric space, its kinds and properties: spatial relationships and configurations
Topic 5: The mode of existence of geometric objects: their character as abstractions; their relation to intelligible matter

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. III, Chaps. 4–8; Bk. IV, Chaps. 1–9
Euclid, Vol. 10, *Elements,* Bk. I
Ptolemy, Vol. 15, *Almagest,* Bk. I
Copernicus, Vol. 15, *On the Revolutions of the Heavenly Spheres,* Bk. I
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rule XIV
Kant, Vol. 39, *Critique of Pure Reason*
James, W., Vol. 53, *Principles of Psychology,* Chaps. XX, XXVIII
Whitehead, Vol. 56, *Introduction to Mathematics,* Chaps. 9, 13, 16
Einstein, Vol. 56, *Relativity: The Special and the General Theory*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Poincaré, *Space,* Vol. 9
Russell, *Study of Mathematics; Mathematics and the Metaphysicians,* Vol. 9
Voltaire, *Micromégas,* Vol. 2; "English Men and Ideas," Vol. 7

The Ethics of Belief

Vol. 10, pages 16–36

SUGGESTED READINGS IN THE *Syntopicon*

KNOWLEDGE, Vol. 1, especially
Topic 4*b*: Knowledge, belief, and opinion: their relation or distinction
OPINION, Vol. 2, especially
Topic 2*d*: Reason, experience, and authority as sources of opinion
REASONING, Vol. 2, especially
Topic 4*a*: Immediate inference: its relation to mediated inference or reasoning

Topic 5*a*: The fact and the reasoned fact: mere belief distinguished from belief on rational grounds

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. V
Bacon, Vol. 28, *Advancement of Learning,* Second Book; *Novum Organum,* First Book
Descartes, Vol. 28, *Discourse on Method,* Parts I–IV
Pascal, Vol. 30, *Pensées,* Sects. III–IV; *Preface to the Treatise on the Vacuum*
Locke, Vol. 33, *Essay Concerning Human Understanding,* Bk. IV, Chaps. XVIII–XXI
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sects. X–XI
Kant, Vol. 39, *Critique of Pure Reason*
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture 35
Russell, Vol. 55, *Problems of Philosophy,* Chap. XIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Bacon, *Of Truth,* Vol. 10
Dewey, "Process of Thought," Vol. 10
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
Emerson, *Montaigne; or, the Skeptic,* Vol. 10
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
James, W., *Will to Believe; Sentiment of Rationality,* Vol. 10
Laplace, "Probability," Vol. 9
Peirce, *Red and the Black,* Vol. 9
Voltaire, "Philosophy of Common Sense," Vol. 10

JOSEPH CONRAD, 1857–1924

Youth

Vol. 2, pages 210–236

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 6: The formation or training of the courageous man
EDUCATION, Vol. 1, especially
Topic 5*f*: Learning apart from teachers and books: the role of experience

EXPERIENCE, Vol. 1, especially
Topic 8: Variety of experience as an ideal of human life
HONOR, Vol. 1, especially
Topic 2*c*: Honor as due self-esteem: magnanimity or proper pride
MAN, Vol. 2, especially
Topic 6*c*: The ages of man: infancy, youth, maturity, senescence; generational conflict
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 4*a*: Memory in the life of the individual: personal identity and continuity

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plutarch, Vol. 13, *Demosthenes*
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chap. 23
Montaigne, Vol. 23, *Of the education of children*
Melville, Vol. 48, *Moby Dick,* Chaps. 24, 26
Twain, Vol. 48, *Adventures of Huckleberry Finn*
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Bacon, *Of Youth and Age,* Vol. 7
Crane, *Open Boat,* Vol. 3
Defoe, *Robinson Crusoe,* Vol. 2
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Melville, *Billy Budd,* Vol. 3
Turgenev, *First Love,* Vol. 3
Twain, "Learning the River," Vol. 6

For Conrad's *Heart of Darkness* in *Great Books of the Western World,* see Vol. 59

STEPHEN CRANE, 1871–1900

The Open Boat

Vol. 3, pages 5–26

SUGGESTED READINGS IN THE *Syntopicon*

CAUSE, Vol. 1, especially
Topic 3: Causality and freedom
CHANCE, Vol. 1, especially

Topic 2*b*: The relation of chance to fate, providence, and predestination
COURAGE, Vol. 1, especially
Topic 3: The passions in the sphere of courage: fear, daring, anger, hope, despair
FATE, Vol. 1, especially
Topic 1: The decrees of fate and the decisions of the gods
LIFE AND DEATH, Vol. 1, especially
Topic 8*b*: The love of life: the instinct of self-preservation; the life instinct
MAN, Vol. 2, especially
Topic 10*d*: The flniteness and insufficiency of man: his sense of being dependent and ordered to something beyond himself
WORLD, Vol. 2, especially
Topic 6*c*: The rationality or intelligibility of the universe
Topic 6*d*: The goodness and beauty of the universe: its evil and imperfections

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Odyssey,* Bk. V
Euripides, Vol. 4, *Alcestis*
Plato, Vol. 6, *Laws,* Bk. X
Virgil, Vol. 12, *Aeneid,* Bk. I
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto XXVI
Montaigne, Vol. 23, *That the taste of good and evil depends in large part on the opinion we have of them*
Shakespeare, Vol. 25, *Pericles,* Act III, Scene I; *Tempest,* Act I, Scene I
Melville, Vol. 48, *Moby Dick,* Chap. 42
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Conrad, Vol. 59, *Heart of Darkness*
Beckett, Vol. 60, *Waiting for Godot*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death; Of Adversity,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Conrad, *Youth,* Vol. 2
Defoe, *Robinson Crusoe,* Vol. 2
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Emerson, *Self-Reliance,* Vol. 10
James, W., *Energies of Men,* Vol. 7
Synge, *Riders to the Sea,* Vol. 4

JEAN DE CRÈVECOEUR, 1735–1813

"The Making of Americans"

from *Letters from an American Farmer*

Vol. 6, pages 546–559

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 4*a*: Liberty and equality for all under law
LABOR, Vol. 1, especially
Topic 7*f*: The relation of economic to political freedom: economic democracy
LIBERTY, Vol. 1, especially
Topic 1*f*: The freedom of equals under government: the equality of citizenship
PROGRESS, Vol. 2, especially
Topic 4*c*: The growth of political freedom: the achievement of citizenship and civil rights; progress toward an equality of conditions
RELIGION, Vol. 2, especially
Topic 6*e*: Religious liberty: freedom of conscience; religious toleration

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bks. III, IV
Aristotle, Vol. 8, *Athenian Constitution,* Chaps. 5–42
Locke, Vol. 33, *Letter Concerning Toleration*
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chap. X
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 10, 35
Mill, J. S., Vol. 40, *On Liberty,* Chap. 1
Tocqueville, Vol. 44, *Democracy in America,* Introduction; Vol. 1, Part II, Chaps. 5–6; Vol. 2, Part II, Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Great Documents, *Virginia Declaration of Rights,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hume, *Of Refinement in the Arts,* Vol. 7
Jefferson, *First Inaugural Address,* Vol. 6
Lincoln, *Address at Cooper Institute,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Whitman, *Preface to Leaves of Grass,* Vol. 5

EVE CURIE, 1904–2007

The Discovery of Radium

Vol. 8, pages 32–42

SUGGESTED READINGS IN THE *Syntopicon*

ELEMENT, Vol. 1, especially
- Topic 1: The concept of element
- Topic 3: The theory of the elements in natural philosophy, physics, and chemistry

PHYSICS, Vol. 2, especially
- Topic 4: The experimental method in the study of nature

SCIENCE, Vol. 2, especially
- Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit
- Topic 5: Scientific method
- Topic 6: The development of the sciences

SPACE, Vol. 2, especially
- Topic 2*c*: Space as a medium of physical action: the ether and action-at-a-distance; the phenomena of gravitation, radiation, and electricity

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Descartes, Vol. 28, *Discourse on Method,* Part VI
Lavoisier, Vol. 42, *Elements of Chemistry*
Whitehead, Vol. 55, *Science and the Modern World*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 5, 9

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Darwin, *Autobiography,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Galton, "Classification of Human Ability," Vol. 8
James, W., *Energies of Men,* Vol. 7
Mendeleev, "Genesis of a Law of Nature," Vol. 8
Poincaré, *Mathematical Creation,* Vol. 9
Tyndall, "Michael Faraday," Vol. 8
Wöhler, *On the Artificial Production of Urea,* Vol. 8
Woolf, *Art of Biography,* Vol. 6

DANTE ALIGHIERI, 1265–1321

"On World Government"
from *De Monarchia*
Vol. 7, pages 383–399

SUGGESTED READINGS IN THE *Syntopicon*

CITIZEN, Vol. 1, especially
Topic 7: Political citizenship and membership in the city of God
Topic 8: The idea of world citizenship: the political brotherhood of man
JUSTICE, Vol. 1, especially
Topic 1*e*: Justice as an act of will or duty fulfilling obligations to the common good: the harmonious action of individual wills under a universal law of freedom
WAR AND PEACE, Vol. 2, especially
Topic 11*d*: World government and world peace

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aurelius, Vol. 11, *Meditations,* Bks. III–IV
Kant, Vol. 39, *Science of Right,* Second Part
Hegel, Vol. 43, *Philosophy of Right,* Third Part, Sub-sect. III
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part I, Chap. 5
Tolstoy, Vol. 51, *War and Peace,* Bk. 6, Chap. VII
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chap. 5
Freud, Vol. 54, *Thoughts for the Times on War and Death,* Chap. I

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clausewitz, *What Is War?,* Vol. 7
Great Documents, *Charter of the United Nations; Universal Declaration of Human Rights,* Vol. 6
Guizot, "Civilization," Vol. 6
Kant, *Perpetual Peace,* Vol. 7
Rousseau, *Lasting Peace through the Federation of Europe,* Vol. 7

For Dante's *Divine Comedy* in *Great Books of the Western World,* see Vol. 19

TOBIAS DANTZIG, 1884–1956

Fingerprints
The Empty Column
Vol. 9, pages 165–189

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 2: The objects of mathematics: ideas or abstractions; number, figure, extension, relation, order
Topic 2*a*: The apprehension of mathematical objects: by intuition, imagination, construction; the forms of time and space
Topic 2*b*: The being of mathematical objects: their real, ideal, or mental existence
QUANTITY, Vol. 2, especially
Topic 4: Discrete quantities: number and numbering

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VII
Aristotle, Vol. 7, *Metaphysics,* Bk. X, Chaps. 1–7; Bk. XI, Chaps. 1–9; Bk. XIII, Chap. 6-Bk. XIV, Chap. 6
Kant, Vol. 39, *Critique of Pure Reason,* Introduction
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Whitehead, Vol. 56, *Introduction to Mathematics,* Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Measurement,* Vol. 9
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9
Poincaré, *Mathematical Creation,* Vol. 9
Russell, *Definition of Number,* Vol. 9
Whitehead, *On the Nature of a Calculus,* Vol. 9

CHARLES ROBERT DARWIN, 1809–1882

Autobiography

Vol. 8, pages 47–93

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 4*b*: The influence of the family in moral training
Topic 5*e*: The emotional aspect of learning: pleasure, desire, interest
Topic 5*f*: Learning apart from teachers and books: the role of experience
EVOLUTION, Vol. 1, especially

Topic 4: The theory of evolution: the origin of new species from a common ancestry
SCIENCE, Vol. 2, especially
Topic 2*b*: The comparison of science with poetry and history
Topic 5*a*: The role of experience: observation and experiment

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Montaigne, Vol. 23, *Of practice; Of experience*
Descartes, Vol. 28, *Discourse on Method,* Parts I–III; *Meditation II*
James, W., Vol. 53, *Principles of Psychology,* Chaps. VII, X
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture 35

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Balzac, *Passion in the Desert,* Vol. 3
Carson, *Sunless Sea,* Vol. 8
Curie, *Discovery of Radium,* Vol. 8
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dewey, "Process of Thought," Vol. 10
Eiseley, "On Time," Vol. 8
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Galton, "Classification of Human Ability," Vol. 8
Huxley, *On a Piece of Chalk; On the Relations of Man to the Lower Animals,* Vol. 8
Lamb, *Sanity of True Genius,* Vol. 5
Lyell, "Geological Evolution," Vol. 8
Malthus, "Principle of Population," Vol. 7
Mill, J. S., "Childhood and Youth," Vol. 6
Poincaré, *Mathematical Creation,* Vol. 9
Tyndall, "Michael Faraday," Vol. 8
Woolf, *Art of Biography,* Vol. 6

For other works by Darwin in *Great Books of the Western World,* see Vol. 49

DANIEL DEFOE, 1660–1731

Robinson Crusoe

Vol. 2, pages 5–121

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 5*f*: Learning apart from teachers and books: the role of experience
EXPERIENCE, Vol. 1, especially

Topic 4*b*: Verification by experience: experience as the ultimate test of truth
Topic 6*a*: Experience as indispensable to sound judgment and prudence
LABOR, Vol. 1, especially
Topic 1*d*: The social necessity of labor and the moral obligation to work
Topic 1*e*: The honor of work and the virtue of productivity: progress through the invention of arts for the conquest of nature

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Philoctetes*
Aristotle, Vol. 8, *Politics,* Bk. I
Epictetus, Vol. 11, *Discourses,* Bk. III, Chap. 13
Montaigne, Vol. 23, *Of solitude*
Shakespeare, Vol. 25, *Tempest,* Act I
Mill, J. S., Vol. 40, *Utilitarianism,* Chap. 2
James, W., Vol. 53, *Principles of Psychology,* Chaps. IV, XI, XIX
Dewey, Vol. 55, *Experience and Education*
Tawney, Vol. 57, *Acquisitive Society*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Conrad, *Youth,* Vol. 2
Crane, *Open Boat,* Vol. 3
Emerson, *Thoreau,* Vol. 6; *Self-Reliance,* Vol. 10
Fabre, *Sacred Beetle,* Vol. 8
Long, *Power within Us,* Vol. 6
O'Neill, *Emperor Jones,* Vol. 4
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Tolstoy, *Three Hermits,* Vol. 3
Twain, "Learning the River," Vol. 6
Voltaire, "Philosophy of Common Sense," Vol. 10

THOMAS DE QUINCEY, 1785–1859

Literature of Knowledge and Literature of Power

Vol. 5, pages 358–361

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 2*b*: The role of matter and form in artistic and natural production: beauty versus utility

Topic 10*a*: The influence of the arts on character and citizenship: the role of the arts in the training of youth
POETRY, Vol. 2, especially
Topic 5: Poetry in relation to knowledge
Topic 5*a*: The aim of poetry to instruct as well as to delight: the pretensions or deceptions of the poet as teacher

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III, X
Augustine, Vol. 16, *City of God,* Bk. II, Chaps. 8–15
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Author's Prologue
Montaigne, Vol. 23, *Of the education of children; Apology for Raymond Sebond*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 32, 47–50
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Goethe, Vol. 45, *Faust,* Prelude on the Stage

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Studies,* Vol. 5
Bury, *Herodotus,* Vol. 6
Conrad, *Youth,* Vol. 2
Crane, *Open Boat,* Vol. 3
Darwin, *Autobiography,* Vol. 8
Dinesen, *Sorrow-Acre,* Vol. 3
Eliot, T. S., *Dante,* Vol. 5
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Hugo, "Battle with the Cannon," Vol. 2
Ibsen, *Enemy of the People,* Vol. 4
Johnson, *Preface to Shakespeare,* Vol. 5
Melville, *Billy Budd,* Vol. 3
Mill, J. S., "Childhood and Youth," Vol. 6
Molière, *Misanthrope,* Vol. 4
Sainte-Beuve, *Montaigne,* Vol. 5
Santayana, *Lucretius; Goethe's Faust,* Vol. 10
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Some Forms of Literature; On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3

On the Knocking at the Gate in Macbeth
Vol. 5, pages 362–366

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 2: Beauty in nature and art
KNOWLEDGE, Vol. 1, especially
Topic 6*b*(4): Knowledge in relation to the faculties of understanding, judgment, and reason; and to the work of intuition, imagination, and understanding
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 6*c*(2): The schema of the imagination as mediating between concepts of the understanding and the sensory manifold of intuition: the transcendental unity of apperception

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Shakespeare, Vol. 25, *Macbeth*
Kant, Vol. 39, *Critique of Pure Reason,* Part I; *Critique of Judgement,* Introduction
Hegel, Vol. 43, *Philosophy of History,* Second Part
James, W., Vol. 53, *Principles of Psychology,* Chap. X
Bergson, Vol. 55, *Introduction to Metaphysics*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Beauty,* Vol. 5
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hemingway, *Killers,* Vol. 2
Johnson, *Preface to Shakespeare,* Vol. 5
Lamb, *My First Play,* Vol. 5
Schopenhauer, *On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5

JOHN DEWEY, 1859–1952

"The Process of Thought"

from *How We Think*
Vol. 10, pages 92–213

SUGGESTED READINGS IN THE *Syntopicon*

DEFINITION, Vol. 1, especially
Topic 1*b*: The purpose of definition: the clarification of ideas
HYPOTHESIS, Vol. 1, especially
Topic 1: The use of hypotheses in the process of dialectic

IDEA, Vol. 1, especially
- Topic 1*b*: Ideas or conceptions as that by which the mind thinks or knows
- Topic 5*d*: The order of concepts in the stages of learning: the more and the less general
- Topic 5*e*: The association, comparison, and discrimination of ideas: the stream of thought or consciousness

JUDGMENT, Vol. 1, especially
- Topic 1: Judgment as an act or faculty of the mind: its contrast with the act of conception or with the faculties of understanding and reason
- Topic 7*c*: Reasoning as a sequence of judgments: the chain of reasoning
- Topic 8*b*: Analytic and synthetic judgments: trifling and instructive propositions

KNOWLEDGE, Vol. 1, especially
- Topic 6*b*(4): Knowledge in relation to the faculties of understanding, judgment, and reason; and to the work of intuition, imagination, and understanding

LANGUAGE, Vol. 1, especially
- Topic 1*a*: The role of language in thought and behavior
- Topic 5*a*: The abuse of words: ambiguity, imprecision, obscurity; the corruption of language for political motives
- Topic 8: Grammar and rhetoric: the effective use of language in teaching and persuasion

MIND, Vol. 2, especially
- Topic 1*a*(2): The cooperation of intellect and sense: the dependence of thought upon imagination and the direction of imagination by reason

REASONING, Vol. 2, especially
- Topic 1: Definitions or descriptions of reasoning: the process of thought
- Topic 1*c*: The role of sense, memory, and imagination in reasoning: perceptual inference, rational reminiscence, the collation of images
- Topic 5*a*: The fact and the reasoned fact: mere belief distinguished from belief on rational grounds
- Topic 5*b*(2): Definitions used as means in reasoning; definitions as the end of reasoning
- Topic 5*b*(3): *A priori* and *a posteriori* reasoning: from causes or from effects: from principles or from experience; analysis and synthesis

SENSE, Vol. 2, especially

Topic 3*d*(1): The functions of the common sense: discrimination, comparison, association, collation or perception

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. VI–VII
Aristotle, Vol. 7, *Posterior Analytics,* Bk. I, Chaps. 1–3
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 14, Arts. 1–12
Hobbes, Vol. 21, *Leviathan,* Part I, Chaps. 4–5
Bacon, Vol. 28, *Advancement of Learning,* Second Book; *Novum Organum,* First Book
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rules V–XIV
Locke, Vol. 33, *Essay Concerning Human Understanding,* Bk. IV
Kant, Vol. 39, *Critique of Pure Reason*
James, W., Vol. 53, *Principles of Psychology,* Chap. XIII
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. 9–10
Russell, Vol. 55, *Problems of Philosophy,* Chaps. VII–XI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Discourse,* Vol. 5
Clifford, *Ethics of Belief,* Vol. 10
Darwin, *Autobiography,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
James, W., *Will to Believe; Sentiment of Rationality,* Vol. 10
Poincaré, Mathematical Creation, Vol. 9
Schopenhauer, *On Education,* Vol. 7

For Dewey's *Experience and Education* in *Great Books of the Western World,* see Vol. 55

CHARLES DICKENS, 1812–1870

"A Full and Faithful Report of the Memorable Trial of Bardell against Pickwick"

from *The Pickwick Papers*
Vol. 2, pages 391–448

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 5*a*: The conventional determination of moral judgments: the moral evaluation of conventions

Topic 6*a*: Constitutions, social contracts, positive laws, and manners as conventions
Topic 6*b*: The force of custom with respect to law
LAW, Vol. 1, especially
Topic 5*g*: The application of positive law to cases: the casuistry of the judicial process; the conduct of a trial; the administration of justice
Topic 9: The legal profession and the study of law: praise and dispraise of lawyers and judges
VIRTUE AND VICE, Vol. 2, especially
Topic 4*e*(3): Circumstances as affecting the morality of human acts

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. II, Chaps. 10–13; Bk. III, Chaps. 39–44
Montaigne, Vol. 23, *Of experience*
Shakespeare, Vol. 24, *Merchant of Venice,* Act IV, Scene I
Cervantes, Vol. 27, *Don Quixote,* Part Two, Chap. 49
Swift, Vol. 34, *Gulliver's Travels,* Part I, Chap. IV
Boswell, Vol. 41, *Life of Samuel Johnson*
Twain, Vol. 48, *Adventures of Huckleberry Finn*
Fitzgerald, Vol. 60, *Great Gatsby*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Clifford, *Ethics of Belief,* Vol. 10
Melville, *Billy Budd,* Vol. 3
Scott, *Two Drovers,* Vol. 2

For Dickens' *Little Dorrit* in *Great Books of the Western World,* see Vol. 47

ISAK DINESEN, 1885–1962

Sorrow-Acre

Vol. 3, pages 615–641

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 4: Aristocracy and the issue of rule by men as opposed to rule by law
Topic 7: Historic and poetic exemplifications of aristocracy
LOVE, Vol. 1, especially

Topic 2*b*(4): Patterns of love and friendship in the family
Topic 3*d*: The heroism of friendship and the sacrifices of love
OPINION, Vol. 2, especially
Topic 6*b*: The inexactitude of moral principles as applied to particular cases
TYRANNY AND DESPOTISM, Vol. 2, especially
Topic 2*b*: The degeneration of oligarchy: the tyranny of the wealthy

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Antigone*
Euripides, Vol. 4, *Trojan Women*
Plato, Vol. 6, *Statesman*
Montaigne, Vol. 23, *Of three good women*
Shakespeare, Vol. 24, *King Henry VI,* First Part, Act IV, Scenes V–VII
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. V, Chap. 8
Dickens, Vol. 47, *Little Dorrit*
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. II–X
Chekhov, Vol. 59, *Uncle Vania*
Woolf, Vol. 60, *To the Lighthouse*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Parents and Children,* Vol. 7; *Of Adversity; Of Love,* Vol. 10
Cicero, *On Old Age,* Vol. 10
Conrad, *Youth,* Vol. 2
Crane, *Open Boat,* Vol. 3
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
Hemingway, *Killers,* Vol. 2
Hugo, "Battle with the Cannon," Vol. 2
Long, *Power within Us,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Melville, *Billy Budd,* Vol. 3
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *Death of Ivan Ilyitch; What Men Live By,* Vol. 3

FYODOR DOSTOEVSKY, 1821–1881

White Nights

Vol. 3, pages 276–319

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially

Topic 5*a*: Desire ruling imagination: daydreaming and fantasy
HAPPINESS, Vol. 1, especially
Topic 2*b*(5): The importance of friendship and love for happiness
Topic 4*a*: Man's capacity for happiness: differences in human nature with respect to happiness
LOVE, Vol. 1, especially
Topic 2*b*(1): The relation between love and friendship
Topic 2*b*(2): Self-love in relation to the love of others: vanity and self-interest
Topic 3*d*: The heroism of friendship and the sacrifices of love

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus; Symposium*
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto V
Shakespeare, Vol. 24, *Love's Labour's Lost,* Act IV, Scene III
James, W., Vol. 53, *Principles of Psychology,* Chap. X
Proust, Vol. 59, *Swann in Love*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Of Love,* Vol. 10
Galsworthy, *Apple-Tree,* Vol. 3
Lamb, *Dream Children,* Vol. 5
Pater, "Art of Life," Vol. 10
Turgenev, *First Love,* Vol. 3

For Dostoevsky's *Brothers Karamazov* in *Great Books of the Western World,* see Vol. 52

SIR ARTHUR EDDINGTON, 1882–1944

The Running-Down of the Universe
Vol. 8, pages 565–580

SUGGESTED READINGS IN THE *Syntopicon*

CHANCE, Vol. 1, especially
Topic 4: Cause and chance in relation to knowledge and opinion: the theory of probability
CHANGE, Vol. 1, especially
Topic 5: The measure of motion
Topic 13: The problem of the eternity of motion or change

MECHANICS, Vol. 2, especially
Topic 6*g*: Work and energy: their conservation; perpetual motion; their relation to mass; the principle of least action
NATURE, Vol. 2, especially
Topic 3*a*: The maxims and laws of nature: the rationality of nature; entropy
SPACE, Vol. 2, especially
Topic 2: Space, void, and motion
TIME, Vol. 2, especially
Topic 2*c*: The creation of time: the priority of eternity to time; the immutability of the world after the end of time
Topic 3: The mode of existence of time
WORLD, Vol. 2, especially
Topic 1*a*: The opposed metaphors: the universe as a machine and the universe as a living organism; the doctrine of the world soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. VIII
Lucretius, Vol. 11, *Way Things Are,* Bks. I–II
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. III
Faraday, Vol. 42, *Experimental Researches in Electricity*
Einstein, Vol. 56, *Relativity: The Special and the General Theory*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 6–9

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Emerson, *Montaigne; or, the Skeptic,* Vol. 10
Epicurus, *Letter to Herodotus,* Vol. 10
Helmholtz, *On the Conservation of Force,* Vol. 8
Jeans, *Beginnings and Endings,* Vol. 8
Poincaré, *Chance,* Vol. 9
Santayana, *Lucretius,* Vol. 10
Voltaire, *Micromégas,* Vol. 2; "English Men and Ideas," Vol. 7

For Eddington's *Expanding Universe* in *Great Books of the Western World,* see Vol. 56

ALBERT EINSTEIN, 1879–1955 and LEOPOLD INFELD, 1898–1968

"The Rise and Decline of Classical Physics"
from *The Evolution of Physics*
Vol. 8, pages 490–560

SUGGESTED READINGS IN THE *Syntopicon*

ASTRONOMY AND COSMOLOGY, Vol. 1, especially
- Topic 2: The method of astronomy
- Topic 6*c*(2): The form of celestial motion: circles, the equant, ellipses
- Topic 6*c*(3): The laws of celestial motion: celestial mechanics

CHANGE, Vol. 1

ELEMENT, Vol. 1, especially
- Topic 5: The conception of atoms as indivisible, imperceptible, and indestructible
- Topic 6: The conception of atoms as divisible, detectable but not perceptible, and composed of elementary particles; theories of atomic structure; the properties of subatomic particles

INFINITY, Vol. 1, especially
- Topic 3: The infinite in quantity: infinite magnitudes and multitudes
- Topic 4: The infinity of matter

MATHEMATICS, Vol. 2, especially
- Topic 5*b*: Mathematical physics: the mathematical structure of nature

MECHANICS, Vol. 2

PHYSICS, Vol. 2, especially
- Topic 1*b*: The relation of the philosophy of nature to mathematics: mathematical method and mathematical principles in natural philosophy
- Topic 3: Mathematical physics: observation and measurement in relation to mathematical formulations
- Topic 4*b*: Experimental discovery: inductive generalization from experiment; the role of theory or hypothesis in experimentation
- Topic 4*d*: Experimental measurement: the relation between the observer and the phenomena; the application of mathematical formulas
- Topic 5: The utility of physics: the invention of machines; the techniques of engineering; the mastery of nature

QUANTITY, Vol. 2

SCIENCE, Vol. 2, especially
- Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit

Topic 4: The nature of scientific knowledge
Topic 5: Scientific method
SPACE, Vol. 2, especially
Topic 2: Space, void, and motion

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Lucretius, Vol. 11, *Way Things Are*
Copernicus, Vol. 15, *On the Revolutions of the Heavenly Spheres,* Translator's Introduction; Bks. I, V
Kepler, Vol. 15, *Epitome of Copernican Astronomy,* Bks. IV–V
Gilbert, Vol. 26, *On the Loadstone*
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences,* Third and Fourth Days
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy; Optics*
Huygens, Vol. 32, *Treatise on Light*
Faraday, Vol. 42, *Experimental Researches in Electricity*
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. I–II, IX
Bohr, Vol. 56, *Atomic Theory and the Description of Nature*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 1–5, 11

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Measurement; Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Clifford, *Postulates of the Science of Space,* Vol. 9
Curie, *Discovery of Radium,* Vol. 8
Dewey, "Process of Thought," Vol. 10
Epicurus, *Letter to Herodotus,* Vol. 10
Faraday, *Chemical History of a Candle,* Vol. 8
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Galileo, *Starry Messenger,* Vol. 8
Helmholtz, *On the Conservation of Force,* Vol. 8
Mendeleev, "Genesis of a Law of Nature," Vol. 8
Poincaré, *Space,* Vol. 9
Russell, *Mathematics and the Metaphysicians,* Vol. 9
Tyndall, "Michael Faraday," Vol. 8
Voltaire, "English Men and Ideas," Vol. 7
Whitehead, "On Mathematical Method," Vol. 9

For Einstein's *Relativity: The Special and the General Theory* in *Great Books of the Western World,* see Vol. 56

LOREN EISELEY, 1907–1977

"On Time"

from *The Immense Journey*
Vol. 8, pages 123–129

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
- Topic 2*b*: Analogies of structure and function among different classes of animals
- Topic 2*c*: Continuity and discontinuity in the scale of animal life: gradation from lower to higher forms
- Topic 11*b*: The relation between animals and their environments

EVOLUTION, Vol. 1, especially
- Topic 3: The problem of evolution: the origin of plant and animal species
- Topic 4: The theory of evolution: the origin of new species from a common ancestry
- Topic 5: The facts of evolution: evidences bearing on the history of life on earth

HABIT, Vol. 1, especially
- Topic 3: The instincts or innate habits of animals and men

SCIENCE, Vol. 2, especially
- Topic 2*b*: The comparison of science with poetry and history

TIME, Vol. 2, especially
- Topic 3: The mode of existence of time
- Topic 6: The knowledge of time and the experience of duration
- Topic 8*a*: Prehistoric and historic time: the antiquity of man

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Augustine, Vol. 16, *Confessions,* Bk. XII
Darwin, Vol. 49, *Origin of Species; Descent of Man,* Chaps. I–II, IV–VII, XV–XVI
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. I, V
Dobzhansky, Vol. 56, *Genetics and the Origin of Species,* Chaps. I, V–VI, X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals; On a Piece of Chalk,* Vol. 8

Jeans, *Beginnings and Endings,* Vol. 8
Lyell, "Geological Evolution," Vol. 8
Voltaire, *Micromégas,* Vol. 2

GEORGE ELIOT, 1819–1880

The Lifted Veil

Vol. 3, pages 157–193

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
- Topic 1*a*: Emotion in relation to feelings of pleasure and pain
- Topic 2*c*: The opposition of particular emotions to one another
- Topic 4*c*: Inherited or acquired emotional dispositions: the moral significance of temperamental types; emotional torpor or lethargy

MAN, Vol. 2, especially
- Topic 2*b*: The sciences of human nature: anthropology and psychology; ethnography and ethnology; rational and empirical psychology; experimental and clinical psychology
- Topic 6*a*: The cause and range of human inequalities: differences in ability, inclination, temperament, habit
- Topic 6*b*: The equality or inequality of men and women

PROPHECY, Vol. 2, especially
- Topic 1*a*: Prophecy as the reading of fate, the foretelling of fortune, the beholding of the future

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3 *Odyssey,* Bk. XI
Sophocles, Vol. 4, *Oedipus the King; Oedipus at Colonus; Antigone*
Virgil, Vol. 12, *Aeneid,* Bk. VI
Goethe, Vol. 45, *Faust,* Part One; Part Two, Act II
Melville, Vol. 48, *Moby Dick,* Chaps. 19, 117, 135
Eliot, T. S., Vol. 60, *Waste Land*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Bacon, *Of Marriage and Single Life,* Vol. 7; *Of Love,* Vol. 10
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Lawrence, *Rocking-Horse Winner,* Vol. 3
Long, *Power within Us,* Vol. 6

Mann, *Mario and the Magician,* Vol. 3
Plutarch, *Of Bashfulness,* Vol. 7
Pushkin, *Queen of Spades,* Vol. 3
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2

For George Eliot's *Middlemarch* in *Great Books of the Western World,* see Vol. 46

THOMAS STEARNS ELIOT, 1888–1965

Dante

Vol. 5, pages 371–403

SUGGESTED READINGS IN THE *Syntopicon*

IDEA, Vol. 1, especially
Topic 4*b*(4): Univocal and analogical terms
LANGUAGE, Vol. 1, especially
Topic 9: The language of poetry: the poet's enchantment with language
PHILOSOPHY, Vol. 2, especially
Topic 1*d*: The relation of philosophy to myth, poetry, and history
POETRY, Vol. 2, especially
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry: the distinction between prose and verse; the measure of excellence in style
Topic 8*c*: The interpretation of poetry and myth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Protagoras*
Aristotle, Vol. 8, *On Poetics*
Cervantes, Vol. 27, *Don Quixote,* Part Two, Chap. 16
Kant, Vol. 39, *Critique of Judgement,* Introduction–First Part, Sect. I, Bk. I
Goethe, Vol. 45, *Faust,* Part Two, Act III
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XX–XXII
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Arnold, *Study of Poetry,* Vol. 5
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dante, "On World Government," Vol. 7
Hazlitt, *On Swift,* Vol. 5

Johnson, *Preface to Shakespeare,* Vol. 5
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Schopenhauer, *On Style,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

For Dante's *Divine Comedy* in *Great Books of the Western World,* see Vol. 19

Tradition and the Individual Talent

Vol. 5, pages 404–411

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 4*b*: Memory in the life of the group, race, or nation: instinct, legend, and tradition
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience and imagination; the influence of the poetic tradition
Topic 6*a*: The expression of emotion in poetry

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion*
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part I, Chaps. 9–18
Goethe, Vol. 45, *Faust,* Prelude on the Stage
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
Emerson, *Thoreau,* Vol. 6
Guizot, "Civilization," Vol. 6
Hazlitt, *My First Acquaintance with Poets; Of Persons One Would Wish to Have Seen,* Vol. 5
Hume, *Of the Study of History,* Vol. 7
James, W., *Great Men and Their Environment,* Vol. 7
Lamb, *Sanity of True Genius,* Vol. 5
Lawrence, *Rocking-Horse Winner,* Vol. 3
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Schopenhauer, *On Education,* Vol. 7
Shelley, *Defence of Poetry,* Vol. 5
Stevenson, *Lantern-Bearers,* Vol. 7
Whitman, *Preface to Leaves of Grass,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

For T. S. Eliot's *Waste Land* in *Great Books of the Western World,* see Vol. 60

RALPH WALDO EMERSON, 1803–1882

Thoreau
Vol. 6, pages 150–165

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 12*c*: Friendship or love between animals and men
EDUCATION, Vol. 1, especially
Topic 5*f*: Learning apart from teachers and books: the role of experience
LAW, Vol. 1, especially
Topic 6*c*: The force of tyrannical, unjust, or bad laws: the right of rebellion or disobedience
LIBERTY, Vol.1, especially
Topic 3*d*: Freedom from conflict and freedom for individuality as conditions of happiness
NATURE, Vol. 2, especially
Topic 3*a*: The maxims and laws of nature: the rationality of nature; entropy

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Lucretius, Vol. 11, *Way Things Are,* Bk. V
Epictetus, Vol. 11, *Discourses,* Bk. IV, Chap. 1
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 23–24
Montaigne, Vol. 23, *Of cruelty; Of experience*
Milton, Vol. 29, *Areopagitica*
Nietzsche, Vol. 43, *Beyond Good and Evil,* Part Two
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part IV, Chaps. 6–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Balzac, *Passion in the Desert,* Vol. 3
Defoe, *Robinson Crusoe,* Vol. 2
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Emerson, *Nature; Self-Reliance,* Vol. 10
Great Documents, *Declaration of Independence,* Vol. 6
Kipling, *Mowgli's Brothers,* Vol. 2
Lamb, *Sanity of True Genius,* Vol. 5
Long, *Power within Us,* Vol. 6
Plutarch, *Contentment,* Vol. 10
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Stevenson, *Lantern-Bearers,* Vol. 7
Thoreau, *Civil Disobedience; Plea for Captain John Brown,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Woolf, *Art of Biography,* Vol. 6

Nature

Vol. 10, pages 512–524

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 2: Beauty in nature and in art
CHANGE, Vol. 1, especially
Topic 4: Motion and rest: contrary motions
NATURE, Vol. 2, especially
Topic 1*b*: Nature as the universe or the totality of things: the identification of God and nature; the distinction between *natura naturans* and *natura naturata*
Topic 2*b*: Nature and convention: the state of nature and the state of society
Topic 3*a*: The maxims and laws of nature: the rationality of nature; entropy

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Timaeus*
Plotinus, Vol. 11, *Third Ennead,* Eighth Tractate; *Sixth Ennead,* Third Tractate
Montaigne, Vol. 23, To the Reader; *Of repentance; Of experience*
Spinoza, Vol. 28, *Ethics,* Part I, Props. 1–32
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Def. III; Laws I–III
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Whitehead, Vol. 55, *Science and the Modern World,* Chap. V

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Bacon, *Sphinx,* Vol. 8
Emerson, *Thoreau,* Vol. 6
Epicurus, *Letter to Herodotus,* Vol. 10
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
James, W., *Will to Believe,* Vol 10
Long, *Power within Us,* Vol. 6
Mill, J. S., *Nature,* Vol. 10
Santayana, *Lucretius,* Vol. 10
Voltaire, "Philosophy of Common Sense," Vol. 10

Self-Reliance

Vol. 10, pages 525–545

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 9*a*: Custom as a source of opinion and belief: its influence on judgments of beauty
HONOR, Vol. 1, especially
Topic 2*c*: Honor as due self-esteem: magnanimity or proper pride
OPINION, Vol. 2, especially
Topic 3*a*: The truth of knowledge and of right opinion: their difference with respect to manner of acquisition, stability, and teachability
Topic 5*a*: Rights and duties with respect to the expression of opinion
WISDOM, Vol. 2, especially
Topic 1*a*: Diverse conceptions of natural wisdom: the supreme form of human knowledge

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aeschylus, Vol. 4, *Agamemnon*
Plato, Vol. 6, *Apology*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. IV, Chaps. 2–4
Montaigne, Vol. 23, *Of presumption*
Spinoza, Vol. 28, *Ethics,* Part IV, Prop. 18
Pascal, Vol. 30, *Pensées,* Sect. II
Kant, Vol. 39, *Critique of Pure Reason*
Boswell, Vol. 41, *Life of Samuel Johnson*
Kierkegaard, Vol. 43, *Fear and Trembling*
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Fitzgerald, Vol. 60, *Great Gatsby*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Adversity,* Vol. 10
Carlyle, *Hero as King,* Vol. 6
Crane, *Open Boat,* Vol. 3
Defoe, *Robinson Crusoe,* Vol. 2
Emerson, *Thoreau,* Vol. 6
Ibsen, *Enemy of the People,* Vol. 4
Lamb, *Sanity of True Genius,* Vol. 5
Long, *Power within Us,* Vol. 6
Sainte-Beuve, *Montaigne,* Vol. 5
Shaw, *Man of Destiny,* Vol. 4
Tocqueville, "Observations on American Life and Government," Vol. 6
Twain, "Learning the River," Vol. 6
Washington, *Farewell Address,* Vol. 6

Montaigne; or, the Skeptic
Vol. 10, pages 546–562

SUGGESTED READINGS IN THE *Syntopicon*

KNOWLEDGE, Vol. 1, especially
Topic 5*c*: Dogmatism, skepticism, and the critical attitude with respect to the extent, certainty, and finality of human knowledge
MIND, Vol. 2, especially
Topic 5*b*: The natural limits of the mind: the unknowable; objects which transcend its powers; reason's critical determination of its own limits or boundaries
RELATION, Vol. 2, especially
Topic 6*b*: Absolute and relative with respect to truth
TRUTH, Vol. 2, especially
Topic 7*a*: The impossibility of knowing the truth: the restriction of all human judgments to degrees of probability; the denial of axioms and of the possibility of demonstration

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Euthydemus*
Montaigne, Vol. 23, *Apology for Raymond Sebond*
Bacon, Vol. 28, *Advancement of Learning,* First Book
Pascal, Vol. 30, *Pensées,* Sect. III
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. IV, Part II–Sect. V, Part I
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts One and Six
James, W., Vol. 55, *Pragmatism,* Lectures VI–VII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Truth,* Vol. 10
Clifford, *Ethics of Belief,* Vol. 10
Eddington, *Running-Down of the Universe,* Vol. 8
Eliot, G., *Lifted Veil,* Vol. 3
James, W., *Will to Believe,* Vol. 10
Sainte-Beuve, *Montaigne,* Vol. 5
Xenophon, "Character of Socrates," Vol. 6

For Montaigne's *Essays* in *Great Books of the Western World,* see Vol. 23

EPICTETUS, *c.* 60–*c.* 138

The Enchiridion
Vol. 10, pages 236–254

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
Topic 6*a*: The regulation of desire by reason: the discipline of moral virtue or duty
DUTY, Vol. 1, especially
Topic 2: Comparison of the ethics of duty with the ethics of happiness, pleasure, or utility
GOOD AND EVIL, Vol. 1, especially
Topic 3*b*: Goodness in the order of freedom and will
Topic 4*c*: Goods of the body and goods of the soul: the scale of values
Topic 4*d*: Intrinsic and external goods: intrinsic worth and extrinsic value
LIFE AND DEATH, Vol. 1, especially
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. IV, IX
Aurelius, Vol. 11, *Meditations,* Bks. III–VII
Augustine, Vol. 16, *City of God,* Bk. XII, Chaps. 4–10
Montaigne, Vol. 23, *That the taste of good and evil depends in large part on the opinion we have of them*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Spinoza, Vol. 28, *Ethics,* Part IV, Appendix
Kant, Vol. 39, *Fundamental Principles of the Metaphysic of Morals,* First–Second Sections; Third Section; *Critique of Practical Reason,* Part I, Bk. II, Chaps. I–II
Mill, J. S., Vol. 40, *Utilitarianism,* Chap. 2
Hegel, Vol. 43, *Philosophy of Right,* First Part
Nietzsche, Vol. 43, *Beyond Good and Evil,* Part One

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Death,* Vol. 10
Cicero, *On Old Age,* Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Pater, "Art of Life," Vol. 10
Plutarch, *Contentment,* Vol. 10
Xenophon, "Character of Socrates," Vol. 6

For Epictetus' *Discourses* in *Great Books of the Western World,* see Vol. 11

EPICURUS, *c.* 341–*c.* 270 B.C.

Letter to Herodotus

Vol. 10, pages 216–229

SUGGESTED READINGS IN THE *Syntopicon*

ELEMENT, Vol. 1, especially
Topic 5*b*: Atoms and the void as the ultimate constituents of reality
INFINITY, Vol. 1, especially
Topic 4*b*: The infinite divisibility of matter: the issue concerning atoms or elementary particles
MATTER, Vol. 2, especially
Topic 2*c*: The motions of bodies
SOUL, Vol. 2, especially
Topic 3*d*: The denial of soul as an immaterial principle, form, or substance: the atomic theory of the soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. IV, Chaps. 6–9
Lucretius, Vol. 11, *Way Things Are,* Bks. I–II
Plotinus, Vol. 11, *Fourth Ennead,* Seventh Tractate
Bacon, Vol. 28, *Novum Organum,* Second Book
Newton, Vol. 32, *Optics,* Bk. III, Part I
Kant, Vol. 39, *Critique of Pure Reason; Critique of Judgement,* Second Part, First-Second Division
Bohr, Vol. 56, *Atomic Theory and the Description of Nature*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 1–4

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Eddington, *Running-Down of the Universe,* Vol. 8
Einstein and Infeld, "Rise and Deline of Classical Physics," Vol. 8
Emerson, *Nature,* Vol. 10
Faraday, *Chemical History of a Candle,* Vol. 8
Pater, "Art of Life," Vol. 10
Santayana, *Lucretius,* Vol. 10
Swift, *Modest Proposal,* Vol. 7
Voltaire, *Micromégas,* Vol. 2

Letter to Menoeceus

Vol. 10, pages 230–233

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially

Topic 6*a*: The regulation of desire by reason: the discipline of moral virtue or duty
PLEASURE AND PAIN, Vol. 2, especially
Topic 6*a*: Pleasure as the only good or as the measure of goodness in all other things
PRUDENCE, Vol. 2, especially
Topic 3*b*: Prudence as a factor in the formation and maintenance of moral virtue: the determination of the relative or subjective mean

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Philebus*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. II, Chaps. 2–9; Bk. VI
Lucretius, Vol. 11, *Way Things Are,* Bk. I
Epictetus, Vol. 11, *Discourses,* Bk. I
Aurelius, Vol. 11, *Meditations,* Bks. III–VII
Montaigne, Vol. 23, *That to philosophize is to learn to die*
Spinoza, Vol. 28, *Ethics,* Part III, Props. 55–58
Kant, Vol. 39, *Fundamental Principles of the Metaphysic of Morals,* First Section; *Critique of Practical Reason,* Part I, Bk. II, Chaps. I–II
Mill, J. S. Vol. 40, *Utilitarianism,* Chap. 2
Weber, Vol. 58, *Essays in Sociology,* Chap. X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
Cicero, *On Old Age,* Vol. 10
Epictetus, *Enchiridion,* Vol. 10
Pater, "Art of Life," Vol. 10
Plutarch, *Contentment,* Vol. 10
Poe, *Masque of the Red Death,* Vol. 2
Sainte-Beuve, *Montaigne,* Vol. 5
Santayana, *Lucretius,* Vol. 10
Xenophon, "Character of Socrates," Vol. 6

JOHN ERSKINE, 1879–1951

The Moral Obligation to Be Intelligent

Vol. 10, pages 5–13

SUGGESTED READINGS IN THE *Syntopicon*

GOOD AND EVIL, Vol. 1, especially
Topic 6*c*: The goodness of knowledge or wisdom: the use of knowledge

VIRTUE AND VICE, Vol. 2, especially
Topic 1*a*: The relation between knowledge and virtue
WILL, Vol. 2, especially
Topic 1: The existence and nature of will: its relation to reason or mind and to desire or emotion

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Protagoras; Meno; Republic,* Bk. I
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. I, Chaps. 7–9; Bk. VI, Chap. 12–Bk. VII, Chap. 5
Montaigne, Vol. 23, *Apology for Raymond Sebond*
Spinoza, Vol. 28, *Ethics,* Part II, Props. 48–49
Milton, Vol. 29, *Paradise Lost,* Bks. IV, IX; *Areopagitica*
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. I
Mill, J. S., Vol. 40, *Utilitarianism,* Chap. 2
Dewey, Vol. 55, *Experience and Education*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Studies,* Vol. 5
Clifford, *Ethics of Belief,* Vol. 10
Dewey, "Process of Thought," Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
James, W., *Will to Believe,* Vol. 10
Mill, J. S., "Childhood and Youth," Vol. 6
Sainte-Beuve, *Montaigne,* Vol. 5
Schopenhauer, *On Education,* Vol. 7
Voltaire, "Philosophy of Common Sense," Vol. 10
Xenophon, "Character of Socrates," Vol. 6

LEONHARD EULER, 1707–1783

The Seven Bridges of Königsberg
Vol. 9, pages 193–201

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 3: Method in mathematics: the model of mathematical thought
Topic 3*d*: Symbols and formulas: the attainment of generality
SPACE, Vol. 2, especially

Topic 3*c*: Geometric space, its kinds and properties: spatial relationships and configurations

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Archimedes, Vol. 10, *Method Treating of Mechanical Problems*
Descartes, Vol. 28, *Geometry*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Definitions–Bk. I, Sect. II; Bk. II, Sects. I–V
Poincaré, Vol. 56, *Science and Hypothesis,* Chaps. 3–4
Whitehead, Vol. 56, *Introduction to Mathematics,* Chaps. 1, 5–6, 9, 16

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Whitehead, "On Mathematical Method," Vol. 9

JEAN HENRI FABRE, 1823–1915

A Laboratory of the Open Fields
The Sacred Beetle

Vol. 8, pages 97–119

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1*d*: The habits or instincts of animals: specifically animal behavior
Topic 11: The habitat of animals
SCIENCE, Vol. 2, especially
Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit
Topic 5*a*: The role of experience: observation and experiment

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *History of Animals,* Bk. V, Chap. 15–Bk. VI, Chap. 6; Bk. VIII; Bk. IX, Chaps. 9–13
Harvey, Vol. 26, *Anatomical Exercises on the Generation of Animals,* Introduction
Bacon, Vol. 28, *Novum Organum,* First Book
Darwin, Vol. 49, *Origin of Species,* Chap. VIII; *Descent of Man,* Chap. IV
Dobzhansky, Vol. 56, *Genetics and the Origin of Species,* Chaps. V–VI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Beauty,* Vol. 5

Balzac, *Passion in the Desert,* Vol. 3
Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Defoe, *Robinson Crusoe,* Vol. 2
Emerson, *Nature,* Vol. 10
Haldane, *On Being the Right Size,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Kipling, *Mowgli's Brothers,* Vol. 2

MICHAEL FARADAY, 1791–1867

Observations on Mental Education

Vol. 7, pages 208–232

SUGGESTED READINGS IN THE *Syntopicon*

JUDGMENT, Vol. 1, especially
Topic 1: Judgment as an act or faculty of the mind: its contrast with the act of conception or with the faculties of understanding and reason
Topic 8*a*: Self-evident and demonstrable propositions: immediate and mediated, intuitive and reasoned judgments
Topic 10: The truth and falsity of judgments
KNOWLEDGE, Vol. 1, especially
Topic 6*b*(4): Knowledge in relation to the faculties of understanding, judgment, and reason; and to the work of intuition, imagination, and understanding
Topic 10: The growth of human knowledge: the history of man's progress and failures in the pursuit of knowledge
REASONING, Vol. 2, especially
Topic 5*a*: The fact and the reasoned fact: mere belief distinguished from belief on rational grounds

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Sophist*
Aristotle, Vol. 7, *On the Soul,* Bk. III, Chaps. 3–8; Vol. 8, *Nicomachean Ethics,* Bk. VI, Chaps. 3–11
Montaigne, Vol. 23, *Apology for Raymond Sebond*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Descartes, Vol. 28, *Discourse on Method,* Parts I–IV

Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. IV, Part II–Sect. V, Part II
Kant, Vol. 39, *Critique of Judgement,* Introduction
James, W., Vol. 53, *Principles of Psychology,* Chap. X
Russell, Vol. 55, *Problems of Philosophy,* Chaps. XI–XIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Custom and Education,* Vol. 7
Clifford, *Ethics of Belief,* Vol. 10
Dewey, "Process of Thought," Vol. 10
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
James, W., *Will to Believe; Sentiment of Rationality,* Vol. 10
Schopenhauer, *On Education,* Vol. 7
Swift, *Essay on Modern Education,* Vol. 7

The Chemical History of a Candle

Vol. 8, pages 368–439

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 5*d:* The respiratory system: breathing, lungs, gills
CHANGE, Vol. 1, especially
Topic 6*c*: Comparison of change in living and nonliving things
Topic 9*a*: Physical and chemical change: compounds and mixtures
MECHANICS, Vol. 2, especially
Topic 7*a*: Light: the corpuscular and the wave theory
Topic 7*c*: The theory of heat

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Gilbert, Vol. 26, *On the Loadstone*
Lavoisier, Vol. 42, *Elements of Chemistry,* First Part, Chap. V–Second Part

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Curie, *Discovery of Radium,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Epicurus, *Letter to Herodotus,* Vol. 10
Helmholtz, *On the Conservation of Force,* Vol. 8
Huxley, *On a Piece of Chalk,* Vol. 8
Mendeleev, "Genesis of a Law of Nature," Vol. 8
Santayana, *Lucretius,* Vol. 10

Tyndall, "Michael Faraday," Vol. 8
Wöhler, *On the Artificial Production of Urea,* Vol. 8

For Faraday's *Experimental Researches in Electricity* in *Great Books of the Western World,* see Vol. 42

FRANCIS SCOTT FITZGERALD, 1896–1940

The Diamond as Big as the Ritz

Vol. 3, pages 397–431

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*b*: The fantastic and the realistic in poetry: the probable and the possible in poetry and history
OPINION, Vol. 2, especially
Topic 6*a*: Good and evil as matters of opinion: moral standards as customs or conventions reflecting prevalent opinion
TYRANNY AND DESPOTISM, Vol. 2, especially
Topic 2*b*: The degeneration of oligarchy: the tyranny of the wealthy
VIRTUE AND VICE, Vol. 2, especially
Topic 6*c*: The relation of virtue to wealth: the religious basis of economic behavior; the work ethic
WEALTH, Vol. 2, especially
Topic 10*a*: The nature of wealth as a good: its place in the order of goods and its relation to happiness
Topic 10*b*: Natural limits to the acquisition of wealth by individuals: the distinction between necessities and luxuries

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. III–IV
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto VII
Machiavelli, Vol. 21, *Prince,* Chaps. 16–19
Montaigne, Vol. 23, *Of the inequality that is between us*
Molière, Vol. 31, *Critique of the School for Wives; Miser*
Boswell, Vol. 41, *Life of Samuel Johnson*
Dickens, Vol. 47, *Little Dorrit*
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 1–5

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Riches,* Vol. 7

Bunin, *Gentleman from San Francisco,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Hemingway, *Killers,* Vol. 2
James, H., *Pupil,* Vol. 3
Lawrence, *Rocking-Horse Winner,* Vol. 3
Macaulay, *Machiavelli,* Vol. 7
Mann, *Mario and the Magician,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Pater, "Art of Life," Vol. 10
Pushkin, *Queen of Spades,* Vol. 3
Shaw, *Man of Destiny,* Vol. 4
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

For Fitzgerald's *Great Gatsby* in *Great Books of the Western World,* see Vol. 60

GUSTAVE FLAUBERT, 1821–1880

The Legend of St. Julian the Hospitaller

Vol. 3, pages 371–392

SUGGESTED READINGS IN THE *Syntopicon*

FATE, Vol. 1, especially
Topic 1: The decrees of fate and the decisions of the gods
Topic 2: The fated or inevitable in human life
LOVE, Vol. 1, especially
Topic: 5*a*(2): Beatitude as the fruition of love
Topic: 5*b*(1): The precepts of charity: the law of love
Topic: 5*b*(2): The theological virtue of charity: its relation to the other virtues
SIN, Vol. 2, especially
Topic 4*e*: The prevention and purging of sin: purification by sacrifice; the sacrament of penance; contrition, confession, and absolution; excommunication
Topic 7: Grace and good works in relation to salvation from sin: justification by faith alone

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Oedipus the King*
Euripides, Vol. 4, *Orestes*
Plutarch, Vol. 13, *Alexander*
Augustine, Vol. 16, *Confessions,* Bk. IX
Dante, Vol. 19, *Divine Comedy,* Paradiso, Cantos XXVI–XXXIII

Calvin, Vol. 20, *Institutes of the Christian Religion,* Book Third, Chaps. III–V
O'Neill, Vol. 60, *Mourning Becomes Electra*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Bacon, *Of Adversity; Of Anger,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
De Quincey, *On the Knocking at the Gate in Macbeth,* Vol. 5
Hemingway, *Killers,* Vol. 2
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Kipling, *Mowgli's Brothers,* Vol. 2
Lincoln, *Meditation on the Divine Will,* Vol. 6
Long, *Power within Us,* Vol. 6
O'Neill, *Emperor Jones,* Vol. 4
Poe, *Tell-Tale Heart; Masque of the Red Death,* Vol. 2
Scott, *Two Drovers,* Vol. 2
Shaw, *Man of Destiny,* Vol. 4
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2
Tolstoy, *What Men Live By,* Vol. 3

ANDREW RUSSELL FORSYTH, 1858–1942

Mathematics, in Life and Thought

Vol. 9, pages 26–46

SUGGESTED READINGS IN THE *Syntopicon*

ELEMENT, Vol. 1, especially
Topic: 5*b*: Atoms and the void as the ultimate constituents of reality
Topic: 5*f*: The explanation of natural phenomena by reference to the properties and motions of atoms
HYPOTHESIS, Vol. 1, especially
Topic 3: The foundations of mathematics: postulates, assumptions
Topic 4: The role of hypothesis in science
MATHEMATICS, Vol. 2, especially
Topic 5: The applications of mathematics to physical phenomena: the utility of mathematics
MECHANICS, Vol. 2, especially
Topic 1*a*: Matter, mass, and atoms: the primary qualities of bodies

Topic 3: The use of mathematics in mechanics: the dependence of progress in mechanics on mathematical discovery
PHYSICS, Vol. 2, especially
Topic 1*b*: The relation of the philosophy of nature to mathematics: mathematical method and mathematical principles in natural philosophy
Topic 3: Mathematical physics: observation and measurement in relation to mathematical formulations
Topic 4: The experimental method in the study of nature
SCIENCE, Vol. 2, especially
Topic 5: Scientific method

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euclid, Vol. 10, *Elements,* Bk. I
Nicomachus, Vol. 10, *Introduction to Arithmetic,* Bk. I
Lucretius, Vol. 11, *Way Things Are,* Bks. I, VI
Copernicus, Vol. 15, *On the Revolutions of the Heavenly Spheres*
Kepler, Vol. 15, *Epitome of Copernican Astronomy,* Bk. IV
Ptolemy, Vol. 15, *Almagest,* Bk. I
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences,* Third Day
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. I, Sects, I–II, XI–XIII; Bk. II, Sect. IX; Bk. III
Faraday, Vol. 42, *Experimental Researches in Electricity*
Poincaré, Vol. 56, *Science and Hypothesis*
Whitehead, Vol. 56, *Introduction to Mathematics,* Chaps. 1–5
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Dantzig, *Fingerprints,* Vol. 9
Dewey, "Process of Thought," Vol. 10
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Peirce, *Red and the Black,* Vol. 9
Russell, *Study of Mathematics; Mathematics and the Metaphysicians,* Vol. 9
Whitehead, "On Mathematical Method," Vol. 9

BENJAMIN FRANKLIN, 1706–1790

A Proposal for Promoting Useful Knowledge among the British Plantations in America

Vol. 6, pages 533–535

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
- Topic 6*c*: Art as the application of science: the productive powers of knowledge

KNOWLEDGE, Vol. 1, especially
- Topic 8*a*: The technical use of knowledge in the sphere of production: the applications of science in art

PHYSICS, Vol. 2, especially
- Topic 5: The utility of physics: the invention of machines; the techniques of engineering; the mastery of nature

PROGRESS, Vol. 2, especially
- Topic 3*c*: Man's progressive conquest of the forces of nature through science and invention

SCIENCE, Vol. 2, especially
- Topic 1*b*(1): The utility of science: the applications of experimental knowledge in the mastery of nature; machinery and inventions
- Topic 1*b*(2): The effects of science on human life: the economic and social implications of technology

STATE, Vol. 2, especially
- Topic 7*b*: The importance of the arts and sciences in political life

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VII
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I
Bacon, Vol. 28, *Advancement of Learning,* Second Book; *New Atlantis*
Descartes, Vol. 28, *Discourse on Method,* Part VI
Swift, Vol. 34, *Gulliver's Travels,* Part III
Hegel, Vol. 43, *Philosophy of History,* Fourth Part, Sect. II, Chap. 3
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part I, Chaps. 9–10

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Jefferson, "Biographical Sketches," Vol. 6
Schopenhauer, *On Education,* Vol. 7
Tocqueville, "Observations on American Life and Government," Vol. 6

Proposals Relating to the Education of Youth in Pennsylvania
Vol. 6, pages 536–542

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 1: The means and ends of education
Topic 1*a*: The ideal of the educated person
Topic 2: The kinds of education: physical, moral, liberal, professional, religious
Topic 4*d*: The effect upon character of poetry, music, and other arts: the role of history and examples
FAMILY, Vol. 1, especially
Topic 6*e*: The initiation of children into adult life
HISTORY, Vol. 1, especially
Topic 2: The light and lesson of history: its role in the education of the mind and in the guidance of human conduct

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III
Aristotle, Vol. 8, *Politics,* Bks. VII–VIII
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 14–16, 23–24; Bk. II, Chap. 8
Montaigne, Vol. 23, *Of the education of children*
Bacon, Vol. 28, *Advancement of Learning,* First Book
Descartes, Vol. 28, *Discourse on Method,* Part I
Dewey, Vol. 55, *Experience and Education*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Studies,* Vol. 5
Faraday, *Observations on Mental Education,* Vol. 7
Jefferson, "Biographical Sketches," Vol. 6
Mill, J. S., "Childhood and Youth," Vol. 6
Schopenhauer, *On Education,* Vol. 7
Swift, *Essay on Modern Education,* Vol. 7
Tocqueville, "Observations on American Life and Government," Vol. 6

GALILEO GALILEI, 1564–1642

The Starry Messenger
Vol. 8, pages 330–355

SUGGESTED READINGS IN THE *Syntopicon*

ASTRONOMY AND COSMOLOGY, Vol. 1, especially
- Topic 2: The method of astronomy
- Topic 4: Astronomy, cosmology, and theology: astronomy as affecting views of God, creation, the divine plan, and the moral hierarchy
- Topic 6*c*: Celestial motion: periodicity and the great year
- Topic 7: The particular heavenly bodies in the solar system and the Milky Way
- Topic 11: Astronomy as the study of the universe as a whole: cosmology
- Topic 13: The history of astronomy

MECHANICS, Vol. 2, especially
- Topic 4*a*: Terrestrial and celestial mechanics: the mechanics of finite bodies and of atoms or elementary particles
- Topic 7*a*(1): The laws of reflection and refraction
- Topic 7*a*(4): The medium of light: the ether

SCIENCE, Vol. 2, especially
- Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit

WORLD, Vol 2, especially
- Topic 1*a*: The opposed metaphors: the universe as a machine and the universe as a living organism; the doctrine of the world soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *On the Heavens*
Ptolemy, Vol. 15, *Almagest,* Bks. I, III
Copernicus, Vol. 15, *On the Revolutions of the Heavenly Spheres,* Introduction–Bk. I
Kepler, Vol. 15, *Epitome of Copernican Astronomy,* Bk. IV, Part II–III; Bk. V, Part I
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. IX, XII
Eddington, Vol. 56, *Expanding Universe*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Campanella, "Arguments for and against Galileo," Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Voltaire, *Micromégas,* Vol. 2

For Galileo's *Dialogues Concerning the Two New Sciences* in *Great Books of the Western World,* see Vol. 26

JOHN GALSWORTHY, 1867–1933

The Apple-Tree

Vol. 3, pages 323–367

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
- Topic 3*c*: Desire and love: their distinction and connection
- Topic 4*a*: The conflict of desires with one another

EMOTION, Vol. 1, especially
- Topic 4*a*: The conflict between reason and emotion

LOVE, Vol. 1, especially
- Topic 1*c*: The distinction between love and desire: the generous and acquisitive aims
- Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force
- Topic 3*b*: The demands of love and the restraints of virtue: moderation in love; the order of loves

MEMORY AND IMAGINATION, Vol. 2, especially
- Topic 2*c*: The association of ideas: controlled and free association; reminiscence and reverie

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus*
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto V
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. III, Chap. 31
Montaigne, Vol. 23, *Of three kinds of association*
Shakespeare, Vol. 24, *As You Like It;* Vol. 25, *Troilus and Cressida,* Act II, Scene II
James, W., Vol. 53, *Principles of Psychology,* Chap. X
Proust, Vol. 59, *Swann in Love*
Mann, Vol. 59, *Death in Venice*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Of Youth and Age; Of Marriage and Single Life,* Vol. 7; *Of Love,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
Bunin, *Gentleman from San Francisco,* Vol. 3
Chekhov, *Darling,* Vol. 3
Dostoevsky, *White Nights,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10

FRANCIS GALTON, 1822–1911

"The Classification of Human Ability"

from *Hereditary Genius*
Vol. 8, pages 227–261

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 10: Heredity and environment: the genetic determination of individual differences and similarities; RNA, DNA, genes, chromosomes, cistrons
EVOLUTION, Vol. 1, especially
Topic 2*d*: Genetic variation in the course of generations: the genetics of populations
FAMILY, Vol. 1, especially
Topic 6*b*: Eugenics: control of breeding; birth control
MAN, Vol. 2, especially
Topic 2*b*: The sciences of human nature: anthropology and psychology; ethnography and ethnology; rational and empirical psychology; experimental and clinical psychology
Topic 6: The distinctive characteristics of men and women and their differences

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. V
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. I
Darwin, Vol. 49, *Descent of Man,* Chaps. II, V, VIII
James, W., Vol. 53, *Principles of Psychology,* Chaps. VII, XXVIII
Schrödinger, Vol. 56, *What Is Life?*
Dobzhansky, Vol. 56, *Genetics and the Origin of Species,* Chaps. II, IV, VIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Curie, *Discovery of Radium,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
James, W., *Energies of Men; Great Men and Their Environment,* Vol. 7
Laplace, "Probability," Vol. 9
Mill, J. S., "Childhood and Youth," Vol. 6
Poincaré, *Mathematical Creation,* Vol. 9
Tyndall, "Michael Faraday," Vol. 8

NIKOLAI GOGOL, 1809–1852

The Overcoat

Vol. 2, pages 452–478

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
- Topic 2*b*(1): The contribution of the goods of fortune to happiness: wealth, health, longevity
- Topic 4*a*: Man's capacity for happiness: differences in human nature with respect to happiness

STATE, Vol. 2, especially
- Topic 5*c*: The classes or subgroups arising from the division of labor or distinctions of birth: the social hierarchy and its causes

WEALTH, Vol. 2, especially
- Topic 8*c*: The causes of poverty: competition, incompetence, indigence, expropriation, unemployment; the poverty of the proletariat as dispossessed of the instruments of production

WISDOM, Vol. 2, especially
- Topic 4: The praise of folly: the wisdom of fools and innocents

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Erasmus, Vol. 23, *Praise of Folly*
Cervantes, Vol. 27, *Don Quixote,* Part Two, Chap. 43
Rousseau, Vol. 35, *Discourse on Political Economy*
Boswell, Vol. 41, *Life of Samuel Johnson*
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Adversity,* Vol. 10
Plutarch, *Contentment,* Vol. 10
Singer, *Spinoza of Market Street,* Vol. 3
Swift, *Modest Proposal,* Vol. 7
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3
Wilde, *Happy Prince,* Vol. 2

GREAT DOCUMENTS

The English Bill of Rights
Declaration of the Rights of Man and of the Citizen
The Virginia Declaration of Rights
The Declaration of Independence
Charter of the United Nations
Universal Declaration of Human Rights
Vol. 6, pages 409–456

SUGGESTED READINGS IN THE *Syntopicon*

CITIZEN, Vol. 1, especially
Topic 4: The rights, duties, privileges, and immunities of citizenship
CONSTITUTION, Vol. 1, especially
Topic 7*b*: The safeguards of constitutional government: bills of rights; separation of powers; impeachment
JUSTICE, Vol. 1, especially
Topic 6: Justice and liberty: the theory of human rights
Topic 6*b*: The relation between natural and positive rights, innate and acquired rights, private and public rights: their correlative duties
Topic 6*c*: The inalienability of natural rights: their violation by tyranny and despotism
Topic 6*e*: Justice and natural rights as the source of civil liberty
LAW, Vol. 1, especially
Topic 4*e*: The relation of natural law to natural rights and natural justice
Topic 7*c*: The priority of natural to civil law: the inviolability or inalienability of natural rights
LIBERTY, Vol. 1, especially
Topic 1*g*: The juridical protection of liberties: bills of rights; the separation of powers

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Antigone*
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q. 95, Art. 2; Q. 100, Art. 1
Hobbes, Vol. 21, *Leviathan,* Part II, Chap. XXI
Milton, Vol. 29, *Areopagitica*
Locke, Vol. 33, *Concerning Civil Government,* Chap. II
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. I, Chaps. 1–3
Rousseau, Vol. 35, *Social Contract,* Bk. II, Chaps. 4–5

Kant, Vol. 39, *Science of Right,* First Part; Second Part
Articles of Confederation, Vol. 40
Constitution of the United States of America, Vol. 40
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 84
Mill, J. S., Vol. 40, *On Liberty; Utilitarianism,* Chap. 5
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chaps. 6–7; Part II, Chaps. 5–6; Vol. 2, Part IV, Chaps. 6–7
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Clausewitz, *What Is War?,* Vol. 7
Crèvecoeur, "Making of Americans," Vol. 6
Dante, "On World Government," Vol. 7
Emerson, *Thoreau,* Vol. 6
Jefferson, "Virginia Constitution"; *First Inaugural Address,* Vol. 6
Lincoln, *Address at Cooper Institute; First Inaugural Address; Letter to Horace Greeley; Gettysburg Address,* Vol. 6
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Thoreau, *Civil Disobedience,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Tolstoy, *What Men Live By,* Vol. 3
Voltaire, "English Men and Ideas," Vol. 7
Whitman, *Death of Abraham Lincoln,* Vol. 6

FRANÇOIS GUIZOT, 1787–1874

"Civilization"

from *History of Civilization in Europe*
Vol. 6, pages 302–317

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 12: The history of the arts: progress in art as measuring stages of civilization
HISTORY, Vol. 1, especially
Topic 4*c*: The spirit of the time as conditioning the politics and culture of a period
LIBERTY, Vol. 1, especially
Topic 6*a*: The historical significance of freedom: stages in the

realization of freedom; the beginning and end of the historical process

PROGRESS, Vol. 2, especially

Topic 6: Intellectual or cultural progress: its sources and impediments; the analogy of cultural progress to biological evolution

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Hobbes, Vol. 21, *Leviathan,* Introduction; Part II
Bacon, Vol. 28, *Advancement of Learning,* First Book
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* First Part
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire,* Chap. XL; Vol. 38, Chap. LXXI
Mill, J. S., Vol. 40, *On Liberty,* Chaps. 2–3
Hegel, Vol. 43, *Philosophy of History,* Introduction III
Tocqueville, Vol. 44, *Democracy in America,* Introduction; Vol. 2, Part I, Chaps. 9–15
Darwin, Vol. 49, *Descent of Man,* Chap. V
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. III
Whitehead, Vol. 55, *Science and the Modern World,* Chap. XIII
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XIX–XXIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Sphinx,* Vol. 8
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5; *Of Refinement in the Arts; Of the Study of History,* Vol. 7
Jefferson, *First Inaugural Address,* Vol. 6
Lucian, *Way to Write History,* Vol. 6
Macaulay, *Machiavelli,* Vol. 7

J. B. S. HALDANE, 1892–1964

On Being the Right Size

Vol. 8, pages 149–154

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially

Topic 2*b*: Analogies of structure and function among different classes of animals

Topic 3: The anatomy of animals

CHANGE, Vol. 1, especially
Topic 8: Change of size
DEMOCRACY, Vol. 1, especially
Topic 5*a*: The distinction between direct democracy and representative, or republican, government: the territorial limits of democracy
QUANTITY, Vol. 2, especially
Topic 5*d*: Mass: its relation to weight

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *History of Animals,* Bk. I, Chaps. 1–15; *On the Parts of Animals,* Bks. II–IV
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences,* Third Day
Swift, Vol. 34, *Gulliver's Travels,* Parts I–II
Darwin, Vol. 49, *Origin of Species,* Chap. VI
Waddington, Vol. 56, *Nature of Life,* Chap. 3

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Carson, *Sunless Sea,* Vol. 8
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8

NATHANIEL HAWTHORNE, 1804–1864

Rappaccini's Daughter

Vol. 3, pages 128–152

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 3: Beauty in relation to desire and love, as object or cause
EMOTION, Vol. 1, especially
Topic 3*a*: Madness or frenzy due to emotional excess: excessively emotional or emotionally overdetermined behavior
FAMILY, Vol. 1, especially
Topic 6*d*: The care and government of children: the rights and duties of the child; parental despotism and tyranny
GOOD AND EVIL, Vol. 1, especially
Topic 3*f*: The sources of evil in human life
LIFE AND DEATH, Vol. 1, especially
Topic 7: The causes and occurrence of death: the transition from life to death; homicide

MAN, Vol. 2, especially
Topic 5*b*: Abnormalities due to defect or conflict of powers: feeblemindedness, neuroses, insanity, madness

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Electra*
Shakespeare, Vol. 25, *King Lear,* Act I
Goethe, Vol. 45, *Faust,* Second Part, Act I
Balzac, Vol. 45, *Cousin Bette*
Lawrence, Vol. 60, *Prussian Officer*
O'Neill, Vol. 60, *Mourning Becomes Electra*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Of Parents and Children,* Vol. 7; *Of Love,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Lawrence, *Rocking-Horse Winner,* Vol. 3
Mann, *Mario and the Magician,* Vol. 3
Poe, *Tell-Tale Heart; Masque of the Red Death,* Vol. 2
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2
Turgenev, *First Love,* Vol. 3

Sketch of Abraham Lincoln

Vol. 6, pages 168–171

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 6: The selection of the best men for public office: the aristocratic theory of representation in modern constitutional government
HISTORY, Vol. 1, especially
Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
HONOR, Vol. 1, especially
Topic 3*a:* The reaction of the community to its good or great men
STATE, Vol. 2, especially
Topic 8*d*: Statecraft: the art or science of governing; political prudence
Topic 8*d*(2): The occasions and uses of rhetoric: propaganda

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 10–13

Plutarch, Vol. 13, *Pericles*
Shakespeare, Vol. 24, *King Henry IV,* First Part; *King Henry IV,* Second Part
Locke, Vol. 33, *Concerning Civil Government,* Chap. VIII
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 68
Hegel, Vol. 43, *Philosophy of History,* Introduction III
Tolstoy, Vol. 51, *War and Peace,* First Epilogue, Chaps. I–IV; Second Epilogue
Weber, Vol. 58, *Essays in Sociology,* Chaps. IV, IX
Shaw, Vol. 59, *Saint Joan*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6, especially Chap. VI
Bacon, *Of Great Place,* Vol. 7
Carlyle, *Hero as King,* Vol. 6
Crèvecoeur, "Making of Americans," Vol. 6
James, W., *Great Men and Their Environment,* Vol. 7
Jefferson, "Biographical Sketches," Vol. 6
Lincoln, *Address at Cooper Institute; First Inaugural Address; Letter to Horace Greeley; Meditation on the Divine Will; Gettysburg Address; Second Inaugural Address; Last Public Address,* Vol. 6
Thoreau, *Plea for Captain John Brown,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6
Woolf, *Art of Biography,* Vol. 6
Xenophon, "Character of Socrates," Vol. 6

WILLIAM HAZLITT, 1778–1830

My First Acquaintance with Poets

Vol. 5, pages 264–279

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 3*d*: Memory as the muse of poetry and history: the dependence of history on the memory of men
POETRY, Vol. 2, especially
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry: the distinction between prose and verse; the measure of excellence in style

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Pascal, Vol. 30, *Pensées,* Sect. I
James, W., Vol. 53, *Principles of Psychology,* Chap. XXII
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Lamb, *Sanity of True Genius,* Vol. 5
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

On Swift

Vol. 5, pages 280–283

SUGGESTED READINGS IN THE *Syntopicon*

POETRY, Vol. 2, especially
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry: the distinction between prose and verse; the measure of excellence in style
TRUTH, Vol. 2, especially
Topic 4*b*: Truth in science and poetry: the truth of fact and the truth of fiction

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III
Montaigne, Vol. 23, *Of books*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 47–50

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Schopenhauer, *On Style,* Vol. 5
Swift, *Resolutions when I Come to Be Old; Essay on Modern Education; Meditation upon a Broomstick; Modest Proposal,* Vol. 7

For Swift's *Gulliver's Travels* in *Great Books of the Western World,* see Vol. 34

Of Persons One Would Wish to Have Seen

Vol. 5, pages 284–295

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*a*: Art as a source of pleasure or delight
BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience or imagination; the influence of the poetic tradition

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Odyssey,* Bk. XI
Plato, Vol. 6, *Ion; Republic,* Bk. X
Virgil, Vol. 12, *Aeneid,* Bk. VI
Montaigne, Vol. 23, *Of books*
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. I
Boswell, Vol. 41, *Life of Samuel Johnson*
James, W., Vol. 53, *Principles of Psychology,* Chap. XXV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5
Lamb, *Dream Children,* Vol. 5
Sainte-Beuve, *What Is a Classic?; Montaigne,* Vol. 5
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Xenophon, "Character of Socrates," Vol. 6

On the Feeling of Immortality in Youth

Vol. 10, pages 565–570

SUGGESTED READINGS IN THE *Syntopicon*

IMMORTALITY, Vol. 1, especially
Topic 1: The desire for immortality: the fear of death
LIFE AND DEATH, Vol. 1, especially
Topic 8*b*: The love of life: the instinct of self-preservation; the life instinct

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Symposium; Phaedo*
Lucretius, Vol. 11, *Way Things Are,* Bk. III *passim*
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q. 75, Art. 6
Montaigne, Vol. 23, *That to philosophize is to learn to die*

James, W., Vol. 53, *Principles of Psychology,* Chaps. XI, XV
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XI–XII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Bacon, *Of Youth and Age,* Vol. 7; *Of Death,* Vol. 10
Browne, "Immortality," Vol. 10
Cicero, *On Old Age,* Vol. 10
Conrad, *Youth,* Vol. 2
Dinesen, *Sorrow-Acre,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Long, *Power within Us,* Vol. 6
Pater, "Art of Life," Vol. 10

H. L. F. VON HELMHOLTZ, 1821–1894

On the Conservation of Force

Vol. 8, pages 451–484

SUGGESTED READINGS IN THE *Syntopicon*

MECHANICS, Vol. 2
PHYSICS, Vol. 2
QUANTITY, Vol. 2, especially
Topic 5: Physical quantities
REASONING, Vol. 2, especially
Topic 5*b*: Scientific reasoning: the theory of demonstration
Topic 6*c*: Inductive and deductive inference in the philosophy of nature and the natural sciences
SCIENCE, Vol. 2, especially
Topic 1*b*(2): The effects of science on human life: the economic and social implications of technology
Topic 3: The relation of science to action and production

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Lucretius, Vol. 11, *Way Things Are,* Bk. II
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy*
Faraday, Vol. 42, *Experimental Researches in Electricity*
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Planck, Vol. 56, *Scientific Autobiography*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9

Eddington, *Running-Down of the Universe,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Santayana, *Lucretius,* Vol. 10
Tyndall, "Michael Faraday," Vol. 8

ERNEST HEMINGWAY, 1899–1961

The Killers

Vol. 2, pages 169–177

SUGGESTED READINGS IN THE *Syntopicon*

JUSTICE, Vol. 1, especially
Topic 10*c*: The justice of punishment for unjust acts: the distinction between retribution and vengeance
LAW, Vol. 1, especially
Topic 6*e*(1): The nature and causes of crime
Topic 6*e*(3): The punishment of crime
LIFE AND DEATH, Vol. 1, especially
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr
PUNISHMENT, Vol. 2, especially
Topic 1*b*: The retributive purpose of punishment: the *lex talionis;* retaliation and revenge; the righting of a wrong

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aeschylus, Vol. 4, *Eumenides*
Sophocles, Vol. 4, *Electra*
Euripides, Vol. 4, *Orestes*
Plato, Vol. 6, *Apology*
Shakespeare, Vol. 24, *King Richard III;* Vol. 25, *Measure for Measure; Macbeth*
Milton, Vol. 29, *Paradise Lost,* Bk. III
Hegel, Vol. 43, *Philosophy of Right,* First Part
Melville, Vol. 48, *Moby Dick,* Chap. 36
O'Neill, Vol. 60, *Mourning Becomes Electra*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
De Quincey, *On the Knocking at the Gate in Macbeth,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3

Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hugo, "Battle with the Cannon," Vol. 2
O'Neill, *Emperor Jones,* Vol. 4
Poe, *Tell-Tale Heart; Masque of the Red Death,* Vol. 2
Scott, *Two Drovers,* Vol. 2
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

For Hemingway's *Short Happy Life of Francis Macomber* in *Great Books of the Western World,* see Vol. 60

LANCELOT HOGBEN, 1895–1975

Mathematics, the Mirror of Civilization

Vol. 9, pages 3–23

SUGGESTED READINGS IN THE *Syntopicon*

INFINITY, Vol. 1, especially
Topic 3*a*: Number: the infinite of division and addition
Topic 3*b*: The infinite divisibility of continuous quantities: the infinitesimal; the method of exhaustion and the theory of limits
Topic 4*b*: The infinite divisibility of matter: the issue concerning atoms or elementary particles
MATHEMATICS, Vol. 2, especially
Topic 5: The applications of mathematics to physical phenomena: the utility of mathematics
QUANTITY, Vol. 2, especially
Topic 6: The measurements of quantities: the relation of magnitudes and multitudes; the units of measurement
Topic 7: Infinite quantity: the actual infinite and the potentially infinite quantity; the mathematical and physical infinite of the great and the small

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Parmenides; Timaeus*
Descartes, Vol. 28, *Geometry,* Bk. II
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. III
Kant, Vol. 39, *Critique of Pure Reason,* Introduction
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Whitehead, Vol. 55, *Science and the Modern World,* Chap. II; Vol. 56, *Introduction to Mathematics,* Chaps. 1–3
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Dantzig, *Fingerprints; Empty Column,* Vol. 9
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9
Poincaré, *Mathematical Creation,* Vol. 9
Russell, *Study of Mathematics; Mathematics and the Metaphysicians,* Vol. 9
Whitehead, "On Mathematical Method," Vol. 9

VICTOR HUGO, 1802–1885

"The Battle with the Cannon"

from *Ninety-Three*
Vol. 2, pages 146–154

SUGGESTED READINGS IN THE *Syntopicon*

CITIZEN, Vol. 1, especially
Topic 1: The individual in relation to the state
Topic 2*b*: The distinction between citizen and subject: the distinction between the subjects of a constitutional monarchy and of a despotism
JUSTICE, Vol. 1, especially
Topic 1*c*: Justice as a moral virtue directing activity in relation to others and to the community: the distinction between the just man and the just act
Topic 10*d*: The correction of legal justice: equity in the application of human law
PUNISHMENT, Vol. 2, especially
Topic 2: Personal responsibility as a condition of just punishment: the problem of collective responsibility
Topic 4*b*: The forms of punishment available to the state
Topic 4*b*(1): The death penalty: its justification
REVOLUTION, Vol. 2, especially
Topic 1*c*: Revolution and counterrevolution: civil strife distinguished from war between states
Topic 2*a*: Change in the form of government or constitution
Topic 3*b*: Ways of retaining power: the suppression and subversion of revolutions by tyrants, despots, and totalitarian states
Topic 3*c*: The causes and effects of revolution under different forms of government
Topic 3*c*(3): Rebellion against tyranny and despotism

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Ajax*
Plato, Vol. 6, *Gorgias; Republic,* Bks. I–II
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 21; Vol. 18, Part I–II, Q 60, Art. 3; Q 100, Art. 12
Milton, Vol. 29, *Paradise Lost,* Bks. I–II
Freud, Vol. 54, *Thoughts for the Times on War and Death*
Shaw, Vol. 59, *Saint Joan*
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles,* Vol. 7; *Of Adversity,* Vol. 10
Conrad, *Youth,* Vol. 2
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Hemingway, *Killers,* Vol. 2
Maupassant, *Two Friends,* Vol. 2
Melville, *Billy Budd,* Vol. 3
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Scott, *Two Drovers,* Vol. 2

DAVID HUME, 1711–1776

Of the Standard of Taste

Vol. 5, pages 103–119

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*b*: The judgment of excellence in art
BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
GOOD AND EVIL, Vol. 1, especially
Topic 3*a*: Human nature and the determination of the good for man: the real and the apparent good; particular goods and the good in general
OPINION, Vol. 2, especially
Topic 6*a*: Good and evil as matters of opinion: moral standards as customs or conventions reflecting prevalent opinion

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 5, Arts. 3–4; Part I–II, Q 27, Art. 1
Montaigne, Vol. 23, *That the taste of good and evil depends in large part on the opinion we have of them*
Descartes, Vol. 28, *Discourse on Method,* Parts II–III
Spinoza, Vol. 28, *Ethics,* Part I, Appendix
Pascal, Vol. 30, *Pensées,* Sect. 1; Sect. VI
Voltaire, Vol. 34, *Candide*
Kant, Vol. 39, *Critique of Judgement*
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 6–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Beauty,* Vol. 5
Guizot, "Civilization," Vol. 6
Hazlitt, *Of Persons One Would Wish to Have Seen,* Vol. 5
Lamb, *My First Play,* Vol. 5
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Schopenhauer, *On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

Of Refinement in the Arts

Vol. 7, pages 52–61

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
  Topic 9*b*: The production of wealth: the industrial arts
LABOR, Vol. 1, especially
  Topic 1*b*: Labor, leisure, and happiness: the servile, political, and contemplative life
  Topic 1*e*: The honor of work and the virtue of productivity: progress through the invention of arts for the conquest of nature
  Topic 6: The wages of labor: kinds of wage payments
NECESSITY AND CONTINGENCY, Vol. 2, especially
  Topic 5*e*: Economic necessities or luxuries
PROGRESS, Vol. 2, especially
  Topic 3: Economic progress
TEMPERANCE, Vol. 2, especially
  Topic 5*b*: The temperance of a people: luxurious indulgences; the intemperance of the mob

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. II
Aristotle, Vol. 7, *Metaphysics,* Bk. I, Chap. 1; Vol. 8, *Politics,* Bk. VII, Chaps. 1–9
Lucretius, Vol. 11, *Way Things Are,* Bk. V
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chaps. I, X; Bk. III; Bk. IV, Chap. IX
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part I, Chap. 11; Part II, Chaps. 10–11
Marx, Vol. 50, *Capital,* Part III, Chaps. VIII–IX; Part IV, Chaps. XIV–XV
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 6–7
Tawney, Vol. 57, *Acquisitive Society*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Crèvecoeur, "Making of Americans," Vol. 6
Guizot, "Civilization," Vol. 6
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7

Of Money

Vol. 7, pages 62–71

Of the Balance of Trade

Vol. 7, pages 72–84

Of Taxes

Vol. 7, pages 85–88

SUGGESTED READINGS IN THE *Syntopicon*

LABOR, Vol. 1, especially
Topic 5: The organization of production: the position of labor in different economies
Topic 6: The wages of labor: kinds of wage payments
PROGRESS, Vol. 2, especially
Topic 3: Economic progress
STATE, Vol. 2, especially
Topic 2*d*: The economic aspect of the state: differentiation of states according to their economic systems
Topic 7*a*: Wealth and political welfare
Topic 9*a*: Commerce and trade between states: commercial rivalries and trade agreements; free trade and tariffs
WEALTH, Vol. 2, especially

Topic 3: The production of wealth in the political community
Topic 4: The exchange of wealth or the circulation of commodities: the processes of commerce or trade
Topic 5: Money
Topic 9: Political economy: the nature of the science of economics

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. II
Aristotle, Vol. 8, *Politics,* Bk. I, Chaps. 9–10
Rousseau, Vol. 35, *Discourse on Political Economy*
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chaps. I–V, VIII; Bk. II, Chap. II; Bk. IV, Chap. IX
Marx, Vol. 50, *Capital,* Part I, Chaps. I–III; Part IV, Chap. XIV
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 4–7
Tawney, Vol. 57, *Acquisitive Society,* Chaps. 4–11
Keynes, Vol. 57, *General Theory of Employment, Interest and Money*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Usury; Of Riches,* Vol. 7
Bunin, *Gentleman from San Francisco,* Vol. 3
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Voltaire, "English Men and Ideas: On Trade," Vol. 7

Of the Study of History

Vol. 7, pages 89–92

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 4*d*: The effect upon character of poetry, music, and other arts: the role of history and examples
HISTORY, Vol. 1, especially
Topic 2: The light and lesson of history: its role in the education of the mind and in the guidance of human conduct

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. III
Aristotle, Vol. 8, *On Poetics,* Chaps. 9, 23
Plutarch, Vol. 13, *Pericles*
Machiavelli, Vol. 21, *Prince,* Chaps. XV–XXI
Montaigne, Vol. 23, *Of books*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Smith, Vol. 36, *Wealth of Nations,* Bk. V, Chap. I, Art. II
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 18–20

Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Seven and Eight
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part IV, Bk. X, Chap. 5
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bury, *Herodotus,* Vol. 6
Carlyle, *Hero as King,* Vol. 6
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Guizot, "Civilization," Vol. 6
Lucian, *Way to Write History,* Vol. 6
Macaulay, *Machiavelli,* Vol. 7
Schopenhauer, *On Education,* Vol. 7
Woolf, *How Should One Read a Book?,* Vol. 5

For Hume's *Enquiry Concerning Human Understanding* in *Great Books of the Western World,* see Vol. 33

THOMAS HENRY HUXLEY, 1825–1895

On the Relations of Man to the Lower Animals

Vol. 8, pages 160–204

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1*c*: The distinction between animal and human nature
Topic 2: The classification of animals
EVOLUTION, Vol. 1
MAN, Vol. 2, especially
Topic 1*c*: The conception of man as an animal, differing only in degree of intelligence and of other qualities possessed by other animals
Topic 4*a*: Man's vegetative powers: comparison with similar functions in plants and animals
Topic 4*b*: Man's sensitive and appetitive powers: comparison with similar functions in other animals
Topic 8: The origin or genealogy of man
Topic 10*e*: Man's comparison of himself with other creatures and with the universe as a whole
NATURE, Vol. 2, especially
Topic 1*c*: Nature as the complex of the objects of sense: the realm of things existing under the determination of universal laws

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *History of Animals*
Montaigne, Vol. 23, *Apology for Raymond Sebond*
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Darwin, Vol. 49, *Origin of Species; Descent of Man*
James, W., Vol. 53, *Principles of Psychology,* Chaps. XXII, XXIV
Freud, Vol. 54, *Beyond the Pleasure Principle*
Dobzhansky, Vol. 56, *Genetics and the Origin of Species,* Chap. X
Waddington, Vol. 56, *Nature of Life,* Chaps. 4–5
Kafka, Vol. 60, *Metamorphosis*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Balzac, *Passion in the Desert,* Vol. 3
Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Eiseley, "On Time," Vol. 8
Emerson, *Nature,* Vol. 10
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Galton, "Classification of Human Ability," Vol. 8
Kipling, *Mowgli's Brothers,* Vol. 2
Mill, J. S., *Nature,* Vol. 10
Pavlov, *Scientific Study of the So-Called Psychical Processes in the Higher Animals,* Vol. 8

On a Piece of Chalk

Vol. 8, pages 205–222

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 6*c*: Comparison of change in living and nonliving things
Topic 9*a*: Physical and chemical change: compounds and mixtures
EVOLUTION, Vol. 1, especially
Topic 5: The facts of evolution: evidences bearing on the history of life on earth
SCIENCE, Vol. 2, especially
Topic 1*b*: Science as the discipline of experimental inquiry and the organization of experimental knowledge: the scientific spirit

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Darwin, Vol. 49, *Origin of Species,* Chaps. III–IV, X–XIII, XV
Schrödinger, Vol. 56, *What Is Life?,* Chap. 7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Eiseley, "On Time," Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Lyell, "Geological Evolution," Vol. 8

HENRIK IBSEN, 1828–1906

An Enemy of the People

Vol. 4, pages 164–246

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 7*a*: The courage required of citizens and statesmen: the political recognition of courage
DEMOCRACY, Vol. 1, especially
Topic 2*a*: The tyranny of the majority: lawless mob rule
HONOR, Vol. 1, especially
Topic 3*a*: The reaction of the community to its good or great men
TRUTH, Vol. 2, especially
Topic 8*b*: The expediency of the political lie: the uses of lying

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Oedipus the King; Philoctetes*
Plato, Vol. 6, *Republic,* Bk. IV
Montaigne, Vol. 23, *Of presumption*
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 10, 51
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 6–7
Boswell, Vol. 41, *Life of Samuel Johnson*
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chaps. 7–8
Twain, Vol. 48, *Adventures of Huckleberry Finn,* Chaps. 21–22

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Adversity,* Vol. 10
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Calhoun, "Concurrent Majority," Vol. 7
Carlyle, *Hero as King,* Vol. 6

Chekhov, *Cherry Orchard,* Vol. 4
Emerson, *Self-Reliance,* Vol. 10
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Thoreau, *Civil Disobedience,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Voltaire, "English Men and Ideas: On Inoculation," Vol. 7
Xenophon, "Character of Socrates," Vol. 6

For Ibsen's *Doll's House, Wild Duck, Hedda Gabler,* and *Master Builder* in *Great Books of the Western World,* see Vol. 52

HENRY JAMES, 1843–1916

The Pupil

Vol. 3, pages 530–568

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 5*a*: The conventional determination of moral judgments: the moral evaluation of conventions
DESIRE, Vol. 1, especially
Topic 7*a*(3): The accumulation of wealth
EDUCATION, Vol. 1, especially
Topic 4*b*: The influence of the family in moral training
FAMILY, Vol. 1, especially
Topic 6*e*: The initiation of children into adult life
TRUTH, Vol. 2, especially
Topic 8*c*: Truth and falsehood in relation to love and friendship: the pleasant and the unpleasant truth
WEALTH, Vol. 2, especially
Topic 10*c*: Temperance and intemperance with respect to wealth: liberality, magnificence, miserliness, avarice; the corrupting influence of excessive wealth
Topic 10*e*(3): The choice between God and Mammon: the love of money as the root of all evil: the secularizing impact of affluence

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol.6, *Laws,* Bk. VII
Montaigne, Vol. 23, *Of the education of children*
Dickens, Vol. 47, *Little Dorrit*
Fitzgerald, Vol. 60, *Great Gatsby*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Riches,* Vol. 7
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Lawrence, *Rocking-Horse Winner,* Vol. 3
Pater, "Art of Life," Vol. 10
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

For Henry James's *Beast in the Jungle* in *Great Books of the Western World,* see Vol. 59

WILLIAM JAMES, 1842–1910

On a Certain Blindness in Human Beings

Vol. 7, pages 141–156

SUGGESTED READINGS IN THE *Syntopicon*

MAN, Vol. 2, especially
Topic 2*a*: Immediate self-consciousness: man's intimate or introspective knowledge of himself
Topic 10*e*: Man's comparison of himself with other creatures and with the universe as a whole
MIND, Vol. 2, especially
Topic 1*d*(1): The origin of the mind's simple ideas: sensation and reflection
PLEASURE AND PAIN, Vol. 2, especially
Topic 4*b*: Sensuous pleasure: the affective quality of sensations
Topic 4*c*: Intellectual pleasure: the pleasures of reflection and contemplation
SENSE, Vol. 2, especially
Topic 3*d*(2): Memory and imagination as interior powers of sense
Topic 6: The role of sense in the perception of beauty: the beautiful and the pleasing to sense; sensible and intelligible beauty

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Philebus*
Aristotle, Vol. 8, *Rhetoric,* Bk. I, Chap. 11
Aquinas, Vol. 17, *Summa Theologica,* Part I–II, Q. 11
Montaigne, Vol. 23, *Of experience*
Pascal, Vol. 30, *Pensées,* Sect. II

Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chaps. XII–XIII; Bk. 13, Chaps. XI–XII, XIV; Bk. 14, Chaps. XII–XV; Bk. 15, Chaps. XII–XIII
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. VI
James, W., Vol. 53, *Principles of Psychology,* Chap. XI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Pater, "Art of Life," Vol. 10
Plutarch, *Contentment,* Vol. 10
Schopenhauer, *On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5

The Energies of Men

Vol. 7, pages 157–170

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
Topic 2*c*: Desire as a cause of action: motivation, purpose, ambition; voluntariness
MIND, Vol. 2, especially
Topic 2*c*(2): The influence of mental activity on bodily states
WILL, Vol. 2, especially
Topic 3: The functioning of will in human conduct and thought
Topic 3*a*: The role of the will in behavior
Topic 9*a*: The distinction between men of strong and weak will: cultivation of willpower

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aquinas, Vol. 17, *Summa Theologica,* Part I–II, Q. 17
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Ibsen, Vol. 52, *Master Builder*
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVII
Freud, Vol. 54, *Selected Papers on Hysteria,* Chaps. 1–3

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Adversity,* Vol. 10
Crane, *Open Boat,* Vol. 3
Curie, *Discovery of Radium,* Vol. 8
Galton, "Classification of Human Ability," Vol. 8
Hugo, "Battle with the Cannon," Vol. 2
Long, *Power within Us,* Vol. 6
O'Neill, *Emperor Jones,* Vol. 4

Great Men and Their Environment

Vol. 7, pages 171–194

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 10: Heredity and environment: the genetic determination of individual differences and similarities; RNA, DNA, genes, chromosomes, cistrons
Topic 11*b*: The relation between animals and their environments
EVOLUTION, Vol. 1, especially
Topic 2*b*: The process of heredity
Topic 2*b*(1): The inheritance of acquired characteristics: the use and disuse of parts
FATE, Vol. 1, especially
Topic 2: The fated or inevitable in human life
HISTORY, Vol. 1, especially
Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
STATE, Vol. 2, especially
Topic 8*c*: The education or training of the statesman or prince
WILL, Vol. 2, especially
Topic 7*b*: The factors of freedom and necessity in the philosophy of history

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Herodotus, Vol. 5, *History,* Bk. VII
Plutarch, Vol. 13, *Theseus; Pericles*
Machiavelli, Vol. 21, *Prince,* Chaps. VI, XXV
Hegel, Vol. 43, *Philosophy of History,* Introduction, Part III
Kierkegaard, Vol. 43, *Fear and Trembling*
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Darwin, Vol. 49, *Descent of Man,* Part I, Chap. II
Tolstoy, Vol. 51, *War and Peace,* Bk. 9, Chap. I; Bk. 13; First Epilogue, Chaps. I–IV; Second Epilogue
Weber, Vol. 58, *Essays in Sociology,* Chaps. IV, IX

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place,* Vol. 7
Carlyle, *Hero as King,* Vol. 6
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Galton, "Classification of Human Ability," Vol. 8
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hazlitt, *Of Persons One Would Wish to Have Seen,* Vol. 5
Lamb, *Sanity of True Genius,* Vol. 5
Mill, J. S., "Childhood and Youth," Vol. 6
Shaw, *Man of Destiny,* Vol. 4

Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Xenophon, "Character of Socrates," Vol. 6

The Will to Believe

Vol. 10, pages 39–57

SUGGESTED READINGS IN THE *Syntopicon*

HYPOTHESIS, Vol. 1, especially
Topic 2: Hypothetical reasoning and hypothetical constructions in philosophy
KNOWLEDGE, Vol. 1, especially
Topic 6*c*(4): The distinction between *a priori* and *a posteriori* knowledge; the transcendental, or speculative, and the empirical
OPINION, Vol. 2, especially
Topic 2*b*: The will as cause of assent in acts of opinion
WILL, Vol. 2, especially
Topic 3*b*(1): The distinction between knowledge and opinion in relation to the willful in thought: the will to believe and wishful thinking
Topic 5*a*(1): The freedom of the will as consisting in a freely determined choice or a free judgment of the reason

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Descartes, Vol. 28, *Discourse on Method,* Parts II–IV
Spinoza, Vol. 28, *Ethics,* Part I, Prop. 34-Appendix; Part II, Props. 48–49
Pascal, Vol. 30, *Provincial Letters,* Letter XVIII; *Pensées,* Sects. III–IV
Locke, Vol. 33, *Concerning Human Understanding,* Bk. II, Chap. XXI; Bk. IV, Chap. XIX
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. IV–Sect. V, Part I; Sects. X–XI
Kant, Vol. 39, *Critique of Pure Reason,* Introduction
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chaps. 3–5; Part III, Bk. VII, Chaps. 1–2, 4; Part IV, Bk. XI, Chaps. 4, 9
Freud, Vol. 54, *Civilization and Its Discontents,* Parts I–II; *New Introductory Lectures on Psycho-Analysis,* Lecture 35
Russell, Vol. 55, *Problems of Philosophy,* Chap. VII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Truth,* Vol. 10
Clifford, *Ethics of Belief,* Vol. 10
Dewey, "Process of Thought," Vol. 10
Emerson, *Montaigne; or, the Skeptic,* Vol. 10

Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7

The Sentiment of Rationality

Vol. 10, pages 58–87

SUGGESTED READINGS IN THE *Syntopicon*

KNOWLEDGE, Vol. 1, especially
Topic 4*b*: Knowledge, belief, and opinion: their relation or distinction
OPINION, Vol. 2, especially
Topic 3*b*: Certain and probable, adequate and inadequate knowledge: degrees of certitude; modes of assent
PHILOSOPHY, Vol. 2, especially
Topic 3*b*: The philosopher's appeal to first principles and to definitions
Topic 4*c*: Philosophy as a moral discipline: the consolation of philosophy
Topic 6*c*: The philosopher as a man of reason: the limits of reason; its supplementation by experience or faith
PRINCIPLE, Vol. 2, especially
Topic 5: The skeptical denial of first principles or axioms: the denial that any propositions elicit the universal assent of mankind
UNIVERSAL AND PARTICULAR, Vol. 2, especially
Topic 4*c*: The abstraction of universal concepts from the particulars of sense

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. VI–VII
Aristotle, Vol. 7, *Metaphysics,* Bk. IV; Vol. 8, *Nicomachean Ethics,* Bk. I, Chaps. 1–4, 7–8; Bk. X, Chap. 8
Descartes, Vol. 28, *Discourse on Method,* Parts I–IV
Spinoza, Vol. 28, *Ethics,* Part IV, Appendix
Pascal, Vol. 30, *Pensées,* Sect. IV
Locke, Vol. 33, *Concerning Human Understanding,* Bk. IV, Chaps. XVII–ZXX
Berkeley, Vol. 33, *Principles of Human Knowledge,* Introduction
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. XII, Parts I–III
Kant, Vol. 39, *Critique of Pure Reason; Critique of Judgement,* Part II
Goethe, Vol. 45, *Faust,* Part One; Part Two, Act II
Darwin, Vol. 49, *Descent of Man,* Part I, Chaps. III–V

Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chaps. 3–4; Part III, Bk. VII, Chaps. 2, 4
Russell, Vol. 55, *Problems of Philosophy,* Chaps. XIII–XIV
Planck, Vol. 56, *Scientific Autobiography*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Ethics of Belief,* Vol. 10
Dewey, "Process of Thought," Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
Mill, J. S., *Nature,* Vol. 10
Poincaré, *Mathematical Creation,* Vol. 9

For James's *Principles of Psychology* in *Great Books of the Western World,* see Vol. 53; for James's *Pragmatism,* see Vol. 55

SIR JAMES JEANS, 1877–1946

Beginnings and Endings
Vol. 8, pages 585–596

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 5: The measure of motion
Topic 13: The problem of the eternity of motion or change
MECHANICS, Vol. 2, especially
Topic 6*g*: Work and energy: their conservation; perpetual motion; their relation to mass; the principle of least action
PROGRESS, Vol. 2, especially
Topic 6*b*: Progress in philosophy and in the sciences
SPACE, Vol. 2, especially
Topic 2: Space, void, and motion
TIME, Vol. 2, especially
Topic 2*c*: The creation of time: the priority of eternity to time; the immutability of the world after the end of time
WORLD, Vol. 2, especially
Topic 1*a*: The opposed metaphors: the universe as a machine and the universe as a living organism; the doctrine of the world soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. VIII
Lucretius, Vol. 11, *Way Things Are,* Bks. I–II

Augustine, Vol. 16, *Confessions,* Bk. XII
Aquinas, Vol. 18, *Summa Theologica,* Treatise on the Last Things
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. III
Faraday, Vol. 42, *Experimental Researches in Electricity*
Einstein, Vol. 56, *Relativity: The Special and the General Theory*
Eddington, Vol. 56, *Expanding Universe*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 6–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Eddington, *Running-Down of the Universe,* Vol. 8
Eiseley, "On Time," Vol. 8
Santayana, *Lucretius,* Vol. 10

THOMAS JEFFERSON, 1743–1826

"The Virginia Constitution"

from *Notes on Virginia*
Vol. 6, pages 502–517

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 4*b*: The democratic realization of popular sovereignty: the safeguarding of natural rights
Topic 4*c*: The infirmities of democracy in practice and the reforms or remedies for these defects
Topic 5*b*(1): Majority rule and minority or proportional representation
Topic 5*c*: The distribution of functions and powers: checks and balances in representative democracy; the uses of patronage
LIBERTY, Vol. 1, especially
Topic 6*c*: The struggle for sovereign independence against the yoke of imperialism or colonial subjugation

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. VI
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 6–13
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XII–XIII
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 45
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 6–7, 12–13
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chaps. 4–5; Part II, Chaps. 5, 7–9; Vol. 2, Part IV, Chaps. 6–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Calhoun, "Concurrent Majority," Vol. 7
Great Documents, *Virginia Declaration of Rights; Declaration of Independence,* Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Thoreau, *Civil Disobedience,* Vol. 6
Washington, *Farewell Address,* Vol. 6

First Inaugural Address

Vol. 6, pages 518–521

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 4*b*: The democratic realization of popular sovereignty: the safeguarding of natural rights
Topic 5*b*(1): Majority rule and minority or proportional representation
GOVERNMENT, Vol. 1, especially
Topic 5*d*: Confederation and federal union: the division of jurisdiction between state and federal governments
LIBERTY, Vol. 1, especially
Topic 1*a*: The birthright of freedom
Topic 2*b*: Liberty of conscience and religious freedom

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. III
Locke, Vol. 33, *Letter Concerning Toleration*
Kant, Vol. 39, *Science of Right,* Second Part
Articles of Confederation, Vol. 40
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chaps. 2, 8; Part II, Chap. 10

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Crèvecoeur, "Making of Americans," Vol. 6
Great Documents, Vol. 6
Guizot, "Civilization," Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Washington, *Farewell Address,* Vol. 6

Biographical Sketches
Vol. 6, pages 522–528

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 1: The relation of honor and fame: praise and reputation
JUSTICE, Vol. 1, especially
Topic 9*b*: Justice as the moral principle of political organization: the bond of men in states
PRUDENCE, Vol. 2, especially
Topic 1: The nature of prudence: as practical wisdom, as a virtue or quality of the deliberative mind

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plutarch, Vol. 13, *Solon; Pericles; Marcus Cato; Alexander; Caesar*
Boswell, Vol. 41, *Life of Samuel Johnson*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Carlyle, *Hero as King,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
La Bruyère, *Characters,* Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Washington, *Circular Letter to the Governors of All the States on Disbanding the Army; Farewell Address,* Vol. 6
Woolf, *Art of Biography,* Vol. 6

SAMUEL JOHNSON, 1709–1784

Preface to Shakespeare
Vol. 5, pages 316–353

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 5: The sources of art in experience, imagination, and inspiration
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*a*: The use of imagination in the production and appreciation of works of art
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of

experience and imagination; the influence of the poetic tradition
Topic 4*a*: Epic and dramatic poetry
Topic 8*a*(1): The poetic unities: comparison of epic and dramatic unity
Topic 8*a*(2): Poetic truth: verisimilitude or plausibility; the possible, the probable, and the necessary

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. III
Aristotle, Vol. 8, *On Poetics*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chap. 48; Part Two, Chap. 16
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Pirandello, Vol. 59, *Six Characters in Search of an Author*
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
De Quincey, *Literature of Knowledge and Literature of Power; On the Knocking at the Gate in Macbeth,* Vol. 5
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Lamb, *My First Play,* Vol. 5
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

For the works of Shakespeare in *Great Books of the Western World,* see Vols. 24–25
For Boswell's *Life of Samuel Johnson* in *Great Books of the Western World,* see Vol. 41

IMMANUEL KANT, 1724–1804

Perpetual Peace

Vol. 7, pages 441–475

SUGGESTED READINGS IN THE *Syntopicon*

CONSTITUTION, Vol. 1, especially
Topic 2*a*: The constitution as the form or organization of a political community: arrangement of offices; division of functions
DEMOCRACY, Vol. 1, especially

Topic 5*a*: The distinction between direct democracy and representative, or republican, government: the territorial limits of democracy

GOVERNMENT, Vol. 1, especially

Topic 2*e*: The ideal form of government: the distinction between practicable and Utopian ideals

Topic 5*a*: Foreign policy: the making of treaties; the conduct of war and peace

STATE, Vol. 2, especially

Topic 9*d*: The sovereignty of independent states: the distinction between the sovereignty of the state at home and abroad; internal and external sovereignty

WAR AND PEACE, Vol. 2, especially

Topic 2*a*: Civil war and war between states or international war

Topic 9: The folly and futility of war: pacifist movements

Topic 11*b*: Justice and fraternity as principles of peace among men

Topic 11*c*: International law and international peace: treaties, alliances, and leagues as instrumentalities of international peace

Topic 11*d*: World government and world peace

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–VII
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 1–5
Hobbes, Vol. 21, *Leviathan,* Part I, Chaps. 13–15
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 25–51
Locke, Vol. 33, *Concerning Civil Government,* Chap. XVI
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 3–9
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 17–18
Hegel, Vol. 43, *Philosophy of Right,* Third Part, Sub-sect. III
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part III, Chaps. 22–26
Tolstoy, Vol. 51, *War and Peace,* Bk. 6, Chap. VII; Bk. 9, Chaps. I–VII; First Epilogue, Chaps. I–IV
Freud, Vol. 54, *Thoughts for the Times on War and Death*
Weber, Vol. 58, *Essays in Sociology,* Chap. VI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clausewitz, *What Is War?,* Vol. 7
Dante, "On World Government," Vol. 7
Guizot, "Civilization," Vol. 6
Rousseau, *Lasting Peace through the Federation of Europe,* Vol. 7

For other works by Kant in *Great Books of the Western World,* see Vol. 39, especially *Science of Right*

EDWARD KASNER, 1878–1955 and JAMES R. NEWMAN, 1907–1966

New Names for Old
Beyond the Googol
Vol. 9, pages 121–162

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 1: The nature and reality of change or motion
Topic 5: The measure of motion
Topic 7*d*: The properties of variable motion: the laws of motion
INFINITY, Vol. 1, especially
Topic 3: The infinite in quantity: infinite magnitudes and multitudes
Topic 4: The infinity of matter
LOGIC, Vol. 1, especially
Topic 5*a*: Mathematical analysis and reasoning: the search for a universal method
MATHEMATICS, Vol. 2, especially
Topic 2: The objects of mathematics: ideas or abstractions; number, figure, extension, relation, order
Topic 2*b*: The being of mathematical objects: their real, ideal, or mental existence
Topic 3*d*: Symbols and formulas: the attainment of generality
Topic 4: Mathematical techniques
QUANTITY, Vol. 2, especially
Topic 4: Discrete quantities: number and numbering
SCIENCE, Vol. 2, especially
Topic 2*b*: The comparison of science with poetry and history

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Parmenides*
Aristotle, Vol. 7, *Physics,* Bk. IV, Chaps. 10–14; Bk. VI, Chaps. 1–10
Euclid, Vol. 10, *Elements,* Bks. I–II, X, XII
Archimedes, Vol. 10, *Sand-Reckoner*
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rules XIV–XXI
Pascal, Vol. 30, *On Geometrical Demonstration*

Berkeley, Vol. 33, *Principles of Human Knowledge*
Whitehead, Vol. 56, *Introduction to Mathematics,* Chaps. 5–6
Hardy, Vol. 56, *Mathematician's Apology*
Heisenberg, Vol. 56, *Physics and Philosophy,* Chap. 10

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Campbell, *Measurement,* Vol. 9
Dantzig, *Fingerprints; Empty Column,* Vol. 9
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Russell, *Definition of Number; Mathematics and the Metaphysicians,* Vol. 9

RUDYARD KIPLING, 1865–1936

Mowgli's Brothers

Vol. 2, pages 126–141

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1: General theories about the animal nature
Topic 12*c*: Friendship or love between animals and men
Topic 13: The attribution of human qualities or virtues to animals: personification in allegory and satire; the transformation of humans into animals
COURAGE, Vol. 1, especially
Topic 6: The formation or training of the courageous man
CUSTOM AND CONVENTION, Vol. 1, especially
Topic 7*a*: Custom as unifying a community: conformity in manners or etiquette
EDUCATION, Vol. 1, especially
Topic 3: The training of the body and the cultivation of bodily skills: gymnastics, manual work

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Odyssey,* Bk. XVII
Aristotle, Vol. 8, *History of Animals,* Bk. IX, Chap. 1
Plutarch, Vol. 13, *Romulus*
Milton, Vol. 29, *Paradise Lost,* Bks. IV, VIII
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Darwin, Vol. 49, *Origin of Species; Descent of Man*

Kafka, Vol. 60, *Metamorphosis*
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Custom and Education,* Vol. 7; *Of Friendship,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
Cicero, *On Friendship,* Vol. 10
Emerson, *Thoreau,* Vol. 6
Fabre, *Laboratory of the Open Fields,* Vol. 8
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Lawrence, *Rocking-Horse Winner,* Vol. 3
Schopenhauer, *On Education,* Vol. 7

JEAN DE LA BRUYÈRE, 1645–1696

Characters
Vol. 6, pages 102–105

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 3: The causes of degeneration or instability in aristocracies: aristocracy and revolution
CUSTOM AND CONVENTION, Vol. 1, especially
Topic 5: Custom and convention in the moral order
Topic 5*a*: The conventional determination of moral judgments: the moral evaluation of conventions
HISTORY, Vol. 1, especially
Topic 2: The light and lesson of history: its role in the education of the mind and in the guidance of human conduct
HONOR, Vol. 1, especially
Topic 1: The relation of honor and fame: praise and reputation
VIRTUE AND VICE, Vol. 2, especially
Topic 9: The advance or decline of human morality

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Nicomachean Ethics,* Bks. III–IV
Augustine, Vol. 16, *City of God,* Bk. V, Chaps. 12–20
Swift, Vol. 34, *Gulliver's Travels,* Part I, Chap. IV; Part II, Chap. VII
Boswell, Vol. 41, *Life of Samuel Johnson*
Hegel, Vol. 43, *Philosophy of History,* Introduction III
Tolstoy, Vol. 51, *War and Peace,* First Epilogue, Chaps. XIII–XIV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place,* Vol. 7; *Of Followers and Friends; Of Riches; Of Friendship,* Vol. 10
Chekhov, *Cherry Orchard,* Vol. 4
Cicero, *On Friendship,* Vol. 10
Jefferson, *Biographical Sketches,* Vol. 6
Molière, *Misanthrope,* Vol. 4
Plutarch, *Contentment,* Vol. 10
Pushkin, *Queen of Spades,* Vol. 3
Sheridan, *School for Scandal,* Vol. 4
Xenophon, "Character of Socrates," Vol. 6

CHARLES LAMB, 1775–1834

My First Play

Vol. 5, pages 300–303

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*a*: Art as a source of pleasure or delight
KNOWLEDGE, Vol. 1, especially
Topic 6*b*(4): Knowledge in relation to the faculties of understanding, judgment, and reason; and to the work of intuition, imagination, and understanding
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*a*: The use of imagination in the production and appreciation of works of art
POETRY, Vol. 2, especially
Topic 7*d*: Spectacle and song in drama

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *On Poetics*
Shakespeare, Vol. 25, *Hamlet*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chap. 48
Kant, Vol. 39, *Critique of Judgement,* Introduction; First Part, Sect. I, Bk. I
Goethe, Vol. 45, *Faust,* Prelude in the Theatre
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. II
Pirandello, Vol. 59, *Six Characters in Search of an Author*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

De Quincey, *On the Knocking at the Gate in Macbeth,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5

Johnson, *Preface to Shakespeare,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5

Dream Children, a Reverie

Vol. 5, pages 304–307

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 4*a*: Memory in the life of the individual: personal identity and continuity
Topic 8*c*: The expression of desire in daydreaming or fantasy
SENSE, Vol. 2, especially
Topic 3*d*(2): Memory and imagination as interior powers of sense

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *On Memory and Reminiscence*
Plotinus, Vol. 11, *Fourth Ennead,* Third Tractate
Virgil, Vol. 12, *Aeneid,* Bk. VI
Pascal, Vol. 30, *Pensées,* Sect. II
Locke, Vol. 33, *Concerning Human Understanding,* Bk. II, Chap. XXVII
Freud, Vol. 54, *Interpretation of Dreams*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Youth and Age,* Vol. 7
Dostoevsky, *White Nights,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hazlitt, *Of Persons One Would Wish to Have Seen,* Vol. 5
Lawrence, *Rocking-Horse Winner,* Vol. 3
Wilde, *Happy Prince,* Vol. 2

Sanity of True Genius

Vol. 5, pages 308–310

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 5: The sources of art in experience, imagination, and inspiration
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience and imagination; the influence of the poetic tradition
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion*
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I
James, W., Vol. 53, *Principles of Psychology,* Chap. XXII
Mann, Vol. 59, *Death in Venice*
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Emerson, *Thoreau,* Vol. 6; *Self-Reliance,* Vol. 10
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hazlitt, *My First Acquaintance with Poets,* Vol. 5
Poe, *Tell-Tale Heart,* Vol. 2
Shelley, *Defence of Poetry,* Vol. 5
Whitman, *Preface to Leaves of Grass,* Vol. 5

PIERRE SIMON DE LAPLACE, 1749–1827

"Probability"

from *A Philosophical Essay on Probabilities*
Vol. 9, pages 325–338

SUGGESTED READINGS IN THE *Syntopicon*

CAUSE, Vol. 1, especially
Topic 5*d*: The limits of our knowledge of causes
CHANCE, Vol. 1
KNOWLEDGE, Vol. 1, especially
Topic 4*b*: Knowledge, belief, and opinion: their relation or distinction
NECESSITY AND CONTINGENCY, Vol. 2, especially
Topic 3: Necessity and contingency in the realm of change: chance and determinism

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. II, Chaps. 4–6
Pascal, Vol. 30, *Pensées,* Sect. III; *Correspondence with Fermat on the Theory of Probabilities*
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. VI
Bohr, Vol. 56, *Atomic Theory and the Description of Nature*
Heisenberg, Vol. 56, *Physics and Philosophy*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Ethics of Belief,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
Galton, "Classification of Human Ability," Vol. 8
Peirce, *Red and the Black,* Vol. 9
Poincaré, *Chance,* Vol. 9
Pushkin, *Queen of Spades,* Vol. 3

DAVID HERBERT LAWRENCE, 1885–1930

The Rocking-Horse Winner

Vol. 3, pages 512–525

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
Topic 3*a*: Madness or frenzy due to emotional excess: excessively emotional or emotionally overdetermined behavior
FAMILY, Vol. 1, especially
Topic 7*d*: The emotional impact of family life upon the child: the domestic triangle, the symbolic roles of father and mother
LOVE, Vol. 1, especially
Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force
WEALTH, Vol. 2, especially
Topic 10*c*: Temperance and intemperance with respect to wealth: liberality, magnificence, miserliness, avarice; the corrupting influence of excessive wealth

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Hippolytus*
Shakespeare, Vol. 25, *Hamlet*
Dickens, Vol. 47, *Little Dorrit*
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. IV, Chaps. 6–7
Ibsen, Vol. 52, *Wild Duck*
Freud, Vol. 54, *General Introduction to Psycho-Analysis,* Part II, Lecture 13; Part III, Lecture 21
O'Neill, Vol. 60, *Mourning Becomes Electra*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Parents and Children; Of Riches,* Vol. 7
Balzac, *Passion in the Desert,* Vol. 3

Bunin, *Gentleman from San Francisco,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
James, H., *Pupil,* Vol. 3
Kipling, *Mowgli's Brothers,* Vol. 2
Lamb, *Dream Children,* Vol. 5
Poe, *Tell-Tale Heart,* Vol. 2
Pushkin, *Queen of Spades,* Vol. 3
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2
Wilde, *Happy Prince,* Vol. 2

For Lawrence's *Prussian Officer* in *Great Books of the Western World,* see Vol. 60

ABRAHAM LINCOLN, 1809–1865

Address at Cooper Institute
First Inaugural Address
Letter to Horace Greeley
Second Inaugural Address
Last Public Address
Vol. 6, pages 737–757; 760–765

SUGGESTED READINGS IN THE *Syntopicon*

CONSTITUTION, Vol. 1, especially
Topic 7*b*: The safeguards of constitutional government: bills of rights; separation of powers: impeachment
GOVERNMENT, Vol. 1, especially
Topic 5*d*: Confederation and federal union: the division of jurisdiction between state and federal governments
LIBERTY, Vol. 1, especially
Topic 5*a*: Man's freedom in relation to fate or to the will of God
REVOLUTION, Vol. 2, especially
Topic 2*c*: Change in the extent of the state or empire: dissolution, secession, liberation, federation
SLAVERY, Vol. 2, especially
Topic 3*b*: Laws regulating slavery: the rights and duties of master and slave
Topic 3*c*: The emancipation or manumission of slaves: the rebellion of slaves

Topic 3*d*: Criticisms of the institution of slavery: the injustice of slavery; its transgression of inalienable human rights
STATE, Vol. 2, especially
Topic 3*g*: The identity and continuity of a state: the dissolution of the body politic or civil society
WAR AND PEACE, Vol. 2, especially
Topic 5*a*: The moral consequences of war: its effects on the happiness and virtue of men and on the welfare of women and children
Topic 5*b*: The political consequences of war: its effects on different forms of government
WEALTH, Vol. 2, especially
Topic 7*b*(1): Chattel slaves as property

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bks. III, X
Aristotle, Vol. 8, *Politics,* Bk. I, Chaps. 4–7
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q. 105, Art. 4
Milton, Vol. 29, *Samson Agonistes*
Locke, Vol. 33, *Concerning Civil Government,* Chaps. II–IV, XVI
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. XV, Chaps. 9–18
Rousseau, Vol. 35, *Discourse on Political Economy; Social Contract,* Bk. I, Chap. 4
Kant, Vol. 39, *Science of Right,* Introduction; First Part
Articles of Confederation, Vol. 40
Constitution of the United States of America, Vol. 40, Amendment 13, Sect. I
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 18–20, 41, 43, 54
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chaps. 6–7; Part II, Chaps. 9–10; Vol. 2, Part III, Chap. 5
Freud, Vol. 54, *Thoughts for the Times on War and Death,* Chap. I

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Seditions and Troubles,* Vol. 7
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Calhoun, "Concurrent Majority," Vol. 7
Crèvecoeur, "Making of Americans," Vol. 6
Great Documents, *English Bill of Rights; Virginia Declaration of Rights; Declaration of Independence,* Vol. 6
Guizot, "Civilization," Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Jefferson, "Virginia Constitution"; *First Inaugural Address,* Vol. 6
Paine, "Call to Patriots–December 23, 1776," Vol. 6

Thoreau, *Civil Disobedience; Plea for Captain John Brown,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Washington, *Circular Letter to the Governors of All the States on Disbanding the Army; Farewell Address,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

Meditation on the Divine Will

Vol. 6, page 758

SUGGESTED READINGS IN THE *Syntopicon*

GOD, Vol. 1, especially
Topic 5*g*: God's will: divine choice
WAR AND PEACE, Vol. 2, especially
Topic 2*a*: Civil war and war between states or international war

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 19
Hegel, Vol. 43, *Philosophy of History,* Introduction
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clausewitz, *What Is War?,* Vol. 7
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Synge, *Riders to the Sea,* Vol. 4
Whitman, *Death of Abraham Lincoln,* Vol. 6

The Gettysburg Address

Vol. 6, page 759

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 7*c*: Courage in war
DEMOCRACY, Vol. 1, especially
Topic 4*b*: The democratic realization of popular sovereignty: the safeguarding of natural rights
LIBERTY, Vol. 1, especially
Topic 1*f*: The freedom and equals under government: the equality of citizenship
WAR AND PEACE, Vol. 2, especially
Topic 2*a*: Civil war and war between states or international war

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Thucydides, Vol. 5, *History of the Peloponnesian War,* Second Book, Chap. VI
Plato, Vol. 6, *Laws,* Bk. IV
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 16–17
Hobbes, Vol. 21, *Leviathan,* Part II, Chap. XVIII
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XI–XIII
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 84

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Great Documents, *Declaration of Independence,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

HANIEL LONG, 1888–1956

The Power within Us

Vol. 6, pages 246–261

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 5: The motivations of courage: fame or honor, happiness, love, duty, religious faith
EXPERIENCE, Vol. 1, especially
Topic 7: Mystical or religious experience: experience of the supernatural or transcendental
HONOR, Vol. 1, especially
Topic 5*c*: The occasions of heroism in war and peace
MAN, Vol. 2, especially
Topic 13: The grandeur and misery of man
NATURE, Vol. 2, especially
Topic 2*b*: Nature and convention: the state of nature and the state of society
Topic 3*c*(4): Divine causality in relation to the course of nature: the preservation of nature; providence; miracles and magic

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laches*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. III, Chaps. 6–9
Hobbes, Vol. 21, *Leviathan,* Part I, Chaps. 13–15

Montaigne, Vol. 23, *Of cannibals*
Shakespeare, Vol. 25, *King Lear,* especially Act III
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* First–Second Parts; Appendix
Freud, Vol. 54, *Civilization and Its Discontents,* Chaps. III–VIII
Frazer, Vol. 58, *Golden Bough,* Chaps. I–IV
Lévi-Strauss, Vol. 58, *Structural Anthropology,* Chaps. IX–X
Conrad, Vol. 59, *Heart of Darkness*
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Peace,* Vol. 7; *Sphinx,* Vol. 8; *Of Adversity,* Vol. 10
Crane, *Open Boat,* Vol. 3
Defoe, *Robinson Crusoe,* Vol. 2
Dinesen, *Sorrow-Acre,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Emerson, *Self-Reliance,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
James, W., *Energies of Men,* Vol. 7
O'Neill, *Emperor Jones,* Vol. 4
Prescott, "Land of Montezuma," Vol. 6
Synge, *Riders to the Sea,* Vol. 4
Tolstoy, *Three Hermits; What Men Live By,* Vol. 3
Xenophon, "March to the Sea," Vol. 6

LUCIAN, *c.* 125–*c.* 190

The Way to Write History

Vol. 6, pages 387–406

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 4*d*: The effect upon character of poetry, music, and other arts: the role of history and examples
HISTORY, Vol. 1, especially
Topic 1: History as knowledge and as literature: its kinds and divisions; its distinction from poetry, myth, philosophy, and science
Topic 3: The writing of history: research and narration; the influence of poetry

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Herodotus, Vol. 5, *History,* First Book; Second Book
Thucydides, Vol. 5, *History of the Peloponnesian War,* First Book, Chap. I
Plato, Vol. 6, *Republic,* Bks. II–III, X
Aristotle, Vol. 8, *On Poetics,* Chap. 9
Montaigne, Vol. 23, *Of books*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Hegel, Vol. 43, *Philosophy of History,* Introduction II–III
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Eight and Nine
Melville, Vol. 48, *Moby Dick,* Chaps. 45, 82–83
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Lévi-Strauss, Vol. 58, *Structural Anthropology,* Introduction
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bury, *Herodotus,* Vol. 6
Guizot, "Civilization," Vol. 6
Hume, *Of the Study of History,* Vol. 7
Voltaire, *Micromégas,* Vol. 2
Woolf, *How Should One Read a Book?,* Vol. 5; *Art of Biography,* Vol. 6

SIR CHARLES LYELL, 1797–1875

"Geological Evolution"

from *The Principles of Geology*
Vol. 8, pages 319–324

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 11: The apprehension of change: by sense, by reason
Topic 13: The problem of the eternity of motion or change
EVOLUTION, Vol. 1, especially
Topic 5*a*: The geological record: the significance of fossil remains
TIME, Vol. 2, especially
Topic 6*e*: Knowledge of the past: the storehouse of memory; the evidences of the past in physical traces or remnants

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. VIII
Gilbert, Vol. 26, *On the Loadstone,* Bk. VI
Darwin, Vol. 49, *Origin of Species,* Chaps. X–XI, XV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Eiseley, "On Time," Vol. 8
Huxley, *On a Piece of Chalk,* Vol. 8
Pliny, "Eruption of Vesuvius," Vol. 6

THOMAS BABINGTON MACAULAY, 1800–1859

Machiavelli

Vol. 7, pages 295–329

SUGGESTED READINGS IN THE *Syntopicon*

ARISTOCRACY, Vol. 1, especially
Topic 3: The causes of degeneration or instability in aristocracies: aristocracy and revolution
EXPERIENCE, Vol. 1, especially
Topic 6*b*: The role of experience in politics: the lessons of history
HISTORY, Vol. 1, especially
Topic 2: The light and lesson of history: its role in the education of the mind and in the guidance of human conduct
LIBERTY, Vol. 1, especially
Topic 6*c*: The struggle for sovereign independence against the yoke of imperialism or colonial subjugation
STATE, Vol. 2, especially
Topic 8*c*: The education or training of the statesman or prince
VIRTUE AND VICE, Vol. 2, especially
Topic 7*d*: The virtues which constitute the good or successful ruler: the vices associated with the possession of power
WAR AND PEACE, Vol. 2, especially
Topic 10: The military arts and the military profession: their role in the state

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Thucydides, Vol. 5, *History of the Peloponnesian War,* Third Book
Plato, Vol. 6, *Seventh Letter*
Aristotle, Vol. 8, *Politics,* Bk. VI
Dante, Vol. 19, *Divine Comedy,* Paradiso, Canto XVI
Montaigne, Vol. 23, *Observations on Julius Caesar's methods of making war*
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire*

Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 1–10, especially Nos. 3–5
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Eight and Nine
Weber, Vol. 58, *Essays in Sociology,* Chaps. IV, IX–X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place; Of Seditions and Troubles,* Vol. 7
Carlyle, *Hero as King,* Vol. 6
Clausewitz, *What Is War?,* Vol. 7
Guizot, "Civilization," Vol. 6
Hume, *Of the Study of History,* Vol. 7
Pater, "Art of Life," Vol. 10
Prescott, "Land of Montezuma," Vol. 6

For Machiavelli's *Prince* in *Great Books of the Western World,* see Vol. 21

THOMAS ROBERT MALTHUS, 1766–1834

"The Principle of Population"

from *Population: the First Essay*
Vol. 7, pages 502–530

SUGGESTED READINGS IN THE *Syntopicon*

JUSTICE, Vol. 1, especially
Topic 8: Economic justice: justice in production, distribution, and exchange
STATE, Vol. 2, especially
Topic 4*c*: The size, diversity, and distribution of populations: the causes and effects of their increase or decrease
WEALTH, Vol. 2, especially
Topic 8*c*: The causes of poverty: competition, incompetence, indigence, expropriation, unemployment; the poverty of the proletariat as dispossessed of the instruments of production
Topic 8*d*: Laws concerning poverty: the poor laws, the dole

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. III
Aristotle, Vol. 8, *Politics,* Bk. VII, Chaps. 4–5
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. XXIII
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chap. VIII
Darwin, Vol. 49, *Origin of Species,* Chap. III
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 3–4

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Carson, *Sunless Sea,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Guizot, "Civilization," Vol. 6
Prescott, "Land of Montezuma," Vol. 6
Swift, *Modest Proposal,* Vol. 7

THOMAS MANN, 1875–1955

Mario and the Magician

Vol. 3, pages 573–610

SUGGESTED READINGS IN THE *Syntopicon*

GOOD AND EVIL, Vol. 1, especially
- Topic 3*e*: Right and wrong: the social incidence of the good; doing or suffering good and evil
- Topic 3*f*: The sources of evil in human life

TYRANNY AND DESPOTISM, Vol. 2, especially
- Topic 1*d*: The character of the tyrannical man: the friends of the tyrant
- Topic 5*c*: The location of sovereignty in despotic and constitutional government: the sovereign person, the sovereign office, the sovereign people
- Topic 5*d*: The analogues of despotic and constitutional rule in the relation of the powers of the soul: the tyranny of the passions

WILL, Vol. 2, especially
- Topic 3*a*(1): The distinction between the voluntary and the involuntary: the conditions of voluntariness; comparison of men and animals with respect to voluntary behavior
- Topic 7*a*: Free will as a source of human dignity: its relation to slavery and civil liberty
- Topic 9*a*: The distinction between men of strong and weak will: cultivation of willpower

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Gorgias; Seventh Letter*
Plutarch, Vol. 13, *Dion*
Balzac, Vol. 45, *Cousin Bette*

James, W., Vol. 53, *Principles of Psychology,* Chap. XXVII
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Eliot, G., *Lifted Veil,* Vol. 3
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Macaulay, *Machiavelli,* Vol. 7
Melville, *Billy Budd,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Poe, *Tell-Tale Heart,* Vol. 2
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

For Mann's *Death in Venice* in *Great Books of the Western World,* see Vol. 59

GUY DE MAUPASSANT, 1850–1893

Two Friends

Vol. 2, pages 159–164

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
- Topic 5: The motivations of courage: fame or honor, happiness, love, duty, religious faith
- Topic 7*a*: The courage required of citizens and statesmen: the political recognition of courage
- Topic 7*c*: Courage in war

HONOR, Vol. 1, especially
- Topic 3*b*: The conditions of honor or fame and the causes of dishonor or infamy
- Topic 5*a*: Honor as a motivation of heroism
- Topic 5*c*: The occasions of heroism in war and peace

NATURE, Vol. 2, especially
- Topic 2*e*: The natural and the unnatural or monstrous: the normal and the abnormal

WAR AND PEACE, Vol. 2, especially
- Topic 1: War as the reign of force: the state of war and the state of nature; the martial spirit
- Topic 5*a*: The moral consequences of war: its effects on the happiness and virtue of men and on the welfare of women and children
- Topic 9: The folly and futility of war: pacifist movements

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Lysistrata*
Thucydides, Vol. 5, *History of the Peloponnesian War,* Second Book, Chap. VI; Third Book, Chap. X; Fifth Book, Chap. XVII
Virgil, Vol. 12, *Eclogues,* Eclogue IX
Swift, Vol. 34, *Gulliver's Travels,* Part I
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chaps. IX–XI
Shaw, Vol. 59, *Saint Joan*
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Followers and Friends,* Vol. 7; *Of Death; Of Adversity; Of Friendship,* Vol. 10
Browne, "Immortality," Vol. 10
Cicero, *On Friendship,* Vol. 10
Clausewitz, *What Is War?,* Vol. 7
Dinesen, *Sorrow-Acre,* Vol. 3
Hugo, "Battle with the Cannon," Vol. 2
Lincoln, *Meditation on the Divine Will; Gettysburg Address; Second Inaugural Address,* Vol. 6
Melville, *Billy Budd,* Vol. 3
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Scott, *Two Drovers,* Vol. 2
Synge, *Riders to the Sea,* Vol. 4
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

HERMAN MELVILLE, 1819–1891

Billy Budd

Vol. 3, pages 31–98

SUGGESTED READINGS IN THE *Syntopicon*

CAUSE, Vol. 1, especially
Topic 1*b*: The order of causes: the relation of cause and effect
DUTY, Vol. 1, especially
Topic 8: The tension between duty and instinct, desire, or love
GOOD AND EVIL, Vol. 1, especially
Topic 1*d*: The origin, nature, and existence of evil
Topic 3*b*(2): The good will: its conditions and consequences
Topic 3*e*: Right and wrong: the social incidence of the good; doing or suffering good and evil

LAW, Vol. 1, especially
Topic 5*h*: The defect of positive law: its need for correction or dispensation by equity
PUNISHMENT, Vol. 2, especially
Topic 2*a*: Free will in relation to responsibility and punishment: voluntariness in relation to guilt or fault; the accidental, the negligent, and the intentional

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Alcestis*
Plato, Vol. 6, *Laws,* Bk. IX
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. III, Chaps. 1–6
Montaigne, Vol. 23, *That intention is judge of our actions*
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Conrad, Vol. 59, *Heart of Darkness*
Lawrence, Vol. 60, *Prussian Officer*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Truth,* Vol. 10
Conrad, *Youth,* Vol. 2
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Hemingway, *Killers,* Vol. 2
Hugo, "Battle with the Cannon," Vol. 2
Mann, *Mario and the Magician,* Vol. 3
Maupassant, *Two Friends,* Vol. 2
Plutarch, *Of Bashfulness,* Vol. 7
Tolstoy, *Three Hermits,* Vol. 3

For Melville's *Moby Dick* in *Great Books of the Western World,* see Vol. 48

DMITRI MENDELEEV, 1834–1907

"The Genesis of a Law of Nature"
from *The Periodic Law of the Chemical Elements*
Vol. 8, pages 442–446

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 9*a*: Physical and chemical change: compounds and mixtures
ELEMENT, Vol. 1, especially

Topic 3: The theory of the elements in natural philosophy, physics, and chemistry
HYPOTHESIS, Vol. 1, especially
Topic 4: The role of hypotheses in science

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Lucretius, Vol. 11, *Way Things Are,* Bks. I–II
Bacon, Vol. 28, *Novum Organum,* Second Book
Lavoisier, Vol. 42, *Elements of Chemistry,* Preface; First Part, Chap. V–Second Part
Faraday, Vol. 42, *Experimental Researches in Electricity*
Poincaré, Vol. 56, *Science and Hypothesis,* Part IV
Bohr, Vol. 56, *Atomic Theory and the Description of Nature*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Curie, *Discovery of Radium,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Poincaré, *Mathematical Creation,* Vol. 9
Wöhler, *On the Artificial Production of Urea,* Vol. 8

JOHN STUART MILL, 1806–1873

"Childhood and Youth"

from *Autobiography*
Vol. 6, pages 5–47

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 1*a*: The ideal of the educated person
Topic 5*b*: The means and methods of teaching
Topic 5*d*: The order of learning: the organization of the curriculum
Topic 5*f*: Learning apart from teachers and books: the role of experience
Topic 9: Historical and biographical observations concerning the institutions and practices of education
FAMILY, Vol. 1, especially
Topic 6*e*: The initiation of children into adult life
GOD, Vol. 1, especially

Topic 10: The denial of God or the gods, or of a supernatural order: the position of the atheist

HISTORY, Vol. 1, especially

Topic 2: The light and lesson of history: its role in the education of the mind and in the guidance of human conduct

RELIGION, Vol. 2, especially

Topic 7: Observations in history and literature concerning religious beliefs, institutions, and controversies

VIRTUE AND VICE, Vol 2, especially

Topic 4*d*(1): The influence of parental authority on the formation of character

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III, VII
Aristotle, Vol. 8, *Politics,* Bk. VII, Chap. 14–Bk. VIII
Aurelius, Vol. 11, *Meditations,* Bk. I
Augustine, Vol. 16, *Confessions,* Bk. I
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 11–24; Bk. II, Chaps. 5–8
Montaigne, Vol. 23, *Of the education of children*
Descartes, Vol. 28, *Discourse on Method,* Parts I, VI
Boswell, Vol. 41, *Life of Samuel Johnson*
Goethe, Vol. 45, *Faust,* Part One; Part Two, Act II
Dewey, Vol. 55, *Experience and Education*
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Of Discourse; Of Studies,* Vol. 5; *Of Youth and Age; Of Parents and Children; Of Custom and Education,* Vol. 7
Darwin, *Autobiography,* Vol. 8
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Eliot, G., *Lifted Veil,* Vol. 3
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Galton, "Classification of Human Ability," Vol. 8
James, W., *Great Men and Their Environment,* Vol. 7
Schopenhauer, *On Education,* Vol. 7
Stevenson, *Lantern-Bearers,* Vol. 7
Swift, *Essay on Modern Education,* Vol. 7
Twain, "Learning the River," Vol. 6
Woolf, *Art of Biography,* Vol. 6

Nature
Vol. 10, pages 477–508

SUGGESTED READINGS IN THE *Syntopicon*

LAW, Vol. 1, especially
Topic 4*d*: The natural law as underlying the precepts of virtue: its relation to the moral precepts of divine law
NATURE, Vol. 2, especially
Topic 2*a*: Nature and art: the imitation of nature; cooperation with nature
Topic 2*b*: Nature and convention: the state of nature and the state of society
Topic 3*a*: The maxims and laws of nature: the rationality of nature; entropy
Topic 3*c*(4): Divine causality in relation to the course of nature: the preservation of nature; providence; miracles and magic

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Timaeus*
Aristotle, Vol. 7, *Physics,* Bk. II, Chap. 1; *Metaphysics,* Bk. V, Chap. 4
Lucretius, Vol. 11, *Way Things Are,* Bks. I–II
Epictetus, Vol. 11, *Discourses,* Bk. I, Chaps. 11, 26
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 44–Q 46, Art. 2; Q 103–105
Hobbes, Vol. 21, *Leviathan,* Part I, Chap. 15
Bacon, Vol. 28, *Novum Organum,* Second Book
Spinoza, Vol. 28, *Ethics,* Part I
Rousseau, Vol. 35, *Discourse on the Origin of Inequality*
Kant, Vol. 39, *Critique of Judgement,* Second Part
Frazer, Vol. 58, *Golden Bough,* Chap. I

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Bacon, *Sphinx,* Vol. 8
Balzac, *Passion in the Desert,* Vol. 3
Emerson, *Nature,* Vol. 10
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
James, W., *Sentiment of Rationality,* Vol. 10
Santayana, *Lucretius,* Vol. 10
Voltaire, "Philosophy of Common Sense," Vol. 10

For other works by Mill in *Great Books of the Western World,* see Vol. 40

MOLIÈRE, 1622–1673

The Misanthrope

Vol. 4, pages 6–51

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
- Topic 4*b*(1): Moderation of the passions by reason: virtue, continence, avoidance of sin

LAW, Vol. 1, especially
- Topic 3*a*(1): The natural moral law as the eternal law in human nature

MAN, Vol. 2, especially
- Topic 12: Man as an object of laughter and ridicule: comedy and satire

OPINION, Vol. 2, especially
- Topic 6*a*: Good and evil as matters of opinion: moral standards as customs or conventions reflecting prevalent opinion

PROGRESS, Vol. 2, especially
- Topic 1*c*: Skeptical or pessimistic denials of progress: the golden age as past; the cyclical motion of history; the degeneration of cultures

VIRTUE AND VICE, Vol. 2, especially
- Topic 1*d*: Virtue as an intrinsic good: its relation to happiness
- Topic 2*c*: The appearances of virtue: imperfect or conditional virtues; the counterfeits of virtue; natural or temperamental dispositions which simulate virtue
- Topic 4*e*(3): Circumstances as affecting the morality of human acts
- Topic 6*d*: Virtue and honor
- Topic 6*e*: Virtue in relation to friendship and love

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Clouds*
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto XXIII
Montaigne, Vol. 23, *That intention is judge of our actions; Apology for Raymond Sebond*
Shakespeare, Vol. 25, *King Lear*
Pascal, Vol. 30, *Pensées,* Sect. XIV
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Voltaire, Vol. 34, *Candide*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Followers and Friends,* Vol. 7; *Of Truth; Of Love; Of Friendship,* Vol. 10
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
La Bruyère, *Characters,* Vol. 6
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

The Doctor in Spite of Himself

Vol. 4, pages 52–81

SUGGESTED READINGS IN THE *Syntopicon*

MAN, Vol. 2, especially
Topic 12: Man as an object of laughter and ridicule: comedy and satire
POETRY, Vol. 2, especially
Topic 4*b*: Tragedy and comedy: the theater
VIRTUE AND VICE, Vol. 2, especially
Topic 4*e*(3): Circumstances as affecting the morality of human acts

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Birds*
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. III, Chaps. 29–33
Shakespeare, Vol. 24, *Much Ado About Nothing*
Swift, Vol. 34, *Gulliver's Travels,* Part IV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Voltaire, "English Men and Ideas: On Inoculation," Vol. 7

For other works by Molière in *Great Books of the Western World,* see Vol. 31

EUGENE GLADSTONE O'NEILL, 1888–1953

The Emperor Jones

Vol. 4, pages 357–382

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
Topic 3*a*: Madness or frenzy due to emotional excess: excessively emotional or emotionally overdetermined behavior
GOOD AND EVIL, Vol. 1, especially
Topic 3*e*: Right and wrong: the social incidence of the good; doing or suffering good and evil
MAN, Vol. 2, especially
Topic 13: The grandeur and misery of man
SIN, Vol. 2, especially
Topic 5: The remorse of conscience and feelings of guilt: the psychogenesis and pathological expression of the sense of sin

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Ajax*
Euripides, Vol. 4, *Orestes*
Shakespeare, Vol. 25, *King Lear; Macbeth,* Act II, Scene II; Act III, Scenes II–IV
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. VII
Conrad, Vol. 59, *Heart of Darkness*
Fitzgerald, Vol. 60, *Great Gatsby*
Beckett, Vol. 60, *Waiting for Godot*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place; Of Seditions and Troubles,* Vol. 7; *Of Death; Of Adversity,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Defoe, *Robinson Crusoe,* Vol. 2
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hemingway, *Killers,* Vol. 2
James, W., *Energies of Men,* Vol. 7
Long, *Power within Us,* Vol. 6
Mann, *Mario and the Magician,* Vol. 3
Poe, *Tell-Tale Heart,* Vol. 2
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2

For O'Neill's *Mourning Becomes Electra* in *Great Books of the Western World,* see Vol. 60

THOMAS PAINE, 1737–1809

"A Call to Patriots–December 23, 1776"

from *The Crisis*

Vol. 6, pages 461–468

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
- Topic 7*a*: The courage required of citizens and statesmen: the political recognition of courage

LIBERTY, Vol. 1, especially
- Topic 6*c*: The struggle for sovereign independence against the yoke of imperialism or colonial subjugation

REVOLUTION, Vol. 2, especially
- Topic 3*a*: The aims of political revolution: the seizure of power; the attainment of liberty, justice, equality
- Topic 6*a*: The right of rebellion: the circumstances justifying civil disobedience or violent insurrection

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Statesman*
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XVIII–XIX
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 45
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part III, Chaps. 21–26
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chap. IV; Second Epilogue, Chaps. IV–V

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles,* Vol. 7
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Great Documents, *Declaration of Independence,* Vol. 6
Jefferson, *First Inaugural Address,* Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Washington, *Circular Letter to the Governors of All the States on Disbanding the Army,* Vol. 6

WALTER PATER, 1839–1894

"The Art of Life"

from *The Renaissance*

Vol. 10, pages 258–261

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*a*: Art as a source of pleasure or delight
DESIRE, Vol. 1, especially
Topic 7*a*(1): The pursuit of pleasure
EXPERIENCE, Vol. 1, especially
Topic 8: Variety of experience as an ideal of human life

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VIII
Aristotle, Vol. 8, *Rhetoric,* Bk. III, Chaps. 1–7; *On Poetics,* Chaps. 4–15
Montaigne, Vol. 23, *Of solitude; Of vanity*
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* Part I
Goethe, Vol. 45, *Faust,* Part One; Part Two, Acts III, V

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
Bacon, *Of Beauty,* Vol. 5; *Of Custom and Education,* Vol. 7
Cicero, *On Old Age,* Vol. 10
Dostoevsky, *White Nights,* Vol. 3
Epictetus, *Enchiridion,* Vol. 10
Epicurus, *Letter to Herodotus; Letter to Menoeceus,* Vol. 10
Hazlitt, *On the Feeling of Immortality in Youth,* Vol. 10
James, W., *On a Certain Blindness in Human Beings,* Vol. 7
Johnson, *Preface to Shakespeare,* Vol. 5
Plutarch, *Contentment,* Vol. 10
Santayana, *Goethe's Faust,* Vol. 10
Shelley, *Defence of Poetry,* Vol. 5

IVAN PETROVICH PAVLOV, 1849–1936

Scientific Study of the So-called Psychical Processes in the Higher Animals

Vol. 8, pages 294–309

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially
Topic 1*e*: The conception of the animal as a machine or automaton
HABIT, Vol. 1
MECHANICS, Vol. 2, especially

Topic 4*c*: The mechanistic versus the organismic account of nature
MEDICINE, Vol. 2, especially
Topic 2*a*: The scientific foundations of the art of medicine: the contrast between the empiric and the artist in medicine
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 1: The faculties of memory and imagination in brutes and men
SENSE, Vol. 2, especially
Topic 2*c*: Comparisons of human and animal sensitivity
Topic 3: The analysis of the power of sense: its organs and activities

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *History of Animals,* Bk. IV
Descartes, Vol. 28, *Discourse on Method,* Part V
Darwin, Vol. 49, *Descent of Man,* Chap. III
James, W., Vol. 53, *Principles of Psychology,* Chaps. IV, XXIV, XXVI
Schrödinger, Vol. 56, *What Is Life?,* Chap. 7
Waddington, Vol. 56, *Nature of Life,* Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Fabre, *Laboratory of the Open Fields; Sacred Beetle,* Vol. 8
Huxley, *On the Relations of Man to the Lower Animals,* Vol. 8
Wöhler, *On the Artificial Production of Urea,* Vol. 8

CHARLES SANDERS PEIRCE, 1839–1914

The Red and the Black

Vol. 9, pages 342–348

SUGGESTED READINGS IN THE *Syntopicon*

CHANCE, Vol. 1, especially
Topic 4: Cause and chance in relation to knowledge and opinion: the theory of probability
TRUTH, Vol. 2, especially
Topic 2*e*: The distinction between truth and probability: its relation to the distinction between knowledge and opinion

Topic 4*c*: Truth in metaphysics, mathematics, and the empirical sciences: the truth of principles, hypotheses, and conclusions in the several speculative disciplines
Topic 4*d*: Truth and probability in rhetoric and dialectic
Topic 7*a*: The impossibility of knowing the truth: the restriction of all human judgments to degrees of probability; the denial of axioms and of the possibility of demonstration

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Pascal, Vol. 30, *Pensées,* Sect. III; *Treatise on the Arithmetical Triangle; Correspondence with Fermat on the Theory of Probabilities*
Locke, Vol. 33, *Concerning Human Understanding,* Bk. IV, Chaps. III, VI, XV–XVII
Nietzsche, Vol. 43, *Beyond Good and Evil,* Chap. Six
Poincaré, Vol. 56, *Science and Hypothesis,* Preface; Chap. 11

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Ethics of Belief,* Vol. 10
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
James, W., *Will to Believe,* Vol. 10
Laplace, "Probability," Vol. 9
Lawrence, *Rocking-Horse Winner,* Vol. 3
Poincaré, *Chance,* Vol. 9
Pushkin, *Queen of Spades,* Vol. 3

PLINY THE YOUNGER (GAIUS PLINUS CAECILIUS SECUNDUS), *c.* 61–*c.* 113

"The Eruption of Vesuvius"

from *Letters*
Vol. 6, pages 264–270

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 1: The nature of courage
Topic 6: The formation or training of the courageous man
HISTORY, Vol. 1, especially
Topic 3: The writing of history: research and narration; the influence of poetry

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Herodotus, Vol. 5, *History,* First Book

Thucydides, Vol. 5, *History of the Peloponnesian War,* First Book, Chap. I
Goethe, Vol. 45, *Faust,* Part Two, Act II

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
Lyell, "Geological Evolution," Vol. 8
Prescott, "Land of Montezuma," Vol. 6

PLUTARCH, *c.* 46–120

Of Bashfulness

Vol. 7, pages 97–109

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 2*a*: The sense of honor and of shame: loyalty to the good
VIRTUE AND VICE, Vol. 2, especially
Topic 1*c*: The doctrine of virtue as a mean between the extremes of vice
Topic 4: The natural causes or conditions of virtue
Topic 5: Psychological factors in the formation of moral virtue
Topic 6: Virtue in relation to other moral goods or principles

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. II, Chaps. 6–9; Bk. III, Chap. 7–Bk. V, Chap. 11; *Rhetoric,* Bk. II, Chap. 6
Montaigne, Vol. 23, *Of conscience; Of glory; Of repentance*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Bacon, *Of Youth and Age,* Vol. 7
Eliot, G., *Lifted Veil,* Vol. 3
Melville, *Billy Budd,* Vol. 3

Contentment

Vol. 10, pages 264–281

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
Topic 2*a*: The marks of a happy man, the quality of a happy life
Topic 2*b*(1): The contribution of the goods of fortune to happiness: wealth, health, longevity

Topic 2*b*(7): The function of knowledge and wisdom in the happy life: the place of speculative activity and contemplation

LABOR, Vol. 1, especially

Topic 1*b*: Labor, leisure, and happiness: the servile, political and contemplative life

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedo; Republic,* Bk. VII
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. I, Chaps. 5–12
Epictetus, Vol. 11, *Discourses,* Bk. III, Chap. XXIV
Aquinas, Vol. 17, *Summa Theologica,* Part I–II, Q 1, Art. 7–Q 2, Art. 5
Hobbes, Vol. 21, *Leviathan,* Part I, Chap. XI
Montaigne, Vol. 23, *That to philosophize is to learn to die; That the taste of good and evil depends in large part on the opinion we have of them; Of glory*
Spinoza, Vol. 28, *Ethics,* Part IV, Appendix
Pascal, Vol. 30, *Pensées,* Sect. II
Kant, Vol. 39, *Fundamental Principles of the Metaphysic of Morals*
Tolstoy, Vol. 51, *War and Peace,* Bk. 12, Chap. XIII; Bk. 13, Chaps. XII, XIV; Bk. 14, Chaps. XII, XV; Bk. 15, Chaps. XII–XIII, XIX
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 3–7

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Youth and Age; Of Great Place,* Vol. 7; *Of Anger,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Chekhov, *Darling,* Vol. 3
Cicero, *On Old Age,* Vol. 10
Emerson, *Thoreau,* Vol. 6
Epictetus, Enchiridion, Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Gogol, *Overcoat,* Vol. 2
James, W., *On a Certain Blindness in Human Beings,* Vol. 7
La Bruyère, *Characters,* Vol. 6
Pater, "Art of Life," Vol. 10
Santayana, *Lucretius,* Vol. 10
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Tolstoy, *Three Hermits,* Vol. 3
Wilde, *Happy Prince,* Vol. 2
Xenophon, "Character of Socrates," Vol. 6

For Plutarch's *Lives of the Noble Grecians and Romans* in *Great Books of the Western World,* see Vol. 13

EDGAR ALLAN POE, 1809–1849

The Tell-Tale Heart

Vol. 2, pages 273–277

SUGGESTED READINGS IN THE *Syntopicon*

EMOTION, Vol. 1, especially
Topic 3*a*: Madness or frenzy due to emotional excess: excessively emotional or emotionally overdetermined behavior
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*b*: The fantastic and the realistic in poetry: the probable and the possible in poetry and history
MIND, Vol. 2, especially
Topic 8*a*: The distinction between sanity and madness: the criterion of lucidity or insight
PUNISHMENT, Vol. 2, especially
Topic 2*b*: Sanity, maturity, and moral competence in relation to responsibility

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Ajax*
Euripides, Vol. 4, *Electra*
Plato, Vol. 6, *Phaedrus*
Shakespeare, Vol. 25, *Hamlet,* Act IV, Scene V; *Othello,* Act IV, Scene I; *King Lear*
Melville, Vol. 48, *Moby Dick,* Chaps. 41, 44
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part III, Bk. VIII, Chap. 8
Lawrence, Vol. 60, *Prussian Officer*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Anger,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Hemingway, *Killers,* Vol. 2
Lamb, *Sanity of True Genius,* Vol. 5
Lawrence, *Rocking-Horse Winner,* Vol. 3
Mann, *Mario and the Magician,* Vol. 3
Melville, *Billy Budd,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Pushkin, *Queen of Spades,* Vol. 3
Scott, *Two Drovers,* Vol. 2
Stevenson, *Strange Case of Dr. Jekyll and Mr. Hyde,* Vol. 2

The Masque of the Red Death
Vol. 2, pages 278–283

SUGGESTED READINGS IN THE *Syntopicon*

LIFE AND DEATH, Vol. 1, especially
Topic 8*b*: The love of life: the instinct of self-preservation; the life instinct
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*b*: The fantastic and the realistic in poetry: the probable and the possible in poetry and history
POETRY, Vol. 2, especially
Topic 6*a*: The expression of emotion in poetry

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Alcestis*
Shakespeare, Vol. 24, *King Richard III,* Act I, Scene IV
Swift, Vol. 34, *Gulliver's Travels,* Part III, Chap. X
Kafka, Vol. 60, *Metamorphosis*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
Browne, "Immortality," Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Hemingway, *Killers,* Vol. 2
O'Neill, *Emperor Jones,* Vol. 4
Synge, *Riders to the Sea,* Vol. 4

HENRI POINCARÉ, 1854–1912

Space
Vol. 9, pages 265–293

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 1*c*: The certainty and exactitude of mathematical knowledge: truth in mathematics; the *a priori* foundations of arithmetic and geometry
Topic 4*b*: The operations of geometry
QUANTITY, Vol. 2, especially

Topic 3: The magnitudes of geometry: the relations of dimensionality

SPACE, Vol. 2, especially

Topic 3*c*: Geometric space, its kinds and properties: spatial relationships and configurations

Topic 5: The mode of existence of geometric objects: their character as abstractions; their relation to intelligible matter

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. III, Chap. 4–Bk. IV, Chap. 9
Euclid, Vol. 10, *Elements,* Bk. I
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rule XIV
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy*
Kant, Vol. 39, *Critique of Pure Reason*
James, W., Vol. 53, *Principles of Psychology,* Chap. XX
Russell, Vol. 55, *Problems of Philosophy,* Chaps. VII–VIII
Whitehead, Vol. 56, *Introduction to Mathematics,* Chaps. 9, 16
Einstein, Vol. 56, *Relativity: The Special and the General Theory*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Postulates of the Science of Space,* Vol. 9
Russell, *Mathematics and the Metaphysicians,* Vol. 9
Voltaire, *Micromégas,* Vol. 2; "English Men and Ideas," Vol. 7

Mathematical Creation

Vol. 9, pages 294–304

SUGGESTED READINGS IN THE *Syntopicon*

INDUCTION, Vol. 1, especially

Topic 2: The conditions or sources of induction: memory, experience, experiment

MATHEMATICS, Vol. 2, especially

Topic 3: Method in mathematics: the model of mathematical thought

REASONING, Vol. 2, especially

Topic 1*b*: Discursive reasoning contrasted with immediate intuition

Topic 1*c*: The role of sense, memory, and imagination in reasoning: perceptual inference, rational reminiscence, the collation of images

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Metaphysics,* Bk. XIV, Chaps. 3–6
Pascal, Vol. 30, *Pensées,* Sect. I

James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Whitehead, Vol. 56, *Introduction to Mathematics,* Chap. 1
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Curie, *Discovery of Radium,* Vol. 8
Dantzig, *Fingerprints; Empty Column,* Vol. 9
Darwin, *Autobiography,* Vol. 8
Dewey, "Process of Thought," Vol. 10
Galton, "Classification of Human Ability," Vol. 8
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Mendeleev, "Genesis of a Law of Nature," Vol. 8
Russell, *Study of Mathematics,* Vol. 9
Tyndall, "Michael Faraday," Vol. 8
Whitehead, "On Mathematical Method," Vol. 9

Chance

Vol. 9, pages 305–320

SUGGESTED READINGS IN THE *Syntopicon*

CAUSE, Vol. 1, especially
Topic 5: Cause in relation to knowledge
CHANCE, Vol. 1, especially
Topic 1: The conception of change
Topic 2*a*: The relation of chance to causality: philosophical or scientific determinism
Topic 4: Cause and chance in relation to knowledge and opinion: the theory of probability
NECESSITY AND CONTINGENCY, Vol. 2, especially
Topic 3: Necessity and contingency in the realm of change: chance and determinism
Topic 4: Necessity and contingency in the realm of thought

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *Physics,* Bk. II, Chaps. 4–6
Pascal, Vol. 30, *Treatise on the Arithmetical Triangle; Correspondence with Fermat on the Theory of Probabilities*
Hume, Vol. 33, *Enquiry Concerning Human Understanding,* Sect. VI
Locke, Vol. 33, *Concerning Human Understanding,* Bk. IV, Chaps. III–IV, VI, XV–XVII
Whitehead, Vol. 55, *Science and the Modern World,* Chap. V
Planck, Vol. 56, *Scientific Autobiography*
Waddington, Vol. 56, *Nature of Life,* Chap. 4

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Eddington, *Running-Down of the Universe,* Vol. 8
Laplace, "Probability," Vol. 9
Lawrence, *Rocking-Horse Winner,* Vol. 3
Peirce, *Red and the Black,* Vol. 9
Pushkin, *Queen of Spades,* Vol. 3

For Poincaré's *Science and Hypothesis* in *Great Books of the Western World,* see Vol. 56

WILLIAM HICKLING PRESCOTT, 1796–1859

"The Land of Montezuma"
from *The Conquest of Mexico*
Vol. 6, pages 231–243

SUGGESTED READINGS IN THE *Syntopicon*

MONARCHY, Vol. 2, especially
Topic 5: The absolute government of colonies, dependencies, or conquered peoples
REVOLUTION, Vol. 2, especially
Topic 7: Empire and revolution: the justification of colonial rebellion and the defense of imperialism
SLAVERY, Vol. 2, especially
Topic 6*d*: The imperialistic subjection or enslavement of conquered peoples or colonial dependencies
STATE, Vol. 2, especially
Topic 9*f*: Colonization and imperialism: the economic and political factors in empire
TYRANNY AND DESPOTISM, Vol. 2, especially
Topic 7: The ways of tyrants or despots to attain and maintain power
WAR AND PEACE, Vol. 2, especially
Topic 6*a*: Conquest, empire, political expansion as ends of war
Topic 10*c*: The military virtues: the qualities of the professional soldier; education for war

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Herodotus, Vol. 5, *History,* First Book; Fifth–Sixth Book
Thucydides, Vol. 5, *History of the Peloponnesian War,* Third Book, Chap. IX; Fifth Book, Chap. XVII

Hobbes, Vol. 21, *Leviathan,* Part II, Chaps. 19–20
Montaigne, Vol. 23, *Of cannibals*
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire,* Chaps. II, XXVI, XXX–XXXI; Vol. 38, Chap. XLIII
Weber, Vol. 58, *Essays in Sociology,* Chap. VI
Conrad, Vol. 59, *Heart of Darkness*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clausewitz, *What Is War?,* Vol. 7
Hume, *Of Refinement in the Arts,* Vol. 7
Long, *Power within Us,* Vol. 6
Macaulay, *Machiavelli,* Vol. 7
Malthus, "Principle of Population," Vol. 7
Pliny, "Eruption of Vesuvius," Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Xenophon, "March to the Sea," Vol. 6

ALEXANDER PUSHKIN, 1799–1837

The Queen of Spades

Vol. 3, pages 484–507

SUGGESTED READINGS IN THE *Syntopicon*

CHANCE, Vol. 1, especially
Topic 5: The control of chance or contingency by art
Topic 6*a*: Chance and fortune in the life of the individual: gambling and games of chance
DESIRE, Vol. 1, especially
Topic 5*c*: Desire ruling action: the unchecked expression of desires; incontinence
Topic 7*a*(2): The lust for power
Topic 7*a*(3): The accumulation of wealth
WILL, Vol. 2, especially
Topic 2*c*(3): The several acts of the will with respect to means: their antecedents and consequences
Topic 9*a*: The distinction between men of strong and weak will: cultivation of willpower

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. IV
Pascal, Vol. 30, *Correspondence with Fermat on the Theory of Probabilities*
Berkeley, Vol. 33, *Principles of Human Knowledge*

Hegel, Vol. 43, *Philosophy of Right,* Third Part
Balzac, Vol. 45, *Cousin Bette*
Melville, Vol. 48, *Moby Dick,* Chaps. 37, 41, 134
Tolstoy, Vol. 51, *War and Peace,* Bk. 4, Chaps. XIII–XVI
Ibsen, Vol. 52, *Master Builder*
Veblen, Vol. 57, *Theory of the Leisure Class,* Chap. 11
Lawrence, Vol. 60, *Prussian Officer*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Riches,* Vol. 7
Bunin, *Gentleman from San Francisco,* Vol. 3
Eliot, G., *Lifted Veil,* Vol. 3
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
La Bruyère, *Characters,* Vol. 6
Laplace, "Probability," Vol. 9
Lawrence, *Rocking-Horse Winner,* Vol. 3
Peirce, *Red and the Black,* Vol. 9
Poe, *Tell-Tale Heart,* Vol. 2
Poincaré, *Chance,* Vol. 9

JEAN JACQUES ROUSSEAU, 1712–1778

A Lasting Peace through the Federation of Europe

Vol. 7, pages 405–436

SUGGESTED READINGS IN THE *Syntopicon*

GOVERNMENT, Vol. 1, especially
Topic 5*a*: Foreign policy: the making of treaties; the conduct of war and peace
LAW, Vol. 1, especially
Topic 1*a*: The end of law: peace, order, and the common good
STATE, Vol. 2, especially
Topic 9*e*(1): The military problem of the state: preparation for conquest or defense
Topic 9*e*(2): Treaties between states: alliances, leagues, confederacies, or hegemonies
WAR AND PEACE, Vol. 2, especially
Topic 5*c*: The economics of war: its cost and consequences
Topic 6*a*: Conquest, empire, political expansion as ends of war
Topic 11*a*: Law and government as indispensable conditions of civil peace: the political community as the unit of peace

Topic 11*c*: International law and international peace: treaties, alliances, and leagues as instrumentalities of international peace

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. III
Hobbes, Vol. 21, *Leviathan,* Part I, Chaps. 13–15
Locke, Vol. 33, *Concerning Civil Government,* Chap. XVI
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. X
Smith, Vol. 36, *Wealth of Nations,* Bk. V, Part I
Kant, Vol. 39, *Science of Right,* Second Part
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 3–9
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 15–17
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chap. 5; Vol. 2, Part III, Chaps. 22–26
Freud, Vol. 54, *Thoughts for the Times on War and Death,* Chap. I
Weber, Vol. 58, *Essays in Sociology,* Chap. VI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clausewitz, *What Is War?,* Vol. 7
Dante, "On World Government," Vol. 7
Kant, *Perpetual Peace,* Vol. 7
Washington, *Farewell Address,* Vol. 6

For other works by Rousseau in *Great Books of the Western World,* see Vol. 35

JOHN RUSKIN, 1819–1900

An Idealist's Arraignment of the Age

Vol. 7, pages 126–136

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 12: The history of the arts: progress in art as measuring stages of civilization
BEAUTY, Vol. 1, especially
Topic 4: Beauty and ugliness in relation to pleasure and pain or good and evil
FAMILY, Vol. 1, especially
Topic 5: The position of women
LABOR, Vol. 1, especially
Topic 1*a*: The curse of labor: myths of a golden age and the decay of the world

Topic 1*e*: The honor of work and the virtue of productivity: progress through the invention of arts for the conquest of nature

PROGRESS, Vol. 2, especially

Topic 1*c*: Skeptical or pessimistic denials of progress: the golden age as past; the cyclical motion of history; the degeneration of cultures

Topic 6: Intellectual or cultural progress: its sources and impediments; the analogy of cultural progress to biological evolution

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Politics,* Bk. I, Chap. 4
Lucretius, Vol. 11, *Way Things Are,* Bk. V
Hobbes, Vol. 21, *Leviathan,* Part IV, Chap. 46
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Swift, Vol. 34, *Gulliver's Travels,* Part III, Chaps. IV–VI
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* First Part
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chap. III
Freud, Vol. 54, *Civilization and Its Discontents,* Chap. III
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. I, XIII
Tawney, Vol. 57, *Acquisitive Society,* Chaps. 4–11
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XIX–XXIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Chekhov, *Cherry Orchard,* Vol. 4
Emerson, *Thoreau,* Vol. 6
Guizot, "Civilization," Vol. 6
Hume, *Of Refinement in the Arts,* Vol. 7
Ibsen, *Enemy of the People,* Vol. 4
Pater, "Art of Life," Vol. 10
Stevenson, *Lantern-Bearers,* Vol. 7
Swift, *Essay on Modern Education; Modest Proposal,* Vol. 7
Tolstoy, *What Men Live By,* Vol. 3

BERTRAND A. W. RUSSELL, 1872–1970

The Study of Mathematics

Vol. 9, pages 84–94

SUGGESTED READINGS IN THE *Syntopicon*

LOGIC, Vol. 1, especially

Topic 4: Logic as an art: its place in education
Topic 5*a*: Mathematical analysis and reasoning: the search for a universal method
MATHEMATICS, Vol. 2, especially
Topic 1*a*: The distinction of mathematics from physics and metaphysics; its relation to logic
Topic 1*b*: The service of mathematics to dialectic and philosophy: its place in liberal education
NECESSITY AND CONTINGENCY, Vol. 2, especially
Topic 4*d*: Mathematical necessity: necessity in the objects of mathematics and in mathematical reasoning

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VII; *Philebus; Laws,* Bk. VII
Aristotle, Vol. 7, *Metaphysics,* Bk. XIV, Chaps. 3–6
Euclid, Vol. 10, *Elements,* Bks. I–II
Pascal, Vol. 30, *Pensées,* Sect. I; *On Geometrical Demonstration*
Kant, Vol. 39, *Critique of Pure Reason*
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Whitehead, Vol. 55, *Science and the Modern World,* Chap. II; Vol. 56, *Introduction to Mathematics,* Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Clifford, *Postulates of the Science of Space,* Vol. 9
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Poincaré, *Mathematical Creation,* Vol. 9
Whitehead, "On Mathematical Method," Vol. 9

Mathematics and the Metaphysicians

Vol. 9, pages 95–110

SUGGESTED READINGS IN THE *Syntopicon*

CHANGE, Vol. 1, especially
Topic 5: The measure of motion
Topic 7*d*: The properties of variable motion: the laws of motion
INFINITY, Vol. 1, especially
Topic 3: The infinite in quantity: infinite magnitudes and multitudes
LOGIC, Vol. 1, especially
Topic 5*a*: Mathematical analysis and reasoning: the search for a universal method

MATHEMATICS, Vol. 2, especially
Topic 3*d*: Symbols and formulas: the attainment of generality
Topic 4: Mathematical techniques
Topic 4*d*: The method of exhaustion: the theory of limits and the calculus

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Parmenides*
Aristotle, Vol. 7, *Organon; Metaphysics,* Bk. IV; Bk. XI, Chaps. 4–7
Euclid, Vol. 10, *Elements,* Bks. I–II, X, XII
Archimedes, Vol. 10, *Quadrature of the Parabola; Method Treating of Mechanical Problems*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. I, Sect. I
Kant, Vol. 39, *Critique of Pure Reason,* Introduction
Hegel, Vol. 43, *Philosophy of History,* Introduction
Poincaré, Vol. 56, *Science and Hypothesis,* Part I
Whitehead, Vol. 56, *Introduction to Mathematics,* Chap. 5
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Clifford, *Postulates of the Science of Space,* Vol. 9
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9
Poincaré, *Space,* Vol. 9
Whitehead, "On Mathematical Method"; *On the Nature of a Calculus,* Vol. 9

Definition of Number

Vol. 9, pages 111–117

SUGGESTED READINGS IN THE *Syntopicon*

DEFINITION, Vol. 1, especially
Topic 1: The theory of definition
Topic 1*a*: The object of definition: definitions as arbitrary and nominal or real and concerned with essence
Topic 4: The search for definitions and the methods of defending them
INFINITY, Vol. 1, especially
Topic 3*a*: Number: the infinite of division and addition
MATHEMATICS, Vol. 2, especially
Topic 2: The objects of mathematics: ideas or abstractions; number, figure, extension, relation, order

QUANTITY, Vol. 2, especially
Topic 4: Discrete quantities: number and numbering

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Meno; Republic,* Bk. VII; *Theaetetus*
Aristotle, Vol. 7, *Topics,* Bks. VI–VII; *Metaphysics,* Bk. I; Bk. VII, Chap. 10–Bk. VIII, Chap. 6
Euclid, Vol. 10, *Elements,* Bk. V
Archimedes, Vol. 10, *Sand-Reckoner*
Nicomachus, Vol. 10, *Introduction to Arithmetic,* Bks. I, II
Swift, Vol. 34, *Gulliver's Travels,* Part IV
Whitehead, Vol. 56, *Introduction to Mathematics,* Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Measurement,* Vol. 9
Dantzig, *Fingerprints; Empty Column,* Vol. 9
Kasner and Newman, *New Names for Old; Beyond the Googol,* Vol. 9

For Russell's *Problems of Philosophy* in *Great Books of the Western World,* see Vol. 55

CHARLES AUGUSTIN SAINTE-BEUVE, 1804–1869

What Is a Classic?
Vol. 5, pages 65–75

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*b*: The judgment of excellence in art
BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
RHETORIC, Vol. 2, especially
Topic 2*b*: The canon of excellence in style
UNIVERSAL AND PARTICULAR, Vol. 2, especially
Topic 7*c*: The issue concerning the universality of aesthetic standards: the subjective universal

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *On Poetics*
Montaigne, Vol. 23, *Of books*

Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 47–48
Pascal, Vol. 30, *Pensées,* Sect. I
Voltaire, Vol. 34, *Candide,* Chap. 25
Boswell, Vol. 41, *Life of Samuel Johnson*
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XX–XXII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
Bacon, *Of Studies,* Vol. 5
Bury, *Herodotus,* Vol. 6
Eliot, T. S., *Dante; Tradition and the Individual Talent,* Vol. 5
Guizot, "Civilization," Vol. 6
Hazlitt, *Of Persons One Would Wish to Have Seen,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5
Johnson, *Preface to Shakespeare,* Vol. 5
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Style,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5

Montaigne

Vol. 5, pages 76–89

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
MIND, Vol. 2, especially
Topic 9*c*: Reason as regulating human conduct: reason as the principle of virtue or duty
POETRY, Vol. 2, especially
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry: the distinction between prose and verse; the measure of excellence in style

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion*
Pascal, Vol. 30, *Pensées,* Sect. I
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Boswell, Vol. 41, *Life of Samuel Johnson*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Emerson, *Montaigne; Or, the Skeptic,* Vol. 10

Epicurus, *Letter to Menoeceus,* Vol. 10
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Voltaire, "Philosophy of Common Sense," Vol. 10

For Montaigne's *Essays* in *Great Books of the Western World,* see Vol. 23

GEORGE SANTAYANA, 1863–1952

Lucretius

Vol. 10, pages 365–390

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
Topic 6*a*: The regulation of desire by reason: the discipline of moral virtue or duty
ELEMENT, Vol. 1, especially
Topic 5: The conception of atoms as indivisible, imperceptible, and indestructible
LIFE AND DEATH, Vol. 1, especially
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr
MATTER, Vol. 2, especially
Topic 3*a*: Matter as the sole existent: materialism, atomism
NATURE, Vol. 2, especially
Topic 2*d*: Natural and violent motion
SOUL, Vol. 2, especially
Topic 3*d*: The denial of soul as an immaterial principle, form, or substance: the atomic theory of the soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aurelius, Vol. 11, *Meditations,* Bk. IX
Plotinus, Vol. 11, *Fourth Ennead,* Seventh Tractate
Montaigne, Vol. 23, *That to philosophize is to learn to die; Apology for Raymond Sebond*
Spinoza, Vol. 28, *Ethics,* Part III; Part IV, Props. 44–66
Pascal, Vol. 30, *Pensées,* Sects. II–VII, IX
Heisenberg, Vol. 56, *Physics and Philosophy,* Chap. 4

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Bacon, *Of Death,* Vol. 10
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5

Emerson, *Nature,* Vol. 10
Epicurus, *Letter to Herodotus; Letter to Menoeceus,* Vol. 10
Mill, J. S., *Nature,* Vol. 10
Plutarch, *Contentment,* Vol. 10
Shelley, *Defence of Poetry,* Vol. 5

For Lucretius' *Way Things Are* in *Great Books of the Western World,* see Vol. 11

Goethe's Faust

Vol. 10, pages 391–419

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
Topic 7*a*(2): The lust for power
EXPERIENCE, Vol. 1, especially
Topic 8: Variety of experience as an ideal of human life
HAPPINESS, Vol. 1, especially
Topic 7*b*: The imperfection of temporal happiness: its failure to satisfy natural desire
PHILOSOPHY, Vol. 2, especially
Topic 1*d*: The relation of philosophy to myth, poetry, and history
WILL, Vol. 2, especially
Topic 2*b*(2): The sensitive determination of the will's acts by estimations of benefit and harm, or pleasure and pain: the impulsion of the passions

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Lucretius, Vol. 11, *Way Things Are,* Bk. III
Spinoza, Vol. 28, *Ethics,* Part II, Prop. 44; Parts IV–V
Milton, Vol. 29, *Paradise Lost,* Bks. IX, XII; *Areopagitica*
Mill, J. S., Vol. 40, *On Liberty,* Chap. 3
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. VI, Chaps. 2–3
Weber, Vol. 58, *Essays in Sociology,* Chap. XIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Bunin, *Gentleman from San Francisco,* Vol. 3
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Guizot, "Civilization," Vol. 6
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Mann, *Mario and the Magician,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Pater, "Art of Life," Vol. 10

Pushkin, *Queen of Spades,* Vol. 3
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Shaw, *Man of Destiny,* Vol. 4
Shelley, *Defence of Poetry,* Vol. 5

For Goethe's *Faust* in *Great Books of the Western World,* see Vol. 45

FRIEDRICH SCHILLER, 1759–1805

On Simple and Sentimental Poetry

Vol. 5, pages 155–211

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 2*a*: Causation in art and nature: artistic production compared with natural generation
Topic 7*b*: The judgment of excellence in art
NATURE, Vol. 2, especially
Topic 2*a*: Nature and art: the imitation of nature; cooperation with nature
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience and imagination; the influence of the poetic tradition
Topic 4*a*: Epic and dramatic poetry
Topic 4*b*: Tragedy and comedy: the theater
Topic 8*a*(2): Poetic truth: verisimilitude or plausibility; the possible, the probable, and the necessary

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion; Republic,* Bks. II–III
Aristotle, Vol. 8, *On Poetics,* Chaps. 5–16, 23–26
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 47–48
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Pascal, Vol. 30, *Pensées,* Sect. I
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XX–XXII
Pirandello, Vol. 59, *Six Characters in Search of an Author*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anonymous, *Aucassin and Nicolette,* Vol. 2
Arnold, *Study of Poetry,* Vol. 5
Balzac, *Passion in the Desert,* Vol. 3
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5

Dinesen, *Sorrow-Acre,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Guizot, "Civilization," Vol. 6
Hazlitt, *My First Acquaintance with Poets; Of Persons One Would Wish to Have Seen,* Vol. 5
Johnson, *Preface to Shakespeare,* Vol. 5
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5
Scott, *Two Drovers,* Vol. 2
Shelley, *Defence of Poetry,* Vol. 5
Tolstoy, *Three Hermits,* Vol. 3
Whitman, *Preface to Leaves of Grass,* Vol. 5

ARTHUR SCHOPENHAUER, 1788–1860

On Style

Vol. 5, pages 124–136

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*b*: The judgment of excellence in art
BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
POETRY, Vol. 2, especially
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry; the distinction between prose and verse; the measure of excellence in style
RHETORIC, Vol. 2, especially
Topic 2*b*: The canon of excellence in style

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Rhetoric,* Bk. III, Chaps. 1–13
Montaigne, Vol. 23, *Of books*
Cervantes, Vol. 27, *Don Quixote,* Prologue; Part Two, Chap. 16
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Descartes, Vol. 28, *Discourse on Method,* Part I
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. I
Goethe, Vol. 45, *Faust,* Part One

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5

Bacon, *Of Beauty,* Vol. 5
Eliot, T. S., *Dante,* Vol. 5
Hazlitt, *On Swift,* Vol. 5
Sainte-Beuve, *What Is a Classic?,* Vol. 5

On Some Forms of Literature

Vol. 5, pages 137–142

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 6*a*: The comparison and distinction of art and science
POETRY, Vol. 2, especially
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet
Topic 8*a*(2): Poetic truth: verisimilitude or plausibility; the possible, the probable, and the necessary

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. X
Aristotle, Vol. 8, *On Poetics*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 6, 32, 47–50; Part Two, Chaps. 3–4
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Boswell, Vol. 41, *Life of Samuel Johnson*
Shaw, Vol. 59, *Saint Joan,* Preface
Pirandello, Vol. 59, *Six Characters in Search of an Author*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Studies,* Vol. 5
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Hazlitt, *My First Acquaintance with Poets,* Vol. 5
Johnson, *Preface to Shakespeare,* Vol. 5
Lamb, *My First Play,* Vol. 5
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5

On the Comparative Place of Interest and Beauty in Works of Art

Vol. 5, pages 143–150

SUGGESTED READINGS IN THE *Syntopicon*

BEAUTY, Vol. 1, especially
Topic 1*b*: Beauty and truth: the beautiful as an object of contemplation or adoration

Topic 2: Beauty in nature and in art
POETRY, Vol. 2, especially
Topic 8*a*(2): Poetic truth: verisimilitude or plausibility; the possible, the probable, and the necessary

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *On Poetics*
Plotinus, Vol. 11, *Fifth Ennead,* Eighth Tractate
Kant, Vol. 39, *Critique of Judgement,* First Part, Sects. I–II
Goethe, Vol. 45, *Faust,* Prelude in the Theatre
James, W., Vol. 53, *Principles of Psychology,* Chap. XXVIII
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Beauty,* Vol. 5
De Quincey, *Literature of Knowledge and Literature of Power; On the Knocking at the Gate in Macbeth,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5
James, W., *On a Certain Blindness in Human Beings,* Vol. 7
Woolf, *How Should One Read a Book?,* Vol. 5

On Education

Vol. 7, pages 197–203

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 1: The means and ends of education
Topic 5*b*: The means and methods of teaching
Topic 5*c*: The nature of learning: its several modes
Topic 5*f*: Learning apart from teachers and books: the role of experience
EXPERIENCE, Vol. 1, especially
Topic 2: Experience in relation to the acts of the mind
Topic 6*a*: Experience as indispensable to sound judgment and prudence
KNOWLEDGE, Vol. 1, especially
Topic 6*b*: The classification of knowledge according to the faculties involved in knowing
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 3: Remembering as an act of knowledge and as a source of knowledge
Topic 6*c*(1): The abstraction of ideas from images: the image as a condition of thought

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III, VI–VII
Aristotle, Vol. 7, *On the Soul,* Bk. III, Chaps. 3–8; Vol. 8, *Nicomachean Ethics,* Bk. I, Chaps. 3–4, Bk. VI, especially Chaps. 5–8, *Politics,* Bk. VII, Chap. 13–Bk. VIII, Chap. 7
Montaigne, Vol. 23, *Of pedantry; Of the education of children*
Bacon, Vol. 28, *Advancement of Learning,* First Book
Descartes, Vol. 28, *Rules for the Direction of the Mind,* Rules XII–XIII
James, W., Vol. 53, *Principles of Psychology,* Chaps. XVI, XXVI, XXVIII
Freud, Vol. 54, *New Introductory Lectures on Psycho-Analysis,* Lecture, 34
Dewey, Vol. 55, *Experience and Education*
Lévi-Strauss, Vol. 58, *Structural Anthropology,* Chap. XVII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Studies,* Vol. 5; *Of Custom and Education,* Vol. 7
Conrad, *Youth,* Vol. 2
Dewey, "Process of Thought," Vol. 10
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Faraday, *Observations on Mental Education,* Vol. 7
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Franklin, *Proposal for Promoting Useful Knowledge among the British Plantations in America; Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Hume, *Of the Study of History,* Vol. 7
James, H., *Pupil,* Vol. 3
Kipling, *Mowgli's Brothers,* Vol. 2
Mill, J. S., "Childhood and Youth," Vol. 6
Swift, *Essay on Modern Education,* Vol. 7
Twain, "Learning the River," Vol. 6
Voltaire, *Micromégas,* Vol. 2
Woolf, *How Should One Read a Book?,* Vol. 5

SIR WALTER SCOTT, 1771–1832

The Two Drovers

Vol. 2, pages 182–205

SUGGESTED READINGS IN THE *Syntopicon*

CHANCE, Vol. 1, especially
Topic 1*a*: Chance as the coincidence of causes

Topic 6*a*: Chance and fortune in the life of the individual: gambling and games of chance
EMOTION, Vol. 1, especially
Topic 3*a*: Madness or frenzy due to emotional excess: excessively emotional or emotionally overdetermined behavior
HONOR, Vol. 1, especially
Topic 2*c*: Honor as due self-esteem: magnanimity or proper pride
JUSTICE, Vol. 1, especially
Topic 6*a*: The relation between natural law and natural justice
Topic 10*c*: The justice of punishment for unjust acts: the distinction between retribution and vengeance

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. XXI–XXII
Herodotus, Vol. 5, *History,* Third Book
Shakespeare, Vol. 24, *Romeo and Juliet,* Act III, Scene III; Vol. 25, *King Lear,* Act IV, Scene VI
Spinoza, Vol. 28, *Ethics,* Part III
Locke, Vol. 33, *Concerning Civil Government,* Chaps. II–III
Lawrence, Vol. 60, *Prussian Officer*
O'Neill, Vol. 60, *Mourning Becomes Electra*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Friendship; Of Anger,* Vol. 10
Cicero, *On Friendship,* Vol. 10
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Great Documents, *English Bill of Rights,* Vol. 6
Hemingway, *Killers,* Vol. 2
Hugo, "Battle with the Cannon," Vol. 2
Maupassant, *Two Friends,* Vol. 2
Melville, *Billy Budd,* Vol. 3
Poe, *Tell-Tale Heart,* Vol. 2
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Synge, *Riders to the Sea,* Vol. 4

GEORGE BERNARD SHAW, 1856–1950

The Man of Destiny

Vol. 4, pages 300–338

SUGGESTED READINGS IN THE *Syntopicon*

HISTORY, Vol. 1, especially

Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
HONOR, Vol. 1, especially
Topic 5*b*: Hero-worship: the exaltation of leaders
WAR AND PEACE, Vol. 2, especially
Topic 10*d*: The principles of strategy and tactics: the military genius

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad*
Plutarch, Vol. 13, *Caesar; Marcus Brutus*
Machiavelli, Vol. 21, *Prince,* Chaps. 25–26
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I
Shakespeare, Vol. 24, *King Henry V; Julius Caesar*
Hegel, Vol. 43, *Philosophy of History,* Introduction III
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Weber, Vol. 58, *Essays in Sociology,* Chap. IX
Conrad, Vol. 59, *Heart of Darkness*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place,* Vol. 7
Carlyle, *Hero as King,* Vol. 6
Clausewitz, *What Is War?,* Vol. 7
Emerson, *Self-Reliance,* Vol. 10
James, W., *Great Men and Their Environment,* Vol. 7
Mann, *Mario and the Magician,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6

For Shaw's *Saint Joan* in *Great Books of the Western World,* see Vol. 59

PERCY BYSSHE SHELLEY, 1792–1822

A Defence of Poetry
Vol. 5, pages 216–242

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*a*: The use of imagination in the production and appreciation of works of art
PHILOSOPHY, Vol. 2, especially
Topic 1*d*: The relation of philosophy to myth, poetry, and history

POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience and imagination; the influence of the poetic tradition
Topic 5*a*: The aim of poetry to instruct as well as to delight: the pretentions or deceptions of the poet as teacher
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet
Topic 8*c*: The interpretation of poetry and myth
Topic 9*a*: The influence of poetry on mind and character: its role in education
SCIENCE, Vol. 2, especially
Topic 2*b*: The comparison of science with poetry and history

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion; Republic,* Bks. II–III
Montaigne, Vol. 23, *Of books*
Cervantes, Vol. 27, *Don Quixote,* Part One, Chap. 16
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I, Bk. II
Whitehead, Vol. 55, *Science and the Modern World,* Chap. V
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XX–XXII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Eliot, T. S., *Dante; Tradition and the Individual Talent,* Vol. 5
Lamb, *Sanity of True Genius,* Vol. 5
Pater, "Art of Life," Vol. 10
Poincaré, *Mathematical Creation,* Vol. 9
Sainte-Beuve, *What Is a Classic?,* Vol. 5
Santayana, *Lucretius; Goethe's Faust,* Vol. 10
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Schopenhauer, *On Some Forms of Literature,* Vol. 5
Whitman, *Preface to Leaves of Grass,* Vol. 5
Woolf, *How Should One Read a Book?,* Vol. 5

RICHARD BRINSLEY SHERIDAN, 1751–1816

The School for Scandal

Vol. 4, pages 85–159

SUGGESTED READINGS IN THE *Syntopicon*

CUSTOM AND CONVENTION, Vol. 1, especially
Topic 5*a*: The conventional determination of moral judgments: the moral evaluation of conventions
OPINION, Vol. 2, especially
Topic 6*a*: Good and evil as matters of opinion: moral standards as customs or conventions reflecting prevalent opinion
TRUTH, Vol. 2, especially
Topic 8*a*: Prevarication and perjury: the injustice or lying or bearing false witness
VIRTUE AND VICE, Vol. 2, especially
Topic 2*c*: The appearances of virtue: imperfect or conditional virtues; the counterfeits of virtue; natural or temperamental dispositions which simulate virtue

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Shakespeare, Vol. 25, *Hamlet; King Lear*
Milton, Vol. 29, *Comus*
Molière, Vol. 31, *School for Wives; Critique of the School for Wives*
Swift, Vol. 34, *Gulliver's Travels,* Part IV, Chaps. IV–XII
Hegel, Vol. 43, *Philosophy of Right,* Second Part
Austen, Vol. 46, *Emma*
Eliot, G., Vol. 46, *Middlemarch*
James, W., Vol. 53, *Principles of Psychology,* Chap. X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Discourse,* Vol. 5; *Of Custom and Education; Of Followers and Friends,* Vol. 7; *Of Truth; Of Love,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Dickens, "Full and Faithful Report of the Memorable Trial of Bardell against Pickwick," Vol. 2
Erskine, *Moral Obligation to Be Intelligent,* Vol. 10
Galsworthy, *Apple-Tree,* Vol. 3
La Bruyère, *Characters,* Vol. 6
Molière, *Misanthrope; Doctor in Spite of Himself,* Vol. 4
Tolstoy, *What Men Live By,* Vol. 3
Twain, *Man That Corrupted Hadleyburg,* Vol. 2

ISAAC BASHEVIS SINGER, 1904–1991

The Spinoza of Market Street
Vol. 3, pages 466–480

SUGGESTED READINGS IN THE *Syntopicon*

DESIRE, Vol. 1, especially
Topic 6*a*: The regulation of desire by reason: the discipline of moral virtue or duty
EMOTION, Vol. 1, especially
Topic 4*a*: The conflict between reason and emotion
HAPPINESS, Vol. 1, especially
Topic 2*b*(5): The importance of friendship and love for happiness
Topic 2*b*(7): The function of knowledge and wisdom in the happy life: the place of speculative activity and contemplation
PHILOSOPHY, Vol. 2, especially
Topic 4*c*: Philosophy as a moral discipline: the consolation of philosophy
Topic 6*d*: The philosopher as a man of theory or vision: neglect of the practical; withdrawal from the affairs of men and the marketplace
WISDOM, Vol. 2, especially
Topic 4: The praise of folly: the wisdom of fools and innocents

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. IV
Erasmus, Vol. 23, *Praise of Folly*
Cervantes, Vol. 27, *Don Quixote,* Part Two, Chap. 43
Spinoza, Vol. 28, *Ethics,* Part IV, Props. 44–73
Pascal, Vol. 30, *Pensées,* Sect. VI

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Bacon, *Of Youth and Age,* Vol. 7; *Of Love,* Vol. 10
Cicero, *On Old Age,* Vol. 10
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Galileo, *Starry Messenger,* Vol. 8
Gogol, *Overcoat,* Vol. 2
Tolstoy, *What Men Live By,* Vol. 3

ROBERT LOUIS STEVENSON, 1850–1894

The Strange Case of Dr. Jekyll and Mr. Hyde
Vol. 2, pages 288–341

SUGGESTED READINGS IN THE *Syntopicon*

GOOD AND EVIL, Vol. 1, especially
Topic 6*a*: Knowledge, wisdom, and virtue: the relation of being good and knowing what is good
Topic 6*b*: The need for experience of evil
MEDICINE, Vol. 2, especially
Topic 1: The profession of medicine, its aims and obligations: the relation of physician to patient; the place of the physician in society; medical ethics
Topic 6*a*: The distinction between sanity and insanity: the concept of mental health and the nature of madness
MIND, Vol. 2, especially
Topic 7*c*: The conscious, preconscious and unconscious activities of mind
Topic 8: The pathology of mind: the loss or abeyance of reason
Topic 8*b*: The causes of mental pathology: organic and functional factors
Topic 8*c*: The abnormality peculiar to mind: systematic delusion

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Ajax*
Hippocrates, Vol. 9, *Oath; Law*
Melville, Vol. 48, *Moby Dick*
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chap. 4; Part IV, Bk. XI, Chaps. 8–9
James, W., Vol. 53, *Principles of Psychology,* Chaps. VI, VIII, X
Freud, Vol. 54, *Unconscious; General Introduction to Psycho-Analysis,* Part III, Lecture 26; *New Introductory Lectures,* Lecture 31
Conrad, Vol. 59, *Heart of Darkness*
Lawrence, Vol. 60, *Prussian Officer*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Eliot, G., *Lifted Veil,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Lawrence, *Rocking-Horse Winner,* Vol. 3
Mann, *Mario and the Magician,* Vol. 3
O'Neill, *Emperor Jones,* Vol. 4
Poe, *Tell-Tale Heart,* Vol. 2
Pushkin, *Queen of Spades,* Vol. 3

The Lantern-Bearers

Vol. 7, pages 112–121

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 3: Art as imitation
Topic 5: The sources of art in experience, imagination, and inspiration
MAN, Vol. 2, especially
Topic 13: The grandeur and misery of man
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 7*b*: The fantastic and the realistic in poetry: the probable and the possible in poetry and history

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Ion*
Aristotle, Vol. 8, *On Poetics*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Pascal, Vol. 30, *Pensées,* Sect. II
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I
Goethe, Vol. 45, *Faust,* Part One
Twain, Vol. 48, *Adventures of Huckleberry Finn*
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part II, Bk. V, Chap. 5

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Emerson, *Thoreau,* Vol. 6
Mill, J. S., "Childhood and Youth," Vol. 6
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Twain, "Learning the River," Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6

JONATHAN SWIFT, 1667–1745

Resolutions when I Come to Be Old

Vol. 7, page 32

A Meditation upon a Broomstick

Vol. 7, pages 40–41

SUGGESTED READINGS IN THE *Syntopicon*

MAN, Vol. 2, especially
Topic 6*c*: The ages of man: infancy, youth, maturity, senescence; generational conflict
Topic 12: Man as an object of laughter and ridicule: comedy and satire

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Clouds; Birds; Frogs*
Montaigne, Vol. 23, *Our feelings reach out beyond us; Apology for Raymond Sebond*
Shakespeare, Vol. 24, *As You Like It,* Act II, Scene VII
Pascal, Vol. 30, *Pensées,* Sects. II, VI, VII
Goethe, Vol. 45, *Faust,* Part One
Ibsen, Vol. 52, *Master Builder*
Chekhov, Vol. 59, *Uncle Vania*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Youth and Age,* Vol. 7
Cicero, *On Old Age,* Vol. 10
Hazlitt, *On Swift,* Vol. 5

An Essay on Modern Education

Vol. 7, pages 33–39

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 4*b*: The influence of the family in moral training
Topic 5*d*: The order of learning: the organization of the curriculum
Topic 8: Education and the state
STATE, Vol. 2, especially
Topic 5: The social structure or stratification of the state
Topic 7*d*: The educational task of the state: the trained intelligence of the citizens

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laches; Republic,* Bks. II–III
Aristotle, Vol. 8, *Politics,* Bk. VIII
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Chaps. 14–15, 21–24; Bk. II, Chap. 8
Montaigne, Vol. 23, *Of the education of children; Of the affection of fathers for their children*
Smith, Vol. 36, *Wealth of Nations,* Bk. V, Chap. I
Hamilton, Madison, Jay, Vol. 40, *Federalist,* No. 84
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 2, 8
Dostoevsky, Vol. 52, *Brothers Karamazov,* Part IV, Bk. X, Chap. 5
Dewey, Vol. 55, *Experience and Education*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Custom and Education,* Vol. 7

Faraday, *Observations on Mental Education,* Vol. 7
Franklin, *Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Hazlitt, *On Swift,* Vol. 5
Mill, J. S., "Childhood and Youth," Vol. 6
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Schopenhauer, *On Education,* Vol. 7

A Modest Proposal for Preventing the Children of Ireland from Being a Burden to Their Parents or Country

Vol. 7, pages 42–49

SUGGESTED READINGS IN THE *Syntopicon*

JUSTICE, Vol. 1, especially
Topic 8: Economic justice: justice in production, distribution, and exchange
NECESSITY AND CONTINGENCY, Vol. 2, especially
Topic 5*d*: The necessity or inevitability of slavery, poverty, war, or crime
WEALTH, Vol. 2, especially
Topic 8: The distribution of wealth: the effects of wealth on social status; the problem of poverty
Topic 9*g*: Wealth and poverty in relation to crime and to war between states

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Politics,* Bk. I, Chaps. 3–11; Bk. II, Chaps. 5–7
Montaigne, Vol. 23, *Of cannibals*
Locke, Vol. 33, *Concerning Civil Government,* Chap. V
Rousseau, Vol. 35, *Discourse on the Origin of Inequality*
Smith, Vol. 36, *Wealth of Nations,* Bk. I, Chaps. VI–X
Marx, Vol. 50, *Capital,* Part VII, Chap. XXV; Part VIII, Chap. XXVIII
Veblen, Vol. 57, *Theory of the Leisure Class,* Chaps. 1–6
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Epicurus, *Letter to Menoeceus,* Vol. 10
Hazlitt, *On Swift,* Vol. 5
Lincoln, *Address at Cooper Institute,* Vol. 6
Long, *Power within Us,* Vol. 6
Malthus, "Principle of Population," Vol. 7
Prescott, "Land of Montezuma," Vol. 6
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7

Tolstoy, *What Men Live By,* Vol. 3
Voltaire, "English Men and Ideas: On Inoculation," Vol. 7

For Swift's *Gulliver's Travels* in *Great Books of the Western World,* see Vol. 34

JOHN MILLINGTON SYNGE, 1871–1909

Riders to the Sea

Vol. 4, pages 342–352

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
Topic 4*b*: The attainability of happiness: the fear of death and the tragic view of human life
LIFE AND DEATH, Vol. 1, especially
Topic 7: The causes and occurrence of death: the transition from life to death; homicide
Topic 8*b*: The love of life: the instinct of self-preservation; the life instinct
PLEASURE AND PAIN, Vol. 2, especially
Topic 4*a*: The pleasant and unpleasant in the sphere of emotion: joy and sorrow, delight and grief

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bk. VI
Euripides, Vol. 4, *Trojan Women*
Montaigne, Vol. 23, *That the taste of good and evil depends in large part on the opinion we have of them*
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Parents and Children; Of Marriage and Single Life,* Vol. 7; *Of Death; Of Adversity,* Vol. 10
Browne, "Immortality," Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Crane, *Open Boat,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Gogol, *Overcoat,* Vol. 2
Lincoln, *Meditation on the Divine Will,* Vol. 6
Long, *Power within Us,* Vol. 6
Maupassant, *Two Friends,* Vol. 2
Pater, "Art of Life," Vol. 10

Poe, *Masque of the Red Death,* Vol. 2
Scott, *Two Drovers,* Vol. 2
Tolstoy, *Death of Ivan Ilyitch; What Men Live By,* Vol. 3

CORNELIUS TACITUS, *c.* 55–*c.* 120

The Life of Gnaeus Julius Agricola

Vol. 6, pages 274–298

SUGGESTED READINGS IN THE *Syntopicon*

HISTORY, Vol. 1, especially
Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
HONOR, Vol. 1, especially
Topic 3*a*: The reaction of the community to its good or great men
Topic 5: Honor, fame, and the heroic
SLAVERY, Vol. 2, especially
Topic 6*d*: The imperialistic subjection or enslavement of conquered peoples or colonial dependencies
TYRANNY AND DESPOTISM, Vol. 2, especially
Topic 1*a*: The lawlessness of tyrannical rule: might without right
Topic 1*b*: The injustice of tyrannical government: rule of self-interest
Topic 7: The ways of tyrants or despots to attain and maintain power
VIRTUE AND VICE, Vol. 2, especially
Topic 7*b*: Civic virtue: the virtue of the good citizen compared with the virtue of the good man
WAR AND PEACE, Vol. 2, especially
Topic 6*a*: Conquest, empire, political expansion as ends of war
Topic 10*c*: The military virtues: the qualities of the professional soldier; education for war

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Apology; Crito*
Plutarch, Vol. 13, *Numa Pompilius; Timoleon; Caius Marius*
Machiavelli, Vol. 21, *Prince*
Shakespeare, Vol. 24, *Julius Caesar;* Vol. 25, *Coriolanus*
Swift, Vol. 34, *Gulliver's Travels,* Part I
Gibbon, Vol. 37, *Decline and Fall of the Roman Empire,* Chaps. I, III–IV, XVI

Hegel, Vol. 43, *Philosophy of History,* Introduction III
Nietzsche, Vol. 43, *Beyond Good and Evil,* Parts Two and Nine
Weber, Vol. 58, *Essays in Sociology,* Chaps. VI, IX–X
Conrad, Vol. 59, *Heart of Darkness*
Orwell, Vol. 60, *Animal Farm*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Great Place; Of Seditions and Troubles,* Vol. 7; *Of Adversity,* Vol. 10
Carlyle, *Hero as King,* Vol. 6
Ibsen, *Enemy of the People,* Vol. 4
James, W., *Great Men and Their Environment,* Vol. 7
Jefferson, "Biographical Sketches," Vol. 6
Prescott, "Land of Montezuma," Vol. 6
Shaw, *Man of Destiny,* Vol. 4
Thoreau, *Civil Disobedience,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6
Woolf, *Art of Biography,* Vol. 6

For other works by Tacitus in *Great Books of the Western World,* see Vol. 14

HENRY DAVID THOREAU, 1817–1862

Civil Disobedience

Vol. 6, pages 695–713

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 5*b*(1): Majority rule and minority or proportional representation
GOVERNMENT, Vol. 1, especially
Topic 1*c*: The ends and limits of government: the criteria of legitimacy and justice
Topic 1*f*: The abuses and corruptions to which government is subject
JUSTICE, Vol. 1, especially
Topic 10*b*: The legality of unjust laws: the extent of obedience required of the just man in the unjust society
LAW, Vol. 1, especially
Topic 6*a*: Obedience to the authority and force of law: the sanctions of conscience and fear; the objective and subjective sanctions of law; law, duty, and right

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aeschylus, Vol. 4, *Prometheus Bound*
Sophocles, Vol. 4, *Antigone*
Euripides, Vol. 4, *Medea*
Aristophanes, Vol. 4, *Lysistrata*
Plato, Vol. 6, *Apology; Crito; Republic,* Bk. VIII
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q 96, Art. 4; Part II–II, Q 42
Hobbes, Vol. 21, *Leviathan,* Part II, Chap. 21
Montaigne, Vol. 23, *Of the useful and the honorable*
Shakespeare, Vol. 24, *King Richard III; King Richard II; King Henry IV,* First Part; *King Henry IV,* Second Part
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XI–XII
Swift, Vol. 34, *Gulliver's Travels,* Part I
Mill, J. S., Vol. 40, *On Liberty*
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chaps. 5–7
Weber, Vol. 58, *Essays in Sociology,* Chap. X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Calhoun, "Concurrent Majority," Vol. 7
Emerson, *Thoreau,* Vol. 6
Great Documents, *Virginia Declaration of Rights; Declaration of Independence,* Vol. 6
Ibsen, *Enemy of the People,* Vol. 4
Jefferson, "Virginia Constitution," Vol. 6
Lincoln, *First Inaugural Address,* Vol. 6
Paine, "Call to Patriots–December 23, 1776," Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Tocqueville, "Observations on American Life and Government," Vol. 6
Xenophon, "Character of Socrates," Vol. 6

A Plea for Captain John Brown

Vol. 6, pages 714–732

SUGGESTED READINGS IN THE *Syntopicon*

COURAGE, Vol. 1, especially
Topic 7*a*: The courage required of citizens and statesmen: the political recognition of courage
JUSTICE, Vol. 1, especially
Topic 5: Justice and equality: the kinds of justice in relation to the measure and modes of equality and inequality
Topic 6*e*: Justice and natural rights as the source of civil liberty
REVOLUTION, Vol. 2, especially

Topic 6*a*: The right of rebellion: the circumstances justifying civil disobedience or violent insurrection
SLAVERY, Vol. 2, especially
Topic 3*c*: The emancipation or manumission of slaves: the rebellion of slaves

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Antigone; Ajax*
Aristophanes, Vol. 4, *Peace*
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 12–13
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q 92, Art. 1, Reply Obj. 4; Q 96, Art. 4; Part II–II, Q 42
Locke, Vol. 33, *Concerning Civil Government,* Chap. IV
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. XV, Chaps. 9–18
Mill, J. S., Vol. 40, *Representative Government,* Chap. 7
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chap. 10; Vol. 2, Part II, Chap. 1
Twain, Vol. 48, *Adventures of Huckleberry Finn*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles,* Vol. 7
Emerson, *Thoreau,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Lincoln, *Address at Cooper Institute; First Inaugural Address; Second Inaugural Address,* Vol. 6
Whitman, *Death of Abraham Lincoln,* Vol. 6
Woolf, *Art of Biography,* Vol. 6

ALEXIS DE TOCQUEVILLE, 1805–1859

"Observations on American Life and Government"

from *Democracy in America*
Vol. 6, pages 564–690

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 3*c*: Comparison of democracy, aristocracy, and monarchy with respect to efficiency
Topic 4*a*(1): Universal suffrage: the abolition of privileged classes
Topic 4*b*: The democratic realization of popular sovereignty: the safeguarding of natural rights
Topic 4*c*: The infirmities of democracy in practice and the reforms or remedies for these defects
GOVERNMENT, Vol. 1, especially

Topic 1*g*(3): The sovereign people: the community as the source of governmental sovereignty
Topic 2*d*: The influence of different forms of government on the formation of human character

LIBERTY, Vol. 1, especially
Topic 1*f*: The freedom of equals under government: the equality of citizenship
Topic 2*c*: Freedom in the sphere of economic enterprise: free trade; freedom from governmental restrictions

MAN, Vol. 2, especially
Topic 6*b*: The equality or inequality of men and women

STATE, Vol. 2, especially
Topic 2*e*: The political structure of the state: its determination by the form of government

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. VIII
Aristotle, Vol. 8, *Politics,* Bk. III, Chaps. 8–13; Bk. IV, Chaps. 3–9; Bk. V
Locke, Vol. 33, *Concerning Civil Government,* Chap. XIX
Rousseau, Vol. 35, *Social Contract,* Bk. II, Chaps. 3–4
Kant, Vol. 39, *Science of Right,* Second Part
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 12, 39, 62, 73
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 6–9
Hegel, Vol. 43, *Philosophy of Right,* Additions; *Philosophy of History,* Fourth Part

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Calhoun, "Concurrent Majority," Vol. 7
Crèvecoeur, "Making of Americans," Vol. 6
Emerson, *Thoreau,* Vol. 6; *Self-Reliance,* Vol. 10
Franklin, *Proposal for Promoting Useful Knowledge among the British Plantations in America; Proposals Relating to the Education of Youth in Pennsylvania,* Vol. 6
Great Documents, *Declaration of Independence,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Jefferson, *First Inaugural Address,* Vol. 6
Lincoln, *Address at Cooper Institute; First Inaugural Address; Letter to Horace Greeley; Second Inaugural Address; Last Public Address,* Vol. 6
Thoreau, *Civil Disobedience,* Vol. 6
Washington, *Farewell Address,* Vol. 6
Whitman, *Preface to Leaves of Grass,* Vol. 5

For Tocqueville's *Democracy in America* in *Great Books of the Western World,* see Vol. 44

LEO TOLSTOY, 1828–1910

The Death of Ivan Ilyitch

Vol. 3, pages 646–699

SUGGESTED READINGS IN THE *Syntopicon*

HAPPINESS, Vol. 1, especially
- Topic 2*b*(5): The importance of friendship and love for happiness
- Topic 4*b*: The attainability of happiness: the fear of death and the tragic view of human life

LIFE AND DEATH, Vol. 1, especially
- Topic 7: The causes and occurrence of death: the transition from life to death; homicide
- Topic 8*b*: The love of life: the instinct of self-preservation; the life instinct
- Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr

LOVE, Vol. 1, especially
- Topic 2*b*(2): Self-love in relation to the love of others: vanity and self-interest

PLEASURE AND PAIN, Vol. 2, especially
- Topic 4*e*: The kinds of pain: the pain of sense and the pain of loss or deprivation

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Alcestis*
Plato, Vol. 6, *Republic,* Bk. X
Montaigne, Vol. 23, *Of practice*
Pascal, Vol. 30, *Pensées,* Sect. III
Dostoevsky, Vol. 52, *Brothers Karamazov,* Bk. VI, Chap. 1
James, H., Vol. 59, *Beast in the Jungle*
Hemingway, Vol. 60, *Short Happy Life of Francis Macomber*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Death,* Vol. 10
Browne, "Immortality," Vol. 10
Cicero, *On Old Age,* Vol. 10
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Dinesen, *Sorrow-Acre,* Vol. 3
Gogol, *Overcoat,* Vol. 2
Hemingway, *Killers,* Vol. 2
Synge, *Riders to the Sea,* Vol. 4
Whitman, *Death of Abraham Lincoln,* Vol. 6

The Three Hermits

Vol. 3, pages 700–706

SUGGESTED READINGS IN THE *Syntopicon*

GOD, Vol. 1, especially
Topic 7*d*: Grace
Topic 7*e*: Miracles
HAPPINESS, Vol. 1, especially
Topic 7*c*(2): The joy of the blessed: the communion of saints
RELIGION, Vol. 2, especially
Topic 2*a*: Prayer and supplication: their efficacy
SIN, Vol. 2, especially
Topic 7: Faith and good works in relation to salvation from sin: justification by faith alone

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Augustine, Vol. 16, *City of God,* Bk. XXII, Chaps. 8–9
Aquinas, Vol. 18, *Summa Theologica,* Part I–II, Q 68; Q 109, Arts. 7–10
Calvin, Vol. 20, *Institutes of the Christian Religion,* Bk. II, Chap. III; Bk. III
Pascal, Vol. 30, *Pensées,* Sects. IV, VII
Dostoevsky, Vol. 52, *Brothers Karamazov,* Bk. II, Chap. 3
Barth, Vol. 55, *Word of God and the Word of Man,* Chap. I

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, *Saint Thomas Aquinas,* Vol. 10
Bacon, *Of Discourse; Of Studies,* Vol. 5
Cicero, *On Old Age,* Vol. 10
Long, *Power within Us,* Vol. 6
Melville, *Billy Budd,* Vol. 3
Plutarch, *Contentment,* Vol. 10
Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Wilde, *Happy Prince,* Vol. 2

What Men Live By

Vol. 3, pages 707–727

SUGGESTED READINGS IN THE *Syntopicon*

GOD, Vol. 1, especially
Topic 5*h*: God's love: the diffusion of the divine goodness
GOOD AND EVIL, Vol. 1, especially
Topic 2*a*: God's goodness as diffusive, causing the goodness of things: God's love

LOVE, Vol. 1, especially
Topic 3*a*: Friendship and love in relation to virtue and happiness
Topic 3*d*: The heroism of friendship and the sacrifices of love
Topic 5*b*(1): The precepts of charity: the law of love

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Augustine, Vol. 16, *On Christian Doctrine,* Bk. I, Chaps. 22–30
Aquinas, Vol. 17, *Summa Theologica,* First Part, Q 20
Chaucer, Vol. 19, *Canterbury Tales,* Tale of Melibee
Dostoevsky, Vol. 52, *Brothers Karamazov,* Bk. VI, Chap. 3
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. VIII–IX

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Sphinx,* Vol. 8; *Of Love,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Long, *Power within Us,* Vol. 6
Ruskin, *Idealist's Arraignment of the Age,* Vol. 7
Sheridan, *School for Scandal,* Vol. 4
Singer, *Spinoza of Market Street,* Vol. 3
Synge, *Riders to the Sea,* Vol. 4
Wilde, *Happy Prince,* Vol. 2

For Tolstoy's *War and Peace* in *Great Books of the Western World,* see Vol. 51

IVAN TURGENEV, 1818–1883

First Love

Vol. 3, pages 217–271

SUGGESTED READINGS IN THE *Syntopicon*

FAMILY, Vol. 1, especially
Topic 6*e*: The initiation of children into adult life
Topic 7*a*: Marriage and love: romantic, conjugal, and illicit love
Topic 7*d*: The emotional impact of family life upon the child: the domestic triangle; the symbolic roles of father and mother
LOVE, Vol. 1, especially
Topic 1*e*: The intensity and power of love: its increase or decrease; its constructive or destructive force
Topic 2*a*(1): The sexual instinct: its relation to other instincts

PLEASURE AND PAIN, Vol. 2, especially
Topic 4*a*: The pleasant and unpleasant in the sphere of emotion: joy and sorrow, delight and grief
Topic 7*a*: Pleasure and pain in relation to love and friendship

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Euripides, Vol. 4, *Hippolytus*
Dante, Vol. 19, *Divine Comedy,* Inferno, Canto V; Paradiso, Canto VIII
Shakespeare, Vol. 24, *Taming of the Shrew,* Act I, Scene II–Act III; *Romeo and Juliet;* Vol. 25, *Hamlet*
Eliot, G., Vol. 46, *Middlemarch*
Freud, Vol. 54, *General Introduction to Psycho-Analysis,* Part III, Chap. 21
Proust, Vol. 59, *Swann in Love*
Cather, Vol. 59, *Lost Lady*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Anderson, *I'm a Fool,* Vol. 2
Anonymous, *Aucassin and Nicolette,* Vol. 2
Apuleius, "Cupid and Psyche," Vol. 3
Bacon, *Of Youth and Age; Of Parents and Children,* Vol. 7; *Of Love,* Vol. 10
Chekhov, *Darling,* Vol. 3
Conrad, *Youth,* Vol. 2
Dostoevsky, *White Nights,* Vol. 3
Galsworthy, *Apple-Tree,* Vol. 3
Hawthorne, *Rappaccini's Daughter,* Vol. 3
Pater, "Art of Life," Vol. 10
Schopenhauer, *On Style,* Vol. 5

MARK TWAIN (SAMUEL CLEMENS), 1835–1910

The Man That Corrupted Hadleyburg

Vol. 2, pages 346–386

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 3*b*: The conditions of honor or fame and the causes of dishonor or infamy
PUNISHMENT, Vol. 2, especially
Topic 3*c*: Guilt, repentance, and the moral need for punishment
Topic 5*c*: The pain of remorse and the torment of conscience: the atonement for sin

TRUTH, Vol. 2, especially
Topic 8*a*: Prevarication and perjury: the injustice of lying or bearing false witness
VIRTUE AND VICE, Vol. 2, especially
Topic 2*c*: The appearances of virtue: imperfect or conditional virtues; the counterfeits of virtue; natural or temperamental dispositions which simulate virtue
Topic 4*e*(3): Circumstances as affecting the morality of human acts
Topic 9: The advance or decline of human morality

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Sophocles, Vol. 4, *Philoctetes*
Montaigne, Vol. 23, *Of conscience*
Shakespeare, Vol. 25, *Hamlet*
Milton, Vol. 29, *Paradise Lost; Areopagitica*
Molière, Vol. 31, *Tartuffe*
Kant, Vol. 39, *Critique of Practical Reason,* First Part, Bk. I, Chap. III
Boswell, Vol. 41, *Life of Samuel Johnson*
Goethe, Vol. 45, *Faust,* Part One
Dickens, Vol. 47, *Little Dorrit*
Fitzgerald, Vol. 60, *Great Gatsby*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Riches,* Vol. 7; *Of Truth,* Vol. 10
Bunin, *Gentleman from San Francisco,* Vol. 3
Butler, "Customs and Opinions of the Erewhonians," Vol. 2
Fitzgerald, *Diamond as Big as the Ritz,* Vol. 3
Hemingway, *Killers,* Vol. 2
Ibsen, *Enemy of the People,* Vol. 4
James, H., *Pupil,* Vol. 3
Mann, *Mario and the Magician,* Vol. 3
Molière, *Misanthrope,* Vol. 4
O'Neill, *Emperor Jones,* Vol. 4
Sheridan, *School for Scandal,* Vol. 4

"Learning the River"
from *Life on the Mississippi*
Vol. 6, pages 50–98

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 5*f*: Learning apart from teachers and books: the role of experience

EXPERIENCE, Vol. 1, especially
Topic 6*a*: Experience as indispensable to sound judgment and prudence
KNOWLEDGE, Vol. 1, especially
Topic 6*b*(2): Memory as knowledge
Topic 8*b*(4): The possession or pursuit of knowledge as a good or satisfaction: its relation to pleasure and pain; its contribution to happiness
MEMORY AND IMAGINATION, Vol. 2, especially
Topic 2*b*: Recollection: factors influencing ease and adequacy of recall
Topic 2*c*: The association of ideas: controlled and free association; reminiscence and reverie
Topic 3: Remembering as an act of knowledge and as a source of knowledge

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, especially Chaps. 21–24; Bk. II
Montaigne, Vol. 23, *Of three kinds of association*
Locke, Vol. 33, *Concerning Human Understanding,* Bk. II, Chaps. IX–X
Goethe, Vol. 45, *Faust,* Part One
Melville, Vol. 48, *Moby Dick,* Chap. 24
James, W., Vol. 53, *Principles of Psychology,* Chap. XVI
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Custom and Education,* Vol. 7
Conrad, *Youth,* Vol. 2
Defoe, *Robinson Crusoe,* Vol. 2
Emerson, *Self-Reliance,* Vol. 10
Kipling, *Mowgli's Brothers,* Vol. 2
Mill, J. S., "Childhood and Youth," Vol. 6
Schopenhauer, *On Education,* Vol. 7
Stevenson, *Lantern-Bearers,* Vol. 7

For Twain's *Adventures of Huckleberry Finn* in *Great Books of the Western World,* see Vol. 48

JOHN TYNDALL, 1820–1893

"Michael Faraday"
from *Faraday as a Discoverer*
Vol. 8, pages 8–28

SUGGESTED READINGS IN THE *Syntopicon*

ELEMENT, Vol. 1, especially
Topic 3: The theory of the elements in natural philosophy, physics, and chemistry
EXPERIENCE, Vol. 1, especially
Topic 5: The theory of experimentation in scientific method
INDUCTION, Vol. 1, especially
Topic 5: The role of induction in the development of science: the methods of experimental and enumerative induction
MAN, Vol. 2, especially
Topic 2: Man's knowledge of man
MECHANICS, Vol. 2, especially
Topic 6*d*: Theories of universal gravitation
PHYSICS, Vol. 2, especially
Topic 4: The experimental method in the study of nature
Topic 5: The utility of physics: the invention of machines; the techniques of engineering; the mastery of nature

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Gilbert, Vol. 26, *On the Loadstone*
Descartes, Vol. 28, *Discourse on Method,* Parts I–IV
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bks. I, III
Poincaré, Vol. 56, *Science and Hypothesis,* Preface; Chap. 9

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Sphinx,* Vol. 8
Curie, *Discovery of Radium,* Vol. 8
Darwin, *Autobiography,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Faraday, *Chemical History of a Candle,* Vol. 8
Galton, "Classification of Human Ability," Vol. 8
Helmholtz, *On the Conservation of Force,* Vol. 8
Lamb, *Sanity of True Genius,* Vol. 5
Poincaré, *Mathematical Creation,* Vol. 9
Woolf, *Art of Biography,* Vol. 6

For Faraday's *Experimental Researches in Electricity* in *Great Books of the Western World,* see Vol. 42

VOLTAIRE, 1694–1778

Micromégas

Vol. 2, pages 241–256

SUGGESTED READINGS IN THE *Syntopicon*

ASTRONOMY AND COSMOLOGY, Vol. 1, especially
- Topic 7: The particular heavenly bodies in the solar system and the Milky Way
- Topic 11: Astronomy as the study of the universe as a whole: cosmology

MAN, Vol. 2, especially
- Topic 10*c*: Man as an integral part of the universe: his station in the cosmos
- Topic 10*d*: The finiteness and insufficiency of man: his sense of being dependent and ordered to something beyond himself
- Topic 12: Man as an object of laughter and ridicule: comedy and satire

MATHEMATICS, Vol. 2, especially
- Topic 2: The objects of mathematics: ideas or abstractions; number, figure, extension, relation, order

REASONING, Vol. 2, especially
- Topic 3*c*: Lack of truth in reasoning: sophistical arguments; material fallacies

SOUL, Vol. 2, especially
- Topic 1: Conceptions of soul
- Topic 2*c*: The kinds of soul and the modes of life: vegetative, sensitive, and rational souls and their special powers

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Meno; Republic,* Bk. VI; *Philebus*
Nicomachus, Vol. 10, *Introduction to Arithmetic,* Bk. I
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Definitions–Laws; Bk. III
Swift, Vol. 34, *Gulliver's Travels,* Part I, Chaps. I–VIII
Eddington, Vol. 56, *Expanding Universe*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Campbell, *Measurement,* Vol. 9
Clifford, *Postulates of the Science of Space,* Vol. 9
Eddington, *Running-Down of the Universe,* Vol. 8
Epicurus, *Letter to Herodotus,* Vol. 10

Galileo, *Starry Messenger,* Vol. 8
Poincaré, *Space,* Vol. 9
Singer, *Spinoza of Market Street,* Vol. 3
Whitehead, "On Mathematical Method," Vol. 9

"English Men and Ideas"

from *Letters on the English*

Vol. 7, pages 332–378
"On the Parliament," pages 332–334
"On the Government," pages 334–338
"On Trade," pages 338–339

SUGGESTED READINGS IN THE *Syntopicon*

LIBERTY, Vol. 1, especially
Topic 1*h*: Civil liberty under diverse forms of government
Topic 2: The issues of civil liberty
MONARCHY, Vol. 2, especially
Topic 1*b*: Modifications of absolute monarchy: other embodiments of the monarchial principle
STATE, Vol. 2, especially
Topic 5: The social structure or stratification of the state
Topic 9*a*: Commerce and trade between states: commercial rivalries and trade agreements; free trade and tariffs
WAR AND PEACE, Vol. 2, especially
Topic 2: The kinds of war
WEALTH, Vol. 2, especially
Topic 4: The exchange of wealth or the circulation of commodities: the processes of commerce or trade

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Milton, Vol. 29, *Areopagitica*
Locke, Vol. 33, *Letter Concerning Toleration; Concerning Civil Government,* Chaps. V, VII, XII–XIV, XIX
Smith, Vol. 36, *Wealth of Nations,* Bk. IV, Chaps. I, II–III, VII
Constitution of the United States of America, Vol. 40
Mill, J. S., Vol. 40, *Representative Government,* Chap. 3
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part III; Part IV, Chaps. 6–7
Keynes, Vol. 57, *General Theory of Employment, Interest and Money,* Chaps. 22–23

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles; Of Custom and Education,* Vol. 7

Carlyle, *Hero as King,* Vol. 6
Great Documents, *English Bill of Rights; Declaration of Independence,* Vol. 6
Hume, *Of Refinement in the Arts; Of Money; Of the Balance of Trade; Of Taxes,* Vol. 7
Jefferson, *First Inaugural Address,* Vol. 6
Lincoln, *Address at Cooper Institute,* Vol. 6

"English Men and Ideas" (continued)

"On Inoculation," Vol. 7, pages 339–343

SUGGESTED READINGS IN THE *Syntopicon*

MEDICINE, Vol. 2, especially
Topic 3*d*: The factors in prevention and therapy

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Hippocrates, Vol. 9, *Regimen in Acute Diseases*
Molière, Vol. 31, *Would-Be Invalid*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Ibsen, *Enemy of the People,* Vol. 4
Molière, *Doctor in Spite of Himself,* Vol. 4
Swift, *Modest Proposal,* Vol. 7

"English Men and Ideas" (continued)

"On the Lord Bacon," Vol. 7, pages 343–346
"On Mr. Locke," Vol. 7, pages 346–351
"On Descartes and Sir Isaac Newton," Vol. 7, pages 352–356

SUGGESTED READINGS IN THE *Syntopicon*

MECHANICS, Vol. 2, especially
Topic 4*c*: The mechanistic versus the organismic account of nature
PHILOSOPHY, Vol. 2, especially
Topic 3*d*: The methodological reformation of philosophy: the role of language in philosophy
SOUL, Vol. 2, especially
Topic 1: Conceptions of soul

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Bacon, Vol. 28, *Novum Organum*
Descartes, Vol. 28, *Discourse on Method; Meditation II; Meditation VI*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. III

Locke, Vol. 33, *Concerning Human Understanding,* Bk. II, Chaps. X–XI, XXIII, XXVII; Bk. IV, Chap. XII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Sphinx,* Vol. 8
Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Campanella, "Arguments for and against Galileo," Vol. 8

"English Men and Ideas" (continued)

"On Attraction," Vol. 7, pages 356–363
"On Sir Isaac Newton's Optics," Vol. 7, pages 363–366
"On Infinities in Geometry, and Sir Isaac Newton's Chronology," Vol. 7, pages 366–371

SUGGESTED READINGS IN THE *Syntopicon*

MECHANICS, Vol. 2, especially
Topic 3*d*: Calculus: the measurement of irregular areas and variable motions
Topic 6: Basic concepts of mechanics
SCIENCE, Vol. 2, especially
Topic 1*b*(1): The utility of science: the applications of experimental knowledge in the mastery of nature; machinery and inventions
Topic 5: Scientific method

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Descartes, Vol. 28, *Geometry*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. I, Sects. I, XI–XIII; Bk. II, Sect. II; Bk. III; *Optics,* Bks. I–II
Huygens, Vol. 32, *Treatise on Light,* Chaps. I–III
Berkeley, Vol. 33, *Principles of Human Knowledge,* Sects. 123–132
Heisenberg, Vol. 56, *Physics and Philosophy,* Chap. 11

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Boeke, *Cosmic View,* Vol. 8
Clifford, *Postulates of the Science of Space,* Vol. 9
Eddington, *Running-Down of the Universe,* Vol. 8
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Poincaré, *Space,* Vol. 9

"English Men and Ideas" (continued)

"On the Regard That Ought to be Shown to Men of Letters," Vol. 7, pages 371–374
"On the Royal Society and Other Academies," Vol. 7, pages 374–378

SUGGESTED READINGS IN THE *Syntopicon*

HONOR, Vol. 1, especially
Topic 3*a*: The reaction of the community to its good or great men
Topic 4*b*: The scale of honor in the organization of the state: the just distribution of honors
SCIENCE, Vol. 2, especially
Topic 6*b*: The place of science in society: the social conditions favorable to the advancement of science

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 8, *Politics,* Bk. III, Chap. 13
Montaigne, Vol. 23, *Of honorary awards*
Bacon, Vol. 28, *Advancement of Learning,* Bk. II
Whitehead, Vol. 55, *Science and the Modern World,* Chaps. I, XII–XIII
Heisenberg, Vol. 56, *Physics and Philosophy,* Chap. 11
Weber, Vol. 58, *Essays in Sociology,* Chap. V

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Sweetness and Light,* Vol. 5
Bacon, *Sphinx,* Vol. 8
Campanella, "Arguments for and against Galileo," Vol. 8
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Emerson, *Thoreau,* Vol. 6
Franklin, *Proposal for Promoting Useful Knowledge among the British Plantations in America,* Vol. 6
Lamb, *Sanity of True Genius,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Tyndall, "Michael Faraday," Vol. 8
Whitman, *Preface to Leaves of Grass,* Vol. 5

"The Philosophy of Common Sense"

from *Philosophical Dictionary*
Vol. 10, pages 453–474

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 12: The history of the arts: progress in art as measuring stages of civilization

ASTRONOMY AND COSMOLOGY, Vol. 1, especially
Topic 9: The influence of the stars and planets upon the character and actions of men
DEMOCRACY, Vol. 1, especially
Topic 3*c*: Comparison of democracy, aristocracy, and monarchy with respect to efficiency
DESIRE, Vol. 1, especially
Topic 2*c*: Desire as a cause of action: motivation, purpose, ambition; voluntariness
LAW, Vol. 1, especially
Topic 4*e*: The relation of natural law to natural rights and natural justice
Topic 5*e*: The mutability or variability of positive law: the maintenance or change of laws
LOVE, Vol. 1, especially
Topic 2*b*: Friendly, tender, or altruistic love: fraternal love
Topic 2*b*(2): Self-love in relation to the love of others: vanity and self-interest
POETRY, Vol. 2, especially
Topic 5*a*: The aim of poetry to instruct as well as to delight: the pretensions or deceptions of the poet as teacher
STATE, Vol. 2, especially
Topic 3*c*: The condition of man in the state of nature and in the state of civil society: the state of war in relation to the state of nature
Topic 5*c*: The classes or subgroups arising from the division of labor or distinctions of birth: the social hierarchy
TRUTH, Vol. 2, especially
Topic 3*b*(3): Truth in reasoning: the truth of premises in relation to the truth of conclusions; logical validity and truth about reality
TYRANNY AND DESPOTISM, Vol. 2, especially
Topic 3: The choice between tyranny or despotism and anarchy

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III; *Statesman*
Aristotle, Vol. 8, *Nicomachean Ethics,* Bks. VIII–IX
Hobbes, Vol. 21, *Leviathan,* Part II, Chap. 19
Locke, Vol. 33, *Concerning Civil Government,* Chaps. V–IX
Rousseau, Vol. 35, *Discourse on the Origin of Inequality,* First Part
Kant, Vol. 39, *Critique of Pure Reason*
Mill, J. S., Vol. 40, *Representative Government,* Chap. 4

Tocqueville, Vol. 44, *Democracy in America,* Introduction; Vol. 1, Part II, Chaps. 5–6
Marx, Vol. 50, *Capital,* Part IV, Chap. XIV
James, W., Vol. 53, *Principles of Psychology,* Chaps. X, XXVIII
Veblen, Vol. 57, *Theory of the Leisure Class,* Introduction
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chaps. XIX–XXIII

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Discourse,* Vol. 5; *Of Friendship; Of Truth,* Vol. 10
Cicero, *On Friendship,* Vol. 10
Clifford, *Ethics of Belief,* Vol. 10
Emerson, *Nature,* Vol. 10
Erskine, *Moral Obligation to be Intelligent,* Vol. 10
Guizot, "Civilization," Vol. 6
Mill, J. S., *Nature,* Vol. 10
Sainte-Beuve, *Montaigne,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5

For Voltaire's *Candide* in *Great Books of the Western World,* see Vol. 34

GEORGE WASHINGTON, 1732–1799

Circular Letter to the Governors of All the States on Disbanding the Army

Vol. 6, pages 474–483

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 7*c*: The challenge of war and peace: the citizen army
GOVERNMENT, Vol. 1, especially
Topic 5*d*: Confederation and federal union: the division of jurisdiction between state and federal governments
WAR AND PEACE, Vol. 2, especially
Topic 6*b*: Liberty, justice, honor, peace as ends of war

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Laws,* Bk. VIII
Shakespeare, Vol. 25, *King Lear,* Act II
Locke, Vol. 33, *Concerning Civil Government,* Chaps. XVI, XIX
Kant, Vol. 39, *Science of Right,* Second Part
Articles of Confederation, Vol. 40
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 31–34
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part I, Chap. 8; Vol. 2, Part III, Chaps. 22–26

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Seditions and Troubles,* Vol. 7
Carlyle, *Hero as King,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Jefferson, "Biographical Sketches," Vol. 6
Lincoln, *Second Inaugural Address; Last Public Address,* Vol. 6
Paine, "Call to Patriots–December 23, 1776," Vol. 6

Farewell Address

Vol. 6, pages 484–497

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 4*c*: The infirmities of democracy in practice and the reforms or remedies for these defects
DUTY, Vol. 1, especially
Topic 10: Political obligation: cares, functions, loyalties
GOVERNMENT, Vol. 1, especially
Topic 5*a*: Foreign policy: the making of treaties; the conduct of war and peace
STATE, Vol. 2, especially
Topic 3*e*: Love and justice as the bond of men in states: friendship and patriotism

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bk. IV
Shakespeare, Vol. 24, *King Richard II*
Swift, Vol. 34, *Gulliver's Travels,* Part I
Montesquieu, Vol. 35, *Spirit of Laws,* Bk. XII, Chaps. 19–22
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 49–50
Mill, J. S., Vol. 40, *Representative Government,* Chaps. 17–18
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chaps. 5, 7–8; Vol. 2, Part IV, Chaps. 6–7
Weber, Vol. 58, *Essays in Sociology,* Chap. IV

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Bacon, *Of Great Place; Of Seditions and Troubles,* Vol. 7
Burke, *Letter to the Sheriffs of Bristol,* Vol. 7
Calhoun, "Concurrent Majority," Vol. 7
Carlyle, *Hero as King,* Vol. 6
Emerson, *Self-Reliance,* Vol. 10
Jefferson, "Virginia Constitution"; "Biographical Sketches"; *First Inaugural Address,* Vol. 6

Lincoln, *First Inaugural Address; Last Public Address,* Vol. 6
Rousseau, *Lasting Peace through the Federation of Europe,* Vol. 7
Tocqueville, "Observations on American Life and Government," Vol. 6

ALFRED NORTH WHITEHEAD, 1861–1947

"On Mathematical Method"
from *An Introduction to Mathematics*
Vol. 9, pages 51–67

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
- Topic 2*a*: The apprehension of mathematical objects: by intuition, imagination, construction; the forms of time and space
- Topic 3*c*: Analysis and synthesis: function and variable
- Topic 3*d*: Symbols and formulas: the attainment of generality
- Topic 4*c*: The use of proportions and equations
- Topic 5: The applications of mathematics to physical phenomena: the utility of mathematics

MECHANICS, Vol. 2, especially
- Topic 3: The use of mathematics in mechanics: the dependence of progress in mechanics on mathematical discovery
- Topic 4*a*: Terrestrial and celestial mechanics: the mechanics of finite bodies and of particles or atoms
- Topic 6*d*(2): The relation of mass and gravitational force: the curvature of space
- Topic 7*e*: Electricity: electrostatics and electrodynamics

PHYSICS, Vol. 2, especially
- Topic 1*b*: The relation of the philosophy of nature to mathematics: mathematical method and mathematical principles in natural philosophy
- Topic 3: Mathematical physics: observation and measurement in relation to mathematical formulations

QUANTITY, Vol. 2, especially
- Topic 5*c*: The quantity of motion: momentum, velocity, acceleration
- Topic 5*d*: Mass: its relation to weight
- Topic 5*e*: Force: its measure and the measure of its effect

UNIVERSAL AND PARTICULAR, Vol. 2, especially
- Topic 4*c*: The abstraction of universal concepts from the particulars of sense

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Parmenides*
Archimedes, Vol. 10, *On Floating Bodies*
Plutarch, Vol. 13, *Marcellus*
Galileo, Vol. 26, *Dialogues Concerning the Two New Sciences,* Third Day
Descartes, Vol. 28, *Geometry,* Second Book
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. I, Sects. XI–XIII; Bk. III
Swift, Vol. 34, *Gulliver's Travels,* Part III
Kant, Vol. 39, *Critique of Pure Reason,* Introduction
Faraday, Vol. 42, *Experimental Researches in Electricity*
Poincaré, Vol. 56, *Science and Hypothesis*
Einstein, Vol. 56, *Relativity: The Special and the General Theory*
Hardy, Vol. 56, *Mathematician's Apology*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9
Einstein and Infeld, "Rise and Decline of Classical Physics," Vol. 8
Euler, *Seven Bridges of Königsberg,* Vol. 9
Forsyth, *Mathematics, in Life and Thought,* Vol. 9
Hogben, *Mathematics, the Mirror of Civilization,* Vol. 9
Poincaré, *Mathematical Creation,* Vol. 9
Russell, *Study of Mathematics; Mathematics and the Metaphysicians,* Vol. 9

On the Nature of a Calculus

Vol. 9, pages 68–78

SUGGESTED READINGS IN THE *Syntopicon*

MATHEMATICS, Vol. 2, especially
Topic 1*d*: The ideal of a universal mathesis: the unification of arithmetic and geometry
Topic 3*d*: Symbols and formulas: the attainment of generality
Topic 4: Mathematical techniques

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Descartes, Vol. 28, *Geometry*
Newton, Vol. 32, *Mathematical Principles of Natural Philosophy,* Bk. I, Sect. I; Bk. II, Sect. II
Poincaré, Vol. 56, *Science and Hypothesis,* Part I

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Campbell, *Numerical Laws and the Use of Mathematics in Science,* Vol. 9

Dantzig, *Fingerprints; Empty Column,* Vol. 9
Russell, *Mathematics and the Metaphysicians,* Vol. 9

For other works by Whitehead in *Great Books of the Western World,* see Vols. 55 and 56

WALT WHITMAN, 1819–1892

Preface to Leaves of Grass

Vol. 5, pages 247–259

SUGGESTED READINGS IN THE *Syntopicon*

NATURE, Vol. 2, especially
Topic 2*a*: Nature and art: the imitation of nature; cooperation with nature
POETRY, Vol. 2, especially
Topic 3: The inspiration or genius of the poet: the role of experience and imagination; the influence of the poetic tradition
Topic 5*b*: Poetry contrasted with history and philosophy: the dispraise and defense of the poet
Topic 8*b*: Critical standards and artistic rules with respect to the language of poetry: the distinction between prose and verse; the measure of excellence in style

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Republic,* Bks. II–III
Aristotle, Vol. 8, *On Poetics*
Cervantes, Vol. 27, *Don Quixote,* Prologue; Part Two, Chap. 16
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Kant, Vol. 39, *Critique of Judgement,* First Part, Sect. I
Tocqueville, Vol. 44, *Democracy in America,* Vol. 2, Part I, Chaps. 13, 17
Goethe, Vol. 45, *Faust,* Prelude in the Theatre
James, W., Vol. 53, *Principles of Psychology,* Chap. XXII
Joyce, Vol. 59, *Portrait of the Artist as a Young Man*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Adams, "United States in 1800," Vol. 6
Arnold, *Study of Poetry; Sweetness and Light,* Vol. 5
Bacon, *Of Death,* Vol. 10
Crèvecoeur, "Making of Americans," Vol. 6
Eliot, T. S., *Tradition and the Individual Talent,* Vol. 5
Lamb, *Sanity of True Genius,* Vol. 5

Schiller, *On Simple and Sentimental Poetry,* Vol. 5
Shelley, *Defence of Poetry,* Vol. 5
Tocqueville, "Observations on American Life and Government," Vol. 6

Death of Abraham Lincoln

Vol. 6, pages 174–183

SUGGESTED READINGS IN THE *Syntopicon*

DEMOCRACY, Vol. 1, especially
Topic 4: The praise of democracy: the ideal state
HISTORY, Vol. 1, especially
Topic 4*a*(4): The role of the individual in history: the great man, hero, or leader
HONOR, Vol. 1, especially
Topic 5*d*: The estimation of the role of the hero in history
LIFE AND DEATH, Vol. 1, especially
Topic 7: The causes and occurrence of death: the transition from life to death; homicide
WAR AND PEACE, Vol. 2, especially
Topic 4*b*: The factors responsible for civil strife

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedo*
Plutarch, Vol. 13, *Caesar*
Shakespeare, Vol. 25, *King Lear; Antony and Cleopatra; Coriolanus*
Hamilton, Madison, Jay, Vol. 40, *Federalist,* Nos. 9–10
Tocqueville, Vol. 44, *Democracy in America,* Vol. 1, Part II, Chap. 6
Tolstoy, Vol. 51, *War and Peace,* Second Epilogue
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Seditions and Troubles,* Vol. 7; *Of Death,* Vol. 10
Browne, "Immortality," Vol. 10
Carlyle, *Hero as King,* Vol. 6
Cicero, *On Old Age,* Vol. 10
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Lincoln, *Address at Cooper Institute; First Inaugural Address; Letter to Horace Greeley; Meditation on the Divine Will; Gettysburg Address; Second Inaugural Address; Last Public Address,* Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Thoreau, *Plea for Captain John Brown,* Vol. 6
Tolstoy, *Death of Ivan Ilyitch,* Vol. 3
Woolf, *Art of Biography,* Vol. 6

OSCAR WILDE, 1854–1900

The Happy Prince
Vol. 2, pages 261–268

SUGGESTED READINGS IN THE *Syntopicon*

LOVE, Vol. 1, especially
Topic 3*d*: The heroism of friendship and the sacrifices of love
Topic 5*b*(1): The precepts of charity: the law of love
WEALTH, Vol. 2, especially
Topic 10*e*(1): Almsgiving to the needy and the impoverished

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bks. XXIII–XXIV
Sophocles, Vol. 4, *Antigone*
Euripides, Vol. 4, *Alcestis*
Augustine, Vol. 16, *Confessions,* Bk. IX
Aquinas, Vol. 18, *Summa Theologica,* Part II–II, Q 23
Chaucer, Vol. 19, *Canterbury Tales,* Tale of Melibee
Montaigne, Vol. 23, *Of three good women*
Milton, Vol. 29, *Paradise Lost,* Bk. III
Pascal, Vol. 30, *Pensées,* Sect. X

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Love*; *Of Friendship,* Vol. 10
Balzac, *Passion in the Desert,* Vol. 3
Bunin, *Gentleman from San Francisco,* Vol. 3
Chekhov, *Darling,* Vol. 3
Dinesen, *Sorrow-Acre,* Vol. 3
Flaubert, *Legend of St. Julian the Hospitaller,* Vol. 3
Gogol, *Overcoat,* Vol. 2
Kipling, *Mowgli's Brothers,* Vol. 2
Lamb, *Dream Children,* Vol. 5
Lawrence, *Rocking-Horse Winner,* Vol. 3
Tolstoy, *Three Hermits; What Men Live By,* Vol. 3

FRIEDRICH WÖHLER, 1800–1882

On the Artificial Production of Urea
Vol. 8, pages 312–314

SUGGESTED READINGS IN THE *Syntopicon*

ANIMAL, Vol. 1, especially

Topic 1*a*: Characteristics of animal life: the animal soul
Topic 1*e*: The conception of the animal as a machine or automaton
ELEMENT, Vol. 1, especially
Topic 3*c*: The mutability or transmutation of the elements: radioactive decay
Topic 3*d*: Combinations of the elements: compounds and mixtures
LIFE AND DEATH, Vol. 1, especially
Topic 1: The nature and cause of life: the soul as the principle of life in organic bodies
Topic 2: Continuity or discontinuity between living and nonliving things: comparison of vital powers and activities with the potentialities and motions of inert bodies
MECHANICS, Vol. 2, especially
Topic 4*b*: The explanation of qualities and qualitative change in terms of quantity and motion
Topic 4*c*: The mechanistic versus the organismic account of nature

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristotle, Vol. 7, *On the Soul,* Bk. II
Lucretius, Vol. 11, *Way Things Are,* Bk. III
Descartes, Vol. 28, *Discourse on Method,* Part V
Lavoisier, Vol. 42, *Elements of Chemistry,* First Part, Chaps. V–XVII; Third Part, Chaps. VIII–IX
Heisenberg, Vol. 56, *Physics and Philosophy,* Chaps. 6, 9
Schrödinger, Vol. 56, *What Is Life?*
Waddington, Vol. 56, *Nature of Life,* Chap. 1

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bernard, *Experimental Considerations Common to Living Things and Inorganic Bodies,* Vol. 8
Curie, *Discovery of Radium,* Vol. 8
Faraday, *Chemical History of a Candle,* Vol. 8
Mendeleev, "Genesis of a Law of Nature," Vol. 8

VIRGINIA WOOLF, 1882–1941

How Should One Read a Book?

Vol. 5, pages 5–14

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 7*a*: Art as a source of pleasure or delight
Topic 7*b*: The judgment of excellence in art
BEAUTY, Vol. 1, especially
Topic 5: Judgments of beauty: the objective and the subjective in aesthetic judgments or judgments of taste; judgments of style or fashion based on wealth or honor
MIND, Vol. 2, especially
Topic 1*e*(2): The relation of judgment to pleasure and displeasure: its application in the realm of art; aesthetic finality

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plato, Vol. 6, *Phaedrus; Republic,* Bks. II–III
Rabelais, Vol. 22, *Gargantua and Pantagruel,* Bk. I, Author's Prologue
Cervantes, Vol. 27, *Don Quixote,* Part One, Chaps. 32, 47–50
Pascal, Vol. 30, *Pensées,* Sects. I, VI
Kant, Vol. 39, *Critique of Judgement,* Introduction–First Part
Huizinga, Vol. 58, *Waning of the Middle Ages,* Chap. XX

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Arnold, *Study of Poetry,* Vol. 5
Bacon, *Of Beauty,* Vol. 5
Eliot, T. S., *Dante; Tradition and the Individual Talent,* Vol. 5
Hazlitt, *My First Acquaintance with Poets,* Vol. 5
Hume, *Of the Standard of Taste,* Vol. 5; *Of the Study of History,* Vol. 7
Johnson, *Preface to Shakespeare,* Vol. 5
Lucian, *Way to Write History,* Vol. 6
Schopenhauer, *On the Comparative Place of Interest and Beauty in Works of Art,* Vol. 5; *On Education,* Vol. 7
Shelley, *Defence of Poetry,* Vol. 5

The Art of Biography

Vol. 6, pages 186–192

SUGGESTED READINGS IN THE *Syntopicon*

MEMORY AND IMAGINATION, Vol. 2, especially
Topic 5*a*: The distinction between reproductive and creative imagination: the representative image and the imaginative construct
TRUTH, Vol. 2, especially

Topic 4*b*: Truth in science and poetry: the truth of fact and the truth of fiction

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Plutarch, Vol. 13, *Lives of the Noble Grecians and Romans*
Montaigne, Vol. 23, Note to the Reader; *Of books; Of repentance*
Bacon, Vol. 28, *Advancement of Learning,* Second Book
Boswell, Vol. 41, *Life of Samuel Johnson*
Shaw, Vol. 59, *Saint Joan,* Preface

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Curie, *Discovery of Radium,* Vol. 8
Darwin, *Autobiography,* Vol. 8
De Quincey, *Literature of Knowledge and Literature of Power,* Vol. 5
Emerson, *Thoreau,* Vol. 6
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hazlitt, *On Swift,* Vol. 5
Jefferson, "Biographical Sketches," Vol. 6
Lucian, *Way to Write History,* Vol. 6
Mill, J. S., "Childhood and Youth," Vol. 6
Tacitus, *Life of Gnaeus Julius Agricola,* Vol. 6
Tyndall, "Michael Faraday," Vol. 8
Whitman, *Death of Abraham Lincoln,* Vol. 6
Xenophon, "Character of Socrates," Vol. 6

For Woolf's *To the Lighthouse* in *Great Books of the Western World,* see Vol. 60

XENOPHON, *c.* 430–*c.* 355 B.C.

"The March to the Sea"
from *The Persian Expedition*
Vol. 6, pages 196–222

SUGGESTED READINGS IN THE *Syntopicon*

ART, Vol. 1, especially
Topic 9*c*: The arts of war
COURAGE, Vol. 1, especially
Topic 7*c*: Courage in war
WAR AND PEACE, Vol. 2, especially
Topic 5*a*: The moral consequences of war: its effects on the happiness and virtue of men and on the welfare of women and children

Topic 10*b*: Different types of soldiery: mercenaries, volunteers, conscripts, militia

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Homer, Vol. 3, *Iliad,* Bk. XIII
Herodotus, Vol. 5, *History,* Seventh–Eighth Books
Thucydides, Vol. 5, *History of the Peloponnesian War,* Seventh Book
Plutarch, Vol. 13, *Pericles; Agesilaus; Artaxerxes*
Shakespeare, Vol. 24, *King Henry V*
Tolstoy, Vol. 51, *War and Peace,* Bks. 13–14
Freud, Vol. 54, *Thoughts for the Times on War and Death*
Brecht, Vol. 60, *Mother Courage and Her Children*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Bacon, *Of Adversity,* Vol. 10
Long, *Power within Us,* Vol. 6
Prescott, "Land of Montezuma," Vol. 6

"The Character of Socrates"

from *Memorabilia*

Vol. 6, pages 223–226

SUGGESTED READINGS IN THE *Syntopicon*

EDUCATION, Vol. 1, especially
Topic 4*a*: The possibility and limits of moral education: knowledge and virtue
Topic 5: The improvement of the mind by teaching and learning
LIFE AND DEATH, Vol. 1, especially
Topic 8*d*: The fear of death: the attitude of the hero, the philosopher, the poet, the martyr

RELATED AUTHORS AND WORKS IN *Great Books of the Western World*

Aristophanes, Vol. 4, *Clouds*
Plato, Vol. 6, *Symposium; Meno; Apology; Crito; Phaedo; Gorgias; Republic,* Bk. VII
Aristotle, Vol. 8, *Nicomachean Ethics,* Bk. II, Chaps. 1–6; Bk. III, Chaps. 6–9; Bk. VI, Chap. 12–Bk. VII, Chap. 5
Plutarch, Vol. 13, *Alcibiades*
Montaigne, Vol. 23, *Of the education of children; Apology for Raymond Sebond*
Shaw, Vol. 59, *Saint Joan*

RELATED AUTHORS AND WORKS IN *Gateway to the Great Books*

Emerson, *Montaigne; or the Skeptic,* Vol. 10

Epictetus, *Enchiridion,* Vol. 10
Epicurus, *Letter to Menoeceus,* Vol. 10
Erskine, *Moral Obligation to be Intelligent,* Vol. 10
Hawthorne, *Sketch of Abraham Lincoln,* Vol. 6
Hazlitt, *Of Persons One Would Wish to Have Seen,* Vol. 5
Plutarch, *Contentment,* Vol. 10
Thoreau, *Civil Disobedience,* Vol. 6
Woolf, *Art of Biography,* Vol. 6

Appendix

A Plan of Graded Reading

It has been pointed out in the Introduction that the selections included in *Gateway to the Great Books* can serve younger as well as less experienced readers as an induction into the reading of the great books, because the works included in this set are generally much shorter than those included in *Great Books of the Western World* and are in other respects easier to read.

This does not mean, however, that it is necessary or even desirable to read entirely through the selections in *Gateway to the Great Books* before beginning to read some of the works included in *Great Books of the Western World*. The selections in *Gateway to the Great Books* are all worth reading in and for themselves, but they have additional value as a means of entry into the world of the great books, the great ideas, and the great conversation.

To guide younger or less experienced readers in a progressive course of readings which involves selections from *Gateway to the Great Books,* the editors have prepared a plan of graded reading, set forth below. It is divided into four parts. The four parts of the plan of graded reading correspond to four levels of reading ability.

Part I recommends materials suitable for 7th- and 8th-grade readers (that is, for twelve- to fourteen-year-olds approximately), and for readers whose limited experience places them on this level of ability, whatever their chronological age. The selections from the *Gateway* set which are here recommended consist mainly of stories, biographies, autobiographies, and short historical accounts. The list, however, does include at least one selection from each volume in the *Gateway* set.

Part II lists readings in *Gateway* for 9th- and 10th-grade readers. Here we have the longest list of readings in the *Gateway* set. Though there are still many stories and plays in this list of *Gateway* readings, the number of nonfiction readings, especially biographical and historical writings, here increases.

Part III lists readings in *Gateway* for 11th- and 12th-grade readers. The selections from *Gateway* tend to be longer and somewhat more difficult. Here there are none from Volumes 2 and 4, and a mere scattering of stories from Volume 3. Most of the readings recommended here are taken from Volumes 5–10.

Part IV lists selections for readers at the level of the first two years of college. It should be noted that the selections in the *Gateway* list are taken largely from Volumes 8 and 9 (Natural Science and Mathematics).

The lists in Parts I–IV all but exhaust the materials in the *Gateway* set. Nothing in the *Gateway* set is too difficult to be read with comprehension by college freshmen and sophomores or by readers of equivalent ability. By the time readers have attained the level of ability corresponding to the difficulty of the selections in Part IV, they should be able to plan their own further reading of the works in *Great Books of the Western World;* or they may consult the Ten Years of Reading, which is set forth in the book that accompanies the *Great Books* set called *The Great Conversation.*

Some young or inexperienced readers may at first be discouraged by what appears to be the formidable character of the lists which constitute this plan of graded reading. It is important to remind them, or their parents, that the general tendency in education is toward the reading of more and more difficult materials at younger and younger ages. Humanities courses have for some time been given in the freshman year at many colleges; these include a number of the works listed in Part IV. More recently, there has been a movement to upgrade the high school, to inject into its curriculum, both in the humanities and in the sciences, materials which were formerly considered appropriate only at the college level. In recent years, a cry has been raised against the paucity, even the vacuity, of high school curriculums. The following plan of graded reading takes these tendencies into account.

PART I

Suggested Readings for the 7th and 8th Grades

VOLUME 2

DEFOE, *Robinson Crusoe*
HEMINGWAY, *The Killers*
HUGO, "The Battle with the Cannon"
KIPLING, *Mowgli's Brothers*
MAUPASSANT, *Two Friends*
POE, *The Tell-Tale Heart; The Masque of the Red Death*
SCOTT, *The Two Drovers*
STEVENSON, *The Strange Case of Dr. Jekyll and Mr. Hyde*
TWAIN, *The Man That Corrupted Hadleyburg*
WILDE, *The Happy Prince*

VOLUME 3
CRANE, *The Open Boat*
FLAUBERT, *The Legend of St. Julian the Hospitaller*
LAWRENCE, *The Rocking-Horse Winner*
MELVILLE, *Billy Budd*
TOLSTOY, *The Three Hermits; What Men Live By*

VOLUME 4
MOLIÈRE, *The Doctor in Spite of Himself*
SHAW, *The Man of Destiny*

VOLUME 5
HAZLITT, *Of Persons One Would Wish to Have Seen*
LAMB, *My First Play; Dream Children, a Reverie*
WOOLF, *How Should One Read a Book?*

VOLUME 6
CRÈVECOEUR, "The Making of Americans"
Declaration of the Rights of Man and of the Citizen
HAWTHORNE, *Sketch of Abraham Lincoln*
JEFFERSON, *Biographical Sketches*
LINCOLN, *Letter to Horace Greeley; The Gettysburg Address; Second Inaugural Address; Last Public Address*
PAINE, "A Call to Patriots–December 23, 1776"
PLINY THE YOUNGER, "The Eruption of Vesuvius"
PRESCOTT, "The Land of Montezuma"
The English Bills of Rights
The Virginia Declaration of Rights
TWAIN, "Learning the River"
WHITMAN, *Death of Abraham Lincoln*
XENOPHON, "The March to the Sea"

VOLUME 7
HUME, *Of the Study of History*
STEVENSON, *The Lantern-Bearers*

VOLUME 8
BOEKE, *Cosmic View*
CURIE, *The Discovery of Radium*
FABRE, *The Sacred Beetle*
HALDANE, *On Being the Right Size*
TYNDALL, "Michael Faraday"

VOLUME 9
DANTZIG, *Fingerprints; The Empty Column*
HOGBEN, *Mathematics, the Mirror of Civilization*
KASNER AND NEWMAN, *New Names for Old; Beyond the Googol*

VOLUME 10
ERSKINE, *The Moral Obligation to Be Intelligent*

PART II

Suggested Readings for the 9th and 10th Grades

VOLUME 2

ANDERSON, *I'm a Fool*
ANONYMOUS, *Aucassin and Nicolette*
BUTLER, "Customs and Opinions of the Erewhonians"
CONRAD, *Youth*
DICKENS, "A Full and Faithful Report of the Memorable Trial of Bardell against Pickwick"
GOGOL, *The Overcoat*
VOLTAIRE, *Micromégas*

VOLUME 3

APULEIUS, "Cupid and Psyche"
BALZAC, *A Passion in the Desert*
CHEKHOV, *The Darling*
DOSTOEVSKY, *White Nights*
ELIOT, G., *The Lifted Veil*
GALSWORTHY, *The Apple-Tree*
HAWTHORNE, *Rappaccini's Daughter*
PUSHKIN, *The Queen of Spades*

VOLUME 4

CHEKHOV, *The Cherry Orchard*
IBSEN, *An Enemy of the People*
O'NEILL, *The Emperor Jones*
SHERIDAN, *The School for Scandal*
SYNGE, *Riders to the Sea*

VOLUME 5

ARNOLD, *The Study of Poetry; Sweetness and Light*
BACON, *Of Beauty; Of Discourse; Of Studies*
DE QUINCEY, *Literature of Knowledge and Literature of Power; On the Knocking at the Gate in Macbeth*
HAZLITT, *My First Aquaintance with Poets*
LAMB, *Sanity of True Genius*
SAINTE-BEUVE, *What Is a Classic?*
SCHOPENHAUER, *On Some Forms of Literature*
WHITMAN, *Preface to Leaves of Grass*

VOLUME 6

ADAMS, "The United States in 1800"
CARLYLE, *The Hero as King*
Charter of the United Nations
EMERSON, *Thoreau*
FRANKLIN, *A Proposal for Promoting Useful Knowledge among*

the British Plantations in America; Proposals Relating to the Education of Youth in Pennsylvania
JEFFERSON, "The Virginia Constitution"; *First Inaugural Address*
LA BRUYÈRE, *Characters*
LINCOLN, *Address at Cooper Institute; First Inaugural Address; Meditation on the Divine Will*
LONG, *The Power within Us*
LUCIAN, *The Way to Write History*
MILL, J. S., "Childhood and Youth"
TACITUS, *The Life of Gnaeus Julius Agricola*
THOREAU, *A Plea for Captain John Brown*
Universal Declaration of Human Rights
WASHINGTON, *Circular Letter to the Governors of All the States on Disbanding the Army; Farewell Address*
WOOLF, *The Art of Biography*
XENOPHON, "The Character of Socrates"

VOLUME 7
BACON, *Of Youth and Age; Of Parents and Children; Of Marriage and Single Life; Of Great Place; Of Seditions and Troubles; Of Custom and Education; Of Followers and Friends; Of Usury; Of Riches*
BURKE, *Letter to the Sheriffs of Bristol*
CLAUSEWITZ, *What Is War?*
FARADAY, *Observations on Mental Education*
JAMES, W., *The Energies of Men; Great Men and Their Environment*
PLUTARCH, *Of Bashfulness*
SCHOPENHAUER, *On Education*
SWIFT, *Resolutions When I Come to Be Old; An Essay on Modern Education; A Meditation Upon a Broomstick; A Modest Proposal*

VOLUME 8
BACON, *The Sphinx*
CARSON, *The Sunless Sea*
DARWIN, *Autobiography*
EDDINGTON, *The Running-down of the Universe*
EISELEY, "On Time"
FABRE, *A Laboratory of the Open Fields*
FARADAY, *The Chemical History of a Candle*
GALILEO, *The Starry Messenger*
HUXLEY, *On a Piece of Chalk*
JEANS, *Beginnings and Endings*

VOLUME 9
FORSYTH, *Mathematics, in Life and Thought*
POINCARÉ, *Mathematical Creation*
WHITEHEAD, "On Mathematical Method"

VOLUME 10
BACON, *Of Truth; Of Death; Of Adversity; Of Love; Of Friendship; Of Anger*
CICERO, *On Friendship; On Old Age*
EMERSON, *Self-Reliance*
EPICTETUS, *The Enchiridion*
HAZLITT, *On the Feeling of Immortality in Youth*
PATER, "The Art of Life"

PART III
Suggested Readings for the 11th and 12th Grades

VOLUME 3
BUNIN, *The Gentleman from San Francisco*
DINESEN, *Sorrow-Acre*
FITZGERALD, *The Diamond as Big as the Ritz*
JAMES, H., *The Pupil*
MANN, *Mario and the Magician*
SINGER, *The Spinoza of Market Street*
TOLSTOY, *The Death of Ivan Ilyitch*
TURGENEV, *First Love*

VOLUME 5
ELIOT, T. S., *Tradition and the Individual Talent*
HAZLITT, *On Swift*
HUME, *Of the Standard of Taste*
SAINTE-BEUVE, *Montaigne*
SCHOPENHAUER, *On Style*
SHELLEY, *A Defence of Poetry*

VOLUME 6
BURY, *Herodotus*
GUIZOT, "Civilization"
THOREAU, *Civil Disobedience*
TOCQUEVILLE, "Observations on American Life and Government"

VOLUME 7
CALHOUN, "The Concurrent Majority"
HUME, *Of Refinement in the Arts; Of Money; Of the Balance of Trade; Of Taxes*
JAMES, W., *On a Certain Blindness in Human Beings*
MACAULAY, *Machiavelli*

MALTHUS, "The Principle of Population"
ROUSSEAU, *A Lasting Peace through the Federation of Europe*
RUSKIN, *An Idealist's Arraignment of the Age*
VOLTAIRE, "English Men and Ideas"

VOLUME 8
CAMPANELLA, "Arguments for and against Galileo"
EINSTEIN AND INFELD, "The Rise and Decline of Classical Physics"
GALTON, "The Classification of Human Ability"
HELMHOLTZ, *On the Conservation of Force*
HUXLEY, *On the Relations of Man to the Lower Animals*
LYELL, "Geological Evolution"
WÖHLER, *On the Artificial Production of Urea*

VOLUME 9
CAMPBELL, *Measurement; Numerical Laws and the Use of Mathematics in Science*
EULER, *The Seven Bridges of Königsberg*
LAPLACE, "Probability"
POINCARÉ, *Chance*
RUSSELL, *The Study of Mathematics*

VOLUME 10
BROWNE, "Immortality"
CLIFFORD, *The Ethics of Belief*
DEWEY, "The Process of Thought"
EMERSON, *Nature; Montaigne; or, the Skeptic*
EPICURUS, *Letter to Menoeceus*
JAMES, W., *The Will to Believe; The Sentiment of Rationality*
MILL, J. S., *Nature*
PLUTARCH, *Contentment*
SANTAYANA, *Lucretius; Goethe's Faust*
VOLTAIRE, "The Philosophy of Common Sense"

PART IV
Suggested Readings for College Freshmen and Sophomores

VOLUME 5
ELIOT, T. S., *Dante*
SCHILLER, *On Simple and Sentimental Poetry*
SCHOPENHAUER, *On the Comparative Place of Interest and Beauty in Works of Art*

VOLUME 7
DANTE, "On World Government"
KANT, *Perpetual Peace*

VOLUME 8 BERNARD, *Experimental Considerations Common to Living Things and Inorganic Bodies*
MENDELEEV, "The Genesis of a Law of Nature"
PAVLOV, *Scientific Study of the So-Called Psychical Processes in the Higher Animals*

VOLUME 9 CLIFFORD, *The Postulates of the Science of Space*
PEIRCE, *The Red and the Black*
POINCARÉ, *Space*
RUSSELL, *Definition of Number; Mathematics and the Metaphysicians*

VOLUME 10 ADAMS, *Saint Thomas Aquinas*
EPICURUS, *Letter to Herodotus*

Gateway to the Great Books

2

Imaginative Literature

ENCYCLOPÆDIA Britannica®

GATEWAY TO THE GREAT BOOKS

ROBERT M. HUTCHINS, MORTIMER J. ADLER
Editors in Chief

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2

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Daniel Defoe

c. 1660–1731

Daniel Defoe (the name had many forms) was born in London, probably in the late summer of 1660. He was schooled for the Presbyterian ministry at Morton's academy but did not take orders. By 1683 he was established as a London merchant in hosiery, wines, and tobacco. He married Mary Tuffley in 1684 and the next year rode as a trouper in Monmouth's Rebellion. During the 1680's, business travels took him all over Great Britain and the Continent.

In 1692 he went bankrupt with debts amounting to £17,000. His creditors were repaid almost to the last penny. He became King William III's agent and confidential adviser. His verse satire in defense of William, *The True-Born Englishman,* had a large sale. Defoe established a prosperous brickworks. In 1702, under Queen Anne, he published a satire against High Church domination, *The Shortest Way with the Dissenters*. In the furor growing out of this he was exposed in the pillory and imprisoned. His business failed.

He was released late in 1703, evidently with the understanding that he would act as confidential agent, reporter, and pamphleteer for the government. He continued to do this work under various ministries. From 1704 to 1713, he published and wrote much of the *Review,* the most famous of twenty-six journals he had a hand in. In all, Defoe was arrested six or seven times, apparently for the most part on charges sponsored by his political enemies.

His career as a novelist began at fifty-nine with the first volume of *Robinson Crusoe* (see below). The second volume and a sequel appeared within a twelvemonth. In 1720 he published *The Life and Adventures of Mr. Duncan Campbell, Memoirs of a Cavalier,* and *The Life of Captain Singleton.* In 1722 came *Moll Flanders, A Journal of the Plague Year,* and *The History of Colonel Jacque.*

These were followed by *Roxana, Jonathan Wild* and other stories of criminals, and a three-volume guide to Great Britain.

Defoe has been credited with more than 500 titles. He was the first major novelist in English and he may be said to have established the main tradition in British journalism. He died in Ropemaker's Alley, London, on April 24, 1731.

Robinson Crusoe was first published on April 25, 1719. It delighted everybody–other writers, from Rousseau to Swift, and people who seldom read a book. It has never stopped selling. When the twentieth century began, more than 700 editions, translations, and imitations had been printed. Scores of others have been added since. Richard Brinsley Sheridan made a pantomime out of the story and David Garrick played in it. Jacques Offenbach put the Great Castaway into an opera. His adventures were turned into a motion picture by the distinguished Spanish director, Luis Bunuel. In "Images for Crusoe," the French poet St.-John Perse gave us a new vision of the hero's return.

It is a great story, loved in every nation. Even the Eskimos have a translation of it. It derives in part–but only in small part–from the true history of Alexander Selkirk, who seems to have been a self-made exile on one of the Juan Fernández Islands off the coast of Chile in the early 1700's. But how can we account for the great sweep of *Robinson Crusoe's* popularity? For one thing, a career of hard and rapid writing had taught Defoe to use words with the practical exactness of a shipmaster filling in his log, but with a flexibility and ease few shipmasters could equal. Everyone can understand *Crusoe*. And who has not asked himself what he would do if *he* were in Crusoe's place, and then, by the magic of Defoe's words, put himself there?

It is the story of a man alone, but there is no great loneliness in it. After his first panic, Crusoe remembers the cure for loneliness: work,

---

Notes from the artist: "*Defoe and two of his most notable characters, Robinson Crusoe and Moll Flanders, together with a sketch of Defoe after he was pilloried for writing* The Shortest Way with the Dissenters. *The quotation is from his satire* The True-Born Englishman."

And of all plagues With Which mankind are curst,
Ecclesiastic tyranny's the Worst
DE FOE
1720

projects, and more work. One of the most famous incidents of the story—the finding of a footprint in the sand—is precisely the point at which the man alone encounters human society again. And how does he react? He is terrified. He assumes, as he has assumed from the first, that any stranger will be hostile.

Crusoe is the New Man, the new middle-class man who deals in *things.* In England, he has been on the rise since the late Middle Ages. Now he stands clear. Two points distinguish him: he is a man of business, and a nonconformist in religion. He has been persecuted. He is distrustful. Defoe puts him where he put Jonathan Wild, Moll Flanders, and a good many of his other heroes and heroines—a little outside society, or against it. Moreover, we see that Crusoe's physical adventures are matched at nearly every point by religious ones. In general, except for what seems an excessive sense of guilt, we feel that his respect for moral fact is as hard-headed as his knack for the physical. We note that, in contrast to such books as *Typee* or *Green Mansions,* there is no Eve in Crusoe's Eden. Defoe leaves out a large part of the human race: women. His Eden has no future.

Robinson Crusoe is not—or is only at first—a story of survival. He is cast away, not on a true desert island, but on one richly hospitable to human living. One by one, he moves through the three stages that may be said to represent man's earliest development: the gathering of wild foods, farming, and the keeping of herds. Crusoe is building himself a one-man civilization. Humorous or not, he has his castle and his country seat. He is trying to attain something like the standard of living of a comfortable middle-class Englishman. Moreover, he has tools and supplies saved out of the wreck. What happens to Crusoe has happened to many a civilization in human history: a few things salvaged, and a beginning again.

Robinson Crusoe

I GO TO SEA

I was born in the year 1632, in the city of York, of a good family, though not of that country, my father being a foreigner of Bremen who settled first at Hull. He got a good estate by merchandise and, leaving off his trade, lived afterward at York, from whence he had married my mother, whose relations were named Robinson, a very good family in that country, and from whom I was called Robinson Kreutznaer; but by the usual corruption of words in England we are now called, nay, we call ourselves, and write our name "Crusoe," and so my companions always called me.

I had two elder brothers, one of which was lieutenant-colonel to an English regiment of foot in Flanders, formerly commanded by the famous Colonel Lockhart, and was killed at the battle near Dunkirk against the Spaniards; what became of my second brother I never knew, any more than my father or mother did know what was become of me.

Being the third son of the family, and not bred to any trade, my head began to be filled very early with rambling thoughts. My father, who was very ancient, had given me a competent share of learning, as far as house education and a country free school generally goes, and designed me for the law; but I would be satisfied with nothing but going to sea; and my inclination to this led me so strongly against the will, nay the commands, of my father, and against all the entreaties and persuasions of my mother and other friends that there seemed to be something fatal in that propension of nature tending directly to the life of misery which was to befall me.

My father, a wise and grave man, gave me serious and excellent counsel against what he foresaw was my design. He called me one morning into his chamber, where he was confined by the gout, and expostulated very

warmly with me upon this subject. He asked me what reasons more than a mere wandering inclination I had for leaving my father's house and my native country, where I might be well introduced, and had a prospect of raising my fortune by application and industry, with a life of ease and pleasure. He told me it was for men of desperate fortunes on one hand, or of aspiring, superior fortunes on the other, who went abroad upon adventures, to rise by enterprise, and make themselves famous in undertakings of a nature out of the common road; that these things were all either too far above me, or too far below me; that mine was the middle state, or what might be called the upper station of low life, which he had found by long experience was the best state in the world, the most suited to human happiness, not exposed to the miseries and hardships, the labour and sufferings of the mechanic part of mankind, and not embarrassed with the pride, luxury, ambition, and envy of the upper part of mankind. He told me I might judge of the happiness of this state by this one thing, viz., that this was the state of life which all other people envied; that kings have frequently lamented the miserable consequences of being born to great things, and wished they had been placed in the middle of the two extremes, between the mean and the great; that the wise man gave his testimony to this as the just standard of true felicity, when he prayed to have neither poverty nor riches.

He bade me observe it, and I should always find that the calamities of life were shared among the upper and lower part of mankind; but that the middle station had the fewest disasters, and was not exposed to so many vicissitudes as the higher or lower part of mankind; nay, they were not subjected to so many distempers and uneasinesses either of body or mind, as those were who, by vicious living, luxury, and extravagances on one hand, or by hard labour, want of necessaries, and mean or insufficient diet on the other hand, bring distempers upon themselves by the natural consequences of their way of living; that the middle station of life was calculated for all kind of virtues, and all kind of enjoyments; that peace and plenty were the handmaids of a middle fortune; that temperance, moderation, quietness, health, society, all agreeable diversions, and all desirable pleasures, were the blessings attending the middle station of life; that this way men went silently and smoothly through the world, and comfortably out of it, not embarrassed with the labours of the hands or of the head, not sold to the life of slavery for daily bread, or harassed with perplexed circumstances, which rob the soul of peace and the body of rest; not enraged with the passion of envy, or secret burning lust of ambition for great things; but in easy circumstances sliding gently through

the world, and sensibly tasting the sweets of living, without the bitter, feeling that they are happy, and learning by every day's experience to know it more sensibly.

After this, he pressed me earnestly, and in the most affectionate manner, not to play the young man, nor to precipitate myself into miseries which nature and the station of life I was born in seemed to have provided against; that I was under no necessity of seeking my bread; that he would do well for me, and endeavour to enter me fairly into the station of life which he had been just recommending to me; and that if I was not very easy and happy in the world, it must be my mere fate or fault that must hinder it, and that he should have nothing to answer for, having thus discharged his duty in warning me against measures which he knew would be to my hurt. In a word, that as he would do very kind things for me if I would stay and settle at home, as he directed, so he would not have so much hand in my misfortunes as to give me any encouragement to go away. And to close all, he told me, I had my elder brother for an example, to whom he had used the same earnest persuasions to keep him from going into the Low Country wars, but could not prevail, his young desires prompting him to run into the army, where he was killed; and though he said he would not cease to pray for me, yet he would venture to say to me that if I did take this foolish step, God would not bless me, and I would have leisure hereafter to reflect upon having neglected his counsel, when there might be none to assist in my recovery.

I observed in this last part of his discourse, which was truly prophetic, though I suppose my father did not know it to be so himself; I say, I observed the tears run down his face very plentifully, especially when he spoke of my brother who was killed; and that when he spoke of my having leisure to repent, and none to assist me, he was so moved that he broke off the discourse, and told me his heart was so full he could say no more to me.

I was sincerely affected with this discourse, as indeed who could be otherwise? and I resolved not to think of going abroad any more, but to settle at home according to my father's desire. But alas! a few days wore it all off; and in short, to prevent any of my father's further importunities, in a few weeks after, I resolved to run quite away from him. However, I did not act so hastily neither as my first heat of resolution prompted, but I took my mother, at a time when I thought her a little pleasanter than ordinary, and told her that my thoughts were so entirely bent upon seeing the world that I should never settle to anything with resolution enough to go through with it, and my father had better give me his consent than

force me to go without it; that I was now eighteen years old, which was too late to go apprentice to a trade, or clerk to an attorney; that I was sure, if I did, I should never serve out my time, and I should certainly run away from my master before my time was out, and go to sea; and if she would speak to my father to let me go one voyage abroad, if I came home again and did not like it, I would go no more, and I would promise by a double diligence to recover that time I had lost.

This put my mother into a great passion. She told me she knew it would be to no purpose to speak to my father upon any such subject; that he knew too well what was my interest, to give his consent to anything so much for my hurt, and that she wondered how I could think of any such thing, after such a discourse as I had had with my father, and such kind and tender expressions as she knew my father had used to me; and that, in short, if I would ruin myself, there was no help for me; but I might depend I should never have their consent to it; that for her part she would not have so much hand in my destruction; and I should never have it to say, that my mother was willing when my father was not.

Though my mother refused to move it to my father, yet, as I have heard afterwards, she reported all the discourse to him, and that my father, after showing a great concern at it, said to her with a sigh, "That boy might be happy if he would stay at home, but if he goes abroad, he will be the most miserable wretch that was ever born; I can give no consent to it."

It was not till almost a year after this that I broke loose, though in the meantime I continued obstinately deaf to all proposals of settling to business, and frequently expostulating with my father and mother about their being so positively determined against what they knew my inclinations prompted me to. But being one day at Hull, where I went casually, and without any purpose of making an elopment that time; but I say, being there, and one of my companions being going by sea to London in his father's ship, and prompting me to go with them, with the common allurement of seafaring men, viz., that it should cost me nothing for my passage, I consulted neither father or mother any more, nor so much as sent them word of it; but leaving them to hear of it as they might, without asking God's blessing, or my father's, without any consideration of circumstances or consequences, and in an ill hour, God knows, on the first of September, 1651, I went on board a ship bound for London. Never any young adventurer's misfortunes, I believe, began sooner or continued longer than mine. The ship was no sooner gotten out of the Humber but the wind began to blow, and the sea to rise in a most frightful manner;

and as I had never been at sea before, I was most inexpressibly sick in body and terrified in mind. I began now seriously to reflect upon what I had done, and how justly I was overtaken by the judgment of Heaven for my wicked leaving my father's house and abandoning my duty; all the good counsel of my parents, my father's tears, and my mother's entreaties came now fresh into my mind, and my conscience, which was not yet come to the pitch of hardness to which it has been since, reproached me with the contempt of advice and the breach of my duty to God and my father.

All this while the storm increased, and the sea, which I had never been upon before, went very high, though nothing like what I have seen many times since; no, nor like what I saw a few days after But it was enough to affect me then, who was but a young sailor and had never known anything of the matter. I expected every wave would have swallowed us up, and that every time the ship fell down, as I thought, in the trough or hollow of the sea, we should never rise more; and in this agony of mind I made many vows and resolutions, that if it would please God here to spare my life in this one voyage, if ever I got once my foot upon dry land again, I would go directly home to my father, and never set it into a ship again while I lived; that I would take his advice, and never run myself into such miseries as these any more. Now I saw plainly the goodness of his observations about the middle station of life, how easy, how comfortably he had lived all his days, and never had been exposed to tempests at sea or troubles on shore; and I resolved that I would, like a true repenting prodigal, go home to my father.

These wise and sober thoughts continued all the while the storm continued, and indeed some time after; but the next day the wind was abated and the sea calmer, and I began to be a little inured to it. However, I was very grave for all that day, being also a little sea-sick still; but towards night the weather cleared up, the wind was quite over, and a charming fine evening followed; the sun went down perfectly clear, and rose so the next morning; and having little or no wind, and a smooth sea, the sun shining upon it, the sight was, as I thought, the most delightful that ever I saw.

I had slept well in the night, and was now no more sea-sick, but very cheerful, looking with wonder upon the sea that was so rough and terrible the day before, and could be so calm and so pleasant in so little time after. And now lest my good resolutions should continue, my companion, who had indeed enticed me away, comes to me. "Well, Bob," says he, clapping me upon the shoulder, "how do you do after it? I warrant you were

frighted, wa'n't you, last night, when it blew but a capful of wind?" "A capful, d'you call it?" said I, "'twas a terrible storm." "A storm, you fool, you," replies he; "do you call that a storm? why, it was nothing at all; give us but a good ship and sea room, and we think nothing of such a squall of wind as that; but you're but a fresh-water sailor, Bob; come, let us make a bowl of punch, and we'll forget all that; d'ye see what charming weather 'tis now?" To make short this sad part of my story, we went the old way of all sailors; the punch was made, and I was made drunk with it, and in that one night's wickedness I drowned all my repentance, all my reflections upon my past conduct, and all my resolutions for the future. In a word, as the sea was returned to its smoothness of surface and settled calmness by the abatement of that storm, so the hurry of my thoughts being over, my fears and apprehensions of being swallowed up by the sea being forgotten, and the current of my former desires returned, I entirely forgot the vows and promises that I made in my distress. I found indeed some intervals of reflection, and the serious thoughts did, as it were, endeavour to return again sometimes; but I shook them off, and roused myself from them as it were from a distemper, and applying myself to drinking and company, soon mastered the return of those fits (for so I called them), and I had in five or six days got as complete a victory over conscience as any young fellow that resolved not to be troubled with it could desire. But I was to have another trial for it still; and Providence, as in such cases generally it does, resolved to leave me entirely without excuse. For if I would not take this for a deliverance, the next was to be such a one as the worst and most hardened wretch among us would confess both the danger and the mercy.

The sixth day of our being at sea we came into Yarmouth Roads; the wind having been contrary, and the weather calm, we had made but little way since the storm. Here we were obliged to come to anchor, and here we lay, the wind continuing contrary, viz., at southwest, for seven or eight days, during which time a great many ships from Newcastle came into the same roads, as the common harbour where the ships might wait for a wind for the river.

We had not, however, rid here so long, but should have tided it up the river, but that the wind blew too fresh; and after we had lain four or five days, blew very hard. However, the roads being reckoned as good as a harbour, the anchorage good, and our ground tackle very strong, our men were unconcerned, and not in the least apprehensive of danger, but spent the time in rest and mirth, after the manner of the sea; but the

eighth day in the morning, the wind increased, and we had all hands at work to strike our topmasts and make everything snug and close, that the ship might ride as easy as possible. By noon the sea went very high indeed, and our ship rid forecastle in, shipped several seas, and we thought once or twice our anchor had come home; upon which our master ordered out the sheet anchor; so that we rode with two anchors ahead, and the cables veered out to the bitter end.

By this time it blew a terrible storm indeed, and now I began to see terror and amazement in the faces even of the seamen themselves. The master, though vigilant in the business of preserving the ship, yet as he went in and out of his cabin by me, I could hear him softly to himself say several times, "Lord, be merciful to us, we shall be all lost, we shall be all undone"; and the like. During these first hurries, I was stupid, lying still in my cabin, which was in the steerage, and cannot describe my temper. I could ill reassume the first penitence which I had so apparently trampled upon, and hardened myself against. I thought the bitterness of death had been past, and that this would be nothing too, like the first. But when the master himself came by me, as I said just now, and said we should be all lost, I was dreadfully frighted. I got up out of my cabin and looked out; but such a dismal sight I never saw. The sea went mountains high, and broke upon us every three or four minutes. When I could look about, I could see nothing but distress round us: Two ships that rid near us, we found, had cut their masts by the board, being deep loaden; and our men cried out that a ship which rid about a mile ahead of us was foundered. Two more ships, being driven from their anchors, were run out of the roads to sea at all adventures, and that with not a mast standing. The light ships fared the best, as not so much labouring in the sea; but two or three of them drove and came close by us, running away with only their spritsail out before the wind.

Towards evening the mate and boatswain begged the master of our ship to let them cut away the foremast which he was very unwilling to do. But the boatswain protesting to him that if he did not the ship would founder, he consented; and when they had cut away the foremast, the mainmast stood so loose and shook the ship so much, they were obliged to cut her away also, and make a clear deck.

Anyone may judge what a condition I must be in at all this, who was but a young sailor, and who had been in such a fright before at but a little. But if I can express at this distance the thoughts I had about me at that time, I was in tenfold more horror of mind upon account of my

former convictions, and the having returned from them to the resolutions I had wickedly taken at first, than I was at death itself; and these, added to the terror of the storm, put me in such a condition that I can by no words describe it. But the worst was not come yet; the storm continued with such fury that the seamen themselves acknowledged they had never known a worse. We had a good ship, but she was deep loaden, and wallowed in the sea, that the seamen every now and then cried out she would founder. It was my advantage in one respect that I did not know what they meant by "founder" till I inquired. However, the storm was so violent that I saw what is not often seen, the master, the boatswain, and some others more sensible than the rest, at their prayers and expecting every moment when the ship would go to the bottom. In the middle of the night, and under all the rest of our distresses, one of the men that had been down on purpose to see cried out we had sprung a leak; another said there was four foot water in the hold. Then all hands were called to the pump. At that very word my heart, as I thought, died within me, and I fell backwards upon the side of my bed where I sat, into the cabin. However, the men roused me, and told me that I, that was able to do nothing before, was as well able to pump as another; at which I stirred up and went to the pump and worked very heartily. While this was doing, the master, seeing some light colliers, who, not able to ride out the storm, were obliged to slip and run away to sea, and would come near us, ordered to fire a gun as a signal of distress. I, who knew nothing what that meant, was so surprised, that I thought the ship had broke, or some dreadful thing happened. In a word, I was so surprised that I fell down in a swoon. As this was a time when everybody had his own life to think of, nobody minded me, or what was become of me; but another man stepped up to the pump, and thrusting me aside with his foot, let me lie, thinking I had been dead; and it was a great while before I came to myself.

We worked on, but the water increasing in the hold, it was apparent that the ship would founder, and though the storm began to abate a little, yet as it was not possible she could swim till we might run into a port, so the master continued firing guns for help; and a light ship who had rid it out just ahead of us ventured a boat out to help us. It was with the utmost hazard the boat came near us, but it was impossible for us to get on board, or for the boat to lie near the ship side, till at last the men rowing very heartily and venturing their lives to save ours, our men cast them a rope over the stern with a buoy to it and then veered it out a great length, which they after great labour and hazard took hold of, and we hauled

them close under our stern and got all into their boat. It was to no purpose for them or us after we were in the boat to think of reaching to their own ship, so all agreed to let her drive and only to pull her in towards shore as much as we could, and our master promised them that if the boat was staved upon shore, he would make it good to their master; so, partly rowing and partly driving, our boat went away to the northward, sloping towards the shore almost as far as Winterton Ness.

We were not much more than a quarter of an hour out of our ship but we saw her sink, and then I understood for the first time what was meant by a ship foundering in the sea; I must acknowledge I had hardly eyes to look up when the seamen told me she was sinking; for from that moment they rather put me into the boat than that I might be said to go in, my heart was as it were dead within me, partly with fright, partly with horror of mind and the thoughts of what was yet before me.

While we were in this condition, the men yet labouring at the oar to bring the boat near the shore, we could see (when, our boat mounting the waves, we were able to see the shore) a great many people running along the strand to assist us when we should come near; but we made but slow way towards the shore, nor were we able to reach the shore, till being past the lighthouse at Winterton, the shore falls off to the westward towards Cromer, and so the land broke off a little the violence of the wind. Here we got in and, though not without much difficulty, got all safe on shore and walked afterwards on foot to Yarmouth, where, as unfortunate men, we were used with great humanity, as well by the magistrates of the town, who assigned us good quarters, as by particular merchants and owners of ships, and had money given us sufficient to carry us either to London or back to Hull, as we thought fit.

Had I now had the sense to have gone back to Hull, and have gone home, I had been happy, and my father, an emblem of our blessed Saviour's parable, had even killed the fatted calf for me; for hearing the ship I went away in was cast away in Yarmouth Roads, it was a great while before he had any assurance that I was not drowned.

But my ill fate pushed me on now with an obstinacy that nothing could resist; and though I had several times loud calls from my reason and my more composed judgment to go home, yet I had no power to do it. I know not what to call this, nor will I urge that it is a secret overruling decree that hurries us on to be the instruments of our own destruction, even though it be before us, and that we push upon it with our eyes open. Certainly nothing but some such decreed unavoidable misery attending, and which it was impossible for me to escape, could have pushed me forward

against the calm reasonings and persuasions of my most retired thoughts and against two such visible instructions as I had met with in my first attempt.

My comrade, who had helped to harden me before and who was the master's son, was now less forward than I; the first time he spoke to me after we were at Yarmouth, which was not till two or three days, for we were separated in the town to several quarters; I say, the first time he saw me, it appeared his tone was altered, and looking very melancholy and shaking his head, asking me how I did, and telling his father who I was, and how I had come this voyage only for a trial in order to go farther abroad; his father turning to me with a very grave and concerned tone, "Young man," says he, "you ought never to go to sea any more; you ought to take this for a plain and visible token that you are not to be a seafaring man." "Why, sir," said I, "will you go to sea no more?" "That is another case," said he; "it is my calling and therefore my duty; but as you made this voyage for a trial, you see what a taste Heaven has given you of what you are to expect if you persist; perhaps this is all befallen us on your account, like Jonah in the ship of Tarshish. Pray," continues he, "what are you? and on what account did you go to sea?" Upon that I told him some of my story; at the end of which he burst out with a strange kind of passion, "What had I done," says he, "that such an unhappy wretch should come into my ship? I would not set my foot in the same ship with thee again for a thousand pounds." This indeed was, as I said, an excursion of his spirits, which were yet agitated by the sense of his loss, and was farther than he could have authority to go. However, he afterwards talked very gravely to me, exhorted me to go back to my father and not tempt Providence to my ruin; told me I might see a visible hand of Heaven against me; "And, young man," said he, "depend upon it, if you do not go back, wherever you go, you will meet with nothing but disasters and disappointments, till your father's words are fulfilled upon you."

[*Crusoe, despite this good advice, determines to go to sea again. After various adventures, he becomes a Brazilian planter. He is then offered an opportunity to go to sea once more.*]

I GO ON BOARD IN AN EVIL HOUR

But I that was born to be my own destroyer could no more resist the offer than I could restrain my first rambling designs, when my father's good counsel was lost upon me. In a word, I told them I would go with all my heart, if they would undertake to look after my plantation in my

absence and would dispose of it to such as I should direct, if I miscarried. This they all engaged to do, and entered into writings, or covenants, to do so; and I made a formal will, disposing of my plantation and effects, in case of my death, making the captain of the ship that had saved my life, as before, my universal heir, but obliging him to dispose of my effects as I had directed in my will, one half of the produce being to himself and the other to be shipped to England.

In short, I took all possible caution to preserve my effects and to keep up my plantation; had I used half as much prudence to have looked into my own interest and have made a judgment of what I ought to have done and not to have done, I had certainly never gone away from so prosperous an undertaking, leaving all the probable views of a thriving circumstance and gone upon a voyage to sea, attended with all its common hazards; to say nothing of the reasons I had to expect particular misfortunes to myself.

But I was hurried on and obeyed blindly the dictates of my fancy rather than my reason; and accordingly, the ship being fitted out and the cargo furnished, and all things done as by agreement by my partners in the voyage, I went on board in an evil hour, the 1st of September, 1659, being the same day eight years that I went from my father and mother at Hull, in order to act the rebel to their authority and the fool to my own interest.

Our ship was about 120 tons burden, carried six guns and fourteen men, besides the master, his boy, and myself; we had on board no large cargo of goods, except of such toys as were fit for our trade with the Negroes, such as beads, bits of glass, shells, and odd trifles, especially little looking-glasses, knives, scissors, hatchets, and the like.

The same day I went on board we set sail, standing away to the northward upon our own coast, with design to stretch over for the African coast, when they came about ten or twelve degrees of northern latitude, which it seems was the manner of their course in those days. We had very good weather, only excessive hot, all the way upon our own coast till we came the height of Cape St. Augustino, from whence keeping farther off at sea, we lost sight of land and steered as if we were bound for the Isle Fernando de Noronha, holding our course northeast by north and leaving those isles on the east. In this course we passed the line in about twelve days' time, and were by our last observation in seven degrees twenty-two minutes northern latitude, when a violent tornado, or hurricane, took us quite out of our knowledge; it began from the southeast, came about to the northwest, and then settled into the northeast, from whence it blew

in such a terrible manner that for twelve days together we could do nothing but drive and, scudding away before it, let it carry us whither ever fate and the fury of the winds directed; and during these twelve days, I need not say that I expected every day to be swallowed up, nor indeed did any in the ship expect to save their lives.

In this distress we had, besides the terror of the storm, one of our men died of the calenture, and one man and the boy washed overboard. About the twelfth day, the weather abating a little, the master made an observation as well as he could, and found that he was in about eleven degrees north latitude, but that he was twenty-two degrees of longitude difference west from Cape St. Augustino; so that he found he was gotten upon the coast of Guiana, or the north part of Brazil, beyond the river Amazones, towards that of the river Orinoco, commonly called the Great River, and began to consult with me what course he should take, for the ship was leaky and very much disabled and he was going directly back to the coast of Brazil.

I was positively against that, and looking over the charts of the seacoast of America with him, we concluded there was no inhabited country for us to have recourse to till we came within the circle of the Caribbee Islands and therefore resolved to stand away for Barbados, which by keeping off at sea, to avoid the indraught of the Bay or Gulf of Mexico, we might easily perform, as we hoped, in about fifteen days' sail; whereas we could not possibly make our voyage to the coast of Africa without some assistance both to our ship and to ourselves.

With this design we changed our course and steered away northwest by west in order to reach some of our English islands, where I hoped for relief; but our voyage was otherwise determined, for being in the latitude of twelve degrees eighteen minutes, a second storm came upon us, which carried us away with the same impetuosity westward and drove us so out of the very way of all human commerce, that had all our lives been saved as to the sea, we were rather in danger of being devoured by savages than ever returning to our own country.

In this distress, the wind still blowing very hard, one of our men early in the morning cried out, "Land!"; and we had no sooner run out of the cabin to look out in hopes of seeing whereabouts in the world we were but the ship struck upon a sand, and in a moment, her motion being so stopped, the sea broke over her in such a manner that we expected we should all have perished immediately; and we were immediately driven into our close quarters to shelter us from the very foam and spray of the sea.

It is not easy for anyone who has not been in the like condition to describe or conceive the consternation of men in such circumstances; we knew nothing where we were or upon what land it was we were driven, whether an island or the main, whether inhabited or not inhabited; and as the rage of the wind was still great though rather less than at first, we could not so much as hope to have the ship hold many minutes without breaking in pieces unless the winds by a kind of miracle should turn immediately about. In a word, we sat looking one upon another and expecting death every moment, and every man acting accordingly, as preparing for another world, for there was little or nothing more for us to do in this; that which was our present comfort, and all the comfort we had, was that, contrary to our expectation, the ship did not break yet and that the master said the wind began to abate.

Now though we thought that the wind did a little abate, yet the ship having thus struck upon the sand, and sticking too fast for us to expect her getting off, we were in a dreadful condition indeed, and had nothing to do but to think of saving our lives as well as we could; we had a boat at our stern just before the storm, but she was first staved by dashing against the ship's rudder, and in the next place she broke away and either sank or was driven off to sea, so there was no hope from her; we had another boat on board, but how to get her off into the sea was a doubtful thing; however, there was no room to debate, for we fancied the ship would break in pieces every minute, and some told us she was actually broken already.

In this distress the mate of our vessel lays hold of the boat, and with the help of the rest of the men, they got her slung over the ship's side and, getting all into her, let go and committed ourselves, being eleven in number, to God's mercy and the wild sea; for though the storm was abated considerably, yet the sea went dreadful high upon the shore, and might well be called *den wild zee,* as the Dutch call the sea in a storm.

And now our case was very dismal indeed; for we all saw plainly that the sea went so high that the boat could not live and that we should be inevitably drowned. As to making sail, we had none; nor, if we had, could we have done anything with it; so we worked at the oar towards the land, though with heavy hearts, like men going to execution; for we all knew that when the boat came nearer the shore, she would be dashed in a thousand pieces by the breach of the sea. However, we committed our souls to God in the most earnest manner, and the wind driving us towards the shore, we hastened our destruction with our own hands, pulling as well as we could towards land.

What the shore was, whether rock or sand, whether steep or shoal, we knew not; the only hope that could rationally give us the least shadow of expectation was if we might happen into some bay or gulf, or the mouth of some river, where by great chance we might have run our boat in, or got under the lee of the land, and perhaps made smooth water. But there was nothing of this appeared; but as we made nearer and nearer the shore, the land looked more frightful than the sea.

After we had rowed, or rather driven, about a league and a half, as we reckoned it, a raging wave, mountainlike, came rolling astern of us and plainly bade us expect the *coup de grâce*. In a word, it took us with such a fury that it overset the boat at once; and separating us as well from the boat as from one another, gave us not time hardly to say, "O God!" for we were all swallowed up in a moment.

Nothing can describe the confusion of thought which I felt when I sunk into the water; for though I swam very well, yet I could not deliver myself from the waves so as to draw breath, till that wave having driven me, or rather carried me, a vast way on towards the shore and, having spent itself, went back, and left me upon the land almost dry, but half dead with the water I took in. I had so much presence of mind as well as breath left, that seeing myself nearer the mainland than I expected, I got upon my feet, and endeavoured to make on towards the land as fast as I could, before another wave should return and take me up again. But I soon found it was impossible to avoid it; for I saw the sea come after me as high as a great hill, and as furious as an enemy, which I had no means or strength to contend with; my business was to hold my breath and raise myself upon the water, if I could, and so by swimming to preserve my breathing and pilot myself towards the shore, if possible; my greatest concern now being that the sea, as it would carry me a great way towards the shore when it came on, might not carry me back again with it when it gave back towards the sea.

The wave that came upon me again, buried me at once twenty or thirty feet deep in its own body; and I could feel myself carried with a mighty force and swiftness towards the shore a very great way; but I held my breath and assisted myself to swim still forward with all my might. I was ready to burst with holding my breath, when, as I felt myself rising up, so, to my immediate relief, I found my head and hands shoot out above the surface of the water; and though it was not two seconds of time that I could keep myself so, yet it relieved me greatly, gave me breath and new courage. I was covered again with water a good while, but not so long but I held it out; and finding the water had spent itself and began to

return, I struck forward against the return of the waves, and felt ground again with my feet. I stood still a few moments to recover breath, and till the water went from me, and then took to my heels, and ran with what strength I had farther towards the shore. But neither would this deliver me from the fury of the sea, which came pouring in after me again, and twice more I was lifted up by the waves, and carried forwards as before, the shore being very flat.

The last time of these two had well near been fatal to me; for the sea, having hurried me along as before, landed me, or rather dashed me, against a piece of a rock, and that with such force as it left me senseless, and indeed helpless, as to my own deliverance; for the blow, taking my side and breast, beat the breath as it were quite out of my body; and had it returned again immediately, I must have been strangled in the water; but I recovered a little before the return of the waves, and seeing I should be covered again with the water, I resolved to hold fast by a piece of the rock, and so to hold my breath, if possible, till the wave went back; now as the waves were not so high as at first, being near land, I held my hold till the wave abated, and then fetched another run, which brought me so near the shore that the next wave, though it went over me, yet did not so swallow me up as to carry me away, and the next run I took, I got to the mainland, where, to my great comfort, I clambered up the clifts to the shore and sat me down upon the grass, free from danger, and quite out of the reach of the water.

I was now landed and safe on shore, and began to look up and thank God that my life was saved in a case wherein there was some minutes before scarce any room to hope. I believe it is impossible to express to the life what the ecstasies and transports of the soul are when it is so saved, as I may say, out of the very grave; and I do not wonder now at that custom, viz., that when a malefactor who has the halter about his neck is tied up and just going to be turned off, and has a reprieve brought to him: I say, I do not wonder that they bring a surgeon with it, to let him blood that very moment they tell him of it, that the surprise may not drive the animal spirits from the heart, and overwhelm him:

For sudden joys, like griefs, confound at first.

I walked about on the shore, lifting up my hands, and my whole being, as I may say, wrapped up in the contemplation of my deliverance, making a thousand gestures and motions which I cannot describe, reflecting upon all my comrades that were drowned and that there should not be one soul saved but myself; for, as for them, I never saw them afterwards, or any

sign of them, except three of their hats, one cap, and two shoes that were not fellows.

I cast my eyes to the stranded vessel, when, the breach and froth of the sea being so big, I could hardly see it, it lay so far off, and considered, Lord! how was it possible I could get on shore!

After I had solaced my mind with the comfortable part of my condition, I began to look round me to see what kind of place I was in, and what was next to be done, and I soon found my comforts abate, and that, in a word, I had a dreadful deliverance. For I was wet, had no clothes to shift me, nor anything either to eat or drink to comfort me, neither did I see any prospect before me but that of perishing with hunger or being devoured by wild beasts; and that which was particular afflicting to me was that I had no weapon either to hunt and kill any creature for my sustenance or to defend myself against any other creature that might desire to kill me for theirs. In a word, I had nothing about me but a knife, a tobacco-pipe, and a little tobacco in a box; this was all my provision, and this threw me into terrible agonies of mind, that for a while I ran about like a madman. Night coming upon me, I began with a heavy heart to consider what would be my lot if there were any ravenous beasts in that country, seeing at night they always come abroad for their prey.

All the remedy that offered to my thoughts at that time was to get up into a thick bushy tree like a fir, but thorny, which grew near me, and where I resolved to sit all night, and consider the next day what death I should die, for as yet I saw no prospect of life; I walked about a furlong from the shore, to see if I could find any fresh water to drink, which I did, to my great joy; and having drunk, and put a little tobacco in my mouth to prevent hunger, I went to the tree, and getting up into it, endeavoured to place myself so as that if I should sleep I might not fall; and having cut me a short stick, like a truncheon, for my defence, I took up my lodging, and having been excessively fatigued, I fell fast asleep, and slept as comfortably as, I believe, few could have done in my condition, and found myself the most refreshed with it that I think I ever was on such an occasion.

I FURNISH MYSELF WITH MANY THINGS

When I waked it was broad day, the weather clear, and the storm abated, so that the sea did not rage and swell as before. But that which surprised me most was that the ship was lifted off in the night from the sand where she lay, by the swelling of the tide, and was driven up almost

as far as the rock which I first mentioned, where I had been so bruised by the dashing me against it; this being within about a mile from the shore where I was and the ship seeming to stand upright still, I wished myself on board, that, at least, I might save some necessary things for my use.

When I came down from my apartment in the tree, I looked about me again, and the first thing I found was the boat, which lay as the wind and the sea had tossed her up upon the land, about two miles on my right hand. I walked as far as I could upon the shore to have got to her, but found a neck or inlet of water between me and the boat, which was about half a mile broad; so I came back for the present, being more intent upon getting at the ship, where I hoped to find something for my present subsistence.

A little after noon I found the sea very calm and the tide ebbed so far out that I could come within a quarter of a mile of the ship; and here I found a fresh renewing of my grief, for I saw evidently that if we had kept on board, we had been all safe, that is to say, we had all got safe on shore, and I had not been so miserable as to be left entirely destitute of all comfort and company, as I now was: this forced tears from my eyes again, but as there was little relief in that, I resolved, if possible, to get to the ship; so I pulled off my clothes, for the weather was hot to extremity, and took the water; but when I came to the ship, my difficulty was still greater to know how to get on board, for as she lay aground, and high out of the water, there was nothing within my reach to lay hold of; I swam round her twice, and the second time I spied a small piece of a rope, which I wondered I did not see at first, hang down by the forechains so low as that with great difficulty I got hold of it, and by the help of that rope got up into the forecastle of the ship. Here I found that the ship was bulged, and had a great deal of water in her hold, but that she lay so on the side of a bank of hard sand, or rather earth, that her stern lay lifted up upon the bank and her head low almost to the water; by this means all her quarter was free, and all that was in that part was dry; for you may be sure my first work was to search and to see what was spoiled and what was free; and first I found that all the ship's provisions were dry and untouched by the water, and being very well disposed to eat, I went to the bread-room and filled my pockets with biscuit, and ate it as I went about other things, for I had no time to lose; I also found some rum in the great cabin, of which I took a large dram, and which I had indeed need enough of to spirit me for what was before me. Now I wanted nothing but a boat to furnish myself with many things which I foresaw would be very necessary to me.

It was in vain to sit still and wish for what was not to be had, and this extremity roused my application. We had several spare yards and two or three large spars of wood and a spare topmast or two in the ship; I resolved to fall to work with these and flung as many of them overboard as I could manage for their weight, tying every one with a rope that they might not drive away; when this was done I went down the ship's side, and pulling them to me, I tied four of them fast together at both ends as well as I could, in the form of a raft, and laying two or three short pieces of plank upon them crossways, I found I could walk upon it very well, but that it was not able to bear any great weight, the pieces being too light; so I went to work, and with the carpenter's saw I cut a spare topmast into three lengths and added them to my raft, with a great deal of labour and pains; but the hope of furnishing myself with necessaries encouraged me to go beyond what I should have been able to have done upon another occasion.

My raft was now strong enough to bear any reasonable weight; my next care was what to load it with and how to preserve what I laid upon it from the surf of the sea; but I was not long considering this; I first laid all the planks or boards upon it that I could get, and having considered well what I most wanted, I first got three of the seamen's chests, which I had broken open and emptied, and lowered them down upon my raft; the first of these I filled with provisions, viz., bread, rice, three Dutch cheeses, five pieces of dried goat's flesh, which we lived much upon, and a little remainder of European corn which had been laid by for some fowls which we brought to sea with us, but the fowls were killed; there had been some barley and wheat together, but, to my great disappointment, I found afterwards that the rats had eaten or spoiled it all. As for liquors, I found several cases of bottles belonging to our skipper, in which were some cordial waters, and in all about five or six gallons of sack; these I stowed by themselves, there being no need to put them into the chest, nor no room for them. While I was doing this, I found the tide began to flow, though very calm, and I had the mortification to see my coat, shirt, and waistcoat, which I had left on shore upon the sand, swim away; as for my breeches, which were only linen, and open-kneed, I swam on board in them, and my stockings. However, this put me upon rummaging for clothes, of which I found enough, but took no more than I wanted for present use, for I had other things which my eye was more upon, as first, tools to work with on shore; and it was after long searching that I found out the carpenter's chest, which was indeed a very useful prize to me, and much more valuable than a shiploading of gold would have been at

that time; I got it down to my raft, even whole as it was, without losing time to look into it, for I knew in general what it contained.

My next care was for some ammunition and arms; there were two very good fowling pieces in the great cabin, and two pistols; these I secured first, with some powder horns, and a small bag of shot, and two old rusty swords; I knew there were three barrels of powder in the ship, but knew not where our gunner had stowed them, but with much search I found them, two of them dry and good, the third had taken water; those two I got to my raft with the arms. And now I thought myself pretty well freighted, and began to think how I should get to shore with them, having neither sail, oar, or rudder; and the least capful of wind would have overset all my navigation.

I had three encouragements: 1. A smooth, calm sea. 2. The tide rising and setting in to the shore. 3. What little wind there was blew me towards the land; and thus, having found two or three broken oars belonging to the boat, and besides the tools which were in the chest, I found two saws, an axe, and a hammer, and with this cargo I put to sea. For a mile or thereabouts my raft went very well, only that I found it drive a little distant from the place where I had landed before, by which I perceived that there was some indraught of the water, and consequently I hoped to find some creek or river there which I might make use of as a port to get to land with my cargo.

As I imagined, so it was; there appeared before me a little opening of the land, and I found a strong current of the tide set into it, so I guided my raft as well as I could to keep in the middle of the stream. But here I had like to have suffered a second shipwreck, which, if I had, I think verily would have broke my heart; for knowing nothing of the coast, my raft ran aground at one end of it upon a shoal, and not being aground at the other end, it wanted but a little that all my cargo had slipped off towards that end that was afloat, and so fallen into the water. I did my utmost by setting my back against the chests to keep them in their places, but could not thrust off the raft with all my strength, neither durst I stir from the posture I was in, but holding up the chests with all my might, stood in that manner near half an hour, in which time the rising of the water brought me a little more upon a level; and a little after, the water still rising, my raft floated again, and I thrust her off with the oar I had, into the channel, and then driving up higher, I at length found myself in the mouth of a little river, with land on both sides, and a strong current or tide running up; I looked on both sides for a proper place to get to shore, for I was not willing to be driven too high up the river, hoping in time

to see some ship at sea and therefore resolved to place myself as near the coast as I could.

At length I spied a little cove on the right shore of the creek, to which with great pain and difficulty I guided my raft, and at last got so near as that, reaching ground with my oar, I could thrust her directly in; but here I had like to have dipped all my cargo in the sea again; for that shore lying pretty steep, that is to say, sloping, there was no place to land, but where one end of my float, if it run on shore, would lie so high and the other sink lower as before, that it would endanger my cargo again. All that I could do was to wait till the tide was at the highest, keeping the raft with my oar like an anchor to hold the side of it fast to the shore, near a flat piece of ground, which I expected the water would flow over; and so it did. As soon as I found water enough (for my raft drew about a foot of water), I thrust her on upon that flat piece of ground and there f astened or moored her by sticking my two broken oars into the ground, one on one side near one end, and one on the other side near the other end; and thus I lay till the water ebbed away and left my raft and all my cargo safe on shore.

My next work was to view the country, and seek a proper place for my habitation, and where to stow my goods, to secure them from whatever might happen. Where I was I yet knew not, whether on the continent or on an island; whether inhabited or not inhabited; whether in danger of wild beasts or not. There was a hill not above a mile from me, which rose up very steep and high, and which seemed to overtop some other hills which lay as in a ridge from it northward. I took out one of the fowling pieces, and one of the pistols, and a horn of powder, and thus armed I traveled for discovery up to the top of that hill, where, after I had with great labour and difficulty got to the top, I saw my fate to my great affliction, viz., that I was in an island environed every way with the sea, no land to be seen, except some rocks which lay a great way off, and two small islands less than this, which lay about three leagues to the west.

I found also that the island I was in was barren and, as I saw good reason to believe, uninhabited, except by wild beasts, of whom, however, I saw none, yet I saw abundance of fowls, but knew not their kinds, neither when I killed them could I tell what was fit for food, and what not; at my coming back, I shot at a great bird which I saw sitting upon a tree on the side of a great wood. I believe it was the first gun that had been fired there since the creation of the world; I had no sooner fired but from all the parts of the wood there arose an innumerable number of fowls of many sorts, making a confused screaming, and crying every one according to his usual note; but not one of them of any kind that I knew. As for the crea-

ture I killed, I took it to be a kind of a hawk, its colour and beak resembling it, but had no talons or claws more than common; its flesh was carrion and fit for nothing.

Contented with this discovery, I came back to my raft and fell to work to bring my cargo on shore, which took me up the rest of that day, and what to do with myself at night I knew not, nor indeed where to rest; for I was afraid to lie down on the ground, not knowing but some wild beast might devour me, though, as I afterwards found, there was really no need for those fears.

However, as well as I could, I barricaded myself round with the chests and boards that I had brought on shore, and made a kind of a hut for that night's lodging; as for food, I yet saw not which way to supply myself, except that I had seen two or three creatures like hares run out of the wood where I shot the fowl.

I now began to consider that I might yet get a great many things out of the ship, which would be useful to me, and particularly some of the rigging and sails, and such other things as might come to land, and I resolved to make another voyage on board the vessel, if possible; and as I knew that the first storm that blew must necessarily break her all in pieces, I resolved to set all other things apart, till I got everything out of the ship that I could get; then I called a council, that is to say, in my thoughts, whether I should take back the raft, but this appeared impracticable; so I resolved to go as before, when the tide was down, and I did so, only that I stripped before I went from my hut, having nothing on but a checkered shirt and a pair of linen drawers and a pair of pumps on my feet.

I got on board the ship as before, and prepared a second raft, and having had experience of the first, I neither made this so unwieldy, nor loaded it so hard, but yet I brought away several things very useful to me; as first, in the carpenter's stores I found two or three bags full of nails and spikes, a great screwjack, a dozen or two of hatchets, and above all, that most useful thing called a grindstone; all these I secured together, with several things belonging to the gunner, particularly two or three iron crows and two barrels of musket bullets, seven muskets, and another fowling piece, with some small quantity of powder more; a large bag full of small shot, and a great roll of sheet lead. But this last was so heavy, I could not hoist it up to get it over the ship's side.

Besides these things, I took all the men's clothes that I could find, and a spare fore-topsail, hammock, and some bedding; and with this I loaded my second raft, and brought them all safe on shore to my very great comfort.

I was under some apprehensions during my absence from the land, that at least my provisions might be devoured on shore; but when I came back I found no sign of any visitor, only there sat a creature like a wild cat upon one of the chests, which when I came towards it, ran away a little distance, and then stood still; she sat very composed and unconcerned, and looked full in my face, as if she had a mind to be acquainted with me. I presented my gun at her, but as she did not understand it, she was perfectly unconcerned at it, nor did she offer to stir away; upon which I tossed her a bit of biscuit, though, by the way, I was not very free of it, for my store was not great. However, I spared her a bit, I say, and she went to it, smelled of it, and ate it and looked (as pleased) for more, but I thanked her, and could spare no more; so she marched off.

Having got my second cargo on shore (though I was fain to open the barrels of powder and bring them by parcels, for they were too heavy, being large casks), I went to work to make me a little tent with the sail and some poles which I cut for that purpose; and into this tent I brought everything that I knew would spoil, either with rain, or sun, and I piled all the empty chests and casks up in a circle round the tent, to fortify it from any sudden attempt, either from man or beast.

When I had done this, I blocked up the door of the tent with some boards within, and an empty chest set up on end without, and spreading one of the beds upon the ground, laying my two pistols just at my head and my gun at length by me, I went to bed for the first time, and slept very quietly all night, for I was very weary and heavy, for the night before I had slept little, and had laboured very hard all day, as well to fetch all those things from the ship, as to get them on shore.

I had the biggest magazine of all kinds now that ever was laid up, I believe, for one man; but I was not satisfied still; for while the ship sat upright in that posture, I thought I ought to get everything out of her that I could; so every day at low water I went on board, and brought away something or other. But particularly the third time I went, I brought away as much of the rigging as I could, as also all the small ropes and rope-twine I could get, with a piece of spare canvas, which was to mend the sails upon occasion, and the barrel of wet gunpowder. In a word, I brought away all the sails first and last, only that I was f ain to cut them in pieces, and bring as much at a time as I could; for they were no more useful to be sails, but as mere canvas only.

But that which comforted me more still was that at last of all, after I had made five or six such voyages as these, and thought I had nothing more to expect from the ship that was worth my meddling with; I say,

after all this, I found a great hogshead of bread, and three large runlets of rum or spirits, and a box of sugar, and a barrel of fine flour; this was surprising to me, because I had given over expecting any more provisions, except what was spoiled by the water. I soon emptied the hogshead of that bread, and wrapped it up parcel by parcel in pieces of the sails, which I cut out; and in a word, I got all this safe on shore also.

The next day I made another voyage; and now having plundered the ship of what was portable and fit to hand out, I began with the cables; and cutting the great cable into pieces such as I could move, I got two cables and a hawser on shore, with all the ironwork I could get; and having cut down the spritsail yard, and the mizzen yard, and everything I could to make a large raft, I loaded it with all those heavy goods, and came away. But my good luck began now to leave me; for this raft was so unwieldy and so overloaden, that after I was entered the little cove, where I had landed the rest of my goods, not being able to guide it so handily as I did the other, it overset, and threw me and all my cargo into the water. As for myself it was no great harm, for I was near the shore; but as to my cargo, it was great part of it lost, especially the iron, which I expected would have been of great use to me. However, when the tide was out, I got most of the pieces of cable ashore, and some of the iron, though with infinite labour; for I was fain to dip for it into the water, a work which fatigued me very much. After this I went every day on board, and brought away what I could get.

I had been now thirteen days on shore, and had been eleven times on board the ship; in which time I had brought away all that one pair of hands could well be supposed capable to bring, though I believe verily, had the calm weather held, I should have brought away the whole ship, piece by piece. But preparing the twelfth time to go on board, I found the wind began to rise; however, at low water I went on board, and though I thought I had rummaged the cabin so effectually, as that nothing more could be found, yet I discovered a locker with drawers in it, in one of which I found two or three razors and one pair of large scissors, with some ten or a dozen of good knives and forks; in another I found about thirty-six pounds value in money, some European coin, some Brazil, some pieces of eight, some gold, some silver.

I smiled to myself at the sight of this money. "O drug!" said I aloud, "what art thou good for? Thou art not worth to me, no, not the taking off of the ground; one of those knives is worth all this heap; I have no manner of use for thee; e'en remain where thou art and go to the bottom as a creature whose life is not worth saving." However, upon second

thoughts, I took it away, and wrapping all this in a piece of canvas, I began to think of making another raft; but while I was preparing this, I found the sky overcast, and the wind began to rise, and in a quarter of an hour it blew a fresh gale from the shore; it presently occurred to me that it was in vain to pretend to make a raft with the wind off shore, and that it was my business to be gone before the tide of flood began, otherwise I might not be able to reach the shore at all. Accordingly I let myself down into the water and swam across the channel, which lay between the ship and the sands, and even that with difficulty enough, partly with the weight of the things I had about me, and partly the roughness of the water, for the wind rose very hastily, and before it was quite high water, it blew a storm.

But I was gotten home to my little tent, where I lay with all my wealth about me very secure. It blew very hard all that night, and in the morning, when I looked out, behold, no more ship was to be seen; I was a little surprised, but recovered myself with this satisfactory reflection, viz., that I had lost no time, nor abated no diligence to get everything out of her that could be useful to me, and that indeed there was little left in her that I was able to bring away if I had had more time.

I now gave over any more thoughts of the ship, or of anything out of her, except what might drive on shore from her wreck, as indeed divers pieces of her afterwards did; but those things were of small use to me.

I BUILD MY FORTRESS

My thoughts were now wholly employed about securing myself against either savages, if any should appear, or wild beasts, if any were in the island; and I had many thoughts of the method how to do this, and what kind of dwelling to make; whether I should make me a cave in the earth, or a tent upon the earth. And, in short, I resolved upon both; the manner and description of which it may not be improper to give an account of.

I soon found the place I was in was not for my settlement, particularly because it was upon a low moorish ground near the sea, and I believed would not be wholesome, and more particularly because there was no fresh water near it; so I resolved to find a more healthy and more convenient spot of ground.

I consulted several things in my situation, which I found would be proper for me: first, health and fresh water I just now mentioned; secondly, shelter from the heat of the sun; thirdly, security from ravenous creatures, whether man or beast; fourthly, a view to the sea, that if God

sent any ship in sight, I might not lose any advantage for my deliverance, of which I was not willing to banish all my expectation yet.

In search of a place proper for this, I found a little plain on the side of a rising hill, whose front towards this little plain was steep as a house-side, so that nothing could come down upon me from the top; on the side of this rock there was a hollow place worn a little way in like the entrance or door of a cave, but there was not really any cave or way into the rock at all.

On the flat of the green, just before this hollow place, I resolved to pitch my tent. This plain was not above a hundred yards broad, and about twice as long, and lay like a green before my door, and at the end of it descended irregularly every way down into the low grounds by the seaside. It was on the north-northwest side of the hill, so that I was sheltered from the heat every day, till it came to a west and by south sun, or thereabouts, which in those countries is near the setting.

Before I set up my tent, I drew a half circle before the hollow place, which took in about ten yards in its semi-diameter from the rock, and twenty yards in its diameter, from its beginning and ending.

In this half circle I pitched two rows of strong stakes, driving them into the ground till they stood very firm like piles, the biggest end being out of the ground about five foot and a half, and sharpened on the top. The two rows did not stand above six inches from one another.

Then I took the pieces of cable which I had cut in the ship, and laid them in rows one upon another, within the circle between these two rows of stakes, up to the top, placing other stakes in the inside, leaning against them, about two foot and a half high, like a spur to a post; and this fence was so strong that neither man nor beast could get into it or over it. This cost me a great deal of time and labour, especially to cut the piles in the woods, bring them to the place, and drive them into the earth.

The entrance into this place I made to be, not by a door, but by a short ladder to go over the top, which ladder, when I was in, I lifted over after me, and so I was completely fenced in, and fortified, as I thought, from all the world, and consequently slept secure in the night, which otherwise I could not have done, though, as it appeared afterwards, there was no need of all this caution from the enemies that I apprehended danger from.

Into this fence or fortress, with infinite labour, I carried all my riches, all my provisions, ammunition, and stores, of which you have the account above; and I made me a large tent, which, to preserve me from the rains that in one part of the year are very violent there, I made double, viz.,

one smaller tent within, and one larger tent above it, and covered the uppermost with a large tarpaulin which I had saved among the sails.

And now I lay no more for a while in the bed which I had brought on shore, but in a hammock, which was indeed a very good one and belonged to the mate of the ship.

Into this tent I brought all my provisions, and every thing that would spoil by the wet, and having thus enclosed all my goods, I made up the entrance, which till now I had left open, and so passed and repassed, as I said, by a short ladder.

When I had done this, I began to work my way into the rock, and bringing all the earth and stones that I dug down out through my tent, I laid them up within my fence in the nature of a terrace, so that it raised the ground within about a foot and a half; and thus I made a cave just behind my tent, which served me like a cellar to my house.

It cost me much labour, and many days, before all these things were brought to perfection, and therefore I must go back to some other things which took up some of my thoughts. At the same time it happened, after I had laid my scheme for the setting up my tent and making the cave, that a storm of rain falling from a thick dark cloud, a sudden flash of lightning happened, and after that, a great clap of thunder, as is naturally the effect of it. I was not so much surprised with the lightning, as I was with a thought which darted into my mind as swift as the lightning itself: O my powder! My very heart sunk within me, when I thought, that at one blast all my powder might be destroyed; on which, not my defence only, but the providing me food, as I thought, entirely depended; I was nothing near so anxious about my own danger, though had the powder took fire, I had never known who had hurt me.

Such impression did this make upon me, that after the storm was over, I laid aside all my works, my building and fortifying, and applied myself to make bags and boxes to separate the powder, and keep it a little and a little in a parcel, in hope that whatever might come, it might not all take fire at once, and to keep it so apart that it should not be possible to make one part fire another. I finished this work in about a fortnight, and I think my powder, which in all was about 240 pounds' weight, was divided in not less than a hundred parcels; as to the barrel that had been wet, I did not apprehend any danger from that, so I placed it in my new cave, which in my fancy I called my kitchen, and the rest I hid up and down in holes among the rocks, so that no wet might come to it, marking very carefully where I laid it.

In the interval of time while this was doing, I went out at least once

every day with my gun, as well to divert myself as to see if I could kill anything fit for food, and as near as I could to acquaint myself with what the island produced. The first time I went out, I presently discovered that there were goats in the island, which was a great satisfaction to me; but then it was attended with this misfortune to me, viz., that they were so shy, so subtile, and so swift of foot that it was the difficultest thing in the world to come at them. But I was not discouraged at this, not doubting but I might now and then shoot one, as it soon happened; for after I had found their haunts a little, I laid wait in this manner for them: I observed, if they saw me in the valleys, though they were upon the rocks, they would run away as in a terrible fright; but if they were feeding in the valleys, and I was upon the rocks, they took no notice of me; from whence I concluded, that by the position of their optics, their sight was so directed downward that they did not readily see objects that were above them; so afterwards I took this method, I always climbed the rocks first, to get above them, and then had frequently a fair mark. The first shot I made among these creatures, I killed a she-goat which had a little kid by her which she gave suck to, which grieved me heartily; but when the old one fell, the kid stood stock still by her till I came and took her up, and not only so, but when I carried the old one with me upon my shoulders, the kid followed me quite to my enclosure, upon which I laid down the dam and took the kid in my arms, and carried it over my pale, in hopes to have bred it up tame, but it would not eat, so I was forced to kill it and eat it myself; these two supplied me with flesh a great while, for I ate sparingly, and saved my provisions (my bread especially) as much as possibly I could.

Having now fixed my habitation, I found it absolutely necessary to provide a place to make a fire in, and fuel to burn; and what I did for that, as also how I enlarged my cave, and what conveniences I made, I shall give a full account of in its place. But I must first give some little account of myself and of my thoughts about living, which it may well be supposed were not a few.

I had a dismal prospect of my condition, for as I was not cast away upon that island without being driven, as is said, by a violent storm quite out of the course of our intended voyage and a great way, viz., some hundreds of leagues out of the ordinary course of the trade of mankind, I had great reason to consider it as a determination of Heaven, that in this desolate place and in this desolate manner I should end my life; the tears would run plentifully down my face when I made these reflections, and sometimes I would expostulate with myself why Provi-

dence should thus completely ruin its creatures and render them so absolutely miserable, so without help abandoned, so entirely depressed, that it could hardly be rational to be thankful for such a life.

But something always returned swift upon me to check these thoughts and to reprove me; and particularly one day, walking with my gun in my hand by the seaside, I was very pensive upon the subject of my present condition, when Reason, as it were, put in, expostulating with me t' other way, thus: "Well, you are in a desolate condition, 'tis true, but pray remember, where are the rest of you? Did not you come eleven of you into the boat? Where are the ten? Why were not they saved, and you lost? Why were you singled out? Is it better to be here or there?" And then I pointed to the sea. All evils are to be considered with the good that is in them, and with what worse attends them.

Then it occurred to me again how well I was furnished for my subsistence, and what would have been my case if it had not happened, which was a hundred thousand to one, that the ship floated from the place where she first struck, and was driven so near to the shore that I had time to get all these things out of her. What would have been my case if I had been to have lived in the condition in which I at first came on shore, without necessaries of life, or necessaries to supply and procure them? "Particularly," said I aloud (though to myself), "what should I have done without a gun, without ammunition, without any tools to make anything or to work with, without clothes, bedding, a tent, or any manner of coverings?" and that now I had all these to a sufficient quantity, and was in a fair way to provide myself in such a manner as to live without my gun when my ammunition was spent; so that I had a tolerable view of subsisting without any want as long as I lived; for I considered from the beginning how I would provide for the accidents that might happen, and for the time that was to come, even not only after my ammunition should be spent, but even after my health or strength should decay.

I confess I had not entertained any notion of my ammunition being destroyed at one blast, I mean my powder being blown up by lightning, and this made the thoughts of it so surprising to me when it lightened and thundered, as I observed just now.

And now being to enter into a melancholy relation of a scene of silent life, such perhaps as was never heard of in the world before, I shall take it from its beginning, and continue it in its order. It was, by my account, the 30th of September when, in the manner as above said, I first set foot upon this horrid island, when the sun, being, to us, in its autumnal equi-

nox, was almost just over my head, for I reckoned myself, by observation, to be in the latitude of 9 degrees 22 minutes north of the line.

After I had been there about ten or twelve days, it came into my thoughts, that I should lose my reckoning of time for want of books, and pen and ink, and should even forget the Sabbath days from the working days; but to prevent this, I cut it with my knife upon a large post, in capital letters, and making it into a great cross, I set it up on the shore where I first landed, viz., "I came on shore here the 30th of September 1659." Upon the sides of this square post I cut every day a notch with my knife, and every seventh notch was as long again as the rest, and every first day of the month as long again as that long one; and thus I kept my calendar, or weekly, monthly, and yearly reckoning of time.

In the next place we are to observe that among the many things which I brought off the ship in the several voyages which, as above mentioned, I made to it, I got several things of less value, but not all less useful to me, which I omitted setting down before; as in particular, pens, ink, and paper, several parcels in the captain's, mate's, gunner's, and carpenter's keeping, three or four compasses, some mathematical instruments, dials, perspectives, charts, and books of navigation, all which I huddled together, whether I might want them or no; also I found three very good Bibles, which came to me in my cargo from England, and which I had packed up among my things; some Portuguese books also, and among them two or three Popish prayer-books, and several other books, all which I carefully secured. And I must not forget that we had in the ship a dog and two cats, of whose eminent history I may have occasion to say something in its place; for I carried both the cats with me; and as for the dog, he jumped out of the ship of himself, and swam on shore to me the day after I went on shore with my first cargo and was a trusty servant to me many years; I wanted nothing that he could fetch me, nor any company that he could make up to me; I only wanted to have him talk to me, but that would not do. As I observed before, I found pen, ink, and paper, and I husbanded them to the utmost; and I shall show that while my ink lasted, I kept things very exact; but after that was gone, I could not, for I could not make any ink by any means that I could devise.

And this put me in mind that I wanted many things, notwithstanding all that I had amassed together; and of these, this of ink was one, as also spade, pickaxe, and shovel, to dig or remove the earth; needles, pins, and thread; as for linen, I soon learned to want that without much difficulty.

This want of tools made every work I did go on heavily, and it was near a whole year before I had entirely finished my little pale, or surrounded habitation. The piles, or stakes, which were as heavy as I could well lift, were a long time in cutting and preparing in the woods, and more by far in bringing home, so that I spent sometimes two days in cutting and bringing home one of those posts and a third day in driving it into the ground; for which purpose I got a heavy piece of wood at first, but at last bethought myself of one of the iron crows, which, however, though I found it, yet it made driving those posts or piles very laborious and tedious work.

But what need I have been concerned at the tediousness of anything I had to do, seeing I had time enough to do it in? Nor had I any other employment if that had been over, at least that I could foresee, except the ranging the island to seek for food, which I did more or less every day.

I now began to consider seriously my condition, and the circumstance I was reduced to; and I drew up the state of my affairs in writing, not so much to leave them to any that were to come after me, for I was like to have but few heirs, as to deliver my thoughts from daily poring upon them, and afflicting my mind; and as my reason began now to master my despondency, I began to comfort myself as well as I could, and to set the good against the evil, that I might have something to distinguish my case from worse; and I stated it very impartially, like debtor and creditor, the comforts I enjoyed, against the miseries I suffered, thus:

Evil	Good
I am cast upon a horrible desolate island, void of all hope of recovery.	But I am alive, and not drowned, as all my ship's company was.
I am singled out and separated, as it were, from all the world to be miserable.	But I am singled out too from all the ship's crew to be spared from death; and He that miraculously saved me from death can deliver me from this condition.
I am divided from mankind, a solitaire, one banished from human society.	But I am not starved and perishing on a barren place, affording no sustenance.
I have no clothes to cover me.	But I am in a hot climate, where if I had clothes, I could hardly wear them.

I am without any defence or means to resist any violence of man or beast.

But I am cast on an island, where I see no wild beasts to hurt me, as I saw on the coast of Africa. And what if I had been shipwrecked there?

I have no soul to speak to, or relieve me.

But God wonderfully sent the ship in near enough to the shore, that I have gotten out so many necessary things as will either supply my wants, or enable me to supply myself even as long as I live.

Upon the whole, here was an undoubted testimony that there was scarce any condition in the world so miserable but there was something negative or something positive to be thankful for in it; and let this stand as a direction from the experience of the most miserable of all conditions in this world, that we may always find in it something to comfort ourselves from, and to set in the description of good and evil, on the credit side of the account.

Having now brought my mind a little to relish my condition and given over looking out to sea, to see if I could spy a ship; I say, giving over these things, I began to apply myself to accommodate my way of living and to make things as easy to me as I could.

I have already described my habitation, which was a tent under the side of a rock, surrounded with a strong pale of posts and cables, but I might now rather call it a wall; for I raised a kind of wall up against it of turfs, about two foot thick on the outside; and after some time (I think it was a year and a half) I raised rafters from it, leaning to the rock, and thatched or covered it with boughs of trees and such things as I could get to keep out the rain, which I found at some times of the year very violent.

I have already observed how I brought all my goods into this pale, and into the cave which I had made behind me. But I must observe, too, that at first this was a confused heap of goods, which as they lay in no order, so they took up all my place; I had no room to turn myself; so I set myself to enlarge my cave and works farther into the earth, for it was a loose sandy rock, which yielded easily to the labour I bestowed on it. And so, when I found I was pretty safe as to beasts of prey, I worked sideways to the right hand into the rock; and then turning to the right again, worked quite out, and made me a door to come out on the outside of my pale or fortification.

This gave me not only egress and regress, as it were a back way to my tent and to my storehouse, but gave me room to stow my goods.

And now I began to apply myself to make such necessary things as I found I most wanted, particularly a chair and a table; for without these I was not able to enjoy the few comforts I had in the world; I could not write or eat, or do several things, with so much pleasure without a table.

So I went to work; and here I must needs observe that as reason is the substance and original of the mathematics, so by stating and squaring everything by reason, and by making the most rational judgment of things, every man may be in time master of every mechanic art. I had never handled a tool in my life, and yet in time, by labour, application, and contrivance, I found at last that I wanted nothing but I could have made it, especially if I had had tools; however, I made abundance of things even without tools, and some with no more tools than an adze and a hatchet, which perhaps were never made that way before, and that with infinite labour. For example, if I wanted a board, I had no other way but to cut down a tree, set it on an edge before me, and hew it flat on either side with my axe, till I had brought it to be thin as a plank, and then dub it smooth with my adze. It is true, by this method I could make but one board out of a whole tree, but this I had no remedy for but patience, any more than I had for the prodigious deal of time and labour which it took me up to make a plank or board. But my time or labour was little worth, and so it was as well employed one way as another.

However, I made me a table and a chair, as I observed above, in the first place, and this I did out of the short pieces of boards that I brought on my raft from the ship. But when I had wrought out some boards, as above, I made large shelves of the breadth of a foot and a half, one over another, all along one side of my cave, to lay all my tools, nails, and ironwork, and in a word, to separate everything at large in their places, that I might easily come at them; I knocked pieces into the wall of the rock to hang my guns and all things that would hang up.

So that had my cave been to be seen, it looked like a general magazine of all necessary things; and I had everything so ready at my hand, that it was a great pleasure to me to see all my goods in such order, and especially to find my stock of all necessaries so great.

And now it was when I began to keep a journal of every day's employment; for, indeed, at first I was in too much hurry, and not only hurry as to labour, but in too much discomposure of mind, and my journal would have been full of many dull things. For example, I must have said thus:

September the 30th. After I got to shore, and had escaped drowning,

instead of being thankful to God for my deliverance, having first vomited with the great quantity of salt water which was gotten into my stomach, and recovering myself a little, I ran about the shore, wringing my hands and beating my head and face, exclaiming at my misery and crying out I was undone, undone, till, tired and faint, I was forced to lie down on the ground to repose, but durst not sleep, for fear of being devoured.

Some days after this, and after I had been on board the ship and got all that I could out of her, yet I could not forbear getting up to the top of a little mountain, and looking out to sea, in hopes of seeing a ship, then fancy at a vast distance I spied a sail, please myself with the hopes of it and then, after looking steadily till I was almost blind, lose it quite, and sit down and weep like a child, and thus increase my misery by my folly.

But having gotten over these things in some measure and having settled my household stuff and habitation, made me a table and a chair, and all as handsome about me as I could, I began to keep my journal, of which I shall here give you the copy (though in it will be told all these particulars over again) as long as it lasted, for, having no more ink, I was forced to leave it off.

[*Crusoe describes his daily activities in his journal.*]

I THROW AWAY THE HUSKS OF CORN

During this time, I made my rounds in the woods for game every day when the rain admitted me, and made frequent discoveries in these walks of something or other to my advantage; particularly I found a kind of wild pigeons, who built not as wood pigeons in a tree, but rather as house pigeons, in the holes of the rocks; and taking some young ones, I endeavoured to breed them up tame, and did so; but when they grew older, they flew all away, which perhaps was at first for want of feeding them, for I had nothing to give them; however, I frequently found their nests, and got their young ones, which were very good meat.

And now in the managing my household affairs, I found myself wanting in many things, which I thought at first it was impossible for me to make, as indeed as to some of them it was; for instance, I could never make a cask to be hooped; I had a small runlet or two, as I observed before, but I could never arrive to the capacity of making one by them, though I spent many weeks about it; I could neither put in the heads, or join the staves so true to one another, as to make them hold water; so I gave that also over.

In the next place, I was at a great loss for candle; so that as soon as ever it was dark, which was generally by seven o'clock, I was obliged to go to bed. I remembered the lump of beeswax with which I made candles in my African adventure; but I had none of that now. The only remedy I had was that, when I had killed a goat, I saved the tallow, and with a little dish made of clay, which I baked in the sun, to which I added a wick of some oakum, I made me a lamp; and this gave me light, though not a clear, steady light like a candle. In the middle of all my labours it happened that, rummaging my things, I found a little bag, which, as I hinted before, had been filled with corn for the feeding of poultry, not for this voyage, but before, as I suppose, when the ship came from Lisbon; what little remained of corn [barley] had been in the bag was all devoured with the rats, and I saw nothing in the bag but husks and dust; and being willing to have the bag for some other use (I think it was to put powder in, when I divided it for fear of the lightning, or some such use), I shook the husks of corn out of it on one side of my fortification under the rock.

It was a little before the great rains, just now mentioned, that I threw this stuff away, taking no notice of anything, and not so much as remembering that I had thrown anything there; when about a month after or thereabouts, I saw some few stalks of something green shooting out of the ground, which I fancied might be some plant I had not seen; but I was surprised and perfectly astonished, when after a little longer time I saw about ten or twelve ears come out, which were perfect green barley of the same kind as our European, nay, as our English barley.

It is impossible to express the astonishment and confusion of my thoughts on this occasion; I had hitherto acted upon no religious foundation at all; indeed I had very few notions of religion in my head, nor had entertained any sense of anything that had befallen me, otherwise than as a chance, or, as we lightly say, what pleases God; without so much as inquiring into the end of Providence in these things, or His order in governing events in the world. But after I saw barley grow there, in a climate which I know was not proper for corn, and especially that I knew not how it came there, it startled me strangely, and I began to suggest that God had miraculously caused this grain to grow without any help of seed sown, and that it was so directed purely for my sustenance on that wild miserable place.

This touched my heart a little and brought tears out of my eyes, and I began to bless myself, that such a prodigy of Nature should happen upon my account; and this was the more strange to me because I saw near

it still, all along by the side of the rock, some other straggling stalks, which proved to be stalks of rice, and which I knew, because I had seen it grow in Africa when I was ashore there.

I not only thought these the pure productions of Providence for my support, but not doubting but that there was more in the place, I went all over that part of the island where I had been before, peering in every corner and under every rock, to see for more of it, but I could not find any; at last it occurred to my thoughts that I had shook a bag of chickens' meat out in that place, and then the wonder began to cease; and I must confess, my religious thankfulness to God's Providence began to abate too upon the discovering that all this was nothing but what was common; though I ought to have been as thankful for so strange and unforeseen Providence, as if it had been miraculous; for it was really the work of Providence as to me, that should order or appoint, that ten or twelve grains of corn should remain unspoiled (when the rats had destroyed all the rest), as if it had been dropped from Heaven; as also that I should throw it out in that particular place where, it being in the shade of a high rock, it sprang up immediately; whereas, if I had thrown it anywhere else at that time, it had been burnt up and destroyed.

I carefully saved the ears of this corn, you may be sure, in their season, which was about the end of June; and laying up every corn, I resolved to sow them all again, hoping in time to have some quantity sufficient to supply me with bread; but it was not till the fourth year that I could allow myself the least grain of this corn to eat, and even then but sparingly, as I shall say afterwards in its order; for I lost all that I sowed the first season by not observing the proper time; for I sowed it just before the dry season, so that it never came up at all, at least not as it would have done. Of which in its place.

Besides this barley, there was, as above, twenty or thirty stalks of rice, which I preserved with the same care, and whose use was of the same kind, or to the same purpose, viz., to make me bread, or rather food; for I found ways to cook it up without baking, though I did that also after some time.

[*Crusoe continues his journal. He sows his grain.*]

I TRAVEL QUITE ACROSS THE ISLAND

I mentioned before that I had a great mind to see the whole island, and that I had travelled up the brook, and so on to where I built my bower, and where I had an opening quite to the sea on the other side

of the island; I now resolved to travel quite across to the sea-shore on that side; so taking my gun, a hatchet, and my dog, and a larger quantity of powder and shot than usual, with two biscuit cakes and a great bunch of raisins in my pouch for my store, I began my journey. When I had passed the vale where my bower stood, as above, I came within view of the sea to the west, and it being a very clear day, I fairly descried land, whether an island or a continent I could not tell; but it lay very high, extending from the west to the west-southwest at a very great distance; by my guess it could not be less than fifteen or twenty leagues off.

I could not tell what part of the world this might be, otherwise than that I knew it must be part of America; and, as I concluded by all my observations, must be near the Spanish dominions, and perhaps was all inhabited by savages, where if I should have landed, I had been in a worse condition than I was now; and therefore I acquiesced in the dispositions of Providence, which, I began now to own, and to believe, ordered everything for the best; I say, I quieted my mind with this, and left afflicting myself with fruitless wishes of being there.

Besides, after some pause upon this affair, I considered that if this land was the Spanish coast, I should certainly, one time or other, see some vessel pass or repass one way or other; but if not, then it was the savage coast between the Spanish country and Brazil, which are indeed the worst of savages; for they are cannibals, or men-eaters, and fail not to murder and devour all the human bodies that fall into their hands.

With these considerations I walked very leisurely forward. I found that side of the island, where I now was, much pleasanter than mine, the open or savanna fields sweet, adorned with flowers and grass, and full of very fine woods. I saw abundance of parrots, and fain I would have caught one, if possible, to have kept it to be tame and taught it to speak to me. I did, after some painstaking, catch a young parrot, for I knocked it down with a stick, and having recovered it, I brought it home; but it was some years before I could make him speak. However, at last I taught him to call me by my name very familiarly. But the accident that followed, though it be a trifle, will be very diverting in its place.

I was exceedingly diverted with this journey. I found in the low grounds hares, as I thought them to be, and foxes, but they differed greatly from all the other kinds I had met with; nor could I satisfy myself to eat them, though I killed several. But I had no need to be venturous; for I

had no want of food, and of that which was very good too; especially these three sorts, viz., goats, pigeons, and turtle or tortoise; which, added to my grapes, Leadenhall Market could not have furnished a table better than I, in proportion to the company; and though my case was deplorable enough, yet I had great cause for thankfulness, that I was not driven to any extremities for food; but rather plenty, even to dainties.

I never travelled in this journey above two miles outright in a day, or thereabouts; but I took so many turns and returns, to see what discoveries I could make, that I came weary enough to the place where I resolved to sit down for all night; and then I either reposed myself in a tree, or surrounded myself with a row of stakes set upright in the ground, either from one tree to another, or so as no wild creature could come at me without waking me.

As soon as I came to the sea-shore, I was surprised to see that I had taken up my lot on the worst side of the island; for here indeed the shore was covered with innumerable turtles, whereas on the other side I had found but three in a year and a half. Here was also an infinite number of fowls of many kinds, some which I had seen, and some of which I had not seen before, and many of them very good meat; but such as I knew not the names of, except those called penguins.

I could have shot as many as I pleased, but was very sparing of my powder and shot; and therefore had more mind to kill a she-goat, if I could, which I could better feed on; and though there were many goats here more than on my side the island, yet it was with much more difficulty that I could come near them, the country being flat and even, and they saw me much sooner than when I was on the hill.

I confess this side of the country was much pleasanter than mine, but yet I had not the least inclination to remove; for as I was fixed in my habitation, it became natural to me, and I seemed all the while I was here to be, as it were, upon a journey, and from home. However, I travelled along the shore of the sea, towards the east, I suppose about twelve miles; and then setting up a great pole upon the shore for a mark, I concluded I would go home again; and that the next journey I took should be on the other side of the island, east from my dwelling, and so round till I came to my post again. Of which in its place.

I took another way to come back than that I went, thinking I could easily keep all the island so much in my view that I could not miss finding my first dwelling by viewing the country; but I found myself mistaken; for being come about two or three miles, I found myself descended

into a very large valley, but so surrounded with hills, and those hills covered with wood, that I could not see which was my way by any direction but that of the sun, nor even then, unless I knew very well the position of the sun at that time of the day.

It happened, to my further misfortune, that the weather proved hazy for three or four days while I was in this valley; and not being able to see the sun, I wandered about very uncomfortably, and at last was obliged to find out the seaside, look for my post, and come back the same way I went; and then by easy journeys I turned homeward, the weather being exceeding hot, and my gun, ammunition, hatchet, and other things very heavy.

In this journey my dog surprised a young kid, and seized upon it, and I, running in to take hold of it, caught it, and saved it alive from the dog. I had a great mind to bring it home if I could; for I had often been musing, whether it might not be possible to get a kid or two and so raise a breed of tame goats, which might supply me when my powder and shot should be all spent.

I made a collar to this little creature, and with a string which I made of some rope-yarn which I always carried about me, I led him along, though with some difficulty, till I came to my bower, and there I enclosed him and left him; for I was very impatient to be at home, from whence I had been absent above a month.

I cannot express what a satisfaction it was to me to come into my old hutch and lie down in my hammock-bed. This little wandering journey, without settled place of abode, had been so unpleasant to me that my own house, as I called it to myself, was a perfect settlement to me compared to that; and it rendered everything about me so comfortable that I resolved I would never go a great way from it again while it should be my lot to stay on the island.

I reposed myself here a week, to rest and regale myself after my long journey; during which most of the time was taken up in the weighty affair of making a cage for my Poll, who began now to be a mere domestic and to be mighty well acquainted with me. Then I began to think of the poor kid, which I had penned in within my little circle, and resolved to go and fetch it home, or give it some food; accordingly I went, and found it where I left it; for indeed it could not get out, but was almost starved for want of food. I went and cut boughs of trees, and branches of such shrubs as I could find, and threw it over, and having fed it, I tied it as I did before to lead it away; but it was so tame with being hungry that I had no need to have tied it, for it followed me like a dog;

and as I continually fed it, the creature became so loving, so gentle, and so fond, that it became from that time one of my domestics also, and would never leave me afterwards.

The rainy season of the autumnal equinox was now come, and I kept the 30th of September in the same solemn manner as before, being the anniversary of my landing on the island, having now been there two years, and no more prospect of being delivered than the first day I came there. I spent the whole day in humble and thankful acknowledgements of the many wonderful mercies which my solitary condition was attended with, and without which it might have been infinitely more miserable. I gave humble and hearty thanks that God had been pleased to discover to me, even that it was possible I might be more happy in this solitary condition than I should have been in a liberty of society and in all the pleasures of the world. That He could fully make up to me the deficiencies of my solitary state and the want of human society by His presence, and the communications of His grace to my soul, supporting, comforting, and encouraging me to depend upon His Providence here, and hope for His eternal presence hereafter.

It was now that I began sensibly to feel how much more happy this life I now led was, with all its miserable circumstances, than the wicked, cursed, abominable life I led all the past part of my days; and now I changed both my sorrows and my joys; my very desires altered, my affections changed their gusts, and my delights were perfectly new, from what they were at my first coming, or indeed for the two years past.

Before, as I walked about, either on my hunting or for viewing the country, the anguish of my soul at my condition would break out upon me on a sudden, and my very heart would die within me to think of the woods, the mountains, the deserts I was in; and how I was a prisoner locked up with the eternal bars and bolts of the ocean, in an uninhabited wilderness, without redemption. In the midst of the greatest composures of my mind, this would break out upon me like a storm and make me wring my hands and weep like a child. Sometimes it would take me in the middle of my work, and I would immediately sit down and sigh, and look upon the ground for an hour or two together; and this was still worse to me; for if I could burst out into tears or vent myself by words, it would go off, and the grief having exhausted itself would abate.

But now I began to exercise myself with new thoughts; I daily read the Word of God and applied all the comforts of it to my present state. One morning, being very sad, I opened the Bible upon these words, "I will never, never leave thee, nor forsake thee"; immediately it occurred

that these words were to me; why else should they be directed in such a manner, just at the moment when I was mourning over my condition, as one forsaken of God and man? "Well then," said I, "if God does not forsake me, of what ill consequence can it be, or what matters it, though the world should all forsake me; seeing on the other hand, if I had all the world and should lose the favour and blessing of God, there would be no comparison in the loss?"

From this moment I began to conclude in my mind that it was possible for me to be more happy in this forsaken, solitary condition that it was probable I should ever have been in any other particular state in the world; and with this thought I was going to give thanks to God for bringing me to this place.

I know not what it was, but something shocked my mind at that thought, and I durst not speak the words. "How canst thou be such a hypocrite," said I, even audibly, "to pretend to be thankful for a condition which however thou may'st endeavour to be contented with, thou wouldst rather pray heartily to be delivered from?" So I stopped there. But though I could not say I thanked God for being there, yet I sincerely gave thanks to God for opening my eyes, by whatever afflicting providences, to see the former condition of my life, and to mourn for my wickedness, and repent. I never opened the Bible or shut it but my very soul within me blessed God for directing my friend in England, without any order of mine, to pack it up among my goods; and for assisting me afterwards to save it out of the wreck of the ship.

I AM VERY SELDOM IDLE

Thus, and in this disposition of mind, I began my third year; and though I have not given the reader the trouble of so particular an account of my works this year as the first, yet in general it may be observed that I was very seldom idle; but having regularly divided my time, according to the several daily employments that were before me, such as, first, my duty to God, and the reading the Scriptures, which I constantly set apart some time for thrice every day; secondly, the going abroad with my gun for food, which generally took me up three hours in every morning, when it did not rain; thirdly, the ordering, curing, preserving and cooking what I had killed or caught for my supply; these took up great part of the day; also it is to be considered that the middle of the day, when the sun was in the zenith, the violence of the heat was too great to stir out; so that about four hours in the evening was all the time

I could be supposed to work in; with this exception, that sometimes I changed my hours of hunting and working, and went to work in the morning and abroad with my gun in the afternoon.

To this short time allowed for labour, I desire may be added the exceeding laboriousness of my work, the many hours which for want of tools, want of help, and want of skill, everything I did took up out of my time. For example, I was full two-and-forty days making me a board for a long shelf, which I wanted in my cave; whereas two sawyers with their tools and a saw-pit would have cut six of them out of the same tree in half a day.

My case was this: it was to be a large tree which was to be cut down, because my board was to be a broad one. This tree I was three days a-cutting down, and two more cutting off the boughs, and reducing it to a log, or piece of timber. With inexpressible hacking and hewing, I reduced both the sides of it into chips, till it began to be light enough to move; then I turned it and made one side of it smooth and flat as a board from end to end; then turning that side downward, cut the other side, till I brought the plank to be about three inches thick, and smooth on both sides. Anyone may judge the labour of my hands in such a piece of work; but labour and patience carried me through that and many other things. I only observe this in particular, to show the reason why so much of my time went away with so little work, viz., that what might be a little to be done with help and tools was a vast labour and required a prodigious time to do alone and by hand.

But notwithstanding this, with patience and labour I went through many things; and indeed everything that my circumstances made necessary to me to do, as will appear by what follows.

I was now, in the months of November and December, expecting my crop of barley and rice. The ground I had manured or dug up for them was not great; for as I observed, my seed of each was not above the quantity of half a peck; for I had lost one whole crop by sowing in the dry season; but now my crop promised very well, when on a sudden I found I was in danger of losing it all again by enemies of several sorts, which it was scarce possible to keep from it; at first, the goats, and wild creatures which I called hares, who, tasting the sweetness of the blade, lay in it night and day, as soon as it came up, and eat it so close that it could get no time to shoot up into stalk.

This I saw no remedy for, but by making an enclosure about it with a hedge, which I did with a great deal of toil; and the more, because it required speed. However, as my arable land was but small, suited to my

crop, I got it totally well fenced in about three weeks' time; and shooting some of the creatures in the daytime, I set my dog to guard it in the night, tying him up to a stake at the gate, where he would stand and bark all night long; so in a little time the enemies forsook the place, and the corn grew very strong and well, and began to ripen apace.

But as the beasts ruined me before, while my corn was in the blade, so the birds were as likely to ruin me now, when it was in the ear; for going along by the place to see how it throve, I saw my little crop surrounded with fowls of I know not how many sorts, who stood, as it were, watching till I should be gone. I immediately let fly among them (for I always had my gun with me). I had no sooner shot, but there rose up a little cloud of fowls, which I had not seen at all, from among the corn itself.

This touched me sensibly, for I foresaw that in a few days they would devour all my hopes, that I should be starved, and never be able to raise a crop at all, and what to do I could not tell. However, I resolved not to lose my corn, if possible, though I should watch it night and day. In the first place, I went among it to see what damage was already done, and found they had spoiled a good deal of it, but that as it was yet too green for them, the loss was not so great, but that the remainder was like to be a good crop if it could be saved.

I stayed by it to load my gun, and then coming away I could easily see the thieves sitting upon all the trees about me, as if they only waited till I was gone away, and the event proved it to be so; for as I walked off as if I was gone, I was no sooner out of their sight but they dropped down one by one into the corn again. I was so provoked that I could not have patience to stay till more came on, knowing that every grain that they ate now was, as it might be said, a peck-loaf to me in the consequence; but coming up to the hedge, I fired again, and killed three of them. This was what I wished for; so I took them up and served them as we serve notorious thieves in England, viz., hanged them in chains for a terror to others; it is impossible to imagine, almost, that this should have such an effect as it had; for the fowls would not only not come at the corn, but in short, they forsook all that part of the island, and I could never see a bird near the place as long as my scarecrows hung there.

This I was very glad of, you may be sure, and about the latter end of December, which was our second harvest of the year, I reaped my crop.

I was sadly put to it for a scythe or a sickle to cut it down, and all I could do was to make one as well as I could out of one of the broadswords, or cutlasses, which I saved among the arms out of the ship. However, as

my first crop was but small, I had no great difficulty to cut it down; in short, I reaped it my way, for I cut nothing off but the ears, and carried it away in a great basket which I had made, and so rubbed it out with my hands; and at the end of all my harvesting, I found that out of my half peck of seed I had near two bushels of rice and above two bushels and a half of barley, that is to say, by my guess, for I had no measure at that time.

However, this was a great encouragement to me, and I foresaw that in time it would please God to supply me with bread. And yet here I was perplexed again, for I neither knew how to grind or make meal of my corn, or indeed how to clean it and part it; nor if made into meal, how to make bread of it; and if how to make it, yet I knew not how to bake it. These things being added to my desire of having a good quantity for store, and to secure a constant supply, I resolved not to taste any of this crop, but to preserve it all for seed against the next season, and in the meantime to employ all my study and hours of working to accomplish this great work of providing myself with corn and bread.

It might be truly said that now I worked for my bread. 'Tis a little wonderful, and what I believe few people have thought much upon, viz., the strange multitude of little things necessary in the providing, producing, curing, dressing, making, and finishing this one article of bread.

I, that was reduced to a mere state of nature, found this to my daily discouragement, and was made more and more sensible of it every hour, even after I had got the first handful of seed corn, which, as I have said, came up unexpectedly and indeed to a surprise.

First, I had no plough to turn up the earth, no spade or shovel to dig it. Well, this I conquered by making a wooden spade, as I observed before; but this did my work in but a wooden manner; and though it cost me a great many days to make it, yet for want of iron it not only wore out the sooner, but made my work the harder, and made it be performed much worse.

However, this I bore with, and was content to work it out with patience and bear with the badness of the performance. When the corn was sowed, I had no harrow but was forced to go over it myself and drag a great heavy bough of a tree over it, to scratch it, as it may be called, rather than rake or harrow it.

When it was growing and grown, I have observed already how many things I wanted, to fence it, secure it, mow or reap it, cure and carry it home, thrash, part it from the chaff, and save it. Then I wanted a mill to grind it, sieves to dress it, yeast and salt to make it into bread, and an

oven to bake it; and yet all these things I did without, as shall be observed; and yet the corn was an inestimable comfort and advantage to me too. All this, as I said, made everything laborious and tedious to me, but that there was no help for; neither was my time so much loss to me, because, as I had divided it, a certain part of it was every day appointed to these works; and as I resolved to use none of the corn for bread till I had a greater quantity by me, I had the next six months to apply myself wholly by labour and invention to furnish myself with utensils proper for the performing all the operations necessary for the making the corn (when I had it) fit for my use.

But first I was to prepare more land, for I had now seed enough to sow above an acre of ground. Before I did this, I had a week's work at least to make me a spade, which when it was done was but a sorry one indeed, and very heavy, and required double labour to work with it; however, I went through that, and sowed my seed in two large flat pieces of ground, as near my house as I could find them to my mind, and fenced them in with a good hedge, the stakes of which were all cut of that wood which I had set before, and knew it would grow; so that in one year's time I knew I should have a quick or living hedge that would want but little repair. This work was not so little as to take me up less than three months, because great part of that time was of the wet season, when I could not go abroad.

Within doors, that is, when it rained, and I could not go out, I found employment on the following occasions; always observing, that all the while I was at work I diverted myself with talking to my parrot and teaching him to speak, and I quickly learned [taught] him to know his own name and at last to speak it out pretty loud, "Poll," which was the first word I ever heard spoken in the island by any mouth but my own. This therefore was not my work, but an assistant to my work, for now, as I said, I had a great employment upon my hands, as follows, viz., I had long studied, by some means or other, to make myself some earthen vessels, which indeed I wanted sorely, but knew not where to come at them. However, considering the heat of the climate, I did not doubt but if I could find out any such clay, I might botch up some such pot, as might, being dried in the sun, be hard enough and strong enough to bear handling, and to hold anything that was dry, and required to be kept so; and as this was necessary in the preparing corn, meal, etc., which was the thing I was upon, I resolved to make some as large as I could, and fit only to stand like jars to hold what should be put into them.

It would make the reader pity me, or rather laugh at me, to tell how

many awkward ways I took to raise this paste; what odd, misshapen, ugly things I made; how many of them fell in, and how many fell out, the clay not being stiff enough to bear its own weight; how many cracked by the overviolent heat of the sun, being set out too hastily; and how many fell in pieces with only removing, as well before as after they were dried; and in a word, how after having laboured hard to find the clay, to dig it, to temper it, to bring it home and work it, I could not make above two large earthen ugly things, I cannot call them jars, in about two months' labour.

However, as the sun baked these two very dry and hard, I lifted them very gently up, and set them down again in two great wicker baskets, which I had made on purpose for them, that they might not break; and as between the pot and the basket there was a little room to spare, I stuffed it full of the rice and barley straw, and these two pots being to stand always dry, I thought would hold my dry corn, and perhaps the meal when the corn was bruised.

Though I miscarried so much in my design for large pots, yet I made several smaller things with better success; such as little round pots, flat dishes, pitchers, and pipkins, and anything my hand turned to, and the heat of the sun baked them strangely hard.

But all this would not answer my end, which was to get an earthen pot to hold what was liquid, and bear the fire, which none of these could do. It happened after some time, making a pretty large fire for cooking my meat, when I went to put it out after I had done with it, I found a broken piece of one of my earthenware vessels in the fire, burnt as hard as a stone, and red as a tile. I was agreeably surprised to see it, and said to myself that certainly they might be made to burn whole, if they would burn broken.

This set me to studying how to order my fire, so as to make it burn me some pots. I had no notion of a kiln such as the potters burn in, or of glazing them with lead, though I had some lead to do it with; but I placed three large pipkins and two or three pots in a pile one upon another and placed my firewood all round it with a great heap of embers under them; I plied the fire with fresh fuel round the outside and upon the top, till I saw the pots in the inside red hot quite through, and observed that they did not crack at all; when I saw them clear red, I let them stand in that heat about five or six hours, till I found one of them, though it did not crack, did melt or run, for the sand which was mixed with the clay melted by the violence of the heat, and would have run into glass if I had gone on; so I slacked my fire gradually,

till the pots began to abate of the red colour, and watching them all night, that I might not let the fire abate too fast, in the morning I had three very good, I will not say handsome, pipkins, and two other earthen pots, as hard burnt as could be desired; and one of them perfectly glazed with the running of the sand.

After this experiment, I need not say that I wanted no sort of earthenware for my use; but I must needs say, as to the shapes of them, they were very indifferent, as anyone may suppose, when I had no way of making them, but as the children make dirt pies, or as a woman would make pies that never learned to raise paste.

No joy at a thing of so mean a nature was ever equal to mine, when I found I had made an earthen pot that would bear the fire; and I had hardly patience to stay till they were cold, before I set one upon the fire again, with some water in it, to boil me some meat, which it did admirably well; and with a piece of a kid I made some very good broth, though I wanted oatmeal, and several other ingredients requisite to make it so good as I would have had it been.

My next concern was to get me a stone mortar to stamp or beat some corn in; for as to the mill, there was no thought at arriving to that perfection of art with one pair of hands. To supply this want I was at a great loss; for of all trades in the world I was as perfectly unqualified for a stone-cutter as for any whatever; neither had I any tools to go about it with. I spent many a day to find out a great stone big enough to cut hollow and make fit for a mortar, and could find none at all, except what was in the solid rock, and which I had no way to dig or cut out; nor indeed were the rocks in the island of hardness sufficient, but were all of a sandy crumbling stone, which would neither bear the weight of a heavy pestle or would break the corn without filling it with sand; so after a great deal of time lost in searching for a stone, I gave it over, and resolved to look out for a great block of hard wood, which I found indeed much easier; and getting one as big as I had strength to stir, I rounded it, and formed it in the outside with my axe and hatchet, and then with the help of fire, and infinite labour, made a hollow place in it, as the Indians in Brazil make their canoes. After this, I made a great heavy pestle or beater, of the wood called the iron-wood, and this I prepared and laid by against I had my next crop of corn, when I proposed to myself to grind, or rather pound, my corn into meal, to make my bread.

My next difficulty was to make a sieve, or searce, to dress my meal and to part it from the bran and the husk, without which I did not see it possible I could have any bread. This was a most difficult thing, so

much as but to think on; for to be sure I had nothing like the necessary thing to make it; I mean fine thin canvas or stuff, to searce the meal through. And here I was at a full stop for many months; nor did I really know what to do; linen I had none left, but what was mere rags; I had goats' hair, but neither knew I how to weave it or spin it; and had I known how, here was no tools to work it with; all the remedy that I found for this was, that at last I did remember I had among the seamen's clothes which were saved out of the ship, some neckcloths of calico or muslin; and with some pieces of these, I made three small sieves, but proper enough for the work; and thus I made shift for some years. How I did afterwards, I shall show in its place.

The baking part was the next thing to be considered and how I should make bread when I came to have corn; for, first, I had no yeast; as to that part, as there was no supplying the want, so I did not concern myself much about it; but for an oven I was indeed in great pain. At length I found out an experiment for that also, which was this: I made some earthen vessels very broad, but not deep; that is to say, about two foot diameter, and not above nine inches deep; these I burned in the fire, as I had done the other, and laid them by; and when I wanted to bake, I made a great fire upon my hearth, which I had paved with some square tiles of my own making and burning also; but I should not call them square.

When the firewood was burned pretty much into embers, or live coals, I drew them forward upon this hearth, so as to cover it all over, and there I let them lie, till the hearth was very hot; then sweeping away all the embers, I set down my loaf, or loaves, and whelming down the earthen pot upon them, drew the embers all round the outside of the pot, to keep in, and add to the heat; and thus, as well as in the best oven in the world, I baked my barley loaves, and became in little time a mere pastry-cook into the bargain; for I made myself several cakes of the rice and puddings; indeed I made no pies, neither had I anything to put into them, supposing I had, except the flesh either of fowls or goats.

It need not be wondered at, if all these things took me up most part of the third year of my abode here; for it is to be observed that in the intervals of these things I had my new harvest and husbandry to manage; for I reaped my corn in its season and carried it home as well as I could, and laid it up in the ear, in my large baskets, till I had time to rub it out; for I had no floor to thrash it on, or instrument to thrash it with.

And now indeed my stock of corn increasing, I really wanted to build my barns bigger. I wanted a place to lay it up in; for the increase of the

corn now yielded me so much that I had of the barley about twenty bushels, and of the rice as much or more; insomuch that now I resolved to begin to use it freely, for my bread had been quite gone a great while; also I resolved to see what quantity would be sufficient for me a whole year, and to sow but once a year.

Upon the whole, I found that the forty bushels of barley and rice was much more than I could consume in a year; so I resolved to sow just the same quantity every year that I sowed the last, in hopes that such a quantity would fully provide me with bread, etc.

All the while these things were doing, you may be sure my thoughts ran many times upon the prospect of land which I had seen from the other side of the island, and I was not without secret wishes that I were on shore there, fancying that seeing the mainland, and an inhabited country, I might find some way or other to convey myself farther, and perhaps at last find some means of escape.

But all this while I made no allowance for the dangers of such a condition, and how I might fall into the hands of savages, and perhaps such as I might have reason to think far worse than the lions and tigers of Africa. That if I once came into their power, I should run a hazard more than a thousand to one of being killed and perhaps of being eaten; for I had heard that the people of the Caribbean coasts were cannibals, or man-eaters, and I knew by the latitude that I could not be far off from that shore. That suppose they were not cannibals, yet that they might kill me, as many Europeans who had fallen into their hands had been served, even when they had been ten or twenty together; much more I, that was but one, and could make little or no defence. All these things, I say, which I ought to have considered well of, and did cast up in my thoughts afterwards, yet took up none of my apprehensions at first; but my head ran mightily upon the thought of getting over to the shore.

Now I wished for my boy Xury, and the longboat with the shoulder-of-mutton sail with which I sailed above a thousand miles on the coast of Africa; but this was in vain. Then I thought I would go and look at our ship's boat, which, as I have said, was blown up upon the shore a great way in the storm, when we were first cast away. She lay almost where she did at first, but not quite; and was turned by the force of the waves and the winds, almost bottom upward against a high ridge of beachy rough sand; but no water about her as before.

If I had had hands to have refitted her and to have launched her into the water, the boat would have done well enough, and I might have

gone back into Brazil with her easily enough; but I might have foreseen that I could no more turn her and set her upright upon her bottom than I could remove the island. However, I went to the woods and cut levers and rollers, and brought them to the boat, resolved to try what I could do; suggesting to myself that if I could but turn her down, I might easily repair the damage she had received, and she would be a very good boat, and I might go to sea in her very easily.

I spared no pains, indeed, in this piece of fruitless toil, and spent, I think, three or four weeks about it; at last finding it impossible to heave it up with my little strength, I fell to digging away the sand to undermine it, and so to make it fall down, setting pieces of wood to thrust and guide it right in the fall.

But when I had done this, I was unable to stir it up again, or to get under it, much less to move it forward towards the water; so I was forced to give it over; and yet, though I gave over the hopes of the boat, my desire to venture over for the main increased, rather than decreased, as the means for it seemed impossible.

I MAKE MYSELF A CANOE

This at length put me upon thinking whether it was not possible to make myself a canoe or piragua, such as the natives of those climates make, even without tools, or, as I might say, without hands, viz., of the trunk of a great tree. This I not only thought possible, but easy, and pleased myself extremely with the thoughts of making it, and with my having much more convenience for it than any of the Negroes or Indians; but not at all considering the particular inconveniences which I lay under, more than the Indians did, viz., want of hands to move it, when it was made, into the water, a difficulty much harder for me to surmount than all the consequences of want of tools could be to them; for what was it to me, that when I had chosen a vast tree in the woods, I might with great trouble cut it down, if after I might be able with my tools to hew and dub the outside into the proper shape of a boat, and burn or cut out the inside to make it hollow, so to make a boat of it–if after all this, I must leave it just there where I found it, and was not able to launch it into the water?

One would have thought I could not have had the least reflection upon my mind of my circumstance, while I was making this boat; but I should have immediately thought how I should get it into the sea; but my thoughts were so intent upon my voyage over the sea in it that I never once con-

sidered how I should get it off of the land; and was really in its own nature more easy for me to guide it over forty-five miles of sea, than about forty-five fathom of land, where it lay, to set it afloat in the water.

I went to work upon this boat the most like a fool that ever man did, who had any of his senses awake. I pleased myself with the design, without determining whether I was ever able to undertake it; not but that the difficulty of launching my boat came often into my head; but I put a stop to my own inquiries into it, by this foolish answer which I gave myself, "Let's first make it; I'll warrant I'll find some way or other to get it along, when 'tis done."

This was a most preposterous method; but the eagerness of my fancy prevailed, and to work I went. I felled a cedar tree. I question much whether Solomon ever had such a one for the building of the Temple at Jerusalem. It was five foot ten inches diameter at the lower part next the stump, and four foot eleven inches diameter at the end of twenty-two foot, after which it lessened for a while, and then parted into branches. It was not without infinite labour that I felled this tree. I was twenty days hacking and hewing at it at the bottom; I was fourteen more getting the branches and limbs, and the vast spreading head of it cut off, which I hacked and hewed through with axe and hatchet, and inexpressible labour. After this, it cost me a month to shape it and dub it to a proportion, and to something like the bottom of a boat, that it might swim upright as it ought to do. It cost me near three months more to clear the inside, and work it out so as to make an exact boat of it. This I did indeed without fire, by mere mallet and chisel, and by the dint of hard labour, till I had brought it to be a very handsome piragua and big enough to have carried six and twenty men, and consequently big enough to have carried me and all my cargo.

When I had gone through this work, I was extremely delighted with it. The boat was really much bigger than I ever saw a canoe, or piragua, that was made of one tree, in my life. Many a weary stroke it had cost, you may be sure; and there remained nothing but to get it into the water; and had I gotten it into the water, I make no question but I should have begun the maddest voyage and the most unlikely to be performed that ever was undertaken.

But all my devices to get it into the water failed me; though they cost me infinite labour too. It lay about one hundred yards from the water, and not more. But the first inconvenience was, it was uphill towards the creek. Well, to take away this discouragement, I resolved to dig into the surface of the earth, and so make a declivity. This I began,

and it cost me a prodigious deal of pains; but who grudges pains, that have their deliverance in view? But when this was worked through, and this difficulty managed, it was still much at one; for I could no more stir the canoe than I could the other boat.

Then I measured the distance of ground, and resolved to cut a dock, or canal, to bring the water up to the canoe, seeing I could not bring the canoe down to the water. Well, I began this work, and when I began to enter into it and calculate how deep it was to be dug, how broad, how the stuff to be thrown out, I found that by the number of hands I had, being none but my own, it must have been ten or twelve years before I should have gone through with it; but the shore lay high, so that at the upper end it must have been at least twenty foot deep; so at length, though with great reluctancy, I gave this attempt over also.

This grieved me heartily, and now I saw, though too late, the folly of beginning a work before we count the cost, and before we judge rightly of our own strength to go through with it.

In the middle of this work I finished my fourth year in this place, and kept my anniversary with the same devotion and with as much comfort as ever before; for by a constant study and serious application of the Word of God, and by the assistance of His grace, I gained a different knowledge from what I had before. I entertained different notions of things. I looked now upon the world as a thing remote, which I had nothing to do with, no expectation from, and, indeed, no desires about. In a word, I had nothing indeed to do with it, nor was ever like to have; so I thought it looked as we may perhaps look upon it hereafter, viz., as a place I had lived in but was come out of it; and well might I say, as Father Abraham to Dives, "Between me and thee is a great gulf fixed."

In the first place, I was removed from all the wickedness of the world here. I had neither the lust of the flesh, the lust of the eye, or the pride of life. I had nothing to covet; for I had all that I was now capable of enjoying. I was lord of the whole manor; or if I pleased, I might call myself king, or emperor over the whole country which I had possession of. There were no rivals. I had no competitor, none to dispute sovereignty or command with me. I might have raised shiploadings of corn; but I had no use for it; so I let as little grow as I thought enough for my occasion. I had tortoise or turtles enough; but now and then one was as much as I could put to any use. I had timber enough to have built a fleet of ships. I had grapes enough to have made wine, or to have cured into raisins, to have loaded that fleet, when they had been built.

But all I could make use of was all that was valuable. I had enough to

eat, and to supply my wants, and what was all the rest to me? If I killed more flesh than I could eat, the dog must eat it, or the vermin. If I sowed more corn than I could eat, it must be spoiled. The trees that I cut down were lying to rot on the ground. I could make no more use of them than for fuel; and that I had no occasion for but to dress my food.

In a word, the nature and experience of things dictated to me upon just reflection that all the good things of this world are no farther good to us than they are for our use; and that whatever we may heap up indeed to give others, we enjoy just as much as we can use, and no more. The most covetous griping miser in the world would have been cured of the vice of covetousness, if he had been in my case; for I possessed infinitely more than I knew what to do with. I had no room for desire, except it was of things which I had not, and they were but trifles, though indeed of great use to me. I had, as I hinted before, a parcel of money, as well gold as silver, about thirty-six pounds sterling. Alas! There the nasty, sorry, useless stuff lay; I had no manner of business for it; and I often thought with myself that I would have given a handful of it for a gross of tobacco pipes or for a hand mill to grind my corn; nay, I would have given it all for sixpennyworth of turnip and carrot seed out of England, or for a handful of peas and beans and a bottle of ink. As it was, I had not the least advantage by it or benefit from it; but there it lay in a drawer and grew mouldy with the damp of the cave in the wet season; and if I had had the drawer full of diamonds, it had been the same case; and they had been of no manner of value to me because of no use.

I had now brought my state of life to be much easier in itself than it was at first and much easier to my mind, as well as to my body. I frequently sat down to my meat with thankfulness, and admired the hand of God's providence, which had thus spread my table in the wilderness. I learned to look more upon the bright side of my condition and less upon the dark side; and to consider what I enjoyed rather than what I wanted; and this gave me sometimes such secret comforts that I cannot express them; and which I take notice of here, to put those discontented people in mind of it who cannot enjoy comfortably what God has given them because they see and covet something that He has not given them. All our discontents about what we want appeared to me to spring from the want of thankfulness for what we have.

Another reflection was of great use to me, and doubtless would be so to anyone that should fall into such distress as mine was; and this was to compare my present condition with what I at first expected it should be; nay, with what it would certainly have been, if the good providence of

God had not wonderfully ordered the ship to be cast up nearer to the shore, where I not only could come at her but could bring what I got out of her to the shore for my relief and comfort; without which, I had wanted for tools to work, weapons for defence, or gunpowder and shot for getting my food.

I spent whole hours, I may say whole days, in representing to myself, in the most lively colours, how I must have acted if I had got nothing out of the ship; how I could not have so much as got any food, except fish and turtles; and that as it was long before I found any of them, I must have perished first; that I should have lived, if I had not perished, like a mere savage; that if I had killed a goat, or a fowl, by any contrivance, I had no way to flay or open them, or part the flesh from the skin and the bowels, or to cut it up, but must gnaw it with my teeth and pull it with my claws like a beast.

These reflections made me very sensible of the goodness of Providence to me, and very thankful for my present condition, with all its hardships and misfortunes. And this part also I cannot but recommend to the reflection of those who are apt in their misery to say, "Is any affliction like mine?" Let them consider how much worse the cases of some people are, and their case might have been, if Providence had thought fit.

I had another reflection which assisted me also to comfort my mind with hopes; and this was comparing my present condition with what I had deserved, and had therefore reason to expect from the hand of Providence. I had lived a dreadful life, perfectly destitute of the knowledge and fear of God. I had been well instructed by father and mother; neither had they been wanting to me in their early endeavours to infuse a religious awe of God into my mind, a sense of my duty, and of what the nature and end of my being required of me. But alas! falling early into the seafaring life, which of all the lives is the most destitute of the fear of God, though His terrors are always before them; I say, falling early into the seafaring life, and into seafaring company, all that little sense of religion which I had entertained was laughed out of me by my messmates, by a hardened despising of dangers, and the views of death, which grew habitual to me, by my long absence from all manner of opportunities to converse with anything but what was like myself or to hear anything that was good, or tended towards it.

So void was I of everything that was good, or of the least sense of what I was or was to be, that in the greatest deliverances I enjoyed, such as my escape from Sallee, my being taken up by the Portuguese master of the ship, my being planted so well in Brazil, my receiving the

cargo from England, and the like, I never had once the word, "Thank God," so much as on my mind, or in my mouth; nor in the greatest distress had I so much as a thought to pray to Him; or so much as to say, "Lord, have mercy upon me"; no, nor to mention the name of God, unless it was to swear by and blaspheme it.

I had terrible reflections upon my mind for many months, as I have already observed, on the account of my wicked and hardened life past; and when I looked about me and considered what particular providences had attended me since my coming into this place, and how God had dealt bountifully with me; had not only punished me less than my iniquity had deserved, but had so plentifully provided for me; this gave me great hopes that my repentance was accepted, and that God had yet mercy in store for me.

With these reflections I worked my mind up, not only to resignation to the will of God in the present disposition of my circumstances, but even to a sincere thankfulness for my condition; and that I, who was yet a living man, ought not to complain, seeing I had not the due punishment of my sins; that I enjoyed so many mercies which I had no reason to have expected in that place; that I ought never more to repine at my condition, but to rejoice and to give daily thanks for that daily bread which nothing but a crowd of wonders could have brought. That I ought to consider I had been fed even by a miracle, even as great as that of feeding Elijah by ravens; nay, by a long series of miracles; and that I could hardly have named a place in the unhabitable part of the world where I could have been cast more to my advantage. A place, where as I had no society, which was my affliction on one hand, so I found no ravenous beasts, no furious wolves or tigers to threaten my life; no venomous creatures or poisonous which I might feed on to my hurt, no savages to murder and devour me.

In a word, as my life was a life of sorrow one way, so it was a life of mercy another; and I wanted nothing to make it a life of comfort, but to be able to make my sense of God's goodness to me, and care over me in this condition, be my daily consolation; and after I did make a just improvement of these things, I went away and was no more sad.

I had now been here so long that many things which I brought on shore for my help were either quite gone, or very much wasted and near spent.

My ink, as I observed, had been gone for some time, all but a very little, which I eked out with water a little and a little, till it was so pale it scarce left any appearance of black upon the paper. As long as it lasted I

made use of it to minute down the days of the month on which any remarkable thing happened to me; and first by casting up times past, I remember that there was a strange concurrence of days in the various providences which befell me, and which, if I had been superstitiously inclined to observe days as fatal or fortunate, I might have had reason to have looked upon with a great deal of curiosity.

First, I had observed that the same day that I broke away from my father and my friends and ran away to Hull in order to go to sea, the same day afterwards I was taken by the Sallee man-of-war and made a slave.

The same day of the year that I escaped out of the wreck of that ship in Yarmouth Roads, that same day-year afterwards I made my escape from Sallee in the boat.

The same day of the year I was born on, viz., the 30th of September, that same day I had my life so miraculously saved twenty-six years after, when I was cast on shore in this island; so that my wicked life and my solitary life begun both on a day.

The next thing to my ink's being wasted was that of my bread, I mean the biscuit which I brought out of the ship. This I had husbanded to the last degree, allowing myself but one cake of bread a day for above a year; and yet I was quite without bread for near a year before I got any corn of my own; and great reason I had to be thankful that I had any at all, the getting it being, as has been already observed, next to miraculous.

My clothes began to decay too mightily. As to linen, I had none a good while, except some checkered shirts which I found in the chests of the other seamen, and which I carefully preserved, because many times I could bear no other clothes on but a shirt; and it was a very great help to me that I had among all the men's clothes of the ship almost three dozen of shirts. There were also several thick watch coats of the seamen's, which were left indeed, but they were too hot to wear; and though it is true that the weather was so violent hot that there was no need of clothes, yet I could not go quite naked; no, though I had been inclined to it, which I was not, nor could abide the thoughts of it, though I was all alone.

The reason why I could not go quite naked was, I could not bear the heat of the sun so well when quite naked, as with some clothes on; nay, the very heat frequently blistered my skin; whereas with a shirt on, the air itself made some motion, and whistling under that shirt, was twofold cooler than without it. No more could I ever bring myself to go out in the heat of the sun without a cap or a hat; the heat of the sun, beating with such violence as it does in that place, would give me the headache pres-

ently, by darting so directly on my head, without a cap or hat on, so that I could not bear it; whereas if I put on my hat, it would presently go away.

Upon those views I began to consider about putting the few rags I had, which I called clothes, into some order; I had worn out all the waistcoats I had, and my business was now to try if I could not make jackets out of the great watch coats which I had by me, and with such other materials as I had; so I set to work a-tailoring, or rather indeed a-botching, for I made most piteous work of it. However, I made shift to make two or three new waistcoats, which I hoped would serve me a great while; as for breeches or drawers, I made but a very sorry shift indeed, till afterwards.

I have mentioned that I saved the skins of all the creatures that I killed, I mean four-footed ones, and I had hung them up stretched out with sticks in the sun, by which means some of them were so dry and hard that they were fit for little, but others it seems were very useful. The first thing I made of these was a great cap for my head, with the hair on the outside, to shoot off the rain; and this I performed so well, that after this I made me a suit of clothes wholly of these skins, that is to say, a waistcoat, and breeches open at knees, and both loose, for they were rather wanting to keep me cool than to keep me warm. I must not omit to acknowledge that they were wretchedly made; for if I was a bad carpenter, I was a worse tailor. However, they were such as I made very good shift with; and when I was abroad, if it happened to rain, the hair of my waistcoat and cap being outermost, I was kept very dry.

After this I spent a great deal of time and pains to make me an umbrella; I was indeed in great want of one, and had a great mind to make one; I had seen them made in Brazil, where they are very useful in the great heats which are there. And I felt the heats every jot as great here, and greater too, being nearer the equinox; besides, as I was obliged to be much abroad, it was a most useful thing to me, as well for the rains as the heats. I took a world of pains at it, and was a great while before I could make anything likely to hold; nay, after I thought I had hit the way, I spoiled two or three before I made one to my mind; but at last I made one that answered indifferently well. The main difficulty I found was to make it to let down. I could make it to spread, but if it did not let down too and draw in, it was not portable for me any way but just over my head, which would not do. However, at last, as I said, I made one to answer, and covered it with skins, the hair upwards, so that it cast off the rains like a penthouse and kept off the sun so effectually, that I could

walk out in the hottest of the weather with greater advantage than I could before in the coolest, and when I had no need of it, could close it and carry it under my arm.

Thus I lived mighty comfortably, my mind being entirely composed by resigning to the will of God and throwing myself wholly upon the disposal of His Providence. This made my life better than sociable; for when I began to regret the want of conversation, I would ask myself whether thus conversing mutually with my own thoughts, and as I hope I may say, with even God Himself, by ejaculations, was not better than the utmost enjoyment of human society in the world.

[*Crusoe makes a small boat. He sets sail and is almost swept away by currents. He captures some goats.*]

How mercifully can our great Creator treat His creatures, even in those conditions in which they seemed to be overwhelmed in destruction! How can He sweeten the bitterest providences, and give us cause to praise Him for dungeons and prisons! What a table was here spread for me in a wilderness, where I saw nothing at first but to perish for hunger!

It would have made a stoic smile to have seen me and my little family sit down to dinner; there was my majesty, the prince and lord of the whole island: I had the lives of all my subjects at my absolute command. I could hang, draw, give liberty, and take it away, and no rebels among all my subjects.

Then to see how like a king I dined, too, all alone, attended by my servants; Poll, as if he had been my favourite, was the only person permitted to talk to me. My dog, who was now grown very old and crazy, and had found no species to multiply his kind upon, sat always at my right hand; and two cats, one on one side the table and one on the other, expecting now and then a bit from my hand, as a mark of special favour.

But these were not the two cats which I brought on shore at first, for they were both of them dead, and had been interred near my habitation by my own hand; but one of them having multiplied by I know not what kind of creature, these were two which I had preserved tame, whereas the rest ran wild in the woods, and became indeed troublesome to me at last; for they would often come into my house, and plunder me too, till at last I was obliged to shoot them, and did kill a great many; at length they left me with this attendance; and in this plentiful manner I lived; neither could I be said to want anything but society, and of that in some time after this I was like to have too much.

I was something impatient, as I have observed, to have the use of my boat, though very loath to run any more hazards; and therefore some-

times I sat contriving ways to get her about the island, and at other times I sat myself down contented enough without her. But I had a strange uneasiness in my mind to go down to the point of the island, where, as I have said, in my last ramble I went up the hill to see how the shore lay and how the current set, that I might see what I had to do. This inclination increased upon me every day, and at length I resolved to travel thither by land; following the edge of the shore I did so. But had anyone in England been to meet such a man as I was, it must either have frighted them or raised a great deal of laughter; and as I frequently stood still to look at myself, I could not but smile at the notion of my travelling through Yorkshire with such an equipage and in such a dress. Be pleased to take a sketch of my figure as follows:

I had a great high shapeless cap, made of a goat's skin, with a flap hanging down behind, as well to keep the sun from me as to shoot the rain off from running into my neck; nothing being so hurtful in these climates as the rain upon the flesh under the clothes.

I had a short jacket of goatskin, the skirts coming down to about the middle of my thighs; and a pair of openkneed breeches of the same; the breeches were made of the skin of an old he-goat, whose hair hung down such a length on either side that, like pantaloons, it reached to the middle of my legs; stockings and shoes I had none, but I had made me a pair of somethings, I scarce know what to call them, like buskins, to flap over my legs, and lace on either side like spatterdashes; but of a most barbarous shape, as indeed were all the rest of my clothes.

I had on a broad belt of goatskin dried, which I drew together with two thongs of the same, instead of buckles, and in a kind of a frog on either side of this, instead of a sword and a dagger, hung a little saw and a hatchet, one on one side, one on the other. I had another belt, not so broad, and fastened in the same manner, which hung over my shoulder; and at the end of it, under my left arm, hung two pouches, both made of goatskin too; in one of which hung my powder, in the other my shot. At my back I carried my basket, on my shoulder my gun, and over my head a great clumsy ugly goatskin umbrella, but which, after all, was the most necessary thing I had about me, next to my gun. As for my face, the colour of it was really not so mulatto-like as one might expect from a man not at all careful of it and living within nine or ten degrees of the equinox. My beard I had once suffered to grow till it was about a quarter of a yard long; but as I had both scissors and razors sufficient, I had cut it pretty short, except what grew on my upper lip, which I had trimmed into a large pair of Mahometan whiskers, such as I had seen worn by some

Turks whom I saw at Sallee; for the Moors did not wear such, though the Turks did; of these mustachios, or whiskers, I will not say they were long enough to hang my hat upon them, but they were of a length and shape monstrous enough and such as in England would have passed for frightful.

But all this is by the by; for as to my figure, I had so few to observe me that it was of no matter of consequence; so I say no more to that part. In this kind of figure I went my new journey, and was out five or six days. I travelled first along the sea-shore, directly to the place where I first brought my boat to an anchor, to get up upon the rocks; and having no boat now to take care of, I went over the land a nearer way to the same height that I was upon before; when, looking forward to the point of the rocks which lay out, and which I was obliged to double with my boat, as I said above, I was surprised to see the sea all smooth and quiet, no rippling, no motion, no current, any more there than in other places.

I was at a strange loss to understand this, and resolved to spend some time in the observing it, to see if nothing from the sets of the tide had occasioned it; but I was presently convinced how it was, viz., that the tide of ebb setting from the west and joining with the current of waters from some great river on the shore must be the occasion of this current; and that according as the wind blew more forcibly from the west or from the north, this current came near, or went farther from the shore; for waiting thereabouts till evening, I went up to the rock again, and then the tide of the ebb being made, I plainly saw the current again as before, only that it ran further off, being near half a league from the shore; whereas in my case it set close upon the shore, and hurried me and my canoe along with it, which at another time it would not have done.

This observation convinced me that I had nothing to do but to observe the ebbing and the flowing of the tide, and I might very easily bring my boat about the island again. But when I began to think of putting it in practice, I had such a terror upon my spirits at the remembrance of the danger I had been in that I could not think of it again with any patience; but on the contrary, I took up another resolution, which was more safe, though more laborious; and this was that I would build, or rather make, me another piragua, or canoe; and so have one for one side of the island and one for the other.

You are to understand that now I had, as I may call it, two plantations in the island; one my little fortification or tent, with the wall about it under the rock, with the cave behind me, which by this time I had enlarged into several apartments, or caves, one within another. One of

these, which was the driest and largest, and had a door out beyond my wall of fortification, that is to say, beyond where my wall joined to the rock, was all filled up with the large earthen pots, of which I have given an account, and with fourteen or fifteen great baskets, which would hold five or six bushels each, where I laid up my stores of provision, especially my corn, some in the ear cut off short from the straw, and the other rubbed out with my hand.

As for my wall, made, as before, with long stakes, or piles, those piles grew all like trees, and were by this time grown so big and spread so very much that there was not the least appearance to anyone's view of any habitation behind them.

Near this dwelling of mine, but a little farther within the land and upon lower ground, lay my two pieces of corn ground, which I kept duly cultivated and sowed, and which duly yielded me their harvest in its season; and whenever I had occasion for more corn, I had more land adjoining as fit as that.

Besides this, I had my country seat, and I had now a tolerable plantation there also; for first, I had my little bower, as I called it, which I kept in repair; that is to say, I kept the hedge which circled it in, constantly fitted up to its usual height, the ladder standing always in the inside; I kept the trees, which at first were no more than my stakes, but were now grown very firm and tall; I kept them always so cut that they might spread and grow thick and wild, and make the more agreeable shade, which they did effectually to my mind. In the middle of this I had my tent always standing, being a piece of a sail spread over poles set up for that purpose, and which never wanted any repair or renewing; and under this I had made me a squab, or couch, with the skins of the creatures I had killed and with other soft things, and a blanket laid on them such as belonged to our sea-bedding, which I had saved, and a great watch coat to cover me; and here, whenever I had occasion to be absent from my chief seat, I took up my country habitation.

Adjoining to this I had my enclosures for my cattle, that is to say, my goats. And as I had taken an inconceivable deal of pains to fence and enclose this ground, so I was so uneasy to see it kept entire, lest the goats should break through, that I never left off till with infinite labour I had struck the outside of the hedge so full of small stakes, and so near to one another, that it was rather a pale than a hedge, and there was scarce room to put a hand through between them, which afterwards, when those stakes grew, as they all did in the next rainy season, made the enclosure strong, like a wall, indeed stronger than any wall.

This will testify for me that I was not idle, and that I spared no pains to bring to pass whatever appeared necessary for my comfortable support; for I considered the keeping up a breed of tame creatures thus at my hand would be a living magazine of flesh, milk, butter, and cheese for me as long as I lived in the place, if it were to be forty years, and that keeping them in my reach depended entirely upon my perfecting my enclosures to such a degree that I might be sure of keeping them together; which by this method indeed I so effectually secured that when these little stakes began to grow, I had planted them so very thick, I was forced to pull some of them up again.

In this place also I had my grapes growing, which I principally depended on for my winter store of raisins, and which I never failed to preserve very carefully, as the best and most agreeable dainty of my whole diet; and indeed they were not agreeable only, but physical, wholesome, nourishing, and refreshing to the last degree.

As this was also about halfway between my other habitation and the place where I had laid up my boat, I generally stayed and lay here in my way thither; for I used frequently to visit my boat, and I kept all things about or belonging to her in very good order; sometimes I went out in her to divert myself, but no more hazardous voyages would I go, nor scarce ever above a stone's cast or two from the shore, I was so apprehensive of being hurried out of my knowledge again by the currents, or winds, or any other accident. But now I come to a new scene of my life.

I FIND THE PRINT OF A MAN'S NAKED FOOT

It happened one day about noon, going towards my boat, I was exceedingly surprised with the print of a man's naked foot on the shore, which was very plain to be seen in the sand. I stood like one thunderstruck, or as if I had seen an apparition; I listened, I looked round me, I could hear nothing, nor see anything; I went up to a rising ground to look farther; I went up the shore and down the shore, but it was all one, I could see no other impression but that one; I went to it again to see if there were any more, and to observe if it might not be my fancy; but there was no room for that, for there was exactly the very print of a foot, toes, heel, and every part of a foot; how it came thither I knew not, nor could in the least imagine. But after innumerable fluttering thoughts, like a man perfectly confused and out of myself, I came home to my fortification, not feeling, as we say, the ground I went on, but terrified to the last

degree, looking behind me at every two or three steps, mistaking every bush and tree, and fancying every stump at a distance to be a man; nor is it possible to describe how many various shapes affrighted imagination represented things to me in; how many wild ideas were found every moment in my fancy, and what strange, unaccountable whimsies came into my thoughts by the way.

When I came to my castle, for so I think I called it ever after this, I fled into it like one pursued; whether I went over by the ladder, as first contrived, or went in at the hole in the rock, which I called a door, I cannot remember; no, nor could I remember the next morning; for never frighted hare fled to cover, or fox to earth, with more terror of mind than I to this retreat.

I slept none that night; the farther I was from the occasion of my fright, the greater my apprehensions were; which is something contrary to the nature of such things, and especially to the usual practice of all creatures in fear. But I was so embarrassed with my own frightful ideas of the thing that I formed nothing but dismal imaginations to myself, even though I was now a great way off it. Sometimes I fancied it must be the Devil; and reason joined in with me upon this supposition. For how should any other thing in human shape come into the place? Where was the vessel that brought them? What marks were there of any other footsteps? And how was it possible a man should come there? But then to think that Satan should take human shape upon him in such a place where there could be no manner of occasion for it, but to leave the print of his foot behind him, and that even for no purpose too (for he could not be sure I should see it); this was an amusement the other way. I considered that the Devil might have found out abundance of other ways to have terrified me than this of the single print of a foot. That as I lived quite on the other side of the island, he would never have been so simple to leave a mark in a place where it was ten thousand to one whether I should ever see it or not, and in the sand too, which the first surge of the sea upon a high wind would have defaced entirely. All this seemed inconsistent with the thing itself, and with all the notions we usually entertain of the subtlety of the Devil.

Abundance of such things as these assisted to argue me out of all apprehensions of its being the Devil. And I presently concluded then that it must be some more dangerous creature, viz., that it must be some of the savages of the mainland over against me, who had wandered out to sea in their canoes, and either driven by the currents or by contrary winds, had made the island; and had been on shore, but were gone away again to

sea, being as loath, perhaps, to have stayed in this desolate island as I would have been to have had them.

While these reflections were rolling upon my mind, I was very thankful in my thoughts that I was so happy as not to be thereabouts at that time, or that they did not see my boat, by which they would have concluded that some inhabitants had been in the place, and perhaps have searched farther for me. Then terrible thoughts racked my imagination about their having found my boat, and that there were people here; and that if so, I should certainly have them come again in greater numbers, and devour me; that if it should happen so that they should not find me, yet they would find my enclosure, destroy all my corn, carry away all my flock of tame goats, and I should perish at last for mere want.

Thus my fear banished all my religious hope, all that former confidence in God, which was founded upon such wonderful experience as I had had of His goodness, now vanished, as if He that had fed me by miracle hitherto could not preserve by His power the provision which He had made for me by His goodness. I reproached myself with my easiness, that would not sow any more corn one year than would just serve me till the next season, as if no accident could intervene to prevent my enjoying the crop that was upon the ground; and this I thought so just a reproof that I resolved for the future to have two or three years' corn beforehand, so that whatever might come, I might not perish for want of bread.

[*Crusoe finds the shore spread with bones. He becomes a recluse in his cell. He sees a fire on the island. He sees several savages, but at a distance, and he is not observed. He finds the wreck of a ship and takes supplies from it.*]

I HEAR THE FIRST SOUND OF A MAN'S VOICE

I lived in this condition near two years more; but my unlucky head, that was always to let me know it was born to make my body miserable, was all this two years filled with projects and designs how, if it were possible, I might get away from this island; for sometimes I was for making another voyage to the wreck, though my reason told me that there was nothing left there worth the hazard of my voyage, sometimes for a ramble one way, sometimes another; and I believe verily, if I had had the boat that I went from Sallee in, I should have ventured to sea, bound anywhere, I knew not whither.

I had been in all my circumstances a *memento* to those who are touched with the general plague of mankind, whence, for aught I know,

one half of their miseries flow; I mean, that of not being satisfied with the station wherein God and Nature hath placed them; for not to look back upon my primitive condition, and the excellent advice of my father, the opposition to which was, as I may call it, my *original sin,* my subsequent mistakes of the same kind had been the means of my coming into this miserable condition; for had that Providence, which so happily had seated me at Brazil as a planter, blessed me with confined desires, and I could have been contented to have gone on gradually, I might have been by this time, I mean in the time of my being in this island, one of the most considerable planters in Brazil; nay, I am persuaded, that by the improvements I had made in that little time I lived there and the increase I should probably have made if I had stayed, I might have been worth a hundred thousand moidores; and what business had I to leave a settled fortune, a well-stocked plantation, improving and increasing, to turn supercargo to Guinea, to fetch Negroes, when patience and time would have so increased our stock at home that we could have bought them at our own door from those whose business it was to fetch them? And though it had cost us something more, yet the difference of that price was by no means worth saving at so great a hazard.

But as this is ordinarily the fate of young heads, so reflection upon the folly of it is as ordinarily the exercise of more years, or of the dear-bought experience of time; and so it was with me now; and yet so deep had the mistake taken root in my temper that I could not satisfy myself in my station, but was continually poring upon the means and possibility of my escape from this place; and that I may with the greater pleasure to the reader bring on the remaining part of my story, it may not be improper to give some account of my first conceptions on the subject of this foolish scheme for my escape; and how, and upon what foundation, I acted.

I am now to be supposed retired into my castle, after my late voyage to the wreck, my frigate laid up and secured under water as usual, and my condition restored to what it was before. I had more wealth, indeed, than I had before, but was not at all the richer; for I had no more use for it than the Indians of Peru had before the Spaniards came there.

It was one of the nights in the rainy season in March, the four and twentieth year of my first setting foot in this island of solitariness. I was lying in my bed, or hammock, awake, very well in health, had no pain, no distemper, no uneasiness of body, no, nor any uneasiness of mind, more than ordinary; but could by no means close my eyes; that is, so as to sleep; no, not a wink all night long, otherwise than as follows:

It is as impossible as needless to set down the innumerable crowd of thoughts that whirled through that great thoroughfare of the brain, the memory, in this night's time. I ran over the whole history of my life in miniature, or by abridgment, as I may call it, to my coming to this island; and also of the part of my life since I came to this island. In my reflections upon the state of my case since I came on shore on this island, I was comparing the happy posture of my affairs in the first years of my habitation here, compared to the life of anxiety, fear, and care, which I had lived ever since I had seen the print of a foot in the sand; not that I did not believe the savages had frequented the island even all the while, and might have been several hundreds of them at times on shore there; but I had never known it, and was incapable of any apprehensions about it; my satisfaction was perfect, though my danger was the same; and I was as happy in not knowing my danger as if I had never really been exposed to it. This furnished my thoughts with many very profitable reflections, and particularly this one, how infinitely good that Providence is which has provided in its government of mankind such narrow bounds to his sight and knowledge of things; and though he walks in the midst of so many thousand dangers, the sight of which, if discovered to him, would distract his mind and sink his spirits, he is kept serene and calm by having the events of things hid from his eyes, and knowing nothing of the dangers which surround him.

After these thoughts had for some time entertained me, I came to reflect seriously upon the real danger I had been in for so many years in this very island; and how I had walked about in the greatest security and with all possible tranquillity, even when perhaps nothing but a brow of a hill, a great tree, or the casual approach of night, had been between me and the worst kind of destruction, viz., that of falling into the hands of cannibals and savages, who would have seized on me with the same view as I did of a goat or a turtle; and have thought it no more a crime to kill and devour me than I did of a pigeon or a curlew. I should unjustly slander myself if I should say I was not sincerely thankful to my great Preserver, to whose singular protection I acknowledged, with great humility, that all these unknown deliverances were due; and without which I must inevitably have fallen into their merciless hands.

When these thoughts were over, my head was for some time taken up in considering the nature of these wretched creatures, I mean the savages; and how it came to pass in the world that the wise Governor of all things should give up any of His creatures to such inhumanity; nay, to something so much below even brutality itself as to devour its own kind; but

as this ended in some (at that time fruitless) speculations, it occurred to me to inquire what part of the world these wretches lived in; how far off the coast was from whence they came; what they ventured over so far from home for; what kind of boats they had; and why I might not order myself and my business so that I might be as able to go over thither as they were to come to me.

I never so much as troubled myself to consider what I should do with myself when I came thither; what would become of me, if I fell into the hands of the savages; or how I should escape from them, if they attempted me; no, nor so much as how it was possible for me to reach the coast and not be attempted by some or other of them, without any possibility of delivering myself; and if I should not fall into their hands, what I should do for provision, or whither I should bend my course; none of these thoughts, I say, so much as came in my way; but my mind was wholly bent upon the notion of my passing over in my boat to the mainland. I looked back upon my present condition as the most miserable that could possibly be; that I was not able to throw myself into anything but death that could be called worse; that if I reached the shore of the main, I might perhaps meet with relief, or I might coast along, as I did on the shore of Africa, till I came to some inhabited country, and where I might find some relief; and after all, perhaps I might fall in with some Christian ship that might take me in; and if the worse came to the worst, I could but die, which would put an end to all these miseries at once. Pray note, all this was the fruit of a disturbed mind, an impatient temper, made, as it were, desperate by the long continuance of my troubles and the disappointments I had met in the wreck I had been on board of, and where I had been so near the obtaining what I so earnestly longed for, viz., somebody to speak to and to learn some knowledge from of the place where I was and of the probable means of my deliverance; I say, I was agitated wholly by these thoughts. All my calm of mind in my resignation to Providence, and waiting the issue of the dispositions of Heaven, seemed to be suspended; and I had, as it were, no power to turn my thoughts to anything but to the project of a voyage to the main, which came upon me with such force and such an impetuosity of desire that it was not to be resisted.

When this had agitated my thoughts for two hours or more, with such violence that it set my very blood into a ferment, and my pulse beat as high as if I had been in a fever merely with the extraordinary fervour of my mind about it; nature, as if I had been fatigued and exhausted with the very thought of it, threw me into a sound sleep. One would have

thought I should have dreamed of it; but I did not, nor of anything relating to it; but I dreamed that as I was going out in the morning as usual from my castle, I saw upon the shore two canoes and eleven savages coming to land, and that they brought with them another savage, whom they were going to kill, in order to eat him; when on a sudden, the savage that they were going to kill jumped away, and ran for his life; and I thought in my sleep that he came running into my little thick grove, before my fortification, to hide himself; and that I, seeing him alone and not perceiving that the other sought him that way, showed myself to him, and smiling upon him, encouraged him; that he kneeled down to me, seeming to pray me to assist him; upon which I showed my ladder, made him go up, and carried him into my cave, and he became my servant; and that as soon as I had gotten this man, I said to myself, "Now I may certainly venture to the mainland; for this fellow will serve me as a pilot, and will tell me what to do, and whither to go for provisions; and whither not to go for fear of being devoured; what places to venture into, and what to escape." I waked with this thought, and was under such inexpressible impressions of joy at the prospect of my escape in my dream that the disappointments which I felt upon coming to myself and finding it was no more than a dream were equally extravagant the other way, and threw me into a very great dejection of spirit.

Upon this, however, I made this conclusion, that my only way to go about an attempt for an escape was, if possible, to get a savage into my possession; and, if possible, it should be one of their prisoners, whom they had condemned to be eaten and should bring hither to kill; but these thoughts still were attended with this difficulty, that it was impossible to effect this without attacking a whole caravan of them and killing them all; and this was not only a very desperate attempt, and might miscarry, but on the other hand, I had greatly scrupled the lawfulness of it to me, and my heart trembled at the thoughts of shedding so much blood, though it was for my deliverance. I need not repeat the arguments which occurred to me against this, they being the same mentioned before. But though I had other reasons to offer now, viz., that those men were enemies to my life and would devour me if they could, that it was self-preservation in the highest degree to deliver myself from this death of a life, and was acting in my own defence as much as if they were actually assaulting me, and the like. I say, though these things argued for it, yet the thoughts of shedding human blood for my deliverance were very terrible to me, and such as I could by no means reconcile myself to a great while.

However, at last, after many secret disputes with myself and after

great perplexities about it (for all these arguments, one way and another, struggled in my head a long time), the eager prevailing desire of deliverance at length mastered all the rest, and I resolved, if possible, to get one of those savages into my hands, cost what it would. My next thing then was to contrive how to do it; and this indeed was very difficult to resolve on. But as I could pitch upon no probable means for it, so I resolved to put myself upon the watch, to see them when they came on shore, and leave the rest to the event, taking such measures as the opportunity should present, let be what would be.

With these resolutions in my thoughts, I set myself upon the scout, as often as possible, and indeed so often till I was heartily tired of it; for it was above a year and half that I waited, and for great part of that time went out to the west end and to the southwest corner of the island almost every day, to see for canoes, but none appeared. This was very discouraging, and began to trouble me much; though I cannot say that it did in this case as it had done some time before that, viz., wear off the edge of my desire to the thing; but the longer it seemed to be delayed, the more eager I was for it; in a word, I was not at first so careful to shun the sight of these savages and avoid being seen by them as I was now eager to be upon them.

Besides, I fancied myself able to manage one, nay, two or three savages, if I had them, so as to make them entirely slaves to me, to do whatever I should direct them, and to prevent their being able at any time to do me any hurt. It was a great while that I pleased myself with this affair, but nothing still presented; all my fancies and schemes came to nothing, for no savages came near me for a great while.

About a year and a half after I had entertained these notions and, by long musing, had as it were resolved them all into nothing, for want of an occasion to put them in execution, I was surprised one morning early with seeing no less than five canoes all on shore together on my side of the island; and the people who belonged to them all landed, and out of my sight. The number of them broke all my measures; for seeing so many and knowing that they always came four, or six, or sometimes more, in a boat, I could not tell what to think of it, or how to take my measures, to attack twenty or thirty men singlehanded; so I lay still in my castle, perplexed and discomforted. However, I put myself into all the same postures for an attack that I had formerly provided, and was just ready for action if anything had presented; having waited a good while, listening to hear if they made any noise, at length being very impatient, I set my guns at the foot of my ladder and clambered up to the top of the hill

by my two stages as usual, standing so, however, that my head did not appear above the hill, so that they could not perceive me by any means; here I observed, by the help of my perspective-glass, that there were no less than thirty in number, that they had a fire kindled, that they had had meat dressed. How they had cooked it, that I knew not, or what it was; but they were all dancing in I know not how many barbarous gestures and figures, their own way, round the fire.

While I was thus looking on them, I perceived by my perspective two miserable wretches dragged from the boats, where, it seems, they were laid by, and were now brought out for the slaughter. I perceived one of them immediately fell, being knocked down, I suppose, with a club or wooden sword, for that was their way, and two or three others were at work immediately, cutting him open for their cookery, while the other victim was left standing by himself, till they should be ready for him. In that very moment, this poor wretch seeing himself a little at liberty, Nature inspired him with hopes of life, and he started away from them, and ran with incredible swiftness along the sands directly towards me, I mean towards that part of the coast where my habitation was.

I was dreadfully frighted (that I must acknowledge) when I perceived him to run my way; and especially, when, as I thought, I saw him pursued by the whole body; and now I expected that part of my dream was coming to pass, and that he would certainly take shelter in my grove; but I could not depend by any means upon my dream for the rest of it, viz., that the other savages would not pursue him thither, and find him there. However, I kept my station, and my spirits began to recover when I found that there was not above three men that followed him; and still more was I encouraged when I found that he outstripped them exceedingly in running and gained ground of them; so that if he could but hold it for half an hour, I saw easily he would fairly get away from them all.

There was between them and my castle the creek which I mentioned often at the first part of my story, when I landed my cargoes out of the ship; and this I saw plainly he must necessarily swim over, or the poor wretch would be taken there. But when the savage escaping came thither, he made nothing of it, though the tide was then up; but plunging in, swam through in about thirty strokes or thereabouts, landed, and ran on with exceeding strength and swiftness; when the three persons came to the creek, I found that two of them could swim, but the third could not, and that standing on the other side, he looked at the other, but went no farther; and soon after went softly back again, which, as it happened, was very well for him in the main.

I observed that the two who swam were yet more than twice as long swimming over the creek as the fellow was that fled from them. It came now very warmly upon my thoughts, and indeed irresistibly, that now was my time to get me a servant, and perhaps a companion, or assistant; and that I was called plainly by Providence to save this poor creature's life; I immediately ran down the ladders with all possible expedition, fetched my two guns, for they were both but at the foot of the ladders, as I observed above; and getting up again, with the same haste, to the top of the hill, I crossed towards the sea; and having a very short cut, and all down hill, clapped myself in the way between the pursuers and the pursued, hallooing aloud to him that fled, who, looking back, was at first perhaps as much frighted at me as at them; but I beckoned with my hand to him to come back, and in the meantime I slowly advanced towards the two that followed; then rushing at once upon the foremost, I knocked him down with the stock of my piece; I was loath to fire, because I would not have the rest hear; though at that distance, it would not have been easily heard; and being out of sight of the smoke too, they would not have easily known what to make of it. Having knocked this fellow down, the other who pursued him stopped, as if he had been frighted; and I advanced apace towards him; but as I came nearer, I perceived presently he had a bow and arrow, and was fitting it to shoot at me; so I was then necessitated to shoot at him first; which I did, and killed him at the first shoot. The poor savage who fled, but had stopped, though he saw both his enemies fallen and killed, as he thought, yet was so frighted with the fire and noise of my piece, that he stood stock still and neither came forward or went backward, though he seemed rather inclined to fly still than to come on; I holloed again to him, and made signs to come forward, which he easily understood, and came a little way, then stopped again, and then a little farther, and stopped again; and I could then perceive that he stood trembling, as if he had been taken prisoner, and had just been to be killed, as his two enemies were; I beckoned him again to come to me, and gave him all the signs of encouragement that I could think of; and he came nearer and nearer, kneeling down every ten or twelve steps in token of acknowledgement for my saving his life; I smiled at him and looked pleasantly and beckoned to him to come still nearer; at length he came close to me, and then he kneeled down again, kissed the ground, and laid his head upon the ground, and taking me by the foot, set my foot upon his head: this, it seems, was in token of swearing to be my slave forever. I took him up, and made much of him, and encouraged him all I could. But there was

more work to do yet, for I perceived the savage whom I knocked down was not killed, but stunned with the blow, and began to come to himself; so I pointed to him, and showing him the savage, that he was not dead; upon this he spoke some words to me, and though I could not understand them, yet I thought they were pleasant to hear, for they were the first sound of a man's voice that I had heard, my own excepted, for above twenty-five years. But there was no time for such reflections now; the savage who was knocked down recovered himself so far as to sit up upon the ground, and I perceived that my savage began to be afraid; but when I saw that, I presented my other piece at the man as if I would shoot him; upon this my savage, for so I call him now, made a motion to me to lend him my sword, which hung naked in a belt by my side; so I did. He no sooner had it, but he runs to his enemy, and at one blow cut off his head as cleverly, no executioner in Germany could have done it sooner or better; which I thought very strange for one who I had reason to believe never saw a sword in his life before, except their own wooden swords; however, it seems, as I learned afterwards, they make their wooden swords so sharp, so heavy, and the wood is so hard, that they will cut off heads even with them, ay, and arms, and that at one blow too. When he had done this, he comes laughing to me in sign of triumph and brought me the sword again, and with abundance of gestures which I did not understand, laid it down, with the head of the savage that he had killed, just before me.

But that which astonished him most was to know how I had killed the other Indian so far off; so pointing to him, he made signs to me to let him go to him; so I bade him go, as well as I could; when he came to him, he stood like one amazed, looking at him, turned him first on one side, then on t' other, looked at the wound the bullet had made, which, it seems, was just in his breast, where it had made a hole, and no great quantity of blood had followed, but he had bled inwardly, for he was quite dead. He took up his bow and arrows, and came back; so I turned to go away and beckoned to him to follow me, making signs to him that more might come after them.

Upon this he signed to me that he should bury them with sand, that they might not be seen by the rest if they followed; and so I made signs again to him to do so; he fell to work, and in an instant he had scraped a hole in the sand with his hands big enough to bury the first in, and then dragged him into it and covered him and did so also by the other; I believe he had buried them both in a quarter of an hour; then calling him away, I carried him, not to my castle, but quite away to my cave, on the

farther part of the island; so I did not let my dream come to pass in that part, viz., that he came into my grove for shelter.

Here I gave him bread and a bunch of raisins to eat, and a draught of water, which I found he was indeed in great distress for, by his running; and having refreshed him, I made signs for him to go lie down and sleep, pointing to a place where I had laid a great parcel of rice straw, and a blanket upon it, which I used to sleep upon myself sometimes; so the poor creature lay down and went to sleep.

I CALL HIM FRIDAY

He was a comely, handsome fellow, perfectly well made, with straight strong limbs, not too large, tall and well-shaped, and, as I reckon, about twenty-six years of age. He had a very good countenance, not a fierce and surly aspect, but seemed to have something very manly in his face, and yet he had all the sweetness and softness of a European in his countenance too, especially when he smiled. His hair was long and black, not curled like wool; his forehead very high and large; and a great vivacity and sparkling sharpness in his eyes. The colour of his skin was not quite black, but very tawny; and yet not of an ugly yellow, nauseous tawny, as the Brazilians and Virginians, and other natives of America are; but of a bright kind of a dun olive colour that had in it something very agreeable, though not very easy to describe. His face was round and plump; his nose small, not flat like the Negroes', a very good mouth, thin lips, and his fine teeth well set, and white as ivory. After he had slumbered, rather than slept, about half an hour, he waked again, and comes out of the cave to me, for I had been milking my goats, which I had in the enclosure just by. When he espied me, he came running to me, laying himself down again upon the ground, with all the possible signs of a humble, thankful disposition, making a many antic gestures to show it. At last he lays his head flat upon the ground, close to my foot, and sets my other foot upon his head, as he had done before; and after this, made all the signs to me of subjection, servitude, and submission imaginable, to let me know how he would serve me as long as he lived; I understood him in many things and let him know I was very well pleased with him; in a little time I began to speak to him and teach him to speak to me; and first, I made him know his name should be Friday, which was the day I saved his life; I called him so for the memory of the time; I likewise taught him to say "Master," and then let him know that was to be my name; I likewise taught him to say "yes" and "no" and to know the mean-

ing of them; I gave him some milk in an earthen pot and let him see me drink it before him and sop my bread in it; and I gave him a cake of bread to do the like, which he quickly complied with, and made signs that it was very good for him.

I kept there with him all that night, but as soon as it was day, I beckoned to him to come with me, and let him know I would give him some clothes, at which he seemed very glad, for he was stark naked. As we went by the place where he had buried the two men, he pointed exactly to the place, and showed me the marks that he had made to find them again, making signs to me that we should dig them up again and eat them; at this I appeared very angry, expressed my abhorrence of it, made as if I would vomit at the thoughts of it, and beckoned with my hand to him to come away, which he did immediately, with great submission. I then led him up to the top of the hill, to see if his enemies were gone; and pulling out my glass, I looked, and saw plainly the place where they had been, but no appearance of them or of their canoes; so that it was plain they were gone, and had left their two comrades behind them, without any search after them.

But I was not content with this discovery, but having now more courage, and consequently more curiosity, I took my man Friday with me, giving him the sword in his hand, with the bow and arrows at his back, which I found he could use very dexterously, making him carry one gun for me, and I two for myself, and away we marched to the place where these creatures had been; for I had a mind now to get some fuller intelligence of them. When I came to the place, my very blood ran chill in my veins, and my heart sunk within me at the horror of the spectacle. Indeed, it was a dreadful sight, at least it was so to me, though Friday made nothing of it. The place was covered with human bones, the ground dyed with their blood, great pieces of flesh left here and there, half eaten, mangled and scorched; and in short, all the tokens of the triumphant feast they had been making there, after a victory over their enemies. I saw three skulls, five hands, and the bones of three or four legs and feet, and abundance of other parts of the bodies; and Friday, by his signs, made me understand that they brought over four prisoners to feast upon; that three of them were eaten up, and that he, pointing to himself, was the fourth; that there had been a great battle between them and their next king, whose subjects it seems he had been one of; and that they had taken a great number of prisoners, all which were carried to several places by those that had taken them in the fight, in order to feast upon them, as was done here by these wretches upon those they brought hither.

I caused Friday to gather all the skulls, bones, flesh, and whatever remained, and lay them together on a heap, and make a great fire upon it and burn them all to ashes. I found Friday had still a hankering stomach after some of the flesh, and was still a cannibal in his nature; but I discovered so much abhorrence at the very thoughts of it, and at the least appearance of it, that he durst not discover it; for I had, by some means, let him know that I would kill him if he offered it.

When we had done this, we came back to our castle, and there I fell to work for my man Friday; and first of all I gave him a pair of linen drawers, which I had out of the poor gunner's chest I mentioned, and which I found in the wreck; and which, with a little alteration, fitted him very well; then I made him a jerkin of goat's skin, as well as my skill would allow; and I was now grown a tolerable good tailor; and I gave him a cap, which I had made of a hare-skin, very convenient and fashionable enough; and thus he was clothed, for the present, tolerably well, and was mighty well pleased to see himself almost as well clothed as his master. It is true, he went awkwardly in these things at first; wearing the drawers was very awkward to him, and the sleeves of the waistcoat galled his shoulders and the inside of his arms; but a little easing them, where he complained they hurt him, and using himself to them, at length he took to them very well.

The next day after I came home to my hutch with him, I began to consider where I should lodge him; and that I might do well for him, and yet be perfectly easy myself, I made a little tent for him in the vacant place between my two fortifications, in the inside of the last and in the outside of the first. And as there was a door or entrance there into my cave, I made a formal framed door-case, and a door to it of boards, and set it up in the passage, a little within the entrance; and causing the door to open on the inside, I barred it up in the night, taking in my ladders too; so that Friday could no way come at me in the inside of my innermost wall without making so much noise in getting over that it must needs waken me; for my first wall had now a complete roof over it of long poles, covering all my tent and leaning up to the side of the hill, which was again laid across with smaller sticks instead of laths, and then thatched over a great thickness with the rice straw, which was strong like reeds; and at the hole or place which was left to go in or out by the ladder I had placed a kind of trap-door, which, if it had been attempted on the outside, would not have opened at all, but would have fallen down and made a great noise; and as to weapons, I took them all into my side every night.

But I needed none of all this precaution; for never man had a more faithful, loving, sincere servant than Friday was to me; without passions, sullenness, or designs, perfectly obliged and engaged; his very affections were tied to me, like those of a child to a father; and I dare say he would have sacrificed his life for the saving mine upon any occasion whatsoever; the many testimonies he gave me of this put it out of doubt and soon convinced me that I needed to use no precautions as to my safety on his account.

This frequently gave me occasion to observe, and that with wonder, that however it had pleased God, in His providence, and in the government of the works of His hands, to take from so great a part of the world of His creatures the best uses to which their faculties and the powers of their souls are adapted; yet that He has bestowed upon them the same powers, the same reason, the same affections, the same sentiments of kindness and obligation, the same passions and resentments of wrongs, the same sense of gratitude, sincerity, fidelity, and all the capacities of doing good and receiving good that He has given to us; and that when He pleases to offer to them occasions of exerting these, they are as ready, nay, more ready to apply them to the right uses for which they were bestowed than we are. And this made me very melancholy sometimes, in reflecting, as the several occasions presented, how mean a use we make of all these, even though we have these powers enlightened by the great lamp of instruction, the Spirit of God, and by the knowledge of His Word, added to our understanding; and why it has pleased God to hide the like saving knowledge from so many millions of souls, who (if I might judge by this poor savage) would make a much better use of it than we did.

From hence I sometimes was led too far to invade the sovereignty of Providence and, as it were, arraign the justice of so arbitrary a disposition of things that should hide that light from some and reveal it to others, and yet expect a like duty from both. But I shut it up and checked my thoughts with this conclusion, first, that we did not know by what light and law these should be condemned; but that, as God was necessarily, and by the nature of His being, infinitely holy and just, so it could not be but that if these creatures were all sentenced to absence from Himself, it was on account of sinning against that light which, as the Scripture says, was a law to themselves, and by such rules as their consciences would acknowledge to be just, though the foundation was not discovered to us. And secondly, that still as we are all the clay in the hand of the Potter, no vessel could say to Him, "Why hast Thou formed me thus?"

But to return to my new companion: I was greatly delighted with him,

and made it my business to teach him everything that was proper to make him useful, handy, and helpful; but especially to make him speak and understand me when I spoke; and he was the aptest scholar that ever was, and particularly was so merry, so constantly diligent, and so pleased when he could but understand me or make me understand him, that it was very pleasant to me to talk to him; and now my life began to be so easy that I began to say to myself that could I but have been safe from more savages, I cared not if I was never to remove from the place while I lived.

After I had been two or three days returned to my castle, I thought that, in order to bring Friday off from his horrid way of feeding and from the relish of a cannibal's stomach, I ought to let him taste other flesh; so I took him out with me one morning to the woods. I went, indeed, intending to kill a kid out of my own flock and bring it home and dress it. But as I was going, I saw a she-goat lying down in the shade, and two young kids sitting by her; I caught hold of Friday. "Hold," says I, "stand still"; and made signs to him not to stir; immediately I presented my piece, shot and killed one of the kids. The poor creature, who had at a distance, indeed, seen me kill the savage, his enemy, but did not know or could imagine how it was done, was sensibly surprised, trembled and shook, and looked so amazed that I thought he would have sunk down. He did not see the kid I had shot at, or perceive I had killed it, but ripped up his waistcoat to feel if he was not wounded, and, as I found presently, thought I was resolved to kill him; for he came and kneeled down to me and, embracing my knees, said a great many things I did not understand; but I could easily see that the meaning was to pray me not to kill him.

I soon found a way to convince him that I would do him no harm and, taking him up by the hand, laughed at him and, pointing to the kid which I had killed, beckoned to him to run and fetch it, which he did; and while he was wondering and looking to see how the creature was killed, I loaded my gun again, and by and by I saw a great fowl, like a hawk, sit upon a tree within shot; so, to let Friday understand a little what I would do, I called him to me again, pointing at the fowl, which was indeed a parrot, though I thought it had been a hawk; I say, pointing to the parrot, and to my gun, and to the ground under the parrot, to let him see I would make it fall, I made him understand that I would shoot and kill that bird; accordingly I fired and bade him look, and immediately he saw the parrot fall; he stood like one frighted again, notwithstanding all I had said to him; and I found he was the more amazed because he did not see me put anything into the gun; but thought that there must be some

wonderful fund of death and destruction in that thing, able to kill man, beast, bird, or anything near or far off; and the astonishment this created in him was such as could not wear off for a long time; and I believe, if I would have let him, he would have worshipped me and my gun. As for the gun itself, he would not so much as touch it for several days after; but would speak to it, and talk to it as if it had answered him, when he was by himself; which, as I afterwards learned of him, was to desire it not to kill him.

Well, after his astonishment was a little over at this, I pointed to him to run and fetch the bird I had shot, which he did, but stayed some time; for the parrot, not being quite dead, was fluttered away a good way off from the place where she fell; however, he found her, took her up, and brought her to me; and as I had perceived his ignorance about the gun before, I took this advantage to charge the gun again, and not let him see me do it, that I might be ready for any other mark that might present; but nothing more offered at that time; so I brought home the kid, and the same evening I took the skin off and cut it out as well as I could; and having a pot for that purpose, I boiled, or stewed, some of the flesh, and made some very good broth; and after I had begun to eat some, I gave some to my man, who seemed very glad of it, and liked it very well; but that which was strangest to him was to see me eat salt with it; he made a sign to me that the salt was not good to eat, and putting a little into his own mouth, he seemed to nauseate it, and would spit and sputter at it, washing his mouth with fresh water after it; on the other hand, I took some meat in my mouth without salt, and I pretended to spit and sputter for want of salt, as fast as he had done at the salt; but it would not do, he would never care for salt with his meat, or in his broth; at least, not a great while, and then but a very little.

Having thus fed him with boiled meat and broth, I was resolved to feast him the next day with roasting a piece of the kid; this I did by hanging it before the fire in a string, as I had seen many people do in England, setting two poles up, one on each side the fire, and one across on the top, and tying the string to the cross stick, letting the meat turn continually. This Friday admired very much; but when he came to taste the flesh, he took so many ways to tell me how well he liked it that I could not but understand him; and at last he told me he would never eat man's flesh any more, which I was very glad to hear.

The next day I set him to work to beating some corn out, and sifting it in the manner I used to do, as I observed before; and he soon understood how to do it as well as I, especially after he had seen what the meaning

of it was, and that it was to make bread of; for after that I let him see me make my bread, and bake it too, and in a little time Friday was able to do all the work for me, as well as I could do it myself.

I began now to consider that, having two mouths to feed instead of one, I must provide more ground for my harvest and plant a larger quantity of corn than I used to do; so I marked out a larger piece of land, and began the fence in the same manner as before, in which Friday not only worked very willingly and very hard, but did it very cheerfully; and I told him what it was for, that it was for corn to make more bread, because he was now with me, and that I might have enough for him and myself too. He appeared very sensible of that part, and let me know that he thought I had much more labour upon me on his account than I had for myself; and that he would work the harder for me, if I would tell him what to do.

WE MAKE ANOTHER CANOE

This was the pleasantest year of all the life I led in this place; Friday began to talk pretty well, and understand the names of almost everything I had occasion to call f or, and of every place I had to send him to, and talk a great deal to me; so that, in short, I began now to have some use for my tongue again, which indeed I had very little occasion for before; that is to say, about speech. Besides the pleasure of talking to him, I had a singular satisfaction in the fellow himself; his simple, unfeigned honesty appeared to me more and more every day, and I began really to love the creature; and on his side, I believe he loved me more than it was possible for him ever to love anything before.

I had a mind once to try if he had any hankering inclination to his own country again, and having learned [taught] him English so well that he could answer me almost any questions, I asked him whether the nation that he belonged to never conquered in battle. At which he smiled, and said, "Yes, yes, we always fight the better"; that is, he meant, always get the better in fight; and so we began the following discourse: "You always fight the better," said I; "how came you to be taken prisoner then, Friday?"

FRIDAY: My nation beat much, for all that.

MASTER: How beat? If your nation beat them, how came you to be taken?

FRIDAY: They more many than my nation in the place where me was; they take one, two, three, and me; my nation overbeat them in the yonder place, where me no was; there my nation take one, two, great thousand.

MASTER: But why did not your side recover you from the hands of your enemies then?

FRIDAY: They run one, two, three, and me, and make go in the canoe; my nation have no canoe that time.

MASTER: Well, Friday, and what does your nation do with the men they take? Do they carry them away, and eat them, as these did?

FRIDAY: Yes, my nation eat mans too, eat all up.

MASTER: Where do they carry them?

FRIDAY: Go to other place, where they think.

MASTER: Do they come hither?

FRIDAY: Yes, yes, they come hither; come other else place.

MASTER: Have you been here with them?

FRIDAY: Yes, I been here. (Points to the northwest side of the island, which, it seems, was their side.)

By this I understand that my man Friday had formerly been among the savages who used to come on shore on the farther part of the island, on the said man-eating occasions that he was now brought for; and some time after, when I took the courage to carry him to that side, being the same I formerly mentioned, he presently knew the place and told me he was there once when they ate up twenty men, two women, and one child; he could not tell twenty in English, but he numbered them by laying so many stones in a row and pointing to me to tell them over.

I have told this passage because it introduces what follows; that after I had had this discourse with him, I asked him how far it was from our island to the shore, and whether the canoes were not often lost; he told me there was no danger, no canoes ever lost; but that after a little way out to the sea, there was a current, and a wind, always one way in the morning, the other in the afternoon.

This I understood to be no more than the sets of the tide, as going out or coming in; but I afterwards understood it was occasioned by the great draft and reflux of the mighty river Orinoco, in the mouth, or the gulf, of which river, as I found afterwards, our island lay; and this land which I perceived to the west and north-west was the great island Trinidad, on the north point of the mouth of the river. I asked Friday a thousand questions about the country, the inhabitants, the sea, the coast, and what nations were near; he told me all he knew, with the greatest openness imaginable; I asked him the names of the several nations of his sort of people, but could get no other name than Caribs; from whence I easily understood that these were the Caribbees, which our maps place on the part of America which reaches from the mouth of the river Orinoco to

Guiana, and onwards to Santa Marta. He told me that up a great way beyond the moon, that was, beyond the setting of the moon, which must be west from their country, there dwelt white bearded men, like me, and pointed to my great whiskers, which I mentioned before; and they had killed "much mans," that was his word; by all which I understood he meant the Spaniards, whose cruelties in America had been spread over the whole countries and were remembered by all the nations from father to son.

I inquired if he could tell me how I might come from this island and get among those white men; he told me, "Yes, yes, I might go in two canoe"; I could not understand what he meant, or make him describe to me what he meant by "two canoe," till at last, with great difficulty, I found he meant it must be in a large great boat, as big as two canoes.

This part of Friday's discourse began to relish with me very well; and from this time I entertained some hopes that one time or other I might find an opportunity to make my escape from this place and that this poor savage might be a means to help me to do it.

During the long time that Friday had now been with me, and that he began to speak to me and understand me, I was not wanting to lay a foundation of religious knowledge in his mind; particularly, I asked him one time, who made him. The poor creature did not understand me at all, but thought I had asked who was his father; but I took it by another handle, and asked him who made the sea, the ground we walked on, and the hills and woods; he told me it was one old Benamuckee, that lived beyond all. He could describe nothing of this great person but that he was very old; much older, he said, than the sea or the land, than the moon or the stars. I asked him then, if this old person had made all things, why did not all things worship him? He looked very grave, and with a perfect look of innocence, said All things said O! to him. I asked him if the people who die in his country went away anywhere; he said yes, they all went to Benamuckee; then I asked him whether these they eat up went thither too. He said yes.

From these things I began to instruct him in the knowledge of the true God. I told him that the great Maker of all things lived up there, pointing up towards Heaven. That He governs the world by the same Power and Providence by which He made it. That He was omnipotent, could do everything for us, give everything to us, take everything from us; and thus by degrees I opened his eyes. He listened with great attention, and received with pleasure the notion of Jesus Christ being sent to redeem us, and of the manner of making our prayers to God, and His being able to

hear us, even into Heaven; he told me one day that if our God could hear us up beyond the sun, He must needs be a greater God than their Benamuckee, who lived but a little way off, and yet could not hear till they went up to the great mountains where he dwelt, to speak to him; I asked him if he ever went thither to speak to him; he said no; they never went that were young men; none went thither but the old men, whom he called their Oowokakee, that is, as I made him explain it to me, their religious, or clergy, and that they went to say O (so he called saying prayers), and then came back and told them what Benamuckee said. By this I observed that there is priestcraft even amongst the most blinded, ignorant pagans in the world, and the policy of making a secret religion, in order to preserve the veneration of the people to the clergy, is not only to be found in the Roman, but perhaps among all religions in the world, even among the most brutish and barbarous savages.

I endeavoured to clear up this fraud to my man Friday, and told him that the pretence of their old men going up the mountains to say O to their god Benamuckee was a cheat, and their bringing word from thence what he said was much more so; that if they met with any answer, or spoke with anyone there, it must be with an evil spirit. And then I entered into a long discourse with him about the Devil, the original of him, his rebellion against God, his enmity to man, the reason of it, his setting himself up in the dark parts of the world to be worshipped instead of God, and as God; and the many stratagems he made use of to delude mankind to their ruin; how he had a secret access to our passions and to our affections, to adapt his snares so to our inclinations as to cause us even to be our own tempters and to run upon our destruction by our own choice.

I found it was not easy to imprint right notions in his mind about the Devil, as it was about the being of a God. Nature assisted all my arguments to evidence to him even the necessity of a great First Cause and overruling, governing Power, a secret directing Providence, and of the equity and justice of paying homage to Him that made us, and the like. But there appeared nothing of all this in the notion of an evil spirit, of his original, his being, his nature, and above all, of his inclination to do evil, and to draw us in to do so too; and the poor creature puzzled me once in such a manner, by a question merely natural and innocent, that I scarce knew what to say to him. I had been talking a great deal to him of the power of God, His omnipotence, His dreadful aversion to sin, His being a consuming fire to the workers of iniquity; how, as He had made us all, He could destroy us and all the world in a moment; and he listened with great seriousness to me all the while.

After this, I had been telling him how the Devil was God's enemy in the hearts of men, and used all his malice and skill to defeat the good designs of Providence, and to ruin the kingdom of Christ in the world, and the like. "Well," says Friday, "but you say God is so strong, so great; is He not much strong, much might as the Devil?" "Yes, yes," says I, "Friday, God is stronger than the Devil, God is above the Devil, and therefore we pray to God to tread him down under our feet, and enable us to resist his temptations and quench his fiery darts." "But," says he again, "if God much strong, much might as the Devil, why God no kill the Devil, so make him no more do wicked?"

I was strangely surprised at his question, and after all, though I was now an old man, yet I was but a young doctor, and ill enough qualified for a casuist, or a solver of difficulties. And at first I could not tell what to say; so I pretended not to hear him, and asked him what he said. But he was too earnest for an answer to forget his question; so that he repeated it in the very same broken words as above. By this time I had recovered myself a little, and I said, "God will at last punish him severely, he is reserved for the judgment, and is to be cast into the bottomless pit, to dwell with everlasting fire." This did not satisfy Friday, but he returns upon me, repeating my words, "'Reserve at last,' me no understand; but why not kill the Devil now, not kill great ago?" "You may as well ask me," said I, "why God does not kill you and I, when we do wicked things here that offend Him. We are preserved to repent and be pardoned." He muses awhile at this. "Well, well," says he, mighty affectionately, "that well; so you, I, Devil, all wicked, all preserve, repent, God pardon all." Here I was run down again by him to the last degree, and it was a testimony to me how the mere notions of nature, though they will guide reasonable creatures to the knowledge of a God, and of a worship or homage due to the supreme being of God, as the consequence of our nature; yet nothing but Divine revelation can form the knowledge of Jesus Christ, and of a redemption purchased for us, of a Mediator of the new covenant, and of an Intercessor at the footstool of God's throne; I say, nothing but a revelation from Heaven can form these in the soul; and that therefore the Gospel of our Lord and Saviour Jesus Christ, I mean, the Word of God and the Spirit of God, promised for the guide and sanctifier of His people, are the absolutely necessary instructors of the souls of men, in the saving knowledge of God, and the means of salvation.

I therefore diverted the present discourse between me and my man, rising up hastily, as upon some sudden occasion of going out; then sending him for something a good way off, I seriously prayed to God that He

would enable me to instruct savingly this poor savage, assisting by His Spirit the heart of the poor ignorant creature to receive the light of the knowledge of God in Christ, reconciling him to Himself, and would guide me to speak so to him from the Word of God as his conscience might be convinced, his eyes opened, and his soul saved. When he came again to me, I entered into a long discourse with him upon the subject of the redemption of man by the Saviour of the world, and of the doctrine of the Gospel preached from Heaven, viz., of repentance towards God, and faith in our blessed Lord Jesus. I then explained to him, as well as I could, why our blessed Redeemer took not on Him the nature of angels but the seed of Abraham, and how for that reason the fallen angels had no share in the redemption; that He came only to the lost sheep of the House of Israel, and the like.

I had, God knows, more sincerity than knowledge in all the methods I took for this poor creature's instruction, and must acknowledge what I believe all that act upon the same principle will find, that in laying things open to him, I really informed and instructed myself in many things that either I did not know or had not fully considered before, but which occurred naturally to my mind upon my searching into them for the information of this poor savage; and I had more affection in my inquiry after things upon this occasion than ever I felt before; so that whether this poor wild wretch was the better for me or no, I had great reason to be thankful that ever he came to me. My grief sat lighter upon me, my habitation grew comfortable to me beyond measure; and when I reflected that in this solitary life which I had been confined to, I had not only been moved myself to look up to Heaven and to seek to the Hand that had brought me there, but was now to be made an instrument under Providence to save the life and, for aught I knew, the soul of a poor savage, and bring him to the true knowledge of religion, and of the Christian doctrine, that he might know Christ Jesus, to know whom is life eternal; I say, when I reflected upon all these things, a secret joy ran through every part of my soul, and I frequently rejoiced that ever I was brought to this place, which I had so often thought the most dreadful of all afflictions that could possibly have befallen me.

In this thankful frame I continued all the remainder of my time, and the conversation which employed the hours between Friday and I was such as made the three years which we lived there together perfectly and completely happy, if any such thing as complete happiness can be formed in a sublunary state. The savage was now a good Christian, a much better than I; though I have reason to hope, and bless God for it,

that we were equally penitent, and comforted, restored penitents; we had here the Word of God to read and no farther off from His Spirit to instruct than if we had been in England.

I always applied myself to reading the Scripture to let him know, as well as I could, the meaning of what I read; and he again, by his serious inquiries and questions, made me, as I said before, a much better scholar in the Scripture knowledge than I should ever have been by my own private mere reading. Another thing I cannot refrain from observing here also, from experience in this retired part of my life, viz., how infinite and inexpressible a blessing it is that the knowledge of God and of the doctrine of salvation by Christ Jesus is so plainly laid down in the Word of God, so easy to be received and understood, that as the bare reading the Scripture made me capable of understanding enough of my duty to carry me directly on to the great work of sincere repentance for my sins, and laying hold of a Saviour for life and salvation, to a stated reformation in practice, and obedience to all God's commands, and this without any teacher or instructor (I mean, human), so the same plain instruction sufficiently served to the enlightening this savage creature and bringing him to be such a Christian as I have known few equal to him in my life.

As to all the disputes, wranglings, strife, and contention which has happened in the world about religion, whether niceties in doctrines, or schemes of church government, they were all perfectly useless to us; as, for aught I can yet see, they have been to all the rest in the world. We had the sure guide to Heaven, viz., the Word of God; and we had, blessed be God, comfortable views of the Spirit of God, teaching and instructing us by His Word, leading us into all truth, and making us both willing and obedient to the instruction of His Word; and I cannot see the least use that the greatest knowledge of the disputed points in religion, which have made such confusions in the world, would have been to us, if we could have obtained it; but I must go on with the historical part of things, and take every part in its order.

After Friday and I became more intimately acquainted, and that he could understand almost all I said to him and speak fluently, though in broken English, to me, I acquainted him with my own story, or at least so much of it as related to my coming into the place, how I had lived there, and how long. I let him into the mystery, for such it was to him, of gunpowder and bullet, and taught him how to shoot. I gave him a knife, which he was wonderfully delighted with, and I made him a belt, with a frog hanging to it, such as in England we wear hangers in; and in the frog, instead of a hanger, I gave him a hatchet, which was not only as

good a weapon, in some cases, but much more useful upon other occasions.

I described to him the country of Europe, and particularly England, which I came from; how we lived, how we worshipped God, how we behaved to one another; and how we traded in ships to all parts of the world. I gave him an account of the wreck which I had been on board of, and showed him as near as I could the place where she lay; but she was all beaten in pieces before, and gone.

I showed him the ruins of our boat, which we lost when we escaped, and which I could not stir with my whole strength then, but was now fallen almost all to pieces. Upon seeing this boat, Friday stood musing a great while, and said nothing; I asked him what it was he studied upon; at last says he, "Me see such boat like come to place at my nation."

I did not understand him a good while; but at last, when I had examined further into it, I understood by him that a boat, such as that had been, came on shore upon the country where he lived; that is, as he explained it, was driven thither by stress of weather. I presently imagined that some European ship must have been cast away upon their coast, and the boat might get loose and drive ashore; but was so dull that I never once thought of men making escape from a wreck thither, much less whence they might come; so I only inquired after a description of the boat.

Friday described the boat to me well enough, but brought me better to understand him when he added with some warmth, "We save the white mans from drown." Then I presently asked him if there were any white mans, as he called them, in the boat. "Yes," he said, "the boat full of white mans." I asked him how many; he told upon his fingers seventeen. I asked him then what became of them; he told me, "They live, they dwell at my nation."

This put new thoughts into my head; for I presently imagined that these might be the men belonging to the ship that was cast away in sight of my island, as I now call it; and who, after the ship was struck on the rock and they saw her inevitably lost, had saved themselves in their boat and were landed upon that wild shore among the savages.

Upon this I inquired of him more critically what was become of them. He assured me they lived still there; that they had been there about four years; that the savages let them alone, and gave them victuals to live. I asked him how it came to pass they did not kill them and eat them. He said, "No, they make brother with them"; that is, as I understood him, a truce. And then he added, "They no eat mans but when make the war fight"; that is to say, they never eat any men but such as come to fight with them and are taken in battle.

It was after this some considerable time that being on the top of the hill, at the east side of the island, from whence, as I have said, I had in a clear day discovered the main, or continent of America, Friday, the weather being very serene, looks very earnestly towards the mainland. and in a kind of surprise falls a-jumping and dancing, and calls out to me, for I was at some distance from him. I asked him what was the matter. "O joy!" says he, "O glad! There see my country, there my nation!"

I observed an extraordinary sense of pleasure appeared in his face, and his eyes sparkled, and his countenance discovered a strange eagerness, as if he had a mind to be in his own country again; and this observation of mine put a great many thoughts into me, which made me at first not so easy about my new man Friday as I was before; and I made no doubt but that if Friday could get back to his own nation again, he would not only forget all his religion but all his obligation to me; and would be forward enough to give his countrymen an account of me, and come back, perhaps with a hundred or two of them, and make a feast upon me, at which he might be as merry as he used to be with those of his enemies, when they were taken in war.

But I wronged the poor honest creature very much, for which I was very sorry afterwards. However, as my jealousy increased, and held me some weeks, I was a little more circumspect, and not so familiar and kind to him as before; in which I was certainly in the wrong too, the honest grateful creature having no thought about it but what consisted with the best principles, both as a religious Christian and as a grateful friend, as appeared afterwards to my full satisfaction.

While my jealousy of him lasted, you may be sure I was every day pumping him to see if he would discover any of the new thoughts which I suspected were in him; but I found everything he said was so honest and so innocent that I could find nothing to nourish my suspicion; and in spite of all my uneasiness he made me at last entirely his own again; nor did he in the least perceive that I was uneasy, and therefore I could not suspect him of deceit.

One day, walking up the same hill, but the weather being hazy at sea so that we could not see the continent, I called to him, and said, "Friday, do not you wish yourself in your own country, your own nation?" "Yes," he said, "I be much O glad to be at my nation." "What would you do there?" said I. "Would you turn wild again, eat men's flesh again, and be a savage as you were before?" He looked full of concern, and shaking his head, said, "No, no, Friday tell them to live good, tell them to pray God, tell

them to eat corn bread, cattle flesh, milk, no eat man again." "Why then," said I to him, "they will kill you." He looked grave at that, and then said, "No, they no kill me, they willing love learn." He meant by this, they would be willing to learn. He added, they learned much of the bearded mans that come in the boat. Then I asked him if he would go back to them. He smiled at that and told me he could not swim so far. I told him I would make a canoe for him. He told me he would go, if I would go with him. "I go!" says I. "Why, they will eat me if I come there." "No, no," says he, "me make they no eat you; me make they much love you." He meant he would tell them how I had killed his enemies and saved his life, and so he would make them love me; then he told me as well as he could how kind they were to seventeen white men, or bearded men, as he called them, who came on shore there in distress.

From this time, I confess, I had a mind to venture over, and see if I could possibly join with these bearded men, who, I made no doubt, were Spaniards or Portuguese; not doubting but, if I could, we might find some method to escape from thence, being upon the continent, and a good company together, better than I could from an island forty miles off the shore, and alone without help. So after some days I took Friday to work again, by way of discourse, and told him I would give him a boat to go back to his own nation; and accordingly I carried him to my frigate, which lay on the other side of the island, and having cleared it of water, for I always kept it sunk in the water, I brought it out, showed it him, and we both went into it.

I found that he was a most dexterous fellow at managing it, would make it go almost as swift and fast again as I could; so when he was in, I said to him, "Well, now, Friday, shall we go to your nation?" He looked very dull at my saying so, which, it seems, was because he thought the boat too small to go so far. I told him then I had a bigger; so the next day I went to the place where the first boat lay which I had made, but which I could not get into the water. He said that was big enough; but then, as I had taken no care of it, and it had lain two or three and twenty years there, the sun had split and dried it, that it was in a manner rotten. Friday told me such a boat would do very well and would carry "much enough victual, drink, bread"; that was his way of talking.

Upon the whole, I was by this time so fixed upon my design of going over with him to the continent, that I told him we would go and make one as big as that, and he should go home in it. He answered not one word, but looked very grave and sad. I asked him what was the matter

with him; he asked me again thus, "Why you angry mad with Friday, what me done?" I asked him what he meant; I told him I was not angry with him at all. "No angry! no angry!" says he, repeating the words several times, "Why send Friday home away to my nation?" "Why," says I, "Friday, did you not say you wished you were there?" "Yes, yes," says he, "wish be both there, no wish Friday there, no Master there." In a word, he would not think of going there without me. "I go there, Friday!" says I. "What shall I do there?" He turned very quick upon me at this: "You do great deal much good," says he, "you teach wild mans be good sober tame mans; you tell them know God, pray God, and live new life." "Alas, Friday," says I, "thou knowest not what thou sayest. I am but an ignorant man myself." "Yes, yes," says he, "you teachee me good, you teachee them good." "No, no, Friday," says I, "you shall go without me, leave me here to live by myself, as I did before." He looked confused again at that word, and running to one of the hatchets which he used to wear, he takes it up hastily, and gives it to me. "What must I do with this?" says I to him. "You take kill Friday," says he. "What must I kill you for?" said I again. He returns very quick, "What you send Friday away for? Take kill Friday, no send Friday away." This he spoke so earnestly that I saw tears stand in his eyes. In a word, I so plainly discovered the utmost affection in him to me, and a firm resolution in him, that I told him then, and often after, that I would never send him away from me, if he was willing to stay with me.

Upon the whole, as I found by all his discourse a settled affection to me, and that nothing should part him from me, so I found all the foundation of his desire to go to his own country was laid in his ardent affection to the people, and his hopes of my doing them good; a thing, which as I had no notion of myself, so I had not the least thought or intention or desire of undertaking it. But still I found a strong inclination to my attempting an escape, as above, founded on the supposition gathered from the discourse, viz., that there were seventeen bearded men there; and therefore, without any more delay, I went to work with Friday to find out a great tree proper to fell, and make a large piragua or canoe to undertake the voyage. There were trees enough in the island to have built a little fleet, not of piraguas and canoes, but even of good large vessels. But the main thing I looked at was to get one so near the water that we might launch it when it was made, to avoid the mistake I committed at first.

At last, Friday pitched upon a tree, for I found he knew much better than I what kind of wood was fittest for it; nor can I tell, to this day, what wood to call the tree we cut down, except that it was very like the tree we

call *fustic,* or between that and the Nicaragua wood, for it was much of the same color and smell. Friday was for burning the hollow or cavity of this tree out, to make it for a boat. But I showed him how rather to cut it out with tools, which after I showed him how to use, he did very handily; and in about a month's hard labour, we finished it and made it very handsome, especially when with our axes, which I showed him how to handle, we cut and hewed the outside into the true shape of a boat; after this, however, it cost us near a fortnight's time to get her along, as it were, inch by inch, upon great rollers into the water. But when she was in, she would have carried twenty men with great ease.

When she was in the water, and though she was so big, it amazed me to see with what dexterity and how swift my man Friday would manage her, turn her, and paddle her along; so I asked him if he would, and if we might venture over in her. "Yes," he said, "he venture over in her very well, though great blow wind." However, I had a further design that he knew nothing of, and that was to make a mast and sail, and to fit her with an anchor and cable. As to a mast, that was easy enough to get; so I pitched upon a straight young cedar tree, which I found near the place, and which there was great plenty of in the island; and I set Friday to work to cut it down, and gave him directions how to shape and order it. But as to the sail, that was my particular care; I knew I had old sails, or rather pieces of old sails, enough; but as I had had them now twenty-six years by me and had not been very careful to preserve them, not imagining that I should ever have this kind of use for them, I did not doubt but they were all rotten; and indeed most of them were so; however, I found two pieces which appeared pretty good, and with these I went to work, and with a great deal of pains, and awkward tedious stitching (you may be sure) for want of needles, I at length made a three-cornered ugly thing, like what we call in England a shoulder-of-mutton sail, to go with a boom at bottom, and a little short sprit at the top, such as usually our ships' long-boats sail with, and such as I best knew how to manage; because it was such a one as I had to the boat in which I made my escape from Barbary, as related in the first part of my story.

I was near two months performing this last work, viz., rigging and fitting my mast and sails; for I finished them very complete, making a small stay, and a sail, or foresail to it, to assist, if we should turn to windward; and which was more than all, I fixed a rudder to the stern of her, to steer with; and though I was but a bungling shipwright, yet as I knew the usefulness and even necessity of such a thing, I applied myself with so much

pains to do it that at last I brought it to pass, though considering the many dull contrivances I had for it that failed, I think it cost me almost as much labour as making the boat.

After all this was done too, I had my man Friday to teach as to what belonged to the navigation of my boat; for though he knew very well how to paddle a canoe, he knew nothing what belonged to a sail and a rudder, and was the most amazed when he saw me work the boat to and again in the sea by the rudder, and how the sail jibed, and filled this way or that way, as the course we sailed changed; I say, when he saw this, he stood like one astonished and amazed. However, with a little use I made all these things familiar to him; and he became an expert sailor, except that as to the compass, I could make him understand very little of that. On the other hand, as there was very little cloudy weather, and seldom or never any fogs in those parts, there was the less occasion for a compass, seeing the stars were always to be seen by night and the shore by day, except in the rainy seasons, and then nobody cared to stir abroad, either by land or sea.

I was now entered on the seven and twentieth year of my captivity in this place; though the three last years that I had this creature with me ought rather to be left out of the account, my habitation being quite of another kind than in all the rest of the time. I kept the anniversary of my landing here with the same thankfulness to God for His mercies as at first; and if I had such cause of acknowledgement at first, I had much more so now, having such additional testimonies of the care of Providence over me, and the great hopes I had of being effectually and speedily delivered; for I had an invincible impression upon my thoughts that my deliverance was at hand, and that I should not be another year in this place. However, I went on with my husbandry, digging, planting, fencing, as usual; I gathered and cured my grapes, and did every necessary thing, as before.

The rainy season was in the meantime upon me, when I kept more within doors than at other times; so I had stowed our new vessel as secure as we could, bringing her up into the creek, where, as I said in the beginning, I landed my rafts from the ship and, hauling her up to the shore, at high-water mark, I made my man Friday dig a little dock, just big enough to hold her, and just deep enough to give her water enough to float in; and then when the tide was out, we made a strong dam across the end of it, to keep the water out; and so she lay dry, as to the tide, from the sea; and to keep the rain off, we laid a great many boughs of trees so thick that she was as well thatched as a house; and thus we waited for the months of November and December, in which I designed to make my adventure.

WE MARCH OUT AGAINST THE CANNIBALS

When the settled season began to come in, as the thought of my design returned with the fair weather, I was preparing daily for the voyage; and the first thing I did was to lay by a certain quantity of provisions, being the stores for our voyage; and intended, in a week or a fortnight's time, to open the dock and launch out our boat. I was busy one morning upon something of this kind, when I called to Friday, and bade him go to the sea-shore and see if he could find a turtle, or tortoise, a thing which we generally got once a week, for the sake of the eggs as well as the flesh. Friday had not been long gone when he came running back and flew over my outer wall, or fence, like one that felt not the ground, or the steps he set his feet on; and before I had time to speak to him, he cries out to me, "O Master! O Master! O sorrow! O bad!" "What's the matter, Friday?" says I. "O yonder, there," says he, "one, two, three canoe! one, two, three!" By his way of speaking, I concluded there were six; but on inquiry I found it was but three. "Well, Friday," says I, "do not be frighted"; so I heartened him up as well as I could. However, I saw the poor fellow was most terribly scared; for nothing ran in his head but that they were come to look for him, and would cut him in pieces and eat him; and the poor fellow trembled so, that I scarce knew what to do with him. I comforted him as well as I could, and told him I was in as much danger as he, and that they would eat me as well as him; "but," says I, "Friday, we must resolve to fight them; can you fight, Friday?" "Me shoot," says he, "but there come many great number." "No matter for that," said I again, "our guns will fright them that we do not kill"; so I asked him, whether if I resolved to defend him, he would defend me, and stand by me, and do just as I bade him. He said, "Me die when you bid die, Master"; so I went and fetched a good dram of rum, and gave him; for I had been so good a husband of my rum, that I had a great deal left. When he had drunk it, I made him take the two fowling pieces, which we always carried, and load them with large swan-shot, as big as small pistol bullets; then I took four muskets, and loaded them with two slugs and five small bullets each; and my two pistols I loaded with a brace of bullets each. I hung my great sword, as usual, naked by my side, and gave Friday his hatchet.

When I had thus prepared myself, I took my perspective-glass and went up to the side of the hill, to see what I could discover; and I found quickly, by my glass, that there were one-and-twenty savages, three prisoners, and three canoes; and that their whole business seemed to be

the triumphant banquet upon these three human bodies (a barbarous feast indeed), but nothing else more than, as I had observed, was usual with them.

I observed also that they were landed, not where they had done when Friday made his escape, but nearer to my creek, where the shore was low, and where a thick wood came close almost down to the sea. This, with the abhorrence of the inhuman errand these wretches came about, filled me with such indignation that I came down again to Friday and told him I was resolved to go down to them, and kill them all; and asked him if he would stand by me. He was now gotten over his fright, and his spirits being a little raised with the dram I had given him, he was very cheerful, and told me, as before, he would die when I bade die.

In this fit of fury, I took first and divided the arms which I had charged, as before, between us; I gave Friday one pistol to stick in his girdle, and three guns upon his shoulder; and I took one pistol, and the other three myself; and in this posture we marched out. I took a small bottle of rum in my pocket and gave Friday a large bag with more powder and bullet; and as to orders, I charged him to keep close behind me, and not to stir, or shoot, or do anything, till I bade him; and in the meantime not to speak a word. In this posture I fetched a compass to my right hand of near a mile, as well to get over the creek, as to get into the wood; so that I might come within shot of them before I should be discovered, which I had seen by my glass it was easy to do.

While I was making this march, my former thoughts returning, I began to abate my resolution; I do not mean that I entertained any fear of their number; for as they were naked, unarmed wretches, 'tis certain I was superior to them; nay, though I had been alone; but it occurred to my thoughts what call, what occasion, much less what necessity, I was in to go and dip my hands in blood, to attack people who had neither done or intended me any wrong; who, as to me, were innocent and whose barbarous customs were their own disaster, being in them a token indeed of God's having left them, with the other nations of that part of the world, to such stupidity and to such inhuman courses; but did not call me to take upon me to be a judge of their actions, much less an executioneer of His Justice; that whenever He thought fit, He would take the cause into His own hands, and by national vengeance punish them as a people for national crimes; but that, in the meantime, it was none of my business; that it was true, Friday might justify it, because he was a declared enemy, and in a state of war with those very particular people; and it was lawful for

him to attack them; but I could not say the same with respect to me. These things were so warmly pressed upon my thoughts all the way as I went that I resolved I would only go and place myself near them, that I might observe their barbarous feast and that I would act then as God should direct; but that unless something offered that was more a call to me than yet I knew of, I would not meddle with them.

With this resolution I entered the wood, and, with all possible wariness and silence (Friday following close at my heels) I marched till I came to the skirt of the wood, on the side which was next to them; only that one corner of the wood lay between me and them; here I called softly to Friday, and showing him a great tree, which was just at the corner of the wood, I bade him go to the tree, and bring me word if he could see there plainly what they were doing; he did so, and came immediately back to me and told me they might be plainly viewed there; that they were all about their fire, eating the flesh of one of their prisoners; and that another lay bound upon the sand, a little from them, which he said they would kill next; and which fired all the very soul within me. He told me it was not one of their nation, but one of the bearded men, whom he had told me of, that came to their country in the boat. I was filled with horror at the very naming the white bearded man, and, going to the tree, I saw plainly by my glass a white man who lay upon the beach of the sea, with his hands and his feet tied with flags, or things like rushes, and that he was a European and had clothes on.

There was another tree, and a little thicket beyond it, about fifty yards nearer to them than the place where I was, which, by going a little way about, I saw I might come at undiscovered, and that then I should be within half shot of them; so I withheld my passion, though I was indeed enraged to the highest degree, and going back about twenty paces, I got behind some bushes, which held all the way, till I came to the other tree; and then I came to the little rising ground, which gave me a full view of them, at the distance of about eighty yards.

I had now not a moment to lose; for nineteen of the dreadful wretches sat upon the ground, all close huddled together, and had just sent the other two to butcher the poor Christian and bring him, perhaps limb by limb, to their fire, and they were stooped down to untie the bands at his feet. I turned to Friday. "Now, Friday," said I, "do as I bid thee." Friday said he would. "Then, Friday," says I, "do exactly as you see me do; fail in nothing." So I set down one of the muskets and the fowling piece upon the ground, and Friday did the like by his; and with the other musket I

took my aim at the savages, bidding him do the like; then asking him if he was ready, he said, "Yes." "Then fire at them," said I; and the same moment I fired also.

Friday took his aim so much better than I that on the side that he shot he killed two of them and wounded three more; and on my side, I killed one and wounded two. They were, you may be sure, in a dreadful consternation; and all of them who were not hurt jumped up upon their feet, but did not immediately know which way to run or which way to look; for they knew not from whence their destruction came. Friday kept his eyes close upon me, that, as I had bade him, he might observe what I did; so, as soon as the first shot was made, I threw down the piece, and took up the fowling piece, and Friday did the like; he sees me cock and present; he did the same again. "Are you ready, Friday?" said I. "Yes," says he. "Let fly, then," says I, "in the name of God!" and with that I fired again among the amazed wretches, and so did Friday; and as our pieces were now loaden with what I called swan-shot, or small pistol bullets, we found only two drop; but so many were wounded that they ran about yelling and screaming like mad creatures, all bloody, and miserably wounded most of them; whereof three more fell quickly after, though not quite dead.

"Now, Friday," says I, laying down the discharged pieces and taking up the musket, which was yet loaden, "follow me," says I, which he did, with a great deal of courage; upon which I rushed out of the wood and showed myself, and Friday close at my foot; as soon as I perceived they saw me, I shouted as loud as I could and bade Friday do so too; and running as fast as I could, which, by the way, was not very fast, being loaden with arms as I was, I made directly towards the poor victim, who was, as I said, lying upon the beach, or shore, between the place where they sat and the sea; the two butchers, who were just going to work with him, had left him at the surprise of our first fire and fled in a terrible fright to the seaside and had jumped into a canoe, and three more of the rest made the same way; I turned to Friday and bade him step forwards and fire at them. He understood me immediately, and running about forty yards to be near them, he shot at them, and I thought he had killed them all, for I saw them all fall of a heap into the boat; though I saw two of them up again quickly. However, he killed two of them and wounded the third, so that he lay down in the bottom of the boat, as if he had been dead.

While my man Friday fired at them, I pulled out my knife and cut the flags that bound the poor victim; and, loosing his hands and feet, I lifted him up and asked him in the Portuguese tongue what he was. He an-

swered in Latin, "Christianus"; but was so weak and faint that he could scarce stand or speak; I took my bottle out of my pocket and gave it him, making signs that he should drink, which he did; and I gave him a piece of bread, which he ate; then I asked him what countryman he was. And he said, "Espagniole"; and being a little recovered, let me know by all the signs he could possibly make how much he was in my debt for his deliverance. "Seignior," said I, with as much Spanish as I could make up, "we will talk afterwards, but we must fight now; if you have any strength left, take this pistol and sword and lay about you." He took them very thankfully, and no sooner had he the arms in his hands, but as if they had put new vigour into him, he flew upon his murderers like a fury, and had cut two of them in pieces in an instant; for the truth is, as the whole was a surprise to them, so the poor creatures were so much frighted with the noise of our pieces that they fell down for mere amazement and fear and had no more power to attempt their own escape than their flesh had to resist our shot; and that was the case of those five that Friday shot at in the boat; for as three of them fell with the hurt they received, so the other two fell with the fright.

I kept my piece in my hand still, without firing, being willing to keep my charge ready, because I had given the Spaniard my pistol and sword; so I called to Friday and bade him run up to the tree from whence we first fired, and fetch the arms which lay there that had been discharged, which he did with great swiftness; and then giving him my musket, I sat down myself to load all the rest again, and bade them come to me when they wanted. While I was loading these pieces, there happened a fierce engagement between the Spaniard and one of the savages, who made at him with one of their great wooden swords, the same weapon that was to have killed him before, if I had not prevented it. The Spaniard, who was as bold and as brave as could be imagined, though weak, had fought this Indian a good while, and had cut him two great wounds on his head; but the savage being a stout lusty fellow, closing in with him, had thrown him down, being faint, and was wringing my sword out of his hand, when the Spaniard, though undermost, wisely quitting the sword, drew the pistol from his girdle, shot the savage through the body, and killed him upon the spot, before I, who was running to help him, could come near him.

Friday, being now left to his liberty, pursued the flying wretches with no weapon in his hand but his hatchet; and with that he dispatched those three, who, as I said before, were wounded at first and fallen, and all the

rest he could come up with; and the Spaniard coming to me for a gun, I gave him one of the fowling pieces, with which he pursued two of the savages, and wounded them both; but as he was not able to run, they both got from him into the wood, where Friday pursued them and killed one of them; but the other was too nimble for him; and though he was wounded, yet had plunged himself into the sea, and swam with all his might off to those two who were left in the canoe, which three in the canoe, with one wounded, who we know not whether he died or no, were all that escaped our hands of one-and-twenty. The account of the rest is as follows:

3 killed at our first shot from the tree.
2 killed at the next shot.
2 killed by Friday in the boat.
2 killed by ditto, of those at first wounded.
1 killed by ditto in the wood.
3 killed by the Spaniard.
4 killed, being found dropped here and there of their wounds, or killed by Friday in his chase of them.
4 escaped in the boat, whereof one wounded, if not dead.
21 in all.

Those that were in the canoe worked hard to get out of gunshot; and though Friday made two or three shot at them, I did not find that he hit any of them. Friday would fain have had me take one of their canoes and pursue them; and indeed I was very anxious about their escape, lest, carrying the news home to their people, they should come back perhaps with two or three hundred of their canoes and devour us by mere multitude; so I consented to pursue them by sea, and running to one of their canoes, I jumped in and bade Friday follow me; but when I was in the canoe, I was surprised to find another poor creature lie there alive, bound hand and foot, as the Spaniard was, for the slaughter, and almost dead with fear, not knowing what the matter was; for he had not been able to look up over the side of the boat, he was tied so hard, neck and heels, and had been tied so long that he had really but little life in him.

I immediately cut the twisted flags, or rushes, which they had bound him with, and would have helped him up; but he could not stand or speak, but groaned most piteously, believing, it seems, still that he was only unbound in order to be killed.

When Friday came to him, I bade him speak to him and tell him of his deliverance, and pulling out my bottle, made him give the poor wretch a dram, which, with the news of his being delivered, revived him,

and he sat up in the boat; but when Friday came to hear him speak, and looked in his face, it would have moved anyone to tears, to have seen how Friday kissed him, embraced him, hugged him, cried, laughed, holloed, jumped about, danced, sang, then cried again, wrung his hands, beat his own face and head, and then sang and jumped about again, like a distracted creature. It was a good while before I could make him speak to me, or tell me what was the matter; but when he came a little to himself he told me that it was his father.

It is not easy for me to express how it moved me to see what ecstasy and filial affection had worked in this poor savage, at the sight of his father and of his being delivered from death; nor indeed can I describe half the extravagances of his affection after this; for he went into the boat and out of the boat a great many times. When he went in to him, he would sit down by him, open his breast, and hold his father's head close to his bosom, half an hour together, to nourish it; then he took his arms and ankles, which were numbed and stiff with the binding, and chafed and rubbed them with his hands; and I, perceiving what the case was, gave him some rum out of my bottle to rub them with, which did them a great deal of good.

This action put an end to our pursuit of the canoe with the other savages, who were now gotten almost out of sight; and it was happy for us that we did not; for it blew so hard within two hours after, and before they could be gotten a quarter of their way, and continued blowing so hard all night, and that from the northwest, which was against them, that I could not suppose their boat could live, or that they ever reached to their own coast.

But to return to Friday; he was so busy about his father that I could not find in my heart to take him off for some time. But after I thought he could leave him a little, I called him to me, and he came jumping and laughing, and pleased to the highest extreme; then I asked him if he had given his father any bread. He shook his head and said, "None; ugly dog eat all up self." So I gave him a cake of bread out of a little pouch I carried on purpose; I also gave him a dram for himself, but he would not taste it but carried it to his father. I had in my pocket also two or three bunches of my raisins, so I gave him a handful of them for his father. He had no sooner given his father these raisins but I saw him come out of the boat and run away, as if he had been bewitched, he ran at such a rate; for he was the swiftest fellow of his foot that ever I saw; I say, he ran at such a rate that he was out of sight, as it were, in an instant; and though I called, and holloed, too, after him, it was all one, away he went, and in a

quarter of an hour I saw him come back again, though not so fast as he went; and as he came nearer, I found his pace was slacker because he had something in his hand.

When he came up to me, I found he had been quite home for an earthen jug or pot to bring his father some fresh water, and that he had got two more cakes or loaves of bread. The bread he gave me, but the water he carried to his father. However, as I was very thirsty too, I took a little sup of it. This water revived his father more than all the rum or spirits I had given him, for he was just fainting with thirst.

When his father had drunk, I called to him to know if there was any water left; he said "Yes"; and I bade him give it to the poor Spaniard, who was in as much want of it as his father; and I sent one of the cakes that Friday brought to the Spaniard too, who was indeed very weak, and was reposing himself upon a green place under the shade of a tree, and whose limbs were also very stiff, and very much swelled with the rude bandage he had been tied with. When I saw that, upon Friday's coming to him with the water, he sat up and drank, and took the bread and began to eat, I went to him and gave him a handful of raisins; he looked up in my face with all the tokens of gratitude and thankfulness that could appear in any countenance, but was so weak, notwithstanding he had so exerted himself in the fight that he could not stand up upon his feet; he tried to do it two or three times, but was really not able, his ankles were so swelled and so painful to him; so I bade him sit still, and caused Friday to rub his ankles and bathe them with rum, as he had done his father's.

I observed the poor affectionate creature, every two minutes or perhaps less, all the while he was here, turned his head about to see if his father was in the same place and posture as he left him sitting; and at last he found he was not to be seen; at which he started up, and without speaking a word, flew with that swiftness to him, that one could scarce perceive his feet to touch the ground as he went. But when he came, he only found he had laid himself down to ease his limbs; so Friday came back to me presently, and I then spoke to the Spaniard to let Friday help him up if he could and lead him to the boat, and then he should carry him to our dwelling, where I would take care of him. But Friday, a lusty strong fellow, took the Spaniard quite up upon his back and carried him away to the boat and set him down softly upon the side, or gunnel, of the canoe, with his feet in the inside of it, and then lifted him quite in and set him close to his father, and presently stepping out again, launched the boat off, and paddled it along the shore faster than I could walk, though

the wind blew pretty hard too; so he brought them both safe into our creek; and leaving them in the boat, runs away to fetch the other canoe. As he passed me, I spoke to him, and asked him whither he went; he told me, "Go fetch more boat"; so away he went, like the wind; for sure never man or horse ran like him, and he had the other canoe in the creek almost as soon as I got to it by land; so he wafted me over, and then went to help our new guests out of the boat, which he did; but they were neither of them able to walk; so that poor Friday knew not what to do.

To remedy this, I went to work in my thought, and calling to Friday to bid them sit down on the bank while he came to me, I soon made a kind of hand-barrow to lay them on, and Friday and I carried them up both together upon it between us. But when we got them to the outside of our wall, or fortification, we were at a worse loss than before; for it was impossible to get them over, and I was resolved not to break it down. So I set to work again; and Friday and I, in about two hours' time, made a very handsome tent, covered with old sails, and above that with boughs of trees, being in the space without our outward fence, and between that and the grove of young wood which I had planted. And here we made them two beds of such things as I had, viz., of good rice straw, with blankets laid upon it to lie on, and another to cover them, on each bed.

My island was now peopled, and I thought myself very rich in subjects; and it was a merry reflection, which I frequently made, how like a king I looked. First of all, the whole country was my own mere property, so that I had an undoubted right of dominion. Secondly, my people were perfectly subjected. I was absolute lord and lawgiver; they all owed their lives to me, and were ready to lay down their lives, if there had been occasion of it, for me. It was remarkable, too, we had but three subjects, and they were of three different religions. My man Friday was a Protestant, his father was a pagan and a cannibal, and the Spaniard was a Papist. However, I allowed liberty of conscience throughout my dominions. But this is by the way.

WE PLAN A VOYAGE TO THE COLONIES OF AMERICA

As soon as I had secured my two weak rescued prisoners, and given them shelter and a place to rest them upon, I began to think of making some provision for them. And the first thing I did, I ordered Friday to take a yearling goat, betwixt a kid and a goat, out of my particular flock, to be killed; when I cut off the hinder quarter, and chopping it into small pieces, I set Friday to work to boiling and stewing, and made them a

very good dish, I assure you, of flesh and broth, having put some barley and rice also into the broth; and as I cooked it without doors, for I made no fire within my inner wall, so I carried it all into the new tent; and having set a table there for them, I sat down and ate my own dinner also with them, and, as well as I could, cheered them and encouraged them; Friday being my interpreter, especially to his father, and indeed to the Spaniard too; for the Spaniard spoke the language of the savages pretty well.

After we had dined, or rather supped, I ordered Friday to take one of the canoes, and go and fetch our muskets and other firearms, which for want of time we had left upon the place of battle; and the next day I ordered him to go and bury the dead bodies of the savages, which lay open to the sun, and would presently be offensive; and I also ordered him to bury the horrid remains of their barbarous feast, which I knew were pretty much, and which I could not think of doing myself; nay, I could not bear to see them, if I went that way. All of which he punctually performed, and defaced the very appearance of the savages being there; so that when I went again I could scarce know where it was, otherwise than by the corner of the wood pointing to the place.

I then began to enter into a little conversation with my two new subjects; and first I set Friday to inquire of his father what he thought of the escape of the savages in that canoe, and whether we might expect a return of them with a power too great for us to resist. His first opinion was that the savages in the boat never could live out the storm which blew that night they went off, but must of necessity be drowned or driven south to those other shores, where they were as sure to be devoured as they were to be drowned if they were cast away; but as to what they would do if they came safe on shore, he said he knew not; but it was his opinion that they were so dreadfully frighted with the manner of their being attacked, the noise and the fire, that he believed they would tell their people they were all killed by thunder and lightning, not by the hand of man, and that the two which appeared, viz., Friday and me, were two heavenly spirits or furies come down to destroy them, and not men with weapons. This he said he knew, because he heard them all cry out so in their language to one another, for it was impossible to them to conceive that a man could dart fire and speak thunder and kill at a distance without lifting up the hand, as was done now. And this old savage was in the right; for, as I understood since by other hands, the savages never attempted to go over to the island afterwards; they were so terrified with the accounts given by those four men (for it seems they did escape

the sea) that they believed whoever went to that enchanted island would be destroyed with fire from the gods.

This, however, I knew not, and therefore was under continual apprehensions for a good while, and kept always upon my guard, me and all my army; for as we were now four of us, I would have ventured upon a hundred of them fairly in the open field at any time.

In a little time, however, no more canoes appearing, the fear of their coming wore off, and I began to take my former thoughts of a voyage to the main into consideration; being likewise assured by Friday's father that I might depend upon good usage from their nation on his account, if I would go.

But my thoughts were a little suspended when I had a serious discourse with the Spaniard, and when I understood that there were sixteen more of his countrymen and Portuguese, who, having been cast away and made their escape to that side, lived there at peace indeed with the savages, but were very sore put to it for necessaries, and indeed for life. I asked him all the particulars of their voyage, and found they were a Spanish ship bound from the Rio de la Plata to Havana, being directed to leave their loading there, which was chiefly hides and silver, and to bring back what European goods they could meet with there; that they had five Portuguese seamen on board, whom they took out of another wreck; that five of their own men were drowned when the first ship was lost, and that these escaped through infinite dangers and hazards, and arrived, almost starved, on the cannibal coast, where they expected to have been devoured every moment.

He told me that they had some arms with them, but they were perfectly useless, for that they had neither powder or ball, the washing of the sea having spoiled all their powder but a little, which they used at their first landing to provide themselves some food.

I asked him what he thought would become of them there, and if they had formed no design of making any escape. He said they had many consultations about it, but that having neither vessel, or tools to build one, or provisions of any kind, their councils always ended in tears and despair.

I asked him how he thought they would receive a proposal from me, which might tend towards an escape; and whether, if they were all here, it might not be done. I told him with freedom, I feared mostly their treachery and ill usage of me, if I put my life in their hands; for that gratitude was no inherent virtue in the nature of man; nor did men always square their dealings by the obligations they had received so much

as they did by the advantages they expected. I told him it would be very hard that I should be the instrument of their deliverance and that they should afterwards make me their prisoner in New Spain, where an Englishman was certain to be made a sacrifice, what necessity or what accident soever brought him thither. And that I had rather be delivered up to the savages and be devoured alive than fall into the merciless claws of the priests and be carried into the Inquisition. I added that otherwise I was persuaded, if they were all here, we might, with so many hands, build a bark large enough to carry us all away, either to Brazil southward, or to the islands or Spanish coast northward. But that if in requital they should, when I had put weapons into their hands, carry me by force among their own people, I might be ill used for my kindness to them, and make my case worse than it was before.

He answered with a great deal of candour and ingenuity that their condition was so miserable, and they were so sensible of it, that he believed they would abhor the thought of using any man unkindly that should contribute to their deliverance; and that, if I pleased, he would go to them with the old man and discourse with them about it, and return again and bring me their answer. That he would make conditions with them upon their solemn oath, that they should be absolutely under my leading, as their commander and captain; and that they should swear upon the Holy Sacraments and the Gospel to be true to me and to go to such Christian country as that I should agree to, and no other; and to be directed wholly and absolutely by my orders, till they were landed safely in such country as I intended; and that he would bring a contract from them, under their hands, for that purpose.

Then he told me he would first swear to me himself that he would never stir from me as long as he lived, till I gave him orders; and that he would take my side to the last drop of his blood, if there should happen the least breach of faith among his countrymen.

He told me they were all of them very civil honest men, and they were under the greatest distress imaginable, having neither weapons or clothes, nor any food, but at the mercy and discretion of the savages; out of all hopes of ever returning to their own country; and that he was sure, if I would undertake their relief, they would live and die by me.

[*The Spaniard and Friday's father sail to the mainland.*]

WE QUELL A MUTINY

It was no less than eight days I had waited for them, when a strange and unforeseen accident intervened, of which the like has not perhaps

been heard in history. I was fast asleep in my hutch one morning, when my man Friday came running in to me and called aloud, "Master, master, they are come, they are come!"

I jumped up, and regardless of danger I went out, as soon as I could get my clothes on, through my little grove, which, by the way, was by this time grown to be a very thick wood; I say, regardless of danger, I went without my arms, which was not my custom to do. But I was surprised when, turning my eyes to the sea, I presently saw a boat at about a league and half's distance, standing in for the shore, with a shoulder-of-mutton sail, as they call it, and the wind blowing pretty fair to bring them in; also I observed presently that they did not come from that side which the shore lay on, but from the southermost end of the island. Upon this I called Friday in, and bid him lie close, for these were not the people we looked for, and that we might not know yet whether they were friends or enemies.

In the next place, I went in to fetch my perspective-glass, to see what I could make of them; and having taken the ladder out, I climbed up to the top of the hill, as I used to do when I was apprehensive of anything, and to take my view the plainer without being discovered.

I had scarce set my foot on the hill, when my eye plainly discovered a ship lying at an anchor at about two leagues and a half's distance from me, south-southeast, but not above a league and a half from the shore. By my observation it appeared plainly to be an English ship, and the boat appeared to be an English long-boat.

I cannot express the confusion I was in, though the joy of seeing a ship, and one whom I had reason to believe was manned by my own countrymen, and consequently friends, was such as I cannot describe; but yet I had some secret doubts hung about me, I cannot tell from whence they came, bidding me keep upon my guard. In the first place, it occurred to me to consider what business an English ship could have in that part of the world, since it was not the way to or from any part of the world where the English had any traffic; and I knew there had been no storms to drive them in there, as in distress; and that if they were English really, it was most probable that they were here upon no good design; and that I had better continue as I was than fall into the hands of thieves and murderers.

Let no man despise the secret hints and notices of danger, which sometimes are given him, when he may think there is no possibility of its being real. That such hints and notices are given us, I believe few that have made any observations of things can deny; that they are certain discoveries of an invisible world, and a converse of spirits, we cannot doubt;

and if the tendency of them seems to be to warn us of danger, why should we not suppose they are from some friendly agent (whether supreme, or inferior and subordinate, is not the question) and that they are given for our good?

The present question abundantly confirms me in the justice of this reasoning; for had I not been made cautious by this secret admonition, come it from whence it will, I had been undone inevitably, and in a far worse condition than before, as you will see presently.

I had not kept myself long in this posture but I saw the boat draw near the shore, as if they looked for a creek to thrust in at for the convenience of landing; however, as they did not come quite far enough, they did not see the little inlet where I formerly landed my rafts, but ran their boat on shore upon the beach, at about half a mile from me, which was very happy for me; for otherwise they would have landed just, as I may say, at my door, and would soon have beaten me out of my castle and perhaps have plundered me of all I had.

When they were on shore, I was fully satisfied that they were Englishmen, at least most of them; one or two I thought were Dutch, but it did not prove so. There were in all eleven men, whereof three of them, I found, were unarmed, and, as I thought, bound; and when the first four or five of them were jumped on shore, they took those three out of the boat as prisoners. One of the three I could perceive using the most passionate gestures of entreaty, affliction, and despair, even to a kind of extravagance; the other two, I could perceive, lifted up their hands sometimes, and appeared concerned indeed, but not to such a degree as the first.

I was perfectly confounded at the sight, and knew not what the meaning of it should be. Friday called out to me in English, as well as he could, "O master! you see English mans eat prisoner as well as savage mans." "Why," says I, "Friday, do you think they are a-going to eat them then?" "Yes," says Friday, "they will eat them." "No, no," says I, "Friday, I am afraid they will murder them, indeed, but you may be sure they will not eat them."

All this while I had no thought of what the matter really was, but stood trembling with the horror of the sight, expecting every moment when the three prisoners should be killed; nay, once I saw one of the villains lift up his arm with a great cutlass (as the seamen call it), or sword, to strike one of the poor men; and I expected to see him fall every moment, at which all the blood in my body seemed to run chill in my veins.

I wished heartily now for my Spaniard, and the savage that was gone

with him; or that I had any way to have come undiscovered within shot of them, that I might have rescued the three men; for I saw no firearms they had among them; but it fell out to my mind another way.

After I had observed the outrageous usage of the three men by the insolent seamen, I observed the fellows run scattering about the land, as if they wanted to see the country. I observed that the three other men had liberty to go also where they pleased; but they sat down all three upon the ground, very pensive, and looked like men in despair.

This put me in mind of the first time when I came on shore, and began to look about me, how I gave myself over for lost, how wildly I looked round me, what dreadful apprehensions I had, and how I lodged in the tree all night for fear of being devoured by wild beasts.

As I knew nothing that night of the supply I was to receive by the providential driving of the ship nearer the land by the storms and tide, by which I have since been so long nourished and supported; so these three poor desolate men knew nothing how certain of deliverance and supply they were, how near it was to them, and how effectually and really they were in a condition of safety at the same time that they thought themselves lost and their case desperate.

So little do we see before us in the world, and so much reason have we to depend cheerfully upon the great Maker of the world, that He does not leave His creatures so absolutely destitute but that in the worst circumstances they have always something to be thankful for, and sometimes are nearer their deliverance than they imagine; nay, are even brought to their deliverance by the means by which they seem to be brought to their destruction.

It was just at the top of high water when these people came on shore, and while partly they stood parleying with the prisoners they brought, and partly while they rambled about to see what kind of a place they were in, they had carelessly stayed till the tide was spent, and the water was ebbed considerably away, leaving their boat aground.

They had left two men in the boat, who, as I found afterwards, having drunk a little too much brandy, fell asleep; however, one of them waking sooner than the other, and finding the boat too fast aground for him to stir it, holloed for the rest, who were straggling about, upon which they all soon came to the boat; but it was past all their strength to launch her, the boat being very heavy, and the shore on that side being a soft oozy sand, almost like a quicksand.

In this condition, like true seamen, who are perhaps the least of all mankind given to forethought, they gave it over, and away they strolled

about the country again; and I heard one of them say aloud to another (calling them off from the boat), "Why, let her alone, Jack, can't ye? she'll float next tide"; by which I was fully confirmed in the main inquiry of what countrymen they were.

All this while I kept myself very close, not once daring to stir out of my castle, any farther than to my place of observation near the top of the hill; and very glad I was to think how well it was fortified. I knew it was no less than ten hours before the boat could be on float again, and by that time it would be dark, and I might be at more liberty to see their motions, and to hear their discourse, if they had any.

In the meantime I fitted myself up for a battle, as before; though with more caution, knowing I had to do with another kind of enemy than I had at first. I ordered Friday also, whom I had made an excellent marksman with his gun, to load himself with arms. I took myself two fowling pieces, and I gave him three muskets; my figure, indeed, was very fierce; I had my formidable goatskin coat on, with the great cap I have mentioned, a naked sword by my side, two pistols in my belt, and a gun upon each shoulder.

It was my design, as I said above, not to have made any attempt till it was dark. But about two o'clock, being the heat of the day, I found that, in short, they were all gone straggling into the woods and, as I thought, were laid down to sleep. The three poor distressed men, too anxious for their condition to get any sleep, were, however, set down under the shelter of a great tree, at about a quarter of a mile from me, and, as I thought, out of sight of any of the rest.

Upon this I resolved to discover myself to them and learn something of their condition. Immediately I marched in the figure as above, my man Friday at a good distance behind me, as formidable for his arms as I, but not making quite so staring a spectre-like figure as I did.

I came as near them undiscovered as I could, and then before any of them saw me, I called aloud to them in Spanish, "What are ye, gentlemen?"

They started up at the noise, but were ten times more confounded when they saw me, and the uncouth figure that I made. They made no answer at all, but I thought I perceived them just going to fly from me, when I spoke to them in English: "Gentlemen," said I, "do not be surprised at me; perhaps you may have a friend near you when you did not expect it." "He must be sent directly from Heaven then," said one of them very gravely to me, and pulling off his hat at the same time to me, "for our condition is past the help of man." "All help is from Heaven, sir," said I. "But can you put a stranger in the way how to help you, for you

seem to me to be in some great distress? I saw you when you landed, and when you seemed to make applications to the brutes that came with you, I saw one of them lift up his sword to kill you."

The poor man, with tears running down his face, and trembling, looking like one astonished, returned, "Am I talking to God, or man! Is it a real man, or an angel!" "Be in no fear about that, sir," said I; "if God had sent an angel to relieve you, he would have come better clothed, and armed after another manner than you see me in; pray lay aside your fears; I am a man, an Englishman, and disposed to assist you, you see; I have one servant only; we have arms and ammunition; tell us freely, can we serve you?—What is your case?"

"Our case," said he, "sir, is too long to tell you, while our murderers are so near; but in short, sir, I was commander of that ship; my men have mutinied against me, they have been hardly prevailed on not to murder me, and at last have set me on shore in this desolate place, with these two men with me, one my mate, the other a passenger, where we expected to perish, believing the place to be uninhabited, and know not yet what to think of it."

"Where are those brutes, your enemies?" said I. "Do you know where they are gone?" "There they lie, sir," said he, pointing to a thicket of trees; "my heart trembles for fear they have seen us and heard you speak; if they have, they will certainly murder us all."

"Have they any firearms?" said I. He answered they had only two pieces, and one which they left in the boat. "Well then," said I, "leave the rest to me; I see they are all asleep, it is an easy thing to kill them all; but shall we rather take them prisoners?" He told me there were two desperate villains among them that it was scarce safe to show any mercy to; but if they were secured, he believed all the rest would return to their duty. I asked him which they were. He told me he could not at that distance describe them, but he would obey my orders in anything I would direct. "Well," says I, "let us retreat out of their view or hearing, lest they awake, and we will resolve further"; so they willingly went back with me, till the woods covered us from them.

"Look you, sir," said I, "if I venture upon your deliverance, are you willing to make two conditions with me?" He anticipated my proposals by telling me that both he and the ship, if recovered, should be wholly directed and commanded by me in everything; and if the ship was not recovered, he would live and die with me in what part of the world soever I would send him; and the two other men said the same.

"Well," says I, "my conditions are but two. 1. That while you stay on this island with me, you will not pretend to any authority here; and if I put

arms into your hands, you will upon all occasions give them up to me and do no prejudice to me or mine upon this island, and in the meantime, be governed by my orders.

"2. That if the ship is or may be recovered, you will carry me and my man to England passage-free."

He gave me all the assurances that the invention and faith of man could devise that he would comply with these most reasonable demands, and besides would owe his life to me and acknowledge it upon all occasions as long as he lived.

"Well then," said I, "here are three muskets for you, with powder and ball; tell me next what you think is proper to be done." He showed all the testimony of his gratitude that he was able, but offered to be wholly guided by me. I told him I thought it was hard venturing anything; but the best method I could think of was to fire upon them at once, as they lay; and if any was not killed at the first volley, and offered to submit, we might save them, and so put it wholly upon God's Providence to direct the shot.

He said very modestly that he was loath to kill them, if he could help it, but that those two were incorrigible villains and had been the authors of all the mutiny in the ship, and if they escaped, we should be undone still; for they would go on board and bring the whole ship's company, and destroy us all. "Well then," says I, "necessity legitimates my advice; for it is the only way to save our lives." However, seeing him still cautious of shedding blood, I told him they should go themselves, and manage as they found convenient.

In the middle of this discourse we heard some of them awake, and soon after, we saw two of them on their feet. I asked him if either of them were of the men who he had said were the heads of the mutiny. He said, "No." "Well then," said I, "you may let them escape; and Providence seems to have wakened them on purpose to save themselves. Now," says I, "if the rest escape you, it is your fault."

Animated with this, he took the musket I had given him in his hand, and a pistol in his belt, and his two comrades with him, with each man a piece in his hand. The two men who were with him, going first, made some noise, at which one of the seamen, who was awake, turned about, and seeing them coming cried out to the rest; but it was too late then, for the moment he cried out they fired; I mean the two men, the captain wisely reserving his own piece. They had so well aimed their shot at the men they knew that one of them was killed on the spot, and the other very much wounded; but not being dead, he started up upon his feet, and called eagerly for help to the other; but the captain, stepping to him,

told him 'twas too late to cry for help, he should call upon God to forgive his villainy, and with that word knocked him down with the stock of his musket, so that he never spoke more. There were three more in the company, and one of them was also slightly wounded. By this time I was come; and when they saw their danger, and that it was in vain to resist, they begged for mercy. The captain told them he would spare their lives, if they would give him any assurance of their abhorrence of the treachery they had been guilty of, and would swear to be faithful to him in recovering the ship and afterwards in carrying her back to Jamaica, from whence they came. They gave him all the protestations of their sincerity that could be desired, and he was willing to believe them, and spare their lives, which I was not against, only I obliged him to keep them bound hand and foot while they were upon the island.

While this was doing, I sent Friday with the captain's mate to the boat, with orders to secure her and bring away the oars and sail, which they did; and by and by, three straggling men, that were (happily for them) parted from the rest, came back upon hearing the guns fired, and seeing their captain, who before was their prisoner, now their conqueror, they submitted to be bound also; and so our victory was complete.

It now remained that the captain and I should inquire into one another's circumstances. I began first, and told him my whole history, which he heard with an attention even to amazement; and particularly at the wonderful manner of my being furnished with provisions and ammunition; and, indeed, as my story is a whole collection of wonders, it affected him deeply; but when he reflected from thence upon himself, and how I seemed to have been preserved there on purpose to save his life, the tears ran down his face, and he could not speak a word more.

[*With Crusoe's help, the captain ends the mutiny.*]

WE SEIZE THE SHIP

It now occurred to me that the time of our deliverance was come, and that it would be a most easy thing to bring these fellows in to be hearty in getting possession of the ship; so I retired in the dark from them, that they might not see what kind of a governor they had, and called the captain to me; when I called, as at a good distance, one of the men was ordered to speak again and say to the captain, "Captain, the commander calls for you"; and presently the captain replied, "Tell his excellency, I am just a-coming." This more perfectly amused them, and they all believed that the commander was just by with his fifty men.

Upon the captain's coming to me, I told him my project for seizing

the ship, which he liked of wonderfully well, and resolved to put it in execution the next morning.

But in order to execute it with more art, and security of success, I told him we must divide the prisoners, and that he should go and take Atkins and two more of the worst of them, and send them pinioned to the cave where the others lay. This was committed to Friday and the two men who came on shore with the captain.

They conveyed them to the cave, as to a prison; and it was indeed a dismal place, especially to men in their condition.

The other I ordered to my bower, as I called it, of which I have given a full description; and as it was fenced in, and they pinioned, the place was secure enough, considering they were upon their behaviour.

To these in the morning I sent the captain, who was to enter into a parley with them, in a word, to try them, and tell me, whether he thought they might be trusted or no, to go on board and surprise the ship. He talked to them of the injury done him, of the condition they were brought to; and that though the governor had given them quarter for their lives, as to the present action, yet that if they were sent to England, they would all be hanged in chains, to be sure; but that if they would join in so just an attempt as to recover the ship, he would have the governor's engagement for their pardon.

Anyone may guess how readily such a proposal would be accepted by men in their condition; they fell down on their knees to the captain and promised with the deepest imprecations that they would be faithful to him to the last drop, and that they should owe their lives to him and would go with him all over the world; that they would own him for a father to them as long as they lived.

"Well," says the captain, "I must go and tell the governor what you say, and see what I can do to bring him to consent to it." So he brought me an account of the temper he found them in; and that he verily believed they would be faithful.

However, that we might be very secure, I told him he should go back again and choose out five of them, and tell them they might see that he did not want men; that he would take out those five to be his assistants, and that the governor would keep the other two and the three that were sent prisoners to the castle (my cave) as hostages, for the fidelity of those five; and that if they proved unfaithful in the execution, the five hostages should be hanged in chains alive upon the shore.

This looked severe, and convinced them that the governor was in ear-

nest; however, they had no way left them but to accept it; and it was now the business of the prisoners, as much as of the captain, to persuade the other five to do their duty.

Our strength was now thus ordered for the expedition. 1. The captain, his mate, and passenger. 2. Then the two prisoners of the first gang, to whom, having their characters from the captain, I had given their liberty, and trusted them with arms. 3. The other two, whom I had kept till now in my bower, pinioned; but, upon the captain's motion, had now released. 4. These five released at last. So that they were twelve in all, besides five we kept prisoners in the cave, and the two hostages.

I asked the captain if he was willing to venture with these hands on board the ship; for as for me and my man Friday, I did not think it was proper for us to stir, having seven men left behind, and it was employment enough for us to keep them asunder, and supply them with victuals.

As to the five in the cave, I resolved to keep them fast; but Friday went in twice a day to them, to supply them with necessaries; and I made the other two carry provisions to a certain distance, where Friday was to take it.

When I showed myself to the two hostages, it was with the captain, who told them I was the person the governor had ordered to look after them, and that it was the governor's pleasure they should not stir anywhere but by my direction; that if they did, they should be fetched into the castle, and be laid in irons; so that as we never suffered them to see me as governor, so I now appeared as another person, and spoke of the governor, the garrison, the castle, and the like, upon all occasions.

The captain now had no difficulty before him, but to furnish his two boats, stop the breach of one, and man them. He made his passenger captain of one, with four other men; and himself and his mate and five more went in the other. And they contrived their business very well, for they came up to the ship about midnight. As soon as they came within call of the ship, he made Robinson hail them and tell them they had brought off the men and the boat, but that it was a long time before they had found them, and the like; holding them in a chat till they came to the ship's side; when the captain and the mate, entering first with their arms, immediately knocked down the second mate and carpenter with the butt-end of their muskets. Being very faithfully seconded by their men, they secured all the rest that were upon the main and quarter decks and began to fasten the hatches to keep them down who were below, when the other boat and their men, entering at the fore chains,

secured the forecastle of the ship and the scuttle which went down into the cook room, making three men they found there prisoners.

When this was done, and all safe upon deck, the captain ordered the mate with three men to break into the roundhouse, where the new rebel captain lay, and having taken the alarm, was gotten up, and with two men and a boy had gotten firearms in their hands; and when the mate with a crow split open the door, the new captain and his men fired boldly among them and wounded the mate with a musket ball, which broke his arm, and wounded two more of the men, but killed nobody.

The mate, calling for help, rushed, however, into the roundhouse, wounded as he was, and with his pistol shot the new captain through the head, the bullet entering at his mouth, and came out again behind one of his ears, so that he never spoke a word; upon which the rest yielded, and the ship was taken effectually, without any more lives lost.

As soon as the ship was thus secured, the captain ordered seven guns to be fired, which was the signal agreed upon with me, to give me notice of his success, which you may be sure I was very glad to hear, having sat watching upon the shore for it till near two of the clock in the morning.

Having thus heard the signal plainly, I laid me down; and it having been a day of great fatigue to me, I slept very sound, till I was something surprised with the noise of a gun; and presently starting up, I heard a man call me by the name of "Governor, Governor," and presently I knew the captain's voice, when, climbing up to the top of the hill, there he stood, and pointing to the ship, he embraced me in his arms. "My dear friend and deliverer," says he, "there's your ship, for she is all yours, and so are we and all that belong to her." I cast my eyes to the ship, and there she rode within little more than half a mile of the shore; for they had weighed her anchor as soon as they were masters of her; and the weather being fair, had brought her to an anchor just against the mouth of the little creek; and the tide being up, the captain had brought the pinnace in near the place where I first landed my rafts, and so landed just at my door.

I was at first ready to sink down with the surprise. For I saw my deliverance indeed visibly put into my hands, all things easy, and a large ship just ready to carry me away whither I pleased to go. At first, for some time, I was not able to answer him one word; but as he had taken me in his arms, I held fast by him or I should have fallen to the ground.

He perceived the surprise, and immediately pulls a bottle out of his pocket, and gave me a dram of cordial, which he had brought on purpose for me; after I drank it, I sat down upon the ground; and though it

brought me to myself, yet it was a good while before I could speak a word to him.

All this while the poor man was in as great an ecstasy as I, only not under any surprise, as I was; and he said a thousand kind tender things to me, to compose me and bring me to myself; but such was the flood of joy in my breast that it put all my spirits into confusion; at last it broke out into tears, and in a little while after I recovered my speech.

Then I took my turn and embraced him as my deliverer, and we rejoiced together. I told him I looked upon him as a man sent from Heaven to deliver me, and that the whole transaction seemed to be a chain of wonders; that such things as these were the testimonies we had of a secret hand of Providence governing the world, and an evidence that the eyes of an infinite Power could search into the remotest corner of the world, and send help to the miserable whenever He pleased.

I forgot not to lift up my heart in thankfulness to Heaven; and what heart could forbear to bless Him, who had not only in a miraculous manner provided for one in such a wilderness and in such a desolate condition, but from whom every deliverance must always be acknowledged to proceed!

When we had talked a while, the captain told me he had brought me some little refreshment, such as the ship afforded, and such as the wretches that had been so long his masters had not plundered him of. Upon this he called aloud to the boat, and bade his men bring the things ashore that were for the governor; and indeed it was a present, as if I had been one, not that was to be carried away along with them, but as if I had been to dwell upon the island still and they were to go without me.

First, he had brought me a case of bottles full of excellent cordial waters, six large bottles of Madeira wine; the bottles held two quarts apiece; two pound of excellent good tobacco, twelve good pieces of the ship's beef, and six pieces of pork, with a bag of peas, and about a hundred-weight of biscuit.

He brought me also a box of sugar, a box of flour, a bag full of lemons, and two bottles of lime juice, and abundance of other things. But besides these, and what was a thousand times more useful to me, he brought me six clean new shirts, six very good neckcloths, two pair of gloves, one pair of shoes, a hat, and one pair of stockings, and a very good suit of clothes of his own, which had been worn but very little. In a word, he clothed me from head to foot.

It was a very kind and agreeable present, as anyone may imagine, to one in my circumstances. But never was anything in the world of that

kind so unpleasant, awkward, and uneasy as it was to me to wear such clothes at their first putting on.

After these ceremonies passed, and after all his good things were brought into my little apartment, we began to consult what was to be done with the prisoners we had; for it was worth considering whether we might venture to take them away with us or no, especially two of them, whom we knew to be incorrigible and refractory to the last degree; and the captain said he knew they were such rogues that there was no obliging them, and if he did carry them away, it must be in irons, as malefactors, to be delivered over to justice at the first English colony he could come at; and I found that the captain himself was very anxious about it.

Upon this, I told him that if he desired it, I durst undertake to bring the two men he spoke of to make it their own request that he should leave them upon the island. "I should be very glad of that," says the captain, "with all my heart."

"Well," says I, "I will send for them up, and talk with them for you"; so I caused Friday and the two hostages, for they were now discharged, their comrades having performed their promise; I say, I caused them to go to the cave and bring up the five men, pinioned as they were, to the bower, and keep them there till I came.

After some time I came thither dressed in my new habit, and now I was called governor again; being all met, and the captain with me, I caused the men to be brought before me, and I told them I had had a full account of their villainous behaviour to the captain, and how they had run away with the ship and were preparing to commit further robberies, but that Providence had ensnared them in their own ways and that they were fallen into the pit which they had digged for others.

I let them know that by my direction the ship had been seized, that she lay now in the road, and they might see by and by that their new captain had received the reward of his villainy; for that they might see him hanging at the yard-arm.

That as to them, I wanted to know what they had to say, why I should not execute them as pirates taken in the fact, as by my commission they could not doubt I had authority to do.

One of them answered in the name of the rest that they had nothing to say but this, that when they were taken, the captain promised them their lives, and they humbly implored my mercy. But I told them I knew not what mercy to show them; for, as for myself, I had resolved to quit the island with all my men, and had taken passage with the captain to go for England. And as for the captain, he could not carry them to England other than as prisoners in irons, to be tried for mutiny and running

away with the ship; the consequence of which, they must needs know, would be the gallows; so that I could not tell which was best for them, unless they had a mind to take their fate in the island; if they desired that, I did not care, as I had liberty to leave it; I had some inclination to give them their lives, if they thought they could shift on shore.

They seemed very thankful for it, said they would much rather venture to stay there than to be carried to England to be hanged; so I left it on that issue.

However, the captain seemed to make some difficulty of it, as if he durst not leave them there. Upon this I seemed a little angry with the captain, and told him that they were my prisoners, not his; and that seeing I had offered them so much favour, I would be as good as my word; and that if he did not think fit to consent to it, I would set them at liberty, as I found them; and if he did not like it, he might take them again if he could catch them.

Upon this they appeared very thankful, and I accordingly set them at liberty, and bade them retire into the woods, to the place whence they came, and I would leave them some firearms, some ammunition, and some directions how they should live very well, if they thought fit.

Upon this I prepared to go on board the ship, but told the captain that I would stay that night to prepare my things, and desired him to go on board in the meantime, and keep all right in the ship, and send the boat on shore the next day for me; ordering him in the meantime to cause the new captain who was killed to be hanged at the yard-arm, that these men might see him.

When the captain was gone, I sent for the men up to me to my apartment and entered seriously into discourse with them of their circumstances. I told them I thought they had made a right choice; that if the captain carried them away, they would certainly be hanged. I showed them the new captain hanging at the yard-arm of the ship, and told them they had nothing less to expect.

When they had all declared their willingness to stay, I then told them I would let them into the story of my living there, and put them into the way of making it easy to them. Accordingly I gave them the whole history of the place and of my coming to it; showed them my fortifications, the way I made my bread, planted my corn, cured my grapes; and in a word, all that was necessary to make them easy. I told them the story also of the sixteen Spaniards that were to be expected; for whom I left a letter, and made them promise to treat them in common with themselves.

I left them my firearms, viz., five muskets, three fowling pieces, and three swords. I had above a barrel and half of powder left; for after the

first year or two I used but little, and wasted none. I gave them a description of the way I managed the goats, and directions to milk and fatten them, and to make both butter and cheese.

In a word, I gave them every part of my own story; and I told them I would prevail with the captain to leave them two barrels of gunpowder more and some garden seeds, which I told them I would have been very glad of; also I gave them the bag of peas which the captain had brought me to eat, and bade them be sure to sow and increase them.

Having done all this, I left them the next day and went on board the ship. We prepared immediately to sail, but did not weigh that night. The next morning early, two of the five men came swimming to the ship's side, and making a most lamentable complaint of the other three, begged to be taken into the ship, for God's sake, for they should be murdered, and begged the captain to take them on board, though he hanged them immediately.

Upon this the captain pretended to have no power without me; but after some difficulty, and after their solemn promises of amendment, they were taken on board, and were some time after soundly whipped and pickled; after which, they proved very honest and quiet fellows.

Some time after this, the boat was ordered on shore, the tide being up, with the things promised to the men, to which the captain, at my intercession, caused their chests and clothes to be added, which they took and were very thankful for; I also encouraged them by telling them that if it lay in my way to send any vessel to take them in, I would not forget them.

When I took leave of this island, I carried on board for relics the great goatskin cap I had made, my umbrella, and one of my parrots; also I forgot not to take the money I formerly mentioned, which had lain by me so long useless that it was grown rusty, or tarnished, and could hardly pass for silver, till it had been a little rubbed and handled; as also the money I found in the wreck of the Spanish ship.

And thus I left the island, the 19th of December, as I found by the ship's account, in the year 1686, after I had been upon it eight-and-twenty years, two months, and nineteen days; being delivered from this second captivity the same day of the month that I first made my escape in the *barco-longo,* from among the Moors of Sallee.

In this vessel, after a long voyage, I arrived in England, the 11th of June, in the year 1687, having been thirty-and-five years absent.

When I came to England, I was as perfect a stranger to all the world as if I had never been known there. My benefactor and faithful steward,

whom I had left in trust with my money, was alive, but had had great misfortunes in the world; was become a widow the second time, and very low in the world. I made her easy as to what she owed me, assuring her I would give her no trouble; but on the contrary, in gratitude to her former care and faithfulness to me, I relieved her as my little stock would afford, which at that time would indeed allow me to do but little for her; but I assured her I would never forget her former kindness to me; nor did I forget her, when I had sufficient to help her, as shall be observed in its place.

I went down afterwards into Yorkshire; but my father was dead, and my mother and all the family extinct, except that I found two sisters, and two of the children of one of my brothers; and as I had been long ago given over for dead, there had been no provision made for me; so that, in a word, I found nothing to relieve or assist me; and that little money I had would not do much for me as to settling in the world.

I met with one piece of gratitude indeed, which I did not expect; and this was that the master of the ship, whom I had so happily delivered, and by the same means saved the ship and cargo, having given a very handsome account to the owners of the manner how I had saved the lives of the men and the ship, they invited me to meet them, and some other merchants concerned, and all together made me a very handsome compliment upon the subject, and a present of almost two hundred pounds sterling.

But after making several reflections upon the circumstances of my life, and how little way this would go towards settling me in the world, I resolved to go to Lisbon and see if I might not come by some information of the state of my plantation in Brazil, and of what was become of my partner, who I had reason to suppose had some years now given me over for dead.

With this view I took shipping for Lisbon, where I arrived in April following; my man Friday accompanying me very honestly in all these ramblings, and proving a most faithful servant upon all occasions.

[*After various adventures, Crusoe finally returns to his home.*]

The foregoing is a selection from Daniel Defoe's
THE STRANGE AND SURPRISING ADVENTURES
OF ROBINSON CRUSOE, OF YORK, MARINER.

Rudyard Kipling

1865–1936

Rudyard Kipling was born in Bombay, India, December 30, 1865. His father, an artist, was later curator of the Lahore Museum. Young Kipling attended the United Services College, North Devon, England. At seventeen he went back to India and joined the staff of the Lahore *Civil and Military Gazette*. Four years later he published a book of fresh and skillful light verse, *Departmental Ditties*.

In 1887 his first fiction, *Plain Tales from the Hills,* appeared. He produced *Soldiers Three, The Phantom 'Rickshaw, Wee Willie Winkie,* and other stories in the next two years. Between 1887 and 1889 he traveled through India, China, Japan, and the United States. In England his newborn fame had preceded him. He married Caroline Starr Balestier in 1892, honeymooned in Japan, and lived for the next four years in Brattleboro, Vermont. Later he settled in England.

His first long fiction, *The Light That Failed,* published in 1891 and dramatized in 1905, was not regarded as his most impressive work. *Barrack Room Ballads,* many of which had first appeared in the *National Observer,* came out in 1892. Solidly turned and full of energy, they were largely written in the slang of British soldiers in India. They brought Kipling a whole new audience. In them two of his cardinal interests first strongly emerged: his intelligent concern

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Notes from the artist: ". . . under a quotation from The Conundrum of the Workshops*–which might serve as Kipling's own criticism of this portrait–the author is pictured as a raja, in a technique suggesting an Indian painting. Father Wolf, Shere Khan, and Mowgli may also be seen surrounding him."*

Rudyard Kipling
"But the devil whoops, as he whooped of old:
'It's clever, but is it Art?'"
FATHER WOLF
Shere Khan

with machinery and how it affects human beings, and his role as the revivalist preacher of British imperialism.

The stories in *Many Inventions* were followed by *The Jungle Book* (see below) in 1894. Almost immediately came *The Second Jungle Book.* During the nineties and the early part of the century, he published *Captains Courageous, Stalky and Co., Kim, Just So Stories, The Five Nations, Puck of Pook's Hill,* and other works. His most famous poem, *Recessional,* appeared in *The Times* of London on Queen Victoria's second jubilee in 1897. He made several trips to South Africa and visited New York for the last time in 1899. Kipling was awarded the Nobel Prize for literature in 1907. He died in London on January 18, 1936.

The story of the child who grows up in a wild state is old in legend and perhaps in fact. Romulus and Remus, the mythical founders of Rome, were said to have been suckled by a she-wolf. The discovery of the Wild Boy of Aveyron once caused a sensation in France. Even as late as March, 1959, the *Times of India* reported that a six-year-old boy named Parasram had been found at a water hole and brought back to his parents. He was said to have lived with wolves for four and a half years. Scientists discredited this, though the boy did eat raw meat without picking it up and drank at streams in a manner typical of wolves.

But we need no such possibly factual parallels to be enchanted by *Mowgli's Brothers.* The story follows a traditional form. That form was the animal fable. In the hands of such writers as Aesop, Chaucer, La Fontaine, and Lessing it had become a moral vehicle. In Kipling the moral touch is not lacking, but essentially his stories go back to such primitive animal tales as those of the Tewa Indians, Hottentots, Finns, Australasians, and to those of India itself. They share the two chief characteristics of the animal fable: in act and speech the animals take on human qualities, but they retain their own animal traits.

We see this clearly in the first sharp dramatic moment of *Mowgli's Brothers,* in the passage that begins: "And it is I, Raksha [the Demon] who answer. . . ." We are clinched. We have no choice but to go on with the story. We have seen Mother Wolf as the conventional suckler of cubs. Now suddenly, her eyes "like two green moons," she changes into a fury. First, there is the rasp of the name

itself, Raksha, its given meaning, and the magnificent hard rage of her speech. But it is the sense of the speech that catches us.

On the surface, this is anger and contempt for Shere Khan the tiger, "hunter of little naked cubs." In that phrase its true meaning lies. Raksha becomes for us not only the human mother whom Mowgli has lost but all immemorial animal mothers raging in defense of their young. And what else do we feel? That Mowgli is not *her* cub, that he is the young of enemies. So we can measure the greatness of her generosity. We are a little amused at Father Wolf's astonishment. He sees her again as the dangerous young she-wolf that he had fought five other males to get. And finally, we know that the situation is established. Mowgli has been adopted into his wild family.

Mowgli's Brothers

Now Chil the Kite brings home the night
That Mang the Bat sets free–
The herds are shut in byre and hut
For loosed till dawn are we.
This is the hour of pride and power,
Talon and tush and claw.
Oh, hear the call!–Good hunting all
That keep the Jungle Law!

Night-Song in the Jungle

t was seven o'clock of a very warm evening in the Seeonee Hills when Father Wolf woke up from his day's rest, scratched himself, yawned, and spread out his paws one after the other to get rid of the sleepy feeling in their tips. Mother Wolf lay with her big grey nose dropped across her four tumbling, squealing cubs, and the moon shone into the mouth of the cave where they all lived. *"Augrh!"* said Father Wolf, "it is time to hunt again." And he was going to spring downhill when a little shadow with a bushy tail crossed the threshold and whined: "good luck go with you, O Chief of the Wolves; and good luck and strong white teeth go with the noble children, that they may never forget the hungry in this world."

It was the jackal–Tabaqui the Dish-licker–and the wolves of India despise Tabaqui because he runs about making mischief, and telling tales, and eating rags and pieces of leather from the village rubbish-heaps. But they are afraid of him too, because Tabaqui, more than any one else in the jungle, is apt to go mad, and then he forgets that he was ever afraid of any one, and runs through the forest biting everything in

his way. Even the tiger runs and hides when little Tabaqui goes mad, for madness is the most disgraceful thing that can overtake a wild creature. We call it hydrophobia, but they call it *dewanee*–the madness–and run.

"Enter, then, and look," said Father Wolf, stiffly, "but there is no food here."

"For a wolf, no," said Tabaqui, "but for so mean a person as myself a dry bone is a good feast. Who are we, the *Gidur-log* [the Jackal-People], to pick and choose?" He scuttled to the back of the cave, where he found the bone of a buck with some meat on it, and sat cracking the end merrily.

"All thanks for this good meal," he said, licking his lips. "How beautiful are the noble children! How large are their eyes! And so young too! Indeed, indeed, I might have remembered that the children of kings are men from the beginning."

Now, Tabaqui knew as well as any one else that there is nothing so unlucky as to compliment children to their faces; and it pleased him to see Mother and Father Wolf look uncomfortable.

Tabaqui sat still, rejoicing in the mischief that he had made, and then he said spitefully:

"Shere Khan, the Big One, has shifted his hunting-grounds. He will hunt among these hills for the next moon, so he has told me."

Shere Khan was the tiger who lived near the Wainganga River, twenty miles away.

"He has no right!" Father Wolf began angrily. "By the Law of the Jungle he has no right to change his quarters without due warning. He will frighten every head of game within ten miles, and I–I have to kill for two, these days."

"His mother did not call him Lungri [the Lame One] for nothing," said Mother Wolf, quietly. "He has been lame in one foot from his birth. That is why he has only killed cattle. Now the villagers of the Wainganga are angry with him, and he has come here to make *our* villagers angry. They will scour the jungle for him when he is far away, and we and our children must run when the grass is set alight. Indeed, we are very grateful to Shere Khan!"

"Shall I tell him of your gratitude?" said Tabaqui.

"Out!" snapped Father Wolf. "Out and hunt with thy master. Thou hast done harm enough for one night."

"I go," said Tabaqui, quietly. "Ye can hear Shere Khan below in the thickets. I might have saved myself the message."

Father Wolf listened, and below in the valley that ran down to a little river, he heard the dry, angry, snarly, sing-song whine of a tiger who has

caught nothing and does not care if all the jungle knows it.

"The fool!" said Father Wolf. "To begin a night's work with that noise! Does he think that our buck are like his fat Wainganga bullocks?"

"*Hsh*. It is neither bullock nor buck he hunts tonight," said Mother Wolf. "It is Man." The whine had changed to a sort of humming purr that seemed to come from every quarter of the compass. It was the noise that bewilders wood-cutters and gipsies sleeping in the open, and makes them run sometimes into the very mouth of the tiger.

"Man!" said Father Wolf, showing all his white teeth. "*Faugh!* Are there not enough beetles and frogs in the tanks that he must eat Man, and on our ground too!"

The Law of the Jungle, which never orders anything without a reason, forbids every beast to eat Man except when he is killing to show his children how to kill, and then he must hunt outside the hunting-grounds of his pack or tribe. The real reason for this is that man-killing means, sooner or later, the arrival of white men on elephants, with guns, and hundreds of brown men with gongs and rockets and torches. Then everybody in the jungle suffers. The reason the beasts give among themselves is that Man is the weakest and most defenceless of all living things, and it is unsportsmanlike to touch him. They say too–and it is true–that man-eaters become mangy, and lose their teeth.

The purr grew louder, and ended in the full-throated *"Aaarh!"* of the tiger's charge.

Then there was a howl–an untigerish howl–from Shere Khan. "He has missed," said Mother Wolf. "What is it?"

Father Wolf ran out a few paces and heard Shere Khan muttering and mumbling savagely, as he tumbled about in the scrub.

"The fool has had no more sense than to jump at a wood-cutters' campfire, and has burned his feet," said Father Wolf, with a grunt. "Tabaqui is with him."

"Something is coming uphill," said Mother Wolf, twitching one ear. "Get ready."

The bushes rustled a little in the thicket, and Father Wolf dropped with his haunches under him, ready for his leap. Then, if you had been watching, you would have seen the most wonderful thing in the world–the wolf checked in mid-spring. He made his bound before he saw what it was he was jumping at, and then he tried to stop himself. The result was that he shot up straight into the air for four or five feet, landing almost where he left ground.

"Man!" he snapped. "A man's cub. Look!"

Directly in front of him, holding on by a low branch, stood a naked brown baby who could just walk—as soft and as dimpled a little atom as ever came to a wolf's cave at night. He looked up into Father Wolf's face, and laughed.

"Is that a man's cub?" said Mother Wolf. "I have never seen one. Bring it here."

A wolf accustomed to moving his own cubs can, if necessary, mouth an egg without breaking it, and though Father Wolf's jaws closed right on the child's back, not a tooth even scratched the skin, as he laid it down among the cubs.

"How little! How naked, and—how bold!" said Mother Wolf, softly. The baby was pushing his way between the cubs to get close to the warm hide. "*Ahai!* He is taking his meal with the others. And so this is a man's cub. Now, was there ever a wolf that could boast of a man's cub among her children?"

"I have heard now and again of such a thing, but never in our pack or in my time," said Father Wolf. "He is altogether without hair, and I could kill him with a touch of my foot. But see, he looks up and is not afraid."

The moonlight was blocked out of the mouth of the cave, for Shere Khan's great square head and shoulders were thrust into the entrance. Tabaqui, behind him, was squeaking: "My lord, my lord, it went in here!"

"Shere Khan does us great honour," said Father Wolf, but his eyes were very angry. "What does Shere Khan need?"

"My quarry. A man's cub went this way," said Shere Khan. "Its parents have run off. Give it to me."

Shere Khan had jumped at a wood-cutters' camp-fire, as Father Wolf had said, and was furious from the pain of his burned feet. But Father Wolf knew that the mouth of the cave was too narrow for a tiger to come in by. Even where he was, Shere Khan's shoulders and fore paws were cramped for want of room, as a man's would be if he tried to fight in a barrel.

"The wolves are a free people," said Father Wolf. "They take orders from the head of the pack, and not from any striped cattle-killer. The man's cub is ours—to kill if we choose."

"Ye choose and ye do not choose! What talk is this of choosing? By the bull that I killed, am I to stand nosing into your dog's den for my fair dues? It is I, Shere Khan, who speak!"

The tiger's roar filled the cave with thunder. Mother Wolf shook herself clear of the cubs and sprang forward, her eyes, like two green moons in the darkness, facing the blazing eyes of Shere Khan.

"And it is I, Raksha [the Demon], who answer. The man's cub is mine, Lungri–mine to me! He shall not be killed. He shall live to run with the pack and to hunt with the pack; and in the end, look you, hunter of little naked cubs–frog-eater–fish-killer–he shall hunt *thee*! Now get hence, or by the sambur that I killed (*I* eat no starved cattle), back thou goest to thy mother, burned beast of the jungle, lamer than ever thou camest into the world! Go!"

Father Wolf looked on amazed. He had almost forgotten the days when he won Mother Wolf in fair fight from five other wolves, when she ran in the pack and was not called the Demon for compliment's sake. Shere Khan might have faced Father Wolf, but he could not stand up against Mother Wolf, for he knew that where he was she had all the advantage of the ground, and would fight to the death. So he backed out of the cave-mouth growling, and when he was clear he shouted:

"Each dog barks in his own yard! We will see what the pack will say to this fostering of man-cubs. The cub is mine, and to my teeth he will come in the end, O bushtailed thieves!"

Mother Wolf threw herself down panting among the cubs, and Father Wolf said to her gravely:

"Shere Khan speaks this much truth. The cub must be shown to the pack. Wilt thou still keep him, Mother?"

"Keep him!" she gasped. "He came naked, by night, alone and very hungry; yet he was not afraid! Look, he has pushed one of my babes to one side already. And that lame butcher would have killed him and would have run off to the Wainganga while the villagers here hunted through all our lairs in revenge! Keep him? Assuredly I will keep him. Lie still, little frog. O thou Mowgli–for Mowgli the Frog I will call thee–the time will come when thou wilt hunt Shere Khan as he has hunted thee."

"But what will our pack say?" said Father Wolf.

The Law of the Jungle lays down very clearly that any wolf may, when he marries, withdraw from the pack he belongs to; but as soon as his cubs are old enough to stand on their feet he must bring them to the pack council, which is generally held once a month at full moon, in order that the other wolves may identify them. After that inspection the cubs are free to run where they please, and until they have killed their first buck no ex-

cuse is accepted if a grown wolf of the pack kills one of them. The punishment is death where the murderer can be found; and if you think for a minute you will see that this must be so.

Father Wolf waited till his cubs could run a little, and then on the night of the pack meeting took them and Mowgli and Mother Wolf to the Council Rock—a hill-top covered with stones and boulders where a hundred wolves could hide. Akela, the great grey Lone Wolf, who led all the pack by strength and cunning, lay out at full length on his rock, and below him sat forty or more wolves of every size and colour, from badger-coloured veterans who could handle a buck alone, to young black three-year-olds who thought they could. The Lone Wolf had led them for a year now. He had fallen twice into a wolf-trap in his youth, and once he had been beaten and left for dead; so he knew the manners and customs of men. There was very little talking at the rock. The cubs tumbled over each other in the centre of the circle where their mothers and fathers sat, and now and again a senior wolf would go quietly up to a cub, look at him carefully, and return to his place on noiseless feet. Sometimes a mother would push her cub far out into the moonlight, to be sure that he had not been overlooked. Akela from his rock would cry: "Ye know the Law—ye know the Law. Look well, O wolves!" And the anxious mothers would take up the call: "Look—look well, O wolves!"

At last—and Mother Wolf's neck-bristles lifted as the time came—Father Wolf pushed "Mowgli the Frog," as they called him, into the centre, where he sat laughing and playing with some pebbles that glistened in the moonlight.

Akela never raised his head from his paws, but went on with the monotonous cry: "Look well!" A muffled roar came up from behind the rocks—the voice of Shere Khan crying: "The cub is mine. Give him to me. What have the Free People to do with a man's cub?" Akela never even twitched his ears. All he said was: "Look well, O wolves! What have the Free People to do with the orders of any save the Free People? Look well!"

There was a chorus of deep growls, and a young wolf in his fourth year flung back Shere Khan's question to Akela: "What have the Free People to do with a man's cub?" Now the Law of the Jungle lays down that if there is any dispute as to the right of a cub to be accepted by the pack, he must be spoken for by at least two members of the pack who are not his father and mother.

"Who speaks for this cub?" said Akela. "Among the Free People who

speaks?" There was no answer, and Mother Wolf got ready for what she knew would be her last fight, if things came to fighting.

Then the only other creature who is allowed at the pack council–Baloo, the sleepy brown bear who teaches the wolf cubs the Law of the Jungle: old Baloo, who can come and go where he pleases because he eats only nuts and roots and honey–rose up on his hind quarters and grunted.

"The man's cub–the man's cub?" he said. "*I* speak for the man's cub. There is no harm in a man's cub. I have no gift of words, but I speak the truth. Let him run with the pack, and be entered with the others. I myself will teach him."

"We need yet another," said Akela. "Baloo has spoken, and he is our teacher for the young cubs. Who speaks besides Baloo?"

A black shadow dropped down into the circle. It was Bagheera the Black Panther, inky black all over, but with the panther markings showing up in certain lights like the pattern of watered silk. Everybody knew Bagheera, and nobody cared to cross his path, for he was as cunning as Tabaqui, as bold as the wild buffalo, and as reckless as the wounded elephant. But he had a voice as soft as wild honey dripping from a tree, and a skin softer than down.

"O Akela, and ye the Free People," he purred, "I have no right in your assembly, but the Law of the Jungle says that if there is a doubt which is not a killing matter in regard to a new cub, the life of that cub may be bought at a price. And the Law does not say who may or may not pay that price. Am I right?"

"Good! Good!" said the young wolves, who are always hungry. "Listen to Bagheera. The cub can be bought for a price. It is the Law."

"Knowing that I have no right to speak here, I ask your leave."

"Speak then," cried twenty voices.

"To kill a naked cub is shame. Besides, he may make better sport for you when he is grown. Baloo has spoken in his behalf. Now to Baloo's word I will add one bull, and a fat one, newly killed, not half a mile from here, if ye will accept the man's cub according to the Law. Is it difficult?"

There was a clamour of scores of voices, saying: "What matter? He will die in the winter rains. He will scorch in the sun. What harm can a naked frog do us? Let him run with the pack. Where is the bull, Bagheera? Let him be accepted." And then came Akela's deep bay, crying: "Look well–look well, O wolves!"

Mowgli was still deeply interested in the pebbles, and he did not notice

when the wolves came and looked at him one by one. At last they all went down the hill for the dead bull, and only Akela, Bagheera, Baloo, and Mowgli's own wolves were left. Shere Khan roared still in the night, for he was very angry that Mowgli had not been handed over to him.

"Aye, roar well," said Bagheera, under his whiskers, "for the time comes when this naked thing will make thee roar to another tune, or I know nothing of Man."

"It was well done," said Akela. "Men and their cubs are very wise. He may be a help in time."

"Truly, a help in time of need, for none can hope to lead the pack for ever," said Bagheera.

Akela said nothing. He was thinking of the time that comes to every leader of every pack when his strength goes from him and he gets feebler and feebler, till at last he is killed by the wolves and a new leader comes up—to be killed in his turn.

"Take him away," he said to Father Wolf, "and train him as befits one of the Free People."

And that is how Mowgli was entered into the Seeonee Wolf Pack for the price of a bull and on Baloo's good word.

Now you must be content to skip ten or eleven whole years, and only guess at all the wonderful life that Mowgli led among the wolves, because if it were written out it would fill ever so many books. He grew up with the cubs, though they, of course, were grown wolves almost before he was a child, and Father Wolf taught him his business, and the meaning of things in the jungle, till every rustle in the grass, every breath of the warm night air, every note of the owls above his head, every scratch of a bat's claws as it roosted for a while in a tree, and every splash of every little fish jumping in a pool meant just as much to him as the work of his office means to a business man. When he was not learning he sat out in the sun and slept, and ate and went to sleep again; when he felt dirty or hot he swam in the forest pools; and when he wanted honey (Baloo told him that honey and nuts were just as pleasant to eat as raw meat) he climbed up for it, and that Bagheera showed him how to do. Bagheera would lie out on a branch and call: "Come along, Little Brother," and at first Mowgli would cling like the sloth, but afterwards he would fling himself through the branches almost as boldly as the grey ape. He took his place at the Council Rock, too, when the pack met, and there he discovered that if he stared hard at any wolf, the wolf would be forced to drop his eyes, and so he used to stare for fun. At other times he would pick the

long thorns out of the pads of his friends, for wolves suffer terribly from thorns and burs in their coats. He would go down the hillside into the cultivated lands by night, and look very curiously at the villagers in their huts, but he had a mistrust of men because Bagheera showed him a square box with a drop-gate so cunningly hidden in the jungle that he nearly walked into it, and told him that it was a trap. He loved better than anything else to go with Bagheera into the dark warm heart of the forest, to sleep all through the drowsy day, and at night see how Bagheera did his killing. Bagheera killed right and left as he felt hungry, and so did Mowgli—with one exception. As soon as he was old enough to understand things, Bagheera told him that he must never touch cattle because he had been bought into the pack at the price of a bull's life. "All the jungle is thine," said Bagheera, "and thou canst kill everything that thou art strong enough to kill; but for the sake of the bull that bought thee thou must never kill or eat any cattle young or old. That is the Law of the Jungle." Mowgli obeyed faithfully.

And he grew and grew strong as a boy must grow who does not know that he is learning any lessons, and who has nothing in the world to think of except things to eat.

Mother Wolf told him once or twice that Shere Khan was not a creature to be trusted, and that some day he must kill Shere Khan. But though a young wolf would have remembered that advice every hour, Mowgli forgot it because he was only a boy—though he would have called himself a wolf if he had been able to speak in any human tongue.

Shere Khan was always crossing his path in the jungle, for as Akela grew older and feebler the lame tiger had come to be great friends with the younger wolves of the pack, who followed him for scraps, a thing Akela would never have allowed if he had dared to push his authority to the proper bounds. Then Shere Khan would flatter them and wonder that such fine young hunters were content to be led by a dying wolf and a man's cub. "They tell me," Shere Khan would say, "that at council ye dare not look him between the eyes." And the young wolves would growl and bristle.

Bagheera, who had eyes and ears everywhere, knew something of this, and once or twice he told Mowgli in so many words that Shere Khan would kill him some day. And Mowgli would laugh and answer: "I have the pack and I have thee; and Baloo, though he is so lazy, might strike a blow or two for my sake. Why should I be afraid?"

It was one very warm day that a new notion came to Bagheera—born of something that he had heard. Perhaps Sahi the Porcupine had told him; but he said to Mowgli when they were deep in the jungle, as the boy lay

with his head on Bagheera's beautiful black skin: "Little Brother, how often have I told thee that Shere Khan is thy enemy?"

"As many times as there are nuts on that palm," said Mowgli, who, naturally, could not count. "What of it? I am sleepy, Bagheera, and Shere Khan is all long tail and loud talk—like Mor the Peacock."

"But this is no time for sleeping. Baloo knows it; I know it; the pack knows it; and even the foolish, foolish deer know. Tabaqui has told thee, too."

"Ho! Ho!" said Mowgli. "Tabaqui came to me not long ago with some rude talk that I was a naked man's cub and not fit to dig pig-nuts; but I caught Tabaqui by the tail and swung him twice against a palm-tree to teach him better manners."

"That was foolishness, for though Tabaqui is a mischief-maker, he would have told thee of something that concerned thee closely. Open those eyes, Little Brother. Shere Khan dare not kill thee in the jungle; but remember, Akela is very old, and soon the day comes when he cannot kill his buck, and then he will be leader no more. Many of the wolves that looked thee over when thou wast brought to the council first are old too, and the young wolves believe, as Shere Khan has taught them, that a man-cub has no place with the pack. In a little time thou wilt be a man."

"And what is a man that he should not run with his brothers?" said Mowgli. "I was born in the jungle. I have obeyed the Law of the Jungle, and there is no wolf of ours from whose paws I have not pulled a thorn. Surely they are my brothers!"

Bagheera stretched himself at full length and half shut his eyes. "Little Brother," said he, "feel under my jaw."

Mowgli put up his strong brown hand, and just under Bagheera's silky chin, where the giant rolling muscles were all hid by the glossy hair, he came upon a little bald spot.

"There is no one in the jungle that knows that I, Bagheera, carry that mark—the mark of the collar. And yet, Little Brother, I was born among men, and it was among men that my mother died—in the cages of the king's palace at Oodeypore. It was because of this that I paid the price for thee at the council when thou wast a little naked cub. Yes, I too was born among men. I had never seen the jungle. They fed me behind bars from an iron pan till one night I felt that I was Bagheera—the Panther—and no man's plaything, and I broke the silly lock with one blow of my paw and came away. And because I had learned the ways of men, I became more terrible in the jungle than Shere Khan. Is it not so?"

"Yes," said Mowgli, "all the jungle fears Bagheera—all except Mowgli."

"Oh, *thou* art a man's cub," said the black panther, very tenderly, "and even as I returned to my jungle, so thou must go back to men at last—to the men who are thy brothers—if thou art not killed in the council."

"But why—but why should any wish to kill me?" said Mowgli.

"Look at me," said Bagheera, and Mowgli looked at him steadily between the eyes. The big panther turned his head away in half a minute.

"*That* is why," he said, shifting his paw on the leaves. "Not even I can look thee between the eyes, and I was born among men, and I love thee, Little Brother. The others they hate thee because their eyes cannot meet thine; because thou art wise; because thou hast pulled out thorns from their feet—because thou art a man."

"I did not know these things," said Mowgli, sullenly, and he frowned under his heavy black eyebrows.

"What is the Law of the Jungle? Strike first and then give tongue. By thy very carelessness they know that thou art a man. But be wise. It is in my heart that when Akela misses his next kill—and at each hunt it costs him more to pin the buck—the pack will turn against him and against thee. They will hold a jungle council at the rock, and then—and then—I have it!" said Bagheera, leaping up. "Go thou down quickly to the men's huts in the valley, and take some of the Red Flower which they grow there, so that when the time comes thou mayest have even a stronger friend than I or Baloo or those of the pack that love thee. Get the Red Flower."

By Red Flower Bagheera meant fire, only no creature in the jungle will call fire by its proper name. Every beast lives in deadly fear of it, and invents a hundred ways of describing it.

"The Red Flower?" said Mowgli. "That grows outside their huts in the twilight. I will get some."

"There speaks the man's cub," said Bagheera, proudly. "Remember that it grows in little pots. Get one swiftly, and keep it by thee for time of need."

"Good!" said Mowgli. "I go. But art thou sure, O my Bagheera"—he slipped his arm round the splendid neck, and looked deep into the big eyes—"art thou sure that all this is Shere Khan's doing?"

"By the broken lock that freed me, I am sure, Little Brother."

"Then, by the bull that bought me, I will pay Shere Khan full tale for this, and it may be a little over," said Mowgli, and he bounded away.

"That is a man. That is all a man," said Bagheera to himself, lying down again. "Oh, Shere Khan, never was a blacker hunting than that frog-hunt of thine ten years ago!"

Mowgli was far and far through the forest, running hard, and his heart was hot in him. He came to the cave as the evening mist rose, and drew breath, and looked down the valley. The cubs were out, but Mother Wolf, at the back of the cave, knew by his breathing that something was troubling her frog.

"What is it, Son?" she said.

"Some bat's chatter of Shere Khan," he called back. "I hunt among the ploughed fields to-night." And he plunged downward through the bushes, to the stream at the bottom of the valley. There he checked, for he heard the yell of the pack hunting, heard the bellow of a hunted sambur, and the snort as the buck turned at bay. Then there were wicked, bitter howls from the young wolves: "Akela! Akela! Let the Lone Wolf show his strength. Room for the leader of the pack! Spring, Akela!"

The Lone Wolf must have sprung and missed his hold, for Mowgli heard the snap of his teeth and then a yelp as the sambur knocked him over with his fore-foot.

He did not wait for anything more, but dashed on; and the yells grew fainter behind him as he ran into the crop-lands where the villagers lived.

"Bagheera spoke truth," he panted, as he nestled down in some cattle-fodder by the window of a hut. "To-morrow is one day both for Akela and for me."

Then he pressed his face close to the window and watched the fire on the hearth. He saw the husbandman's wife get up and feed it in the night with black lumps; and when the morning came and the mists were all white and cold, he saw the man's child pick up a wicker pot plastered inside with earth, fill it with lumps of red-hot charcoal, put it under his blanket, and go out to tend the cows in the byre.

"Is that all?" said Mowgli. "If a cub can do it, there is nothing to fear." So he strode round the corner and met the boy, took the pot from his hand, and disappeared into the mist while the boy howled with fear.

"They are very like me," said Mowgli, blowing into the pot, as he had seen the woman do. "This thing will die if I do not give it things to eat." And he dropped twigs and dried bark on the red stuff. Half-way up the hill he met Bagheera with the morning dew shining like moonstones on his coat.

"Akela has missed," said the panther. "They would have killed him last night, but they needed thee also. They were looking for thee on the hill."

"I was among the ploughed lands. I am ready. See!" Mowgli held up the fire-pot.

"Good! Now, I have seen men thrust a dry branch into that stuff, and

presently the Red Flower blossomed at the end of it. Art thou not afraid?"

"No. Why should I fear? I remember now—if it is not a dream—how, before I was a wolf, I lay beside the Red Flower, and it was warm and pleasant."

All that day Mowgli sat in the cave tending his fire-pot and dipping dry branches into it to see how they looked. He bound a branch that satisfied him, and in the evening when Tabaqui came to the cave and told him rudely enough that he was wanted at the Council Rock, he laughed till Tabaqui ran away. Then Mowgli went to the council, still laughing.

Akela the Lone Wolf lay by the side of his rock as a sign that the leadership of the pack was open, and Shere Khan with his following of scrap-fed wolves walked to and fro openly being flattered. Bagheera lay close to Mowgli, and the fire-pot was between Mowgli's knees. When they were all gathered together, Shere Khan began to speak—a thing he would never have dared to do when Akela was in his prime.

"He has no right," whispered Bagheera. "Say so. He is a dog's son. He will be frightened."

Mowgli sprang to his feet. "Free People," he cried, "does Shere Khan lead the pack? What has a tiger to do with our leadership?"

"Seeing that the leadership is yet open, and being asked to speak—" Shere Khan began.

"By whom?" said Mowgli. "Are we *all* jackals, to fawn on this cattle-butcher? The leadership of the pack is with the pack alone."

There were yells of "Silence, thou man's cub!" "Let him speak. He has kept our Law." And at last the seniors of the pack thundered: "Let the Dead Wolf speak." When a leader of the pack has missed his kill, he is called the Dead Wolf as long as he lives, which is not long.

Akela raised his old head wearily:

"Free People, and ye too, jackals of Shere Khan, for twelve seasons I have led ye to and from the kill, and in all that time not one has been trapped or maimed. Now I have missed my kill. Ye know how that plot was made. Ye know how ye brought me up to an untried buck to make my weakness known. It was cleverly done. Your right is to kill me here on the Council Rock, now. Therefore, I ask, who comes to make an end of the Lone Wolf? For it is my right, by the Law of the Jungle, that ye come one by one."

There was a long hush, for no single wolf cared to fight Akela to the death. Then Shere Khan roared: "*Bah!* What have we to do with this toothless fool? He is doomed to die! It is the man-cub who has lived too

long. Free People, he was my meat from the first. Give him to me. I am weary of this man-wolf folly. He has troubled the jungle for ten seasons. Give me the man-cub, or I will hunt here always, and not give you one bone. He is a man, a man's child, and from the marrow of my bones I hate him!"

Then more than half the pack yelled: "A man! A man! What has a man to do with us? Let him go to his own place."

"And turn all the people of the villages against us?" clamoured Shere Khan. "No! Give him to me. He is a man, and none of us can look him between the eyes."

Akela lifted his head again, and said: "He has eaten our food. He has slept with us. He has driven game for us. He has broken no word of the Law of the Jungle."

"Also, I paid for him with a bull when he was accepted. The worth of a bull is little, but Bagheera's honour is something that he will perhaps fight for," said Bagheera, in his gentlest voice.

"A bull paid ten years ago!" the pack snarled. "What do we care for bones ten years old?"

"Or for a pledge?" said Bagheera, his white teeth bared under his lip. "Well are ye called the Free People!"

"No man's cub can run with the people of the jungle," howled Shere Khan. "Give him to me!"

"He is our brother in all but blood," Akela went on, "and ye would kill him here! In truth, I have lived too long. Some of ye are eaters of cattle, and of others I have heard that, under Shere Khan's teaching, ye go by dark night and snatch children from the villager's door-step. Therefore I know ye to be cowards, and it is to cowards I speak. It is certain that I must die, and my life is of no worth, or I would offer that in the man-cub's place. But for the sake of the honour of the pack—a little matter that by being without a leader ye have forgotten—I promise that if ye let the man-cub go to his own place, I will not, when my time comes to die, bare one tooth against ye. I will die without fighting. That will at least save the pack three lives. More I cannot do; but if ye will, I can save ye the shame that comes of killing a brother against whom there is no fault—a brother spoken for and bought into the pack according to the Law of the Jungle."

"He is a man—a man—a man!" snarled the pack. And most of the wolves began to gather round Shere Khan, whose tail was beginning to switch.

"Now the business is in thy hands," said Bagheera to Mowgli. "*We* can do no more except fight."

Mowgli stood upright, the fire-pot in his hands. Then he stretched out his arms, and yawned in the face of the council. But he was furious with rage and sorrow, for, wolflike, the wolves had never told him how they hated him. "Listen you!" he cried. "There is no need for this dog's jabber. Ye have told me so often to-night that I am a man (and indeed I would have been a wolf with you to my life's end) that I feel your words are true. So I do not call ye my brothers any more, but *sag* [dogs], as a man should. What ye will do, and what ye will not do, is not yours to say. That matter is with *me*. And that we may see the matter more plainly, I, the man, have brought here a little of the Red Flower, which ye, dogs, fear."

He flung the fire-pot on the ground, and some of the red coals lit a tuft of dried moss that flared up, as all the council drew back in terror before the leaping flames.

Mowgli thrust his dead branch into the fire till the twigs lit and crackled, and whirled it above his head among the cowering wolves.

"Thou art the master," said Bagheera, in an undertone. "Save Akela from the death. He was ever thy friend."

Akela, the grim old wolf who had never asked for mercy in his life, gave one piteous look at Mowgli as the boy stood all naked, his long black hair tossing over his shoulders in the light of the blazing branch that made the shadows jump and quiver.

"Good!" said Mowgli, staring round slowly. "I see that ye are dogs. I go from you to my own people–if they be my own people. The jungle is shut to me, and I must forget your talk and your companionship; but I will be more merciful than ye are. Because I was all but your brother in blood, I promise that when I am a man among men I will not betray ye to men as ye have betrayed me." He kicked the fire with his foot, and the sparks flew up. "There shall be no war between any of us in the pack. But here is a debt to pay before I go." He strode forward to where Shere Khan sat blinking stupidly at the flames, and caught him by the tuft on his chin. Bagheera followed in case of accidents. "Up, dog!" Mowgli cried. "Up, when a man speaks, or I will set that coat ablaze!"

Shere Khan's ears lay flat back on his head, and he shut his eyes, for the blazing branch was very near.

"This cattle-killer said he would kill me in the council because he had not killed me when I was a cub. Thus and thus, then, do we beat dogs when we are men. Stir a whisker, Lungri, and I ram the Red Flower down thy gullet!" He beat Shere Khan over the head with the branch, and the tiger whimpered and whined in an agony of fear.

"*Pah*! Singed jungle-cat–go now! But remember when next I come to

the Council Rock, as a man should come, it will be with Shere Khan's hide on my head. For the rest, Akela goes free to live as he pleases. Ye will *not* kill him, because that is not my will. Nor do I think that ye will sit here any longer, lolling out your tongues as though ye were somebodies, instead of dogs whom I drive out–thus! Go!" The fire was burning furiously at the end of the branch, and Mowgli struck right and left round the circle, and the wolves ran howling with the sparks burning their fur. At last there were only Akela, Bagheera, and perhaps ten wolves that had taken Mowgli's part. Then something began to hurt Mowgli inside him, as he had never been hurt in his life before, and he caught his breath and sobbed, and the tears ran down his face.

"What is it? What is it?" he said. "I do not wish to leave the jungle, and I do not know what this is. Am I dying, Bagheera?"

"No, Little Brother. That is only tears such as men use," said Bagheera. "Now I know thou art a man, and a man's cub no longer. The jungle is shut indeed to thee henceforward. Let them fall, Mowgli. They are only tears." So Mowgli sat and cried as though his heart would break; and he had never cried in all his life before.

"Now," he said, "I will go to men. But first I must say farewell to my mother." And he went to the cave where she lived with Father Wolf, and he cried on her coat, while the four cubs howled miserably.

"Ye will not forget me?" said Mowgli.

"Never while we can follow a trail," said the cubs. "Come to the foot of the hill when thou art a man, and we will talk to thee; and we will come into the crop-lands to play with thee by night."

"Come soon!" said Father Wolf. "Oh, wise little frog, come again soon, for we be old, thy mother and I."

"Come soon," said Mother Wolf, "little naked son of mine, for, listen, child of man, I loved thee more than ever I loved my cubs."

"I will surely come," said Mowgli, "and when I come it will be to lay out Shere Khan's hide upon the Council Rock. Do not forget me! Tell them in the jungle never to forget me!"

The dawn was beginning to break when Mowgli went down the hillside alone, to meet those mysterious things that are called men.

"Mowgli's Brothers" is from a collection of Kipling's stories entitled THE JUNGLE BOOK.

Victor Hugo

1802–1885

Victor (Marie) Hugo was born in Besançon, France, February 26, 1802. His father later served as a Napoleonic general. Victor's childhood was "inflamed by many journeys" to Corsica, Italy, and Spain. At seventeen he won the chief prize for poetry at Toulouse. A first book of poems, in 1822, was intended to please the eye of Louis XVIII, and did. Hugo was given a pension. That same year he married his childhood friend, Adèle Foucher. His brother Eugène, who was also in love with her, went out of his mind at the wedding.

In 1823 Hugo published a "tale of horror," *Hans of Iceland*. He was given the Legion of Honor. He began to move toward Romanticism. His preface to the drama *Cromwell* became the manifesto of that movement. In 1829 he produced *The Orientals* and most of another book of poems, *The Last Day of a Condemned Man,* and a large part of the novel *Nôtre Dame de Paris,* plus two dramas, *Marion de Lorme* and *Hernani*. On February 25, 1830, the uproar at the opening of *Hernani*–it went on for forty or more nights and became known as the "Battles of Hernani"–established that date as the birthday of the Romantic movement in France.

Under the July Monarchy Hugo flourished as the most famous of French poets. The medieval color of *Nôtre Dame de Paris* made it

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Notes from the artist: ". . . *at the age of twenty-seven, as shown here, Hugo was already an important force in French letters. The incidental characters are from* Nôtre Dame de Paris: *the priest Claude Frollo carrying the abandoned infant Quasimodo, and Esmeralda giving the hunchbacked hero a drink of water.*"

NOTRE DAME DE PARIS
VICTOR HUGO

popular. In his play *Lucrezia Borgia,* a small part was taken by Juliette Drouet. She remained his faithful mistress for more than fifty years. *Autumn Leaves, Interior Voices,* and other poetry increased his reputation. In 1841, on the fourth attempt, he was elected to the French Academy. Three years later he was named a peer of France.

He was a member of the Committee of Insurrection during the *coup d'état* of 1851. When Napoleon III came to power, Hugo, disguised as a peasant, escaped to Brussels. "When liberty returns, I will return," he said. With his family he moved first to the island of Jersey, then to Guernsey, where Mlle Drouet took a cottage. There he wrote *The Contemplations,* the first part of *Legend of the Centuries,* and *Les Misérables*. Adèle Hugo died in Brussels in 1868.

In 1870, after Napoleon III was captured by the Germans, Hugo went back to France. Present at the siege of Paris, he noted in his journal: "Yesterday I ate rat's meat." In the ensuing years he published fourteen books, among them *The Story of a Crime* and *Four Winds of the Spirit*. His eightieth birthday was a great public triumph. Mlle Drouet died in 1883. Two years later, on May 22, 1885, Hugo followed her. His state funeral was described as an event "in which the corpse presented to the nation became god." He is buried in the Panthéon.

The Battle with the Cannon" is a chapter from *Ninety-Three,* Hugo's tale of the French Revolution. Much of the novel seems to have been written in the glassed-in lookout tower of his house on Guernsey. It was published in 1874. From that date on, every reader has remembered the story of the wild gun, not only for the excitement of the incident itself, but for the grim shock of its ending.

In Hugo we do not look for the close knowledge of sea life to be found in Dana or Conrad. We are caught by his sense of bold drama, and by the meaning that comes out of it. The twenty-four-pounder (its designation refers not to the weight of the gun but to the shot it throws) becomes a living monster, quick and murderous. Loose on the gun deck with a sea making up, it crushes out the life of every man in its way and threatens the ship herself.

Into the arena comes the captain of the gun. It is his responsibility. His negligence, in failing to see that it was properly secured, has allowed it to break loose in the first place. He fights this deadly

bronze bull with the cunning of a *torero*. In the end, like the Erymanthian boar conquered by Hercules, it lies bound and overthrown.

But at once we are faced with a new crisis. How is this conqueror to be judged? We, like his officers, must answer that question. In this fact lies the true depth of the story. He permitted the gun to go adrift and he has secured it again. By which act must he be judged? Suddenly we are aware that, like Scott's *The Two Drovers*[1] and Melville's *Billy Budd,*[2] Hugo's narrative is no mere adventure. We are faced with a problem of justice.

In each of these three stories, a man is executed. In each we must make a sorrowful, all but impossible choice. We are asked to choose between the justice of law, which has good sense and some necessity on its side, and what we feel to be the human justice of the case. Nor is this "human justice" altogether—or even largely, perhaps—a matter of feeling. We tend to think of it as broader, finer, and more flexible than the law. It is the balance we strike for the whole situation. Often the law takes little formal notice of what we may call the defendant's total human worth. Our estimate of that, arbitrary though it may be, is the pivot of our judgment.

We wish that Hugo had told us more about the character of his gun captain. We are shocked by the wholly irregular action of Captain Boisberthelot, who hands over a matter of ship's discipline to the passenger general. Is this a dramatic liberty taken by the author? Or was such a thing actually possible in a revolutionary situation? In any case, we admit the weight of the general's charges. It is true that the gun captain's negligence has caused the death of shipmates and put the ship herself in danger.

But we are shocked by the general's decision. First he decorates the gunner and then orders that he be shot. If he had announced both decisions at the same time we might not have been shocked, but in that case the story would have lost much of its dramatic power. In fact, Hugo intends to shock us. He wishes to show us what happens when justice is administered too meticulously.

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[1]See Vol. 2, pp. 182–205, in this set.

[2]See Vol. 3, pp. 31–98, in this set.

The Battle with the Cannon

from *Ninety-three*

One of the carronades of the battery, a twenty-four pounder, had got loose.

This is perhaps the most formidable of ocean accidents. Nothing more terrible can happen to a vessel in open sea and under full sail.

A gun that breaks its moorings becomes suddenly some indescribable supernatural beast. It is a machine which transforms itself into a monster. This mass turns upon its wheels, has the rapid movements of a billiard ball; rolls with the rolling, pitches with the pitching; goes, comes, pauses, seems to meditate; resumes its course, rushes along the ship from end to end like an arrow, circles about, springs aside, evades, rears, breaks, kills, exterminates. It is a battering-ram which assaults a wall at its own caprice. Moreover, the battering-ram is metal, the wall wood. It is the entrance of matter into liberty. One might say that this eternal slave avenges itself. It seems as if the power of evil hidden in what we call inanimate objects finds a vent and bursts suddenly out. It has an air of having lost patience, of seeking some fierce, obscure retribution; nothing more inexorable than this rage of the inanimate. The mad mass has the bound of a panther, the weight of the elephant, the agility of the mouse, the obstinacy of the ax, the unexpectedness of the surge, the rapidity of lightning, the deafness of the tomb. It weighs ten thousand pounds, and it rebounds like a child's ball. Its flight is a wild whirl abruptly cut at right angles. What is to be done? How to end this? A tempest ceases, a cyclone passes, a wind falls, a broken mast is replaced, a leak is stopped, a fire dies out; but how to control this enormous brute of bronze? In what way can one attack it?

You can make a mastiff hear reason, astound a bull, fascinate a boa, frighten a tiger, soften a lion; but there is no resource with that monster—

a cannon let loose. You cannot kill it–it is dead; at the same time it lives. It lives with a sinister life bestowed on it by Infinity.

The planks beneath it give it play. It is moved by the ship, which is moved by the sea, which is moved by the wind. This destroyer is a plaything. The ship, the waves, the blasts, all aid it; hence its frightful vitality. How to assail this fury of complication? How to fetter this monstrous mechanism for wrecking a ship? How foresee its comings and goings, its returns, its stops, its shocks? Any one of these blows upon the sides may stave out the vessel. How divine its awful gyrations! One has to deal with a projectile which thinks, seems to possess ideas, and which changes its direction at each instant. How stop the course of something which must be avoided? The horrible cannon flings itself about, advances, recoils, strikes to the right, strikes to the left, flees, passes, disconcerts, ambushes, breaks down obstacles, crushes men like flies. The great danger of the situation is in the mobility of its base. How combat an inclined plane which has caprices? The ship, so to speak, has lightning imprisoned in its womb which seeks to escape; it is like thunder rolling above an earthquake.

In an instant the whole crew were on foot. The fault was the chief gunner's; he had neglected to fix home the screw nut of the mooring chain, and had so badly shackled the four wheels of the carronade that the play given to the sole and frame had separated the platform, and ended by breaking the breeching. The cordage had broken, so that the gun was no longer secure on the carriage. The stationary breeching which prevents recoil was not in use at that period. As a heavy wave struck the port, the carronade, weakly attached, recoiled, burst its chain, and began to rush wildly about. Conceive, in order to have an idea of this strange sliding, a drop of water running down a pane of glass.

At the moment when the lashings gave way the gunners were in the battery, some in groups, others standing alone, occupied with such duties as sailors perform in expectation of the command to clear for action. The carronade, hurled forward by the pitching, dashed into this knot of men, and crushed four at the first blow; then flung back and shot out anew by the rolling, it cut in two a fifth poor fellow, glanced off to the larboard side, and struck a piece of the battery with such force as to unship it. Then rose the cry of distress which had been heard. The men rushed toward the ladder; the gun deck emptied in the twinkling of an eye. The enormous cannon was left alone. She was given up to herself. She was her own mistress, and mistress of the vessel. She could do what she willed with both. This whole crew, accustomed to laugh in

battle, trembled now. To describe the universal terror would be impossible.

Captain Boisberthelot and Lieutenant Vieuville, although both intrepid men, stopped at the head of the stairs, and remained mute, pale, hesitating, looking down on the deck. Some one pushed them aside with his elbow and descended.

It was their passenger, the peasant, the man of whom they had been speaking a moment before.

When he reached the foot of the ladder, he stood still.

The cannon came and went along the deck. One might have fancied it the living chariot of the Apocalypse. The marine lantern, oscillating from the ceiling, added a dizzying whirl of lights and shadows to this vision. The shape of the cannon was undistinguishable from the rapidity of its course; now it looked black in the light, now it cast weird reflections through the gloom.

It kept on its work of destruction. It had already shattered four other pieces, and dug two crevices in the side, fortunately above the water line, though they would leak in case a squall should come on. It dashed itself frantically against the framework; the solid tie beams resisted, their curved form giving them great strength, but they creaked ominously under the assaults of this terrible club, which seemed endowed with a sort of appalling ubiquity, striking on every side at once. The strokes of a bullet shaken in a bottle would not be madder or more rapid. The four wheels passed and repassed above the dead men, cut, carved, slashed them, till the five corpses were a score of stumps rolling about the deck; the heads seem to cry out; streams of blood twisted in and out of the planks with every pitch of the vessel. The ceiling, damaged in several places, began to gape. The whole ship was filled with the awful tumult.

The captain promptly recovered his composure, and at his order the sailors threw down into the deck everything which could deaden and check the mad rush of the gun—mattresses, hammocks, spare sails, coils of rope, extra equipments, and the bales of false assignats of which the corvette carried a whole cargo; an infamous deception which the English considered a fair trick in war.

But what could these rags avail? No one dared descend to arrange them in any useful fashion, and in a few instants they were mere heaps of lint.

There was just sea enough to render an accident as complete as possible. A tempest would have been desirable—it might have thrown the gun upside down; and the four wheels once in the air, the monster could have been mastered. But the devastation increased. There were

gashes and even fractures in the masts, which, imbedded in the woodwork of the keel, pierce the decks of ships like great round pillars. The mizzenmast was cracked, and the mainmast itself was injured under the convulsive blows of the gun. The battery was being destroyed. Ten pieces out of the thirty were disabled; the breaches multiplied in the side, and the corvette began to take in water.

The old passenger, who had descended to the gun deck, looked like a form of stone stationed at the foot of the stairs. He stood motionless, gazing sternly about upon the devastation. Indeed, it seemed impossible to take a single step forward.

Each bound of the liberated carronade menaced the destruction of the vessel. A few minutes more and shipwreck would be inevitable.

They must perish or put a summary end to the disaster. A decision must be made—but how?

What a combatant—this cannon!

They must check this mad monster. They must seize this flash of lightning. They must overthrow this thunderbolt.

Boisberthelot said to Le Vieuville—

"Do you believe in God, Chevalier?"

Le Vieuville replied—

"Yes. No. Sometimes."

"In a tempest?"

"Yes; and in moments like this."

"Only God can aid us here," said Boisberthelot.

All were silent: the cannon kept up its horrible fracas.

The waves beat against the ship; their blows from without responded to the strokes of the cannon.

It was like two hammers alternating.

Suddenly, into the midst of this sort of inaccessible circus, where the escaped cannon leaped and bounded, there sprang a man with an iron bar in his hand. It was the author of this catastrophe—the gunner whose culpable negligence had caused the accident; the captain of the gun. Having been the means of bringing about the misfortune, he desired to repair it. He had caught up a handspike in one fist, a tiller rope with a slipping-noose in the other, and jumped down into the gun deck.

Then a strange combat began, a titanic strife—the struggle of the gun against the gunner; a battle between matter and intelligence; a duel between the inanimate and the human.

The man was posted in an angle, the bar and rope in his two fists; backed against one of the riders, settled firmly on his legs as on two

pillars of steel, livid, calm, tragic, rooted as it were in the planks, he waited.

He waited for the cannon to pass near him.

The gunner knew his piece, and it seemed to him that she must recognize her master. He had lived a long while with her. How many times he had thrust his hand between her jaws! It was his tame monster. He began to address it as he might have done his dog.

"Come!" said he. Perhaps he loved it.

He seemed to wish that it would turn toward him.

But to come toward him would be to spring upon him. Then he would be lost. How to avoid its crush? There was the question. All stared in terrified silence.

Not a breast respired freely, except perchance that of the old man who alone stood in the deck with the two combatants, a stern second.

He might himself be crushed by the piece. He did not stir.

Beneath them, the blind sea directed the battle.

At the instant when, accepting this awful hand-to-hand contest, the gunner approached to challenge the cannon, some chance fluctuation of the waves kept it for a moment immovable, as if suddenly stupefied.

"Come on!" the man said to it. It seemed to listen.

Suddenly it darted upon him. The gunner avoided the shock.

The struggle began—struggle unheard of. The fragile matching itself against the invulnerable. The thing of flesh attacking the brazen brute. On the one side blind force, on the other a soul.

The whole passed in a half-light. It was like the indistinct vision of a miracle.

A soul—strange thing; but you would have said that the cannon had one also—a soul filled with rage and hatred. This blindness appeared to have eyes. The monster had the air of watching the man. There was—one might have fancied so at least—cunning in this mass. It also chose its moment. It became some gigantic insect of metal, having, or seeming to have, the will of a demon. Sometimes this colossal grasshopper would strike the low ceiling of the gun deck, then fall back on its four wheels like a tiger upon its four claws, and dart anew on the man. He, supple, agile, adroit, would glide away like a snake from the reach of these lightning-like movements. He avoided the encounters; but the blows which he escaped fell upon the vessel and continued the havoc.

An end of broken chain remained attached to the carronade. This chain had twisted itself, one could not tell how, about the screw of the

breech button. One extremity of the chain was fastened to the carriage. The other, hanging loose, whirled wildly about the gun and added to the danger of its blows.

The screw held it like a clinched hand, and the chain multiplying the strokes of the battering-ram by its strokes of a thong, made a fearful whirlwind about the cannon—a whip of iron in a fist of brass. This chain complicated the battle.

Nevertheless, the man fought. Sometimes, even, it was the man who attacked the cannon. He crept along the side, bar and rope in hand, and the cannon had the air of understanding, and fled as if it perceived a snare. The man pursued it, formidable, fearless.

Such a duel could not last long. The gun seemed suddenly to say to itself, "Come, we must make an end!" and it paused. One felt the approach of the crisis. The cannon, as if in suspense, appeared to have, or had—because it seemed to all a sentient being—a furious premeditation. It sprang unexpectedly upon the gunner. He jumped aside, let it pass, and cried out with a laugh, "Try again!" The gun, as if in a fury, broke a carronade to larboard; then, seized anew by the invisible sling which held it, was flung to starboard toward the man, who escaped.

Three carronades gave way under the blows of the gun; then, as if blind and no longer conscious of what it was doing, it turned its back on the man, rolled from the stern to the bow, bruising the stem and making a breach in the plankings of the prow. The gunner had taken refuge at the foot of the stairs, a few steps from the old man, who was watching.

The gunner held his handspike in rest. The cannon seemed to perceive him, and, without taking the trouble to turn itself, backed upon him with the quickness of an ax-stroke. The gunner, if driven back against the side, was lost. The crew uttered a simultaneous cry.

But the old passenger, until now immovable, made a spring more rapid than all those wild whirls. He seized a bale of the false assignats, and at the risk of being crushed, succeeded in flinging it between the wheels of the carronade. This maneuver, decisive and dangerous, could not have been executed with more adroitness and precision by a man trained to all the exercises set down in Durosel's "Manual of Sea Gunnery."

The bale had the effect of a plug. A pebble may stop a log, a tree branch turn an avalanche. The carronade stumbled. The gunner, in his turn, seizing this terrible chance, plunged his iron bar between the spokes of one of the hind wheels. The cannon was stopped.

It staggered. The man, using the bar as a lever, rocked it to and fro.

The heavy mass turned over with a clang like a falling bell, and the gunner, dripping with sweat, rushed forward headlong and passed the slipping-noose of the tiller rope above the bronze neck of the overthrown monster.

It was ended. The man had conquered. The ant had subdued the mastodon; the pigmy had taken the thunderbolt prisoner.

The marines and the sailors clapped their hands.

The whole crew hurried down with cables and chains, and in an instant the cannon was securely lashed.

The gunner saluted the passenger.

"Sir," he said to him, "you have saved my life."

The old man had resumed his impassible attitude, and did not reply.

The man had conquered, but one might say that the cannon had conquered also. Immediate shipwreck had been avoided, but the corvette was by no means saved. The dilapidation of the vessel seemed irremediable. The sides had five breaches, one of which, very large, was in the bow. Out of the thirty carronades, twenty lay useless in their frames. The carronade, which had been captured and rechained, was itself disabled; the screw of the breech button was forced, and the leveling of the piece impossible in consequence. The battery was reduced to nine pieces. The hold had sprung a leak. It was necessary at once to repair the damages and set the pumps to work.

The gun deck, now that one had time to look about it, offered a terrible spectacle. The interior of a mad elephant's cage could not have been more completely dismantled.

However great the necessity that the corvette should escape observation, a still more imperious necessity presented itself–immediate safety. It had been necessary to light up the deck by lanterns placed here and there along the sides.

But during the whole time this tragic diversion had lasted, the crew were so absorbed by the one question of life or death that they noticed little what was passing outside the scene of the duel. The fog had thickened; the weather had changed; the wind had driven the vessel at will; it had got out of its route, in plain sight of Jersey and Guernsey, farther to the south than it ought to have gone, and it was surrounded by a troubled sea. The great waves kissed the gaping wounds of the corvette–kisses full of peril. The sea rocked her menacingly. The breeze became a gale. A squall, a tempest perhaps, threatened. It was impossible to see before one four oars' length.

While the crew were repairing summarily and in haste the ravages of

the gun deck, stopping the leaks and putting back into position the guns which had escaped the disaster, the old passenger had gone on deck.

He stood with his back against the mainmast.

He had paid no attention to a proceeding which had taken place on the vessel. The Chevalier Le Vieuville had drawn up the marines in line on either side of the mainmast, and at the whistle of the boatswain the sailors busy in the rigging stood upright on the yards.

Count du Boisberthelot advanced toward the passenger.

Behind the captain marched a man, haggard, breathless, his dress in disorder, yet wearing a satisfied look under it all. It was the gunner who had just now so opportunely shown himself a tamer of monsters, and who had got the better of the cannon.

The count made a military salute to the unknown in peasant garb, and said to him–

"General, here is the man."

The gunner held himself erect, his eyes downcast, standing in a soldierly attitude.

Count du Boisberthelot continued–

"General, taking into consideration what this man has done, do you not think there is something for his commanders to do?"

"I think there is," said the old man.

"Be good enough to give the orders," returned Boisberthelot.

"It is for you to give them. You are the captain."

"But you are the general," answered Boisberthelot.

The old man looked at the gunner.

"Approach," said he.

The gunner moved forward a step. The old man turned toward Count du Boisberthelot, detached the cross of Saint Louis from the captain's uniform and fastened it on the jacket of the gunner.

"Hurrah!" cried the sailors.

The marines presented arms. The old passenger, pointing with his finger toward the bewildered gunner, added–

"Now let that man be shot."

Stupor succeeded the applause.

Then, in the midst of a silence like that of the tomb, the old man raised his voice. He said–

"A negligence has endangered this ship. At this moment she is perhaps lost. To be at sea is to face the enemy. A vessel at open sea is an army which gives battle. The tempest conceals, but does not absent itself. The whole sea is an ambuscade.

"Death is the penalty of any fault committed in the face of the enemy. No fault is reparable. Courage ought to be rewarded and negligence punished."

These words fell one after the other, slowly, solemnly, with a sort of inexorable measure, like the blows of an ax upon an oak.

And the old man, turning to the soldiers, added–

"Do your duty."

The man upon whose breast shone the cross of Saint Louis bowed his head.

At a sign from Count du Boisberthelot, two sailors descended between decks, then returned, bringing the hammock winding sheet. The ship's chaplain, who since the time of sailing had been at prayer in the officers' quarters, accompanied the two sailors; a sergeant detached from the line twelve marines, whom he arranged in two ranks, six by six; the gunner, without uttering a word, placed himself between the two files. The chaplain, crucifix in hand, advanced and stood near him.

"March!" said the sergeant.

The platoon moved with slow steps toward the bow. The two sailors who carried the shroud followed.

A gloomy silence fell upon the corvette. A hurricane moaned in the distance.

A moment later gunfire sounded in the shadows, a light flashed, and all was silent; then came the sound of a body falling into the sea.

The foregoing consists of Part I, Book II,
Chapters IV–VI
of Victor Hugo's NINETY-THREE.

Guy de Maupassant

1850–1893

Guy de Maupassant, a stockbroker's son, was born at the château of Miromesnil, near Dieppe, France, on August 5, 1850. He grew up on his mother's estate at Étretat, in a crowd of sailors' and peasants' children. In 1867 he entered Caen University with the intention of studying law. But he got his real education as the disciple of Gustave Flaubert. Flaubert went over his manuscripts and introduced him to such Sunday intimates as Zola, Daudet, and Turgenev.

Maupassant left school to serve in the army during the Franco-Prussian War of 1870. When he was discharged the next year, he took a job as a clerk in the Ministry of Marine. Like Monet, Mallarmé, and others, he was fond of boating on the Seine. He published a first book, *Some Verses,* in 1880. That same year Zola and his circle of young writers brought out a joint collection of stories about the war of 1870, called *Evenings at Médan*. Maupassant's contribution, *Boule de suif* ("Ball of Tallow"), made him instantly famous.

Between that year and his final mental breakdown in 1891, he produced work enough to fill thirty books. In 1881 he brought out a first book of stories, *La Maison Tellier*. In 1883 came a novel, *A Life,* and two books of stories, *Mademoiselle Fifi* and *Tales of the Woodcock*. Four books of stories–*Moonlight, The Rondoli Sisters, Yvette,* and *Miss Harriet*–appeared the following year.

In 1885 he published *Bel-Ami,* a novel about a cynical Parisian journalist. His work sold so well that he was able to buy a small yacht for cruising on the Mediterranean. He named her "Bel Ami." Out of this came two books of Mediterranean impressions, *On the Water* and *The Roving Life*. He published four more novels–*Mont-Oriol, Pierre and Jean, Strong as Death,* and *Our Heart*–plus such

later volumes of stories as *The Horla, Madame Husson's Rosebush,* and *The Useless Beauty*. He is remarkable for his precise craftsmanship, his eye for the timelessly human, and his austere loyalty to "the plain truth" as he saw it. In 1892, when he felt his mind giving way, he tried to commit suicide at Cannes. He died in Paris on July 6, 1893.

He writes a scant 2,500 words in the exact, impersonal tone of a military history, and there it is—*Two Friends,* a small masterpiece about war and death and nature, the honor and happiness of ordinary men. It happens at Colombes, along that second hook of the Seine that lies northwest of the center of Paris. But it might have happened anywhere, in any war—on the Scamander River before Troy, or along the Wei River in one of China's thousand wars, or at Vicksburg on the Mississippi in the American Civil War.

At the same time we recognize its quality as distinctively Parisian and French. It takes place toward the end of the Franco-Prussian War, during the siege of Paris, when Victor Hugo recorded that he ate rat and the skill of any great chef might be tested by a demand that he cook a ragout of hippopotamus or a haunch of leopard from the zoo. So, to their old and serene delight in fishing for fishing's sake, M. Morissot the watchmaker and M. Sauvage the draper (dry goods dealer) now add the motive of simple hunger.

And for once the Seine promises to feed her children well. We have seen how charmingly, and with what right touches, Maupassant caught the city men's pleasure in the serenity of their countryside—the hot morning evaporation of mist from the spring river. Now they are back again, at their favorite perch along the bank, on the first fine day of the year. But nothing is quite the same. War has touched the river, the plain, the heights at Sannois with her dark wing. And in a little while the guns on the fortified summit of Mont Valérien, west of the Bois de Boulogne, begin to speak.

Notes from the artist: "*. . . the style of the de Maupassant portrait is boldly French. The robust figures at the left are a reworking of an illustration in an early edition of* La Maison Tellier, *a volume of de Maupassant's short stories published in 1881.*"

guy de maupassant

"There they are, at it again," says M. Sauvage. It is perfectly put. It says everything. For the moment, he and M. Morissot, as usual entirely in accord on the primary things, are not Frenchmen or Parisians, Royalists or Republicans, or even fishermen. They are simply men–plain men, who know in their bones what war is, and that nothing good can come of it. They discuss it calmly, with distaste, reasonable even when they disagree as to which party may be responsible for it. But the sun is high and their little bounty of gudgeon wriggles and glints in the net bag. We feel suddenly the rightness of Maupassant's symbol: that those fish are life–life saved from hunger, life out of the pleasant river of peace, life in all its squirming aliveness.

Then suddenly there are men "dressed like liveried footmen." M. Morissot and M. Sauvage stand before a "hairy giant . . . smoking a long porcelain pipe." We know that giant. He is the ogre out of the fairy tales. He is the man in every war who never loses his appetite over other people's deaths. He is made for war, and war is made for him. He presents them with a simple choice: betray the password, or die. So, with their own lives and honor at stake, they must take part in this war they want nothing to do with. They must choose. And the bag of fish, like life itself, lies wriggling at their feet.

It is precisely here that Maupassant makes his deepest point. M. Morissot and M. Sauvage–who are they but Everyman in peace and war? They fish in a placid river and are suddenly confronted with the instant choice of life or death. Can they betray their country? And if not, is it themselves they must betray?

Two Friends

Paris was surrounded, starving, at its last gasp. There were fewer and fewer sparrows on the roofs. The sewers had been emptied of their population. People were eating anything they could find.

One bright January morning, as Monsieur Morissot, a watchmaker by profession, and a man who loved to take his ease when occasion offered, was strolling in a melancholy mood along the outer boulevard, with his hands in the pockets of his army trousers and a void in his stomach, he ran into a man whom he immediately recognized. It was Monsieur Sauvage, a riverside acquaintance.

Every Sunday morning before the war, Monsieur Morissot had been in the habit of setting off early, with a bamboo rod in his hand and a tin box slung on his back. He took the Argenteuil train, got out at Colombes, and walked to the small island which goes by the name of Marante. As soon as he reached this place of his dreams, he settled down to fish, and he fished till nightfall.

A tubby, jovial little man was always there before him, a draper from the Rue Notre-Dame-de-Lorette, as fanatical an angler as himself. They frequently spent half the day sitting side-by-side, rod in hand, and their feet dangling over the stream. They had become fast friends.

Sometimes they did not talk at all. Sometimes they chatted, but so alike were their tastes and their reactions, and so perfect their understanding of each other, that words were unnecessary.

Sometimes, on spring mornings, about ten o'clock, when the early sun had laid on the still surface of the river a faint mist, which flowed with the current, and beat down on the backs of the two enthusiasts with the welcome warmth of the waxing season, Morissot would say to his neighbor, "Lovely, isn't it?" And Monsieur Sauvage would reply, "I don't know anything lovelier." That simple exchange was enough to bring complete understanding between them, and make them like one another the more.

On autumn afternoons, when the day was nearing its end and the setting sun reddened the sky, when the water reflected crimson clouds and the far horizon seemed all ablaze, when the figures of the two friends seemed lit by fire, and the trees, already turning red, glowed and shivered with a foretaste of winter, Monsieur Sauvage would smile at Morissot and say: "That's a sight for sore eyes." And Morissot, struck with the wonder of it all, but keeping his eyes firmly fixed on his float, would answer: "Better than the boulevard, eh?"

No sooner had the two friends recognized each other, than they shook hands warmly, caught up in a little eddy of emotion at meeting thus again in such different circumstances. Monsieur Sauvage sighed and said: "What times we live in!" And Morissot, all gloom, lamented: "And what a lovely day! The first really good weather of the year!"

That was undeniable, for the sky was an unclouded, brilliant blue.

They walked together, side-by-side, thoughtful and sad.

"Remember our fishing?" said Morissot. "Those were the days."

"Will they ever come again, I wonder?" said Monsieur Sauvage.

They went into a little café and had an absinthe each. Then they resumed their walk along the pavement.

Suddenly Morissot pulled up short: "What about another?" "I'm with you," said Monsieur Sauvage, and they turned in at a second bar. By the time they left it they were slightly fuddled, as men are apt to be after drinking spirits on an empty stomach. The day was mild, and a pleasant breeze fanned their faces.

Monsieur Sauvage had been made more than a little drunk by the air. He stopped and put a question:

"Why shouldn't we have a shot?"

"What at?"

"Fishing."

"Where?"

"At our island, of course. The French outposts are close to Colombes. I know the colonel in command–a chap called Dumoulin. He won't make any difficulties."

Quivering with anticipation Morissot acquiesced: "Done. I'm with you." And the two friends separated to get their equipment.

An hour later they were striding together down the main road. They reached the villa in which the colonel had established his headquarters. He smiled at their odd request, but readily gave his consent. They started off again, armed with the necessary permit.

In next to no time they had crossed the outpost line, passed through

Colombes which had been evacuated, and found themselves on the edge of a small vineyard which sloped down to the Seine. It was about eleven o'clock.

Opposite them the village of Argenteuil seemed dead. The heights of Orgemont and Sannois dominated the countryside. The great plain which stretches as far as Nanterre was empty, completely empty, with its leafless cherry trees and gray soil.

Monsieur Sauvage pointed with his finger at the high ground. "The Prussians are up there," he said. A sort of paralysis seized upon the two friends as they gazed at the desert before them.

The Prussians! They had never set eyes on them, but for months and months they had been conscious of their presence on every side, bringing ruin on France, looting, murdering, spreading starvation, invisible, irresistible. A sort of superstitious dread was added to the hate they felt for that unknown and victorious race.

Hesitant and fearful, Morissot said: "Suppose we met some of them?"

In spite of everything, the mocking note of the Paris streets sounded in his friend's reply: "We would offer them a fish fry!"

But they still hesitated before venturing into the open country, for they were intimidated by the vast spread of silence round them.

It was Monsieur Sauvage who finally took the plunge.

"We'd better get going," he said, "but keep your weather eye open!"

They clambered down through the vines, bent double, crawling on hands and knees, taking advantage of the cover offered by the bushes, their ears pricked.

They still had a strip of open ground to cross before they could get to the river bank. They broke into a run, and, when they reached it, went to earth in a thicket of dry reeds.

Morissot put his ear to the ground to catch the sound of footsteps. He heard nothing. They were alone.

Plucking up their courage, they began to fish.

Immediately in front, the deserted island of Marante hid them from the other bank. The little restaurant was closed, and looked as though it had been abandoned for years.

Monsieur Sauvage caught the first gudgeon, Morissot the second, and then, with scarcely a pause, they kept jerking up their rods with little silver creatures flickering at the end of their lines. A miraculous draught of fish, indeed!

Carefully, they put their haul into a fine-meshed net dangling in the water at their feet, and a delicious joy took hold of them, the joy that comes

when a favorite pleasure is resumed after long months of deprivation.

The kindly sun sent a ripple of warmth between their shoulder blades. There was not a sound to be heard, nor was there a thought in their heads. The world was all forgotten. They were fishing.

But, suddenly, a dull, a seemingly subterranean sound made the earth tremble. The big guns were at it again.

Morissot turned his head, and above the bank, away to the left, he saw the great bulk of Mont Valérien with, on its head, a white plume, a drift of smoke which it had just spewed out.

Almost immediately a second jet of smoke leaped from the summit of the fort, and a few moments later the noise of a second detonation reached their ears.

Others followed, and at brief intervals the mount puffed out its death-dealing breath, spreading clouds of milky vapor which slowly rose into the peaceful sky, covering it with a pall.

Monsieur Sauvage shrugged. "There they are, at it again," he said.

Morissot, who was anxiously watching the little feather on his float bobbing up and down, was suddenly filled with the anger of a man of peace at the maniacs with no thought for anything but fighting. "Only fools," he grunted, "would go on killing each other like that!"

"They're worse than fools," said Monsieur Sauvage.

Morissot, who had just landed a fish, burst out with: "Nothing'll ever change so long as there are governments!"

Monsieur Sauvage corrected him: "A republic would never have declared war . . ."

But Morissot cut him short: "With kings there are foreign wars; with republics, civil strife."

Without heat they started arguing the great political issues, showing all the sweet reasonableness of peace-loving men who cannot see beyond their noses. On one thing only they agreed: that mankind would never be free. And all the while Mont Valérien kept thundering, bringing destruction on French homes, grinding flesh and blood to dust, crushing human bodies, and bringing to the hearts of women, girls, and mothers in other lands an endless suffering.

"Such is life," said Monsieur Sauvage.

"Say, rather, such is death," laughed Morissot.

They both gave a frightened start. They had a feeling that somebody was moving behind them. Turning their heads they saw, standing at their backs, four great hulking brutes, armed and bearded, dressed like liveried footmen, with flat caps on their heads, and rifles leveled.

The rods dropped from their hands and went floating down the river.

In a matter of seconds they were seized, carried off, flung into a boat, and ferried across to the island.

Behind the building they had thought deserted, they saw about twenty German soldiers.

A sort of hairy giant astride upon a chair and smoking a long porcelain pipe, asked them in excellent French: "Did you have good fishing, gentlemen?"

One of the soldiers laid the net filled with fish at the officer's feet. The Prussian smiled: "Not too bad, I see. But we have other things to think about. Just listen to me and don't worry.

"So far as I am concerned you are two spies sent to keep a watch on me. I have taken you and I shall shoot you. You have been pretending to fish, the better to conceal your real intentions. You have fallen into my hands. So much the worse for you: but war is war.

"Since, however, you came through your own lines, I take it that you have been given the countersign which will enable you to return the same way. Give that countersign to me and I will spare your lives."

The two friends stood side-by-side with ashen faces. Their hands were twitching nervously, but they said nothing.

The officer went on: "No one will be the wiser. You will return undisturbed. The secret will go with you. If you refuse, you die–instantly. Which will you choose?"

They still stood motionless. Not a word came from them.

Quite calmly, the Prussian pointed to the river, and continued: "In five minutes you will be at the bottom of that. Five minutes. I suppose you have relatives?"

Mont Valérien was still thundering.

The two fishermen stood perfectly still and silent. The German gave an order in his own language. Then he moved his chair so as not to be too close to the prisoners, and twelve men marched up and halted at a distance of twenty paces, their rifles at the order.

"I give you one minute now, not a second more."

Then he got quickly to his feet, approached the two Frenchmen, took Morissot by the arm, and led him to one side. In a low voice, he said: "Give me the countersign. Your friend need know nothing. I will make it look as though I have relented."

Morissot said nothing.

The Prussian repeated the maneuver with Monsieur Sauvage, and made the same suggestion to him.

Monsieur Sauvage said nothing.

They were back as they had been, side-by-side.

The officer gave an order. The soldiers raised their rifles.

Morissot's eyes happened to fall on the netful of gudgeon lying in the grass quite close to him.

A ray of sunshine fell on the pile of still-squirming fish, and made them glitter. He was guilty of a moment's weakness. In spite of his effort to hold them back, two tears came into his eyes.

"Good-by, Monsieur Sauvage," he said unsteadily.

"Good-by, Monsieur Morissot," Monsieur Sauvage said.

They shook hands, trembling uncontrollably from head to foot.

"Fire!" shouted the officer.

The twelve shots rang out like one.

Monsieur Sauvage fell forward like a log. Morissot, who was taller, swayed, spun round, and collapsed across his friend. He lay with his face to the sky, a few drops of blood bubbling from holes in the front of his coat.

The German issued some further orders. His men scattered and came back with some lengths of rope and a few stones which they fastened to the feet of the dead men. Then they carried them to the bank.

Mont Valérien was still thundering. By this time there was a great mountain of smoke above it.

Two soldiers lifted Morissot by the head and feet. Two others did the same with Monsieur Sauvage. The bodies were swung violently backwards and forwards for a few moments, then pitched into the river, where they fell feet foremost, the stones weighting them down.

The water splashed, seethed, quivered, then grew calm again. A few small ripples broke against the bank.

A little blood floated on the surface.

The officer, still entirely unperturbed, said, in a low voice: "It is the fishes' turn now."

He noticed the net of gudgeon on the grass. He picked it up, looked it over, smiled and called: "Wilhelm!"

A soldier in a white apron hurried up.

The officer threw him the haul of the two shot fishermen, and said:

"Fry these little creatures, quickly, while they are still alive. They will be delicious."

Then, he returned to his pipe.

Translated by Gerard Hopkins.

Ernest Hemingway

1899–1961

Ernest Hemingway was born in Oak Park, Illinois, July 21, 1899. In high school, he made the football and swimming teams and served as class editor. He became a reporter on the *Kansas City Star*. In early 1918, he joined an American ambulance unit on the Italian front. Wounded by a trench mortar grenade near Piave, he spent three months in a hospital. He enlisted in the Italian infantry and was commissioned a lieutenant in the field.

After World War I, Hemingway worked for the *Toronto Star* and the *Chicago Tribune*. In 1921 he married Hadley Richardson and went back to Europe as a correspondent. His first book, *Three Stories and Ten Poems,* appeared in 1923. The following year he published *in our time* (it was succeeded by an expanded version, *In Our Time,* in 1925). "You are all a lost generation," Gertrude Stein said to him; and this became the legend for his famous first novel, *The Sun Also Rises*.

A book of stories, *Men Without Women,* was followed by *A Farewell to Arms* in 1929. This novel clinched his enormous reputation. He was divorced, married Pauline Pfeiffer, and moved to Key West, Florida. He fished the Gulf Stream (a rosefish, *Neomerinthe hemingwayi,* has been named after him). In the early 1930's, he published a book in praise of bullfighting, *Death in the Afternoon;* a third collection of stories, *Winner Take Nothing;* and *Green Hills of Africa,* a narrative of big-game hunting. His fourth novel, *To Have and Have Not,* was brought out in 1937.

Out of his experience as a correspondent in the Spanish Civil War came *The Fifth Column,* a play; the narration for Joris Ivens' motion picture, *The Spanish Earth;* and in 1940 his most popular novel, *For Whom the Bell Tolls*. He was divorced, married Martha Gell-

horn, and settled in Cuba. During World War II, he took part in the Normandy invasion as a correspondent and entered Paris somewhat in advance of the main body of troops.

He was divorced in 1944 and married Mary Welsh. A sixth novel appeared in 1950. Three years later, *The Old Man and the Sea* was awarded a Pulitzer Prize. Hemingway received the 1954 Nobel Prize for literature. His clear and powerful style and his devotion to the elemental simplicities of being earned him a world audience. He died from a gunshot wound in Ketchum, Idaho, on July 2, 1961.

The Killers is one of Hemingway's earlier stories and belongs among his most famous. It creates a representative incident from that almost unbelievable memory, the world of prohibition America in the 1920's, and puts it down for us in its own living terms. Even if we have never known such a world, we are persuaded–for the term of the story, at least–to live in it. We feel the chill, quiet autumn evening in a small town and catch the warm smell of ham and eggs frying in the lunchroom. The tone is true, the people are as such people would be, the speech is faithful. Hemingway did not invent this speech. He listened to it and refined it into a formal style.

Who are the killers of the title? Do we need to be told that they are members of a criminal gang, or hired professionals, detailed to murder a man who has in some way offended against the gangland code? In the argot of the period, they would be called *torpedoes* or *rods* or *trigger men*. We gather at once, from their clothes and speech, and especially from their contempt for the town of Summit, that they are big-city men. They look "like a vaudeville team" and they talk like partners in a vaudeville act. Their idiom is a coarse irony, sharpened here and there with wit. Its purpose is intimidation. They eat with their gloves on. Professional killers do not leave fingerprints.

Their mere presence is an eruption of drama in the twilight dol-

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Notes from the artist: ". . . an interpretation of 'Papa' Hemingway in a contemporary manner, suggesting the great strength of his literary style and of his person. An 'architectural' technique of drawing was used to create an atmosphere of solidity and power."

PA Pa

drums of the small town. It is as if a squad of enemy soldiers had moved in and set up a machine-gun post. This suggests one of the remarkable virtues of the story: that it defines precisely, in one symbolic incident, the relation of the gangs to ordinary American life in the 1920's. George, Nick, and Sam behave as any ordinary people might under the circumstances. They do what they are told, in the expectation that, if they do, they will not be hurt. Later, when Nick promises to go and see Andreson, Sam voices the typical attitude in such a situation. "You better not have anything to do with it at all," Sam says. "You better stay way out of it."

The story achieves great intensity at the end, even though the ending seems to dissolve or drift away. Here Hemingway shows his extraordinary ability to suggest emotion with such homely details as the false tranquillity of an arc light among bare branches. Young Nick Adams' courage, his horror at the trap, his willingness to help–all these stand baffled before the great hulk on the bed in Mrs. Hirsch's rooming house.

The Killers

The door of Henry's lunchroom opened and two men came in. They sat down at the counter.

"What's yours?" George asked them.

"I don't know," one of the men said. "What do you want to eat, Al?"

"I don't know," said Al. "I don't know what I want to eat."

Outside it was getting dark. The street-light came on outside the window. The two men at the counter read the menu. From the other end of the counter Nick Adams watched them. He had been talking to George when they came in.

"I'll have a roast pork tenderloin with applesauce and mashed potatoes," the first man said.

"It isn't ready yet."

"What the hell do you put it on the card for?"

"That's the dinner," George explained. "You can get that at six o'clock."

George looked at the clock on the wall behind the counter.

"It's five o'clock."

"The clock says twenty minutes past five," the second man said.

"It's twenty minutes fast."

"Oh, to hell with the clock," the first man said. "What have you got to eat?"

"I can give you any kind of sandwiches," George said. "You can have ham and eggs, bacon and eggs, liver and bacon, or a steak."

"Give me chicken croquettes with green peas and cream sauce and mashed potatoes."

"That's the dinner."

"Everything we want's the dinner, eh? That's the way you work it."

"I can give you ham and eggs, bacon and eggs, liver—"

"I'll take ham and eggs," the man called Al said. He wore a derby hat

and a black overcoat buttoned across the chest. His face was small and white and he had tight lips. He wore a silk muffler and gloves.

"Give me bacon and eggs," said the other man. He was about the same size as Al. Their faces were different, but they were dressed like twins. Both wore overcoats too tight for them. They sat leaning forward, their elbows on the counter.

"Got anything to drink?" Al asked.

"Silver beer, bevo, ginger ale," George said.

"I mean you got anything to *drink?*"

"Just those I said."

"This is a hot town," said the other. "What do they call it?"

"Summit."

"Ever hear of it?" Al asked his friend.

"No," said the friend.

"What do you do here nights?" Al asked.

"They eat the dinner," his friend said. "They all come here and eat the big dinner."

"That's right," George said.

"So you think that's right?" Al asked George.

"Sure."

"You're a pretty bright boy, aren't you?"

"Sure," said George.

"Well, you're not," said the other little man. "Is he, Al?"

"He's dumb," said Al. He turned to Nick. "What's your name?"

"Adams."

"Another bright boy," Al said. "Ain't he a bright boy, Max?"

"The town's full of bright boys," Max said.

George put the two platters, one of ham and eggs, the other of bacon and eggs, on the counter. He set down two side dishes of fried potatoes and closed the wicket into the kitchen.

"Which is yours?" he asked Al.

"Don't you remember?"

"Ham and eggs."

"Just a bright boy," Max said. He leaned forward and took the ham and eggs. Both men ate with their gloves on. George watched them eat.

"What are *you* looking at?" Max looked at George.

"Nothing."

"The hell you were. You were looking at me."

"Maybe the boy meant it for a joke, Max," Al said.

George laughed.

"*You* don't have to laugh," Max said to him. "*You* don't have to laugh at all, see?"

"All right," said George.

"So he thinks it's all right." Max turned to Al. "He thinks it's all right. That's a good one."

"Oh, he's a thinker," Al said. They went on eating.

"What's the bright boy's name down the counter?" Al asked Max.

"Hey, bright boy," Max said to Nick. "You go around on the other side of the counter with your boy friend."

"What's the idea?" Nick asked.

"There isn't any idea."

"You better go around, bright boy," Al said. Nick went around behind the counter.

"What's the idea?" George asked.

"None of your damn business," Al said. "Who's out in the kitchen?"

"The nigger."

"What do you mean the nigger?"

"The nigger that cooks."

"Tell him to come in."

"What's the idea?"

"Tell him to come in."

"Where do you think you are?"

"We know damn well where we are," the man called Max said. "Do we look silly?"

"You talk silly," Al said to him. "What the hell do you argue with this kid for? Listen," he said to George, "tell the nigger to come out here."

"What are you going to do to him?"

"Nothing. Use your head, bright boy. What would we do to a nigger?"

George opened the slit that opened back into the kitchen. "Sam," he called. "Come in here a minute."

The door to the kitchen opened and the nigger came in. "What was it?" he asked. The two men at the counter took a look at him.

"All right, nigger. You stand right there," Al said.

Sam, the nigger, standing in his apron, looked at the two men sitting at the counter. "Yes, sir," he said. Al got down from his stool.

"I'm going back to the kitchen with the nigger and bright boy," he said. "Go on back to the kitchen, nigger. You go with him, bright boy." The little man walked after Nick and Sam, the cook, back into the kitchen. The door shut after them. The man called Max sat at the counter opposite George. He didn't look at George but looked in the mirror that

ran along back of the counter. Henry's had been made over from a saloon into a lunch counter.

"Well, bright boy," Max said, looking into the mirror, "why don't you say something?"

"What's it all about?"

"Hey, Al," Max called, "bright boy wants to know what it's all about."

"Why don't you tell him?" Al's voice came from the kitchen.

"What do you think it's all about?"

"I don't know."

"What do you think?"

Max looked into the mirror all the time he was talking.

"I wouldn't say."

"Hey, Al, bright boy says he wouldn't say what he thinks it's all about."

"I can hear you, all right," Al said from the kitchen. He had propped open the slit that dishes passed through into the kitchen with a catsup bottle. "Listen, bright boy," he said from the kitchen to George. "Stand a little further along the bar. You move a little to the left, Max." He was like a photographer arranging for a group picture.

"Talk to me, bright boy," Max said. "What do you think's going to happen?"

George did not say anything.

"I'll tell you," Max said. "We're going to kill a Swede. Do you know a big Swede named Ole Andreson?"

"Yes."

"He comes here to eat every night, don't he?"

"Sometimes he comes here."

"He comes here at six o'clock, don't he?"

"If he comes."

"We know all that, bright boy," Max said. "Talk about something else. Ever go to the movies?"

"Once in a while."

"You ought to go to the movies more. The movies are fine for a bright boy like you."

"What are you going to kill Ole Andreson for? What did he ever do to you?"

"He never had a chance to do anything to us. He never even seen us."

"And he's only going to see us once," Al said from the kitchen.

"What are you going to kill him for, then?" George asked.

"We're killing him for a friend. Just to oblige a friend, bright boy."

"Shut up," said Al from the kitchen. "You talk too goddam much."

"Well, I got to keep bright boy amused. Don't I, bright boy?"

"You talk too damn much," Al said. "The nigger and my bright boy are amused by themselves. I got them tied up like a couple of girl friends in the convent."

"I suppose you were in a convent."

"You never know."

"You were in a kosher convent. That's where you were."

George looked up at the clock.

"If anybody comes in you tell them the cook is off, and if they keep after it, you tell them you'll go back and cook yourself. Do you get that, bright boy?"

"All right," George said. "What you going to do with us afterward?"

"That'll depend," Max said. "That's one of those things you never know at the time."

George looked up at the clock. It was a quarter past six. The door from the street opened. A streetcar motorman came in.

"Hello, George," he said. "Can I get supper?"

"Sam's gone out," George said. "He'll be back in about half an hour."

"I'd better go up the street," the motorman said. George looked at the clock. It was twenty minutes past six.

"That was nice, bright boy," Max said. "You're a regular little gentleman."

"He knew I'd blow his head off," Al said from the kitchen.

"No," said Max. "It ain't that. Bright boy is nice. He's a nice boy. I like him."

At six-fifty-five George said: "He's not coming."

Two other people had been in the lunchroom. Once George had gone out to the kitchen and made a ham-and-egg sandwich "to go" that a man wanted to take with him. Inside the kitchen he saw Al, his derby hat tipped back, sitting on a stool beside the wicket with the muzzle of a sawed-off shotgun resting on the ledge. Nick and the cook were back to back in the corner, a towel tied in each of their mouths. George had cooked the sandwich, wrapped it up in oiled paper, put it in a bag, brought it in, and the man had paid for it and gone out.

"Bright boy can do everything," Max said. "He can cook and everything. You'd make some girl a nice wife, bright boy."

"Yes?" George said. "Your friend, Ole Andreson, isn't going to come."

"We'll give him ten minutes," Max said.

Max watched the mirror and the clock. The hands of the clock marked seven o'clock, and then five minutes past seven.

"Come on, Al," said Max. "We better go. He's not coming."

"Better give him five minutes," Al said from the kitchen.

In the five minutes a man came in, and George explained that the cook was sick.

"Why the hell don't you get another cook?" the man asked. "Aren't you running a lunch counter?" He went out.

"Come on, Al," Max said.

"What about the two bright boys and the nigger?"

"They're all right."

"You think so?"

"Sure. We're through with it."

"I don't like it," said Al. "It's sloppy. You talk too much."

"Oh, what the hell," said Max. "We got to keep amused, haven't we?"

"You talk too much, all the same," Al said. He came out from the kitchen. The cut-off barrels of the shotgun made a slight bulge under the waist of his too tight-fitting overcoat. He straightened his coat with his gloved hands.

"So long, bright boy," he said to George. "You got a lot of luck."

"That's the truth," Max said. "You ought to play the races, bright boy."

The two of them went out the door. George watched them, through the window, pass under the arc light and across the street. In their tight overcoats and derby hats they looked like a vaudeville team. George went back through the swinging door into the kitchen and untied Nick and the cook.

"I don't want any more of that," said Sam, the cook. "I don't want any more of that."

Nick stood up. He had never had a towel in his mouth before. "Say," he said. "What the hell?" He was trying to swagger it off.

"They were going to kill Ole Andreson," George said. "They were going to shoot him when he came in to eat."

"Ole Andreson?"

"Sure."

The cook felt the corners of his mouth with his thumbs.

"They all gone?" he asked.

"Yeah," said George."They're gone now."

"I don't like it," said the cook. "I don't like any of it at all."

"Listen," George said to Nick. "You better go see Ole Andreson."

"All right."

"You better not have anything to do with it at all," Sam, the cook, said. "You better stay way out of it."

"Don't go if you don't want to," George said.

"Mixing up in this ain't going to get you anywhere," the cook said. "You stay out of it."

"I'll go see him," Nick said to George. "Where does he live?" The cook turned away.

"Little boys always know what they want to do," he said.

"He lives up at Hirsch's rooming house," George said to Nick.

"I'll go up there."

Outside the arc light shone through the bare branches of a tree. Nick walked up the street beside the car tracks and turned at the next arc light down a side street. Three houses up the street was Hirsch's rooming house. Nick walked up the two steps and pushed the bell. A woman came to the door.

"Is Ole Andreson here?"

"Do you want to see him?"

"Yes, if he's in."

Nick followed the woman up a flight of stairs and back to the end of a corridor. She knocked on the door.

"Who is it?"

"It's somebody to see you, Mr. Andreson," the woman said.

"It's Nick Adams."

"Come in."

Nick opened the door and went into the room. Ole Andreson was lying on the bed with all his clothes on. He had been a heavyweight prize fighter and he was too long for the bed. He lay with his head on two pillows. He did not look at Nick.

"What was it?" he asked.

"I was up at Henry's," Nick said, "and two fellows came in and tied up me and the cook, and they said they were going to kill you."

It sounded silly when he said it. Ole Andreson said nothing.

"They put us out in the kitchen," Nick went on. "They were going to shoot you when you came in to supper."

Ole Andreson looked at the wall and did not say anything.

"George thought I better come and tell you about it."

"There isn't anything I can do about it," Ole Andreson said.

"I'll tell you what they were like."

"I don't want to know what they were like," Ole Andreson said. He looked at the wall. "Thanks for coming to tell me about it."

"That's all right."

Nick looked at the big man lying on the bed.

"Don't you want me to go and see the police?"

"No," Ole Andreson said. "That wouldn't do any good."

"Isn't there something I could do?"

"No. There ain't anything to do."

"Maybe it was just a bluff."

"No. It ain't just a bluff."

Ole Andreson rolled over toward the wall.

"The only thing is," he said, talking toward the wall, "I just can't make up my mind to go out. I been in here all day."

"Couldn't you get out of town?"

"No," Ole Andreson said. "I'm through with all that running around."

He looked at the wall.

"There ain't anything to do now."

"Couldn't you fix it up some way?"

"No, I got in wrong." He talked in the same flat voice. "There ain't anything to do. After a while I'll make up my mind to go out."

"I better go back and see George," Nick said.

"So long," said Ole Andreson. He did not look toward Nick. "Thanks for coming around."

Nick went out. As he shut the door he saw Ole Andreson with all his clothes on, lying on the bed looking at the wall.

"He's been in his room all day," the landlady said downstairs. "I guess he don't feel well. I said to him: 'Mr. Andreson, you ought to go out and take a walk on a nice fall day like this,' but he didn't feel like it."

"He doesn't want to go out."

"I'm sorry he don't feel well," the woman said. "He's an awfully nice man. He was in the ring, you know."

"I know it."

"You'd never know it except from the way his face is," the woman said. They stood talking just inside the street door. "He's just as gentle."

"Well, good night, Mrs. Hirsch," Nick said.

"I'm not Mrs. Hirsch," the woman said. "She owns the place. I just look after it for her. I'm Mrs. Bell."

"Well, good night, Mrs. Bell," Nick said.

"Good night," the woman said.

Nick walked up the dark street to the corner under the arc light, and then along the car tracks to Henry's eating house. George was inside, back to the counter. "Did you see Ole?"

"Yes," said Nick. "He's in his room and he won't go out."

The cook opened the door from the kitchen when he heard Nick's voice.

"I don't even listen to it," he said and shut the door.

"Did you tell him about it?" George asked.

"Sure. I told him but he knows what it's all about."

"What's he going to do?"

"Nothing."

"They'll kill him."

"I guess they will."

"He must have got mixed up in something in Chicago."

"I guess so," said Nick.

"It's a hell of a thing."

"It's an awful thing," Nick said.

They did not say anything. George reached down for a towel and wiped the counter.

"I wonder what he did?" Nick said.

"Double-crossed somebody. That's what they kill them for."

"I'm going to get out of this town," Nick said.

"Yes," said George. "That's a good thing to do."

"I can't stand to think about him waiting in the room and knowing he's going to get it. It's too damned awful."

"Well," said George, "you better not think about it."

Sir Walter Scott

1771–1832

Walter Scott was born in Edinburgh, August 15, 1771. He was a descendant of Border clans on both sides. This helped to determine his lifelong bent for Scottish history and tradition. He read law and in 1792 became a member of the faculty of advocates. In 1799 he was made sheriff depute of Selkirkshire and seven years later clerk of session. He held both posts for twenty-five years.

In 1796, after an unlucky love affair with Williamina Stuart of Fettercairn, he published some translations from Bürger, a German Romantic poet. The following year he married Charlotte Charpentier, a French refugee. The first installment of his ballad collection, *Minstrelsy of the Scottish Border,* came out in 1802. Three years later a long poem, *The Lay of the Last Minstrel,* established his name.

Scott began *Waverley* but put it aside to write *Marmion*. This "took possession of the public like a kind of madness." *Lady of the Lake,* in 1810, was hardly less popular. Scott built his famous house at Abbotsford. In the years up to 1825, beginning with *Waverley,* his unbelievable industry produced more than a score of novels, including *Guy Mannering, Old Mortality, Rob Roy, The Heart of Midlothian, Ivanhoe, Kenilworth, Quentin Durward, Redgauntlet,* and *The Talisman*.

Notes from the artist: ". . . a young Scott, superimposed over a facsimile of a school poem (written at age twelve). The standing figure is the mature writer, while woven into the tam is a knight from one of Scott's novels of chivalry"

on the
Setting
Sun.
short lived
homage raise
God,
Walter Scott

Then came ruin. Like Balzac and Mark Twain, Scott had tried his hand at printing and publishing, with much the same results. In the financial panic of 1826, the Edinburgh firm he had backed was involved in the crash of two London houses. Scott was personally liable to the tune of £130,000. He sat down to work off the debt. In two years, with such works as *The Fair Maid of Perth* and a nine-volume *Life of Napoleon,* Scott returned £40,000 to his creditors. He wrote on. In 1830 he had a first stroke. Others followed. As his mind faded, he began to believe that he had paid off his debt. (It was paid off in full, out of royalties, after his death.) A British Government vessel took him on a cruise of the Mediterranean. He was carried back across Europe and died at Abbotsford, September 21, 1832.

Is *The Two Drovers* the first cowboy story in our literature? Perhaps not. There were cowboys of a sort in James Fenimore Cooper's *The Spy,* published in 1821. Scott's tale did not come along until 1827. It appeared, with two other stories, in *Chronicles of the Canongate*. This was turned out as a part of Scott's galloping effort to satisfy his creditors. Like Balzac, Scott often worked best under great pressure. We cannot help noticing that the story is well put together and solidly written.

Does it resemble one of our western stories? Yes and no. There are herds being driven to market, a quarrel over grazing land, a fight in a bar, a murder, and a trial. A western story often reaches its crisis in the battle between a cowboy who has a code of honor and an outlaw who despises such limitations. Often, in the western story, a man must make his own law as best he can. In Scott's story, the final key is the accepted presence of the law.

Scottish clansmen, says the judge in the story, "regarded themselves as so many cavaliers or men-at-arms." Is this not also true of the American cowboy and the Argentine Gaucho, at least as they appear in the romances about them? Scott carries the idea of a code of honor one step farther. He brings two such codes into conflict: the Englishman's stand-up-and-fight and the Scot's touch-me-and-you-die. In a rather simple way, these involve two national spirits and traditions, two kinds of upbringing, two unlike breeds of men. Nor can we forget that there is a long history of violence between them.

Even so, it is the friendship between Robin Oig and Harry Wakefield that gives the story its dark pathos. They are men of a common calling. In everyday things they understand and respect each other. Each is capable of unqualified generosity and shows it. But there is a cloud between them–a cloud their understanding cannot penetrate. In a certain sense, each is a victim of his national code. Does Scott mean to tell us that the wars of nations are like that too?

But the act of revenge is done and Robin Oig stands before the court. Now the two clashing ideas of honor come under the rule of a third idea: justice. Of the trial itself, we hear little–why should we? we have seen the evidence–but the judge's instructions to the jury. (We recall that Scott had passed the bar.) In Melville's *Billy Budd,*[1] or in Hugo's "The Battle with the Cannon,"[2] we may have certain reservations about the justice of the decisions, because of their coldness. Not so in the trial of Robin Oig. Here the judge's speech is everywhere touched with a grave and understanding sympathy.

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[1]See Vol. 3, pp. 31–98, in this set.

[2]See Vol. 2, pp. 146–154, in this set.

The Two Drovers

CHAPTER I

It was the day after Doune Fair when my story commences. It had been a brisk market; several dealers had attended from the northern and midland counties in England, and English money had flown so merrily about as to gladden the hearts of the Highland farmers. Many large droves were about to set off for England, under the protection of their owners, or of the topsmen whom they employed in the tedious, laborious, and responsible office of driving the cattle for many hundred miles, from the market where they had been purchased, to the fields or farm-yards where they were to be fattened for the shambles.

The Highlanders, in particular, are masters of this difficult trade of driving, which seems to suit them as well as the trade of war. It affords exercise for all their habits of patient endurance and active exertion. They are required to know perfectly the drove-roads, which lie over the wildest tracts of the country, and to avoid as much as possible the highways, which distress the feet of the bullocks, and the turnpikes, which annoy the spirit of the drover; whereas, on the broad green or grey track, which leads across the pathless moor, the herd not only move at ease and without taxation, but, if they mind their business, may pick up a mouthful of food by the way. At night, the drovers usually sleep along with their cattle, let the weather be what it will; and many of these hardy men do not once rest under a roof during a journey on foot from Lochaber to Lincolnshire. They are paid very highly, for the trust reposed is of the last importance, as it depends on their prudence, vigilance, and honesty whether the cattle reach the final market in good order, and afford a profit to the grazier. But as they maintain themselves at their own expense, they are especially economical in that particular. At the period we speak of, a Highland drover was victualled for his long and toilsome journey with a few handfuls of oatmeal, and two or three onions, renewed

from time to time, and a ram's horn filled with whisky, which he used regularly, but sparingly, every night and morning. His dirk, or *skene-dhu* [*i.e.,* black knife], so worn as to be concealed beneath the arm, or by the folds of the plaid, was his only weapon, excepting the cudgel with which he directed the movements of the cattle. A Highlander was never so happy as on these occasions. There was a variety in the whole journey, which exercised the Celt's natural curiosity and love of motion; there were the constant change of place and scene, the petty adventures incidental to the traffic, and the intercourse with the various farmers, graziers, and traders, intermingled with occasional merry-makings, not the less acceptable to Donald that they were void of expense—and there was the consciousness of superior skill; for the Highlander, a child amongst flocks, is a prince amongst herds, and his natural habits induce him to disdain the shepherd's slothful life, so that he feels himself nowhere more at home than when following a gallant drove of his country cattle in the character of their guardian.

Of the number who left Doune in the morning, and with the purpose we described, not a *Glunimie* [Highlander] of them all cocked his bonnet more briskly or gartered his tartan hose under knee over a pair of more promising *spiogs* [legs] than did Robin Oig M'Combich, called familiarly Robin Oig, that is, Young, or the Lesser, Robin. Though small of stature as the epithet Oig implies, and not very strongly limbed, he was as light and alert as one of the deer of his mountains. He had an elasticity of step which, in the course of a long march, made many a stout fellow envy him; and the manner in which he busked his plaid and adjusted his bonnet argued a consciousness that so smart a John Highlandman as himself would not pass unnoticed among the Lowland lasses. The ruddy cheek, red lips, and white teeth set off a countenance which had gained by exposure to the weather a healthful and hardy rather than a rugged hue. If Robin Oig did not laugh, or even smile frequently, as indeed is not the practice among his countrymen, his bright eyes usually gleamed from under his bonnet with an expression of cheerfulness ready to be turned into mirth.

The departure of Robin Oig was an incident in the little town, in and near which he had many friends, male and female. He was a topping person in his way, transacted considerable business on his own behalf, and was entrusted by the best farmers in the Highlands in preference to any other drover in that district. He might have increased his business to any extent had he condescended to manage it by deputy; but except a lad or two, sister's sons of his own, Robin rejected the idea of assistance, con-

scious, perhaps, how much his reputation depended upon his attending in person to the practical discharge of his duty in every instance. He remained, therefore, contented with the highest premium given to persons of his description, and comforted himself with the hopes that a few journeys to England might enable him to conduct business on his own account, in a manner becoming his birth. For Robin Oig's father, Lachlan M'Combich (or son of my friend, his actual clan surname being M'Gregor), had been so called by the celebrated Rob Roy, because of the particular friendship which had subsisted between the grandsire of Robin and that renowned cateran. Some people even say that Robin Oig derived his Christian name from one as renowned in the wilds of Loch Lomond as ever was his namesake Robin Hood in the precincts of merry Sherwood. "Of such ancestry," as James Boswell says, "who would not be proud?" Robin Oig was proud accordingly; but his frequent visits to England and to the Lowlands had given him tact enough to know that pretensions, which still gave him a little right to distinction in his own lonely glen, might be both obnoxious and ridiculous if preferred elsewhere. The pride of birth, therefore, was like the miser's treasure, the secret subject of his contemplation, but never exhibited to strangers as a subject of boasting.

Many were the words of gratulation and good luck which were bestowed on Robin Oig. The judges commended his drove, especially Robin's own property, which were the best of them. Some thrust out their snuff-mulls for the parting pinch—others tendered the doch-an-dorrach or parting cup. All cried, "Good luck travel out with you and come home with you. Give you luck in the Saxon market—brave notes in the *leabhar-dhu*" [black pocketbook] "and plenty of English gold in the sporran" [pouch of goatskin].

The bonny lasses made their adieus more modestly, and more than one, it was said, would have given her best brooch to be certain that it was upon her that his eye last rested as he turned towards the road.

Robin Oig had just given the preliminary "Hoo-hoo!" to urge forward the loiterers of the drove when there was a cry behind him.

"Stay, Robin—bide a blink. Here is Janet of Tomahourich—auld Janet, your father's sister."

"Plague on her, for an auld Highland witch and spaewife [fortune-teller]," said a farmer from the Carse [fen] of Stirling; "she'll cast some of her cantrips on the cattle."

"She canna do that," said another sapient of the same profession, "Robin Oig is no the lad to leave any of them without tying St. Mungo's knot on

their tails, and that will put to her speed the best witch that ever flew over Dimayet upon a broomstick."

It may not be indifferent to the reader to know that the Highland cattle are peculiarly liable to be *taken,* or infected, by spells and witchcraft; which judicious people guard against by knitting knots of peculiar complexity on the tuft of hair which terminates the animal's tail.

But the old woman who was the object of the farmer's suspicion seemed only busied about the drover, without paying any attention to the drove. Robin, on the contrary, appeared rather impatient of her presence.

"What auld-world fancy," he said, "has brought you so early from the ingle-side this morning, Muhme? I am sure I bid you good even, and had your God-speed, last night."

"And left me more siller than the useless old woman will use till you come back again, bird of my bosom," said the sibyl. "But it is little I would care for the food that nourishes me, or the fire that warms me, or for God's blessed sun itself if aught but weel should happen to the grandson of my father. So let me walk the *deasil* round you, that you may go safe out into the foreign land, and come safe home."

Robin Oig stopped, half embarrassed, half laughing, and signing to those near that he only complied with the old woman to soothe her humour. In the meantime she traced around him, with wavering steps, the propitiation, which some have thought has been derived from the Druidical mythology. It consists, as is well known, in the person who makes the *deasil* walking three times round the person who is the object of the ceremony, taking care to move according to the course of the sun. At once, however, she stopped short, and exclaimed, in a voice of alarm and horror, "Grandson of my father, there is blood on your hand."

"Hush, for God's sake, aunt," said Robin Oig; "you will bring more trouble on yourself with this *taishataragh*" [second sight] "than you will be able to get out of for many a day."

The old woman only repeated, with a ghastly look, "There is blood on your hand, and it is English blood. The blood of the Gael is richer and redder. Let us see–let us–"

Ere Robin Oig could prevent her, which, indeed, could only have been done by positive violence, so hasty and peremptory were her proceedings, she had drawn from his side the dirk which lodged in the folds of his plaid, and held it up, exclaiming, although the weapon gleamed clear and bright in the sun, "Blood, blood–Saxon blood again. Robin Oig M'Combich, go not this day to England!"

"Prutt trutt," answered Robin Oig, "that will never do neither–it would be next thing to running the country. For shame, Muhme–give me the dirk. You cannot tell by the colour the difference betwixt the blood of a black bullock and a white one, and you speak of knowing Saxon from Gaelic blood. All men have their blood from Adam, Muhme. Give me my *skene-dhu* and let me go on my road. I should have been halfway to Stirling Brig by this time. Give me my dirk, and let me go."

"Never will I give it to you," said the old woman.

"Never will I quit my hold on your plaid unless you promise me not to wear that unhappy weapon."

The women around him urged him also, saying few of his aunt's words fell to the ground; and as the Lowland farmers continued to look moodily on the scene, Robin Oig determined to close it at any sacrifice.

"Well, then," said the young drover, giving the scabbard of the weapon to Hugh Morrison, "you Lowlanders care nothing for these freats. Keep my dirk for me. I cannot give it to you, because it was my father's; but your drove follows ours, and I am content it should be in your keeping, not in mine. Will this do, Muhme?"

"It must," said the old woman–"that is, if the Lowlander is mad enough to carry the knife."

The strong westlandman laughed aloud.

"Goodwife," said he, "I am Hugh Morrison from Glenae, come of the Manly Morrisons of auld lang syne, that never took short weapon against a man in their lives. And neither needed they. They had their broadswords, and I have this bit supple," showing a formidable cudgel, "for dirking ower the board, I leave that to John Highlandman. Ye needna snort, none of you Highlanders, and you in especial, Robin. I'll keep the bit knife, if you are feared for the auld spaewife's tale, and give it back to you whenever you want it."

Robin was not particularly pleased with some part of Hugh Morrison's speech; but he had learned in his travels more patience than belonged to his Highland constitution originally, and he accepted the service of the descendant of the Manly Morrisons without finding fault with the rather depreciating manner in which it was offered.

"If he had not had his morning in his head, and been but a Dumfriesshire hog into the boot, he would have spoken more like a gentleman. But you cannot have more of a sow than a grumph. It's shame my father's knife should ever slash a haggis for the like of him."

Thus saying (but saying it in Gaelic) Robin drove on his cattle, and

waved farewell to all behind him. He was in the greater haste, because he expected to join at Falkirk a comrade and brother in profession, with whom he proposed to travel in company.

Robin Oig's chosen friend was a young Englishman, Harry Wakefield by name, well known at every northern market, and in his way as much famed and honoured as our Highland driver of bullocks. He was nearly six feet high, gallantly formed to keep the rounds at Smithfield, or maintain the ring at a wrestling match; and although he might have been overmatched, perhaps, among the regular professors of the Fancy, yet, as a yokel, or rustic, or a chance customer, he was able to give a bellyful to any amateur of the pugilistic art. Doncaster races saw him in his glory, betting his guinea, and generally successfully; nor was there a main fought in Yorkshire, the feeders being persons of celebrity, at which he was not to be seen, if business permitted. But though a sprack lad, and fond of pleasure and its haunts, Harry Wakefield was steady, and not the cautious Robin Oig M'Combich himself was more attentive to the main chance. His holidays were holidays indeed; but his days of work were dedicated to steady and persevering labour. In countenance and temper, Wakefield was the model of old England's merry yeomen, whose clothyard shafts, in so many hundred battles, asserted her superiority over the nations, and whose good sabres in our own time are her cheapest and most assured defence. His mirth was readily excited; for, strong in limb and constitution, and fortunate in circumstances, he was disposed to be pleased with everything about him; and such difficulties as he might occasionally encounter were, to a man of his energy, rather matter of amusement than serious annoyance. With all the merits of a sanguine temper, our young English drover was not without his defects. He was irascible, sometimes to the verge of being quarrelsome; and perhaps not the less inclined to bring his disputes to a pugilistic decision because he found few antagonists able to stand up to him in the boxing ring.

It is difficult to say how Harry Wakefield and Robin Oig first became intimates; but it is certain a close acquaintance had taken place betwixt them, although they had apparently few common subjects of conversation or of interest, so soon as their talk ceased to be of bullocks. Robin Oig, indeed, spoke the English language rather imperfectly upon any other topics but stots and kyloes, and Harry Wakefield could never bring his broad Yorkshire tongue to utter a single word of Gaelic. It was in vain Robin spent a whole morning during a walk over Minch Moor in attempting to teach his companion to utter, with true

precision, the shibboleth *Llhu,* which is the Gaelic for a calf. From Traquair to Murdercairn, the hill rang with the discordant attempts of the Saxon upon the unmanageable monosyllable, and the heartfelt laugh which followed every failure. They had, however, better modes of awakening the echoes; for Wakefield could sing many a ditty to the praise of Moll, Susan, and Cicely, and Robin Oig had a particular gift at whistling interminable pibrochs through all their involutions, and what was more agreeable to his companion's southern ear, knew many of the northern airs, both lively and pathetic, to which Wakefield learned to pipe a bass. This, though Robin could hardly have comprehended his companion's stories about horse-racing, and cock-fighting or fox-hunting, and although his own legends of clan-fights and *creaghs* [raids] varied with talk of Highland goblins and fairy folk, would have been caviar to his companion; they contrived nevertheless to find a degree of pleasure in each other's company, which had for three years back induced them to join company and travel together when the direction of their journey permitted. Each, indeed, found his advantage in this companionship; for where could the Englishman have found a guide through the western Highlands like Robin Oig M'Combich? And when they were on what Harry called the *right* side of the border, his patronage, which was extensive, and his purse, which was heavy, were at all times at the service of his Highland friend, and on many occasions his liberality did him genuine yeoman's service.

CHAPTER II

Were ever two such loving friends!–
    How could they disagree?
Oh thus it was, he loved him dear,
    And thought how to requite him,
And having no friend left but he,
    He did resolve to fight him.

The pair of friends had traversed with their usual cordiality the grassy wilds of Liddesdale, and crossed the opposite part of Cumberland, emphatically called The Waste. In these solitary regions, the cattle under the charge of our drovers derived their subsistence chiefly by picking their food as they went along the drove-road, or sometimes by the tempting opportunity of a *start and owerloup,* or invasion of the neigh bouring pasture, where an occasion presented itself. But now the

scene changed before them; they were descending towards a fertile and enclosed country, where no such liberties could be taken with impunity, or without a previous arrangement and bargain with the possessors of the ground. This was more especially the case, as a great northern fair was upon the eve of taking place, where both the Scotch and English drover expected to dispose of a part of their cattle, which it was desirable to produce in the market, rested and in good order. Fields were therefore difficult to be obtained, and only upon high terms. This necessity occasioned a temporary separation betwixt the two friends, who went to bargain, each as he could, for the separate accommodation of his herd. Unhappily it chanced that both of them, unknown to each other, thought of bargaining for the ground they wanted on the property of a country gentleman of some fortune, whose estate lay in the neighbourhood. The English drover applied to the bailiff on the property, who was known to him. It chanced that the Cumbrian squire, who had entertained some suspicions of his manager's honesty, was taking occasional measures to ascertain how far they were well founded, and had desired that any inquiries about his enclosures, with a view to occupy them for a temporary purpose, should be referred to himself. As, however, Mr. Ireby had gone the day before upon a journey of some miles' distance to the northward, the bailiff chose to consider the check upon his full powers as for the time removed, and concluded that he should best consult his master's interest, and perhaps his own, in making an agreement with Harry Wakefield. Meanwhile, ignorant of what his comrade was doing, Robin Oig, on his side, chanced to be overtaken by a good-looking smart little man upon a pony, most knowingly hogged and cropped, as was then the fashion, the rider wearing tight leather breeches and long-necked bright spurs. This cavalier asked one or two pertinent questions about markets and the price of stock. So Robin, seeing him a well-judging civil gentleman, took the freedom to ask him whether he could let him know if there was any grass-land to be let in that neighbourhood, for the temporary accommodation of his drove. He could not have put the question to more willing ears. The gentleman of the buckskin was the proprietor with whose bailiff Harry Wakefield had dealt or was in the act of dealing.

"Thou art in good luck, my canny Scot," said Mr. Ireby, "to have spoken to me, for I see thy cattle have done their day's work, and I have at my disposal the only field within three miles that is to be let in these parts."

"The drove can pe gang two, three, four miles very pratty weel in-

deed," said the cautious Highlander; "put what would his honour be axing for the peasts pe the head, if she was to tak the park for twa or three days?"

"We won't differ, Sawney, if you let me have six stots for winterers, in the way of reason."

"And which peasts wad your honour pe for having?"

"Why–let me see–the two black–the dun one–yon doddy–him with the twisted horn–the brocket. How much by the head?"

"Ah," said Robin, "your honour is a shudge–a real shudge–I couldna have set off the pest six peasts petter mysell, me that ken them as if they were my pairns, puir things."

"Well, how much per head, Sawney?" continued Mr. Ireby.

"It was high markets at Doune and Falkirk," answered Robin.

And thus the conversation proceeded, until they had agreed on the *prix juste* for the bullocks, the squire throwing in the temporary accommodation of the enclosure for the cattle into the boot, and Robin making, as he thought, a very good bargain, provided the grass was but tolerable. The squire walked his pony alongside of the drove, partly to show him the way, and see him put into possession of the field, and partly to learn the latest news of the northern markets.

They arrived at the field, and the pasture seemed excellent. But what was their surprise when they saw the bailiff quietly inducting the cattle of Harry Wakefield into the grassy Goshen which had just been assigned to those of Robin Oig M'Combich by the proprietor himself! Squire Ireby set spurs to his horse, dashed up to his servant, and learning what had passed between the parties, briefly informed the English drover that his bailiff had let the ground without his authority, and that he might seek grass for his cattle wherever he would, since he was to get none there. At the same time he rebuked his servant severely for having transgressed his commands, and ordered him instantly to assist in ejecting the hungry and weary cattle of Harry Wakefield, which were just beginning to enjoy a meal of unusual plenty, and to introduce those of his comrade, whom the English drover now began to consider as a rival.

The feelings which arose in Wakefield's mind would have induced him to resist Mr. Ireby's decision; but every Englishman has a tolerably accurate sense of law and justice, and John Fleecebumpkin, the bailiff, having acknowledged that he had exceeded his commission, Wakefield saw nothing else for it than to collect his hungry and disappointed charge, and drive them on to seek quarters elsewhere. Robin

Oig saw what had happened with regret, and hastened to offer to his English friend to share with him the disputed possession. But Wakefield's pride was severely hurt, and he answered disdainfully, "Take it all, man–take it all–never make two bites of a cherry–thou canst talk over the gentry, and blear a plain man's eye. Out upon you, man–I would not kiss any man's dirty latchets for leave to bake in his oven."

Robin Oig, sorry but not surprised at his comrade's displeasure, hastened to entreat his friend to wait but an hour till he had gone to the squire's house to receive payment for the cattle he had sold, and he would come back and help him to drive the cattle into some convenient place of rest, and explain to him the whole mistake they had both of them fallen into. But the Englishman continued indignant: "Thou hast been selling, hast thou? Aye, aye, thou is a cunning lad for kenning the hours of bargaining. Go to the devil with thyself, for I will ne'er see thy fause loon's visage again–thou should be ashamed to look me in the face."

"I am ashamed to look no man in the face," said Robin Oig, something moved; "and, moreover, I will look you in the face this blessed day, if you will bide at the clachan down yonder."

"Mayhap you had as well keep away," said his comrade; and turning his back on his former friend, he collected his unwilling associates, assisted by the bailiff, who took some real and some affected interest in seeing Wakefield accommodated.

After spending some time in negotiating with more than one of the neighbouring farmers, who could not, or would not, afford the accommodation desired, Harry Wakefield at last, and in his necessity, accomplished his point by means of the landlord of the alehouse at which Robin Oig and he had agreed to pass the night, when they first separated from each other. Mine host was content to let him turn his cattle on a piece of barren moor at a price little less than the bailiff had asked for the disputed enclosure; and the wretchedness of the pasture, as well as the price paid for it, were set down as exaggerations of the breach of faith and friendship of his Scottish crony. This turn of Wakefield's passions was encouraged by the bailiff (who had his own reasons for being offended against poor Robin, as having been the unwitting cause of his falling into disgrace with his master), as well as by the innkeeper, and two or three chance guests, who stimulated the drover in his resentment against his quondam associate–some from the ancient grudge against the Scots which, when it exists anywhere, is to be found lurking in the border counties, and some

from the general love of mischief, which characterizes mankind in all ranks of life, to the honour of Adam's children be it spoken. Good John Barleycorn also, who always heightens and exaggerates the prevailing passions, be they angry or kindly, was not wanting in his offices on this occasion; and confusion to false friends and hard masters was pledged in more than one tankard.

In the meanwhile Mr. Ireby found some amusement in detaining the northern drover at his ancient hall. He caused a cold round of beef to be placed before the Scot in the butler's pantry, together with a foaming tankard of home-brewed, and took pleasure in seeing the hearty appetite with which these unwonted edibles were discussed by Robin Oig M'Combich. The squire himself, lighting his pipe, compounded between his patrician dignity and his love of agricultural gossip by walking up and down while he conversed with his guest.

"I passed another drove," said the squire, "with one of your countrymen behind them—they were something less beasts than your drove, doddies most of them—a big man was with them—none of your kilts though, but a decent pair of breeches. D'ye know who he may be?"

"Hout aye—that might, could, and would be Hughie Morrison—I didna think he could hae peen sae weel up. He has made a day on us; but his Argyleshires will have wearied shanks. How far was he pehind?"

"I think about six or seven miles," answered the squire, "for I passed them at the Christenbury Crag, and I overtook you at the Hollan Bush. If his beasts be leg-weary, he will maybe be selling bargains."

"Na, na, Hughie Morrison is no the man for pargains—ye maun come to some Highland body like Robin Oig hersell for the like of these—put I maun pe wishing you goot night, and twenty of them let alane ane, and I maun down to the clachan to see if the lad Harry Waakfelt is out of his humdudgeons yet."

The party at the alehouse were still in full talk, and the treachery of Robin Oig still the theme of conversation, when the supposed culprit entered the apartment. His arrival, as usually happens in such a case, put an instant stop to the discussion of which he had furnished the subject, and he was received by the company assembled with that chilling silence which, more than a thousand exclamations, tells an intruder that he is unwelcome. Surprised and offended, but not appalled by the reception which he experienced, Robin entered with an undaunted and even a haughty air, attempted no greeting as he saw he was received with none, and placed himself by the side of the fire,

a little apart from a table at which Harry Wakefield, the bailiff, and two or three other persons were seated. The ample Cumbrian kitchen would have afforded plenty of room, even for a larger separation.

Robin, thus seated, proceeded to light his pipe, and call for a pint of twopenny.

"We have no twopence ale," answered Ralph Heskett, the landlord; "but as thou findest thy own tobacco, it's like thou mayest find thy own liquor too–it's the wont of thy country, I wot."

"Shame, goodman," said the landlady, a blithe bustling house-wife, hastening herself to supply the guest with liquor, "thou knowest well enow what the strange man wants, and it's thy trade to be civil, man. Thou shouldst know that if the Scot likes a small pot, he pays a sure penny."

Without taking any notice of this nuptial dialogue, the Highlander took the flagon in his hand, and addressing the company generally, drank the interesting toast of "Good markets" to the party assembled.

"The better that the wind blew fewer dealers from the north," said one of the farmers, "and fewer Highland runts to eat up the English meadows."

"Saul of my pody, put you are wrang there, my friend," answered Robin, with composure, "it is your fat Englishmen that eat up our Scots cattle, puir things."

"I wish there was a summat to eat up their drovers," said another; "a plain Englishman canna make bread within a kenning of them."

"Or an honest servant keep his master's favour, but they will come sliding in between him and the sunshine," said the bailiff.

"If these pe jokes," said Robin Oig, with the same composure, "there is ower mony jokes upon one man."

"It is no joke, but downright earnest," said the bailiff. "Harkye, Mr. Robin Ogg, or whatever is your name, it's right we should tell you that we are all of one opinion, and that is that you, Mr. Robin Ogg, have behaved to our friend Mr. Harry Wakefield here, like a raff and a blackguard."

"Nae doubt, nae doubt," answered Robin, with great composure; "and you are a set of very pretty judges, for whose prains or pehaviour I wad not gie a pinch of sneeshing. If Mr. Harry Waakfelt kens where he is wranged, he kens where he may be righted."

"He speaks truth," said Wakefield, who had listened to what passed, divided between the offence which he had taken at Robin's late behaviour, and the revival of his habitual feelings of regard.

He now arose, and went towards Robin, who got up from his seat as he approached, and held out his hand.

"That's right, Harry–go it–serve him out," resounded on all sides, "tip him the nailer–show him the mill."

"Hold your peace all of you, and be–," said Wakefield; and then addressing his comrade, he took him by the extended hand, with something alike of respect and defiance. "Robin," he said, "thou hast used me ill enough this day; but if you mean, like a frank fellow, to shake hands, and make a tussle for love on the sod, why I'll forgie thee, man, and we shall be better friends than ever."

"And would it not pe petter to pe cood friends without more of the matter?" said Robin; "we will be much petter friendships with our panes hale than proken."

Harry Wakefield dropped the hand of his friend, or rather threw it from him.

"I did not think I had been keeping company for three years with a coward."

"Coward pelongs to none of my name," said Robin, whose eyes began to kindle, but keeping the command of his temper. "It was no coward's legs or hands, Harry Waakfelt, that drew you out of the fords of Frew when you was drifting ower the plack rock, and every eel in the river expected his share of you."

"And that is true enough, too," said the Englishman, struck by the appeal.

"Adzooks!" exclaimed the bailiff, "sure Harry Wakefield, the nattiest lad at Whitson Tryste, Wooler Fair, Carlisle Sands, or Stagshaw Bank, is not going to show white feather? Ah, this comes of living so long with kilts and bonnets–men forget the use of their daddles."

"I may teach you, Master Fleecebumpkin, that I have not lost the use of mine," said Wakefield, and then went on. "This will never do, Robin. We must have a turn-up, or we shall be the talk of the countryside. I'll be d–d if I hurt thee–I'll put on the gloves gin thou like. Come, stand forward like a man."

"To pe peaten like a dog," said Robin; "is there any reason in that? If you think I have done you wrong, I'll go before your shudge, though I neither know his law nor his language."

A general cry of "No, no–no law, no lawyer! a bellyful and be friends," was echoed by the bystanders.

"But," continued Robin, "if I am to fight, I've no skill to fight like a jackanapes, with hands and nails."

"How would you fight, then?" said his antagonist; "though I am thinking it would be hard to bring you to the scratch anyhow."

"I would fight with proadswords, and sink point on the first plood drawn, like a gentlemans."

A loud shout of laughter followed the proposal, which indeed had rather escaped from poor Robin's swelling heart than been the dictate of his sober judgement.

"Gentleman, quotha!" was echoed on all sides, with a shout of unextinguishable laughter; "a very pretty gentleman, God wot. Canst get two swords for the gentlemen to fight with, Ralph Heskett?"

"No, but I can send to the armoury at Carlisle and lend them two forks to be making shift with in the meantime."

"Tush, man," said another, "the bonny Scots come into the world with the blue bonnet on their heads, and dirk and pistol at their belt."

"Best send post," said Mr. Fleecebumpkin, "to the squire of Corby Castle, to come and stand second to the *gentleman*."

In the midst of this torrent of general ridicule, the Highlander instinctively griped beneath the folds of his plaid.

"But it's better not," he said in his own language. "A hundred curses on the swine-eaters, who know neither decency nor civility!"

"Make room, the pack of you," he said, advancing to the door.

But his former friend interposed his sturdy bulk, and opposed his leaving the house; and when Robin Oig attempted to make his way by force, he hit him down on the floor with as much ease as a boy bowls down a ninepin.

"A ring, a ring!" was now shouted, until the dark rafters, and the hams that hung on them, trembled again, and the very platters on the *bink* clattered against each other. "Well done, Harry," "give it him home, Harry," "take care of him now–he sees his own blood!"

Such were the exclamations, while the Highlander, starting from the ground, all his coldness and caution lost in frantic rage, sprang at his antagonist with the fury, the activity, and the vindictive purpose of an incensed tiger-cat. But when could rage encounter science and temper? Robin Oig again went down in the unequal contest; and as the blow was necessarily a severe one, he lay motionless on the floor of the kitchen. The landlady ran to offer some aid, but Mr. Fleecebumpkin would not permit her to approach.

"Let him alone," he said, "he will come to within time, and come up to the scratch again. He has not got half his broth yet."

"He has got all I mean to give him, though," said his antagonist, whose

heart began to relent towards his old associate; "and I would rather by half give the rest to yourself, Mr. Fleecebumpkin, for you pretend to know a thing or two, and Robin had not art enough even to peel before setting to, but fought with his plaid dangling about him. Stand up, Robin, my man! all friends now; and let me hear the man that will speak a word against you, or your country, for your sake."

Robin Oig was still under the dominion of his passion, and eager to renew the onset; but being withheld on the one side by the peacemaking Dame Heskett, and on the other, aware that Wakefield no longer meant to renew the combat, his fury sank into gloomy sullenness.

"Come, come, never grudge so much at it, man," said the brave-spirited Englishman, with the placability of his country, "shake hands, and we will be better friends than ever."

"Friends!" exclaimed Robin Oig, with strong emphasis, "friends!–Never. Look to yourself, Harry Waakfelt."

"Then the curse of Cromwell on your proud Scots stomach, as the man says in the play, and you may do your worst, and be d–d; for one man can say nothing more to another after a tussle than that he is sorry for it."

On these terms the friends parted; Robin Oig drew out, in silence, a piece of money, threw it on the table, and then left the alehouse. But turning at the door, he shook his hand at Wakefield, pointing with his forefinger upwards, in a manner which might imply either a threat or a caution. He then disappeared in the moonlight.

Some words passed after his departure between the bailiff, who piqued himself on being a little of a bully, and Harry Wakefield, who, with generous inconsistency, was now not indisposed to begin a new combat in defence of Robin Oig's reputation, "although he could not use his daddles like an Englishman, as it did not come natural to him." But Dame Heskett prevented this second quarrel from coming to a head by her peremptory interference. There should be no more fighting in her house, she said; there had been too much already. "And you, Mr. Wakefield, may live to learn," she added, "what it is to make a deadly enemy out of a good friend."

"Pshaw, dame! Robin Oig is an honest fellow, and will never keep malice."

"Do not trust to that–you do not know the dour temper of the Scots, though you have dealt with them so often. I have a right to know them, my mother being a Scot."

"And so is well seen on her daughter," said Ralph Heskett.

This nuptial sarcasm gave the discourse another turn; fresh customers entered the tap-room or kitchen, and others left it. The conversation turned on the expected markets, and the report of prices from different parts both of Scotland and England—treaties were commenced, and Harry Wakefield was lucky enough to find a chap for a part of his drove, and at a very considerable profit; an event of consequence more than sufficient to blot out all remembrances of the unpleasant scuffle in the earlier part of the day. But there remained one party from whose mind that recollection could not have been wiped away by the possession of every head of cattle betwixt Esk and Eden.

This was Robin Oig M'Combich. "That I should have had no weapon," he said "and for the first time in my life! Blighted be the tongue that bids the Highlander part with the dirk—the dirk—ha! the English blood! My Muhme's word—when did her word fall to the ground?"

The recollection of the fatal prophecy confirmed the deadly intention which instantly sprang up in his mind.

"Ha! Morrison cannot be many miles behind; and if it were a hundred, what then?"

His impetuous spirit had now a fixed purpose and motive of action, and he turned the light foot of his country towards the wilds, through which he knew, by Mr. Ireby's report, that Morrison was advancing. His mind was wholly engrossed by the sense of injury—injury sustained from a friend; and by the desire of vengeance on one whom he now accounted his most bitter enemy. The treasured ideas of self-importance and self-opinion—of ideal birth and quality—had become more precious to him, like the hoard to the miser, because he could only enjoy them in secret. But that hoard was pillaged, the idols which he had secretly worshipped had been desecrated and profaned. Insulted, abused, and beaten, he was no longer worthy, in his own opinion, of the name he bore or the lineage which he belonged to—nothing was left to him—nothing but revenge; and, as the reflection added a galling spur to every step, he determined it should be as sudden and signal as the offence.

When Robin Oig left the door of the ale-house, seven or eight English miles at least lay betwixt Morrison and him. The advance of the former was slow, limited by the sluggish pace of his cattle; the last left behind him stubble-field and hedgerow, crag and dark heath, all glittering with frost-rime in the broad November moonlight, at the rate of six miles an hour. And now the distant lowing of Morrison's cattle is heard; and now they are seen creeping like moles in size and slowness of motion on

the broad face of the moor; and now he meets them, passes them, and stops their conductor.

"May good betide us," said the Southlander. "Is this you, Robin M'Combich, or your wraith?"

"It is Robin Oig M'Combich," answered the Highlander, "and it is not. But never mind that, put pe giving me the skene-dhu."

"What! you are for back to the Highlands–The devil! Have you selt all off before the fair? This beats all for quick markets!"

"I have not sold–I am not going north–may pe I will never go north again. Give me pack my dirk, Hugh Morrison, or there will pe words petween us."

"Indeed, Robin, I'll be better advised before I gie it back to you–it is a wanchancy weapon in a Highlandman's hand, and I am thinking you will be about some barns-breaking."

"Prutt, trutt! let me have my weapon," said Robin Oig, impatiently.

"Hooly, and fairly," said his well-meaning friend. "I'll tell you what will do better than these dirking doings. Ye ken Highlander, and Lowlander, and Border-men are a' ae man's bairns when you are over the Scots dyke. See, the Eskdale callants, and fighting Charlie of Liddesdale, and the Lockerby lads, and the four Dandies of Lustruther, and a wheen mair grey plaids are coming up behind, and if you are wranged, there is the hand of a Manly Morrison; we'll see you righted, if Carlisle and Stanwix baith took up the feud."

"To tell you the truth," said Robin Oig, desirous of eluding the suspicions of his friend, "I have enlisted with a party of the Black Watch, and must march off to-morrow morning."

"Enlisted! Were you mad or drunk? You must buy yourself off–I can lend you twenty notes, and twenty to that, if the drove sell."

"I thank you–thank ye, Hughie; but I go with good will the gate that I am going–so the dirk–the dirk!"

"There it is for you then, since less wunna serve. But think on what I was saying. Waes me, it will be sair news in the braes of Balquidder that Robin Oig M'Combich should have run an ill gate, and ta'en on."

"Ill news in Balquidder, indeed!" echoed poor Robin. "But Cot speed you, Hughie, and send you good marcats. Ye winna meet with Robin Oig again, either at tryste or fair."

So saying, he shook hastily the hand of his acquaintance, and set out in the direction from which he had advanced, with the spirit of his former pace.

"There is something wrang with the lad," muttered the Morrison to him-

self, "but we'll maybe see better into it the morn's morning."

But long ere the morning dawned, the catastrophe of our tale had taken place. It was two hours after the affray had happened, and it was totally forgotten by almost every one, when Robin Oig returned to Heskett's inn. The place was filled at once by various sorts of men, and with noises corresponding to their character. There were the grave low sounds of men engaged in busy traffic, with the laugh, the song, and the riotous jest of those who had nothing to do but to enjoy themselves. Among the last was Harry Wakefield, who, amidst a grinning group of smock-frocks, hobnailed shoes, and jolly English physiognomies, was trolling forth the old ditty,

> What though my name be Roger,
> Who drives the plough and cart–

when he was interrupted by a well-known voice saying in a high and stern tone, marked by the sharp Highland accent, "Harry Waakfelt–if you be a man, stand up!"

"What is the matter? What is it?" the guests demanded of each other.

"It is only a d––d Scotsman," said Fleecebumpkin, who was by this time very drunk, "whom Harry Wakefield helped to his broth the day, who is now come to have his *cauld kail* het again."

"Harry Waakfelt," repeated the same ominous summons, "stand up, if you be a man!"

There is something in the tone of deep and concentrated passion which attracts attention and imposes awe, even by the very sound. The guests shrank back on every side, and gazed at the Highlander as he stood in the middle of them, his brows bent, and his features rigid with resolution.

"I will stand up with all my heart, Robin, my boy, but it shall be to shake hands with you, and drink down all unkindness. It is not the fault of your heart, man, that you don't know how to clench your hands."

But this time he stood opposite to his antagonist; his open and unsuspecting look strangely contrasted with the stern purpose, which gleamed wild, dark, and vindictive in the eyes of the Highlander.

"'Tis not thy fault, man, that, not having the luck to be an Englishman, thou canst not fight more than a schoolgirl."

"I *can* fight," answered Robin Oig sternly, but calmly, "and you shall know it. You, Harry Waakfelt, showed me to-day how the Saxon churls fight–I show you now how the Highland Dunnie̊-wassel fights."

He seconded the word with the action, and plunged the dagger, which

he suddenly displayed, into the broad breast of the English yeoman with such fatal certainty and force that the hilt made a hollow sound against the breastbone, and the double-edged point split the very heart of his victim. Harry Wakefield fell and expired with a single groan. His assassin next seized the bailiff by the collar, and offered the bloody poniard to his throat, whilst dread and surprise rendered the man incapable of defence.

"It were very just to lay you beside him," he said, "but the blood of a base pickthank shall never mix on my father's dirk with that of a brave man."

As he spoke, he cast the man from him with so much force that he fell on the floor, while Robin, with his other hand, threw the fatal weapon into the blazing turf-fire.

"There," he said, "take me who likes—and let fire cleanse blood if it can."

The pause of astonishment still continuing, Robin Oig asked for a peace-officer, and a constable having stepped out, he surrendered himself to his custody.

"A bloody night's work you have made of it," said the constable.

"Your own fault," said the Highlander. "Had you kept his hands off me twa hours since, he would have been now as well and merry as he was twa minutes since."

"It must be sorely answered," said the peace-officer.

"Never you mind that—death pays all debts; it will pay that too."

The horror of the bystanders began now to give way to indignation; and the sight of a favourite companion murdered in the midst of them, the provocation being, in their opinion, so utterly inadequate to the excess of vengeance, might have induced them to kill the perpetrator of the deed even upon the very spot. The constable, however, did his duty on this occasion, and with the assistance of some of the more reasonable persons present, procured horses to guard the prisoner to Carlisle, to abide his doom at the next assizes. While the escort was preparing, the prisoner neither expressed the least interest nor attempted the slightest reply. Only, before he was carried from the fatal apartment, he desired to look at the dead body, which, raised from the floor, had been deposited upon the large table (at the head of which Harry Wakefield had presided but a few minutes before, full of life, vigour, and animation) until the surgeons should examine the mortal wound. The face of the corpse was decently covered with a napkin. To the surprise and horror of the bystanders, which displayed itself in a general Ah! drawn through

clenched teeth and half-shut lips, Robin Oig removed the cloth, and gazed with a mournful but steady eye on the lifeless visage, which had been so lately animated that the smile of good-humoured confidence in his own strength, of conciliation at once and contempt towards his enemy still curled his lip. While those present expected that the wound, which had so lately flooded the apartment with gore, would send forth fresh streams at the touch of the homicide, Robin Oig replaced the covering, with the brief exclamation, "He was a pretty man!"

My story is nearly ended. The unfortunate Highlander stood his trial at Carlisle. I was myself present, and as a young Scottish lawyer, or barrister at least, and reputed a man of some quality, the politeness of the Sheriff of Cumberland offered me a place on the bench. The facts of the case were proved in the manner I have related them; and whatever might be at first the prejudice of the audience against a crime so un-English as that of assassination from revenge, yet when the rooted national prejudices of the prisoner had been explained, which made him consider himself as stained with indelible dishonour when subjected to personal violence; when his previous patience, moderation, and endurance were considered, the generosity of the English audience was inclined to regard his crime as the wayward aberration of a false idea of honour rather than as flowing from a heart naturally savage, or perverted by habitual vice. I shall never forget the charge of the venerable judge to the jury, although not at that time liable to be much affected either by that which was eloquent or pathetic.

"We have had," he said, "in the previous part of our duty" (alluding to some former trials) "to discuss crimes which infer disgust and abhorrence, while they call down the well-merited vengeance of the law. It is now our still more melancholy task to apply its salutary though severe enactments to a case of a very singular character, in which the crime (for a crime it is, and a deep one) arose less out of the malevolence of the heart than the error of the understanding–less from any idea of committing wrong than from an unhappily perverted notion of that which is right. Here we have two men, highly esteemed, it has been stated, in their rank of life, and attached, it seems, to each other as friends, one of whose lives has been already sacrificed to a punctilio, and the other is about to prove the vengeance of the offended laws; and yet both may claim our commiseration at least, as men acting in ignorance of each other's national prejudices, and unhappily misguided rather than voluntarily erring from the path of right conduct.

"In the original cause of the misunderstanding, we must in justice give

the right to the prisoner at the bar. He had acquired possession of the enclosure, which was the object of competition, by a legal contract with the proprietor, Mr. Ireby; and yet, when accosted with reproaches undeserved in themselves, and galling doubtless to a temper at least sufficiently susceptible of passion, he offered notwithstanding to yield up half his acquisition for the sake of peace and good neighbourhood, and his amicable proposal was rejected with scorn. Then follows the scene at Mr. Heskett the publican's, and you will observe how the stranger was treated by the deceased, and, I am sorry to observe, by those around, who seem to have urged him in a manner which was aggravating in the highest degree. While he asked for peace and for composition, and offered submission to a magistrate, or to a mutual arbiter, the prisoner was insulted by a whole company, who seem on this occasion to have forgotten the national maxim of 'fair play'; and while attempting to escape from the place in peace, he was intercepted, struck down, and beaten to the effusion of his blood.

"Gentlemen of the jury, it was with some impatience that I heard my learned brother, who opened the case for the crown, give an unfavourable turn to the prisoner's conduct on this occasion. He said the prisoner was afraid to encounter his antagonist in fair fight, or to submit to the laws of the ring; and that therefore, like a cowardly Italian, he had recourse to his fatal stiletto, to murder the man whom he dared not meet in manly encounter. I observed the prisoner shrink from this part of the accusation with the abhorrence natural to a brave man; and as I would wish to make my words impressive when I point his real crime, I must secure his opinion of my impartiality, by rebutting everything that seems to me a false accusation. There can be no doubt that the prisoner is a man of resolution–too much resolution–I wish to Heaven that he had less, or rather that he had had a better education to regulate it.

"Gentlemen, as to the laws my brother talks of, they may be known in the bull-ring, or the bear-garden, or the cockpit, but they are not known here. Or, if they should be so far admitted as furnishing a species of proof that no malice was intended in this sort of combat, from which fatal accidents do sometimes arise, it can only be so admitted when both parties are *in pari causa,* equally acquainted with, and equally willing to refer themselves to, that species of arbitrament. But will it be contended that a man of superior rank and education is to be subjected, or is obliged to subject himself, to this coarse and brutal strife, perhaps in opposition to a younger, stronger, or more skilful opponent? Certainly even the pugilistic code, if founded upon the fair play of Merry Old England,

as my brother alleges it to be, can contain nothing so preposterous. And, gentlemen of the jury, if the laws would support an English gentleman, wearing, we will suppose, his sword, in defending himself by force against a violent personal aggression of the nature offered to this prisoner, they will not less protect a foreigner and a stranger involved in the same unpleasing circumstances. If, therefore, gentlemen of the jury, when thus pressed by a *vis major,* the object of obloquy to a whole company, and of direct violence from one at least, and, as he might reasonably apprehend, from more, the panel had produced the weapon which his countrymen, as we are informed, generally carry about their persons, and the same unhappy circumstance had ensued which you have heard detailed in evidence, I could not in my conscience have asked from you a verdict of murder. The prisoner's personal defence might, indeed, even in that case, have gone more or less beyond the *Moderamen inculpatae tutelae* [degree of force allowable in self-defence], spoken of by lawyers, but the punishment incurred would have been that of manslaughter, not of murder. I beg leave to add that I should have thought this milder species of charge was demanded in the case supposed, notwithstanding the statute of James I cap. 8, which takes the case of slaughter by stabbing with a short weapon, even without malice prepense, out of the benefit of clergy. For this statute of stabbing, as it is termed, arose out of a temporary cause; and as the real guilt is the same, whether the slaughter be committed by the dagger, or by sword or pistol, the benignity of the modern law places them all on the same or nearly the same footing.

"But, gentlemen of the jury, the pinch of the case lies in the interval of two hours interposed betwixt the reception of the injury and the fatal retaliation. In the heat of affray and *chaude mêlée,* law, compassionating the infirmities of humanity, makes allowance for the passions which rule such a stormy moment—for the sense of present pain, for the apprehension of further injury, for the difficulty of ascertaining with due accuracy the precise degree of violence which is necessary to protect the person of the individual, without annoying or injuring the assailant more than is absolutely requisite. But the time necessary to walk twelve miles, however speedily performed, was an interval sufficient for the prisoner to have recollected himself; and the violence with which he carried his purpose into effect, with so many circumstances of deliberate determination, could neither be induced by the passion of anger, nor that of fear. It was the purpose and the act of predetermined revenge, for which law neither can, will, nor ought to have sympathy or allowance.

"It is true, we may repeat to ourselves, in alleviation of this poor man's unhappy action, that his case is a very peculiar one. The country which he inhabits was, in the days of many now alive, inaccessible to the laws, not only of England, which have not even yet penetrated thither, but to those to which our neighbours of Scotland are subjected, and which must be supposed to be, and no doubt actually are, founded upon the general principles of justice and equity which pervade every civilized country. Amongst their mountains, as among the North American Indians, the various tribes were wont to make war upon each other, so that each man was obliged to go armed for his protection. These men, from the ideas which they entertained of their own descent and of their own consequence, regarded themselves as so many cavaliers or men-at-arms, rather than as the peasantry of a peaceful country. Those laws of the ring, as my brother terms them, were unknown to the race of warlike mountaineers; that decision of quarrels by no other weapons than those which nature has given every man must to them have seemed as vulgar and as preposterous as to the noblesse of France. Revenge, on the other hand, must have been as familiar to their habits of society as to those of the Cherokees or Mohawks. It is indeed, as described by Bacon, at bottom a kind of wild untutored justice; for the fear of retaliation must withhold the hands of the oppressor where there is no regular law to check daring violence. But though all this may be granted, and though we may allow that, such having been the case of the Highlands in the days of the prisoner's fathers, many of the opinions and sentiments must still continue to influence the present generation, it cannot, and ought not, even in this most painful case, to alter the administration of the law, either in your hands, gentlemen of the jury, or in mine. The first object of civilization is to place the general protection of the law, equally administered, in the room of that wild justice, which every man cut and carved for himself, according to the length of his sword and the strength of his arm. The law says to the subjects, with a voice only inferior to that of the Deity, 'Vengeance is mine.' The instant that there is time for passion to cool, and reason to interpose, an injured party must become aware that the law assumes the exclusive cognizance of the right and wrong betwixt the parties, and opposes her inviolable buckler to every attempt of the private party to right himself. I repeat that this unhappy man ought personally to be the object rather of our pity than our abhorrence, for he failed in his ignorance, and from mistaken notions of honour. But his crime is not the less that of murder, gentlemen, and, in your high and important office, it is your duty so to find. Englishmen have their angry pas-

sions as well as Scots; and should this man's action remain unpunished, you may unsheath, under various pretences, a thousand daggers betwixt the Land's End and the Orkneys."

The venerable judge thus ended what, to judge by his apparent emotion, and by the tears which filled his eyes, was really a painful task. The jury, according to his instructions, brought in a verdict of guilty; and Robin Oig M'Combich, alias M'Gregor, was sentenced to death and left for execution, which took place accordingly. He met his fate with great firmness, and acknowledged the justice of his sentence. But he repelled indignantly the observations of those who accused him of attacking an unarmed man. "I give a life for the life I took," he said, "and what can I do more?"

Joseph Conrad

1857–1924

Joseph Conrad (Józef Teodor Konrad Nalecz Korzeniowski in full) was born into a Polish landed family at Berdichev in the Polish Ukraine, December 3, 1857. For a time his parents were exiled to Siberia. By 1869 both were dead. Young Conrad, cared for by a warm-hearted uncle, was tutored and schooled in Cracow. He resolved to go to sea.

In 1874, aged seventeen, he arrived in Marseilles. Cruises with the port pilots and three voyages to the West Indies gave him his introduction to salt water. He seems to have had a love affair with the mysterious "Doña Rita," supporter of the Carlist rebellion in Spain and the model for his heroine in *The Arrow of Gold*. In 1877–78 he was involved in smuggling adventures that ended in the loss of vessel and funds. He borrowed money, lost that too at Monte Carlo, and evidently tried to kill himself.

He recovered and shipped out in the steamer *Mavis* for Constantinople. He had decided to make a career in the British merchant service. In 1881 he signed on as second mate in the bark *Palestine,* bound for Bangkok. This voyage gave him the source for *Youth* (see below). He became a naturalized British citizen and received his master's certificate in 1886. For a year or more he traded among the inlets and coastal rivers of Borneo, Celebes, and Sumatra.

Notes from the artist: "A motif of the seven seas was the natural atmosphere for Conrad's portrait, with the obvious symbols of a sextant, the returning sailor, the ship's figurehead, sea monsters . . . The quotation is an inscription handwritten by Conrad in a copy of The Nigger of the 'Narcissus'"

By these pages I shall be told!
Joseph Conrad

Conrad's first command was the bark *Otago.* Back in London, he began to write his first book, *Almayer's Folly,* in 1889. A voyage in a Congo river steamer was later put to use in *Heart of Darkness.* He left the sea in 1894. During the next year *Almayer's Folly* was published and he completed *An Outcast of the Islands.* In 1896 he married Jessie George. They settled in Essex. By 1900 he had written *The Nigger of the "Narcissus," Tales of Unrest,* and *Lord Jim.*

In 1903 he finished *Typhoon* and began the first of three collaborations with Ford Madox Hueffer (later Ford Madox Ford). In 1903–04, he sat for twenty months at a stretch at Pent Farm in Kent, writing *Nostromo*. The novel *Chance* brought him his first large public. He and his family barely managed to get out of Poland at the start of World War I. In 1923 Conrad went to sea for the last time on a triumphal visit to New York. He died of a heart attack at Oswalds, Bishopsbourne, August 3, 1924.

Youth was published in 1902. Read it once and it belongs to us, as if it had become a part of our own experience. We see again that old bark, the *Judea,* gliding alone in the "colossal sapphire" of the Indian Ocean. We smell the faint cloud and reek of her burning cargo, the coal smoke drifting off to leeward. And we know—have we not been told at the beginning?—that nothing can be done for her. She has no luck. Only the patient will of her crew has brought her so far into the Eastern seas. But nothing can save her.

Conrad understood, better perhaps than any major writer before or after him, the role of the professional in human society. He spoke of him in terms of the professional seaman, because that was what he knew best. But the professional might have been one of Stephen Crane's United States Regulars in Cuba, or an airline pilot, or a public-health physician, or the workman who mends the leak in the gas main. He is the man who holds things together and keeps them going. He knows his job and does it, no matter what happens.

Let us see how this works out in the narrative of *Youth*. First, the story is told by Marlow, a veteran seaman, to four ex-seamen—a closed circle of professionals. It is a story of Marlow's own youth, touched with amused and affectionate wonder at the young man he had been. Above all, it is a story of misfortunes piled on top of each other until, like the smoke of the burning *Judea,* they reach into the sky.

But no one complains. The October gale, the collision in the dock, the endless work at the pumps and the endless waiting–these are all part of the job. Even when she catches fire at sea and blows her deck out, Captain Beard's first thought is to get the yards trimmed and the ship back on course. Men with the hair burned off their heads stumble and haul among masts that threaten to go overside at any moment. It does not occur to them to question the wisdom of this procedure. That is what they are there for. Even when the steamer offers to take them off and Captain Beard shouts back, "We must see the last of the ship," no one protests.

But a professional is only the working part of a man. His feelings are his own. Marlow faithfully remembers the truth of his own feelings. He was pleased–pleased at the extent and thoroughness of the ship's disaster, and how well he had stood up to it. He recalls his first view of the East, a vision, suddenly real, of the remote, the mysterious, the unknown. "I remember my youth," he said, "and the feeling that will never come back any more–the feeling that I could last for ever, outlast the sea, the earth, and all men. . . ."

Youth

This could have occurred nowhere but in England, where men and sea interpenetrate, so to speak—the sea entering into the life of most men, and the men knowing something or everything about the sea, in the way of amusement, of travel, or of bread-winning.

We were sitting round a mahogany table that reflected the bottle, the claret glasses, and our faces as we leaned on our elbows. There was a director of companies, an accountant, a lawyer, Marlow, and myself. The director had been a *Conway* boy, the accountant had served four years at sea, the lawyer—a fine-crusted Tory, High Churchman, the best of old fellows, the soul of honour—had been chief officer in the P. & O. service in the good old days when mail boats were square-rigged at least on two masts, and used to come down the China Sea before a fair monsoon with stun'-sails set alow and aloft. We all began life in the merchant service. Between the five of us there was the strong bond of the sea and also the fellowship of the craft, which no amount of enthusiasm for yachting, cruising, and so on can give, since one is only the amusement of life and the other is life itself.

Marlow (at least I think that is how he spelled his name) told the story, or rather the chronicle, of a voyage:

"Yes, I have seen a little of the Eastern seas; but what I remember best is my first voyage there. You fellows know there are those voyages that seem ordered for the illustration of life, that might stand for a symbol of existence. You fight, work, sweat, nearly kill yourself, sometimes do kill yourself, trying to accomplish something—and you can't. Not from any fault of yours. You simply can do nothing, neither great nor little—not a thing in the world—not even marry an old maid, or get a wretched 600-ton cargo of coal to its port of destination.

"It was altogether a memorable affair. It was my first voyage to the East, and my first voyage as second mate; it was also my skipper's first command. You'll admit it was time. He was sixty if a day; a little man,

with a broad, not very straight back, with bowed shoulders and one leg more bandy than the other, he had that queer twisted-about appearance you see so often in men who work in the fields. He had a nutcracker face—chin and nose trying to come together over a sunken mouth—and it was framed in iron-gray fluffy hair that looked like a chin-strap of cotton-wool sprinkled with coal-dust. And he had blue eyes in that old face of his which were amazingly like a boy's, with that candid expression some quite common men preserve to the end of their days by a rare internal gift of simplicity of heart and rectitude of soul. What induced him to accept me was a wonder. I had come out of a crack Australian clipper, where I had been third officer, and he seemed to have a prejudice against crack clippers as aristocratic and high-toned. He said to me, 'You know, in this ship you will have to work.' I said I had to work in every ship I had ever been in. 'Ah, but this is different, and you gentlemen out of them big ships; . . . but there! I dare say you will do. Join tomorrow.'

"I joined tomorrow. It was twenty-two years ago; and I was just twenty. How time passes! It was one of the happiest days of my life. Fancy! Second mate for the first time—a really responsible officer! I wouldn't have thrown up my new billet for a fortune. The mate looked me over carefully. He was also an old chap, but of another stamp. He had a Roman nose, a snow-white, long beard, and his name was Mahon, but he insisted that it should be pronounced Mann. He was well connected; yet there was something wrong with his luck, and he had never got on.

"As to the captain, he had been for years in coasters, then in the Mediterranean, and last in the West Indian trade. He had never been round the Capes. He could just write a kind of sketchy hand, and didn't care for writing at all. Both were thorough good seamen of course, and between those two old chaps I felt like a small boy between two grandfathers.

"The ship also was old. Her name was the *Judea*. Queer name, isn't it? She belonged to a man Wilmer, Wilcox—some name like that; but he has been bankrupt and dead these twenty years or more, and his name don't matter. She had been laid up in Shadwell basin for ever so long. You can imagine her state. She was all rust, dust, grime—soot aloft, dirt on deck. To me it was like coming out of a palace into a ruined cottage. She was about 400 tons, had a primitive windlass, wooden latches on the doors, not a bit of brass about her, and a big square stern. There was on it, below her name in big letters, a lot of scroll-work, with the gilt off, and some sort of a coat of arms, with the motto 'Do or Die' underneath. I remember it took my fancy immensely. There was a touch of romance in it, something that made me love the old thing—something that appealed to my youth!

"We left London in ballast–sand ballast–to load a cargo of coal in a northern port for Bangkok. Bangkok! I thrilled. I had been six years at sea, but had only seen Melbourne and Sydney, very good places, charming places in their way–but Bangkok!

"We worked out of the Thames under canvas, with a North Sea pilot on board. His name was Jermyn, and he dodged all day long about the galley drying his handkerchief before the stove. Apparently he never slept. He was a dismal man, with a perpetual tear sparkling at the end of his nose, who either had been in trouble, or was in trouble, or expected to be in trouble–couldn't be happy unless something went wrong. He mistrusted my youth, my common sense, and my seamanship, and made a point of showing it in a hundred little ways. I dare say he was right. It seems to me I knew very little then, and I know not much more now; but I cherish a hate for that Jermyn to this day.

"We were a week working up as far as Yarmouth Roads, and then we got into a gale–the famous October gale of twenty-two years ago. It was wind, lightning, sleet, snow, and a terrific sea. We were flying light, and you may imagine how bad it was when I tell you we had smashed bulwarks and a flooded deck. On the second night she shifted her ballast into the lee bow, and by that time we had been blown off somewhere on the Dogger Bank. There was nothing for it but go below with shovels and try to right her, and there we were in that vast hold, gloomy like a cavern, the tallow dips stuck and flickering on the beams, the gale howling above, the ship tossing about like mad on her side; there we all were, Jermyn, the captain, everyone, hardly able to keep our feet, engaged on that gravedigger's work, and trying to toss shovelfuls of wet sand up to windward. At every tumble of the ship you could see vaguely in the dim light men falling down with a great flourish of shovels. One of the ship's boys (we had two), impressed by the weirdness of the scene, wept as if his heart would break. We could hear him blubbering somewhere in the shadows.

"On the third day the gale died out, and by-and-by a north-country tug picked us up. We took sixteen days in all to get from London to the Tyne! When we got into dock we had lost our turn for loading, and they hauled us off to a tier where we remained for a month. Mrs. Beard (the captain's name was Beard) came from Colchester to see the old man. She lived on board. The crew of runners had left, and there remained only the officers, one boy, and the steward, a mulatto who answered to the name of Abraham. Mrs. Beard was an old woman, with a face all wrinkled and ruddy like a winter apple, and the figure of a young girl. She caught sight of me once, sewing on a button, and insisted on having my shirts to repair. This

was something different from the captains' wives I had known on board crack clippers. When I brought her the shirts, she said: 'And the socks? They want mending, I am sure, and John's—Captain Beard's—things are all in order now. I would be glad of something to do.' Bless the old woman. She overhauled my outfit for me, and meantime I read for the first time *Sartor Resartus* and Burnaby's *Ride to Khiva*. I didn't understand much of the first then; but I remember I preferred the soldier to the philosopher at the time; a preference which life has only confirmed. One was a man, and the other was either more—or less. However, they are both dead, and Mrs. Beard is dead, and youth, strength, genius, thoughts, achievements, simple hearts—all die. . . . No matter.

"They loaded us at last. We shipped a crew. Eight able seamen and two boys. We hauled off one evening to the buoys at the dock-gates, ready to go out, and with a fair prospect of beginning the voyage next day. Mrs. Beard was to start for home by a late train. When the ship was fast we went to tea. We sat rather silent through the meal—Mahon, the old couple, and I. I finished first, and slipped away for a smoke, my cabin being in a deck-house just against the poop. It was high water, blowing fresh with a drizzle; the double dock-gates were opened, and the steam colliers were going in and out in the darkness with their lights burning bright, a great plashing of propellers, rattling of winches, and a lot of hailing on the pier-heads. I watched the procession of head-lights gliding high and of green lights gliding low in the night, when suddenly a red gleam flashed at me, vanished, came into view again, and remained. The fore-end of a steamer loomed up close. I shouted down the cabin, 'Come up, quick!' and then heard a startled voice saying afar in the dark, 'Stop her, sir.' A bell jingled. Another voice cried warningly, 'We are going right into that bark, sir.' The answer to this was a gruff 'All right,' and the next thing was a heavy crash as the steamer struck a glancing blow with the bluff of her bow about our fore-rigging. There was a moment of confusion, yelling, and running about. Steam roared. Then somebody was heard saying, 'All clear, sir.' . . . 'Are you all right?' asked the gruff voice. I had jumped forward to see the damage, and hailed back, 'I think so.' 'Easy astern,' said the gruff voice. A bell jingled. 'What steamer is that?' screamed Mahon. By that time she was no more to us than a bulky shadow maneuvering a little way off. They shouted at us some name—a woman's name, Miranda or Melissa—or some such thing. 'This means another month in this beastly hole,' said Mahon to me, as we peered with lamps about the splintered bulwarks and broken braces. 'But where's the captain?'

"We had not heard or seen anything of him all that time. We went aft to look. A doleful voice arose hailing somewhere in the middle of the dock, '*Judea* ahoy!' . . . How the devil did he get there? . . . 'Hallo!' we shouted. 'I am adrift in our boat without oars,' he cried. A belated waterman offered his services, and Mahon struck a bargain with him for half-a-crown to tow our skipper alongside; but it was Mrs. Beard that came up the ladder first. They had been floating about the dock in that mizzly cold rain for nearly an hour. I was never so surprised in my life.

"It appears that when he heard my shout 'Come up,' he understood at once what was the matter, caught up his wife, ran on deck, and across, and down into our boat, which was fast to the ladder. Not bad for a sixty-year-old. Just imagine that old fellow saving heroically in his arms that old woman—the woman of his life. He set her down on a thwart and was ready to climb back on board when the painter came adrift somehow, and away they went together. Of course in the confusion we did not hear him shouting. He looked abashed. She said cheerfully, 'I suppose it does not matter my losing the train now?' 'No, Jenny—you go below and get warm,' he growled. Then to us: 'A sailor has no business with a wife—I say. There I was, out of the ship. Well, no harm done this time. Let's go and look at what that fool of a steamer smashed.'

"It wasn't much, but it delayed us three weeks. At the end of that time, the captain being engaged with his agents, I carried Mrs. Beard's bag to the railway station and put her all comfy into a third-class carriage. She lowered the window to say, 'You are a good young man. If you see John—Captain Beard—without his muffler at night, just remind him from me to keep his throat well wrapped up.' 'Certainly, Mrs. Beard,' I said. 'You are a good young man; I noticed how attentive you are to John—to Captain—' The train pulled out suddenly; I took my cap off to the old woman: I never saw her again. . . . Pass the bottle.

"We went to sea next day. When we made that start for Bangkok we had been already three months out of London. We had expected to be a fortnight or so—at the outside.

"It was January, and the weather was beautiful—the beautiful sunny winter weather that has more charm than in the summertime, because it is unexpected, and crisp, and you know it won't, it can't, last long. It's like a windfall, like a godsend, like an unexpected piece of luck.

"It lasted all down the North Sea, all down Channel; and it lasted till we were three hundred miles or so to the westward of the Lizards: then the wind went round to the sou'west and began to pipe up. In two days it blew a gale. The *Judea,* hove to, wallowed on the Atlantic like an old

candlebox. It blew day after day: it blew with spite, without interval, without mercy, without rest. The world was nothing but an immensity of great foaming waves rushing at us, under a sky low enough to touch with the hand and dirty like a smoked ceiling. In the stormy space surrounding us there was as much flying spray as air. Day after day and night after night there was nothing round the ship but the howl of the wind, the tumult of the sea, the noise of water pouring over her deck. There was no rest for her and no rest for us. She tossed, she pitched, she stood on her head, she sat on her tail, she rolled, she groaned, and we had to hold on while on deck and cling to our bunks when below, in a constant effort of body and worry of mind.

"One night Mahon spoke through the small window of my berth. It opened right into my very bed, and I was lying there sleepless, in my boots, feeling as though I had not slept for years, and could not if I tried. He said excitedly–

"'You got the sounding-rod in here, Marlow? I can't get the pumps to suck. By God! it's no child's play.'

"I gave him the sounding-rod and lay down again, trying to think of various things–but I thought only of the pumps. When I came on deck they were still at it, and my watch relieved at the pumps. By the light of the lantern brought on deck to examine the sounding-rod I caught a glimpse of their weary, serious faces. We pumped all the four hours. We pumped all night, all day, all the week–watch and watch. She was working herself loose, and leaked badly–not enough to drown us at once, but enough to kill us with the work at the pumps. And while we pumped the ship was going from us piecemeal: the bulwarks went, the stanchions were torn out, the ventilators smashed, the cabin door burst in. There was not a dry spot in the ship. She was being gutted bit by bit. The long-boat changed, as if by magic, into matchwood where she stood in her gripes. I had lashed her myself, and was rather proud of my handiwork, which had withstood so long the malice of the sea. And we pumped. And there was no break in the weather. The sea was white like a sheet of foam, like a cauldron of boiling milk; there was not a break in the clouds, no–not the size of a man's hand–no, not for so much as ten seconds. There was for us no sky, there were for us no stars, no sun, no universe–nothing but angry clouds and an infuriated sea. We pumped watch and watch, for dear life; and it seemed to last for months, for years, for all eternity, as though we had been dead and gone to a hell for sailors. We forgot the day of the week, the name of the month, what year it was, and whether we had ever been ashore. The sails blew away, she lay broadside

on under a weather-cloth, the ocean poured over her, and we did not care. We turned those handles, and had the eyes of idiots. As soon as we had crawled on deck I used to take a round turn with a rope about the men, the pumps, and the mainmast, and we turned, we turned incessantly, with the water to our waists, to our necks, over our heads. It was all one. We had forgotten how it felt to be dry.

"And there was somewhere in me the thought: By Jove! this is the deuce of an adventure—something you read about; and it is my first voyage as second mate—and I am only twenty—and here I am lasting it out as well as any of these men, and keeping my chaps up to the mark. I was pleased. I would not have given up the experience for worlds. I had moments of exultation. Whenever the old dismantled craft pitched heavily with her counter high in the air, she seemed to me to throw up, like an appeal, like a defiance, like a cry to the clouds without mercy, the words written on her stern: '*Judea,* London, Do or Die.'

"O youth! The strength of it, the faith of it, the imagination of it! To me she was not an old rattletrap carting about the world a lot of coal for a freight—to me she was the endeavour, the test, the trial of life. I think of her with pleasure, with affection, with regret—as you would think of someone dead you have loved. I shall never forget her. . . . Pass the bottle.

"One night when, tied to the mast, as I explained, we were pumping on, deafened with the wind, and without spirit enough in us to wish ourselves dead, a heavy sea crashed aboard and swept clean over us. As soon as I got my breath I shouted, as in duty bound, 'Keep on, boys!' when suddenly I felt something hard floating on deck strike the calf of my leg. I made a grab at it and missed. It was so dark we could not see each other's faces within a foot—you understand.

"After that thump the ship kept quiet for a while, and the thing, whatever it was, struck my leg again. This time I caught it—and it was a saucepan. At first, being stupid with fatigue and thinking of nothing but the pumps, I did not understand what I had in my hand. Suddenly it dawned upon me, and I shouted, 'Boys, the house on deck is gone. Leave this, and let's look for the cook.'

"There was a deck-house forward, which contained the galley, the cook's berth, and the quarters of the crew. As we had expected for days to see it swept away, the hands had been ordered to sleep in the cabin—the only safe place in the ship. The steward, Abraham, however, persisted in clinging to his berth, stupidly, like a mule—from sheer fright I believe, like an animal that won't leave a stable falling in an earthquake.

So we went to look for him. It was chancing death, since once out of our lashings we were as exposed as if on a raft. But we went. The house was shattered as if a shell had exploded inside. Most of it had gone overboard—stove, men's quarters, and their property, all was gone; but two posts, holding a portion of the bulkhead to which Abraham's bunk was attached, remained as if by a miracle. We groped in the ruins and came upon this, and there he was, sitting in his bunk, surrounded by foam and wreckage, jabbering cheerfully to himself. He was out of his mind; completely and forever mad, with this sudden shock coming upon the fag-end of his endurance. We snatched him up, lugged him aft, and pitched him head first down the cabin companion. You understand there was no time to carry him down with infinite precautions and wait to see how he got on. Those below would pick him up at the bottom of the stairs all right. We were in a hurry to go back to the pumps. That business could not wait. A bad leak is an inhuman thing.

"One would think that the sole purpose of that fiendish gale had been to make a lunatic of that poor devil of a mulatto. It eased before morning, and next day the sky cleared, and as the sea went down the leak took up. When it came to bending a fresh set of sails the crew demanded to put back—and really there was nothing else to do. Boats gone, decks swept clean, cabin gutted, men without a stitch but what they stood in, stores spoiled, ship strained. We put her head for home, and—would you believe it? The wind came east right in our teeth. It blew fresh, it blew continuously. We had to beat up every inch of the way, but she did not leak so badly, the water keeping comparatively smooth. Two hours' pumping in every four is no joke—but it kept her afloat as far as Falmouth.

"The good people there live on casualties of the sea and no doubt were glad to see us. A hungry crowd of shipwrights sharpened their chisels at the sight of that carcass of a ship. And, by Jove! they had pretty pickings off us before they were done. I fancy the owner was already in a tight place. There were delays. Then it was decided to take part of the cargo out and caulk her topsides. This was done, the repairs finished, cargo reshipped; a new crew came on board, and we went out—for Bangkok. At the end of a week we were back again. The crew said they weren't going to Bangkok—a hundred and fifty days' passage—in a something hooker that wanted pumping eight hours out of the twentyfour; and the nautical papers inserted again the little paragraph: '*Judea*. Bark. Tyne to Bangkok; coals; put back to Falmouth leaky and with crew refusing duty.'

"There were more delays—more tinkering. The owner came down for a day, and said she was as right as a little fiddle. Poor old Captain Beard looked like the ghost of a Geordie skipper—through the worry and humiliation of it. Remember he was sixty, and it was his first command. Mahon said it was a foolish business, and would end badly. I loved the ship more than ever, and wanted awfully to get to Bangkok. To Bangkok! Magic name, blessed name. Mesopotamia wasn't a patch on it. Remember I was twenty, and it was my first second mate's billet, and the East was waiting for me.

"We went out and anchored in the outer roads with a fresh crew—the third. She leaked worse than ever. It was as if those confounded shipwrights had actually made a hole in her. This time we did not even go outside. The crew simply refused to man the windlass.

"They towed us back to the inner harbour, and we became a fixture, a feature, an institution of the place. People pointed us out to visitors as That 'ere bark that's going to Bangkok—has been here six months—put back three times.' On holidays the small boys pulling about in boats would hail, '*Judea,* ahoy!' and if a head showed above the rail shouted, 'Where you bound to?—Bangkok?' and jeered. We were only three on board. The poor old skipper mooned in the cabin. Mahon undertook the cooking, and unexpectedly developed all a Frenchman's genius for preparing nice little messes. I looked languidly after the rigging. We became citizens of Falmouth. Every shopkeeper knew us. At the barber's or tobacconist's they asked familiarly, 'Do you think you will ever get to Bangkok?' Meantime the owner, the underwriters, and the charterers squabbled amongst themselves in London, and our pay went on. . . . Pass the bottle.

"It was horrid. Morally it was worse than pumping for life. It seemed as though we had been forgotten by the world, belonged to nobody, would get nowhere; it seemed that, as if bewitched, we would have to live for ever and ever in that inner harbor, a derision and a byword to generations of long-shore loafers and dishonest boatmen. I obtained three months' pay and a five days' leave, and made a rush for London. It took me a day to get there and pretty well another to come back—but three months' pay went all the same. I don't know what I did with it. I went to a music hall, I believe, lunched, dined, and supped in a swell place in Regent Street, and was back to time, with nothing but a complete set of Byron's works and a new railway rug to show for three months' work. The boatman who pulled me off to the ship said: 'Hallo! I thought you had left the old thing. *She* will never get to Bangkok.' 'That's all *you* know

about it,' I said scornfully—but I didn't like that prophecy at all.

"Suddenly a man, some kind of agent to somebody, appeared with full powers. He had grog blossoms all over his face, an indomitable energy, and was a jolly soul. We leaped into life again. A hulk came alongside, took our cargo, and then we went into dry dock to get our copper stripped. No wonder she leaked. The poor thing, strained beyond endurance by the gale, had, as if in disgust, spat out all the oakum of her lower seams. She was recaulked, new coppered, and made as tight as a bottle. We went back to the hulk and reshipped our cargo.

"Then on a fine moonlight night, all the rats left the ship.

"We had been infested with them. They had destroyed our sails, consumed more stores than the crew, affably shared our beds and our dangers, and now, when the ship was made seaworthy, concluded to clear out. I called Mahon to enjoy the spectacle. Rat after rat appeared on our rail, took a last look over his shoulder, and leaped with a hollow thud into the empty hulk. We tried to count them, but soon lost the tale. Mahon said: 'Well, well! don't talk to me about the intelligence of rats. They ought to have left before, when we had that narrow squeak from foundering. There you have the proof how silly is the superstition about them. They leave a good ship for an old rotten hulk, where there is nothing to eat, too, the fools! . . . I don't believe they know what is safe or what is good for them, any more than you or I.'

"And after some more talk we agreed that the wisdom of rats had been grossly overrated, being in fact no greater than that of men.

"The story of the ship was known, by this, all up the Channel from Land's End to the Forelands, and we could get no crew on the south coast. They sent us one all complete from Liverpool, and we left once more—for Bangkok.

"We had fair breezes, smooth water right into the tropics, and the old *Judea* lumbered along in the sunshine. When she went eight knots everything cracked aloft, and we tied our caps to our heads; but mostly she strolled on at the rate of three miles an hour. What could you expect? She was tired—that old ship. Her youth was where mine is—where yours is—you fellows who listen to this yarn; and what friend would throw your years and your weariness in your face? We didn't grumble at her. To us aft, at least, it seemed as though we had been born in her, reared in her, had lived in her for ages, had never known any other ship. I would just as soon have abused the old village church at home for not being a cathedral.

"And for me there was also my youth to make me patient. There was

all the East before me, and all life, and the thought that I had been tried in that ship and had come out pretty well. And I thought of men of old who, centuries ago, went that road in ships that sailed no better, to the land of palms, and spices, and yellow sands, and of brown nations ruled by kings more cruel than Nero the Roman and more splendid than Solomon the Jew. The old bark lumbered on, heavy with her age and the burden of her cargo, while I lived the life of youth in ignorance and hope. She lumbered on through an interminable procession of days; and the fresh gilding flashed back at the setting sun, seemed to cry out over the darkening sea the words painted on her stern, '*Judea,* London, Do or Die.'

"Then we entered the Indian Ocean and steered northerly for Java Head. The winds were light. Weeks slipped by. She crawled on, do or die, and people at home began to think of posting us as overdue.

"One Saturday evening, I being off duty, the men asked me to give them an extra bucket of water or so—for washing clothes. As I did not wish to screw on the fresh-water pump so late, I went forward whistling, and with a key in my hand to unlock the forepeak scuttle, intending to serve the water out of a spare tank we kept there.

"The smell down below was as unexpected as it was frightful. One would have thought hundreds of paraffin lamps had been flaring and smoking in that hole for days. I was glad to get out. The man with me coughed and said, 'Funny smell, sir.' I answered negligently, 'It's good for the health, they say,' and walked aft.

"The first thing I did was to put my head down the square of the midship ventilator. As I lifted the lid a visible breath, something like a thin fog, a puff of faint haze, rose from the opening. The ascending air was hot, and had a heavy, sooty, paraffiny smell. I gave one sniff, and put down the lid gently. It was no use choking myself. The cargo was on fire.

"Next day she began to smoke in earnest. You see it was to be expected, for though the coal was of a safe kind, that cargo had been so handled, so broken up with handling, that it looked more like smithy coal than anything else. Then it had been wetted—more than once. It rained all the time we were taking it back from the hulk, and now with this long passage it got heated, and there was another case of spontaneous combustion.

"The captain called us into the cabin. He had a chart spread on the table, and looked unhappy. He said, 'The coast of West Australia is near, but I mean to proceed to our destination. It is the hurricane month too;

but we will just keep her head for Bangkok, and fight the fire. No more putting back anywhere, if we all get roasted. We will try first to stifle this 'ere damned combustion by want of air.'

"We tried. We battened down everything, and still she smoked. The smoke kept coming out through imperceptible crevices; it forced itself through bulkheads and covers; it oozed here and there and everywhere in slender threads, in an invisible film, in an incomprehensible manner. It made its way into the cabin, into the forecastle; it poisoned the sheltered places on the deck; it could be sniffed as high as the main-yard. It was clear that if the smoke came out the air came in. This was disheartening. This combustion refused to be stifled.

"We resolved to try water, and took the hatches off. Enormous volumes of smoke, whitish, yellowish, thick, greasy, misty, choking, ascended as high as the trucks. All hands cleared out aft. Then the poisonous cloud blew away, and we went back to work in a smoke that was no thicker now than that of an ordinary factory chimney.

"We rigged the force-pump, got the hose along, and by-and-by it burst. Well, it was as old as the ship—a prehistoric hose, and past repair. Then we pumped with the feeble head-pump, drew water with buckets, and in this way managed in time to pour lots of Indian Ocean into the main-hatch. The bright stream flashed in sunshine, fell into a layer of white crawling smoke, and vanished on the black surface of coal. Steam ascended mingling with the smoke. We poured salt water as into a barrel without a bottom. It was our fate to pump in that ship, to pump out of her, to pump into her; and after keeping water out of her to save ourselves from being drowned, we frantically poured water into her to save ourselves from being burned.

"And she crawled on, do or die, in the serene weather. The sky was a miracle of purity, a miracle of azure. The sea was polished, was blue, was pellucid, was sparkling like a precious stone, extending on all sides, all round to the horizon—as if the whole terrestrial globe had been one jewel, one colossal sapphire, a single gem fashioned into a planet. And on the lustre of the great calm waters the *Judea* glided imperceptibly, enveloped in languid and unclean vapours, in a lazy cloud that drifted to leeward, light and slow: a pestiferous cloud defiling the splendour of sea and sky.

"All this time of course we saw no fire. The cargo smouldered at the bottom somewhere. Once Mahon, as we were working side by side, said to me with a queer smile: 'Now, if she only would spring a tidy leak—

like that time when we first left the Channel–it would put a stopper on this fire. Wouldn't it?' I remarked irrelevantly, 'Do you remember the rats?'

"We fought the fire and sailed the ship too as carefully as though nothing had been the matter. The steward cooked and attended on us. Of the other twelve men, eight worked while four rested. Everyone took his turn, captain included. There was equality, and if not exactly fraternity, then a deal of good feeling. Sometimes a man, as he dashed a bucketful of water down the hatchway, would yell out, 'Hurrah for Bangkok!' and the rest laughed. But generally we were taciturn and serious–and thirsty. Oh! how thirsty! And we had to be careful with the water. Strict allowance. The ship smoked, the sun blazed. . . . Pass the bottle.

"We tried everything. We even made an attempt to dig down to the fire. No good, of course. No man could remain more than a minute below. Mahon, who went first, fainted there, and the man who went to fetch him out did likewise. We lugged them out on deck. Then I leaped down to show how easily it could be done. They had learned wisdom by that time, and contented themselves by fishing for me with a chain-hook tied to a broom handle, I believe. I did not offer to go and fetch up my shovel, which was left down below.

"Things began to look bad. We put the long-boat into the water. The second boat was ready to swing out. We had also another, a fourteen-foot thing, on davits aft, where it was quite safe.

"Then behold, the smoke suddenly decreased. We redoubled our efforts to flood the bottom of the ship. In two days there was no smoke at all. Everybody was on the broad grin. This was on a Friday. On Saturday no work, but sailing the ship of course was done. The men washed their clothes and their faces for the first time in a fortnight, and had a special dinner given them. They spoke of spontaneous combustion with contempt, and implied *they* were the boys to put out combustions. Somehow we all felt as though we each had inherited a large fortune. But a beastly smell of burning hung about the ship. Captain Beard had hollow eyes and sunken cheeks. I had never noticed so much before how twisted and bowed he was. He and Mahon prowled soberly about hatches and ventilators, sniffing. It struck me suddenly poor Mahon was a very, very old chap. As to me, I was as pleased and proud as though I had helped to win a great naval battle. O! Youth!

"The night was fine. In the morning a homeward-bound ship passed us hull down–the first we had seen for months; but we were nearing the land at last, Java Head being about 190 miles off, and nearly due north.

"Next day it was my watch on deck from eight to twelve. At breakfast the captain observed, 'It's wonderful how that smell hangs about the cabin.' About ten, the mate being on the poop, I stepped down on the main-deck for a moment. The carpenter's bench stood abaft the mainmast: I leaned against it sucking at my pipe, and the carpenter, a young chap, came to talk to me. He remarked, 'I think we have done very well, haven't we?' and then I perceived with annoyance the fool was trying to tilt the bench. I said curtly, 'Don't, Chips,' and immediately became aware of a queer sensation, of an absurd delusion–I seemed somehow to be in the air. I heard all round me like a pent-up breath released–as if a thousand giants simultaneously had said Phoo!–and felt a dull concussion which made my ribs ache suddenly. No doubt about it–I was in the air, and my body was describing a short parabola. But short as it was, I had the time to think several thoughts in, as far as I can remember, the following order: This can't be the carpenter–What is it?–Some accident–Submarine volcano?–Coals, gas!–By Jove! we are being blown up–Everybody's dead–I am falling into the after-hatch–I see fire in it.'

"The coal-dust suspended in the air of the hold had glowed dull red at the moment of the explosion. In the twinkling of an eye, in an infinitesimal fraction of a second since the first tilt of the bench, I was sprawling full length on the cargo. I picked myself up and scrambled out. It was quick like a rebound. The deck was a wilderness of smashed timber, lying crosswise like trees in a wood after a hurricane; an immense curtain of soiled rags waved gently before me–it was the mainsail blown to strips. I thought, The masts will be toppling over directly; and to get out of the way bolted on all fours towards the poop-ladder. The first person I saw was Mahon, with eyes like saucers, his mouth open, and the long white hair standing straight on end round his head like a silver halo. He was just about to go down when the sight of the main-deck stirring, heaving up, and changing into splinters before his eyes, petrified him on the top step. I stared at him in unbelief, and he stared at me with a queer kind of shocked curiosity. I did not know that I had no hair, no eyebrows, no eyelashes, that my young moustache was burned off, that my f ace was black, one cheek laid open, my nose cut, and my chin bleeding. I had lost my cap, one of my slippers, and my shirt was torn to rags. Of all this I was not aware. I was amazed to see the ship still afloat, the poop-deck whole–and, most of all, to see anybody alive. Also the peace of the sky and the serenity of the sea were distinctly surprising. I suppose I expected to see them convulsed with horror. . . . Pass the bottle.

"There was a voice hailing the ship from somewhere–in the air, in the sky–I couldn't tell. Presently I saw the captain–and he was mad. He asked me eagerly, 'Where's the cabin-table?' and to hear such a question was a frightful shock. I had just been blown up, you understand, and vibrated with that experience–I wasn't quite sure whether I was alive. Mahon began to stamp with both feet and yelled at him, 'Good God! don't you see the deck's blown out of her?' I found my voice, and stammered out as if conscious of some gross neglect of duty, 'I don't know where the cabin-table is.' It was like an absurd dream.

"Do you know what he wanted next? Well, he wanted to trim the yards. Very placidly, and as if lost in thought, he insisted on having the fore-yard squared. 'I don't know if there's anybody alive,' said Mahon, almost tearfully. 'Surely,' he said, gently, 'there will be enough left to square the fore-yard.'

"The old chap, it seems, was in his own berth, winding up the chronometers, when the shock sent him spinning. Immediately it occurred to him–as he said afterwards–that the ship had struck something, and he ran out into the cabin. There, he saw, the cabin-table had vanished somewhere. The deck being blown up, it had fallen down into the lazaretto of course. Where we had our breakfast that morning he saw only a great hole in the floor. This appeared to him so awfully mysterious, and impressed him so immensely, that what he saw and heard after he got on deck were mere trifles in comparison. And, mark, he noticed directly the wheel deserted and his bark off her course–and his only thought was to get that miserable, stripped, undecked, smouldering shell of a ship back again with her head pointing at her port of destination. Bangkok! That's what he was after. I tell you this quiet, bowed, bandy-legged, almost deformed little man was immense in the singleness of his idea and in his placid ignorance of our agitation. He motioned us forward with a commanding gesture, and went to take the wheel himself.

"Yes; that was the first thing we did–trim the yards of that wreck! No one was killed, or even disabled, but everyone was more or less hurt. You should have seen them! Some were in rags, with black faces, like coal-heavers, like sweeps, and had bullet heads that seemed closely cropped, but were in fact singed to the skin. Others, of the watch below, awakened by being shot out from their collapsing bunks, shivered incessantly, and kept on groaning even as we went about our work. But they all worked. That crew of Liverpool hard cases had in them the right stuff. It's my experience they always have. It is the sea that gives it–the vastness, the loneliness surrounding their dark stolid souls. Ah! Well!

we stumbled, we crept, we fell, we barked our shins on the wreckage, we hauled. The masts stood, but we did not know how much they might be charred down below. It was nearly calm, but a long swell ran from the west and made her roll. They might go at any moment. We looked at them with apprehension. One could not foresee which way they would fall.

"Then we retreated aft and looked about us. The deck was a tangle of planks on edge, of planks on end, of splinters, of ruined woodwork. The masts rose from that chaos like big trees above a matted undergrowth. The interstices of that mass of wreckage were full of something whitish, sluggish, stirring—of something that was like a greasy fog. The smoke of the invisible fire was coming up again, was trailing, like a poisonous thick mist in some valley choked with dead wood. Already lazy wisps were beginning to curl upwards amongst the mass of splinters. Here and there a piece of timber, stuck upright, resembled a post. Half of a fife-rail had been shot through the fore-sail, and the sky made a patch of glorious blue in the ignobly soiled canvas. A portion of several boards holding together had fallen across the rail, and one end protruded overboard, like a gangway leading upon nothing, like a gangway leading over the deep sea, leading to death—as if inviting us to walk the plank at once and be done with our ridiculous troubles. And still the air, the sky—a ghost, something invisible was hailing the ship.

"Someone had the sense to look over, and there was the helmsman, who had impulsively jumped overboard, anxious to come back. He yelled and swam lustily like a merman, keeping up with the ship. We threw him a rope, and presently he stood amongst us streaming with water and very crestfallen. The captain had surrendered the wheel, and apart, elbow on rail and chin in hand, gazed at the sea wistfully. We asked ourselves, What next? I thought, Now, that is something like. This is great. I wonder what will happen. O youth!

"Suddenly Mahon sighted a steamer far astern. Captain Beard said, 'We may do something with her yet.' We hoisted two flags, which said in the international language of the sea, 'On fire. Want immediate assistance.' The steamer grew bigger rapidly, and by-and-by spoke with two flags on her foremast, 'I am coming to your assistance.'

"In half an hour she was abreast, to windward, within hail, and rolling slightly, with her engines stopped. We lost our composure, and yelled all together with excitement, 'We've been blown up.' A man in a white helmet, on the bridge, cried, 'Yes! All right! all right!' and he nodded his head, and smiled, and made soothing motions with his hand as though at

a lot of frightened children. One of the boats dropped in the water, and walked towards us upon the sea with her long oars. Four Calashes pulled a swinging stroke. This was my first sight of Malay seamen. I've known them since, but what struck me then was their unconcern: they came alongside, and even the bowman standing up and holding to our main-chains with the boat-hook did not deign to lift his head for a glance. I thought people who had been blown up deserved more attention.

"A little man, dry like a chip and agile like a monkey, clambered up. It was the mate of the steamer. He gave one look, and cried, 'O boys—you had better quit.'

"We were silent. He talked apart with the captain for a time—seerned to argue with him. Then they went away together to the steamer.

"When our skipper came back we learned that the steamer was the *Sommerville,* Captain Nash, from West Australia to Singapore via Batavia with mails, and that the agreement was she should tow us to Anjer or Batavia, if possible, where we could extinguish the fire by scuttling, and then proceed on our voyage—to Bangkok! The old man seemed excited. 'We will do it yet,' he said to Mahon, fiercely. He shook his fist at the sky. Nobody else said a word.

"At noon the steamer began to tow. She went ahead slim and high, and what was left of the *Judea* followed at the end of seventy fathom of tow-rope—followed her swiftly like a cloud of smoke with mast-heads protruding above. We went aloft to furl the sails. We coughed on the yards, and were careful about the bunts. Do you see the lot of us there, putting a neat furl on the sails of that ship doomed to arrive nowhere? There was not a man who didn't think that at any moment the masts would topple over. From aloft we could not see the ship for smoke, and they worked carefully, passing the gaskets with even turns. 'Harbour furl—aloft there!' cried Mahon from below.

"You understand this? I don't think one of those chaps expected to get down in the usual way. When we did I heard them saying to each other, 'Well, I thought we would come down overboard, in a lump—sticks and all—blame me if I didn't.' 'That's what I was thinking to myself,' would answer wearily another battered and bandaged scarecrow. And, mind, these were men without the drilled-in habit of obedience. To an onlooker they would be a lot of profane scallywags without a redeeming point. What made them do it—what made them obey me when I, thinking consciously how fine it was, made them drop the bunt of the fore-sail twice to try and do it better? What? They had no professional reputation—no examples, no praise. It wasn't a sense of duty; they all knew well enough

how to shirk, and laze, and dodge—when they had a mind to it—and mostly they had. Was it the two pounds ten a month that sent them there? They didn't think their pay half good enough. No; it was something in them, something inborn and subtle and everlasting. I don't say positively that the crew of a French or German merchantman wouldn't have done it, but I doubt whether it would have been done in the same way. There was a completeness in it, something solid like a principle, and masterful like an instinct—a disclosure of something secret—of that hidden something, that gift, of good or evil that makes racial difference, that shapes the fate of nations.

"It was that night at ten that, for the first time since we had been fighting it, we saw the fire. The speed of the towing had fanned the smouldering destruction. A blue gleam appeared forward, shining below the wreck of the deck. It wavered in patches, it seemed to stir and creep like the light of a glow-worm. I saw it first, and told Mahon. Then the game's up,' he said. 'We had better stop this towing, or she will burst out suddenly fore and aft before we can clear out.' We set up a yell; rang bells to attract their attention; they towed on. At last Mahon and I had to crawl forward and cut the rope with an ax. There was no time to cast off the lashings. Red tongues could be seen licking the wilderness of splinters under our feet as we made our way back to the poop.

"Of course they very soon found out in the steamer that the rope was gone. She gave a loud blast of her whistle, her lights were seen sweeping in a wide circle, she came up ranging close alongside, and stopped. We were all in a tight group on the poop looking at her. Every man had saved a little bundle or a bag. Suddenly a conical flame with a twisted top shot up forward and threw upon the black sea a circle of light, with the two vessels side by side and heaving gently in its centre. Captain Beard had been sitting on the gratings still and mute for hours, but now he rose slowly and advanced in front of us, to the mizen-shrouds. Captain Nash hailed: 'Come along! Look sharp. I have mail-bags on board. I will take you and your boats to Singapore.'

"'Thank you! No!' said our skipper. 'We must see the last of the ship.'

"'I can't stand by any longer,' shouted the other. 'Mails—you know.'

"'Ay! ay! We are all right.'

"'Very well! I'll report you in Singapore. . . . Good-bye!'

"He waved his hand. Our men dropped their bundles quietly. The steamer moved ahead, and passing out of the circle of light, vanished at once from our sight, dazzled by the fire which burned fiercely. And then I knew that I would see the East first as commander of a small boat. I

thought it fine; and the fidelity to the old ship was fine. We should see the last of her. Oh the glamour of youth! Oh the fire of it, more dazzling than the flames of the burning ship, throwing a magic light on the wide earth, leaping audaciously to the sky, presently to be quenched by time, more cruel, more pitiless, more bitter than the sea—and like the flames of the burning ship surrounded by an impenetrable night.

"The old man warned us in his gentle and inflexible way that it was part of our duty to save for the underwriters as much as we could of the ship's gear. Accordingly we went to work aft, while she blazed forward to give us plenty of light. We lugged out a lot of rubbish. What didn't we save? An old barometer fixed with an absurd quantity of screws nearly cost me my life: a sudden rush of smoke came upon me, and I just got away in time. There were various stores, bolts of canvas, coils of rope; the poop looked like a marine bazaar, and the boats were lumbered to the gunwales. One would have thought the old man wanted to take as much as he could of his first command with him. He was very, very quiet, but off his balance evidently. Would you believe it? He wanted to take a length of old stream-cable and a catch-anchor with him in the longboat. We said, 'Ay, ay, sir,' deferentially, and on the quiet let the thing slip overboard. The heavy medicine chest went that way, two bags of green coffee, tins of paint—fancy, paint!—a whole lot of things. Then I was ordered with two hands into the boats to make a stowage and get them ready against the time it would be proper for us to leave the ship.

"We put everything straight, stepped the long-boat's mast for our skipper, who was to take charge of her, and I was not sorry to sit down for a moment. My face felt raw, every limb ached as if broken, I was aware of all my ribs, and would have sworn to a twist in the backbone. The boats, fast astern, lay in a deep shadow, and all around I could see the circle of the sea lighted by the fire. A gigantic flame arose forward straight and clear. It flared fierce, with noises like the whir of wings, with rumbles as of thunder. There were cracks, detonations, and from the cone of flame the sparks flew upwards, as man is born to trouble, to leaky ships, and to ships that burn.

"What bothered me was that the ship, lying broadside to the swell and to such wind as there was—a mere breath—the boats would not keep astern where they were safe, but persisted, in a pigheaded way boats have, in getting under the counter and then swinging alongside. They were knocking about dangerously and coming near the flame, while the ship rolled on them, and, of course, there was always the danger of the

masts going over the side at any moment. I and my two boat-keepers kept them off as best we could with oars and boat-hooks; but to be constantly at it became exasperating, since there was no reason why we should not leave at once. We could not see those on board, nor could we imagine what caused the delay. The boat-keepers were swearing feebly, and I had not only my share of the work, but also had to keep at it two men who showed a constant inclination to lay themselves down and let things slide.

"At last I hailed 'On deck there,' and someone looked over. 'We're ready here,' I said. The head disappeared and very soon popped up again. 'The captain says, All right, sir, and to keep the boats well clear of the ship.'

"Half an hour passed. Suddenly there was a frightful racket, rattle, clanking of chain, hiss of water, and millions of sparks flew up into the shivering column of smoke that stood leaning slightly above the ship. The cat-heads had burned away, and the two red-hot anchors had gone to the bottom, tearing out after them two hundred fathom of red-hot chain. The ship trembled, the mass of flame swayed as if ready to collapse, and the fore top-gallant-mast fell. It darted down like an arrow of fire, shot under, and instantly leaping up within an oar's-length of the boats, floated quietly, very black on the luminous sea. I hailed the deck again. After some time a man in an unexpectedly cheerful but also muffled tone, as though he had been trying to speak with his mouth shut, informed me, 'Coming directly, sir,' and vanished. For a long time I heard nothing but the whir and roar of the fire. There were also whistling sounds. The boats jumped, tugged at the painters, ran at each other playfully, knocked their sides together, or, do what we would, swung in a bunch against the ship's side. I couldn't stand it any longer, and swarming up a rope, clambered aboard over the stern.

"It was as bright as day. Coming up like this, the sheet of fire facing me was a terrifying sight, and the heat seemed hardly bearable at first. On a settee cushion dragged out of the cabin, Captain Beard, with his legs drawn up and one arm under his head, slept with the light playing on him. Do you know what the rest were busy about? They were sitting on deck right aft, round an open case, eating bread and cheese and drinking bottled stout.

"On the background of flames twisting in fierce tongues above their heads they seemed at home like salamanders, and looked like a band of desperate pirates. The fire sparkled in the whites of their eyes, gleamed on patches of white skin seen through the torn shirts. Each had the marks as of a battle about him–bandaged heads, tied-up arms, a strip of dirty rag round a knee–and each man had a bottle between his legs and a

chunk of cheese in his hand. Mahon got up. With his handsome and disreputable head, his hooked profile, his long white beard, and with an uncorked bottle in his hand, he resembled one of those reckless sea-robbers of old making merry amidst violence and disaster. 'The last meal on board,' he explained solemnly. 'We had nothing to eat all day, and it was no use leaving all this.' He flourished the bottle and indicated the sleeping skipper. 'He said he couldn't swallow anything, so I got him to lie down,' he went on; and as I stared, 'I don't know whether you are aware, young fellow, the man had no sleep to speak of for days—and there will be dam' little sleep in the boats.' 'There will be no boats byand-by if you fool about much longer,' I said, indignantly. I walked up to the skipper and shook him by the shoulder. At last he opened his eyes, but did not move. 'Time to leave her, sir,' I said quietly.

"He got up painfully, looked at the flames, at the sea sparkling round the ship, and black, black as ink farther away; he looked at the stars shining dim through a thin veil of smoke in a sky black, black as Erebus.

"'Youngest first,' he said.

"And the ordinary seaman, wiping his mouth with the back of his hand, got up, clambered over the taffrail, and vanished. Others followed. One, on the point of going over, stopped short to drain his bottle, and with a great swing of his arm flung it at the fire. 'Take this!' he cried.

"The skipper lingered disconsolately, and we left him to commune alone for a while with his first command. Then I went up again and brought him away at last. It was time. The ironwork on the poop was hot to the touch.

"Then the painter of the long-boat was cut, and the three boats, tied together, drifted clear of the ship. It was just sixteen hours after the explosion when we abandoned her. Mahon had charge of the second boat, and I had the smallest—the 14-foot thing. The long-boat would have taken the lot of us; but the skipper said we must save as much property as we could—for the underwriters—and so I got my first command. I had two men with me, a bag of biscuits, a few tins of meat, and a breaker of water. I was ordered to keep close to the long-boat, that in case of bad weather we might be taken into her.

"And do you know what I thought? I thought I would part company as soon as I could. I wanted to have my first command all to myself. I wasn't going to sail in a squadron if there were a chance for independent cruising. I would make land by myself. I would beat the other boats. Youth! All youth! The silly, charming, beautiful youth.

"But we did not make a start at once. We must see the last of the ship.

And so the boats drifted about that night, heaving and setting on the swell. The men dozed, waked, sighed, groaned. I looked at the burning ship.

"Between the darkness of earth and heaven she was burning fiercely upon a disc of purple sea shot by the blood-red play of gleams; upon a disc of water glittering and sinister. A high, clear flame, an immense and lonely flame, ascended from the ocean, and from its summit the black smoke poured continuously at the sky. She burned furiously; mournful and imposing like a funeral pile kindled in the night, surrounded by the sea, watched over by the stars. A magnificent death had come like a grace, like a gift, like a reward to that old ship at the end of her laborious days. The surrender of her weary ghost to the keeping of stars and sea was stirring like the sight of a glorious triumph. The masts fell just before daybreak, and for a moment there was a burst and turmoil of sparks that seemed to fill with flying fire the night patient and watchful, the vast night lying silent upon the sea. At daylight she was only a charred shell, floating still under a cloud of smoke and bearing a glowing mass of coal within.

"Then the oars were got out, and the boats forming in a line moved round her remains as if in procession—the long-boat leading. As we pulled across her stern a slim dart of fire shot out viciously at us, and suddenly she went down, head first, in a great hiss of steam. The unconsumed stern was the last to sink; but the paint had gone, had cracked, had peeled off, and there were no letters, there was no word, no stubborn device that was like her soul, to flash at the rising sun her creed and her name.

"We made our way north. A breeze sprang up, and about noon all the boats came together for the last time. I had no mast or sail in mine, but I made a mast out of a spare oar and hoisted a boat-awning for a sail, with a boat-hook for a yard. She was certainly overmasted, but I had the satisfaction of knowing that with the wind aft I could beat the other two. I had to wait for them. Then we all had a look at the captain's chart, and, after a sociable meal of hard bread and water, got our last instructions. These were simple: steer north and keep together as much as possible. 'Be careful with that jury-rig, Marlow,' said the captain; and Mahon, as I sailed proudly past his boat, wrinkled his curved nose and hailed, 'You will sail that ship of yours under water if you don't look out, young fellow.' He was a malicious old man—and may the deep sea where he sleeps now rock him gently, rock him tenderly to the end of time!

"Before sunset a thick rain squall passed over the two boats, which were

far astern, and that was the last I saw of them for a time. Next day I sat steering my cockle-shell—my first command—with nothing but water and sky around me. I did sight in the afternoon the upper sails of a ship far away, but said nothing, and my men did not notice her. You see I was afraid she might be homeward bound, and I had no mind to turn back from the portals of the East. I was steering for Java—another blessed name—like Bangkok, you know. I steered many days.

"I need not tell you what it is to be knocking about in an open boat. I remember nights and days of calm, and we pulled, we pulled, and the boat seemed to stand still, as if bewitched within the circle of the sea horizon. I remember the heat, the deluge of rain squalls that kept us baling for dear life (but filled our water-cask), and I remember sixteen hours on end with a mouth dry as a cinder and a steering-oar over the stern to keep my first command head on to a breaking sea. I did not know how good a man I was till then. I remember the drawn faces, the dejected figures of my two men, and I remember my youth and the feeling that will never come back any more—the feeling that I could last for ever, outlast the sea, the earth, and all men; the deceitful feeling that lures us on to joys, to perils, to love, to vain effort—to death; the triumphant conviction of strength, the heat of life in the handful of dust, the glow in the heart that with every year grows dim, grows cold, grows small, and expires—and expires, too soon, too soon—before life itself.

"And this is how I see the East. I have seen its secret places and have looked into its very soul; but now I see it always from a small boat, a high outline of mountains, blue and afar in the morning; like faint mist at noon; a jagged wall of purple at sunset. I have the feel of the oar in my hand, the vision of a scorching blue sea in my eyes. And I see a bay, a wide bay, smooth as glass and polished like ice, shimmering in the dark. A red light burns far off upon the gloom of the land, and the night is soft and warm. We drag at the oars with aching arms, and suddenly a puff of wind, a puff faint and tepid and laden with strange odours of blossoms, of aromatic wood, comes out of the still night—the first sigh of the East on my face. That I can never forget. It was impalpable and enslaving, like a charm, like a whispered promise of mysterious delight.

"We had been pulling this finishing spell for eleven hours. Two pulled, and he whose turn it was to rest sat at the tiller. We had made out the red light in that bay and steered for it, guessing it must mark some small coasting port. We passed two vessels, outlandish and high-sterned, sleeping at anchor, and, approaching the light, now very dim, ran the boat's

nose against the end of a jutting wharf. We were blind with fatigue. My men dropped the oars and fell off the thwarts as if dead. I made fast to a pile. A current rippled softly. The scented obscurity of the shore was grouped into vast masses, a density of colossal clumps of vegetation, probably—mute and fantastic shapes. And at their foot the semicircle of a beach gleamed faintly, like an illusion. There was not a light, not a stir, not a sound. The mysterious East faced me, perfumed like a flower, silent like death, dark like a grave.

"And I sat weary beyond expression, exulting like a conqueror, sleepless and entranced as if before a profound, a fateful enigma.

"A splashing of oars, a measured dip reverberating on the level of water, intensified by the silence of the shore into loud claps, made me jump up. A boat, a European boat, was coming in. I invoked the name of the dead; I hailed: *Judea* ahoy! A thin shout answered.

"It was the captain. I had beaten the flagship by three hours, and I was glad to hear the old man's voice again, tremulous and tired. 'Is it you, Marlow?' 'Mind the end of that jetty, sir,' I cried.

"He approached cautiously, and brought up with the deep-sea leadline which we had saved—for the underwriters. I eased my painter and fell alongside. He sat, a broken figure at the stern, wet with dew, his hands clasped in his lap. His men were asleep already. 'I had a terrible time of it,' he murmured. 'Mahon is behind—not very far.' We conversed in whispers, in low whispers, as if afraid to wake up the land. Guns, thunder, earthquakes would not have awakened the men just then.

"Looking round as we talked, I saw away at sea a bright light travelling in the night. 'There's a steamer passing the bay,' I said. She was not passing, she was entering, and she even came close and anchored. 'I wish,' said the old man, 'you would find out whether she is English. Perhaps they could give us a passage somewhere.' He seemed nervously anxious. So by dint of punching and kicking I started one of my men into a state of somnambulism, and giving him an oar, took another and pulled towards the lights of the steamer.

"There was a murmur of voices in her, metallic hollow clangs of the engine-room, footsteps on the deck. Her ports shone, round like dilated eyes. Shapes moved about, and there was a shadowy man high up on the bridge. He heard my oars.

"And then, before I could open my lips, the East spoke to me, but it was in a Western voice. A torrent of words was poured into the enigmatical, the fateful silence: outlandish, angry words, mixed with words and even whole sentences of good English, less strange but even more surpris-

ing. The voice swore and cursed violently; it riddled the solemn peace of the bay by a volley of abuse. It began by calling me Pig, and from that went crescendo into unmentionable adjectives—in English. The man up there raged aloud in two languages, and with a sincerity in his fury that almost convinced me I had, in some way, sinned against the harmony of the universe. I could hardly see him, but began to think he would work himself into a fit.

"Suddenly he ceased, and I could hear him snorting and blowing like a porpoise. I said—

"'What steamer is this, pray?'

"'Eh? What's this? And who are you?'

"'Castaway crew of an English bark burned at sea. We came here to-night. I am the second mate. The captain is in the long-boat, and wishes to know if you would give us a passage somewhere.'

"'Oh, my goodness! I say. . . . This is the *Celestial* from Singapore on her return trip. I'll arrange with your captain in the morning, . . . and, . . . I say, . . . did you hear me just now?'

"'I should think the whole bay heard you.'

" 'I thought you were a shore-boat. Now, look here—this infernal lazy scoundrel of a caretaker has gone to sleep again—curse him. The light is out, and I nearly ran foul of the end of this damned jetty. This is the third time he plays me this trick. Now, I ask you, can anybody stand this kind of thing? It's enough to drive a man out of his mind. I'll report him. . . . I'll get the Assistant Resident to give him the sack, by . . . ! See—there's no light. It's out, isn't it! I take you to witness the light's out. There should be a light, you know. A red light on the—'

"'There was a light,' I said, mildly.

"'But it's out, man! What's the use of talking like this? You can see for yourself it's out—don't you? If you had to take a valuable steamer along this God-forsaken coast you would want a light, too. I'll kick him from end to end of his miserable wharf. You'll see if I don't. I will—'

"'So I may tell my captain you'll take us?' I broke in.

"'Yes, I'll take you. Good night,' he said, brusquely.

"I pulled back, made fast again to the jetty, and then went to sleep at last. I had faced the silence of the East. I had heard some of its language. But when I opened my eyes again the silence was as complete as though it had never been broken. I was lying in a flood of light, and the sky had never looked so far, so high, before. I opened my eyes and lay without moving.

"And then I saw the men of the East—they were looking at me. The

whole length of the jetty was full of people. I saw brown, bronze, yellow faces, the black eyes, the glitter, the colour of an Eastern crowd. And all these beings stared without a murmur, without a sigh, without a movement. They stared down at the boats, at the sleeping men who at night had come to them from the sea. Nothing moved. The fronds of palms stood still against the sky. Not a branch stirred along the shore, and the brown roofs of hidden houses peeped through the green foliage, through the big leaves that hung shining and still like leaves forged of heavy metal. This was the East of the ancient navigators, so old, so mysterious, resplendent and sombre, living and unchanged, full of danger and promise. And these were the men. I sat up suddenly. A wave of movement passed through the crowd from end to end, passed along the heads, swayed the bodies, ran along the jetty like a ripple on the water, like a breath of wind on a field—and all was still again. I see it now—the wide sweep of the bay, the glittering sands, the wealth of green infinite and varied, the sea blue like the sea of a dream, the crowd of attentive faces, the blaze of vivid colour—the water reflecting it all, the curve of the shore, the jetty, the high-sterned outlandish craft floating still, and the three boats with the tired men from the West sleeping, unconscious of the land and the people and of the violence of sunshine. They slept thrown across the thwarts, curled on bottom-boards, in the careless attitudes of death. The head of the old skipper, leaning back in the stern of the long-boat, had fallen on his breast, and he looked as though he would never wake. Farther out old Mahon's face was upturned to the sky, with the long white beard spread out on his breast, as though he had been shot where he sat at the tiller; and a man, all in a heap in the bows of the boat, slept with both arms embracing the stem-head and with his cheek laid on the gunwale. The East looked at them without a sound.

"I have known its fascination since; I have seen the mysterious shores, the still water, the lands of brown nations, where a stealthy Nemesis lies in wait, pursues, overtakes so many of the conquering race, who are proud of their wisdom, of their knowledge, of their strength. But for me all the East is contained in that vision of my youth. It is all in that moment when I opened my young eyes on it. I came upon it from a tussle with the sea—and I was young—and I saw it looking at me. And this is all that is left of it! Only a moment; a moment of strength, of romance, of glamour—of youth! . . . A flick of sunshine upon a strange shore, the time to remember, the time for a sigh, and—good-bye!—Night—Good-bye . . . !"

He drank.

"Ah! The good old time—the good old time. Youth and the sea. Glamour

and the sea! The good, strong sea, the salt, bitter sea, that could whisper to you and roar at you and knock your breath out of you."

He drank again.

"By all that's wonderful it is the sea, I believe, the sea itself–or is it youth alone? Who can tell? But you here–you all had something out of life: money, love–whatever one gets on shore–and, tell me, wasn't that the best time, that time when we were young at sea; young and had nothing, on the sea that gives nothing, except hard knocks–and sometimes a chance to feel your strength–that only–what you all regret?"

And we all nodded at him: the man of finance, the man of accounts, the man of law, we all nodded at him over the polished table that like a still sheet of brown water reflected our faces, lined, wrinkled; our faces marked by toil, by deceptions, by success, by love; our weary eyes looking still, looking always, looking anxiously for something out of life, that while it is expected is already gone–has passed unseen, in a sigh, in a flash–together with the youth, with the strength, with the romance of illusions.

Voltaire

1694–1778

Voltaire (pen name of François Marie Arouet), the son of a notary, was born in Paris on November 21, 1694. He was educated at the Jesuit Collège Louis-le-Grand. He read law and visited The Hague in the Marquis de Châteauneuf's suite. In Paris he belonged to the "Court of Sceaux," the circle of the beautiful Duchesse du Maine. In 1716, apparently for writing lampoons, he was exiled for the first time. When he came back, he was sent to the Bastille. There he rewrote his play *Oedipus* and changed his name to Voltaire. He was released the following year.

Oedipus opened in 1718 and had a prosperous run. With the royalties Voltaire made the first of a thousand profitable speculations. But trouble was his native weather. He found it prudent to exile himself again. When he returned to Paris in 1720, his play *Artémire* was put on and failed. His father left him a considerable fortune. The Regent granted him a pension.

In 1722 he went to Belgium and Holland on a secret diplomatic mission. After an unfortunate opening, his tragedy *Mariamne* was rewritten and did very well. In the early 1720's he worked at being a courtier under the wing of the Duc de Richelieu. He was insulted by the Chevalier de Rohan and replied in kind. Rohan had him beaten. He challenged the Chevalier to a duel but on the appointed morning he was thrown into the Bastille again.

Voltaire spent three years in England, where he met the Walpoles, Congreve, and Pope. Back in Paris in 1729, he was busy with such projects as the *Henriade* and a series of new plays—*Brutus, Eriphile,* and *Zaïre*. Two notable satires, *Philosophic Letters on the English* and *The Temple of Fashion,* got him into trouble again. He retired to Lorraine, where he and the Marquise du Châtelet fitted out an old château at Cirey. He wrote prodigiously. *Mérope* is prob-

ably his most respected work of this period, but it did not appear on the stage until 1743.

During the 1740's he was again at court. In 1745 he was made historiographer-royal and the next year elected to the French Academy. By this time he was the great star of the Enlightenment and the most famous writer in Europe. He accepted Frederick of Prussia's invitations to the Prussian court in 1751, but quarrels and difficulties caused him to leave Potsdam. He was arrested in Frankfurt and refused permission to enter France.

He went to Switzerland and there set up his famous residence at Ferney, near Geneva. In 1759 he wrote *Candide*. He was visited by the great of Europe. He never refused a fight for political liberty. In 1778 he made a last triumphal entry into Paris, where his new play, *Irène,* was produced. He died there on May 30 of the same year.

We read *Micromégas* (the name means "Little-Big") with one eye on Voltaire's time and one eye on our own. He is writing about astronauts–and he was not the first–who preceded by many years Yuri Gagarin and John Glenn. To him the movement between worlds was outright fantasy–and what an easy time *his* astronauts had of it, with their hitching a ride on a comet and their transit by sunbeam from globe to globe "as a bird flutters from branch to branch." We smile a little. For us travel in space is already possible. We have done it. Other worlds are clearly in reach.

We notice at once that, as the title suggests, the satire of *Micromégas* revolves almost completely on the idea of relative quantity. It is a statistician's fantasy, in which the mathematician (junior grade), the surveyor, the controller of weights and measures, the demographer, the astronomer, and the physicist may all find them-selves amusingly at home. May we infer, from the height of Mr. Micromégas

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Notes from the artist: ". . . *Voltaire as an old man above the profile of Louis XIV, of whose court* (*and of those of the other 'philosopher kings'*) *Voltaire felt himself to be a jester who laughed 'in order to keep myself from going mad.' At lower right is a scene from* Candide."

F.
Arouet
Voltaire
Louis 14th.

the Sirian, the circumference of his waist and even the scale of his planet? If he is grown up at the age of four hundred and fifty, at what age is he likely to die? The Saturnian secretary is a mere 6,000 feet tall. How will he manage to talk to Micromégas?

Fortunately, apart from size, the inhabitants of all the worlds speak the same language. The Sirian and the Saturnian, though one has a thousand senses and the other only seventy-two, get along very well with each other. Each bewails the shortness of life, though one lives seven hundred times longer than the other. Amiably, but in the face of some protest from the Saturnian's friend, "a pretty little dark girl who stood only six hundred and sixty fathoms," they set out on a tour of the universe. On the planet Earth they find the most amazing creatures of all–maggots who are both wise and wicked, whose philosophers make a point of disagreeing with each other, and who are "possessed of an arrogance almost infinitely great." "I see more than ever," says Micromégas, "that nothing must be judged by its apparent size."

Micromégas

CHAPTER I

Journey of an Inhabitant of the World of the Star Sirius into the Planet Saturn

In one of those planets which revolve round the star named Sirius there was a young man of much wit with whom I had the honor to be acquainted during the last visit he made to our little anthill. He was called Micromégas, a name very well suited to all big men. His height was eight leagues: by eight leagues I mean twenty-four thousand geometrical paces of five feet each.

Some of the mathematicians, persons of unending public utility, will at once seize their pens and discover that, since Mr. Micromégas, inhabitant of the land of Sirius, measures from head to foot twenty-four thousand paces (which make one-hundred-and-twenty thousand royal feet), and since we other citizens of the earth measure barely five feet, and our globe has a circumference of nine thousand leagues—they will discover, I say, that it follows absolutely that the globe which produced Mr. Micromégas must have exactly twenty-one million six hundred thousand times more circumference than our little earth. Nothing in nature is simpler or more ordinary. The states of certain German and Italian sovereigns, round which one may travel completely in half an hour, compared with the empires of Turkey, Muscovy, or China, are but a very feeble example of the prodigious differences which nature contrives everywhere.

His Excellency's stature being as I have stated, all our sculptors and all our painters will agree without difficulty that he is fifty thousand royal feet round the waist; which makes him very nicely proportioned.

As regards his mind, it is one of the most cultured we possess. He knows many things, and has invented a few. He had not yet reached the age of two-hundred-and-fifty, and was studying, according to custom, at the

Jesuit college in his planet, when he solved by sheer brain power more than fifty of the problems of Euclid. That is eighteen more than Blaise Pascal, who, after solving thirty-two to amuse himself, according to his sister, became a rather mediocre geometer and a very inferior metaphysician.

Toward the age of four hundred and fifty, when his childhood was past, he dissected many of those little insects which, not being a hundred feet across, escape the ordinary microscope. He wrote about them a very singular book, which, however, brought him some trouble. The mufti of his country, a hair-splitter of great ignorance, found in it assertions that were suspicious, rash, offensive, unorthodox, and savoring of heresy, and prosecuted him vigorously. The question was whether the bodies of Sirian fleas were made of the same substance as the bodies of Sirian slugs. Micromégas defended himself with spirit, and brought all the women to his way of thinking. The case lasted two hundred and twenty years, and ended by the mufti having the book condemned by some jurists who had not read it, and by the author being banished from the court for eight hundred years.

Micromégas was only moderately distressed at being banished from a court which was such a hotbed of meannesses and vexations. He wrote a very droll song against the mufti, which hardly troubled that dignitary, and set forth on a journey from planet to planet in order to finish forming his heart and mind, as the saying is.

Those who travel only in post-chaise and coach will be astonished, doubtless, at the methods of transport in the world above, for we on our little mud-heap cannot imagine anything outside the range of our ordinary experience. Our traveler had a marvelous knowledge of the laws of gravitation, and of the forces of repulsion and attraction. He made such excellent use of them that sometimes by the good offices of a comet, and at others by the help of a sunbeam, he and his friends went from globe to globe as a bird flutters from branch to branch. He traversed the Milky Way in no time, and I am forced to confess that he never saw through the stars with which it is sown the beautiful paradise that the illustrious and reverend Mr. Derham boasts of having seen at the end of his spyglass. Not that I claim that Mr. Derham's eyesight is bad: God forbid! but Micromégas was on the spot, he is a sound observer, and I do not wish to contradict anyone.

After making a long tour, Micromégas reached the globe of Saturn. Although he was accustomed to see new things, he could not, on beholding the littleness of the globe and its inhabitants, refrain from that superior

smile to which even the wisest men are sometimes subject. For Saturn, after all, is hardly more than nine hundred times bigger than the earth, and its citizens are dwarfs only about a thousand fathoms tall. He and his friends laughed at them at first, much as an Italian musician, when he comes to France, laughs at Lulli's music. The Sirian had good brains, however, and understood quickly that a thinking being may very well not be ridiculous merely because his height is only six thousand feet. Having started by amazing the Saturnians, he finished by becoming intimate with them. He engaged in a close friendship with the secretary of the Academy of Saturn, a man of much wit, who, although he had indeed invented nothing himself, yet had a very good idea of the inventions of others, and had produced quite passable light verses and weighty computations.

I will record here for the benefit of my readers an odd conversation which Micromégas had with Mr. Secretary.

CHAPTER II

Conversation of the Inhabitant of Sirius with the Inhabitant of Saturn

When His Excellency had laid himself down, and the secretary had drawn near to his face, Micromégas spoke. "It must be admitted," he said, "that there is plenty of variety in nature."

"Yes," agreed the Saturnian, "nature is like a flower bed of which the flowers . . . "

"Enough of your flower bed," said the other.

"Nature," resumed the secretary, "is like a company of fair women and dark women whose apparel . . . "

"What have I to do with your dark women?" said the other.

"Well, then, nature is like a gallery of pictures whose features . . . "

"Oh, no!" said the traveler. "I tell you once more–nature is like nature. Why seek to compare it with anything?"

"To please you," answered the secretary.

"I do not want people to please me," replied the traveler. "I want them to teach me. Begin by telling me how many senses men in your world have."

"We have seventy-two," said the academician, "and we complain every day that we have not more. Our imagination surpasses our needs. We find that with our seventy-two senses, our ring, and our five moons, we are too limited; and despite all our curiosity and the fairly large number

of emotions arising from our seventy-two senses, we have plenty of time to be bored."

"That I can quite understand," said Micromégas, "for although in our world we have nearly a thousand senses, we still have an indescribable, vague yearning, an inexpressible restlessness, which warns us incessantly that we are of small account, and that there exist beings far more perfect. I have traveled a little, and I have seen mortals much below our level; I have also seen others far superior: but I have not seen any who have not more appetites than real needs, and more needs than contentment. One day, maybe, I shall reach the country where nobody lacks anything, but up to now no one has given me definite news of that country."

The Saturnian and the Sirian proceeded to tire themselves out with conjectures, but after many very ingenious and very uncertain arguments, they were forced to return to facts.

"How long do you live?" asked the Sirian.

"Ah! a very short time," replied the small man of Saturn.

"Just as with us," said the Sirian. "We are always complaining how short life is. It must be one of the universal laws of nature."

"Alas!" sighed the Saturnian. "We live for only five hundred complete revolutions of the sun. (That makes fifteen thousand years, or thereabouts, according to our reckoning.) As you can see, that means dying almost as soon as one is born. Our existence is a point, our duration a flash, our globe an atom. Hardly has one started to improve one's self a little than death arrives before one has any experience. For my part, I dare make no plans; I am like a drop of water in an immense ocean. I am ashamed, particularly before you, of the ridiculous figure I cut in this world."

"If you were not a philosopher," returned Micromégas, "I should fear to distress you by telling you that our life is seven hundred times as long as yours, but you know too well that when a man has to return his body to the earth whence it sprang, to bring life again to nature in another form—which is called dying—it is precisely the same thing, when the time for this metamorphosis arrives, whether he has lived a day or an eternity. I have been in countries where the people lived a thousand times longer than my people, and they still grumbled. But everywhere there are persons who know how to accept their fate and thank the author of nature. He has spread over this universe variety in profusion, coupled with a kind of wonderful uniformity. For instance, all thinking beings are different, and yet at bottom all resemble each other in their possession of the gifts of thought and aspiration. Matter is found everywhere, but in each globe

it has different properties. How many of these properties do you count your matter as having?"

"If you speak of those properties," said the Saturnian, "without which we believe our globe could not exist in its present form, we count three hundred, such as extension, impenetrability, mobility, gravitation, divisibility, and so on."

"It appears," said the traveler, "that for the Creator's purposes regarding your insignificant abode that small number suffices. I admire His wisdom in everything. I see differences everywhere, but everywhere also I see proportion. Your world is small, and so are its occupants; you have few sensations; your matter has few properties: all that is the work of Providence. Of what color does your sun prove to be if you examine it closely?"

"Of a very yellowish white," said the Saturnian; "and when we split up one of its rays we find it contains seven colors."

"Our sun," remarked the Sirian, "is reddish, and we have thirty-nine primary colors. Of all the suns I have approached there are no two which are alike, just as with you there is no face which does not differ from all the other faces."

After several questions of this kind, he inquired how many essentially different substances they counted in Saturn. He learned that they counted only about thirty, such as God, Space, Matter, substances which have Extension and Feeling, substances which have Extension, Feeling and Thought, substances which have Thought and no Extension; those which are self-conscious, those which are not self-conscious, and the rest. The Sirian, in whose world they counted three hundred, and who had discovered in his travels three thousand others, staggered the philosopher of Saturn. At last, after acquainting each other with a little of what they did know and a great deal of what they did not, after arguing during a complete revolution of the sun, they decided to make together a little philosophical journey.

CHAPTER III

Journey of the Two Inhabitants of Sirius and Saturn

Our two philosophers were ready to set forth into the atmosphere of Saturn, with a nice supply of mathematical instruments, when the Saturnian's mistress, who had heard of their approaching departure, came in tears to protest. She was a pretty little dark girl who stood only six

hundred and sixty fathoms; but she made amends for her small stature by many other charms. "Ah! cruel man," she cried, "when after resisting you for fifteen hundred years I was beginning at last to give way, when I have passed barely a hundred years in your arms, you leave me to go on a journey with a giant from another world. Away with you! your intentions are not serious, you are nothing but a philanderer, you have never loved me: if you were a real Saturnian you would be faithful. Where are you going to gad about? What do you seek? Our five moons are less errant than you, our ring is less variable. One thing is certain! I shall never love anyone else."

The philosopher kissed her, wept with her, for all that he was a philosopher, and the lady after having swooned went off to console herself with one of the dandies of the land.

Meanwhile, our two seekers after knowledge departed. First they jumped on the ring; they found it to be fairly flat, as an illustrious inhabitant of our little globe has very well guessed. Thence they journeyed from moon to moon. A comet passed quite close to the last one they visited; with their servants and instruments they hurled themselves on it. When they had covered about a hundred and fifty million leagues they came upon the satellites of Jupiter. They came to Jupiter itself, and stayed there a year, during which time they learned some very wonderful secrets that would now be in the hands of the printers had not my lords the inquisitors found some of the propositions rather tough. But I read the manuscript in the library of the illustrious archbishop of––, who, with a generosity and kindness which cannot be sufficiently praised, allowed me to see his books.

But let us return to our travelers. When they left Jupiter they crossed a space about a hundred million leagues wide, and passed along the coast of Mars, which, as we know, is five times smaller than our little globe. They saw two moons which serve this planet, and which have escaped the attention of our astronomers. I am well aware that Father Castel will decry, even with humor, the existence of these two moons, but I take my stand on those who reason by analogy. Those good philosophers know how difficult it would be for Mars, which is so far from the sun, to do without at least two moons. Whatever the facts are, our friends found Mars so small that they feared they might not have room enough to lay themselves down, and so they continued on their road like two travelers who scorn a miserable village inn, and push on to the nearest town. But the Sirian and his companion soon repented, for they traveled a long while without finding anything. At last they perceived a small glimmer:

it was the earth, and it stirred the pity of the people coming from Jupiter. However, fearing that they might have to repent a second time, they decided to land. They passed along the tail of the comet and, finding an aurora borealis handy, climbed on the tail of the comet, and touched land on the northern coast of the Baltic Sea, the fifth of July, seventeen hundred and thirty-seven, new style.

CHAPTER IV

What Happened to Them on Earth

After a short rest, they ate for lunch two mountains which their attendants served up for them quite nicely, and then had a mind to explore the minute country in which they found themselves. They went first from north to south. The usual pace of the Sirian and his people measured about thirty-thousand king's feet. The dwarf from Saturn followed at a distance, panting, for he had to take twelve paces to each of the other's strides. Picture to yourself (if such a comparison be permitted) a very small lap-dog following a captain of the King of Prussia's Guards.

As these foreigners moved rather quickly, they circled the world in thirty-six hours. The sun, or rather the earth, it is true, does a like journey in a day, but it must be remembered that it is easier to travel on one's axis than on one's feet. Here they are, then, returned to the point whence they started. They have seen the puddle, almost imperceptible to them, which we call the "Mediterranean," and that other little pond which under the name of the "Great Ocean" surrounds the mole-hill. The water had never come above the dwarf s knees, and the other had scarcely wet his heels. Moving above and below, they did their best to discover whether or no this globe was inhabited. They stooped, laid themselves down flat, and sounded everywhere; but as their eyes and their hands were in nowise adapted to the diminutive beings which crawl here, they perceived nothing which might make them suspect that we and our colleagues, the other dwellers on this earth, have the honor to exist.

The dwarf, who sometimes judged a little too hastily, decided at once that there was no one on the earth, his first reason being that he had seen no one. Micromégas politely made him feel that it was a poor enough reason. "With your little eyes," he said, "you do not see certain stars of the fiftieth magnitude, which I perceive very distinctly. Do you conclude from your blindness that these stars do not exist?"

"But," said the dwarf, "I have searched well."

"But," replied the other, "you have seen badly."

"But," said the dwarf, "this globe is so badly constructed and so irregular; it is of a form which to me seems ridiculous! Everything here is in chaos, apparently. Do you see how none of those little brooks run straight? And those ponds which are neither round, square, oval, nor of any regular form? Look at all those little pointed things with which this world is studded; they have taken the skin off my feet! (He referred to the mountains.) Do you not observe the shape of the globe, how flat it is at the poles, and how clumsily it turns round the sun, with result that the polar regions are waste places? What really makes me think there is no one on the earth is that I cannot imagine any sensible people wanting to live here."

"Well, well!" said Micromégas, "perhaps the people who live here are not sensible after all. But anyway there is an indication that the place was not made for nothing. You say that everything here looks irregular, because in Jupiter and Saturn everything is arranged in straight lines. Perhaps it is for that very reason there is something of a jumble here. Have I not told you that in my travels I have always observed variety?"

The Saturnian replied to all these arguments, and the discussion might never have finished had not Micromégas become excited with talking, and by good luck broken the string of his diamond necklace. The diamonds fell to the ground. They were pretty little stones, but rather unequal; the biggest weighed four hundred pounds, the smallest fifty. The dwarf picked some of them up, and perceived when he put them to his eye that from the way they were cut they made first-rate magnifying glasses. He took, therefore, one of these small magnifying glasses, a hundred and sixty feet in diameter, and put it to his eye; Micromégas selected one of two thousand five hundred feet. They were excellent, but at first nothing could be seen by their aid; an adjustment was necessary. After a long time, the inhabitant of Saturn saw something almost imperceptible under water in the Baltic Sea: it was a whale. Very adroitly he picked it up with his little finger and, placing it on his thumbnail, showed it to the Sirian, who started laughing at the extreme smallness of the inhabitants of our globe. The Saturnian, satisfied that our world was inhabited after all, assumed immediately that all the inhabitants were whales, and as he was a great reasoner wished to ascertain how so small an atom moved, if it had ideas, a will, self-direction. Micromégas was very embarrassed by his questions. He examined the animal with great patience, and finished by thinking it impossible that a soul lodged there. The two travelers were disposed to think, therefore, that there was no

spirituality in our earthly abode. While they were considering the matter, they noticed with the aid of the magnifying glass something bigger than a whale floating on the Baltic Sea.

It will be remembered that at that very time a bevy of philosophers were on their way back from the Arctic Circle, where they had gone to make observations of which nobody up to then had taken any notice. The papers said that their ship foundered on the shores of Bothnia, and that the philosophers had a very narrow escape. But in this world one never knows what goes on behind the scenes. What really happened I will relate quite simply and without adding one word of my own. And that is no small effort for a historian.

CHAPTER V

Experiences and Reasonings of the Two Travelers

Micromégas stretched forth his hand very gently toward the spot where the object appeared, and put out two fingers; withdrew them for fear of making a mistake, then opening and closing them, very adroitly took hold of the ship carrying these gentlemen, and placed it on his nail, without squeezing too much for fear of crushing it.

"This animal is quite different from the first one," said the dwarf from Saturn, while the Sirian deposited the supposed animal in the hollow of his hand.

The passengers and the crew, who thought they had been swept up by a cyclone and cast on a kind of rock, started bustling. The sailors took some casks of wine, threw them overboard on Micromégas' hand, and hurled themselves down after them. The geometers took their quadrants, their sectors, and two Lapp girls, and climbed down to the Sirian's fingers. They made such a commotion that finally he felt something tickling him. It was an iron-shod pole which the philosophers were driving a foot deep into his forefinger. From the itching he judged that something had issued from the little animal he held, but at first he did not suspect anything further. The magnifying glass, which could scarcely discern a whale and a ship, had perforce no cognizance of such diminutive creatures as men. I do not wish to offend here anyone's vanity, but I feel obliged to ask self-important persons to note with me that, if the average height of a man be taken as five feet, we do not cut a better figure on this earth than would an animal about one six-hundred-thousandth of an inch high on a ball ten feet in circumference. Imagine a being which could hold the earth in its

hand and which had organs in proportion to ours–and it is very likely there would be a great number of these beings: then conceive, I ask you, what they would think of those battles which let a conqueror win a village only to lose it in the sequel. I do not doubt that if some captain of giant grenadiers ever reads this work, he will increase by at least two feet the height of his soldiers' forage-caps, but it will be in vain, I warn him: he and his will never be anything but infinitely little.

What marvelous perspicacity would not our Sirian philosopher need, then, to descry the atoms of which I have just spoken? When Leeuwenhoek and Hartsoeker were the first to see, or think that they saw, the germ of which we are fashioned, they did not, by a long way, make such an astonishing discovery. What pleasure Micromégas experienced in seeing these little machines move, in examining all their tricks, in following all their performances! How he cried out with glee! With what joy did he hand one of his magnifying glasses to his traveling companion! "I see them!" they exclaimed in concert. "Do you not see them carrying bundles, stooping and standing up again?" As they spoke, their hands trembled, both in delight at seeing such novel objects and in fear of losing them. The Saturnian, passing rapidly from an excess of doubt to an excess of credulousness, thought he observed them to be propagating their species. "Ah!" he said. "I have caught nature red-handed." But he was deceived by appearances–which happens only too often, whether one uses a magnifying glass or not.

CHAPTER VI

What Befell Them with the Men

Micromégas, who was a much closer observer than his dwarf, saw clearly that the atoms were talking to each other, and drew his companion's attention thereto. The dwarf, ashamed at having been mistaken on the subject of procreation, was not disposed to believe that such species had the power of intercommunication of ideas. With the Sirian he enjoyed the gift of tongues; he had not heard our atoms speak at all, and he assumed they did not speak. Besides, how should such diminutive creatures have organs of speech, and what should they have to talk about? In order to speak, one must think, or very nearly; but if they thought, they would have the equivalent of a soul; attribute to this species the equivalent of a soul? It seemed absurd.

"But," said the Sirian, "you thought just now they were making love to

each other; do you think it possible to make love without thinking and without uttering a word, or at least without making one's self understood? Do you suppose, further, that it is more difficult to produce an argument than an infant? To me they both appear great mysteries."

"I dare no longer either believe or disbelieve," said the dwarf. "I cease to have an opinion. We must try to examine these insects: we will argue afterward."

"That is well said," returned Micromégas, and pulled out a pair of scissors with which he cut his nails. With a paring from his thumbnail he made on the spot a kind of huge speaking-trumpet, like an immense funnel, and placed the small end in his ear. The outer edge of the funnel surrounded the ship and all the crew. The faintest sound entered the circular fibers of the nail, with result that thanks to his ingenuity the philosopher of the world above heard perfectly the buzzing of our insects in this world below. In a very short time he managed to distinguish words, and finally to understand French. As did the dwarf, although with greater difficulty.

The travelers' astonishment increased with each moment. They heard maggots talking tolerably good sense, and this trick of nature seemed inexplicable to them. You can well believe that the Sirian and his dwarf burned with impatience to engage the atoms in conversation. The dwarf feared that the thunder of his voice, and particularly of the voice of Micromégas, might deafen the maggots without their understanding that it was a voice. The strength must be reduced. They put in their mouths a sort of small toothpick of which the very fine end reached close to the ship. The Sirian held the dwarf on his knees and the ship with its crew on one of his nails. He bent his head, and spoke in a low voice. At last, with the help of all these precautions and many others beside, he started to speak; and this is what he said:

"Invisible insects who the Creator has pleased should be born in this abyss of the infinitely little, I thank Him for having deigned to let me discover secrets which seemed unfathomable. At my court, maybe, they would not condescend to look at you, but I despise no one, and I offer you my protection."

If ever anyone was astonished, it was the people who heard these words. They could not imagine whence they came. The ship's chaplain repeated the prayers for casting out devils, the sailors cursed, and the philosophers on board propounded hypotheses; but no matter what hypothesis they propounded they could never guess who was speaking to them. The dwarf from Saturn, whose voice was softer than Micro-

mégas', then told them briefly with what sort of people they had to deal. He related the journey from Saturn, made them aware who Mr. Micromégas was, and, after sympathizing with them for being so small, asked if they had always enjoyed this miserable state so close to complete non-existence, what their function was in a world which appeared to belong to whales, if they were happy, if they multiplied, if they had souls, and a hundred other questions of a like nature.

One reasoner in the party, bolder than the others, and shocked that anyone should doubt he had a soul, sighted his interlocutor through the eyelet-hole on a quadrant, made two observations, and at the third said: "You assume, sir, that because you measure a thousand fathoms from head to foot you are a–"

"A thousand fathoms!" cried the dwarf. "Holy Heaven! How can he know my height? A thousand fathoms! he is not an inch out! What, this atom has measured me! He is a mathematician, he knows my height! And I who cannot see him at all save through a magnifying glass, I do not yet know his!"

"Yes, I have measured you," said the physicist, "and what is more I shall measure your big friend too."

The suggestion was accepted, and His Excellency stretched himself out at full length: which was necessary because, if he had remained standing, his head would have been too far above the clouds. Our philosophers planted in him a big tree on a spot which Dr. Swift would specify, but which I refrain from calling by name out of respect for the ladies. Then, by forming a network of triangles they came to the conclusion that what they saw was in reality a young man one hundred and twenty thousand royal feet long.

At this point Micromégas spoke. "I see more than ever," he said, "that nothing must be judged by its apparent size. O God, who has given intelligence to beings which appear so contemptible, the infinitely small costs Thee as little effort as the infinitely great, and if there can possibly be creatures smaller than these, they may still have souls superior to those of the splendid animals I have seen in the sky, whose foot alone would cover the world to which I have come."

One of the philosophers answered him that he might indeed believe that there were intelligent creatures smaller than man, and he related for his benefit not the fables which Virgil told about the bees but all that Swammerdam discovered and Réaumur dissected. He made him understand, in short, that there are animals which to the bee are what the bee is to man, what the Sirian himself was to the prodigious animals he had

mentioned, and what these animals are to other things compared with which they seem but atoms.

By degrees the conversation became interesting, and Micromégas spoke as follows:

CHAPTER VII

Conversation with the Men

"O intelligent atoms in whom the Eternal Being has been pleased to manifest His dexterity and His might, the joys you taste on your globe are doubtless very pure, for as you are so immaterial, and seem to be all spirit, your lives must be passed in Love and in Thought: that, indeed, is the true life of spirits. Nowhere yet have I found real happiness, but that you have it here I cannot doubt."

At these words all the philosophers shook their heads and one of them, more frank than the rest, candidly admitted that, apart from a small number of people who were little esteemed, the rest of the inhabitants of the world were a crowd of madmen, miscreants, and unfortunates. "If evil be a property of matter," he said, "we have more matter than is necessary for the doing of much evil, and too much spirit if evil be a property of the spirit. Do you realize, for instance, that at this moment there are a hundred thousand madmen of our species wearing hats killing, or being killed by, a hundred thousand other animals wearing turbans, and that over almost all the face of the earth this has been the custom from time immemorial?"

The Sirian shuddered and asked what could be the ground for these horrible quarrels between such puny beasts.

"The matter at issue," replied the philosopher, "is some mud heap as large as your heel. It is not that any single man of all these millions who slaughter each other claims one straw on the mud heap. The point is—shall the mud heap belong to a certain man called 'Sultan' or to another called, I know not why, 'Caesar'? Neither of them has ever seen or will ever see the little bit of land in dispute, and barely one of these animals which slaughter each other has ever seen the animal for which he is slaughtered."

"Wretch!" cried the Sirian indignantly. "Such a riot of mad fury is inconceivable! I am tempted to take three steps and with three blows of my foot to crush out of existence this anthill of absurd cutthroats."

"Do not trouble," answered the philosopher; "they wreak their own

ruin. Know that after ten years not a hundredth part of these miscreants is ever left. Know that, even when they have not drawn the sword, hunger, exhaustion, or debauchery carries them nearly all off. Besides, it is not they who should be punished, but the stay-at-home barbarians who, after a good meal, order from their remote closets the massacre of a million men, and then have solemn prayers of gratitude for the event offered up to God."

The traveler was stirred with pity for the little human race, in which he discovered such amazing contrasts. "Since you are of the small number of the wise," he said to these gentlemen, "and that apparently you do not kill people for money, tell me, I pray, how you employ yourselves."

"We dissect flies," answered the philosopher, "we measure lines, we gather mathematical data. We agree on the two or three points we understand, and we argue about the two or three thousand we do not."

Immediately a fancy took the Sirian and the Saturnian to question these thinking atoms in order to find out on what things they were agreed. "What do you reckon to be the distance," asked the latter, "between the Dog-star and Gemini?"

"Thirty-two and a half degrees," they all replied in concert.

"And from here to the moon?"

"In round numbers, sixty times the radius of the earth."

"What does your air weigh?" he continued, thinking to catch them. He did not succeed, however, for they all told him that the air weighs about nine hundred times less than an equal volume of the lightest water, and nineteen thousand times less than ducat gold. The little dwarf from Saturn, astounded at their replies, was tempted to take for sorcerers these same people to whom a quarter of an hour before he had refused a soul.

Finally, Micromégas put in a word. "Since you are so well acquainted with what is outside you," he said, "you doubtless know still better what is inside. Tell me what your soul is, and how you form your ideas."

As before, the philosophers replied in concert—but each held a different opinion. The oldest quoted Aristotle, another pronounced the name of Descartes, a third the name of Malebranche, a fourth that of Leibnitz, a fifth that of Locke. An aged Peripatetic said loudly and confidently: "'The soul is an entelechy and a proof of its power to be what it is.' That is what Aristotle states expressly, page 653 of the Louvre edition. *Entelechia esti* [It is an entelechy; *i.e.,* the final stage in development from potentiality to actuality.], etc."

"I do not understand Greek too well," remarked the giant.

"No more do I," said the philosophical maggot.

"Why then," asked the Sirian, "do you quote Aristotle in Greek?"

"Because," replied the scholar, "one should always quote what one does not comprehend at all in the language one understands least."

It was the Cartesian's turn. "The soul," he said, "is a pure spirit which has received in its mother's womb all metaphysical ideas and which, on leaving it, has to go to school to learn over again what it knew so well, and will never know again."

"It was not worth while," observed the animal eight leagues long, "for your soul to be so wise in your mother's womb if it had to become so ignorant by the time your chin could grow a beard. But what do you mean by a spirit?"

"What a question!" said the man of abstractions. "I have not the remotest idea. A spirit, it is said, is not matter."

"But do you know at least what matter is?"

"Very well," replied the man. "For example, this stone is gray, has a certain shape and three dimensions, is heavy and divisible."

"Well," said the Sirian, "this thing which appears to you to be divisible, heavy and gray, will you kindly tell me what it is? You perceive some of its attributes, but do you know what it is fundamentally?"

"No," answered the other.

"Then you do not know at all what matter is."

Mr. Micromégas then asked another of the wise men he held on his thumb what his soul was, and what it did.

"Nothing at all," replied the disciple of Malebranche. "God does everything for me. I see everything in Him, I do everything in Him. It is He who does everything without my interfering."

"It would be as well worth while not to exist," said the sage from Sirius. "And you, my friend," he continued to a Leibnitzian who was there, "what is your soul?"

"My soul," answered the Leibnitzian, "is a hand which points the hours while my body ticks: or, if you prefer it, it is my soul which ticks while my body points the hour: or again, my soul is the mirror of the universe, and my body is the frame of the mirror. That is quite clear."

A humble partisan of Locke stood nearby, and when he was spoken to at last, replied: "I do not know how I think, but I do know that I have never thought save by virtue of my senses. That there are immaterial and intelligent beings I do not doubt: but that it is impossible for God to endow matter with mind I doubt very much. I hold the power of God in veneration: I am not free to set bounds to it: I predicate nothing: I am

content to believe that more things are possible than we think."

The animal from Sirius smiled. He did not think the last speaker the least wise. The dwarf from Saturn would have embraced the follower of Locke had it not been for the difference in their proportions.

But, unluckily, there was present a minute animalcule in a clerical hat who interrupted the other animalcule philosophers. He said he understood the whole mystery; that the explanation was to be found in the *Summa* of St. Thomas. He looked the two celestial inhabitants up and down, and asserted that their persons, worlds, suns, and stars were created solely for man.

At this speech the two travelers fell on top of each other, suffocating with that inextinguishable laughter which, according to Homer, is the lot of the gods. Their shoulders and stomachs heaved, and amid these convulsions the ship which the Sirian held on his thumb fell into one of the Saturnian's trousers pockets. These two good people tried to find it for a long time and, having recovered it at last, set everything very nicely in order. The Sirian picked the maggots up again and spoke to them once more with much kindness, although at the bottom of his heart he was rather angry that such infinitely small creatures should be possessed of an arrogance almost infinitely great. He promised to prepare for them a fine volume of philosophy, written very small so that they might be able to read it, and that in the volume they would find an explanation for everything. And to be sure, he did give them this book before he left them. They took it to Paris to the Academy of Science: but when the aged secretary opened it he found nothing but blank pages. "Ah!" said he. "I thought as much."

Translated by H. I. Woolf.

Oscar Wilde

1854–1900

Oscar Wilde was born in Dublin, on October 16, 1854. His father was a distinguished eye-and-ear specialist, and his godfather the King of Sweden, for whom Wilde may have been named. He took the gold medal for Greek at Trinity College, and a double first at Oxford. Like Matthew Arnold, he was given the Newdigate Prize for poetry. Even before he left Oxford, he had taken care to become known as the apostle of "art for art's sake," a doctrine announced some forty years earlier by Théophile Gautier in the preface to *Mademoiselle de Maupin*.

Wilde was caricatured in *Punch* and burlesqued in the Gilbert and Sullivan opera *Patience*. His second book of poems appeared in 1881. The following year he made a twelve-month lecture tour of the United States. Audiences were entertained by his witty and deliberate affectations. The newspapers jeered. He wore a sunflower and velvet knee breeches among the Colorado miners, but earned their respect by drinking the best of them under the table.

In Paris, Wilde met Victor Hugo, Edgar Degas the painter, and Émile Zola. Back in London, he married the charming Constance Lloyd in 1884. They had two sons. Wilde became book reviewer for the *Pall Mall Gazette* and editor of the *Woman's World*. In 1888 he published a first book of fairy stories, *The Happy Prince and Other Tales* (see below).

In 1891 came four books in a row: more fairy tales in *A House of Pomegranates; Lord Arthur Savile's Crime and Other Stories;* the paradoxical essays in *Intentions;* and *The Picture of Dorian Gray,* a novel that became the centerpiece of the nineties movement in literature. A year later the first of his successful plays, the glittering *Lady Windermere's Fan,* was produced in London. Equally brilliant openings welcomed *A Woman of No Importance* in 1893 and *An*

Ideal Husband in January, 1895. A month later, *The Importance of Being Earnest* brought Wilde to the peak of his fame.

In April of that year Wilde charged the Marquess of Queensberry with criminal libel. He was acquitted. On the same day Wilde was arrested on morals charges that involved Lord Alfred Douglas, Queensberry's son. Wilde was sentenced to two years at hard labor. He wrote *De Profundis* in Reading Gaol. When he was released he took the name of "Sebastian Melmoth" and settled in Berneval, France. There he wrote *The Ballad of Reading Gaol*. After two years of wandering in Italy, Switzerland, and France, he died in Paris on November 30, 1900.

At a distance of more than half a century, we can see clearly now that Wilde was at bottom a religious moralist. Even his cult of art had that secondary sense. This becomes plain if we compare it with Gautier's original view, or Flaubert's. Wilde hoped that art would improve people's lives. He had enlisted in the same crusade as Matthew Arnold. Both were trying to civilize what they regarded as the barbarian middle classes–Arnold by exhorting them, Wilde by startling and amusing them.

Even such a delightful little story as *The Happy Prince* is as much a parable as it is a fairy tale. The Happy Prince is no longer happy, because he has discovered the misfortunes of the world. He is a paradox of the kind Wilde was so fond of: the Happy Prince who weeps. He wears gold from head to foot–the glow of his Christian saintliness. Like a true saint, he gives away his gold and jewels to help the needy. His heart is lead because it is weighted down with the grief of humanity.

When we first meet the swallow, he is quite a different sort–practical, worldly, and a great traveler. He is reluctant to play Sancho Panza to the Prince's saintly Don Quixote. He points out

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Notes from the artist: "Scenes from some of Wilde's works flank the figure of the author as he appeared during his lecture tour of the U.S. A small portrait of Wilde as a boy is also included. The style attempts to recapture the 'wickedness' of Aubrey Beardsley's illustrations for the first English edition of Salome *(1894)."*

THE
IMPORTANCE
OF
BEING
EARNEST
SALOMÉ
Oscar
Wilde

quite reasonably that boys throw stones, that the weather is getting cold, and that he is expected in the south. Indeed, he becomes very eloquent about the wonders of Egypt, where the yellow lions have eyes like green beryls and the red ibis stand in rows along the Nile. But gradually, ignoring his own desires, he becomes more and more dedicated to the Prince's good works. He is overcome by the experience of religious conversion. He refuses to leave.

So he falls dead at the feet of the blind Prince. And what is his death, we ask ourselves, if it is not an act of Christian martyrdom? Wilde tells the story with neat little witty asides, touches of fancy and of genuine imagination, the satiric effectively alternated with the lyrical. Here and there–as, for example, when the Prince's heart breaks–he barely avoids the sentimental. In that scene he does it with one matter-of-fact, ironic sentence: "It certainly was a dreadfully hard frost."

The mayor perceives that the Prince has lost his splendor of gold and jewels. For an instant we are afraid that he may decide that they have been stolen and begin a search for them. But he orders the statue to be pulled down. "As he is no longer beautiful, he is no longer useful," says the art professor. This is Wilde at his most para-doxical.

The Happy Prince

High above the city, on a tall column, stood the statue of the Happy Prince. He was gilded all over with thin leaves of fine gold, for eyes he had two bright sapphires, and a large red ruby glowed on his sword-hilt.

He was very much admired indeed. "He is as beautiful as a weathercock," remarked one of the town councillors who wished to gain a reputation for having artistic tastes; "only not quite so useful," he added, fearing lest people should think him unpractical, which he really was not.

"Why can't you be like the Happy Prince?" asked a sensible mother of her little boy who was crying for the moon. "The Happy Prince never dreams of crying for anything."

"I am glad there is some one in the world who is quite happy," muttered a disappointed man as he gazed at the wonderful statue.

"He looks just like an angel," said the charity children as they came out of the cathedral in their bright scarlet cloaks and their clean white pinafores.

"How do you know?" said the Mathematical Master, "you have never seen one."

"Ah! but we have, in our dreams," answered the children; and the Mathematical Master frowned and looked very severe, for he did not approve of children dreaming.

One night there flew over the city a little swallow. His friends had gone away to Egypt six weeks before, but he had stayed behind, for he was in love with the most beautiful reed. He had met her early in the spring as he was flying down the river after a big yellow moth, and had been so attracted by her slender waist that he had stopped to talk to her.

"Shall I love you?" said the swallow, who liked to come to the point at once, and the reed made him a low bow. So he flew round and round her,

touching the water with his wings and making silver ripples. This was his courtship, and it lasted all through the summer.

"It is a ridiculous attachment," twittered the other swallows; "she has no money, and far too many relations"; and, indeed, the river was quite full of reeds. Then, when the autumn came, they all flew away.

After they had gone he felt lonely, and began to tire of his lady-love. "She has no conversation," he said, "and I am afraid that she is a coquette, for she is always flirting with the wind." And certainly, whenever the wind blew, the reed made the most graceful curtsies. "I admit that she is domestic," he continued, "but I love travelling, and my wife, consequently, should love travelling also."

"Will you come away with me?" he said finally to her; but the reed shook her head, she was so attached to her home.

"You have been trifling with me," he cried, "I am off to the pyramids. Good-bye!" and he flew away.

All day long he flew, and at night-time he arrived at the city. "Where shall I put up?" he said; "I hope the town has made preparations."

Then he saw the statue on the tall column. "I will put up there," he cried; "it is a fine position with plenty of fresh air." So he alighted just between the feet of the Happy Prince.

"I have a golden bedroom," he said softly to himself as he looked round, and he prepared to go to sleep; but just as he was putting his head under his wing, a large drop of water fell on him. "What a curious thing!" he cried. "There is not a single cloud in the sky, the stars are quite clear and bright, and yet it is raining. The climate in the north of Europe is really dreadful. The reed used to like the rain, but that was merely her selfishness."

Then another drop fell.

"What is the use of a statue if it cannot keep the rain off?" he said; "I must look for a good chimney-pot," and he determined to fly away.

But before he had opened his wings, a third drop fell, and he looked up and saw—ah! what did he see?

The eyes of the Happy Prince were filled with tears, and tears were running down his golden cheeks. His face was so beautiful in the moonlight that the little swallow was filled with pity.

"Who are you?" he said.

"I am the Happy Prince."

"Why are you weeping then?" asked the swallow; "you have quite drenched me."

"When I was alive and had a human heart," answered the statue, "I

did not know what tears were, for I lived in the Palace of Sans-Souci, where sorrow is not allowed to enter. In the day-time I played with my companions in the garden, and in the evening I led the dance in the Great Hall. Round the garden ran a very lofty wall, but I never cared to ask what lay beyond it, everything about me was so beautiful. My courtiers called me the Happy Prince, and happy indeed I was, if pleasure be happiness. So I lived, and so I died. And now that I am dead they have set me up here so high that I can see all the ugliness and all the misery of my city, and though my heart is made of lead, yet I cannot choose but weep."

"What, is he not solid gold?" said the swallow to himself. He was too polite to make any personal remarks out loud.

"Far away," continued the statue in a low musical voice, "far away in a little street, there is a poor house. One of the windows is open, and through it I can see a woman seated at a table. Her face is thin and worn, and she has coarse red hands, all pricked by the needle, for she is a seamstress. She is embroidering passion-flowers on a satin gown for the loveliest of the Queen's maids-of-honour to wear at the next Court-ball. In a bed in the corner of the room, her little boy is lying ill. He has a fever, and is asking for oranges. His mother has nothing to give him but river water, so he is crying. Swallow, Swallow, little Swallow, will you not bring her the ruby out of my sword-hilt? My feet are fastened to this pedestal and I cannot move."

"I am waited for in Egypt," said the swallow. "My friends are flying up and down the Nile and talking to the large lotus-flowers. Soon they will go to sleep in the tomb of the great King. The King is there himself in his painted coffin. He is wrapped in yellow linen and embalmed with spices. Round his neck is a chain of pale green jade, and his hands are like withered leaves."

"Swallow, Swallow, little Swallow," said the Prince, "will you not stay with me for one night and be my messenger? The boy is so thirsty, and the mother so sad."

"I don't think I like boys," answered the swallow. "Last summer, when I was staying on the river, there were two rude boys, the miller's sons, who were always throwing stones at me. They never hit me, of course; we swallows fly far too well for that, and besides, I come of a family famous for its agility; but still, it was a mark of disrespect."

But the Happy Prince looked so sad that the little swallow was sorry. "It is very cold here," he said; "but I will stay with you for one night and be your messenger."

"Thank you, little Swallow," said the Prince.

So the swallow picked out the great ruby from the Prince's sword and flew away with it in his beak over the roofs of the town.

He passed by the cathedral tower, where the white marble angels were sculptured. He passed by the palace and heard the sound of dancing. A beautiful girl came out on the balcony with her lover. "How wonderful the stars are," he said to her, "and how wonderful is the power of love!" "I hope my dress will be ready in time for the State-ball," she answered; "I have ordered passion-flowers to be embroidered on it; but the seamstresses are so lazy."

He passed over the river and saw the lanterns hanging to the masts of the ships. He passed over the Ghetto and saw the old Jews bargaining with each other and weighing out money in copper scales. At last he came to the poor house and looked in. The boy was tossing feverishly on his bed, and the mother had fallen asleep, she was so tired. In he hopped, and laid the great ruby on the table beside the woman's thimble. Then he flew gently round the bed, fanning the boy's forehead with his wings. "How cool I feel," said the boy, "I must be getting better"; and he sank into a delicious slumber.

Then the swallow flew back to the Happy Prince and told him what he had done. "It is curious," he remarked, "but I feel quite warm now, although it is so cold."

"That is because you have done a good action," said the Prince. And the little swallow began to think, and then he fell asleep. Thinking always made him sleepy.

When day broke, he flew down to the river and had a bath. "What a remarkable phenomenon," said the professor of ornithology as he was passing over the bridge. "A swallow in winter!" And he wrote a long letter about it to the local newspaper. Every one quoted it, it was full of so many words that they could not understand.

"To-night I go to Egypt," said the swallow, and he was in high spirits at the prospect. He visited all the public monuments and sat a long time on top of the church steeple. Wherever he went the sparrows chirruped and said to each other, "What a distinguished stranger!" so he enjoyed himself very much.

When the moon rose, he flew back to the Happy Prince. "Have you any commissions for Egypt?" he cried; "I am just starting."

"Swallow, Swallow, little Swallow," said the Prince, "will you not stay with me one night longer?"

"I am waited for in Egypt," answered the swallow. "To-morrow my

friends will fly up to the Second Cataract. The river-horse couches there among the bulrushes, and on a great granite throne sits the god Memnon. All night long he watches the stars, and when the morning star shines, he utters one cry of joy, and then he is silent. At noon the yellow lions come down to the water's edge to drink. They have eyes like green beryls, and their roar is louder than the roar of the cataract."

"Swallow, Swallow, little Swallow," said the Prince, "far away across the city I see a young man in a garret. He is leaning over a desk covered with papers, and in a tumbler by his side there is a bunch of withered violets. His hair is brown and crisp, and his lips are red as a pomegranate, and he has large and dreamy eyes. He is trying to finish a play for the director of the theatre, but he is too cold to write any more. There is no fire in the grate, and hunger has made him faint."

"I will wait with you one night longer," said the swallow, who really had a good heart. "Shall I take him another ruby?"

"Alas! I have no ruby now," said the Prince; "my eyes are all that I have left. They are made of rare sapphires, which were brought out of India a thousand years ago. Pluck out one of them and take it to him. He will sell it to the jeweller, and buy food and firewood, and finish his play."

"Dear Prince," said the swallow, "I cannot do that"; and he began to weep.

"Swallow, Swallow, little Swallow," said the Prince, "do as I command you."

So the swallow plucked out the Prince's eye and flew away to the student's garret. It was easy enough to get in, as there was a hole in the roof. Through this he darted, and came into the room. The young man had his head buried in his hands, so he did not hear the flutter of the bird's wings, and when he looked up, he found the beautiful sapphire lying on the withered violets.

"I am beginning to be appreciated," he cried; "this is from some great admirer. Now I can finish my play," and he looked quite happy.

The next day the swallow flew down to the harbour. He sat on the mast of a large vessel and watched the sailors hauling big chests out of the hold with ropes. "Heave ahoy!" they shouted as each chest came up. "I am going to Egypt!" cried the swallow, but nobody minded, and when the moon rose, he flew back to the Happy Prince.

"I am come to bid you good-bye," he cried.

"Swallow, Swallow, little Swallow," said the Prince, "will you not stay with me one night longer?"

"It is winter," answered the swallow, "and the chill snow will soon be

here. In Egypt the sun is warm on the green palm-trees, and the crocodiles lie in the mud and look lazily about them. My companions are building a nest in the Temple of Baalbec, and the pink and white doves are watching them and cooing to each other. Dear Prince, I must leave you, but I will never forget you, and next spring I will bring you back two beautiful jewels in place of those you have given away. The ruby shall be redder than a red rose, and the sapphire shall be as blue as the great sea."

"In the square below," said the Happy Prince, "there stands a little match-girl. She has let her matches fall in the gutter, and they are all spoiled. Her father will beat her if she does not bring home some money, and she is crying. She has no shoes or stockings, and her little head is bare. Pluck out my other eye, and give it to her, and her father will not beat her."

"I will stay with you one night longer," said the swallow, "but I cannot pluck out your eye. You would be quite blind then."

"Swallow, Swallow, little Swallow," said the Prince, "do as I command you."

So he plucked out the Prince's other eye and darted down with it. He swooped past the match-girl and slipped the jewel into the palm of her hand. "What a lovely bit of glass," cried the little girl; and she ran home, laughing.

Then the swallow came back to the Prince. "You are blind now," he said, "so I will stay with you always."

"No, little Swallow," said the poor Prince, "you must go away to Egypt."

"I will stay with you always," said the swallow, and he slept at the Prince's feet.

All the next day he sat on the Prince's shoulder and told him stories of what he had seen in strange lands. He told him of the red ibis, who stand in long rows on the banks of the Nile and catch gold-fish in their beaks; of the Sphinx, who is as old as the world itself, and lives in the desert, and knows everything; of the merchants, who walk slowly by the side of their camels and carry amber beads in their hands; of the King of the Mountains of the Moon, who is as black as ebony and worships a large crystal; of the great green snake that sleeps in a palm-tree and has twenty priests to feed it with honey-cakes; and of the pygmies, who sail over a big lake on large flat leaves and are always at war with the butterflies.

"Dear little Swallow," said the Prince, "you tell me of marvellous things, but more marvellous than anything is the suffering of men and of women.

There is no mystery so great as misery. Fly over my city, little Swallow, and tell me what you see there."

So the swallow flew over the great city and saw the rich making merry in their beautiful houses, while the beggars were sitting at the gates. He flew into dark lanes and saw the white faces of starving children looking out listlessly at the black streets. Under the archway of a bridge, two little boys were lying in one another's arms to try and keep themselves warm. "How hungry we are!" they said. "You must not lie here," shouted the watchman, and they wandered out into the rain.

Then he flew back and told the Prince what he had seen.

"I am covered with fine gold," said the Prince, "you must take it off, leaf by leaf, and give it to my poor; the living always think that gold can make them happy."

Leaf after leaf of the fine gold the swallow picked off, till the Happy Prince looked quite dull and grey. Leaf after leaf of the fine gold he brought to the poor, and the children's faces grew rosier, and they laughed and played games in the street. "We have bread now!" they cried.

Then the snow came, and after the snow came the frost. The streets looked as if they were made of silver, they were so bright and glistening; long icicles like crystal daggers hung down from the eaves of the houses, everybody went about in furs; and the little boys wore scarlet caps and skated on the ice.

The poor little swallow grew colder and colder, but he would not leave the Prince, he loved him too well. He picked up crumbs outside the baker's door when the baker was not looking, and tried to keep himself warm by flapping his wings.

But at last he knew that he was going to die. He had just strength to fly up to the Prince's shoulder once more. "Good-bye, dear Prince!" he murmured, "will you let me kiss you hand?"

"I am glad that your are going to Egypt at last, little Swallow," said the Prince, "you have stayed too long here; but you must kiss me on the lips, for I love you."

"It is not to Egypt that I am going," said the swallow. "I am going to the house of death. Death is the brother of sleep, is he not?"

And he kissed the Happy Prince on the lips and fell down dead at his feet.

At that moment a curious crack sounded inside the statue, as if something had broken. The fact is that the leaden heart had snapped right in two. It certainly was a dreadfully hard frost.

Early the next morning the mayor was walking in the square below in

company with the town councillors. As they passed the column, he looked up at the statue: "Dear me! how shabby the Happy Prince looks!" he said.

"How shabby indeed!" cried the town councillors, who always agreed with the mayor, and they went up to look at it.

"The ruby has fallen out of his sword, his eyes are gone, and he is golden no longer," said the mayor; "in fact, he is little better than a beggar!"

"Little better than a beggar," said the town councillors.

"And here is actually a dead bird at his feet!" continued the mayor. "We must really issue a proclamation that birds are not allowed to die here." And the town clerk made a note of the suggestion.

So they pulled down the statue of the Happy Prince. "As he is no longer beautiful, he is no longer useful," said the art professor at the university.

Then they melted the statue in a furnace, and the mayor held a meeting of the corporation to decide what was to be done with the metal. "We must have another statue, of course," he said, "and it shall be a statue of myself."

"Of myself," said each of the town councillors, and they quarrelled. When I last heard of them, they were quarrelling still.

"What a strange thing!" said the overseer of the workmen at the foundry. "This broken lead heart will not melt in the furnace. We must throw it away." So they threw it on a dust-heap where the dead swallow was also lying.

"Bring me the two most precious things in the city," said God to one of His Angels; and the Angel brought Him the leaden heart and the dead bird.

"You have rightly chosen," said God, "for in my garden of Paradise this little bird shall sing for evermore, and in my city of gold the Happy Prince shall praise me."

Edgar Allan Poe

1809–1849

Edgar Allan Poe was born in Boston, Massachusetts, January 19, 1809. His parents were actors on tour. Both of them died in 1811. Poe's godfather, a Richmond merchant, sent him to schools in England and Scotland, and later to the University of Virginia. Gambling debts forced him to withdraw. Poe published a first book of poems, *Tamerlane*, and joined the army.

His guardian bought him out and arranged an appointment to West Point. Poe managed to get himself expelled. He went to New York and published his *Poems* in 1831. By 1835 he was editor of the *Southern Literary Messenger* and making a name as a critic. He married his cousin, Virginia Clemm, then hardly fourteen. It seems to have been a very tender relationship.

Poe was dropped from the *Messenger*, evidently for drinking–a habit that plagued him all his life. In New York again, he published *The Narrative of Arthur Gordon Pym*. By 1839 he was an editor on *Burton's Gentleman's Magazine*; there he printed *The Fall of the House of Usher*, and in its successor, *Graham's*, what came to be known as the first detective story, *The Murders in the Rue Morgue*.

His *Tales of the Grotesque and Arabesque* came out in 1839. He worked for his friend N. P. Willis on the *New York Evening Mirror*. There, in 1845, *The Raven* made him famous. He took a cottage at Fordham and wrote chitchat articles for *Godey's Lady's Book*. His wife, Virginia, died in 1847.

He lived for a while in Providence, Rhode Island, where he was engaged to the poet Sarah Helen Whitman. This was broken off, but later she wrote a book defending his memory. In the intervals of drinking, he made his way back to Richmond. He was again engaged to his boyhood love, Elmira Royster, now widowed. He had

one happy summer. Then he was picked up on the streets of Baltimore and taken to a hospital. His heart failed, and he died on October 7, 1849.

A man who does not contribute his quota of grim stories nowadays," said Leigh Hunt, a contemporary of Poe, "seems hardly to be free of the republic of letters. He is bound to wear a death's head as part of his insignia." Poe gave us more than his share. His stories and poems made him a member of the international community of nineteenth-century Romantics, which included Pushkin and Gogol in Russia; Hoffmann, Schiller, and the brothers Grimm in Germany; Hugo and Mérimée in France; Lamb, De Quincey, and Scott in Great Britain; and Hawthorne and Melville in the United States.

We read two of Poe's famous stories: *The Tell-Tale Heart* and *The Masque of the Red Death*. They belong among the most powerful and fascinating in all literature. Though his life may seem to discount it, Poe was a man of intellect first of all. We see it in his essays, *The Philosophy of Composition* (1846) and *The Poetic Principle* (1848 and 1850), which may be called the real beginning of American literary criticism. His first approach to a story or poem was intellectual. He conceived it as philosophers conceive an idea. In the light of this fact, we may discover a secret common to nearly all his stories.

It is this: he thought of each story as the vehicle of a single overpowering emotion. For this emotion, in each case, he found a symbol–that is, a person, a thing, a place, a pattern of action–that would *be* and *mean* that emotion. Only after this did he work out a carefully machined and often theatrical plot to be locked on the symbol. As the critic Georges Poulet has observed, Poe tried to keep the element of chance and the spontaneous out of his stories. Thus they do not give us the feeling of what we call "life." They resemble the intense helplessness of dreaming.

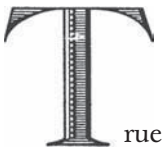
Notes from the artist: ". . . the face of Poe suggests the dark, brooding atmosphere of much of his work; while in the background, the Raven . . . 'Perched upon a bust of Pallas just above my chamber door– Perched, and sat, and nothing more.' "

Edgar A. Poe

Let us see how all this applies to *The Tell-Tale Heart*. Here the central emotion is guilt—guilt of the same kind as that suffered by Raskolnikov in Dostoevsky's *Crime and Punishment* and accompanied by the same impulse to confess. Poe's narrator kills an old man for no other reason than that he dislikes the old man's cataracted blue eye. The symbol is the sound of the victim's heartbeat—real at first, while he lies dying, and later beating louder and louder in the disordered imagination of the murderer until it forces him to shriek out his confession to the police.

In *The Masque of the Red Death*, the controlling emotion is fear of death, its symbol the "Red Death" that announced itself in "scarlet stains" on the body of its victim. Like many of Poe's other symbols, this one is extremely powerful. It summons up mankind's ancient fear of epidemics, the plagues of the Middle Ages, perhaps even the plague that ravaged Paris in the author's time. True to its title, the story itself becomes a Renaissance masque that has the quality of a morality play. No great wealth, it tells us, can escape death; no iron gates can shut it out. Death comes dancing in the midst of every human gaiety.

The Tell-Tale Heart



rue!–nervous–very, very dreadfully nervous I had been and am; but why *will* you say that I am mad? The disease had sharpened my senses–not destroyed–not dulled them. Above all was the sense of hearing acute. I heard all things in the heaven and in the earth. I heard many things in hell. How, then, am I mad? Hearken! and observe how healthily–how calmly I can tell you the whole story.

It is impossible to say how first the idea entered my brain; but once conceived, it haunted me day and night. Object there was none. Passion there was none. I loved the old man. He had never wronged me. He had never given me insult. For his gold I had no desire. I think it was his eye! yes, it was this! One of his eyes resembled that of a vulture–a pale blue eye, with a film over it. Whenever it fell upon me, my blood ran cold; and so by degrees–very gradually–I made up my mind to take the life of the old man, and thus rid myself of the eye forever.

Now this is the point. You fancy me mad. Madmen know nothing. But you should have seen *me*. You should have seen how wisely I proceeded–with what caution–with what foresight–with what dissimulation I went to work! I was never kinder to the old man than during the whole week before I killed him. And every night, about midnight, I turned the latch of his door and opened it–oh, so gently! And then, when I had made an opening sufficient for my head, I put in a dark lantern, all closed, closed, so that no light shone out, and then I thrust in my head. Oh, you would have laughed to see how cunningly I thrust it in! I moved it slowly–very, very slowly, so that I might not disturb the old man's sleep. It took me an hour to place my whole head within the opening so far that I could see him as he lay upon his bed. Ha!–would a madman have been so wise as this? And then, when my head was well in the room, I undid the lantern cautiously–oh, so cautiously–cautiously (for the hinges

creaked)–I undid it just so much that a single thin ray fell upon the vulture eye. And this I did for seven long nights–every night just at midnight–but I found the eye always closed; and so it was impossible to do the work; for it was not the old man who vexed me, but his Evil Eye. And every morning, when the day broke, I went boldly into the chamber, and spoke courageously to him, calling him by name in a hearty tone, and inquiring how he had passed the night. So you see he would have been a very profound old man, indeed, to suspect that every night, just at twelve, I looked in upon him while he slept.

Upon the eighth night I was more than usually cautious in opening the door. A watch's minute hand moves more quickly than did mine. Never before that night had I *felt* the extent of my own powers–of my sagacity. I could scarcely contain my feelings of triumph. To think that there I was, opening the door, little by little, and he not even to dream of my secret deeds or thoughts. I fairly chuckled at the idea; and perhaps he heard me; for he moved on the bed suddenly, as if startled. Now you may think that I drew back–but no. His room was as black as pitch with the thick darkness (for the shutters were close fastened, through fear of robbers), and so I knew that he could not see the opening of the door, and I kept pushing it on steadily, steadily.

I had my head in, and was about to open the lantern, when my thumb slipped upon the tin fastening, and the old man sprang up in the bed, crying out–"Who's there?"

I kept quite still and said nothing. For a whole hour I did not move a muscle, and in the meantime I did not hear him lie down. He was still sitting up in the bed listening–just as I have done, night after night, hearkening to the death watches in the wall.

Presently I heard a slight groan, and I knew it was the groan of mortal terror. It was not a groan of pain or of grief–oh, no!–it was the low stifled sound that arises from the bottom of the soul when overcharged with awe. I knew the sound well. Many a night, just at midnight, when all the world slept, it has welled up from my own bosom, deepening, with its dreadful echo, the terrors that distracted me. I say I knew it well. I knew what the old man felt, and pitied him, although I chuckled at heart. I knew that he had been lying awake ever since the first slight noise, when he had turned in the bed. His fears had been ever since growing upon him. He had been trying to fancy them causeless, but could not. He had been saying to himself–"It is nothing but the wind in the chimney–it is only a mouse crossing the floor," or "it is merely a cricket which has made a single chirp." Yes, he had been trying to comfort himself with these sup-

positions; but he had found all in vain. *All in vain*; because Death, in approaching him, had stalked with his black shadow before him, and enveloped the victim. And it was the mournful influence of the unperceived shadow that caused him to feel–although he neither saw nor heard–to *feel* the presence of my head within the room.

When I had waited a long time, very patiently, without hearing him lie down, I resolved to open a little–a very, very little crevice in the lantern. So I opened it–you cannot imagine how stealthily, stealthily–until, at length, a single dim ray, like the thread of the spider, shot from out the crevice and full upon the vulture eye.

It was open–wide, wide open–and I grew furious as I gazed upon it. I saw it with perfect distinctness–all a dull blue, with a hideous veil over it that chilled the very marrow in my bones; but I could see nothing else of the old man's face or person: for I had directed the ray as if by instinct, precisely upon the damned spot.

And now have I not told you that what you mistake for madness is but overacuteness of the senses?–now, I say, there came to my ears a low, dull, quick sound, such as a watch makes when enveloped in cotton. I knew *that* sound well too. It was the beating of the old man's heart. It increased my fury, as the beating of a drum stimulates the soldier into courage.

But even yet I refrained and kept still. I scarcely breathed. I held the lantern motionless. I tried how steadily I could maintain the ray upon the eye. Meantime the hellish tattoo of the heart increased. It grew quicker and quicker, and louder and louder every instant. The old man's terror *must* have been extreme! It grew louder, I say, louder every moment!–do you mark me well? I have told you that I am nervous: so I am. And now at the dead hour of the night, amid the dreadful silence of that old house, so strange a noise as this excited me to uncontrollable terror. Yet, for some minutes longer I refrained and stood still. But the beating grew louder, louder! I thought the heart must burst. And now a new anxiety seized me–the sound would be heard by a neighbor! The old man's hour had come! With a loud yell, I threw open the lantern and leaped into the room. He shrieked once–once only. In an instant I dragged him to the floor, and pulled the heavy bed over him. I then smiled gaily, to find the deed so far done. But, for many minutes, the heart beat on with a muffled sound. This, however, did not vex me; it would not be heard through the wall. At length it ceased. The old man was dead. I removed the bed and examined the corpse. Yes, he was stone, stone dead. I placed my hand upon the heart and held it there many minutes. There

was no pulsation. He was stone dead. His eye would trouble me no more.

If still you think me mad, you will think so no longer when I describe the wise precautions I took for the concealment of the body. The night waned, and I worked hastily, but in silence. First of all I dismembered the corpse. I cut off the head and the arms and the legs.

I then took up three planks from the flooring of the chamber, and deposited all between the scantlings. I then replaced the boards so cleverly, so cunningly, that no human eye—not even *his*—could have detected anything wrong. There was nothing to wash out—no stain of any kind—no blood spot whatever. I had been too wary for that. A tub had caught all—ha! ha!

When I had made an end to these labors, it was four o'clock—still dark as midnight. As the bell sounded the hour, there came a knocking at the street door. I went down to open it with a light heart—for what had I *now* to fear? There entered three men, who introduced themselves, with perfect suavity, as officers of the police. A shriek had been heard by a neighbor during the night; suspicion of foul play had been aroused; information had been lodged at the police office, and they (the officers) had been deputed to search the premises.

I smiled—for *what* had I to fear? I bade the gentlemen welcome. The shriek, I said, was my own in a dream. The old man, I mentioned, was absent in the country. I took my visitors all over the house. I bade them search—search *well*. I led them, at length, to *his* chamber. I showed them his treasures, secure, undisturbed. In the enthusiasm of my confidence, I brought chairs into the room, and desired them *here* to rest from their fatigues, while I myself, in the wild audacity of my perfect triumph, placed my own seat upon the very spot beneath which reposed the corpse of the victim.

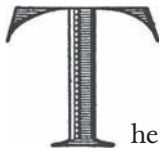
The officers were satisfied. My *manner* had convinced them. I was singularly at ease. They sat, and while I answered cheerily, they chatted familiar things. But, ere long, I felt myself getting pale and wished them gone. My head ached, and I fancied a ringing in my ears: but still they sat and still chatted. The ringing became more distinct—it continued and became more distinct: I talked more freely to get rid of the feeling: but it continued and gained definitiveness—until, at length, I found that the noise was *not* within my ears.

No doubt I now grew *very* pale—but I talked more fluently, and with a heightened voice. Yet the sound increased—and what could I do? It was *a low, dull, quick sound—much such a sound as a watch makes when enveloped in cotton.* I gasped for breath—and yet the officers heard it not.

I talked more quickly—more vehemently; but the noise steadily increased. I arose and argued about trifles, in a high key and with violent gesticulations, but the noise steadily increased. Why *would* they not be gone? I paced the floor to and fro with heavy strides, as if excited to fury by the observation of the men—but the noise steadily increased. Oh God! what *could* I do? I foamed—I raved—I swore! I swung the chair upon which I had been sitting, and grated it upon the boards, but the noise arose over all and continually increased. It grew louder—louder—*louder!* And still the men chatted pleasantly, and smiled. Was it possible they heard not? Almighty God!—no, no! They heard!—they suspected!—they *knew!*—they were making a mockery of my horror!—this I thought, and this I think. But any thing was better than this agony! Any thing was more tolerable than this derision! I could bear those hypocritical smiles no longer! I felt that I must scream or die!—and now—again!—hark! louder! louder! louder! *louder!*—

"Villains!" I shrieked, "dissemble no more! I admit the deed!—tear up the planks!—here, here!—it is the beating of his hideous heart!"

The Masque of the Red Death



he "Red Death" had long devastated the country. No pestilence had ever been so fatal, or so hideous. Blood was its Avatar and its seal–the redness and the horror of blood. There were sharp pains, and sudden dizziness, and then profuse bleeding at the pores, with dissolution. The scarlet stains upon the body and especially upon the face of the victim were the pest ban which shut him out from the aid and from the sympathy of his fellow men. And the whole seizure, progress, and termination of the disease were the incidents of half an hour.

But the Prince Prospero was happy and dauntless and sagacious. When his dominions were half depopulated, he summoned to his presence a thousand hale and lighthearted friends from among the knights and dames of his court, and with these retired to the deep seclusion of one of his castellated abbeys. This was an extensive and magnificent structure, the creation of the prince's own eccentric yet august taste. A strong and lofty wall girdled it in. This wall had gates of iron. The courtiers, having entered, brought furnaces and massy hammers and welded the bolts. They resolved to leave means neither of ingress nor egress to the sudden impulses of despair or of frenzy from within. The abbey was amply provisioned. With such precautions the courtiers might bid defiance to contagion. The external world could take care of itself. In the meantime it was folly to grieve, or to think. The prince had provided all the appliances of pleasure. There were buffoons, there were *improvisatori,* there were ballet dancers, there were musicians, there was Beauty, there was wine. All these and security were within. Without was the "Red Death."

It was toward the close of the fifth or sixth month of his seclusion, and while the pestilence raged most furiously abroad, that the Prince Prospero entertained his thousand friends at a masked ball of the most unusual magnificence.

It was a voluptuous scene, that masquerade. But first let me tell of the rooms in which it was held. There were seven—an imperial suite. In many palaces, however, such suites form a long and straight vista, while the folding doors slide back nearly to the walls on either hand, so that the view of the whole extent is scarcely impeded. Here the case was very different; as might have been expected from the duke's love of the bizarre. The apartments were so irregularly disposed that the vision embraced but little more than one at a time. There was a sharp turn at every twenty or thirty yards, and at each turn a novel effect. To the right and left, in the middle of each wall, a tall and narrow Gothic window looked out upon a closed corridor which pursued the windings of the suite. These windows were of stained glass whose color varied in accordance with the prevailing hue of the decorations of the chamber into which it opened. That at the eastern extremity was hung, for example, in blue—and vividly blue were its windows. The second chamber was purple in its ornaments and tapestries, and here the panes were purple. The third was green throughout, and so were the casements. The fourth was furnished and lighted with orange—the fifth with white—the sixth with violet. The seventh apartment was closely shrouded in black velvet tapestries that hung all over the ceiling and down the walls, falling in heavy folds upon a carpet of the same material and hue. But in this chamber only, the color of the windows failed to correspond with the decorations. The panes here were scarlet—a deep blood color. Now in no one of the seven apartments was there any lamp or candelabrum amid the profusion of golden ornaments that lay scattered to and fro or depended from the roof. There was no light of any kind emanating from lamp or candle within the suite of chambers. But in the corridors that followed the suite there stood, opposite to each window, a heavy tripod, bearing a brazier of fire, that projected its rays through the tinted glass and so glaringly illumined the room. And thus were produced a multitude of gaudy and fantastic appearances. But in the western or black chamber the effect of the firelight that streamed upon the dark hangings through the blood-tinted panes was ghastly in the extreme, and produced so wild a look upon the countenances of those who entered that there were few of the company bold enough to set foot within its precincts at all.

It was in this apartment, also, that there stood against the western wall a gigantic clock of ebony. Its pendulum swung to and fro with a dull, heavy, monotonous clang; and when the minute hand made the circuit of the face, and the hour was to be stricken, there came from the brazen lungs of the clock a sound which was clear and loud and deep

and exceedingly musical, but of so peculiar a note and emphasis that, at each lapse of an hour, the musicians of the orchestra were constrained to pause, momentarily, in their performance, to hearken to the sound; and thus the waltzers perforce ceased their evolutions; and there was a brief disconcert of the whole gay company; and, while the chimes of the clock yet rang, it was observed that the giddiest grew pale, and the more aged and sedate passed their hands over their brows as if in confused reverie or meditation. But when the echoes had fully ceased, a light laughter at once pervaded the assembly; the musicians looked at each other and smiled as if at their own nervousness and folly, and made whispering vows, each to the other, that the next chiming of the clock should produce in them no similar emotion; and then, after the lapse of sixty minutes (which embrace three thousand and six hundred seconds of the Time that flies), there came yet another chiming of the clock, and then were the same disconcert and tremulousness and meditation as before.

But, in spite of these things, it was a gay and magnificent revel. The tastes of the duke were peculiar. He had a fine eye for colors and effects. He disregarded the *decora* of mere fashion. His plans were bold and fiery, and his conceptions glowed with barbaric luster. There are some who would have thought him mad. His followers felt that he was not. It was necessary to hear and see and touch him to be *sure* that he was not.

He had directed, in great part, the movable embellishments of the seven chambers upon occasion of this great fete; and it was his own guiding taste which had given character to the masqueraders. Be sure they were grotesque. There were much glare and glitter and piquancy and phantasm—much of what has been since seen in *Hernani.* There were arabesque figures with unsuited limbs and appointments. There were delirious fancies such as the madman fashions. There was much of the beautiful, much of the wanton, much of the bizarre, something of the terrible, and not a little of that which might have excited disgust. To and fro in the seven chambers there stalked, in fact, a multitude of dreams. And these—the dreams—writhed in and about, taking hue from the rooms, and causing the wild music of the orchestra to seem as the echo of their steps. And, anon, there strikes the ebony clock which stands in the hall of the velvet. And then, for a moment, all is still, and all is silent save the voice of the clock. The dreams are stiff frozen as they stand. But the echoes of the chime die away—they have endured but an instant—and a light, half-subdued laughter floats after them as they depart. And now again the music swells, and the dreams live, and writhe to

and fro more merrily than ever, taking hue from the many tinted windows through which stream the rays from the tripods. But to the chamber which lies most westwardly of the seven there are now none of the maskers who venture; for the night is waning away; and there flows a ruddier light through the blood-colored panes; and the blackness of the sable drapery appalls; and to him whose foot falls upon the sable carpet, there comes from the near clock of ebony a muffled peal more solemnly emphatic than any which reaches *their* ears who indulge in the more remote gaieties of the other apartments.

But these other apartments were densely crowded, and in them beat feverishly the heart of life. And the revel went whirlingly on, until at length there commenced the sounding of midnight upon the clock. And then the music ceased, as I have told; and the evolutions of the waltzers were quieted; and there was an uneasy cessation of all things as before. But now there were twelve strokes to be sounded by the bell of the clock; and thus it happened, perhaps, that more of thought crept, with more of time, into the meditations of the thoughtful among those who reveled. And thus too it happened, perhaps, that before the last echoes of the last chime had utterly sunk into silence, there were many individuals in the crowd who had found leisure to become aware of the presence of a masked figure which had arrested the attention of no single individual before. And the rumor of this new presence having spread itself whisperingly around, there arose at length from the whole company a buzz, or murmur, expressive of disapprobation and surprise—then, finally, of terror, of horror, and of disgust.

In an assembly of phantasms such as I have painted, it may well be supposed that no ordinary appearance could have excited such sensation. In truth the masquerade license of the night was nearly unlimited; but the figure in question had out-Heroded Herod, and gone beyond the bounds of even the prince's indefinite decorum. There are chords in the hearts of the most reckless which cannot be touched without emotion. Even with the utterly lost, to whom life and death are equally jests, there are matters of which no jest can be made. The whole company, indeed, seemed now deeply to feel that in the costume and bearing of the stranger neither wit nor propriety existed. The figure was tall and gaunt, and shrouded from head to foot in the habiliments of the grave. The mask which concealed the visage was made so nearly to resemble the countenance of a stiffened corpse that the closest scrutiny must have had difficulty in detecting the cheat. And yet all this might have been endured, if not approved, by the mad revelers around. But the mummer had

gone so far as to assume the type of the Red Death. His vesture was dabbled in *blood*–and his broad brow, with all the features of the face, was besprinkled with the scarlet horror.

When the eyes of Prince Prospero fell upon this spectral image (which, with a slow and solemn movement, as if more fully to sustain its role, stalked to and fro among the waltzers) he was seen to be convulsed, in the first moment with a strong shudder either of terror or distaste; but, in the next, his brow reddened with rage.

"Who dares"–he demanded hoarsely of the courtiers who stood near him–"who dares insult us with this blasphemous mockery? Seize him and unmask him–that we may know whom we have to hang, at sunrise, from the battlements!"

It was in the eastern or blue chamber in which stood the Prince Prospero as he uttered these words. They rang throughout the seven rooms loudly and clearly, for the prince was a bold and robust man, and the music had become hushed at the waving of his hand.

It was in the blue room where stood the prince, with a group of pale courtiers by his side. At first, as he spoke, there was a slight rushing movement of this group in the direction of the intruder, who, at the moment was also near at hand, and now, with deliberate and stately step, made closer approach to the speaker. But from a certain nameless awe with which the mad assumptions of the mummer had inspired the whole party, there were found none who put forth hand to seize him; so that, unimpeded, he passed within a yard of the prince's person; and, while the vast assembly, as if with one impulse, shrank from the centers of the rooms to the walls, he made his way uninterruptedly, but with the same solemn and measured step which had distinguished him from the first, through the blue chamber to the purple–through the purple to the green–through the green to the orange–through this again to the white–and even thence to the violet, ere a decided movement had been made to arrest him. It was then, however, that the Prince Prospero, maddening with rage and the shame of his own momentary cowardice, rushed hurriedly through the six chambers, while none followed him on account of a deadly terror that had seized upon all. He bore aloft a drawn dagger, and had approached, in rapid impetuosity, to within three or four feet of the retreating figure, when the latter, having attained the extremity of the velvet apartment turned suddenly and confronted his pursuer. There was a sharp cry–and the dagger dropped gleaming upon the sable carpet, upon which, instantly afterward, fell prostrate in death the Prince Prospero. Then, summoning the wild courage of despair, a throng of the

revelers at once threw themselves into the black apartment, and, seizing the mummer whose tall figure stood erect and motionless within the shadow of the ebony clock, gasped in unutterable horror at finding the grave cerements and corpselike mask, which they handled with so violent a rudeness, untenanted by any tangible form.

And now was acknowledged the presence of the Red Death. He had come like a thief in the night. And one by one dropped the revelers in the blood-bedewed halls of their revel, and died each in the despairing posture of his fall. And the life of the ebony clock went out with that of the last of the gay. And the flames of the tripods expired. And Darkness and Decay and the Red Death held illimitable dominion over all.

Robert Louis Stevenson

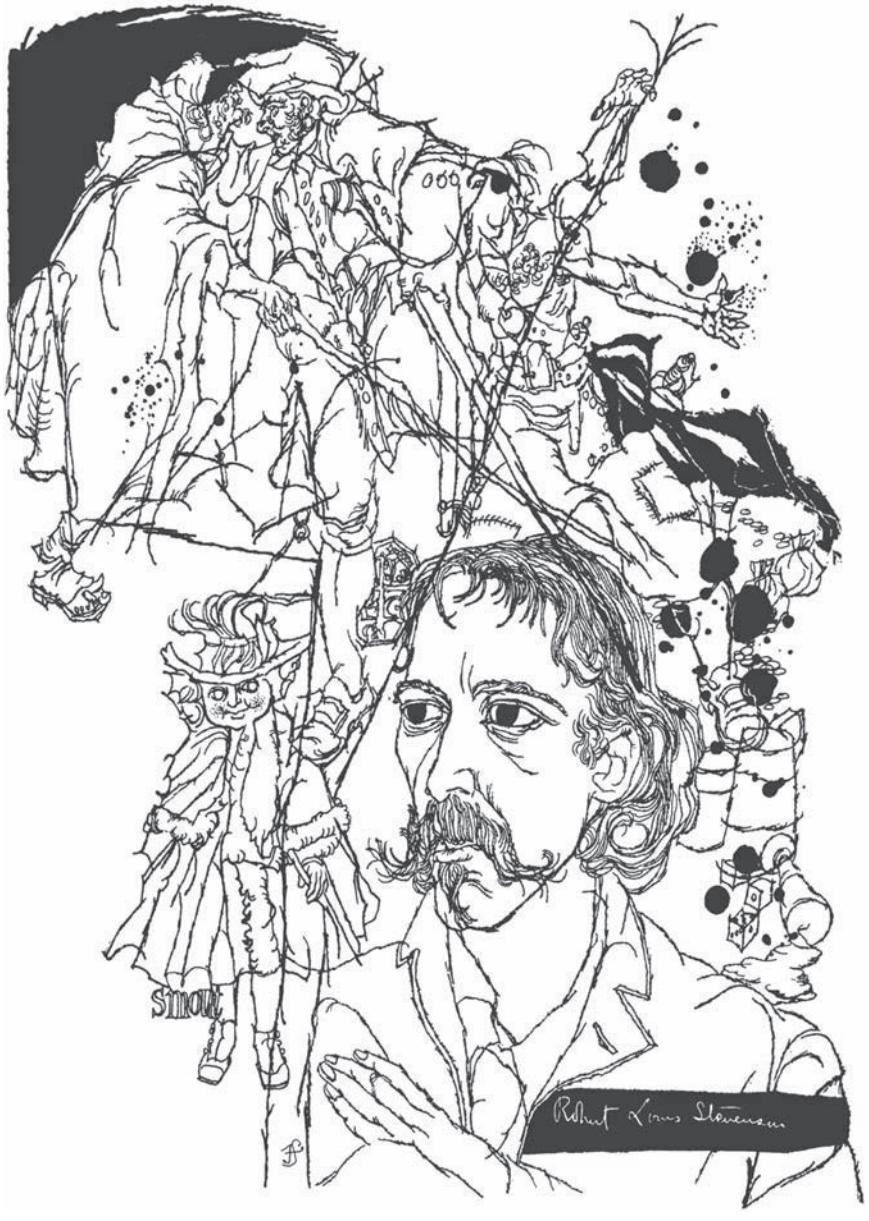
1850–1894

Robert Louis Stevenson was born in Edinburgh, November 13, 1850. At sixteen he entered Edinburgh University. He was expected to follow the family profession, lighthouse engineering. He compromised on the law. Like Scott, he was admitted to the bar. But he trained himself for literature from boyhood on.

From the first his health was delicate. The evidence suggests that his ailment was not tuberculosis but probably a case of fibrinous bronchitis that involved frequent and dangerous hemorrhages. Trips to the Continent gave him materials for *An Inland Voyage* and *Travels with a Donkey in the Cevennes.* At Fontainebleau in 1876 he met Fanny Vandegrift Osbourne, an American woman separated from her husband. When she went back to California two years later, Stevenson followed and, after a divorce, married her. *Across the Plains* and *The Silverado Squatters* describe that episode.

In 1880 the Stevensons went to Scotland. There were various pilgrimages, always in search of a kinder climate, to Davos in Switzerland, the Scottish Highlands, Provence, and Bournemouth in England. In the 1880's, despite many illnesses, he wrote the immortal *Treasure Island,* and also *The Black Arrow, Prince Otto, A Child's Garden of Verses,* and *Kidnapped. The Strange Case of Dr. Jekyll and Mr. Hyde,* published in 1886, made him a broadly popular writer for the first time.

Notes from the artist: ". . . some of the rough-and-ready characters of Stevenson's novels, dominated by Long John Silver of Treasure Island, *surround the author. 'Smout' was Stevenson's nickname as a child."*


SILVER
Robert Louis Stevenson

A year later the Stevensons left Europe for good. After a stay at Saranac in New York State, they returned to California and chartered the schooner yacht *Casco*, out of San Francisco, for a cruise to the Marquesas, the Paumotus, Tahiti, and Hawaii. At Waikiki, Stevenson finished *The Master of Ballantrae*, published in 1889. He visited the leper colony on Molokai and wrote a fiery defense of Father Damien, the lepers' priest. In 1889 a second trip, aboard the copra schooner *Equator*, took him to the Gilbert Islands and Samoa. There were later voyages to Sydney and to the other islands.

The Stevensons settled in Samoa. He became what he would have called a bonnet laird and the Samoans called a *matai*–that is, "a small landed proprietor." He was given the island name of Tusitala (Storyteller). Here he wrote *In the South Seas*, still one of the best books about that region; *David Balfour*, *The Ebb-Tide*, and the unfinished *Weir of Hermiston*. He died of a cerebral hemorrhage on December 3, 1894.

J. B. Priestley describes a novel about a man who is "both a murderer and a bewildered innocent, divided between extreme evil and goodness." The novel is Dickens' last book, *The Mystery of Edwin Drood*, but it might just as well have been Stevenson's *The Strange Case of Dr. Jekyll and Mr. Hyde*, written some fifteen years later.

Stevenson may well have been amused at the number of interpretations the critics found for his story. It was evidently a mirror for every mind. Let us see how many aspects *we* can discover in it.

(1) It is a Victorian thriller, and a good one. It can be read–very pleasurably too–on that level alone. It belongs high up in the Victorian mystery tradition of Wilkie Collins and the later Dickens, who learned from Collins. It is melodrama, but melodrama that expands into other meanings. The anarchic violence of the beast-man Hyde is played off against what seemed the immovable stability of upper middle-class London. And what artful storytelling it is! Centripetal in structure, it coils in on the center until at last we are admitted to Dr. Jekyll's laboratory, the birthplace of the mystery. Even then, in Jekyll's statement, we are allowed one final intimacy. We learn from his own words what he did and how it felt.

(2) *Dr. Jekyll and Mr. Hyde* is also psychological melodrama. We know that Stevenson had been much impressed by Dostoevsky's *Crime and Punishment*. He had been reading French and English

psychiatric literature. The idea of split personality–that is, of the individual who seems to comprise two or more fairly distinct personalities–must have struck him as a godsend. He saw what dramatic use it could be put to in literature. But he was careful to make it doubly plausible by introducing the idea of a drug that would bring about the change from one personality to another. Science fiction (and *Dr. Jekyll and Mr. Hyde* is that, among other things) has often predicted new turns in science. Thus we now have real drugs capable of producing something like the same effect as Dr. Jekyll's imaginary potion. But Stevenson did not invent the figure we have come to call the Mad Scientist. He is at least as old as the medieval alchemists or Dr. Frankenstein. He appears again in Hawthorne's *Rappaccini's Daughter*.[1]

(3) Like *Pilgrim's Progress*, Stevenson's tale is an allegory about the moral nature of man. Or rather, the moral nature of Western man. It revolves on the paired and opposed ideas of good and evil, respectively and boldly symbolized in Dr. Jekyll and Mr. Hyde. But Jekyll's nature contains both elements. Hyde is purely evil. Perhaps we might be more convinced of this if Stevenson had persuaded us by suggestion, as his friend Henry James did in *The Turn of the Screw*. Hyde's explosive brutality creates the effect of mental illness rather than calculated evil. Even so, he is frightening enough.

[1]See Vol. 3, pp. 128–152, in this set.

The Strange Case of Dr. Jekyll and Mr. Hyde

STORY OF THE DOOR

Mr. Utterson the lawyer was a man of a rugged countenance, that was never lighted by a smile; cold, scanty, and embarrassed in discourse; backward in sentiment; lean, long, dusty, dreary, and yet somehow lovable. At friendly meetings, and when the wine was to his taste, something eminently human beaconed from his eye; something indeed which never found its way into his talk, but which spoke not only in these silent symbols of the after-dinner face, but more often and loudly in the acts of his life. He was austere with himself; drank gin when he was alone, to mortify a taste for vintages; and though he enjoyed the theatre, had not crossed the doors of one for twenty years. But he had an approved tolerance for others; sometimes wondering, almost with envy, at the high pressure of spirits involved in their misdeeds; and in any extremity inclined to help rather than to reprove. "I incline to Cain's heresy," he used to say quaintly: "I let my brother go to the devil in his own way." In this character, it was frequently his fortune to be the last reputable acquaintance and the last good influence in the lives of down-going men. And to such as these, so long as they came about his chambers, he never marked a shade of change in his demeanour.

No doubt the feat was easy to Mr. Utterson; for he was undemonstrative at the best, and even his friendship seemed to be founded in a similar catholicity of good nature. It is the mark of a modest man to accept his friendly circle ready-made from the hands of opportunity; and that was the lawyer's way. His friends were those of his own blood or those whom he had known the longest; his affections, like ivy, were the growth of time, they implied no aptness in the object. Hence, no doubt,

the bond that united him to Mr. Richard Enfield, his distant kinsman, the well-known man about town. It was a nut to crack for many, what these two could see in each other, or what subject they could find in common. It was reported by those who encountered them in their Sunday walks, that they said nothing, looked singularly dull, and would hail with obvious relief the appearance of a friend. For all that, the two men put the greatest store by these excursions, counted them the chief jewel of each week, and not only set aside occasions of pleasure, but even resisted the calls of business, that they might enjoy them uninterrupted.

It chanced on one of these rambles that their way led them down a by-street in a busy quarter of London. The street was small and what is called quiet, but it drove a thriving trade on the week days. The inhabitants were all doing well, it seemed, and all emulously hoping to do better still, and laying out the surplus of their gains in coquetry; so that the shop fronts stood along that thoroughfare with an air of invitation, like rows of smiling saleswomen. Even on Sunday, when it veiled its more florid charms and lay comparatively empty of passage, the street shone out in contrast to its dingy neighbourhood, like a fire in a forest; and with its freshly painted shutters, well-polished brasses, and general cleanliness and gaiety of note, instantly caught and pleased the eye of the passenger.

Two doors from one corner, on the left hand going east, the line was broken by the entry of a court; and just at that point, a certain sinister block of building thrust forward its gable on the street. It was two storys high; showed no window, nothing but a door on the lower story and a blind forehead of discoloured wall on the upper; and bore in every feature the marks of prolonged and sordid negligence. The door, which was equipped with neither bell nor knocker, was blistered and distained. Tramps slouched into the recess and struck matches on the panels; children kept shop upon the steps; the schoolboy had tried his knife on the moldings; and for close on a generation, no one had appeared to drive away these random visitors or to repair their ravages.

Mr. Enfield and the lawyer were on the other side of the by-street; but when they came abreast of the entry, the former lifted up his cane and pointed.

"Did you ever remark that door?" he asked; and when his companion had replied in the affirmative, "It is connected in my mind," added he, "with a very odd story."

"Indeed?" said Mr. Utterson, with a slight change of voice, "and what was that?"

"Well, it was this way," returned Mr. Enfield: "I was coming home from some place at the end of the world, about three o'clock of a black winter morning, and my way lay through a part of town where there was literally nothing to be seen but lamps. Street after street, and all the folks asleep–street after street, all lighted up as if for a procession and all as empty as a church–till at last I got into that state of mind when a man listens and listens and begins to long for the sight of a policeman. All at once, I saw two figures: one a little man who was stumping along eastward at a good walk, and the other a girl of maybe eight or ten who was running as hard as she was able down a cross street. Well, sir, the two ran into one another naturally enough at the corner; and then came the horrible part of the thing; for the man trampled calmly over the child's body and left her screaming on the ground. It sounds nothing to hear, but it was hellish to see. It wasn't like a man; it was like some damned Juggernaut. I gave a view halloa, took to my heels, collared my gentleman, and brought him back to where there was already quite a group about the screaming child. He was perfectly cool and made no resistance, but gave me one look, so ugly that it brought out the sweat on me like running. The people who had turned out were the girl's own family; and pretty soon, the doctor, for whom she had been sent, put in his appearance. Well, the child was not much the worse, more frightened, according to the Sawbones; and there you might have supposed would be an end to it. But there was one curious circumstance. I had taken a loathing to my gentleman at first sight. So had the child's family, which was only natural. But the doctor's case was what struck me. He was the usual cut-and-dry apothecary, of no particular age and colour, with a strong Edinburgh accent, and about as emotional as a bagpipe. Well, sir, he was like the rest of us; every time he looked at my prisoner, I saw that Sawbones turn sick and white with the desire to kill him. I knew what was in his mind, just as he knew what was in mine; and killing being out of the question, we did the next best. We told the man we could and would make such a scandal out of this, as should make his name stink from one end of London to the other. If he had any friends or any credit, we undertook that he should lose them. And all the time, as we were pitching it in red hot, we were keeping the women off him as best we could, for they were as wild as harpies. I never saw a circle of such hateful faces; and there was the man in the middle, with a kind of black, sneering coolness–frightened too, I could see that–but carrying it off, sir, really like Satan. 'If you choose to make capital out of this accident,' said he, 'I am naturally helpless. No gentleman but wishes to avoid a scene,' says he. 'Name your

figure.' Well, we screwed him up to a hundred pounds for the child's family; he would have clearly liked to stick out; but there was something about the lot of us that meant mischief, and at last he struck. The next thing was to get the money; and where do you think he carried us but to that place with the door?–whipped out a key, went in, and presently came back with the matter of ten pounds in gold and a cheque for the balance on Coutts's, drawn payable to bearer and signed with a name that I can't mention, though it's one of the points of my story, but it was a name at least very well known and often printed. The figure was stiff; but the signature was good for more than that, if it was only genuine. I took the liberty of pointing out to my gentleman that the whole business looked apocryphal, and that a man does not, in real life, walk into a cellar door at four in the morning and come out of it with another man's cheque for close upon a hundred pounds. But he was quite easy and sneering. 'Set your mind at rest,' says he, 'I will stay with you till the banks open and cash the cheque myself.' So we all set off, the doctor, and the child's father, and our friend and myself, and passed the rest of the night in my chambers; and next day, when we had breakfasted, went in a body to the bank. I gave in the cheque myself, and said I had every reason to believe it was a forgery. Not a bit of it. The cheque was genuine."

"Tut-tut," said Mr. Utterson.

"I see you feel as I do," said Mr. Enfield. "Yes, it's a bad story. For my man was a fellow that nobody could have to do with, a really damnable man; and the person that drew the cheque is the very pink of the proprieties, celebrated too, and (what makes it worse) one of your fellows who do what they call good. Black mail, I suppose; an honest man paying through the nose for some of the capers of his youth. Black Mail House is what I call that place with the door, in consequence. Though even that, you know, is far from explaining all," he added, and with the words fell into a vein of musing.

From this he was recalled by Mr. Utterson asking rather suddenly: "And you don't know if the drawer of the cheque lives there?"

"A likely place, isn't it?" returned Mr. Enfield. "But I happen to have noticed his address; he lives in some square or other."

"And you never asked about the–place with the door?" said Mr. Utterson.

"No, sir: I had a delicacy," was the reply. "I feel very strongly about putting questions; it partakes too much of the style of the day of judgment. You start a question, and it's like starting a stone. You sit quietly

on the top of a hill; and away the stone goes, starting others; and presently some bland old bird (the last you would have thought of) is knocked on the head in his own back garden and the family have to change their name. No, sir, I make it a rule of mine: the more it looks like Queer Street, the less I ask."

"A very good rule, too," said the lawyer.

"But I have studied the place for myself," continued Mr. Enfield. "It seems scarcely a house. There is no other door and nobody goes in or out of that one but, once in a great while, the gentleman of my adventure. There are three windows looking on the court on the first floor; none below; the windows are always shut, but they're clean. And then there is a chimney which is generally smoking, so somebody must live there. And yet it's not so sure; for the buildings are so packed together about that court, that it's hard to say where one ends and another begins."

The pair walked on again for awhile in silence; and then "Enfield," said Mr. Utterson, "that's a good rule of yours."

"Yes, I think it is," returned Enfield.

"But for all that," continued the lawyer, "there's one point I want to ask: I want to ask the name of that man who walked over the child."

"Well," said Mr. Enfield, "I can't see what harm it would do. It was a man of the name of Hyde."

"H'm," said Mr. Utterson. "What sort of a man is he to see?"

"He is not easy to describe. There is something wrong with his appearance; something displeasing, something downright detestable. I never saw a man I so disliked, and yet I scarce know why. He must be deformed somewhere; he gives a strong feeling of deformity, although I couldn't specify the point. He's an extraordinary looking man, and yet I really can name nothing out of the way. No, sir; I can make no hand of it; I can't describe him. And it's not want of memory; for I declare I can see him this moment."

Mr. Utterson again walked some way in silence and obviously under a weight of consideration. "You are sure he used a key?" he inquired at last.

"My dear sir . . ." began Enfield, surprised out of himself.

"Yes, I know," said Utterson; "I know it must seem strange. The fact is, if I do not ask you the name of the other party, it is because I know it already. You see, Richard, your tale has gone home. If you have been inexact in any point, you had better correct it."

"I think you might have warned me," returned the other with a touch of sullenness. "But I have been pedantically exact, as you call it. The fel-

low had a key; and what's more, he has it still. I saw him use it, not a week ago."

Mr. Utterson sighed deeply but never said a word; and the young man presently resumed. "Here is another lesson to say nothing," said he. "I am ashamed of my long tongue. Let us make a bargain never to refer to this again."

"With all my heart," said the lawyer. "I shake hands on that, Richard."

SEARCH FOR MR. HYDE

That evening Mr. Utterson came home to his bachelor house in sombre spirits and sat down to dinner without relish. It was his custom of a Sunday, when this meal was over, to sit close by the fire, a volume of some dry divinity on his reading-desk, until the clock of the neighboring church rang out the hour of twelve, when he would go soberly and gratefully to bed. On this night, however, as soon as the cloth was taken away, he took up a candle and went into his business room. There he opened his safe, took from the most private part of it a document endorsed on the envelope as Dr. Jekyll's Will, and sat down with a clouded brow to study its contents. The will was holograph, for Mr. Utterson, though he took charge of it now that it was made, had refused to lend the least assistance in the making of it; it provided not only that, in case of the decease of Henry Jekyll, M.D., D.C.L., LL.D., F.R.S., etc., all his possessions were to pass into the hands of his "friend and benefactor Edward Hyde," but that in case of Dr. Jekyll's "disappearance or unexplained absence for any period exceeding three calendar months," the said Edward Hyde should step into the said Henry Jekyll's shoes without further delay and free from any burden or obligation, beyond the payment of a few small sums to the members of the doctor's household. This document had long been the lawyer's eyesore. It offended him both as a lawyer and as a lover of the sane and customary sides of life, to whom the fanciful was the immodest. And hitherto it was his ignorance of Mr. Hyde that had swelled his indignation; now, by a sudden turn, it was his knowledge. It was already bad enough when the name was but a name of which he could learn no more. It was worse when it began to be clothed upon with detestable attributes; and out of the shifting, insubstantial mists that had so long baffled his eye, there leaped up the sudden, definite presentment of a fiend.

"I thought it was madness," he said, as he replaced the obnoxious paper in the safe, "and now I begin to fear it is disgrace."

With that he blew out his candle, put on a great-coat, and set forth in the direction of Cavendish Square, that citadel of medicine, where his friend, the great Dr. Lanyon, had his house and received his crowding patients. "If any one knows, it will be Lanyon," he had thought.

The solemn butler knew and welcomed him; he was subjected to no stage of delay, but ushered direct from the door to the dining-room where Dr. Lanyon sat alone over his wine. This was a hearty, healthy, dapper, red-faced gentleman, with a shock of hair prematurely white, and a boisterous and decided manner. At sight of Mr. Utterson he sprang up from his chair and welcomed him with both hands. The geniality, as was the way of the man, was somewhat theatrical to the eye; but it reposed on genuine feeling. For these two were old friends, old mates both at school and college, both thorough respecters of themselves and of each other, and, what does not always follow, men who thoroughly enjoyed each other's company.

After a little rambling talk, the lawyer led up to the subject which so disagreeably preoccupied his mind.

"I suppose, Lanyon," said he, "you and I must be the two oldest friends that Henry Jekyll has?"

"I wish the friends were younger," chuckled Dr. Lanyon. "But I suppose we are. And what of that? I see little of him now."

"Indeed?" said Utterson. "I thought you had a bond of common interest."

"We had," was the reply. "But it is more than ten years since Henry Jekyll became too fanciful for me. He began to go wrong, wrong in mind; and though of course I continue to take an interest in him for old sake's sake, as they say, I see and I have seen devilish little of the man. Such unscientific balderdash," added the doctor, flushing suddenly purple, "would have estranged Damon and Pythias."

This little spirit of temper was somewhat of a relief to Mr. Utterson. "They have only differed on some point of science," he thought; and being a man of no scientific passions (except in the matter of conveyancing), he even added: "It is nothing worse than that!" He gave his friend a few seconds to recover his composure, and then approached the question he had come to put. "Did you ever come across a protégé of his—one Hyde?" he asked.

"Hyde?" repeated Lanyon. "No. Never heard of him. Since my time."

That was the amount of information that the lawyer carried back with him to the great, dark bed on which he tossed to and fro, until the small hours of the morning began to grow large. It was a night of little ease to

his toiling mind, toiling in mere darkness and besieged by questions.

Six o'clock struck on the bells of the church that was so conveniently near to Mr. Utterson's dwelling, and still he was digging at the problem. Hitherto it had touched him on the intellectual side alone; but now his imagination also was engaged, or rather enslaved; and as he lay and tossed in the gross darkness of the night and the curtained room, Mr. Enfield's tale went by before his mind in a scroll of lighted pictures. He would be aware of the great field of lamps of a nocturnal city; then of the figure of a man walking swiftly; then of a child running from the doctor's; and then these met, and that human Juggernaut trod the child down and passed on regardless of her screams. Or else he would see a room in a rich house, where his friend lay asleep, dreaming and smiling at his dreams; and then the door of that room would be opened, the curtains of the bed plucked apart, the sleeper recalled, and lo! there would stand by his side a figure to whom power was given, and even at that dead hour, he must rise and do its bidding. The figure in these two phases haunted the lawyer all night; and if at any time he dozed over, it was but to see it glide more stealthily through sleeping houses, or move the more swiftly and still the more swiftly, even to dizziness, through wider labyrinths of lamp-lighted city, and at every street corner crush a child and leave her screaming. And still the figure had no face by which he might know it; even in his dreams, it had no face, or one that baffled him and melted before his eyes; and thus it was that there sprang up and grew apace in the lawyer's mind a singularly strong, almost an inordinate, curiosity to behold the features of the real Mr. Hyde. If he could but once set eyes on him, he thought the mystery would lighten and perhaps roll altogether away, as was the habit of mysterious things when well examined. He might see a reason for his friend's strange preference or bondage (call it which you please) and even for the startling clause of the will. At least it would be a face worth seeing: the face of a man who was without bowels of mercy, a face which had but to show itself to raise up in the mind of the unimpressionable Enfield a spirit of enduring hatred.

From that time forward, Mr. Utterson began to haunt the door in the by-street of shops. In the morning before office hours, at noon when business was plenty, and time scarce, at night under the face of the fogged city moon, by all lights and at all hours of solitude or concourse, the lawyer was to be found on his chosen post.

"If he be Mr. Hyde," he had thought, "I shall be Mr. Seek."

And at last his patience was rewarded. It was a fine dry night; frost in the air; the streets as clean as a ball-room floor; the lamps, unshaken by

any wind, drawing a regular pattern of light and shadow. By ten o'clock, when the shops were closed, the by-street was very solitary and, in spite of the low growl of London from all round, very silent. Small sounds carried far; domestic sounds out of the houses were clearly audible on either side of the roadway; and the rumour of the approach of any passenger preceded him by a long time. Mr. Utterson had been some minutes at his post, when he was aware of an odd, light footstep drawing near. In the course of his nightly patrols, he had long grown accustomed to the quaint effect with which the footfalls of a single person, while he is still a great way off, suddenly spring out distinct from the vast hum and clatter of the city. Yet his attention had never before been so sharply and decisively arrested; and it was with a strong, superstitious prevision of success that he withdrew into the entry of the court.

The steps drew swiftly nearer, and swelled out suddenly louder as they turned the end of the street. The lawyer, looking forth from the entry, could soon see what manner of man he had to deal with. He was small and very plainly dressed, and the look of him, even at that distance, went somehow strongly against the watcher's inclination. But he made straight for the door, crossing the roadway to save time; and as he came, he drew a key from his pocket like one approaching home.

Mr. Utterson stepped out and touched him on the shoulder as he passed. "Mr. Hyde, I think?"

Mr. Hyde shrank back with a hissing intake of the breath. But his fear was only momentary; and though he did not look the lawyer in the face, he answered coolly enough: "That is my name. What do you want?"

"I see you are going in," returned the lawyer. "I am an old friend of Dr. Jekyll's–Mr. Utterson of Gaunt Street–you must have heard my name; and meeting you so conveniently, I thought you might admit me."

"You will not find Dr. Jekyll; he is from home," replied Mr. Hyde, blowing in the key. And then suddenly, but still without looking up, "How did you know me?" he asked.

"On your side," said Mr. Utterson, "will you do me a favour?"

"With pleasure," replied the other. "What shall it be?"

"Will you let me see your face?" asked the lawyer.

Mr. Hyde appeared to hesitate, and then, as if upon some sudden reflection, fronted about with an air of defiance; and the pair stared at each other pretty fixedly for a few seconds. "Now I shall know you again," said Mr. Utterson. "It may be useful."

"Yes," returned Mr. Hyde, "it is as well we have met; and *à propos*,

you should have my address." And he gave a number of a street in Soho.

"Good God!" thought Mr. Utterson, "can he, too, have been thinking of the will?" But he kept his feelings to himself and only grunted in acknowledgment of the address.

"And now," said the other, "how did you know me?"

"By description," was the reply.

"Whose description?"

"We have common friends," said Mr. Utterson.

"Common friends?" echoed Mr. Hyde, a little hoarsely. "Who are they?"

"Jekyll, for instance," said the lawyer.

"He never told you," cried Mr. Hyde, with a flush of anger. "I did not think you would have lied."

"Come," said Mr. Utterson, "that is not fitting language."

The other snarled aloud into a savage laugh; and the next moment, with extraordinary quickness, he had unlocked the door and disappeared into the house.

The lawyer stood awhile when Mr. Hyde had left him, the picture of disquietude. Then he began slowly to mount the street, pausing every step or two and putting his hand to his brow like a man in mental perplexity. The problem he was thus debating as he walked, was one of a class that is rarely solved. Mr. Hyde was pale and dwarfish, he gave an impression of deformity without any nameable malformation, he had a displeasing smile, he had borne himself to the lawyer with a sort of murderous mixture of timidity and boldness, and he spoke with a husky, whispering and somewhat broken voice; all these were points against him, but not all of these together could explain the hitherto unknown disgust, loathing, and fear with which Mr. Utterson regarded him. "There must be something else," said the perplexed gentleman. "There *is* something more, if I could find a name for it. God bless me, the man seems hardly human! Something troglodytic, shall we say? Or can it be the old story of Dr. Fell? Or is it the mere radiance of a foul soul that thus transpires through, and transfigures, its clay continent? The last, I think; for, O my poor old Harry Jekyll, if ever I read Satan's signature upon a face, it is on that of your new friend."

Round the corner from the by-street, there was a square of ancient, handsome houses, now for the most part decayed from their high estate and let in flats and chambers to all sorts and conditions of men: map-engravers, architects, shady lawyers and the agents of obscure enterprises. One house, however, second from the corner, was still occupied

entire; and at the door of this, which wore a great air of wealth and comfort, though it was now plunged in darkness except for the fanlight, Mr. Utterson stopped and knocked. A well-dressed, elderly servant opened the door.

"Is Dr. Jekyll at home, Poole?" asked the lawyer.

"I will see, Mr. Utterson," said Poole, admitting the visitor, as he spoke, into a large, low-roofed, comfortable hall, paved with flags, warmed (after the fashion of a country house) by a bright, open fire, and furnished with costly cabinets of oak. "Will you wait here by the fire, sir? or shall I give you a light in the dining-room?"

"Here, thank you," said the lawyer, and he drew near and leaned on the tall fender. This hall, in which he was now left alone, was a pet fancy of his friend the doctor's; and Utterson himself was wont to speak of it as the pleasantest room in London. But to-night there was a shudder in his blood; the face of Hyde sat heavy on his memory; he felt (what was rare with him) a nausea and distaste of life; and in the gloom of his spirits, he seemed to read a menace in the flickering of the firelight on the polished cabinets and the uneasy starting of the shadow on the roof. He was ashamed of his relief, when Poole presently returned to announce that Dr. Jekyll was gone out.

"I saw Mr. Hyde go in by the old dissecting-room door, Poole," he said. "Is that right, when Dr. Jekyll is from home?"

"Quite right, Mr. Utterson, sir," replied the servant. "Mr. Hyde has a key."

"Your master seems to repose a great deal of trust in that young man, Poole," resumed the other musingly.

"Yes, sir, he do indeed," said Poole. "We have all orders to obey him."

"I do not think I ever met Mr. Hyde?" asked Utterson.

"O, dear no, sir. He never *dines* here," replied the butler. "Indeed we see very little of him on this side of the house; he mostly comes and goes by the laboratory."

"Well, good-night, Poole."

"Good-night, Mr. Utterson."

And the lawyer set out homeward with a very heavy heart. "Poor Harry Jekyll," he thought, "my mind misgives me he is in deep waters! He was wild when he was young; a long while ago to be sure; but in the law of God, there is no statute of limitations. Ay, it must be that; the ghost of some old sin, the cancer of some concealed disgrace: punishment coming, *pede claudo*, years after memory has forgotten and self-love condoned the fault." The lawyer, scared by the thought, brooded

awhile on his own past, groping in all the corners of memory, lest by chance some Jack-in-the-box of an old iniquity should leap to light there. His past was fairly blameless; few men could read the rolls of their life with less apprehension; yet he was humbled to the dust by the many ill things he had done, and raised up again into a sober and fearful gratitude by the many that he had come so near to doing, yet avoided. And then by a return on his former subject, he conceived a spark of hope. "This Master Hyde, if he were studied," thought he, "must have secrets of his own; black secrets, by the look of him; secrets compared to which poor Jekyll's worst would be like sunshine. Things cannot continue as they are. It turns me cold to think of this creature stealing like a thief to Harry's bedside; poor Harry, what a wakening! And the danger of it; for if this Hyde suspects the existence of the will, he may grow impatient to inherit. Ay, I must put my shoulder to the wheel—if Jekyll will but let me," he added, "if Jekyll will only let me." For once more he saw before his mind's eye, as clear as a transparency, the strange clauses of the will.

DR. JEKYLL WAS QUITE AT EASE

A fortnight later, by excellent good fortune, the doctor gave one of his pleasant dinners to some five or six old cronies, all intelligent, reputable men and all judges of good wine; and Mr. Utterson so contrived that he remained behind after the others had departed. This was no new arrangement, but a thing that had befallen many scores of times. Where Utterson was liked, he was well liked. Hosts loved to detain the dry lawyer, when the light-hearted and the loose-tongued had already their foot on the threshold; they liked to sit awhile in his unobtrusive company, practising for solitude, sobering their minds in the man's rich silence after the expense and strain of gaiety. To this rule, Dr. Jekyll was no exception; and as he now sat on the opposite side of the fire—a large, well-made, smooth-faced man of fifty, with something of a slyish cast perhaps, but every mark of capacity and kindness—you could see by his looks that he cherished for Mr. Utterson a sincere and warm affection.

"I have been wanting to speak to you, Jekyll," began the latter. "You know that will of yours?"

A close observer might have gathered that the topic was distasteful; but the doctor carried it off gaily. "My poor Utterson," said he, "you are unfortunate in such a client. I never saw a man so distressed as you were by my will; unless it were that hide-bound pedant, Lanyon, at what he called my scientific heresies. O, I know he's a good fellow—you needn't

frown—an excellent fellow, and I always mean to see more of him; but a hide-bound pedant for all that; an ignorant, blatant pedant. I was never more disappointed in any man than Lanyon."

"You know I never approved of it," pursued Utterson, ruthlessly disregarding the fresh topic.

"My will? Yes, certainly, I know that," said the doctor, a trifle sharply. "You have told me so."

"Well, I tell you so again," continued the lawyer. "I have been learning something of young Hyde."

The large handsome face of Dr. Jekyll grew pale to the very lips, and there came a blackness about his eyes. "I do not care to hear more," said he. "This is a matter I thought we had agreed to drop."

"What I heard was abominable," said Utterson.

"It can make no change. You do not understand my position," returned the doctor, with a certain incoherency of manner. "I am painfully situated, Utterson; my position is a very strange—a very strange one. It is one of those affairs that cannot be mended by talking."

"Jekyll," said Utterson, "you know me: I am a man to be trusted. Make a clean breast of this in confidence; and I make no doubt I can get you out of it"

"My good Utterson," said the doctor, "this is very good of you, this is downright good of you, and I cannot find words to thank you in. I believe you fully; I would trust you before any man alive, ay, before myself, if I could make the choice; but indeed it isn't what you fancy; it is not so bad as that; and just to put your good heart at rest, I will tell you one thing: the moment I choose, I can be rid of Mr. Hyde. I give you my hand upon that; and I thank you again and again; and I will just add one little word, Utterson, that I'm sure you'll take in good part: this is a private matter, and I beg of you to let it sleep."

Utterson reflected a little, looking in the fire.

"I have no doubt you are perfectly right," he said at last, getting to his feet.

"Well, but since we have touched upon this business, and for the last time I hope," continued the doctor, "there is one point I should like you to understand. I have really a very great interest in poor Hyde. I know you have seen him; he told me so; and I fear he was rude. But I do sincerely take a great, a very great interest in that young man; and if I am taken away, Utterson, I wish you to promise me that you will bear with him and get his rights for him. I think you would, if you knew all; and it would be a weight off my mind if you would promise."

"I can't pretend that I shall ever like him," said the lawyer.

"I don't ask that," pleaded Jekyll, laying his hand upon the other's arm; "I only ask for justice; I only ask you to help him for my sake, when I am no longer here."

Utterson heaved an irrepressible sigh. "Well," said he, "I promise."

THE CAREW MURDER CASE

Nearly a year later, in the month of October, 18–, London was startled by a crime of singular ferocity and rendered all the more notable by the high position of the victim. The details were few and startling. A maidservant, living alone in a house not far from the river, had gone upstairs to bed about eleven. Although a fog rolled over the city in the small hours, the early part of the night was cloudless, and the lane, which the maid's window overlooked, was brilliantly lit by the full moon. It seems she was romantically given, for she sat down upon her box, which stood immediately under the window, and fell into a dream of musing. Never (she used to say, with streaming tears, when she narrated that experience), never had she felt more at peace with all men or thought more kindly of the world. And as she so sat she became aware of an aged and beautiful gentleman with white hair, drawing near along the lane; and advancing to meet him, another and very small gentleman, to whom at first she paid less attention. When they had come within speech (which was just under the maid's eyes) the older man bowed and accosted the other with a very pretty manner of politeness. It did not seem as if the subject of his address were of great importance; indeed, from his pointing, it sometimes appeared as if he were only inquiring his way; but the moon shone on his face as he spoke, and the girl was pleased to watch it, it seemed to breathe such an innocent and old-world kindness of disposition, yet with something high too, as of a well-founded self-content. Presently her eye wandered to the other, and she was surprised to recognize in him a certain Mr. Hyde, who had once visited her master and for whom she had conceived a dislike. He had in his hand a heavy cane, with which he was trifling; but he answered never a word, and seemed to listen with an ill-contained impatience. And then all of a sudden he broke out in a great flame of anger, stamping with his foot, brandishing the cane, and carrying on (as the maid described it) like a madman. The old gentleman took a step back, with the air of one very much surprised and a trifle hurt; and at that Mr. Hyde broke out of all bounds and clubbed him to the earth. And next moment, with apelike fury, he was

trampling his victim underfoot and hailing down a storm of blows, under which the bones were audibly shattered and the body jumped upon the roadway. At the horror of these sights and sounds, the maid fainted.

It was two o'clock when she came to herself and called for the police. The murderer was gone long ago; but there lay his victim in the middle of the lane, incredibly mangled. The stick with which the deed had been done, although it was of some rare and very tough and heavy wood, had broken in the middle under the stress of this insensate cruelty; and one splintered half had rolled in the neighbouring gutter—the other, without doubt, had been carried away by the murderer. A purse and a gold watch were found upon the victim: but no cards or papers, except a sealed and stamped envelope, which he had been probably carrying to the post, and which bore the name and address of Mr. Utterson.

This was brought to the lawyer the next morning, before he was out of bed; and he had no sooner seen it, and been told the circumstances, than he shot out a solemn lip. "I shall say nothing till I have seen the body," said he; "this may be very serious. Have the kindness to wait while I dress." And with the same grave countenance he hurried through his breakfast and drove to the police station, whither the body had been carried. As soon as he came into the cell, he nodded.

"Yes," said he, "I recognize him. I am sorry to say that this is Sir Danvers Carew."

"Good God, sir," exclaimed the officer, "is it possible?" And the next moment his eye lighted up with professional ambition. "This will make a deal of noise," he said. "And perhaps you can help us to the man." And he briefly narrated what the maid had seen, and showed the broken stick.

Mr. Utterson had already quailed at the name of Hyde; but when the stick was laid before him, he could doubt no longer; broken and battered as it was, he recognized it for one that he had himself presented many years before to Henry Jekyll.

"Is this Mr. Hyde a person of small stature?" he inquired.

"Particularly small and particularly wicked-looking, is what the maid calls him," said the officer.

Mr. Utterson reflected; and then, raising his head, "If you will come with me to my cab," he said, "I think I can take you to his house."

It was by this time about nine in the morning, and the first fog of the season. A great chocolate-coloured pall lowered over heaven, but the wind was continually charging and routing these embattled vapours; so that as the cab crawled from street to street, Mr. Utterson beheld a marvellous number of degrees and hues of twilight; for here it would be dark

like the back-end of evening; and there would be a glow of a rich, lurid brown, like the light of some strange conflagration; and here, for a moment, the fog would be quite broken up, and a haggard shaft of daylight would glance in between the swirling wreaths. The dismal quarter of Soho seen under these changing glimpses, with its muddy ways, and slatternly passengers, and its lamps, which had never been extinguished or had been kindled afresh to combat this mournful reinvasion of darkness, seemed, in the lawyer's eyes, like a district of some city in a nightmare. The thoughts of his mind, besides, were of the gloomiest dye; and when he glanced at the companion of his drive, he was conscious of some touch of that terror of the law and the law's officers, which may at times assail the most honest.

As the cab drew up before the address indicated, the fog lifted a little and showed him a dingy street, a gin palace, a low French eating-house, a shop for the retail of penny numbers and two-penny salads, many ragged children huddled in the doorways, and many women of many different nationalities passing out, key in hand, to have a morning glass; and the next moment the fog settled down again upon that part, as brown as umber, and cut him off from his blackguardly surroundings. This was the home of Henry Jekyll's favourite; of a man who was heir to quarter of a million sterling.

An ivory-faced and silvery-haired old woman opened the door. She had an evil face, smoothed by hypocrisy; but her manners were excellent. Yes, she said, this was Mr. Hyde's, but he was not at home; he had been in that night very late, but had gone away again in less than an hour; there was nothing strange in that; his habits were very irregular, and he was often absent; for instance, it was nearly two months since she had seen him till yesterday.

"Very well, then, we wish to see his rooms," said the lawyer; and when the woman began to declare it was impossible, "I had better tell you who this person is," he added. "This is Inspector Newcomen of Scotland Yard."

A flash of odious joy appeared upon the woman's face. "Ah!" said she, "he is in trouble! What has he done?"

Mr. Utterson and the inspector exchanged glances. "He don't seem a very popular character," observed the latter. "And now, my good woman, just let me and this gentleman have a look about us."

In the whole extent of the house, which but for the old woman remained otherwise empty, Mr. Hyde had only used a couple of rooms; but these were furnished with luxury and good taste. A closet was filled

with wine; the plate was of silver, the napery elegant; a good picture hung upon the walls, a gift (as Utterson supposed) from Henry Jekyll, who was much of a connoisseur; and the carpets were of many plies and agreeable in colour. At this moment, however, the rooms bore every mark of having been recently and hurriedly ransacked; clothes lay about the floor, with their pockets inside out; lock-fast drawers stood open; and on the hearth there lay a pile of grey ashes, as though many papers had been burned. From these embers the inspector disinterred the butt end of a green cheque book, which had resisted the action of the fire; the other half of the stick was found behind the door; and as this clinched his suspicions, the officer declared himself delighted. A visit to the bank, where several thousand pounds were found to be lying to the murderer's credit, completed his gratification.

"You may depend upon it, sir," he told Mr. Utterson: "I have him in my hand. He must have lost his head, or he never would have left the stick or, above all, burned the cheque book. Why, money's life to the man. We have nothing to do but wait for him at the bank, and get out the handbills."

This last, however, was not so easy of accomplishment; for Mr. Hyde had numbered few familiars—even the master of the servant maid had only seen him twice; his family could nowhere be traced; he had never been photographed; and the few who could describe him differed widely, as common observers will. Only on one point, were they agreed; and that was the haunting sense of unexpressed deformity with which the fugitive impressed his beholders.

INCIDENT OF THE LETTER

It was late in the afternoon, when Mr. Utterson found his way to Dr. Jekyll's door, where he was at once admitted by Poole, and carried down by the kitchen offices and across a yard which had once been a garden, to the building which was indifferently known as the laboratory or the dissecting-rooms. The doctor had bought the house from the heirs of a celebrated surgeon; and his own tastes being rather chemical than anatomical, had changed the destination of the block at the bottom of the garden. It was the first time that the lawyer had been received in that part of his friend's quarters; and he eyed the dingy, windowless structure with curiosity, and gazed round with a distasteful sense of strangeness as he crossed the theatre, once crowded with eager students and now lying gaunt and silent, the tables laden with chemical apparatus,

the floor strewn with crates and littered with packing straw, and the light falling dimly through the foggy cupola. At the further end, a flight of stairs mounted to a door covered with red baize; and through this, Mr. Utterson was at last received into the doctor's cabinet. It was a large room, fitted round with glass presses, furnished, among other things, with a cheval-glass and a business table, and looking out upon the court by three dusty windows barred with iron. A fire burned in the grate; a lamp was set lighted on the chimney shelf, for even in the houses the fog began to lie thickly; and there, close up to the warmth, sat Dr. Jekyll, looking deadly sick. He did not rise to meet his visitor, but held out a cold hand and bade him welcome in a changed voice.

"And now," said Mr. Utterson, as soon as Poole had left them, "you have heard the news?"

The doctor shuddered. "They were crying it in the square," he said. "I heard them in my dining-room."

"One word," said the lawyer. "Carew was my client, but so are you, and I want to know what I am doing. You have not been mad enough to hide this fellow?"

"Utterson, I swear to God," cried the doctor, "I swear to God I will never set eyes on him again. I bind my honour to you that I am done with him in this world. It is all at an end. And indeed he does not want my help; you do not know him as I do; he is safe, he is quite safe; mark my words, he will never more be heard of."

The lawyer listened gloomily; he did not like his friend's feverish manner. "You seem pretty sure of him," said he; "and for your sake, I hope you may be right. If it came to a trial, your name might appear."

"I am quite sure of him," replied Jekyll; "I have grounds for certainty that I cannot share with any one. But there is one thing on which you may advise me. I have–I have received a letter; and I am at a loss whether I should show it to the police. I should like to leave it in your hands, Utterson; you would judge wisely, I am sure; I have so great a trust in you."

"You fear, I suppose, that it might lead to his detection?" asked the lawyer.

"No," said the other. "I cannot say that I care what becomes of Hyde; I am quite done with him. I was thinking of my own character, which this hateful business has rather exposed."

Utterson ruminated awhile; he was surprised at his friend's selfishness, and yet relieved by it. "Well," said he, at last, "let me see the letter."

The letter was written in an odd, upright hand and signed "Edward

Hyde"; and it signified, briefly enough, that the writer's benefactor, Dr. Jekyll, whom he had long so unworthily repaid for a thousand generosities, need labour under no alarm for his safety, as he had means of escape on which he placed a sure dependence. The lawyer liked this letter well enough; it put a better colour on the intimacy than he had looked for; and he blamed himself for some of his past suspicions.

"Have you the envelope?" he asked.

"I burned it," replied Jekyll, "before I thought what I was about. But it bore no postmark. The note was handed in."

"Shall I keep this and sleep upon it?" asked Utterson.

"I wish you to judge for me entirely," was the reply. "I have lost confidence in myself."

"Well, I shall consider," returned the lawyer. "And now one word more: it was Hyde who dictated the terms in your will about that disappearance?"

The doctor seemed seized with a qualm of faintness; he shut his mouth tight and nodded.

"I knew it," said Utterson. "He meant to murder you. You have had a fine escape."

"I have had what is far more to the purpose," returned the doctor solemnly: "I have had a lesson–O God, Utterson, what a lesson I have had!" And he covered his face for a moment with his hands.

On his way out the lawyer stopped and had a word or two with Poole. "By-the-bye," said he, "there was a letter handed in to-day: what was the messenger like?" But Poole was positive nothing had come except by post; "and only circulars by that," he added.

This news sent off the visitor with his fears renewed. Plainly the letter had come by the laboratory door; possibly, indeed, it had been written in the cabinet; and if that were so, it must be differently judged, and handled with the more caution. The newsboys, as he went, were crying themselves hoarse along the footways: "Special edition. Shocking murder of an M.P." That was the funeral oration of one friend and client; and he could not help a certain apprehension lest the good name of another should be sucked down in the eddy of the scandal. It was, at least, a ticklish decision that he had to make; and self-reliant as he was by habit, he began to cherish a longing for advice. It was not to be had directly; but perhaps, he thought, it might be fished for.

Presently after, he sat on one side of his own hearth, with Mr. Guest, his head clerk, upon the other, and midway between, at a nicely calculated distance from the fire, a bottle of a particular old wine that had

long dwelt unsunned in the foundations of his house. The fog still slept on the wing above the drowned city, where the lamps glimmered like carbuncles; and through the muffle and smother of these fallen clouds, the procession of the town's life was still rolling in through the great arteries with a sound as of a mighty wind. But the room was gay with firelight. In the bottle the acids were long ago resolved; the imperial dye had softened with time, as the colour grows richer in stained windows; and the glow of hot autumn afternoons on hillside vineyards, was ready to be set free and to disperse the fogs of London. Insensibly the lawyer melted. There was no man from whom he kept fewer secrets than Mr. Guest; and he was not always sure that he kept as many as he meant. Guest had often been on business to the doctor's; he knew Poole; he could scarce have failed to hear of Mr. Hyde's familiarity about the house; he might draw conclusions: was it not as well, then, that he should see a letter which put that mystery to rights? And, above all, since Guest, being a great student and critic of handwriting, would consider the step natural and obliging? The clerk, besides, was a man of counsel; he would scarce read so strange a document without dropping a remark; and by that remark Mr. Utterson might shape his future course.

"This is a sad business about Sir Danvers," he said.

"Yes, sir, indeed. It has elicited a great deal of public feeling," returned Guest. "The man, of course, was mad."

"I should like to hear your views on that," replied Utterson. "I have a document here in his handwriting; it is between ourselves, for I scarce know what to do about it; it is an ugly business at the best. But there it is; quite in your way: a murderer's autograph."

Guest's eyes brightened, and he sat down at once and studied it with passion. "No, sir," he said: "not mad; but it is an odd hand."

"And by all accounts a very odd writer," added the lawyer.

Just then the servant entered with a note.

"Is that from Dr. Jekyll, sir?" inquired the clerk. "I thought I knew the writing. Anything private, Mr. Utterson?"

"Only an invitation to dinner. Why? Do you want to see it?"

"One moment. I thank you, sir"; and the clerk laid the two sheets of paper alongside and sedulously compared their contents. "Thank you, sir," he said at last, returning both; "it's a very interesting autograph."

There was a pause, during which Mr. Utterson struggled with himself. "Why did you compare them, Guest?" he inquired suddenly.

"Well, sir," returned the clerk, "there's a rather singular resemblance; the two hands are in many points identical: only differently sloped."

"Rather quaint," said Utterson.

"It is, as you say, rather quaint," returned Guest.

"I wouldn't speak of this note, you know," said the master.

"No, sir," said the clerk. "I understand."

But no sooner was Mr. Utterson alone that night than he locked the note into his safe, where it reposed from that time forward. "What!" he thought. "Henry Jekyll forge for a murderer!" And his blood ran cold in his veins.

REMARKABLE INCIDENT OF DR. LANYON

Time ran on; thousands of pounds were offered in reward, for the death of Sir Danvers was resented as a public injury; but Mr. Hyde had disappeared out of the ken of the police as though he had never existed. Much of his past was unearthed, indeed, and all disreputable: tales came out of the man's cruelty, at once so callous and violent; of his vile life, of his strange associates, of the hatred that seemed to have surrounded his career; but of his present whereabouts, not a whisper. From the time he had left the house in Soho on the morning of the murder, he was simply blotted out; and gradually, as time drew on, Mr. Utterson began to recover from the hotness of his alarm, and to grow more at quiet with himself. The death of Sir Danvers was, to his way of thinking, more than paid for by the disappearance of Mr. Hyde. Now that that evil influence had been withdrawn, a new life began for Dr. Jekyll. He came out of his seclusion, renewed relations with his friends, became once more their familiar guest and entertainer; and whilst he had always been known for charities, he was now no less distinguished for religion. He was busy, he was much in the open air, he did good; his face seemed to open and brighten, as if with an inward consciousness of service; and for more than two months, the doctor was at peace.

On the 8th of January Utterson had dined at the doctor's with a small party; Lanyon had been there; and the face of the host had looked from one to the other as in the old days when the trio were inseparable friends. On the 12th, and again on the 14th, the door was shut against the lawyer. "The doctor was confined to the house," Poole said, "and saw no one." On the 15th, he tried again, and was again refused; and having now been used for the last two months to see his friend almost daily, he found this return of solitude to weigh upon his spirits. The fifth night he had in Guest to dine with him; and the sixth he betook himself to Dr. Lanyon's.

There at least he was not denied admittance; but when he came in, he

was shocked at the change which had taken place in the doctor's appearance. He had his death-warrant written legibly upon his face. The rosy man had grown pale; his flesh had fallen away; he was visibly balder and older; and yet it was not so much these tokens of a swift physical decay that arrested the lawyer's notice, as a look in the eye and quality of manner that seemed to testify to some deep-seated terror of the mind. It was unlikely that the doctor should fear death; and yet that was what Utterson was tempted to suspect. "Yes," he thought; "he is a doctor, he must know his own state and that his days are counted; and the knowledge is more than he can bear." And yet when Utterson remarked on his ill looks, it was with an air of great firmness that Lanyon declared himself a doomed man.

"I have had a shock," he said, "and I shall never recover. It is a question of weeks. Well, life has been pleasant; I liked it; yes, sir, I used to like it. I sometimes think if we knew all, we should be more glad to get away."

"Jekyll is ill, too," observed Utterson. "Have you seen him?"

But Lanyon's face changed, and he held up a trembling hand. "I wish to see or hear no more of Dr. Jekyll," he said in a loud, unsteady voice. "I am quite done with that person; and I beg that you will spare me any allusion to one whom I regard as dead."

"Tut-tut," said Mr. Utterson; and then after a considerable pause, "Can't I do anything?" he inquired. "We are three very old friends, Lanyon; we shall not live to make others."

"Nothing can be done," returned Lanyon; "ask himself."

"He will not see me," said the lawyer.

"I am not surprised at that," was the reply. "Some day, Utterson, after I am dead, you may perhaps come to learn the right and wrong of this. I cannot tell you. And in the meantime, if you can sit and talk with me of other things, for God's sake, stay and do so; but if you cannot keep clear of this accursed topic, then, in God's name, go, for I cannot bear it."

As soon as he got home, Utterson sat down and wrote to Jekyll, complaining of his exclusion from the house, and asking the cause of this unhappy break with Lanyon; and the next day brought him a long answer, often very pathetically worded, and sometimes darkly mysterious in drift. The quarrel with Lanyon was incurable. "I do not blame our old friend," Jekyll wrote, "but I share his view that we must never meet. I mean from henceforth to lead a life of extreme seclusion; you must not be surprised, nor must you doubt my friendship, if my door is often shut even to you. You must suffer me to go my own dark way. I have brought on myself a punishment and a danger that I cannot name. If I am the chief of sinners,

I am the chief of sufferers also. I could not think that this earth contained a place for sufferings and terrors so unmanning; and you can do but one thing, Utterson, to lighten this destiny, and that is to respect my silence." Utterson was amazed; the dark influence of Hyde had been withdrawn, the doctor had returned to his old tasks and amities; a week ago, the prospect had smiled with every promise of a cheerful and an honoured age; and now in a moment, friendship, and peace of mind, and the whole tenor of his life were wrecked. So great and unprepared a change pointed to madness; but in view of Lanyon's manner and words, there must lie for it some deeper ground.

A week afterwards Dr. Lanyon took to his bed, and in something less than a fortnight he was dead. The night after the funeral, at which he had been sadly affected, Utterson locked the door of his business room, and sitting there by the light of a melancholy candle, drew out and set before him an envelope addressed by the hand and sealed with the seal of his dead friend. "PRIVATE: for the hands of G. J. Utterson ALONE, and in case of his predecease *to be destroyed unread*," so it was emphatically superscribed; and the lawyer dreaded to behold the contents. "I have buried one friend to-day," he thought: "what if this should cost me another?" And then he condemned the fear as a disloyalty, and broke the seal. Within there was another enclosure, likewise sealed, and marked upon the cover as "not to be opened till the death or disappearance of Dr. Henry Jekyll." Utterson could not trust his eyes. Yes, it was disappearance; here again, as in the mad will which he had long ago restored to its author, here again were the idea of a disappearance and the name of Henry Jekyll bracketed. But, in the will, that idea had sprung from the sinister suggestion of the man Hyde; it was set there with a purpose all too plain and horrible. Written by the hand of Lanyon, what should it mean? A great curiosity came on the trustee, to disregard the prohibition and dive at once to the bottom of these mysteries; but professional honour and faith to his dead friend were stringent obligations; and the packet slept in the inmost corner of his private safe.

It is one thing to mortify curiosity, another to conquer it; and it may be doubted if, from that day forth, Utterson desired the society of his surviving friend with the same eagerness. He thought of him kindly; but his thoughts were disquieted and fearful. He went to call indeed; but he was perhaps relieved to be denied admittance; perhaps, in his heart, he preferred to speak with Poole upon the doorstep and surrounded by the air and sounds of the open city, rather than to be admitted into that house of voluntary bondage, and to sit and speak with its inscrutable recluse.

Poole had, indeed, no very pleasant news to communicate. The doctor, it appeared, now more than ever confined himself to the cabinet over the laboratory, where he would sometimes even sleep; he was out of spirits, he had grown very silent, he did not read; it seemed as if he had something on his mind. Utterson became so used to the unvarying character of these reports, that he fell off little by little in the frequency of his visits.

INCIDENT AT THE WINDOW

It chanced on Sunday, when Mr. Utterson was on his usual walk with Mr. Enfield, that their way lay once again through the bystreet; and that when they came in front of the door, both stopped to gaze on it.

"Well," said Enfield, "that story's at an end at least. We shall never see more of Mr. Hyde."

"I hope not," said Utterson. "Did I ever tell you that I once saw him, and shared your feeling of repulsion?"

"It was impossible to do the one without the other," returned Enfield. "And by the way, what an ass you must have thought me, not to know that this was a back way to Dr. Jekyll's! It was partly your own fault that I found it out, even when I did."

"So you found it out, did you?" said Utterson. "But if that be so, we may step into the court and take a look at the windows. To tell you the truth, I am uneasy about poor Jekyll; and even outside, I feel as if the presence of a friend might do him good."

The court was very cool and a little damp, and full of premature twilight, although the sky, high up overhead, was still bright with sunset. The middle one of the three windows was half-way open; and sitting close beside it, taking the air with an infinite sadness of mien, like some disconsolate prisoner, Utterson saw Dr. Jekyll.

"What! Jekyll!" he cried. "I trust you are better."

"I am very low, Utterson," replied the doctor, drearily, "very low. It will not last long, thank God."

"You stay too much indoors," said the lawyer. "You should be out, whipping up the circulation like Mr. Enfield and me. (This is my cousin–Mr. Enfield–Dr. Jekyll.) Come now; get your hat and take a quick turn with us."

"You are very good," sighed the other. "I should like to very much; but no, no, no, it is quite impossible; I dare not. But indeed, Utterson, I am very glad to see you; this is really a great pleasure; I would ask you and Mr. Enfield up, but the place is really not fit."

"Why then," said the lawyer, good-naturedly, "the best thing we can do is to stay down here and speak with you from where we are."

"That is just what I was about to venture to propose," returned the doctor with a smile. But the words were hardly uttered, before the smile was struck out of his face and succeeded by an expression of such abject terror and despair, as froze the very blood of the two gentlemen below. They saw it but for a glimpse, for the window was instantly thrust down; but that glimpse had been sufficient, and they turned and left the court without a word. In silence, too, they traversed the by-streets; and it was not until they had come into a neighbouring thoroughfare, where even upon a Sunday there were still some stirrings of life, that Mr. Utterson at last turned and looked at his companion. They were both pale; and there was an answering horror in their eyes.

"God forgive us, God forgive us," said Mr. Utterson.

But Mr. Enfield only nodded his head very seriously, and walked on once more in silence.

THE LAST NIGHT

Mr. Utterson was sitting by his fireside one evening after dinner, when he was surprised to receive a visit from Poole.

"Bless me, Poole, what brings you here?" he cried; and then taking a second look at him, "What ails you?" he added; "is the doctor ill?"

"Mr. Utterson," said the man, "there is something wrong."

"Take a seat, and here is a glass of wine for you," said the lawyer. "Now, take your time, and tell me plainly what you want."

"You know the doctor's ways, sir," replied Poole, "and how he shuts himself up. Well, he's shut up again in the cabinet; and I don't like it, sir–I wish I may die if I like it. Mr. Utterson, sir, I'm afraid."

"Now, my good man," said the lawyer, "be explicit. What are you afraid of?"

"I've been afraid for about a week," returned Poole, doggedly disregarding the question, "and I can bear it no more."

The man's appearance amply bore out his words; his manner was altered for the worse; and except for the moment when he had first announced his terror, he had not once looked the lawyer in the face. Even now, he sat with the glass of wine untasted on his knee, and his eyes directed to a corner of the floor. "I can bear it no more," he repeated.

"Come," said the lawyer, "I see you have some good reason, Poole; I see there is something seriously amiss. Try to tell me what it is."

"I think there's been foul play," said Poole, hoarsely.

"Foul play!" cried the lawyer, a good deal frightened and rather inclined to be irritated in consequence. "What foul play? What does the man mean?"

"I daren't say, sir," was the answer; "but will you come along with me and see for yourself?"

Mr. Utterson's only answer was to rise and get his hat and greatcoat; but he observed with wonder the greatness of the relief that appeared upon the butler's face, and perhaps with no less, that the wine was still untasted when he set it down to follow.

It was a wild, cold, seasonable night of March, with a pale moon, lying on her back as though the wind had tilted her, and a flying wrack of the most diaphanous and lawny texture. The wind made talking difficult, and flecked the blood into the face. It seemed to have swept the streets unusually bare of passengers, besides; for Mr. Utterson thought he had never seen that part of London so deserted. He could have wished it otherwise; never in his life had he been conscious of so sharp a wish to see and touch his fellow-creatures; for struggle as he might, there was borne in upon his mind a crushing anticipation of calamity. The square, when they got there, was all full of wind and dust, and the thin trees in the garden were lashing themselves along the railing. Poole, who had kept all the way a pace or two ahead, now pulled up in the middle of the pavement, and in spite of the biting weather, took off his hat and mopped his brow with a red pocket-handkerchief. But for all the hurry of his coming, these were not the dews of exertion that he wiped away, but the moisture of some strangling anguish; for his face was white and his voice, when he spoke, harsh and broken.

"Well, sir," he said, "here we are, and God grant there be nothing wrong."

"Amen, Poole," said the lawyer.

Thereupon the servant knocked in a very guarded manner; the door was opened on the chain; and a voice asked from within, "Is that you, Poole?"

"It's all right," said Poole. "Open the door."

The hall, when they entered it, was brightly lighted up; the fire was built high; and about the hearth the whole of the servants, men and women, stood huddled together like a flock of sheep. At the sight of Mr. Utterson, the housemaid broke into hysterical whimpering; and the cook, crying out, "Bless God! it's Mr. Utterson," ran forward as if to take him in her arms.

"What, what? Are you all here?" said the lawyer peevishly. "Very irregular, very unseemly; your master would be far from pleased."

"They're all afraid," said Poole.

Blank silence followed, no one protesting; only the maid lifted up her voice and now wept loudly.

"Hold your tongue!" Poole said to her, with a ferocity of accent that testified to his own jangled nerves; and indeed, when the girl had so suddenly raised the note of her lamentation, they had all started and turned towards the inner door with faces of dreadful expectation. "And now," continued the butler, addressing the knife-boy, "reach me a candle, and we'll get this through hands at once." And then he begged Mr. Utterson to follow him, and led the way to the back garden.

"Now, sir," said he, "you come as gently as you can. I want you to hear, and I don't want you to be heard. And see here, sir, if by any chance he was to ask you in, don't go."

Mr. Utterson's nerves, at this unlooked-for termination, gave a jerk that nearly threw him from his balance; but he recollected his courage and followed the butler into the laboratory building and through the surgical theatre, with its lumber of crates and bottles, to the foot of the stair. Here Poole motioned him to stand on one side and listen; while he himself, setting down the candle and making a great and obvious call on his resolution, mounted the steps and knocked with a somewhat uncertain hand on the red baize of the cabinet door.

"Mr. Utterson, sir, asking to see you," he called; and even as he did so, once more violently signed to the lawyer to give ear.

A voice answered from within: "Tell him I cannot see any one," it said complainingly.

"Thank you, sir," said Poole, with a note of something like triumph in his voice; and taking up his candle, he led Mr. Utterson back across the yard and into the great kitchen, where the fire was out and the beetles were leaping on the floor.

"Sir," he said, looking Mr. Utterson in the eyes, "was that my master's voice?"

"It seems much changed," replied the lawyer, very pale, but giving look for look.

"Changed? Well, yes, I think so," said the butler. "Have I been twenty years in this man's house, to be deceived about his voice? No, sir; master's made away with; he was made away with, eight days ago, when we heard him cry out upon the name of God; and *who's* in there instead of him, and *why* it stays there, is a thing that cries to Heaven, Mr. Utterson!"

"This is a very strange tale, Poole; this is rather a wild tale, my man," said Mr. Utterson, biting his finger. "Suppose it were as you suppose, supposing Dr. Jekyll to have been—well, murdered, what could induce the murderer to stay? That won't hold water; it doesn't commend itself to reason."

"Well, Mr. Utterson, you are a hard man to satisfy, but I'll do it yet," said Poole. "All this last week (you must know) him, or it, or whatever it is that lives in that cabinet, has been crying night and day for some sort of medicine and cannot get it to his mind. It was sometimes his way—the master's, that is—to write his orders on a sheet of paper and throw it on the stair. We've had nothing else this week back; nothing but papers, and a closed door, and the very meals left there to be smuggled in when nobody was looking. Well, sir, every day, ay, and twice and thrice in the same day, there have been orders and complaints, and I have been sent flying to all the wholesale chemists in town. Every time I brought the stuff back, there would be another paper telling me to return it, because it was not pure, and another order to a different firm. This drug is wanted bitter bad, sir, whatever for."

"Have you any of these papers?" asked Mr. Utterson.

Poole felt in his pocket and handed out a crumpled note, which the lawyer, bending nearer to the candle, carefully examined. Its contents ran thus: "Dr. Jekyll presents his compliments to Messrs. Maw. He assures them that their last sample is impure and quite useless for his present purpose. In the year 18–, Dr. J. purchased a somewhat large quantity from Messrs. M. He now begs them to search with the most sedulous care, and should any of the same quality be left, to forward it to him at once. Expense is no consideration. The importance of this to Dr. J. can hardly be exaggerated." So far the letter had run composedly enough, but here with a sudden splutter of the pen, the writer's emotion had broken loose. "For God's sake," he had added, "find me some of the old."

"This is a strange note," said Mr. Utterson; and then sharply, "How do you come to have it open?"

"The man at Maw's was main angry, sir, and he threw it back to me like so much dirt," returned Poole.

"This is unquestionably the doctor's hand, do you know?" resumed the lawyer.

"I thought it looked like it," said the servant rather sulkily; and then, with another voice, "But what matters hand of write?" he said. "I've seen him!"

"Seen him?" repeated Mr. Utterson. "Well?"

"That's it!" said Poole. "It was this way. I came suddenly into the theatre from the garden. It seems he had slipped out to look for this drug or whatever it is; for the cabinet door was open, and there he was at the far end of the room digging among the crates. He looked up when I came in, gave a kind of cry, and whipped upstairs into the cabinet. It was but for one minute that I saw him, but the hair stood upon my head like quills. Sir, if that was my master, why had he a mask upon his face? If it was my master, why did he cry out like a rat, and run from me? I have served him long enough. And then . . ." The man paused and passed his hand over his face.

"These are all very strange circumstances," said Mr. Utterson, "but I think I begin to see daylight. Your master, Poole, is plainly seized with one of those maladies that both torture and deform the sufferer; hence, for aught I know, the alteration of his voice; hence the mask and the avoidance of his friends; hence his eagerness to find this drug, by means of which the poor soul retains some hope of ultimate recovery—God grant that he be not deceived! There is my explanation; it is sad enough, Poole, ay, and appalling to consider; but it is plain and natural, hangs well together, and delivers us from all exorbitant alarms."

"Sir," said the butler, turning to a sort of mottled pallor, "that thing was not my master, and there's the truth. My master"—here he looked round him and began to whisper—"is a tall, fine build of a man, and this was more of a dwarf." Utterson attempted to protest. "O, sir," cried Poole, "do you think I do not know my master after twenty years? Do you think I do not know where his head comes to in the cabinet door, where I saw him every morning of my life? No, sir, that thing in the mask was never Dr. Jekyll—God knows what it was, but it was never Dr. Jekyll; and it is the belief of my heart that there was murder done."

"Poole," replied the lawyer, "if you say that, it will become my duty to make certain. Much as I desire to spare your master's feelings, much as I am puzzled by this note which seems to prove him to be still alive, I shall consider it my duty to break in that door."

"Ah, Mr. Utterson, that's talking!" cried the butler.

"And now comes the second question," resumed Utterson: "Who is going to do it?"

"Why, you and me," was the undaunted reply.

"That's very well said," returned the lawyer; "and whatever comes of it, I shall make it my business to see you are no loser."

"There is an axe in the theatre," continued Poole; "and you might take the kitchen poker for yourself."

The lawyer took that rude but weighty instrument into his hand, and balanced it. "Do you know, Poole," he said, looking up, "that you and I are about to place ourselves in a position of some peril?"

"You may say so, sir, indeed," returned the butler.

"It is well, then, that we should be frank," said the other. "We both think more than we have said; let us make a clean breast. This masked figure that you saw, did you recognize it?"

"Well, sir, it went so quick, and the creature was so doubled up, that I could hardly swear to that," was the answer. "But if you mean, was it Mr. Hyde?–why, yes, I think it was! You see it was much of the same bigness; and it had the same quick, light way with it; and then who else could have got in by the laboratory door? You have not forgot, sir, that at the time of the murder he had still the key with him? But that's not all. I don't know, Mr. Utterson, if ever you met this Mr. Hyde?"

"Yes," said the lawyer, "I once spoke with him."

"Then you must know as well as the rest of us that there was something queer about that gentleman–something that gave a man a turn–I don't know rightly how to say it, sir, beyond this: that you felt it in your marrow kind of cold and thin."

"I own I felt something of what you describe," said Mr. Utterson.

"Quite so, sir," returned Poole. "Well, when that masked thing like a monkey jumped from among the chemicals and whipped into the cabinet, it went down my spine like ice. O, I know it's not evidence, Mr. Utterson; I'm book-learned enough for that; but a man has his feelings, and I give you my bible-word it was Mr. Hyde!"

"Ay, ay," said the lawyer. "My fears incline to the same point. Evil, I fear, founded–evil was sure to come–of that connection. Ay, truly, I believe you; I believe poor Harry is killed; and I believe his murderer (for what purpose, God alone can tell) is still lurking in his victim's room. Well, let our name be vengeance. Call Bradshaw."

The footman came at the summons, very white and nervous.

"Put yourself together, Bradshaw," said the lawyer. "This suspense, I know, is telling upon all of you; but it is now our intention to make an end of it. Poole, here, and I are going to force our way into the cabinet. If all is well, my shoulders are broad enough to bear the blame. Meanwhile, lest anything should really be amiss, or any malefactor seek to escape by the back, you and the boy must go round the corner with a pair of good sticks and take your post at the laboratory door. We give you ten minutes, to get to your stations."

As Bradshaw left, the lawyer looked at his watch. "And now, Poole, let

us get to ours," he said; and taking the poker under his arm, led the way into the yard. The scud had banked over the moon, and it was now quite dark. The wind, which only broke in puffs and draughts into that deep well of building, tossed the light of the candle to and fro about their steps, until they came into the shelter of the theatre, where they sat down silently to wait. London hummed solemnly all around; but nearer at hand, the stillness was only broken by the sounds of a footfall moving to and fro along the cabinet floor.

"So it will walk all day, sir," whispered Poole; "ay, and the better part of the night. Only when a new sample comes from the chemist, there's a bit of a break. Ah, it's an ill conscience that's such an enemy to rest! Ah, sir, there's blood foully shed in every step of it! But hark again, a little closer–put your heart in your ears, Mr. Utterson, and tell me, is that the doctor's foot?"

The steps fell lightly and oddly, with a certain swing, for all they went so slowly; it was different indeed from the heavy creaking tread of Henry Jekyll. Utterson sighed. "Is there never anything else?" he asked.

Poole nodded. "Once," he said. "Once I heard it weeping!"

"Weeping? How that?" said the lawyer, conscious of a sudden chill of horror.

"Weeping like a woman or a lost soul," said the butler. "I came away with that upon my heart, that I could have wept too."

But now the ten minutes drew to an end. Poole disinterred the axe from under a stack of packing straw; the candle was set upon the nearest table to light them to the attack; and they drew near with bated breath to where that patient foot was still going up and down, up and down, in the quiet of the night.

"Jekyll," cried Utterson, with a loud voice, "I demand to see you." He paused a moment, but there came no reply. "I give you fair warning, our suspicions are aroused, and I must and shall see you," he resumed; "if not by fair means, then by foul–if not of your consent, then by brute force!"

"Utterson," said the voice, "for God's sake, have mercy!"

"Ah, that's not Jekyll's voice–it's Hyde's!" cried Utterson. "Down with the door, Poole!"

Poole swung the axe over his shoulder; the blow shook the building, and the red baize door leaped against the lock and hinges. A dismal screech, as of mere animal terror, rang from the cabinet. Up went the axe again, and again the panels crashed and the frame bounded; four times the blow fell; but the wood was tough and the fittings were of excellent

workmanship; and it was not until the fifth, that the lock burst in sunder and the wreck of the door fell inwards on the carpet.

The besiegers, appalled by their own riot and the stillness that had succeeded, stood back a little and peered in. There lay the cabinet before their eyes in the quiet lamplight, a good fire glowing and chattering on the hearth, the kettle singing its thin strain, a drawer or two open, papers neatly set forth on the business table, and nearer the fire, the things laid out for tea: the quietest room, you would have said, and, but for the glazed presses full of chemicals, the most commonplace that night in London.

Right in the midst there lay the body of a man sorely contorted and still twitching. They drew near on tiptoe, turned it on its back and beheld the face of Edward Hyde. He was dressed in clothes far too large for him, clothes of the doctor's bigness; the cords of his face still moved with the semblance of life, but life was quite gone: and by the crushed phial in the hand and the strong smell of kernels that hung upon the air, Utterson knew that he was looking on the body of a self-destroyer.

"We have come too late," he said sternly, "whether to save or punish. Hyde is gone to his account; and it only remains for us to find the body of your master."

The far greater proportion of the building was occupied by the theatre, which filled almost the whole ground story and was lighted from above, and by the cabinet, which formed an upper story at one end and looked upon the court. A corridor joined the theatre to the door on the by-street; and with this the cabinet communicated separately by a second flight of stairs. There were besides a few dark closets and a spacious cellar. All these they now thoroughly examined. Each closet needed but a glance, for all were empty, and all, by the dust that fell from their doors, had stood long unopened. The cellar, indeed, was filled with crazy lumber, mostly dating from the times of the surgeon who was Jekyll's predecessor; but even as they opened the door they were advertised of the uselessness of further search, by the fall of a perfect mat of cobweb which had for years sealed up the entrance. Nowhere was there any trace of Henry Jekyll, dead or alive.

Poole stamped on the flags of the corridor. "He must be buried here," he said, hearkening to the sound.

"Or he may have fled," said Utterson, and he turned to examine the door in the by-street. It was locked; and lying near by on the flags, they found the key, already stained with rust.

"This does not look like use," observed the lawyer.

"Use!" echoed Poole. "Do you not see, sir, it is broken? Much as if a man had stamped on it."

"Ay," continued Utterson, "and the fractures, too, are rusty." The two men looked at each other with a scare. "This is beyond me, Poole," said the lawyer. "Let us go back to the cabinet."

They mounted the stair in silence, and still with an occasional awestruck glance at the dead body, proceeded more thoroughly to examine the contents of the cabinet. At one table, there were traces of chemical work, various measured heaps of some white salt being laid on glass saucers, as though for an experiment in which the unhappy man had been prevented.

"That is the same drug that I was always bringing him," said Poole; and even as he spoke, the kettle with a startling noise boiled over.

This brought them to the fireside, where the easy-chair was drawn cosily up, and the tea things stood ready to the sitter's elbow, the very sugar in the cup. There were several books on a shelf; one lay beside the tea things open, and Utterson was amazed to find it a copy of a pious work, for which Jekyll had several times expressed a great esteem, annotated, in his own hand, with startling blasphemies.

Next, in the course of their review of the chamber, the searchers came to the cheval-glass, into whose depths they looked with an involuntary horror. But it was so turned as to show them nothing but the rosy glow playing on the roof, the fire sparkling in a hundred repetitions along the glazed front of the presses, and their own pale and fearful countenances stooping to look in.

"This glass has seen some strange things, sir," whispered Poole.

"And surely none stranger than itself," echoed the lawyer in the same tones. "For what did Jekyll"–he caught himself up at the word with a start; and then conquering the weakness–"what could Jekyll want with it?" he said.

"You may say that!" said Poole.

Next they turned to the business table. On the desk, among the neat array of papers, a large envelope was uppermost, and bore, in the doctor's hand, the name of Mr. Utterson. The lawyer unsealed it, and several enclosures fell to the floor. The first was a will, drawn in the same eccentric terms as the one which he had returned six months before, to serve as a testament in case of death and as a deed of gift in case of disappearance; but in place of the name of Edward Hyde, the lawyer, with indescribable amazement, read the name of Gabriel John Utterson. He looked at Poole,

and then back at the paper, and last of all at the dead malefactor stretched upon the carpet.

"My head goes round," he said. "He has been all these days in possession; he had no cause to like me; he must have raged to see himself displaced; and he has not destroyed this document."

He caught up the next paper; it was a brief note in the doctor's hand and dated at the top. "O Poole!" the lawyer cried, "he was alive and here this day. He cannot have been disposed of in so short a space; he must be still alive, he must have fled! And then, why fled? And how? And in that case, can we venture to declare this suicide? O, we must be careful. I foresee that we may yet involve your master in some dire catastrophe."

"Why don't you read it, sir?" asked Poole.

"Because I fear," replied the lawyer solemnly. "God grant I have no cause for it!" And with that he brought the paper to his eyes and read as follows:

> My dear Utterson–When this shall fall into your hands, I shall have disappeared, under what circumstances I have not the penetration to foresee, but my instinct and all the circumstances of my nameless situation tell me that the end is sure and must be early. Go then, and first read the narrative which Lanyon warned me he was to place in your hands; and if you care to hear more, turn to the confession of
>
> Your unworthy and unhappy friend,
>
> *Henry Jekyll*

"There was a third enclosure?" asked Utterson.

"Here, sir," said Poole, and gave into his hands a considerable packet sealed in several places.

The lawyer put it in his pocket. "I would say nothing of this paper. If your master has fled or is dead, we may at least save his credit. It is now ten; I must go home and read these documents in quiet; but I shall be back before midnight, when we shall send for the police."

They went out, locking the door of the theatre behind them; and Utterson, once more leaving the servants gathered about the fire in the hall, trudged back to his office to read the two narratives in which this mystery was now to be explained.

DR. LANYON'S NARRATIVE

On the ninth of January, now four days ago, I received by the evening delivery a registered envelope, addressed in the hand of my colleague

and old school companion, Henry Jekyll. I was a good deal surprised by this; for we were by no means in the habit of correspondence; I had seen the man, dined with him, indeed, the night before; and I could imagine nothing in our intercourse that should justify formality of registration. The contents increased my wonder; for this is how the letter ran:

10th December, 18–.

Dear Lanyon,

You are one of my oldest friends; and although we may have differed at times on scientific questions, I cannot remember, at least on my side, any break in our affection. There was never a day when, if you had said to me, 'Jekyll, my life, my honour, my reason, depend upon you,' I would not have sacrificed my left hand to help you. Lanyon, my life, my honour, my reason, are all at your mercy; if you fail me to-night I am lost. You might suppose, after this preface, that I am going to ask you for something dishonourable to grant. Judge for yourself.

I want you to postpone all other engagements for to-night–ay, even if you were summoned to the bedside of an emperor; to take a cab, unless your carriage should be actually at the door; and with this letter in your hand for consultation, to drive straight to my house. Poole, my butler, has his orders; you will find him waiting your arrival with a locksmith. The door of my cabinet is then to be forced: and you are to go in alone; to open the glazed press (letter E) on the left hand, breaking the lock if it be shut; and to draw out, *with all its contents as they stand*, the fourth drawer from the top or (which is the same thing) the third from the bottom. In my extreme distress of mind, I have a morbid fear of misdirecting you; but even if I am in error, you may know the right drawer by its contents: some powders, a phial and a paper book. This drawer I beg of you to carry back with you to Cavendish Square exactly as it stands.

That is the first part of the service: now for the second. You should be back, if you set out at once on the receipt of this, long before midnight; but I will leave you that amount of margin, not only in the fear of one of those obstacles that can neither be prevented nor foreseen, but because an hour when your servants are in bed is to be preferred for what will then remain to do. At midnight, then, I have to ask you to be alone in your consulting-room, to admit with your own hand into the house a man who will present himself in my name, and to place in his hands the drawer that you will have brought with you from my cabinet. Then you will have played your part and earned my gratitude completely. Five minutes afterwards, if you insist upon an explanation, you will have understood that these arrangements are of capital importance; and that by the neglect of one of them, fantastic as they must appear, you might have

charged your conscience with my death or the shipwreck of my reason.

Confident as I am that you will not trifle with this appeal, my heart sinks and my hand trembles at the bare thought of such a possibility. Think of me at this hour, in a strange place, labouring under a blackness of distress that no fancy can exaggerate, and yet well aware that, if you will but punctually serve me, my troubles will roll away like a story that is told. Serve me, my dear Lanyon, and save

Your friend,
H. J.

P.S. I had already sealed this up when a fresh terror struck upon my soul. It is possible that the postoffice may fail me, and this letter not come into your hands until to-morrow morning. In that case, dear Lanyon, do my errand when it shall be most convenient for you in the course of the day; and once more expect my messenger at midnight. It may then already be too late; and if that night passes without event, you will know that you have seen the last of Henry Jekyll.

Upon the reading of this letter, I made sure my colleague was insane; but till that was proved beyond the possibility of doubt, I felt bound to do as he requested. The less I understood of this farrago, the less I was in a position to judge of its importance; and an appeal so worded could not be set aside without a grave responsibility. I rose accordingly from table, got into a hansom, and drove straight to Jekyll's house. The butler was awaiting my arrival, he had received by the same post as mine a registered letter of instruction, and had sent at once for a locksmith and a carpenter. The tradesmen came while we were yet speaking; and we moved in a body to old Dr. Denman's surgical theatre, from which (as you are doubtless aware) Jekyll's private cabinet is most conveniently entered. The door was very strong, the lock excellent; the carpenter avowed he would have great trouble and have to do much damage, if force were to be used; and the locksmith was near despair. But this last was a handy fellow, and after two hours' work, the door stood open. The press marked E was unlocked; and I took out the drawer, had it filled up with straw and tied in a sheet, and returned with it to Cavendish Square.

Here I proceeded to examine its contents. The powders were neatly enough made up, but not with the nicety of the dispensing chemist; so that it was plain they were of Jekyll's private manufacture: and when I opened one of the wrappers I found what seemed to me a simple crystalline salt of a white colour. The phial, to which I next turned my attention, might have been about half full of a blood-red liquor, which was highly pungent to the sense of smell and seemed to me to contain phosphorous and some volatile ether. At the other ingredients I could make no guess.

The book was an ordinary version book and contained little but a series of dates. These covered a period of many years, but I observed that the entries ceased nearly a year ago and quite abruptly. Here and there a brief remark was appended to a date, usually no more than a single word: "double" occurring perhaps six times in a total of several hundred entries; and once very early in the list and followed by several marks of exclamation, "total failure!!!" All this, though it whetted my curiosity, told me little that was definite. Here were a phial of some tincture, a paper of some salt, and the record of a series of experiments that had led (like too many of Jekyll's investigations) to no end of practical usefulness. How could the presence of these articles in my house affect either the honour, the sanity, or the life of my flighty colleague? If his messenger could go to one place, why could he not go to another? And even granting some impediment, why was this gentleman to be received by me in secret? The more I reflected the more convinced I grew that I was dealing with a case of cerebral disease; and though I dismissed my servants to bed, I loaded an old revolver, that I might be found in some posture of self-defence.

Twelve o'clock had scarce rung out over London, ere the knocker sounded very gently on the door. I went myself at the summons, and found a small man crouching against the pillars of the portico.

"Are you come from Dr. Jekyll?" I asked.

He told me "yes" by a constrained gesture; and when I had bidden him enter, he did not obey me without a searching backward glance into the darkness of the square. There was a policeman not far off, advancing with his bull's-eye open; and at the sight, I thought my visitor started and made greater haste.

These particulars struck me, I confess, disagreeably; and as I followed him into the bright light of the consulting-room, I kept my hand ready on my weapon. Here, at last, I had a chance of clearly seeing him. I had never set eyes on him before, so much was certain. He was small, as I have said; I was struck besides with the shocking expression of his face, with his remarkable combination of great muscular activity and great apparent debility of constitution, and–last but not least–with the odd, subjective disturbance caused by his neighbourhood. This bore some resemblance to incipient rigour, and was accompanied by a marked sinking of the pulse. At the time, I set it down to some idiosyncratic, personal distaste, and merely wondered at the acuteness of the symptoms; but I have since had reason to believe the cause to lie much deeper in the nature of man, and to turn on some nobler hinge than the principle of hatred.

This person (who had thus, from the first moment of his entrance, struck in me what I can only describe as a disgustful curiosity) was dressed in a fashion that would have made an ordinary person laughable; his clothes, that is to say, although they were of rich and sober fabric, were enormously too large for him in every measurement–the trousers hanging on his legs and rolled up to keep them from the ground, the waist of the coat below his haunches, and the collar sprawling wide upon his shoulders. Strange to relate, this ludicrous accoutrement was far from moving me to laughter. Rather, as there was something abnormal and misbegotten in the very essence of the creature that now faced me–something seizing, surprising, and revolting–this fresh disparity seemed but to fit in with and to reinforce it; so that to my interest in the man's nature and character, there was added a curiosity as to his origin, his life, his fortune and status in the world.

These observations, though they have taken so great a space to be set down in, were yet the work of a few seconds. My visitor was, indeed, on fire with sombre excitement.

"Have you got it?" he cried. "Have you got it?" And so lively was his impatience that he even laid his hand upon my arm and sought to shake me.

I put him back, conscious at his touch of a certain icy pang along my blood. "Come, sir," said I. "You forget that I have not yet the pleasure of your acquaintance. Be seated, if you please." And I showed him an example, and sat down myself in my customary seat and with as fair an imitation of my ordinary manner to a patient, as the lateness of the hour, the nature of my preoccupations, and the horror I had of my visitor, would suffer me to muster.

"I beg your pardon, Dr. Lanyon," he replied civilly enough. "What you say is very well founded; and my impatience has shown its heels to my politeness. I come here at the instance of your colleague, Dr. Henry Jekyll, on a piece of business of some moment; and I understood . . ." he paused and put his hand to his throat, and I could see, in spite of his collected manner, that he was wrestling against the approaches of the hysteria–"I understood, a drawer . . ."

But here I took pity on my visitor's suspense, and some perhaps on my own growing curiosity.

"There it is, sir," said I, pointing to the drawer, where it lay on the floor behind a table and still covered with the sheet.

He sprang to it, and then paused, and laid his hand upon his heart: I could hear his teeth grate with the convulsive action of his jaws; and his

face was so ghastly to see that I grew alarmed both for his life and reason.

"Compose yourself," said I.

He turned a dreadful smile to me, and as if with the decision of despair, plucked away the sheet. At sight of the contents, he uttered one loud sob of such immense relief that I sat petrified. And the next moment, in a voice that was already fairly well under control, "Have you a graduated glass?" he asked.

I rose from my place with something of an effort and gave him what he asked.

He thanked me with a smiling nod, measured out a few minims of the red tincture and added one of the powders. The mixture, which was at first of a reddish hue, began, in proportion as the crystals melted, to brighten in colour, to effervesce audibly, and to throw off small fumes of vapour. Suddenly and at the same moment, the ebullition ceased and the compound changed to a dark purple, which faded again more slowly to a watery green. My visitor, who had watched these metamorphoses with a keen eye, smiled, set down the glass upon the table, and then turned and looked upon me with an air of scrutiny.

"And now," said he, "to settle what remains. Will you be wise? Will you be guided? Will you suffer me to take this glass in my hand and to go forth from your house without further parley? Or has the greed of curiosity too much command of you? Think before you answer, for it shall be done as you decide. As you decide, you shall be left as you were before, and neither richer nor wiser, unless the sense of service rendered to a man in mortal distress may be counted as a kind of riches of the soul. Or, if you shall so prefer to choose, a new province of knowledge and new avenues to fame and power shall be laid open to you, here, in this room, upon the instant; and your sight shall be blasted by a prodigy to stagger the unbelief of Satan."

"Sir," said I, affecting a coolness that I was far from truly possessing, "you speak enigmas, and you will perhaps not wonder that I hear you with no very strong impression of belief. But I have gone too far in the way of inexplicable services to pause before I see the end."

"It is well," replied my visitor. "Lanyon, you remember your vows: what follows is under the seal of our profession. And now, you who have so long been bound to the most narrow and material views, you who have denied the virtue of transcendental medicine, you who have derided your superiors—behold!"

He put the glass to his lips and drank at one gulp. A cry followed; he reeled, staggered, clutched at the table and held on, staring with injected

eyes, gasping with open mouth; and as I looked there came, I thought, a change—he seemed to swell—his face became suddenly black and the features seemed to melt and alter—and the next moment I had sprung to my feet and leaped back against the wall, my arm raised to shield me from that prodigy, my mind submerged in terror.

"O God!" I screamed, and "O God!" again and again; for there before my eyes—pale and shaken, and half fainting, and groping before him with his hands, like a man restored from death—there stood Henry Jekyll!

What he told me in the next hour, I cannot bring my mind to set on paper. I saw what I saw, I heard what I heard, and my soul sickened at it; and yet now when that sight has faded from my eyes, I ask myself if I believe it, and I cannot answer. My life is shaken to its roots; sleep has left me; the deadliest terror sits by me at all hours of the day and night; I feel that my days are numbered, and that I must die; and yet I shall die incredulous. As for the moral turpitude that man unveiled to me, even with tears of penitence, I cannot, even in memory, dwell on it without a start of horror. I will say but one thing, Utterson, and that (if you can bring your mind to credit it) will be more than enough. The creature who crept into my house that night was, on Jekyll's own confession, known by the name of Hyde and hunted for in every corner of the land as the murderer of Carew.

HASTIE LANYON

HENRY JEKYLL'S FULL STATEMENT OF THE CASE

I was born in the year 18— to a large fortune, endowed besides with excellent parts, inclined by nature to industry, fond of the respect of the wise and good among my fellow-men, and thus, as might have been supposed, with every guarantee of an honourable and distinguished future. And indeed the worst of my faults was a certain impatient gaiety of disposition, such as has made the happiness of many, but such as I found it hard to reconcile with my imperious desire to carry my head high, and wear a more than commonly grave countenance before the public. Hence it came about that I concealed my pleasures; and that when I reached years of reflection, and began to look round me and take stock of my progress and position in the world, I stood already committed to a profound duplicity of life. Many a man would have even blazoned such irregularities as I was guilty of; but from the high views that I had set before me, I regarded and hid them with an almost morbid sense of shame. It was thus rather the exacting nature of my aspirations than any

particular degradation in my faults that made me what I was, and, with even a deeper trench than in the majority of men, severed in me those provinces of good and ill which divide and compound man's dual nature. In this case, I was driven to reflect deeply and inveterately on that hard law of life, which lies at the root of religion and is one of the most plentiful springs of distress. Though so profound a double-dealer, I was in no sense a hypocrite; both sides of me were in dead earnest; I was no more myself when I laid aside restraint and plunged in shame, than when I laboured, in the eye of day, at the furtherance of knowledge or the relief of sorrow and suffering. And it chanced that the direction of my scientific studies, which led wholly towards the mystic and the transcendental, reacted and shed a strong light on this consciousness of the perennial war among my members. With every day, and from both sides of my intelligence, the moral and the intellectual, I thus drew steadily nearer to that truth, by whose partial discovery I have been doomed to such a dreadful shipwreck: that man is not truly one, but truly two. I say two, because the state of my own knowledge does not pass beyond that point. Others will follow, others will outstrip me on the same lines; and I hazard the guess that man will be ultimately known for a mere polity of multifarious, incongruous and independent denizens. I for my part, from the nature of my life, advanced infallibly in one direction and in one direction only. It was on the moral side, and in my own person, that I learned to recognize the thorough and primitive duality of man; I saw that, of the two natures that contended in the field of my consciousness, even if I could rightly be said to be either, it was only because I was radically both; and from an early date, even before the course of my scientific discoveries had begun to suggest the most naked possibility of such a miracle, I had learned to dwell with pleasure, as a beloved day-dream, on the thought of the separation of these elements. If each, I told myself, could but be housed in separate identities, life would be relieved of all that was unbearable; the unjust might go his way, delivered from the aspirations and remorse of his more upright twin; and the just could walk steadfastly and securely on his upward path, doing the good things in which he found his pleasure, and no longer exposed to disgrace and penitence by the hands of this extraneous evil. It was the curse of mankind that these incongruous faggots were thus bound together–that in the agonized womb of consciousness, these polar twins should be continuously struggling. How, then, were they dissociated?

I was so far in my reflections when, as I have said, a side-light began to shine upon the subject from the laboratory table. I began to perceive

more deeply than it has ever yet been stated, the trembling immateriality, the mistlike transcience, of this seemingly so solid body in which we walk attired. Certain agents I found to have the power to shake and to pluck back that fleshly vestment, even as a wind might toss the curtains of a pavilion. For two good reasons, I will not enter deeply into this scientific branch of my confession. First, because I have been made to learn that the doom and burden of our life is bound for ever on man's shoulders, and when the attempt is made to cast it off, it but returns upon us with more unfamiliar and more awful pressure. Second, because, as my narrative will make, alas! too evident, my discoveries were incomplete. Enough, then, that I not only recognized my natural body for the mere aura and effulgence of certain of the powers that made up my spirit, but managed to compound a drug by which these powers should be dethroned from their supremacy, and a second form and countenance substituted, none the less natural to me because they were the expression, and bore the stamp, of lower elements in my soul.

I hesitated long before I put this theory to the test of practice. I knew well that I risked death; for any drug that so potently controlled and shook the very fortress of identity, might by the least scruple of an overdose or at the least inopportunity in the moment of exhibition, utterly blot out that immaterial tabernacle which I looked to it to change. But the temptation of a discovery so singular and profound, at last overcame the suggestions of alarm. I had long since prepared my tincture; I purchased at once, from a firm of wholesale chemists, a large quantity of a particular salt which I knew, from my experiments, to be the last ingredient required; and late one accursed night, I compounded the elements, watched them boil and smoke together in the glass, and when the ebullition had subsided, with a strong glow of courage, drank off the potion.

The most racking pangs succeeded: a grinding in the bones, deadly nausea, and a horror of the spirit that cannot be exceeded at the hour of birth or death. Then these agonies began swiftly to subside, and I came to myself as if out of a great sickness. There was something strange in my sensations, something indescribably new and, from its very novelty, incredibly sweet. I felt younger, lighter, happier in body; within I was conscious of a heady recklessness, a current of disordered sensual images running like a mill race in my fancy, a solution of the bonds of obligation, an unknown but not an innocent freedom of the soul. I knew myself, at the first breath of this new life, to be more wicked, tenfold more wicked, sold a slave to my original evil; and the thought, in that moment, braced

and delighted me like wine. I stretched out my hands, exulting in the freshness of these sensations; and in the act, I was suddenly aware that I had lost in stature.

There was no mirror, at that date, in my room; that which stands beside me as I write, was brought there later on for the very purpose of these transformations. The night, however, was far gone into the morning–the morning, black as it was, was nearly ripe for the conception of the day–the inmates of my house were locked in the most rigorous hours of slumber; and I determined, flushed as I was with hope and triumph, to venture in my new shape as far as to my bedroom. I crossed the yard, wherein the constellations looked down upon me, I could have thought, with wonder, the first creature of that sort that their unsleeping vigilance had yet disclosed to them; I stole through the corridors, a stranger in my own house; and coming to my room, I saw for the first time the appearance of Edward Hyde.

I must here speak by theory alone, saying not that which I know, but that which I suppose to be most probable. The evil side of my nature, to which I had now transferred the stamping efficacy, was less robust and less developed than the good which I had just deposed. Again, in the course of my life, which had been, after all, nine-tenths a life of effort, virtue, and control, it had been much less exercised and much less exhausted. And hence, as I think, it came about that Edward Hyde was so much smaller, slighter, and younger than Henry Jekyll. Even as good shone upon the countenance of the one, evil was written broadly and plainly on the face of the other. Evil besides (which I must still believe to be the lethal side of man) had left on that body an imprint of deformity and decay. And yet when I looked upon that ugly idol in the glass, I was conscious of no repugnance, rather of a leap of welcome. This, too, was myself. It seemed natural and human. In my eyes it bore a livelier image of the spirit, it seemed more express and single, than the imperfect and divided countenance I had been hitherto accustomed to call mine. And in so far I was doubtless right. I have observed that when I wore the semblance of Edward Hyde, none could come near to me at first without a visible misgiving of the flesh. This, as I take it, was because all human beings, as we meet them, are commingled out of good and evil: and Edward Hyde, alone in the ranks of mankind, was pure evil.

I lingered but a moment at the mirror: the second and conclusive experiment had yet to be attempted; it yet remained to be seen if I had lost my identity beyond redemption and must flee before daylight from a house that was no longer mine; and hurrying back to my cabinet, I once

more prepared and drank the cup, once more suffered the pangs of dissolution, and came to myself once more with the character, the stature, and the face of Henry Jekyll.

That night I had come to the fatal cross-road. Had I approached my discovery in a more noble spirit, had I risked the experiment while under the empire of generous or pious aspirations, all must have been otherwise, and from these agonies of death and birth, I had come forth an angel instead of a fiend. The drug had no discriminating action; it was neither diabolical nor divine; it but shook the doors of the prison house of my disposition; and like the captives of Philippi, that which stood within ran forth. At that time my virtue slumbered; my evil, kept awake by ambition, was alert and swift to seize the occasion; and the thing that was projected was Edward Hyde. Hence, although I had now two characters as well as two appearances, one was wholly evil, and the other was still the old Henry Jekyll, that incongruous compound of whose reformation and improvement I had already learned to despair. The movement was thus wholly towards the worse.

Even at that time, I had not yet conquered my aversion to the dryness of a life of study. I would still be merrily disposed at times; and as my pleasures were (to say the least) undignified, and as I was not only well known and highly considered, but growing towards the elderly man, this incoherency of my life was daily growing more unwelcome. It was on this side that my new power tempted me until I fell in slavery. I had but to drink the cup, to doff at once the body of the noted professor, and to assume, like a thick cloak, that of Edward Hyde. I smiled at the notion; it seemed to me at the time to be humourous; and I made my preparations with the most studious care. I took and furnished the house in Soho, to which Hyde was tracked by the police; and engaged as housekeeper a creature whom I well knew to be silent and unscrupulous. On the other side, I announced to my servants that a Mr. Hyde (whom I described) was to have full liberty and power about my house in the square; and to parry mishaps, I even called and made myself a familiar object, in my second character. I next drew up that will to which you so much objected; so that if anything befell me in the person of Dr. Jekyll, I could enter on that of Edward Hyde without pecuniary loss. And thus fortified, as I supposed, on every side, I began to profit by the strange immunities of my position.

Men have before hired bravos to transact their crimes, while their own person and reputation sat under shelter. I was the first that ever did so for his pleasures. I was the first that could thus plod in the public eye

with a load of genial respectability, and in a moment, like a schoolboy, strip off these lendings and spring headlong into the sea of liberty. But for me, in my impenetrable mantle, the safety was complete. Think of it–I did not even exist! Let me but escape into my laboratory door, give me but a second or two to mix and swallow the draught that I had always standing ready; and whatever he had done, Edward Hyde would pass away like the stain of breath upon a mirror; and there in his stead, quietly at home, trimming the midnight lamp in his study, a man who could afford to laugh at suspicion, would be Henry Jekyll.

The pleasures which I made haste to seek in my disguise were, as I have said, undignified; I would scarce use a harder term. But in the hands of Edward Hyde, they soon began to turn towards the monstrous. When I would come back from these excursions, I was often plunged into a kind of wonder at my vicarious depravity. This familiar that I called out of my own soul, and sent forth alone to do his good pleasure, was a being inherently malign and villainous; his every act and thought centered on self; drinking pleasure with bestial avidity from any degree of torture to another; relentless like a man of stone. Henry Jekyll stood at times aghast before the acts of Edward Hyde; but the situation was apart from ordinary laws, and insidiously relaxed the grasp of conscience. It was Hyde, after all, and Hyde alone, that was guilty. Jekyll was no worse; he woke again to his good qualities seemingly unimpaired; he would even make haste, where it was possible, to undo the evil done by Hyde. And thus his conscience slumbered.

Into the details of the infamy at which I thus connived (for even now I can scarce grant that I committed it) I have no design of entering; I mean but to point out the warnings and the successive steps with which my chastisement approached. I met with one accident which, as it brought on no consequence, I shall no more than mention. An act of cruelty to a child aroused against me the anger of a passer-by, whom I recognized the other day in the person of your kinsman; the doctor and the child's family joined him; there were moments when I feared for my life; and at last, in order to pacify their too just resentment, Edward Hyde had to bring them to the door, and pay them in a cheque drawn in the name of Henry Jekyll. But this danger was easily eliminated from the future, by opening an account at another bank in the name of Edward Hyde himself; and when, by sloping my own hand backward, I had supplied my double with a signature, I thought I sat beyond the reach of fate.

Some two months before the murder of Sir Danvers, I had been out

for one of my adventures, had returned at a late hour, and woke the next day in bed with somewhat odd sensations. It was in vain I looked about me; in vain I saw the decent furniture and tall proportions of my room in the square; in vain that I recognized the pattern of the bed curtains and the design of the mahogany frame; something still kept insisting that I was not where I was, that I had not wakened where I seemed to be, but in the little room in Soho where I was accustomed to sleep in the body of Edward Hyde. I smiled to myself, and, in my psychological way began lazily to Inquire into the elements of this illusion, occasionally, even as I did so, dropping back into a comfortable morning doze. I was still so engaged when, in one of my more wakeful moments, my eyes fell upon my hand. Now the hand of Henry Jekyll (as you have often remarked) was professional in shape and size: it was large, firm, white, and comely. But the hand which I now saw, clearly enough, in the yellow light of a mid-London morning, lying half shut on the bed clothes, was lean, corded, knuckly, of a dusky pallor, and thickly shaded with a swart growth of hair. It was the hand of Edward Hyde.

I must have stared upon it for near half a minute, sunk as I was in the mere stupidity of wonder, before terror woke up in my breast as sudden and startling as the crash of cymbals; and bounding from my bed, I rushed to the mirror. At the sight that met my eyes, my blood was changed into something exquisitely thin and icy. Yes, I had gone to bed Henry Jekyll, I had awakened Edward Hyde. How was this to be explained? I asked myself; and then, with another bound of terror—how was it to be remedied? It was well on in the morning; the servants were up; all my drugs were in the cabinet—a long journey down two pair of stairs, through the back passage, across the open court and through the anatomical theatre, from where I was then standing horror-struck. It might indeed be possible to cover my face; but of what use was that, when I was unable to conceal the alteration in my stature? And then with an overpowering sweetness of relief, it came back upon my mind that the servants were already used to the coming and going of my second self. I had soon dressed, as well as I was able, in clothes of my own size; had soon passed through the house, where Bradshaw stared and drew back at seeing Mr. Hyde at such an hour and in such a strange array; and ten minutes later, Dr. Jekyll had returned to his own shape and was sitting down, with a darkened brow, to make a feint of breakfasting.

Small indeed was my appetite. This inexplicable incident, this reversal of my previous experience, seemed, like the Babylonian finger on the wall, to be spelling out the letters of my judgment; and I began to reflect,

more seriously than ever before on the issues and possibilities of my double existence. That part of me which I had the power of projecting, had lately been much exercised and nourished; it had seemed to me of late as though the body of Edward Hyde had grown in stature, as though (when I wore that form) I were conscious of a more generous tide of blood; and I began to spy a danger that, if this were much prolonged, the balance of my nature might be permanently overthrown, the power of voluntary change be forfeited, and the character of Edward Hyde become irrevocably mine. The power of the drug had not been always equally displayed. Once, very early in my career, it had totally failed me; since then I had been obliged on more than one occasion to double, and once, with infinite risk of death, to treble the amount; and these rare uncertainties had cast hitherto the sole shadow on my contentment. Now, however, and in the light of that morning's accident, I was led to remark that whereas, in the beginning, the difficulty had been to throw off the body of Jekyll, it had of late gradually but decidedly transferred itself to the other side. All things therefore seemed to point to this: that I was slowly losing hold of my original and better self, and becoming slowly incorporated with my second and worse.

Between these two, I now felt I had to choose. My two natures had memory in common, but all other faculties were most unequally shared between them. Jekyll (who was composite) now with the most sensitive apprehensions, now with a greedy gusto, projected and shared in the pleasures and adventures of Hyde; but Hyde was indifferent to Jekyll, or but remembered him as the mountain bandit remembers the cavern in which he conceals himself from pursuit. Jekyll had more than a father's interest; Hyde had more than a son's indifference. To cast in my lot with Jekyll, was to die to those appetites which I had long secretly indulged and had of late begun to pamper. To cast it in with Hyde, was to die to a thousand interests and aspirations, and to become, at a blow and for ever, despised and friendless. The bargain might appear unequal; but there was still another consideration in the scales; for while Jekyll would suffer smartingly in the fires of abstinence, Hyde would be not even conscious of all that he had lost. Strange as my circumstances were, the terms of this debate are as old and commonplace as man; much the same inducements and alarms cast the die for any tempted and trembling sinner; and it fell out with me, as it falls with so vast a majority of my fellows, that I chose the better part and was found wanting in the strength to keep to it.

Yes, I preferred the elderly and discontented doctor, surrounded by friends and cherishing honest hopes; and bade a resolute farewell to the liberty, the comparative youth, the light step, leaping impulses and secret pleasures, that I had enjoyed in the disguise of Hyde. I made this choice perhaps with some unconscious reservation, for I neither gave up the house in Soho, nor destroyed the clothes of Edward Hyde, which still lay ready in my cabinet. For two months, however, I was true to my determination; for two months I led a life of such severity as I had never before attained to, and enjoyed the compensations of an approving conscience. But time began at last to obliterate the freshness of my alarm; the praises of conscience began to grow into a thing of course; I began to be tortured with throes and longings, as of Hyde struggling after freedom; and at last, in an hour of moral weakness, I once again compounded and swallowed the transforming draught.

I do not suppose that, when a drunkard reasons with himself upon his vice, he is once out of five hundred times affected by the dangers that he runs through his brutish, physical insensibility; neither had I, long as I had considered my position, made enough allowance for the complete moral insensibility and insensate readiness to evil, which were the leading characters of Edward Hyde. Yet it was by these that I was punished. My devil had been long caged, he came out roaring. I was conscious, even when I took the draught, of a more unbridled, a more furious propensity to ill. It must have been this, I suppose, that stirred in my soul that tempest of impatience with which I listened to the civilities of my unhappy victim; I declare, at least, before God, no man morally sane could have been guilty of that crime upon so pitiful a provocation; and that I struck in no more reasonable spirit than that in which a sick child may break a plaything. But I had voluntarily stripped myself of all those balancing instincts by which even the worst of us continues to walk with some degree of steadiness among temptations; and in my case, to be tempted, however slightly, was to fall.

Instantly the spirit of hell awoke in me and raged. With a transport of glee, I mauled the unresisting body, tasting delight from every blow; and it was not till weariness had begun to succeed, that I was suddenly, in the top fit of my delirium, struck through the heart by a cold thrill of terror. A mist dispersed; I saw my life to be forfeit; and fled from the scene of these excesses, at once glorifying and trembling, my lust of evil gratified and stimulated, my love of life screwed to the topmost peg. I ran to the house in Soho, and (to make assurance doubly sure) destroyed my

papers; thence I set out through the lamplit streets, in the same divided ecstasy of mind, gloating on my crime, light-headedly devising others in the future, and yet still hastening and still hearkening in my wake for the steps of the avenger. Hyde had a song upon his lips as he compounded the draught, and as he drank it, pledged the dead man. The pangs of transformation had not done tearing him, before Henry Jekyll, with streaming tears of gratitude and remorse, had fallen upon his knees and lifted his clasped hands to God. The veil of self-indulgence was rent from head to foot. I saw my life as a whole: I followed it up from the days of childhood, when I had walked with my father's hand, and through the self-denying toils of my professional life, to arrive again and again, with the same sense of unreality, at the damned horrors of the evening. I could have screamed aloud; I sought with tears and prayers to smother down the crowd of hideous images and sounds with which my memory swarmed against me; and still, between the petitions, the ugly face of my iniquity stared into my soul. As the acuteness of this remorse began to die away, it was succeeded by a sense of joy. The problem of my conduct was solved. Hyde was thenceforth impossible; whether I would or not, I was now confined to the better part of my existence; and O, how I rejoiced to think it! with what willing humility, I embraced anew the restrictions of natural life! With what sincere renunciation, I locked the door by which I had so often gone and come, and ground the key under my heel!

The next day, came the news that the murder had been overlooked, that the guilt of Hyde was patent to the world, and that the victim was a man high in public estimation. It was not only a crime, it had been a tragic folly. I think I was glad to know it; I think I was glad to have my better impulses thus buttressed and guarded by the terrors of the scaffold. Jekyll was now my city of refuge; let but Hyde peep out an instant, and the hands of all men would be raised to take and slay him.

I resolved in my future conduct to redeem the past; and I can say with honesty that my resolve was fruitful of some good. You know yourself how earnestly in the last months of last year, I laboured to relieve suffering; you know that much was done for others, and that the days passed quietly, almost happily for myself. Nor can I truly say that I wearied of this beneficent and innocent life; I think instead that I daily enjoyed it more completely; but I was still cursed with my duality of purpose; and as the first edge of my penitence wore off, the lower side of me, so long indulged, so recently chained down, began to growl for licence. Not that

I dreamed of resuscitating Hyde; the bare idea of that would startle me to frenzy: no, it was in my own person, that I was once more tempted to trifle with my conscience; and it was as an ordinary secret sinner, that I at last fell before the assaults of temptation.

There comes an end to all things; the most capacious measure is filled at last; and this brief condescension to my evil finally destroyed the balance of my soul. And yet I was not alarmed; the fall seemed natural, like a return to the old days before I had made my discovery. It was a fine, clear, January day, wet underfoot where the frost had melted, but cloudless overhead; and the Regent's Park was full of winter chirrupings and sweet with spring odours. I sat in the sun on a bench; the animal within me licking the chops of memory; the spiritual side a little drowsed, promising subsequent penitence, but not yet moved to begin. After all, I reflected, I was like my neighbours; and then I smiled, comparing myself with other men, comparing my active goodwill with the lazy cruelty of their neglect. And at the very moment of that vainglorious thought, a qualm came over me, a horrid nausea and the most deadly shuddering. These passed away, and left me faint; and then as in its turn the faintness subsided, I began to be aware of a change in the temper of my thoughts, a greater boldness, a contempt of danger, a solution of the bonds of obligation. I looked down; my clothes hung formlessly on my shrunken limbs; the hand that lay on my knee was corded and hairy. I was once more Edward Hyde. A moment before I had been safe of all men's respect, wealthy, beloved—the cloth laying for me in the dining-room at home; and now I was the common quarry of mankind, hunted, houseless, a known murderer, thrall to the gallows.

My reason wavered, but it did not fail me utterly. I have more than once observed that, in my second character, my faculties seemed sharpened to a point and my spirits more tensely elastic; thus it came about that, where Jekyll perhaps might have succumbed, Hyde rose to the importance of the moment. My drugs were in one of the presses of my cabinet; how was I to reach them? That was the problem that (crushing my temples in my hands) I set myself to solve. The laboratory door I had closed. If I sought to enter by the house, my own servants would consign me to the gallows. I saw I must employ another hand, and thought of Lanyon. How was he to be reached? How persuaded? Supposing that I escaped capture in the streets, how was I to make my way into his presence? And how should I, an unknown and displeasing visitor, prevail on the famous physician to rifle the study of his colleague, Dr. Jekyll? Then I

remembered that of my original character, one part remained to me: I could write my own hand; and once I had conceived that kindling spark, the way that I must follow became lighted up from end to end.

Thereupon I arranged my clothes as best I could, and summoning a passing hansom, drove to a hotel in Portland Street, the name of which I chanced to remember. At my appearance (which was indeed comical enough, however tragic a fate these garments covered) the driver could not conceal his mirth. I gnashed my teeth upon him with a gust of devilish fury; and the smile withered from his face—happily for him—yet more happily for myself, for in another instant I had certainly dragged him from his perch. At the inn, as I entered, I looked about me with so black a countenance as made the attendants tremble; not a look did they exchange in my presence; but obsequiously took my orders, led me to a private room, and brought me wherewithal to write. Hyde in danger of his life was a creature new to me; shaken with inordinate anger, strung to the pitch of murder, lusting to inflict pain. Yet the creature was astute; mastered his fury with a great effort of the will; composed his two important letters, one to Lanyon and one to Poole; and that he might receive actual evidence of their being posted, sent them out with directions that they should be registered.

Thenceforward, he sat all day over the fire in the private room, gnawing his nails; there he dined, sitting alone with his fears, the waiter visibly quailing before his eye; and thence, when the night was fully come, he set forth in the corner of a closed cab, and was driven to and fro about the streets of the city. He, I say—I cannot say, I. That child of Hell had nothing human; nothing lived in him but fear and hatred. And when at last, thinking the driver had begun to grow suspicious, he discharged the cab and ventured on foot, attired in his misfitting clothes, an object marked out for observation, into the midst of the nocturnal passengers, these two base passions raged within him like a tempest. He walked fast, hunted by his fears, chattering to himself, skulking through the less frequented thoroughfares, counting the minutes that still divided him from midnight. Once a woman spoke to him, offering, I think, a box of lights. He smote her in the face, and she fled.

When I came to myself at Lanyon's, the horror of my old friend perhaps affected me somewhat: I do not know; it was at least but a drop in the sea to the abhorrence with which I looked back upon these hours. A change had come over me. It was no longer the fear of the gallows, it was the horror of being Hyde that racked me. I received Lanyon's condemnation partly in a dream; it was partly in a dream that I came home to my

own house and got into bed. I slept after the prostration of the day, with a stringent and profound slumber which not even the nightmares that wrung me could avail to break. I awoke in the morning shaken, weakened, but refreshed. I still hated and feared the thought of the brute that slept within me, and I had not of course forgotten the appalling dangers of the day before; but I was once more at home, in my own house and close to my drugs; and gratitude for my escape shone so strong in my soul that it almost rivalled the brightness of hope.

I was stepping leisurely across the court after breakfast, drinking the chill of the air with pleasure, when I was seized again with those indescribable sensations that heralded the change; and I had but the time to gain the shelter of my cabinet, before I was once again raging and freezing with the passions of Hyde. It took on this occasion a double dose to recall me to myself; and alas! Six hours after, as I sat looking sadly in the fire, the pangs returned, and the drug had to be readministered. In short, from that day forth it seemed only by a great effort of gymnastics, and only under the immediate stimulation of the drug, that I was able to wear the countenance of Jekyll. At all hours of the day and night, I would be taken with the premonitory shudder; above all, if I slept, or even dozed for a moment in my chair, it was always as Hyde that I awakened. Under the strain of this continually impending doom and by the sleeplessness to which I now condemned myself, ay, even beyond what I had thought possible to man, I became, in my own person, a creature eaten up and emptied by fever, languidly weak both in body and mind, and solely occupied by one thought: the horror of my other self. But when I slept, or when the virtue of the medicine wore off, I would leap almost without transition (for the pangs of transformation grew daily less marked) into the possession of a fancy brimming with images of terror, a soul boiling with causeless hatreds, and a body that seemed not strong enough to contain the raging energies of life. The powers of Hyde seemed to have grown with the sickliness of Jekyll. And certainly the hate that now divided them was equal on each side. With Jekyll, it was a thing of vital instinct. He had now seen the full deformity of that creature that shared with him some of the phenomena of consciousness, and was co-heir with him to death: and beyond these links of community, which in themselves made the most poignant part of his distress, he thought of Hyde, for all his energy of life, as of something not only hellish but inorganic. This was the shocking thing; that the slime of the pit seemed to utter cries and voices; that the amorphous dust gesticulated and sinned; that what was dead, and had no shape, should usurp the offices of life. And

this again, that that insurgent horror was knit to him closer than a wife, closer than an eye; lay caged in his flesh, where he heard it mutter and felt it struggle to be born; and at every hour of weakness, and in the confidence of slumber, prevailed against him, and deposed him out of life. The hatred of Hyde for Jekyll, was of a different order. His terror of the gallows drove him continually to commit temporary suicide, and return to his subordinate station of a part instead of a person; but he loathed the necessity, he loathed the despondency into which Jekyll was now fallen, and he resented the dislike with which he was himself regarded. Hence the apelike tricks that he would play me, scrawling in my own hand blasphemies on the pages of my books, burning the letters and destroying the portrait of my father; and indeed, had it not been for his fear of death, he would long ago have ruined himself in order to involve me in the ruin. But his love of life is wonderful; I go further: I, who sicken and freeze at the mere thought of him, when I recall the abjection and passion of this attachment, and when I know how he fears my power to cut him off by suicide, I find it in my heart to pity him.

It is useless, and the time awfully fails me, to prolong this description; no one has ever suffered such torments, let that suffice; and yet even to these, habit brought—no, not alleviation—but a certain callousness of soul, a certain acquiescence of despair; and my punishment might have gone on for years, but for the last calamity which has now fallen, and which has finally severed me from my own face and nature. My provision of the salt, which had never been renewed since the date of the first experiment, began to run low. I sent out for a fresh supply, and mixed the draught; the ebullition followed, and the first change of colour, not the second; I drank it and it was without efficiency. You will learn from Poole how I have had London ransacked: it was in vain; and I am now persuaded that my first supply was impure, and that it was that unknown impurity which lent efficacy to the draught.

About a week has passed, and I am now finishing this statement under the influence of the last of the old powders. This, then, is the last time, short of a miracle, that Henry Jekyll can think his own thoughts or see his own face (now how sadly altered!) in the glass. Nor must I delay too long to bring my writing to an end; for if my narrative has hitherto escaped destruction, it has been by a combination of great prudence and great good luck. Should the throes of change take me in the act of writing it, Hyde will tear it in pieces; but if some time shall have elapsed after I have laid it by, his wonderful selfishness and circumscription to the moment will probably save it once again from the action of his apelike spite.

And indeed the doom that is closing on us both, has already changed and crushed him. Half an hour from now, when I shall again and for ever reindue that hated personality, I know how I shall sit shuddering and weeping in my chair, or continue, with the most strained and fearstruck ecstasy of listening, to pace up and down this room (my last earthly refuge) and give ear to every sound of menace. Will Hyde die upon the scaffold? Or will he find courage to release himself at the last moment? God knows; I am careless; this is my true hour of death, and what is to follow concerns another than myself. Here then, as I lay down the pen and proceed to seal up my confession, I bring the life of that unhappy Henry Jekyll to an end.

Mark Twain

1835–1910

Descended from a line of westward-moving Virginians who "never forgot that they were gentry," Samuel Langhorne Clemens was born November 30, 1835, in Florida, Missouri. Four years later the family moved to Hannibal, Missouri. This small town on the Mississippi would be Sam Clemens' great magic place, the scene of *Tom Sawyer* and *The Adventures of Huckleberry Finn.*

His father died in 1847. The tallish, sandy-haired boy with the sharp, gray-blue eyes stayed in school for a while (he got little enough of it) and became an apprentice printer in Hannibal. In 1853 his wanderings began. As a journeyman printer he worked in St. Louis, New York City, and Philadelphia, and later on his brother Orion's paper in Iowa. On a trip down the Mississippi in 1856, he managed to get himself taken on as an apprentice pilot. He followed the lordly trade of river-boat piloting until the Civil War all but ended traffic in 1861.

That year he spent "an inglorious few weeks" in the Confederate militia. Then he joined his brother Orion on a trip to Nevada Territory, tried timber speculation and silver mining, and got a job as a feature writer on the *Virginia City Territorial Enterprise*. From an old fellow pilot on the river he borrowed his pen name, Mark Twain (a leadsman's call meaning two fathoms–safe or bold water). Mov-

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Notes from the artist: "*Mark Twain and two of the 'characters' from his short story* The Celebrated Jumping Frog of Calaveras County. *A trim, athletic swamp frog leaps easily above 'Dan'l Webster,' bloated and leaden with quail shot.*"

Mark Twain

ing to San Francisco in 1864, he worked for the *Call* and contributed to Bret Harte's *Californian*. The story of Jim Smiley and his jumping frog, printed in New York, gave him his first national notice. When he got back from a voyage to Hawaii, a trial or two in San Francisco convinced him that he could do well at lecturing.

Twain took ship by way of the isthmus for New York. There, in 1867, he published his first book, *The Celebrated Jumping Frog of Calaveras County, and Other Sketches*. That same year he traveled in Europe and the Holy Land, sending back articles that would later grow into *Innocents Abroad*. His name was made. He married Olivia Langdon in 1870 and after a stay in Buffalo, New York, he lived in Hartford, Connecticut, until 1891, then in Europe, Redding, Connecticut, and New York City. About 1893 the failure of his business speculations sent him on a lecture tour around the world. With the proceeds from this trip and two new books, Twain, like Defoe, paid off his creditors to the last dollar.

His most famous books–*Tom Sawyer, Huckleberry Finn, Life on the Mississippi, The Prince and the Pauper, A Connecticut Yankee in King Arthur's Court,* and others–were written in the 1870's and 1880's. He died on April 21, 1910.

Twain began as a humorist of the old frontier school and grew into a satirist. Toward the end of his life, the satire turned almost as grim as Swift's. *The Man That Corrupted Hadleyburg* was published in 1900 and thus belongs among his later works. Like Henry Adams and Walt Whitman, he watched the America he had known vanish after the Civil War. He detested the coarse scramble for money that accompanied the expansion of the 1870's and 1880's. He saw what this had done to the old American sense of community.

"Hadleyburg" is the other side of Tom Sawyer, as cynical as the earlier book is idealized. Notice that when Twain set out to show the corruption of a small town, he did it in terms of money. This was his sense of what had happened to America; but only an American writer would conceive of attitudes toward money as central to morality. Even Balzac might have been a little startled at a whole community of swindlers. What? Not one honest man or woman in the whole town of Hadleyburg? Or only one?

But the story, of course, is satire, and takes the liberties of satire. Twain's mastery makes us believe it. It has as many turns of plot as

a Chinese drama. Each time we think we have come to the last door, another opens in front of us; and each door reveals some harshly comic spectacle of human weakness or greed, hypocrisy or betrayal. We witness the moral death of a community in which every value is reversed and even well-meant actions have cruel effects. Is this Twain's judgment on morality itself? In the end, nothing is changed but the name of the town and its motto. In the old motto, LEAD US NOT INTO TEMPTATION, one word has been left out.

The Man That Corrupted Hadleyburg

It was many years ago. Hadleyburg was the most honest and upright town in all the region round about. It had kept that reputation unsmirched during three generations, and was prouder of it than of any other of its possessions. It was so proud of it, and so anxious to insure its perpetuation, that it began to teach the principles of honest dealing to its babies in the cradle, and made the like teachings the staple of their culture thenceforward through all the years devoted to their education. Also, throughout the formative years temptations were kept out of the way of the young people, so that their honesty could have every chance to harden and solidify, and become a part of their very bone. The neighboring towns were jealous of this honorable supremacy, and affected to sneer at Hadleyburg's pride in it and call it vanity; but all the same they were obliged to acknowledge that Hadleyburg was in reality an incorruptible town; and if pressed they would also acknowledge that the mere fact that a young man hailed from Hadleyburg was all the recommendation he needed when he went forth from his natal town to seek for responsible employment.

But at last, in the drift of time, Hadleyburg had the ill luck to offend a passing stranger—possibly without knowing it, certainly without caring, for Hadleyburg was sufficient unto itself, and cared not a rap for strangers or their opinions. Still, it would have been well to make an exception in this one's case, for he was a bitter man and revengeful. All through his wanderings during a whole year he kept his injury in mind, and gave all his leisure moments to trying to invent a compensating satisfaction for it. He contrived many plans, and all of them were good, but none of them was quite sweeping enough; the poorest of them would hurt a great

many individuals, but what he wanted was a plan which would comprehend the entire town, and not let so much as one person escape unhurt. At last he had a fortunate idea, and when it fell into his brain it lit up his whole head with an evil joy. He began to form a plan at once, saying to himself, "That is the thing to do–I will corrupt the town."

Six months later he went to Hadleyburg, and arrived in a buggy at the house of the old cashier of the bank about ten at night. He got a sack out of the buggy, shouldered it, and staggered with it through the cottage yard, and knocked at the door. A woman's voice said "Come in," and he entered, and set his sack behind the stove in the parlor, saying politely to the old lady who sat reading the *Missionary Herald* by the lamp:

"Pray keep your seat, madam, I will not disturb you. There–now it is pretty well concealed; one would hardly know it was there. Can I see your husband a moment, madam?"

No, he was gone to Brixton, and might not return before morning.

"Very well, madam, it is no matter. I merely wanted to leave that sack in his care, to be delivered to the rightful owner when he shall be found. I am a stranger; he does not know me; I am merely passing through the town tonight to discharge a matter which has been long in my mind. My errand is now completed, and I go pleased and a little proud, and you will never see me again. There is a paper attached to the sack which will explain everything. Good night, madam."

The old lady was afraid of the mysterious big stranger, and was glad to see him go. But her curiosity was roused, and she went straight to the sack and brought away the paper. It began as follows:

> TO BE PUBLISHED: or, the right man sought out by private inquiry–either will answer. This sack contains gold coin weighing a hundred and sixty pounds four ounces–

"Mercy on us, and the door not locked!"

Mrs. Richards flew to it all in a tremble and locked it, then pulled down the window shades and stood frightened, worried, and wondering if there was anything else she could do toward making herself and the money more safe. She listened awhile for burglars, then surrendered to curiosity and went back to the lamp and finished reading the paper:

> I am a foreigner, and am presently going back to my own country, to remain there permanently. I am grateful to America for what I have received at her hands during my long stay under her flag; and to one of her citizens–a citizen of Hadleyburg–I am especially grateful for a

great kindness done me a year or two ago. Two great kindnesses, in fact. I will explain. I was a gambler. I say I WAS. I was a ruined gambler. I arrived in this village at night, hungry and without a penny. I asked for help—in the dark; I was ashamed to beg in the light I begged of the right man. He gave me twenty dollars—that is to say, he gave me life, as I considered it. He also gave me fortune; for out of that money I have made myself rich at the gaming table. And finally, a remark which he made to me has remained with me to this day, and has at last conquered me; and in conquering has saved the remnant of my morals: I shall gamble no more. Now I have no idea who that man was, but I want him found, and I want him to have this money, to give away, throw away, or keep, as he pleases. It is merely my way of testifying my gratitude to him. If I could stay, I would find him myself; but no matter, he will be found. This is an honest town, an incorruptible town, and I know I can trust it without fear. This man can be identified by the remark which he made to me; I feel persuaded that he will remember it.

And now my plan is this: If you prefer to conduct the inquiry privately, do so. Tell the contents of this present writing to anyone who is likely to be the right man. If he shall answer, "I am the man; the remark I made was so-and-so," apply the test—to wit: open the sack, and in it you will find a sealed envelope containing that remark. If the remark mentioned by the candidate tallies with it, give him the money, and ask no further questions, for he is certainly the right man.

But if you shall prefer a public inquiry, then publish this present writing in the local paper—with these instructions added, to wit: Thirty days from now, let the candidate appear at the town hall at eight in the evening (Friday), and hand his remark, in a sealed envelope, to the Rev. Mr. Burgess (if he will be kind enough to act); and let Mr. Burgess there and then destroy the seals of the sack, open it, and see if the remark is correct: if correct, let the money be delivered, with my sincere gratitude, to my benefactor thus identified.

Mrs. Richards sat down, gently quivering with excitement, and was soon lost in thinkings—after this pattern: "What a strange thing it is! . . . And what a fortune for that kind man who set his bread afloat upon the waters! . . . If it had only been my husband that did it!—for we are so poor, so old and poor! . . ." Then, with a sigh—"But it was not my Edward; no, it was not he that gave a stranger twenty dollars. It is a pity, too; I see it now. . . ." Then, with a shudder—"But it is *gambler's* money! the wages of sin: we couldn't take it; we couldn't touch it. I don't like to be near it; it seems a defilement." She moved to a farther chair. . . . "I wish Edward would come, and take it to the bank; a burglar might come at any moment; it is dreadful to be here all alone with it."

At eleven Mr. Richards arrived, and while his wife was saying, "I am *so* glad you've come!" he was saying, "I'm so tired–tired clear out; it is dreadful to be poor, and have to make these dismal journeys at my time of life. Always at the grind, grind, grind, on a salary–another man's slave, and he sitting at home in his slippers, rich and comfortable."

"I am so sorry for you, Edward, you know that; but be comforted: we have our livelihood; we have our good name–"

"Yes, Mary, and that is everything. Don't mind my talk–it's just a moment's irritation and doesn't mean anything. Kiss me–there, it's all gone now, and I am not complaining any more. What have you been getting? What's in the sack?"

Then his wife told him the great secret. It dazed him for a moment; then he said:

"It weighs a hundred and sixty pounds? Why, Mary, it's for-ty thousand dollars–think of it–a whole fortune! Not ten men in this village are worth that much. Give me the paper."

He skimmed through it and said:

"Isn't it an adventure! Why, it's a romance; it's like the impossible things one reads about in books, and never sees in life." He was well stirred up now; cheerful, even gleeful. He tapped his old wife on the cheek, and said, humorously, "Why, we're rich, Mary, rich; all we've got to do is to bury the money and burn the papers. If the gambler ever comes to inquire, well merely look coldly upon him and say: 'What is this nonsense you are talking? We have never heard of you and your sack of gold before'; and then he would look foolish, and–"

"And in the meantime, while you are running on with your jokes, the money is still here, and it is fast getting along toward burglar-time."

"True. Very well, what shall we do–make the inquiry private? No, not that: it would spoil the romance. The public method is better. Think what a noise it will make! And it will make all the other towns jealous; for no stranger would trust such a thing to any town but Hadleyburg, and they know it. It's a great card for us. I must get to the printing office now, or I shall be too late."

"But stop–stop–don't leave me here alone with it, Edward!"

But he was gone. For only a little while, however. Not far from his own house he met the editor-proprietor of the paper, and gave him the document, and said, "Here is a good thing for you, Cox–put it in."

"It may be too late, Mr. Richards, but I'll see."

At home again he and his wife sat down to talk the charming mystery over; they were in no condition for sleep. The first question was, Who

could the citizen have been who gave the stranger the twenty dollars? It seemed a simple one; both answered it in the same breath.

"Barclay Goodson."

"Yes," said Richards, "he could have done it, and it would have been like him, but there's not another in the town."

"Everybody will grant that, Edward–grant it privately, anyway. For six months, now, the village has been its own proper self once more–honest, narrow, self-righteous, and stingy."

"It is what he always called it, to the day of his death–said it right out publicly, too."

"Yes, and he was hated for it."

"Oh, of course; but he didn't care. I reckon he was the best-hated man among us, except the Reverend Burgess."

"Well, Burgess deserves it–he will never get another congregation here. Mean as the town is, it knows how to estimate *him*. Edward, doesn't it seem odd that the stranger should appoint Burgess to deliver the money?"

"Well, yes–it does. That is–that is–"

"Why so much that-*is*-ing? Would *you* select him?"

"Mary, maybe the stranger knows him better than this village does."

"Much *that* would help Burgess!"

The husband seemed perplexed for an answer; the wife kept a steady eye upon him, and waited. Finally Richards said, with the hesitancy of one who is making a statement which is likely to encounter doubt:

"Mary, Burgess is not a bad man."

His wife was certainly surprised.

"Nonsense!" she exclaimed.

"He is not a bad man. I know. The whole of his unpopularity had its foundation in that one thing–the thing that made so much noise."

"That 'one thing,' indeed! As if that 'one thing' wasn't enough, all by itself."

"Plenty. Plenty. Only he wasn't guilty of it."

"How you talk! Not guilty of it! Everybody knows he *was* guilty."

"Mary, I give you my word–he was innocent."

"I can't believe it, and I don't. How do you know?"

"It is a confession. I am ashamed, but I will make it. I was the only man who knew he was innocent. I could have saved him, and–and–well, you know how the town was wrought up–I hadn't the pluck to do it. It would have turned everybody against me. I felt mean, ever so mean; but I didn't dare; I hadn't the manliness to face that."

Mary looked troubled, and for a while was silent. Then she said, stammeringly:

"I–I don't think it would have done for you to–to–One mustn't–er–public opinion–one has to be so careful–so–" It was a difficult road, and she got mired; but after a little she got started again. "It was a great pity, but–Why, we couldn't afford it, Edward–we couldn't indeed. Oh, I wouldn't have had you do it for anything!"

"It would have lost us the good will of so many people, Mary; and then–and then–"

"What troubles me now is what *he* thinks of us, Edward."

"He? *He* doesn't suspect that I could have saved him."

"Oh," exclaimed the wife, in a tone of relief, "I am glad of that. As long as he doesn't know that you could have saved him, he–he–well, that makes it a great deal better. Why, I might have known he didn't know, because he is always trying to be friendly with us, as little encouragement as we give him. More than once people have twitted me with it. There's the Wilsons, and the Wilcoxes, and the Harknesses, they take a mean pleasure in saying, '*Your friend* Burgess,' because they know it pesters me. I wish he wouldn't persist in liking us so; I can't think why he keeps it up."

"I can explain it. It's another confession. When the thing was new and hot, and the town made a plan to ride him on a rail, my conscience hurt me so that I couldn't stand it, and I went privately and gave him notice, and he got out of the town and stayed out till it was safe to come back."

"Edward! If the town had found it out–"

"*Don't!* It scares me yet to think of it. I repented of it the minute it was done; and I was even afraid to tell you, lest your face might betray it to somebody. I didn't sleep any that night, for worrying. But after a few days I saw that no one was going to suspect me, and after that I got to feeling glad I did it. And I feel glad yet, Mary–glad through and through."

"So do I, now, for it would have been a dreadful way to treat him. Yes, I'm glad; for really you did owe him that, you know. But, Edward, suppose it should come out yet, some day!"

"It won't."

"Why?"

"Because everybody thinks it was Goodson."

"Of course they would!"

"Certainly. And of course *he* didn't care. They persuaded poor old Sawlsberry to go and charge it on him, and he went blustering over there

and did it. Goodson looked him over, like as if he was hunting for a place on him that he could despise the most, then he says, 'So you are the Committee of Inquiry, are you?' Sawlsberry said that was about what he was. 'Hm. Do they require particulars, or do you reckon a kind of a *general* answer will do?' 'If they require particulars, I will come back. Mr. Goodson; I will take the general answer first.' 'Very well, then, tell them to go to hell–I reckon that's general enough. And I'll give you some advice, Sawlsberry; when you come back for the particulars, fetch a basket to carry the relics of yourself home in.'"

"Just like Goodson; it's got all the marks. He had only one vanity: he thought he could give advice better than any other person."

"It settled the business, and saved us, Mary. The subject was dropped."

"Bless you, I'm not doubting *that*."

Then they took up the gold-sack mystery again, with strong interest. Soon the conversation began to suffer breaks–interruptions caused by absorbed thinkings. The breaks grew more and more frequent. At last Richards lost himself wholly in thought. He sat long, gazing vacantly at the floor, and by and by he began to punctuate his thoughts with little nervous movements of his hands that seemed to indicate vexation. Meantime his wife too had relapsed into a thoughtful silence, and her movements were beginning to show a troubled discomfort. Finally Richards got up and strode aimlessly about the room, plowing his hands through his hair, much as a somnambulist might do who was having a bad dream. Then he seemed to arrive at a definite purpose; and without a word he put on his hat and passed quickly out of the house. His wife sat brooding, with a drawn face, and did not seem to be aware that she was alone. Now and then she murmured, "Lead us not into t– . . . but–but–we are so poor, so poor! . . . Lead us not into. . . . Ah, who would be hurt by it?–and no one would ever know. . . . Lead us. . . ." The voice died out in mumblings. After a little she glanced up and muttered in a half-frightened, half-glad way:

"He is gone! But, oh dear, he may be too late–too late. . . . Maybe not–maybe there is still time." She rose and stood thinking, nervously clasping and unclasping her hands. A slight shudder shook her frame, and she said, out of a dry throat, "God forgive me–it's awful to think such things–but . . . Lord, how we are made–how strangely we are made!"

She turned the light low, and slipped stealthily over and kneeled down by the sack and felt of its ridgy sides with her hands, and fondled them lovingly; and there was a gloating light in her poor old eyes. She fell into

fits of absence; and came half out of them at times to mutter, "If we had only waited!—oh, if we had only waited a little, and not been in such a hurry!"

Meantime Cox had gone home from his office and told his wife all about the strange thing that had happened, and they had talked it over eagerly, and guessed that the late Goodson was the only man in the town who could have helped a suffering stranger with so noble a sum as twenty dollars. Then there was a pause, and the two became thoughtful and silent. And by and by nervous and fidgety. At last the wife said, as if to herself:

"Nobody knows this secret but the Richardses . . . and us . . . nobody."

The husband came out of his thinkings with a slight start, and gazed wistfully at his wife, whose face was become very pale; then he hesitatingly rose, and glanced furtively at his hat, then at his wife—a sort of mute inquiry. Mrs. Cox swallowed once or twice, with her hand at her throat, then in place of speech she nodded her head. In a moment she was alone, and mumbling to herself.

And now Richards and Cox were hurrying through the deserted streets, from opposite directions. They met, panting, at the foot of the printing office stairs; by the night light there they read each other's face. Cox whispered:

"Nobody knows about this but us?"

The whispered answer was:

"Not a soul—on honor, not a soul!"

"If it isn't too late to—"

The men were starting upstairs; at this moment they were overtaken by a boy, and Cox asked:

"Is that you, Johnny?"

"Yes, sir."

"You needn't ship the early mail—nor *any* mail; wait till I tell you."

"It's already gone, sir."

"Gone?" It had the sound of an unspeakable disappointment in it.

"Yes, sir. Timetable for Brixton and all the towns beyond changed today, sir—had to get the papers in twenty minutes earlier than common. I had to rush; if I had been two minutes later—"

The men turned and walked slowly away, not waiting to hear the rest. Neither of them spoke during ten minutes; then Cox said, in a vexed tone:

"What possessed you to be in such a hurry, *I* can't make out."

The answer was humble enough:

"I see it now, but somehow I never thought, you know, until it was too late. But the next time–"

"Next time be hanged! It won't come in a thousand years."

Then the friends separated without a good night, and dragged themselves home with the gait of mortally stricken men. At their homes their wives sprang up with an eager "Well?"–then saw the answer with their eyes and sank down sorrowing, without waiting for it to come in words. In both houses a discussion followed of a heated sort–a new thing; there had been discussions before, but not heated ones, not ungentle ones. The discussions tonight were a sort of seeming plagiarisms of each other. Mrs. Richards said:

"If you had only waited, Edward–if you had only stopped to think; but no, you must run straight to the printing office and spread it all over the world."

"It *said* publish it."

"That is nothing; it also said do it privately, if you liked. There, now–is that true, or not?"

"Why, yes–yes, it is true; but when I thought what a stir it would make, and what a compliment it was to Hadleyburg that a stranger should trust it so–"

"Oh, certainly, I know all that; but if you had only stopped to think, you would have seen that you *couldn't* find the right man, because he is in his grave, and hasn't left chick nor child nor relation behind him; and as long as the money went to somebody that awfully needed it, and nobody would be hurt by it, and–and–"

She broke down, crying. Her husband tried to think of some comforting thing to say, and presently came out with this:

"But after all, Mary, it must be for the best–it *must* be; we know that. And we must remember that it was so ordered–"

"Ordered! Oh, everything's *ordered,* when a person has to find some way out when he has been stupid. Just the same, it was *ordered* that the money should come to us in this special way, and it was you that must take it on yourself to go meddling with the designs of Providence–and who gave you the right? It was wicked, that is what it was–just blasphemous presumption, and no more becoming to a meek and humble professor of–"

"But, Mary, you know how we have been trained all our lives long, like the whole village, till it is absolutely second nature to us to stop

not a single moment to think when there's an honest thing to be done–"

"Oh, I know it, I know it–it's been one everlasting training and training and training in honesty–honesty shielded, from the very cradle, against every possible temptation, and so it's *artificial* honesty, and weak as water when temptation comes, as we have seen this night. God knows I never had shade nor shadow of a doubt of my petrified and indestructible honesty until now–and now, under the very first big and real temptation, I–Edward, it is my belief that this town's honesty is as rotten as mine is; as rotten as yours is. It is a mean town, a hard, stingy town, and hasn't a virtue in the world but this honesty it is so celebrated for and so conceited about; and so help me, I do believe that if ever the day comes that its honesty falls under great temptation, its grand reputation will go to ruin like a house of cards. There, now, I've made confession, and I feel better; I am a humbug, and I've been one all my life, without knowing it. Let no man call me honest again–I will not have it."

"I–well, Mary, I feel a good deal as you do; I certainly do. It seems strange, too, so strange. I never could have believed it–never."

A long silence followed; both were sunk in thought. At last the wife looked up and said:

"I know what you are thinking, Edward."

Richards had the embarrassed look of a person who is caught.

"I am ashamed to confess it, Mary, but–"

"It's no matter, Edward, I was thinking the same question myself."

"I hope so. State it."

"You were thinking, if a body could only guess out *what the remark was* that Goodson made to the stranger."

"It's perfectly true. I feel guilty and ashamed. And you?"

"I'm past it. Let us make a pallet here; we've got to stand watch till the bank vault opens in the morning and admits the sack. . . . Oh dear, oh dear–if we hadn't made the mistake!"

The pallet was made, and Mary said:

"The open sesame–what could it have been? I do wonder what that remark could have been? But come; we will get to bed now."

"And sleep?"

"No: think."

"Yes, think."

By this time the Coxes too had completed their spat and their reconciliation, and were turning in–to think, to think, and toss, and fret, and

worry over what the remark could possibly have been which Goodson made to the stranded derelict; that golden remark; that remark worth forty thousand dollars, cash.

The reason that the village telegraph office was open later than usual that night was this: The foreman of Cox's paper was the local representative of the Associated Press. One might say its honorary representative, for it wasn't four times a year that he could furnish thirty words that would be accepted. But this time it was different. His dispatch stating what he had caught got an instant answer:

> Send the whole thing–all the details–twelve hundred words.

A colossal order! The foreman filled the bill; and he was the proudest man in the state. By breakfast time the next morning the name of Hadleyburg the Incorruptible was on every lip in America, from Montreal to the Gulf, from the glaciers of Alaska to the orange groves of Florida; and millions and millions of people were discussing the stranger and his money sack, and wondering if the right man would be found, and hoping some more news about the matter would come soon–right away.

Hadleyburg village woke up world-celebrated–astonished–happy–vain. Vain beyond imagination. Its nineteen principal citizens and their wives went about shaking hands with each other, and beaming, and smiling, and congratulating, and saying *this* thing adds a new word to the dictionary–*Hadleyburg,* synonym for *incorruptible*–destined to live in dictionaries forever! And the minor and unimportant citizens and their wives went around acting in much the same way. Everybody ran to the bank to see the gold sack; and before noon grieved and envious crowds began to flock in from Brixton and all neighboring towns; and that afternoon and next day reporters began to arrive from everywhere to verify the sack and its history and write the whole thing up anew, and make dashing freehand pictures of the sack, and of Richards' house, and the bank, and the Presbyterian church, and the Baptist church, and the public square, and the town hall where the test would be applied and the money delivered; and damnable portraits of the Richardses, and Pinkerton the banker, and Cox, and the foreman, and Reverend Burgess, and the postmaster–and even of Jack Halliday, who was the loafing, good-natured, no-account, irreverent fisherman, hunter, boys' friend, stray-dogs' friend, typical "Sam Lawson" of the town. The little mean,

smirking, oily Pinkerton showed the sack to all comers, and rubbed his sleek palms together pleasantly, and enlarged upon the town's fine old reputation for honesty and upon this wonderful endorsement of it, and hoped and believed that the example would now spread far and wide over the American world, and be epoch-making in the matter of moral regeneration. And so on, and so on.

By the end of a week things had quieted down again; the wild intoxication of pride and joy had sobered to a soft, sweet, silent delight–a sort of deep, nameless, unutterable content. All faces bore a look of peaceful, holy happiness.

Then a change came. It was a gradual change: so gradual that its beginnings were hardly noticed; maybe were not noticed at all, except by Jack Halliday, who always noticed everything; and always made fun of it, too, no matter what it was. He began to throw out chaffing remarks about people not looking quite so happy as they did a day or two ago, and next he claimed that the new aspect was deepening to positive sadness; next, that it was taking on a sick look; and finally he said that everybody was become so moody, thoughtful, and absent-minded that he could rob the meanest man in town of a cent out of the bottom of his breeches pocket and not disturb his reverie.

At this stage–or at about this stage–a saying like this was dropped at bedtime–with a sigh, usually–by the head of each of the nineteen principal households: "Ah, what *could* have been the remark that Goodson made?"

And straightway–with a shudder–came this, from the man's wife:

"Oh, *don't!* What horrible thing are you mulling in your mind? Put it away from you, for God's sake!"

But that question was wrung from those men again the next night–and got the same retort. But weaker.

And the third night the men uttered the question yet again–with anguish, and absently. This time–and the following night–the wives fidgeted feebly, and tried to say something. But didn't.

And the night after that they found their tongues and responded–longingly:

"Oh, if we *could* only guess!"

Halliday's comments grew daily more and more sparklingly disagreeable and disparaging. He went diligently about, laughing at the town, individually and in mass. But his laugh was the only one left in the village: it fell upon a hollow and mournful vacancy and emptiness. Not even a smile was findable anywhere. Halliday carried a cigar box around

on a tripod, playing that it was a camera, and halted all passers and aimed the thing and said, "Ready!–now look pleasant, please," but not even this capital joke could surprise the dreary faces into any softening.

So three weeks passed–one week was left. It was Saturday evening–after supper. Instead of the aforetime Saturday evening flutter and bustle and shopping and larking, the streets were empty and desolate. Richards and his old wife sat apart in their little parlor–miserable and thinking. This was become their evening habit now: the lifelong habit which had preceded it, of reading, knitting, and contented chat, or receiving or paying neighborly calls, was dead and gone and forgotten, ages ago–two or three weeks ago; nobody talked now, nobody read, nobody visited–the whole village sat at home, sighing, worrying, silent. Trying to guess out that remark.

The postman left a letter. Richards glanced listlessly at the superscription and the postmark–unfamiliar, both–and tossed the letter on the table and resumed his might-have-beens and his hopeless dull miseries where he had left them off. Two or three hours later his wife got wearily up and was going away to bed without a goodnight–custom now–but she stopped near the letter and eyed it awhile with a dead interest, then broke it open, and began to skim it over. Richards, sitting there with his chair tilted back against the wall and his chin between his knees, heard something fall. It was his wife. He sprang to her side, but she cried out:

"Leave me alone, I am too happy. Read the letter–read it!"

He did. He devoured it, his brain reeling. The letter was from a distant state, and it said:

> I am a stranger to you, but no matter: I have something to tell. I have just arrived home from Mexico, and learned about that episode. Of course you do not know who made that remark, but I know, and I am the only person living who does know. It was GOODSON. I knew him well, many years ago. I passed through your village that very night, and was his guest till the midnight train came along. I overheard him make that remark to the stranger in the dark–it was in Hale Alley. He and I talked of it the rest of the way home, and while smoking in his house. He mentioned many of your villagers in the course of his talk–most of them in a very uncomplimentary way, but two or three favorably; among these latter yourself. I say "favorably"–nothing stronger. I remember his saying he did not actually LIKE any person in the town–not one; but that you–I THINK he said you–am almost sure–had done him a very great service once, possibly without knowing the full value of it, and he wished he had a fortune, he would leave it to you when he died, and a curse apiece for

the rest of the citizens. Now, then, if it was you that did him that service, you are his legitimate heir, and entitled to the sack of gold. I know that I can trust to your honor and honesty, for in a citizen of Hadleyburg these virtues are an unfailing inheritance, and so I am going to reveal to you the remark, well satisfied that if you are not the right man you will seek and find the right one and see that poor Goodson's debt of gratitude for the service referred to is paid. This is the remark: "YOU ARE FAR FROM BEING A BAD MAN: GO, AND REFORM."

HOWARD L. STEPHENSON.

"Oh, Edward, the money is ours, and I am so grateful, *oh,* so grateful–kiss me, dear, it's forever since we kissed–and we needed it so–the money–and now you are free of Pinkerton and his bank, and nobody's slave any more; it seems to me I could fly for joy."

It was a happy half-hour that the couple spent there on the settee caressing each other; it was the old days come again–days that had begun with their courtship and lasted without a break till the stranger brought the deadly money. By and by the wife said:

"Oh, Edward, how lucky it was you did him that grand service, poor Goodson! I never liked him, but I love him now. And it was fine and beautiful of you never to mention it or brag about it." Then, with a touch of reproach, "But you ought to have told *me,* Edward, you ought to have told your wife, you know."

"Well, I–er–well, Mary, you see–"

"Now stop hemming and hawing, and tell me about it, Edward. I always loved you, and now I'm proud of you. Everybody believes there was only one good generous soul in this village, and now it turns out that you–Edward, why don't you tell me?"

"Well–er–er–Why, Mary, I can't!"

"You *can't? Why* can't you?"

"You see, he–well, he–he made me promise I wouldn't."

The wife looked him over, and said, very slowly:

"Made–you–promise? Edward, what do you tell me that for?"

"Mary, do you think I would lie?"

She was troubled and silent for a moment, then she laid her hand within his and said:

"No . . . no. We have wandered far enough from our bearings–God spare us that! In all your life you have never uttered a lie. But now–now that the foundations of things seem to be crumbling from under us, we–we–" She lost her voice for a moment, then said, brokenly, "Lead us not into temptation. . . . I think you made the promise, Edward.

Let it rest so. Let us keep away from that ground. Now–that is all gone by; let us be happy again; it is no time for clouds."

Edward found it something of an effort to comply, for his mind kept wandering–trying to remember what the service was that he had done Goodson.

The couple lay awake the most of the night, Mary happy and busy, Edward busy but not so happy. Mary was planning what she would do with the money. Edward was trying to recall that service. At first his conscience was sore on account of the lie he had told Mary–if it was a lie. After much reflection–suppose it *was* a lie? What then? Was it such a great matter? Aren't we always *acting* lies? Then why not *tell* them? Look at Mary–look what she had done. While he was hurrying off on his honest errand, what was she doing? Lamenting because the papers hadn't been destroyed and the money kept! Is theft better than lying?

That point lost its sting–the lie dropped into the background and left comfort behind it. The next point came to the front: *Had* he rendered that service? Well, here was Goodson's own evidence as reported in Stephenson's letter; there could be no better evidence than that–it was even *proof* that he had rendered it. Of course. So that point was settled. . . . No, not quite. He recalled with a wince that this unknown Mr. Stephenson was just a trifle unsure as to whether the performer of it was Richards or some other–and, oh dear, he had put Richards on his honor! He must himself decide whither that money must go–and Mr. Stephenson was not doubting that if he was the wrong man he would go honorably and find the right one. Oh, it was odious to put a man in such a situation–ah, why couldn't Stephenson have left out that doubt! What did he want to intrude that for?

Further reflection. How did it happen that *Richards'* name remained in Stephenson's mind as indicating the right man, and not some other man's name? That looked good. Yes, that looked very good. In fact, it went on looking better and better, straight along–until by and by it grew into positive *proof.* And then Richards put the matter at once out of his mind, for he had a private instinct that a proof once established is better left so.

He was feeling reasonably comfortable now, but there was still one other detail that kept pushing itself on his notice: of course he had done that service–that was settled; but what *was* that service? He must recall it–he would not go to sleep till he had recalled it; it would make his peace of mind perfect. And so he thought and thought. He thought of a dozen things–possible services, even probable services–but none of them seemed adequate, none of them seemed large enough, none of them

seemed worth the money–worth the fortune Goodson had wished he could leave in his will. And besides, he couldn't remember having done them, anyway. Now, then–now, then–what *kind* of a service would it be that would make a man so inordinately grateful? Ah–the saving of his soul! That must be it. Yes, he could remember, now, how he once set himself the task of converting Goodson, and labored at it as much as–he was going to say three months; but upon closer examination it shrunk to a month, then to a week, then to a day, then to nothing. Yes, he remembered now, and with unwelcome vividness, that Goodson had told him to go to thunder and mind his own business–*he* wasn't hankering to follow Hadleyburg to heaven!

So that solution was a failure–he hadn't saved Goodson's soul. Richards was discouraged. Then after a little came another idea: had he saved Goodson's property? No, that wouldn't do–he hadn't any. His life? That is it! Of course. Why, he might have thought of it before. This time he was on the right track, sure. His imagination mill was hard at work in a minute, now.

Thereafter during a stretch of two exhausting hours he was busy saving Goodson's life. He saved it in all kinds of difficult and perilous ways. In every case he got it saved satisfactorily up to a certain point; then, just as he was beginning to get well persuaded that it had really happened, a troublesome detail would turn up which made the whole thing impossible. As in the matter of drowning, for instance. In that case he had swum out and tugged Goodson ashore in an unconscious state with a great crowd looking on and applauding, but when he had got it all thought out and was just beginning to remember all about it, a whole swarm of disqualifying details arrived on the ground: the town would have known of the circumstance, Mary would have known of it, it would glare like a limelight in his own memory instead of being an inconspicuous service which he had possibly rendered "without knowing its full value." And at this point he remembered that he couldn't swim, anyway.

Ah–*there* was a point which he had been overlooking from the start: it had to be a service which he had rendered "possibly without knowing the full value of it." Why, really, that ought to be an easy hunt–much easier than those others. And sure enough, by-and-by he found it. Goodson, years and years ago, came near marrying a very sweet and pretty girl, named Nancy Hewitt, but in some way or other the match had been broken off; the girl died, Goodson remained a bachelor, and by-and-by became a soured one and a frank despiser of the human species. Soon after the girl's death the village found out, or thought it had found out, that she

carried a spoonful of Negro blood in her veins. Richards worked at these details a good while, and in the end he thought he remembered things concerning them which must have gotten mislaid in his memory through long neglect. He seemed to dimly remember that it was *he* that found out about the Negro blood; that it was he that told the village; that the village told Goodson where they got it; that he thus saved Goodson from marrying the tainted girl; that he had done him this great service "without knowing the full value of it," in fact without knowing that he *was* doing it; but that Goodson knew the value of it, and what a narrow escape he had had, and so went to his grave grateful to his benefactor and wishing he had a fortune to leave him. It was all clear and simple now, and the more he went over it the more luminous and certain it grew; and at last, when he nestled to sleep satisfied and happy, he remembered the whole thing just as if it had been yesterday. In fact, he dimly remembered Goodson's *telling* him his gratitude once. Meantime Mary had spent six thousand dollars on a new house for herself and a pair of slippers for her pastor, and then had fallen peacefully to rest.

That same Saturday evening the postman had delivered a letter to each of the other principal citizens—nineteen letters in all. No two of the envelopes were alike, and no two of the superscriptions were in the same hand, but the letters inside were just like each other in every detail but one. They were exact copies of the letter received by Richards—handwriting and all—and were all signed by Stephenson, but in place of Richards' name each receiver's own name appeared.

All night long eighteen principal citizens did what their caste-brother Richards was doing at the same time—they put in their energies trying to remember what notable service it was that they had unconsciously done Barclay Goodson. In no case was it a holiday job; still they succeeded.

And while they were at this work, which was difficult, their wives put in the night spending the money, which was easy. During that one night the nineteen wives spent an average of seven thousand dollars each out of the forty thousand in the sack—a hundred and thirty-three thousand altogether.

Next day there was a surprise for Jack Halliday. He noticed that the faces of the nineteen chief citizens and their wives bore that expression of peaceful and holy happiness again. He could not understand it, neither was he able to invent any remarks about it that could damage it or disturb it. And so it was his turn to be dissatisfied with life. His private guesses at the reasons for the happiness failed in all instances, upon examination.

When he met Mrs. Wilcox and noticed the placid ecstasy in her face, he said to himself, "Her cat has had kittens"—and went and asked the cook: it was not so; the cook had detected the happiness, but did not know the cause. When Halliday found the duplicate ecstasy in the face of "Shadbelly" Billson (village nickname), he was sure some neighbor of Billson's had broken his leg, but inquiry showed that this had not happened. The subdued ecstasy in Gregory Yates's face could mean but one thing—he was a mother-in-law short: it was another mistake. "And Pinkerton—Pinkerton—he has collected ten cents that he thought he was going to lose." And so on, and so on. In some cases the guesses had to remain in doubt; in the others they proved distinct errors. In the end Halliday said to himself, "Anyway it foots up that there's nineteen Hadleyburg families temporarily in heaven: I don't know how it happened; I only know Providence is off duty today."

An architect and builder from the next state had lately ventured to set up a small business in this unpromising village, and his sign had now been hanging out a week. Not a customer yet; he was a discouraged man, and sorry he had come. But his weather changed suddenly now. First one and then another chief citizen's wife said to him privately:

"Come to my house Monday week—but say nothing about it for the present. We think of building."

He got eleven invitations that day. That night he wrote his daughter and broke off her match with her student. He said she could marry a mile higher than that.

Pinkerton the banker and two or three other well-to-do men planned countryseats—but waited. That kind don't count their chickens until they are hatched.

The Wilsons devised a grand new thing—a fancy-dress ball. They made no actual promises, but told all their acquaintanceship in confidence that they were thinking the matter over and thought they should give it—"and if we do, you will be invited, of course." People were surprised, and said, one to another, "Why, they are crazy, those poor Wilsons, they can't afford it." Several among the nineteen said privately to their husbands, "It is a good idea: we will keep still till their cheap thing is over; then *we* will give one that will make it sick."

The days drifted along, and the bill of future squanderings rose higher and higher, wilder and wilder, more and more foolish and reckless. It began to look as if every member of the nineteen would not only spend his whole forty thousand dollars before receiving day, but be actually in debt

by the time he got the money. In some cases lightheaded people did not stop with planning to spend, they really spent—on credit. They bought land, mortgages, farms, speculative stocks, fine clothes, horses, and various other things, paid down the bonus, and made themselves liable for the rest—at ten days. Presently the sober second thought came, and Halliday noticed that a ghastly anxiety was beginning to show up in a good many faces. Again he was puzzled, and didn't know what to make of it. "The Wilcox kittens aren't dead, for they weren't born; nobody's broken a leg; there's no shrinkage in mother-in-laws; *nothing* has happened—it is an unsolvable mystery."

There was another puzzled man, too—the Rev. Mr. Burgess. For days, wherever he went, people seemed to follow him or to be watching out for him; and if he ever found himself in a retired spot, a member of the nineteen would be sure to appear, thrust an envelope privately into his hand, whisper, "To be opened at the town hall Friday evening," then vanish away like a guilty thing. He was expecting that there might be one claimant for the sack,—doubtful, however, Goodson being dead—but it never occurred to him that all this crowd might be claimants. When the great Friday came at last, he found that he had nineteen envelopes.

The town hall had never looked finer. The platform at the end of it was backed by a showy draping of flags; at intervals along the walls were festoons of flags; the gallery fronts were clothed in flags; the supporting columns were swathed in flags; all this was to impress the stranger, for he would be there in considerable force, and in a large degree he would be connected with the press. The house was full. The 412 fixed seats were occupied; also the 68 extra chairs which had been packed into the aisles; the steps of the platform were occupied; some distinguished strangers were given seats on the platform; at the horseshoe of tables which fenced the front and sides of the platform sat a strong force of special correspondents who had come from everywhere. It was the best-dressed house the town had ever produced. There were some tolerably expensive toilets there, and in several cases the ladies who wore them had the look of being unfamiliar with that kind of clothes. At least the town thought they had that look, but the notion could have arisen from the town's knowledge of the fact that these ladies had never inhabited such clothes before.

The gold sack stood on a little table at the front of the platform where

all the house could see it. The bulk of the house gazed at it with a burning interest, a mouth-watering interest, a wistful and pathetic interest; a minority of nineteen couples gazed at it tenderly, lovingly, proprietarily, and the male half of this minority kept saying over to themselves the moving little impromptu speeches of thankfulness for the audience's applause and congratulations which they were presently going to get up and deliver. Every now and then one of these got a piece of paper out of his vest pocket and privately glanced at it to refresh his memory.

Of course there was a buzz of conversation going on—there always is; but at last when the Rev. Mr. Burgess rose and laid his hand on the sack he could hear the microbes gnaw, the place was so still. He related the curious history of the sack, then went on to speak in warm tones of Hadleyburg's old and well-earned reputation for spotless honesty, and of the town's just pride in this reputation. He said that this reputation was a treasure of priceless value; that under Providence its value had now become inestimably enhanced, for the recent episode had spread this fame far and wide, and thus had focused the eyes of the American world upon this village, and made its name for all time, as he hoped and believed, a synonym for commercial incorruptibility. (*Applause.*) "And who is to be the guardian of this noble treasure—the community as a whole? No! The responsibility is individual, not communal. From this day forth each and every one of you is in his own person its special guardian, and individually responsible that no harm shall come to it. Do you—does each of you—accept this great trust? (*Tumultuous assent.*) Then all is well. Transmit it to your children and to your children's children. Today your purity is beyond reproach—see to it that it shall remain so. Today there is not a person in your community who could be beguiled to touch a penny not his own—see to it that you abide in this grace. (*"We will! we will!"*) This is not the place to make comparisons between ourselves and other communities—some of them ungracious toward us; they have their ways, we have ours; let us be content. (*Applause.*) I am done. Under my hand, my friends, rests a stranger's eloquent recognition of what we are; through him the world will always henceforth know what we are. We do not know who he is, but in your name I utter your gratitude, and ask you to raise your voices in endorsement."

The house rose in a body and made the walls quake with the thunders of its thankfulness for the space of a long minute. Then it sat down, and Mr. Burgess took an envelope out of his pocket. The house held its breath while he slit the envelope open and took from it a slip of paper. He read its contents—slowly and impressively—the audience listening with

tranced attention to this magic document, each of whose words stood for an ingot of gold.

"'The remark which I made to the distressed stranger was this: "You are very far from being a bad man: go, and reform."'" Then he continued:

"We shall know in a moment now whether the remark here quoted corresponds with the one concealed in the sack; and if that shall prove to be so–and it undoubtedly will–this sack of gold belongs to a fellow citizen who will henceforth stand before the nation as the symbol of the special virtue which has made our town famous throughout the land–Mr. Billson!"

The house had gotten itself all ready to burst into the proper tornado of applause; but instead of doing it, it seemed stricken with a paralysis; there was a deep hush for a moment or two, then a wave of whispered murmurs swept the place–of about this tenor: "*Billson!* oh, come, this is *too* thin! Twenty dollars to a stranger–or *anybody–Billson!* Tell it to the marines!" And now at this point the house caught its breath all of a sudden in a new access of astonishment, for it discovered that whereas in one part of the hall Deacon Billson was standing up with his head meekly bowed, in another part of it Lawyer Wilson was doing the same. There was a wondering silence now for a while.

Everybody was puzzled, and nineteen couples were surprised and indignant.

Billson and Wilson turned and stared at each other. Billson asked, bitingly:

"Why do *you* rise, Mr. Wilson?"

"Because I have a right to. Perhaps you will be good enough to explain to the house why *you* rise?"

"With great pleasure. Because I wrote that paper."

"It is an impudent falsity! I wrote it myself."

It was Burgess's turn to be paralyzed. He stood looking vacantly at first one of the men and then the other, and did not seem to know what to do. The house was stupefied. Lawyer Wilson spoke up, now, and said:

"I ask the Chair to read the name signed to that paper."

That brought the Chair to itself, and it read out the name:

"'John Wharton *Billson*.'"

"There!" shouted Billson. "What have you got to say for yourself, now? And what kind of apology are you going to make to me and to this insulted house for the imposture which you have attempted to play here?"

"No apologies are due, sir; and as for the rest of it, I publicly charge you

with pilfering my note from Mr. Burgess and substituting a copy of it signed with your own name. There is no other way by which you could have gotten hold of the test remark; I alone, of living men, possessed the secret of its wording."

There was likely to be a scandalous state of things if this went on; everybody noticed with distress that the shorthand scribes were scribbling like mad; many people were crying, "Chair, Chair! Order! Order!" Burgess rapped with his gavel, and said:

"Let us not forget the proprieties due. There has evidently been a mistake somewhere, but surely that is all. If Mr. Wilson gave me an envelope–and I remember now that he did–I still have it."

He took one out of his pocket, opened it, glanced at it, looked surprised and worried, and stood silent a few moments. Then he waved his hand in a wandering and mechanical way, and made an effort or two to say something, then gave it up, despondently. Several voices cried out:

"Read it! Read it! What is it?"

So he began in a dazed and sleepwalker fashion:

"'*The remark which I made to the unhappy stranger was this: "You are far from being a bad man*. (The house gazed at him, mareling.) *Go, and reform*."' (*Murmurs:* "Amazing! what can this mean?") This one," said the Chair, "is signed Thurlow G. Wilson."

"There!" cried Wilson, "I reckon that settles it! I knew perfectly well my note was purloined."

"Purloined!" retorted Billson. "I'll let you know that neither you nor any man of your kidney must venture to–"

The Chair. "Order, gentlemen, order! Take your seats, both of you, please."

They obeyed, shaking their heads and grumbling angrily. The house was profoundly puzzled; it did not know what to do with this curious emergency. Presently Thompson got up. Thompson was the hatter. He would have liked to be a Nineteener; but such was not for him: his stock of hats was not considerable enough for the position. He said:

"Mr. Chairman, if I may be permitted to make a suggestion, can both of of these gentlemen be right? I put it to you, sir, can both have happened to say the very same words to the stranger? It seems to me–"

The tanner got up and interrupted him. The tanner was a disgruntled man; he believed himself entitled to be a Nineteener, but he couldn't get recognition. It made him a little unpleasant in his ways and speech. Said he:

"Sho, *that's* not the point! *That* could happen–twice in a hundred years–but not the other thing. *Neither* of them gave the twenty dollars!"

(*A ripple of applause*.)

Billson. "*I* did!"

Wilson. "*I* did!"

Then each accused the other of pilfering.

The Chair. "Order! Sit down, if you please–both of you. Neither of the notes has been out of my possession at any moment."

A Voice. "Good–that settles *that!*"

The Tanner. "Mr. Chairman, one thing is now plain: one of these men has been eavesdropping under the other one's bed, and filching family secrets. If it is not unparliamentary to suggest it, I will remark that both are equal to it. (*The Chair*. "Order! Order!") I withdraw the remark, sir, and will confine myself to suggesting that *if* one of them has overheard the other reveal the test remark to his wife, we shall catch him now."

A Voice. "How?"

The Tanner. "Easily. The two have not quoted the remark in exactly the same words. You would have noticed that, if there hadn't been a considerable stretch of time and an exciting quarrel inserted between the two readings."

A Voice. "Name the difference."

The Tanner. "The word *very* is in Billson's note, and not in the other."

Many Voices. "That's so–he's right!"

The Tanner. "And so, if the Chair will examine the test remark in the sack, we shall know which of these two frauds–(*The Chair*. "Order!")–which of these two adventurers–(*The Chair*. "Order! Order!")–which of these two gentlemen–(*Laughter and applause*)–is entitled to wear the belt as being the first dishonest blatherskite ever bred in this town–which he has dishonored, and which will be a sultry place for him from now out!" (*Vigorous applause*.)

Many Voices. "Open it!–open the sack!"

Mr. Burgess made a slit in the sack, slid his hand in and brought out an envelope. In it were a couple of folded notes. He said:

"One of these is marked, 'Not to be examined until all written communications which have been addressed to the Chair–if any–shall have been read.' The other is marked *'The Test.'* Allow me. It is worded–to wit:

"'I do not require that the first half of the remark which was made to me by my benefactor shall be quoted with exactness, for it was not striking, and could be forgotten; but its closing fifteen words are quite striking,

and I think easily rememberable; unless *these* shall be accurately reproduced, let the applicant be regarded as an impostor. My benefactor began by saying he seldom gave advice to anyone, but that it always bore the hallmark of high value when he did give it. Then he said this–and it has never faded from my memory: *"You are far from being a bad man–" ' "*

Fifty Voices. "That settles it–the money's Wilson's! Wilson! Wilson! Speech! Speech!"

People jumped up and crowded around Wilson, wringing his hand and congratulating fervently–meantime the Chair was hammering with the gavel and shouting:

"Order, gentlemen! Order! Order! Let me finish reading, please." When quiet was restored, the reading was resumed, as follows:

" '*Go, and reform–or, mark my words–some day, for your sins, you will die and go to hell or Hadleyburg*–TRY AND MAKE IT THE FORMER.' "

A ghastly silence followed. First an angry cloud began to settle darkly upon the faces of the citizenship; after a pause the cloud began to rise, and a tickled expression tried to take its place; tried so hard that it was only kept under with great and painful difficulty; the reporters, the Brixtonites, and other strangers bent their heads down and shielded their faces with their hands, and managed to hold in by main strength and heroic courtesy. At this most inopportune time burst upon the stillness the roar of a solitary voice–Jack Halliday's:

"*That's* got the hallmark on it!"

Then the house let go, strangers and all. Even Mr. Burgess' gravity broke down presently; then the audience considered itself officially absolved from all restraint, and it made the most of its privilege. It was a good long laugh, and a tempestuously wholehearted one, but it ceased at last–long enough for Mr. Burgess to try to resume, and for the people to get their eyes partially wiped; then it broke out again; and afterward yet again; then at last Burgess was able to get out these serious words:

"It is useless to try to disguise the fact–we find ourselves in the presence of a matter of grave import. It involves the honor of your town, it strikes at the town's good name. The difference of a single word between the test remarks offered by Mr. Wilson and Mr. Billson was itself a serious thing, since it indicated that one or the other of these gentlemen had committed a theft–"

The two men were sitting limp, nerveless, crushed; but at these words both were electrified into movement, and started to get up.

"Sit down!" said the Chair, sharply, and they obeyed. "That, as I have

said, was a serious thing. And it was—but for only one of them. But the matter has become graver; for the honor of *both* is now in formidable peril. Shall I go even further, and say in inextricable peril? *Both* left out the crucial fifteen words." He paused. During several moments he allowed the pervading stillness to gather and deepen its impressive effects, then added: "There would seem to be but one way whereby this could happen. I ask these gentlemen—Was there *collusion?—agreement?*"

A low murmur sifted through the house; its import was, "He's got them both."

Billson was not used to emergencies; he sat in a helpless collapse. But Wilson was a lawyer. He struggled to his feet, pale and worried, and said:

"I ask the indulgence of the house while I explain this most painful matter. I am sorry to say what I am about to say, since it must inflict irreparable injury upon Mr. Billson, whom I have always esteemed and respected until now, and in whose invulnerability to temptation I entirely believed—as did you all. But for the preservation of my own honor I must speak—and with frankness. I confess with shame—and I now beseech your pardon for it—that I said to the ruined stranger all of the words contained in the test remark, including the disparaging fifteen. (*Sensation.*) When the late publication was made I recalled them, and I resolved to claim the sack of coin, for by every right I was entitled to it. Now I will ask you to consider this point, and weigh it well: that stranger's gratitude to me that night knew no bounds; he said himself that he could find no words for it that were adequate, and that if he should ever be able he would repay me a thousandfold. Now, then, I ask you this: Could I expect—could I believe—could I even remotely imagine—that, feeling as he did, he would do so ungrateful a thing as to add those quite unnecessary fifteen words to his test?—set a trap for me?—expose me as a slanderer of my own town before my own people assembled in a public hall? It was preposterous; it was impossible. His test would contain only the kindly opening clause of my remark. Of that I had no shadow of doubt. You would have thought as I did. You would not have expected a base betrayal from one whom you had befriended and against whom you had committed no offense. And so, with perfect confidence, perfect trust, I wrote on a piece of paper the opening words—ending with 'Go, and reform'—and signed it. When I was about to put it in an envelope I was called into my back office, and without thinking I left the paper lying open on my desk." He stopped, turned his head slowly toward Billson, waited a moment, then added: "I ask you

to note this: when I returned, a little later, Mr. Billson was retiring by my street door." (*Sensation.*)

In a moment Billson was on his feet and shouting:

"It's a lie! It's an infamous lie!"

The Chair. "Be seated, sir! Mr. Wilson has the floor."

Billson's friends pulled him into his seat and quieted him, and Wilson went on:

"Those are the simple facts. My note was now lying in a different place on the table from where I had left it. I noticed that, but attached no importance to it, thinking a draft had blown it there. That Mr. Billson would read a private paper was a thing which could not occur to me; he was an honorable man, and he would be above that. If you will allow me to say it, I think his extra word *'very'* stands explained; it is attributable to a defect of memory. I was the only man in the world who could furnish here any detail of the test remark—by *honorable* means. I have finished."

There is nothing in the world like a persuasive speech to fuddle the mental apparatus and upset the convictions and debauch the emotions of an audience not practiced in the tricks and delusions of oratory. Wilson sat down victorious. The house submerged him in tides of approving applause; friends swarmed to him and shook him by the hand and congratulated him, and Billson was shouted down and not allowed to say a word. The Chair hammered and hammered with its gavel, and kept shouting:

"But let us proceed, gentlemen, let us proceed!"

At last there was a measurable degree of quiet, and the hatter said:

"But what is there to proceed with, sir, but to deliver the money?"

Voices. "That's it! That's it! Come forward, Wilson!"

The Hatter. "I move three cheers for Mr. Wilson, Symbol of the special virtue which—"

The cheers burst forth before he could finish; and in the midst of them—and in the midst of the clamor of the gavel also—some enthusiasts mounted Wilson on a big friend's shoulder and were going to fetch him in triumph to the platform. The Chair's voice now rose above the noise.

"Order! To your places! You forget that there is still a document to be read." When quiet had been restored he took up the document, and was going to read it, but laid it down again, saying, "I forgot; this is not to be read until all written communications received by me have first been read." He took an envelope out of his pocket, removed its enclosure, glanced at it—seemed astonished—held it out and gazed at it—stared at it.

Twenty or thirty voices cried out:

"What is it? Read it! Read it!"

And he did–slowly, and wondering:

"The remark which I made to the stranger–(*Voices*. "Hello! how's this?")–was this: "You are far from being a bad man. (*Voices*. "Great Scott!") Go, and reform."' (*Voice*. "Oh, saw my leg off!") Signed by Mr. Pinkerton the banker."

The pandemonium of delight which turned itself loose now was of a sort to make the judicious weep. Those whose withers were unwrung laughed till the tears ran down; the reporters, in throes of laughter, set down disordered pothooks which would never in the world be decipherable; and a sleeping dog jumped up, scared out of its wits, and barked itself crazy at the turmoil. All manner of cries were scattered through the din: "We're getting rich–*two* Symbols of Incorruptibility!–without counting Billson!" "*Three!*–count Shadbelly in–we can't have too many!" "All right–Billson's elected!" "Alas, poor Wilson–victim of *two* thieves!"

A Powerful Voice. "Silence! The Chair's fished up something more out of its pocket."

Voices. "Hurrah! Is it something fresh? Read it! Read! Read!"

The Chair (*reading*). "'The remark which I made,' etc.: "You are far from being a bad man. Go," etc. Signed, Gregory Yates.'"

Tornado of Voices. "Four Symbols!" "'Rah for Yates!" "Fish again!"

The house was in a roaring humor now, and ready to get all the fun out of the occasion that might be in it. Several Nineteeners, looking pale and distressed, got up and began to work their way toward the aisles, but a score of shouts went up:

"The doors, the doors–close the doors; no Incorruptible shall leave this place! Sit down, everybody!"

The mandate was obeyed.

"Fish again! Read! Read!"

The Chair fished again, and once more the familiar words began to fall from its lips–" 'You are far from being a bad man–' "

"Name! name! What's his name?"

"L. Ingoldsby Sargent."

"Five elected! Pile up the Symbols! Go on, go on!"

" 'You are far from being a bad–' "

"Name! name!"

"Nicholas Whitworth."

"Hooray! hooray! It's a symbolical day!"

Somebody wailed in, and began to sing this rhyme (leaving out "it's")

to the lovely *Mikado* tune of "When a man's afraid, a beautiful maid–"; the audience joined in, with joy; then, just in time, somebody contributed another line:

And don't you this forget–

The house roared it out. A third line was at once furnished:

Corruptibles far from Hadleyburg are

The house roared that one too. As the last note died, Jack Halliday's voice rose high and clear, freighted with a final line:

But the Symbols are here, you bet!

That was sung, with booming enthusiasm. Then the happy house started in at the beginning and sang the four lines through twice, with immense swing and dash, and finished up with a crashing three-times-three and a tiger for "Hadleyburg the Incorruptible and all Symbols of it which we shall find worthy to receive the hallmark tonight."

Then the shoutings at the Chair began again, all over the place:

"Go on! Go on! Read! Read some more! Read all you've got!"

"That's it–go on! We are winning eternal celebrity!"

A dozen men got up now and began to protest. They said that this farce was the work of some abandoned joker, and was an insult to the whole community. Without a doubt these signatures were all forgeries–

"Sit down! Sit down! Shut up! You are confessing. We'll find *your* names in the lot."

"Mr. Chairman, how many of those envelopes have you got?"

The Chair counted.

"Together with those that have been already examined, there are nineteen."

A storm of derisive applause broke out.

"Perhaps they all contain the secret. I move that you open them all and read every signature that is attached to a note of that sort–and read also the first eight words of the note."

"Second the motion!"

It was put and carried–uproariously. Then poor old Richards got up, and his wife rose and stood at his side. Her head was bent down, so that none might see that she was crying. Her husband gave her his arm, and so supporting her, he began to speak in a quavering voice:

"My friends, you have known us two–Mary and me–all our lives, and I think you have liked us and respected us–"

The Chair interrupted him:

"Allow me. It is quite true–that which you are saying, Mr. Richards: this town *does* know you two; it *does* like you; it *does* respect you; more–it honors you and *loves* you–"

Halliday's voice rang out:

"That's the hallmarked truth, too! If the Chair is right, let the house speak up and say it. Rise! Now, then–hip! hip! hip!–all together!"

The house rose in mass, faced toward the old couple eagerly, filled the air with a snowstorm of waving handkerchiefs, and delivered the cheers with all its affectionate heart.

The Chair then continued:

"What I was going to say is this: We know your good heart, Mr. Richards, but this is not a time for the exercise of charity toward offenders. (*Shouts of "Right! right!"*) I see your generous purpose in your face, but I cannot allow you to plead for these men–"

"But I was going to–"

"Please take your seat, Mr. Richards. We must examine the rest of these notes–simple fairness to the men who have already been exposed requires this. As soon as that has been done–I give you my word for this–you shall be heard."

Many Voices. "Right!–the Chair is right–no interruption can be permitted at this stage! Go on!–the names! the names!–according to the terms of the motion!"

The old couple sat reluctantly down, and the husband whispered to the wife, "It is pitifully hard to have to wait; the shame will be greater than ever when they find we were only going to plead for *ourselves*."

Straightway the jollity broke loose again with the reading of the names.

"'You are far from being a bad man–' Signature, Robert J. Titmarsh.

"'You are far from being a bad man–' Signature, Eliphalet Weeks.

"'You are far from being a bad man–' Signature, Oscar B. Wilder."

At this point the house lit upon the idea of taking the eight words out of the Chairman's hands. He was not unthankful for that. Thenceforward he held up each note in its turn, and waited. The house droned out the eight words in a massed and measured and musical deep volume of sound (with a daringly close resemblance to a well-known church chant)–"'You are f-a-r from being a b-a-a-a-d man.'" Then the Chair said, "Signature, Archibald Wilcox." And so on, and so on, name after name, and everybody had an increasingly and gloriously good time except the wretched Nineteen. Now and then, when a particularly shining name was called, the house made the Chair wait while it chanted the whole of the

test remark from the beginning to the closing words, "And go to hell or Hadleyburg–try and make it the for-or-m-e-r!" and in these special cases they added a grand and agonized and imposing "A-a-a-a-*men!*"

The list dwindled, dwindled, dwindled, poor old Richards keeping tally of the count, wincing when a name resembling his own was pronounced, and waiting in miserable suspense for the time to come when it would be his humiliating privilege to rise with Mary and finish his plea, which he was intending to word thus: ". . . for until now we have never done any wrong thing, but have gone our humble way unreproached. We are very poor, we are old, and have no chick nor child to help us; we were sorely tempted, and we fell. It was my purpose when I got up before to make confession and beg that my name might not be read out in this public place, for it seemed to us that we could not bear it; but I was prevented. It was just; it was our place to suffer with the rest. It has been hard for us. It is the first time we have ever heard our name fall from anyone's lips–sullied. Be merciful–for the sake of the better days; make our shame as light to bear as in your charity you can." At this point in his reverie Mary nudged him, perceiving that his mind was absent. The house was chanting, "You are f-a-r," etc.

"Be ready," Mary whispered. "Your name comes now; he has read eighteen."

The chant ended.

"Next! next! next!" came volleying from all over the house.

Burgess put his hand into his pocket. The old couple, trembling, began to rise. Burgess fumbled a moment, then said:

"I find I have read them all."

Faint with joy and surprise, the couple sank into their seats, and Mary whispered:

"Oh, bless God, we are saved! He has lost ours–I wouldn't give this for a hundred of those sacks!"

The house burst out with its *Mikado* travesty, and sang it three times with ever increasing enthusiasm, rising to its feet when it reached for the third time the closing line:

But the Symbols are here, you bet!

and finishing up with cheers and a tiger for "Hadleyburg purity and our eighteen immortal representatives of it."

Then Wingate, the saddler, got up and proposed cheers "for the cleanest man in town, the one solitary important citizen in it who didn't try to steal that money–Edward Richards."

They were given with great and moving heartiness; then somebody proposed that Richards be elected sole guardian and Symbol of the now Sacred Hadleyburg Tradition, with power and right to stand up and look the whole sarcastic world in the face.

Passed, by acclamation. Then they sang the *Mikado* again, and ended it with:

And there's *one* Symbol left, you bet!

There was a pause; then:

A Voice. "Now, then, who's to get the sack?"

The Tanner (*with bitter sarcasm*). "That's easy. The money has to be divided among the eighteen Incorruptibles. They gave the suffering stranger twenty dollars apiece–and that remark–each in his turn–it took twenty-two minutes for the procession to move past. Staked the stranger–total contribution, $360. All they want is just the loan back–and interest–forty thousand dollars altogether."

Many Voices (*derisively*). "That's it! Divvy! Divvy! Be kind to the poor–don't keep them waiting!"

The Chair. "Order! I now offer the stranger's remaining document. It says: 'If no claimant shall appear (*grand chorus of groans*), I desire that you open the sack and count out the money to the principal citizens of your town, they to take it in trust (*cries of "Oh! Oh! Oh!"*), and use it in such ways as to them shall seem best for the propagation and preservation of your community's noble reputation for incorruptible honesty (*more cries*)–a reputation to which their names and their efforts will add a new and far-reaching luster.' (*Enthusiastic outburst of sarcastic applause*.) That seems to be all. No–here is a postscript:

"'P. S.–CITIZENS OF HADLEYBURG: There *is* no test remark–nobody made one. (*Great sensation*.) There wasn't any pauper stranger, nor any twenty-dollar contribution, nor any accompanying benediction and compliment–these are all inventions. (*General buzz and hum of astonishment and delight*.) Allow me to tell my story–it will take but a word or two. I passed through your town at a certain time, and received a deep offense which I had not earned. Any other man would have been content to kill one or two of you and call it square, but to me that would have been a trivial revenge, and inadequate; for the dead do not *suffer*. Besides, I could not kill you all–and, anyway, made as I am, even that would not have satisfied me. I wanted to damage every man in the place, and every woman–and not in their bodies or in their estate, but in their vanity–the place where feeble and foolish people are most vulnerable.

So I disguised myself and came back and studied you. You were easy game. You had an old and lofty reputation for honesty, and naturally you were proud of it–it was your treasure of treasures, the very apple of your eye. As soon as I found out that you carefully and vigilantly kept yourselves and your children *out of temptation,* I knew how to proceed. Why, you simple creatures, the weakest of all weak things is a virtue which has not been tested in the fire. I laid a plan, and gathered a list of names. My project was to corrupt Hadleyburg the Incorruptible. My idea was to make liars and thieves of nearly half a hundred smirchless men and women who had never in their lives uttered a lie or stolen a penny. I was afraid of Goodson. He was neither born nor reared in Hadleyburg. I was afraid that if I started to operate my scheme by getting my letter laid before you, you would say to yourselves, "Goodson is the only man among us who would give away twenty dollars to a poor devil"–and then you might not bite at my bait. But Heaven took Goodson; then I knew I was safe, and I set my trap and baited it. It may be that I shall not catch all the men to whom I mailed the pretended test secret, but I shall catch the most of them, if I know Hadleyburg nature. (*Voices*. "Right–he got every last one of them.") I believe they will even steal ostensible *gamble*-money, rather than miss, poor, tempted, and mistrained fellows. I am hoping to eternally and everlastingly squelch your vanity and give Hadleyburg a new renown–one that will *stick*–and spread far. If I have succeeded, open the sack and summon the Committee on Propagation and Preservation of the Hadleyburg Reputation.'"

A Cyclone of Voices. "Open it! Open it! The Eighteen to the front! Committee on Propagation of the Tradition! Forward–the Incorruptibles!"

The Chair ripped the sack wide, and gathered up a handful of bright, broad, yellow coins, shook them together, then examined them.

"Friends, they are only gilded disks of lead!"

There was a crashing outbreak of delight over this news, and when the noise had subsided, the tanner called out:

"By right of apparent seniority in this business, Mr. Wilson is Chairman of the Committee on Propagation of the Tradition. I suggest that he step forward on behalf of his pals, and receive in trust the money."

A Hundred Voices. "Wilson! Wilson! Wilson! Speech! Speech!"

Wilson (*in a voice trembling with anger*). "You will allow me to say, and without apologies for my language, *damn* the money!"

A Voice. "Oh, and him a Baptist!"

A Voice. "Seventeen Symbols left! Step up, gentlemen, and assume your trust!"

There was a pause–no response.

The Saddler. "Mr. Chairman, we've got *one* clean man left, anyway, out of the late aristocracy; and he needs money, and deserves it. I move that you appoint Jack Halliday to get up there and auction off that sack of gilt twenty-dollar pieces, and give the result to the right man–the man whom Hadleyburg delights to honor–Edward Richards."

This was received with great enthusiasm, the dog taking a hand again; the saddler started the bids at a dollar, the Brixton folk and Barnum's representative fought hard for it, the people cheered every jump that the bids made, the excitement climbed moment by moment higher and higher, the bidders got on their mettle and grew steadily more and more daring, more and more determined, the jumps went from a dollar up to five, then to ten, then to twenty, then fifty, then to a hundred, then–

At the beginning of the auction Richards whispered in distress to his wife: "O Mary, can we allow it? It–it–you see, it is an honor reward, a testimonial to purity of character, and–and–can we allow it? Hadn't I better get up and–O Mary, what ought we to do?–what do you think we–" (*Halliday's voice. "Fifteen I'm bid!–fifteen for the sack!–twenty!–ah, thanks!–thirty–thanks again! Thirty, thirty, thirty!–do I hear forty?–forty it is! Keep the ball rolling, gentlemen, keep it rolling!–fifty!–thanks, noble Roman! going at fifty, fifty, fifty!–seventy!–ninety!–splendid!–a hundred!–pile it up, pile it up!–hundred and twenty–forty!–just in time!–hundred and fifty!–*TWO *hundred!–superb! Do I hear two h–thanks!–two hundred and fifty!–"*)

"It is another temptation, Edward–I'm all in a tremble–but, oh, we've escaped *one* temptation, and that ought to warn us to–(*"Six did I hear?–thanks!–six fifty, six f–*SEVEN *hundred!"*) And yet, Edward, when you think–nobody susp–(*"Eight hundred dollars!–hurrah!–make it nine!–Mr. Parsons, did I hear you say–thanks–nine!–this noble sack of virgin lead going at only nine hundred dollars, gilding and all–come! do I hear–a thousand!–gratefully yours!–did someone say eleven?–a sack which is going to be the most celebrated in the whole Uni–"*) O Edward" (beginning to sob), "we are *so* poor!–but–but–do as you think best–do as you think best."

Edward fell–that is, he sat still; sat with a conscience which was not satisfied, but which was overpowered by circumstances.

Meantime a stranger, who looked like an amateur detective gotten up as an impossible English earl, had been watching the evening's proceed-

ings with manifest interest, and with a contented expression in his face; and he had been privately commenting to himself. He was now soliloquizing somewhat like this: "None of the Eighteen are bidding; that is not satisfactory; I must change that—the dramatic unities require it; they must buy the sack they tried to steal; they must pay a heavy price, too—some of them are rich. And another thing, when I make a mistake in Hadleyburg nature the man that puts that error upon me is entitled to a high honorarium, and someone must pay it. This poor old Richards has brought my judgment to shame; he is an honest man. I don't understand it, but I acknowledge it. Yes, he saw my deuces *and* with a straight flush, and by rights the pot is his. And it shall be a jackpot, too, if I can manage it. He disappointed me, but let that pass."

He was watching the bidding. At a thousand, the market broke; the prices tumbled swiftly. He waited—and still watched. One competitor dropped out; then another, and another. He put in a bid or two, now. When the bids had sunk to ten dollars, he added a five; someone raised him a three; he waited a moment, then flung in a fifty-dollar jump, and the sack was his—at $1,282. The house broke out in cheers—then stopped; for he was on his feet, and had lifted his hand. He began to speak.

"I desire to say a word, and ask a favor. I am a speculator in rarities, and I have dealings with persons interested in numismatics all over the world. I can make a profit on this purchase, just as it stands; but there is a way, if I can get your approval, whereby I can make every one of these leaden twenty-dollar pieces worth its face in gold, and perhaps more. Grant me that approval, and I will give part of my gains to your Mr. Richards, whose invulnerable probity you have so justly and so cordially recognized tonight; his share shall be ten thousand dollars, and I will hand him the money tomorrow. (*Great applause from the house*. But the "invulnerable probity" made the Richardses blush prettily; however, it went for modesty, and did no harm.) If you will pass my proposition by a good majority—I would like a two-thirds vote—I will regard that as the town's consent, and that is all I ask. Rarities are always helped by any device which will rouse curiosity and compel remark. Now if I may have your permission to stamp upon the faces of each of these ostensible coins the names of the eighteen gentlemen who—"

Nine-tenths of the audience were on their feet in a moment—dog and all—and the proposition was carried with a whirlwind of approving applause and laughter.

They sat down, and all the Symbols except "Dr." Clay Harkness got up, violently protesting against the proposed outrage, and threatening to—

"I beg you not to threaten me," said the stranger, calmly. "I know my legal rights, and am not accustomed to being frightened at bluster." (*Applause*.) He sat down. "Dr." Harkness saw an opportunity here. He was one of the two very rich men of the place, and Pinkerton was the other. Harkness was proprietor of a mint; that is to say, a popular patent medicine. He was running for the Legislature on one ticket, and Pinkerton on the other. It was a close race and a hot one, and getting hotter every day. Both had strong appetites for money; each had bought a great tract of land, with a purpose; there was going to be a new railway, and each wanted to be in the Legislature and help locate the route to his own advantage; a single vote might make the decision, and with it two or three fortunes. The stake was large, and Harkness was a daring speculator. He was sitting close to the stranger. He leaned over while one or another of the other Symbols was entertaining the house with protests and appeals, and asked in a whisper:

"What is your price for the sack?"

"Forty thousand dollars."

"I'll give you twenty."

"No."

"Twenty-five."

"No."

"Say thirty."

"The price is forty thousand dollars; not a penny less."

"All right, I'll give it. I will come to the hotel at ten in the morning. I don't want it known; will see you privately."

"Very good." Then the stranger got up and said to the house:

"I find it late. The speeches of these gentlemen are not without merit, not without interest, not without grace; yet if I may be excused I will take my leave. I thank you for the great favor which you have shown me in granting my petition. I ask the Chair to keep the sack for me until tomorrow, and to hand these three five-hundred-dollar notes to Mr. Richards." They were passed up to the Chair. "At nine I will call for the sack, and at eleven will deliver the rest of the ten thousand to Mr. Richards in person, at his home. Good night."

Then he slipped out, and left the audience making a vast noise, which was composed of a mixture of cheers, the *Mikado* song, dog-disapproval, and the chant, "You are f-a-r from being a b-a-a-d man—a-a-a a-men!"

At home the Richardses had to endure congratulations and compliments until midnight. Then they were left to themselves. They looked a little sad, and they sat silent and thinking. Finally Mary sighed and said:

"Do you think we are to blame, Edward–*much* to blame?" And her eyes wandered to the accusing triplet of big bank notes lying on the table, where the congratulators had been gloating over them and reverently fingering them. Edward did not answer at once; then he brought out a sigh and said, hesitatingly:

"We–we couldn't help it, Mary. It–well, it was ordered. *All* things are."

Mary glanced up and looked at him steadily, but he didn't return the look. Presently she said:

"I thought congratulations and praises always tasted good. But–it seems to me, now–Edward?"

"Well?"

"Are you going to stay in the bank?"

"N-no."

"Resign?"

"In the morning–by note."

"It does seem best."

Richards bowed his head in his hands and muttered:

"Before, I was not afraid to let oceans of people's money pour through my hands, but–Mary, I am so tired, so tired–"

"We will go to bed."

At nine in the morning the stranger called for the sack and took it to the hotel in a cab. At ten Harkness had a talk with him privately. The stranger asked for and got five checks on a metropolitan bank–drawn to "Bearer"–four for $1,500 each, and one for $34,000. He put one of the former in his pocketbook, and the remainder, representing $38,500, he put in an envelope, and with these he added a note, which he wrote after Harkness was gone. At eleven he called at the Richards' house and knocked. Mrs. Richards peeped through the shutters, then went and received the envelope, and the stranger disappeared without a word. She came back flushed and a little unsteady on her legs, and gasped out:

"I am sure I recognized him! Last night it seemed to me that maybe I had seen him somewhere before."

"He is the man that brought the sack here?"

"I am almost sure of it."

"Then he is the ostensible Stephenson, too, and sold every important citizen in this town with his bogus secret. Now if he has sent checks in-

stead of money, we are sold, too, after we thought we had escaped. I was beginning to feel fairly comfortable once more, after my night's rest, but the look of that envelope makes me sick. It isn't fat enough; $8,500 in even the largest bank notes makes more bulk than that."

"Edward, why do you object to checks?"

"Checks signed by Stephenson! I am resigned to take the $8,500 if it could come in bank notes–for it does seem that it was so ordered, Mary–but I have never had much courage, and I have not the pluck to try to market a check signed with that disastrous name. It would be a trap. That man tried to catch me; we escaped somehow or other; and now he is trying a new way. If it is checks–"

"Oh, Edward, it is *too* bad!" And she held up the checks and began to cry.

"Put them in the fire! Quick! We mustn't be tempted. It is a trick to make the world laugh at *us,* along with the rest, and– Give them to *me,* since you can't do it!" He snatched them and tried to hold his grip till he could get to the stove; but he was human, he was a cashier, and he stopped a moment to make sure of the signature. Then he came near to fainting.

"Fan me, Mary, fan me! They are the same as gold!"

"Oh, how lovely, Edward! Why?"

"Signed by Harkness. What can the mystery of that be, Mary?"

"Edward, do you think–"

"Look here–look at this! Fifteen–fifteen–fifteen–thirty-four. Thirty-eight thousand five hundred! Mary, the sack isn't worth twelve dollars, and Harkness–apparently–has paid about par for it."

"And does it all come to us, do you think–instead of the ten thousand?"

"Why, it looks like it. And the checks are made to 'Bearer,' too."

"Is that good, Edward? What is it for?"

"A hint to collect them at some distant bank, I reckon. Perhaps Harkness doesn't want the matter known. What is that–a note?"

"Yes. It was with the checks."

It was in the "Stephenson" handwriting, but there was no signature. It said:

> I am a disappointed man. Your honesty is beyond the reach of temptation. I had a different idea about it, but I wronged you in that, and I beg pardon, and do it sincerely. I honor you–and that is sincere too. This town is not worthy to kiss the hem of your garment. Dear sir, I made a square bet with myself that there were nineteen debauchable

men in your self-righteous community. I have lost. Take the whole pot, you are entitled to it.

Richards drew a deep sigh, and said:

"It seems written with fire–it burns so. Mary–I am miserable again."

"I, too. Ah, dear, I wish–"

"To think, Mary–he *believes* in me."

"Oh, don't, Edward–I can't bear it."

"If those beautiful words were deserved, Mary–and God knows I believed I deserved them once–I think I could give the forty thousand dollars for them. And I would put that paper away, as representing more than gold and jewels, and keep it always. But now–We could not live in the shadow of its accusing presence, Mary."

He put it in the fire.

A messenger arrived and delivered an envelope.

Richards took from it a note and read it; it was from Burgess.

> You saved me, in a difficult time. I saved you last night. It was at cost of a lie, but I made the sacrifice freely, and out of a grateful heart. None in this village knows so well as I know how brave and good and noble you are. At bottom you cannot respect me, knowing as you do of that matter of which I am accused, and by the general voice condemned; but I beg that you will at least believe that I am a grateful man; it will help me to bear my burden.
>
> (Signed) BURGESS.

"Saved, once more. And on such terms!" He put the note in the fire. "I–I wish I were dead, Mary, I wish I were out of it all."

"Oh, these are bitter, bitter days, Edward. The stabs, through their very generosity, are so deep–and they come so fast!"

Three days before the election each of two thousand voters suddenly found himself in possession of a prized memento–one of the renowned bogus double eagles. Around one of its faces was stamped these words: "THE REMARK I MADE TO THE POOR STRANGER WAS–" Around the other face was stamped these: "GO, AND REFORM. (SIGNED) PINKERTON." Thus the entire remaining refuse of the renowned joke was emptied upon a single head, and with calamitous effect. It revived the recent vast laugh and concentrated it upon Pinkerton; and Harkness' election was a walkover.

Within twenty-four hours after the Richardses had received their checks their consciences were quieting down, discouraged; the old couple were learning to reconcile themselves to the sin which they had committed. But they were to learn, now, that a sin takes on new and real terrors

when there seems a chance that it is going to be found out. This gives it a fresh and most substantial and important aspect. At church the morning sermon was of the usual pattern; it was the same old things said in the same old way; they had heard them a thousand times and found them innocuous, next to meaningless, and easy to sleep under; but now it was different: the sermon seemed to bristle with accusations; it seemed aimed straight and specially at people who were concealing deadly sins. After church they got away from the mob of congratulators as soon as they could, and hurried homeward, chilled to the bone at they did not know what–vague, shadowy, indefinite fears. And by chance they caught a glimpse of Mr. Burgess as he turned a corner. He paid no attention to their nod of recognition! He hadn't seen it; but they did not know that. What could his conduct mean? It might mean–it might mean–oh, a dozen dreadful things. Was it possible that he knew that Richards could have cleared him of guilt in that bygone time, and had been silently waiting for a chance to even up accounts? At home, in their distress they got to imagining that their servant might have been in the next room listening when Richards revealed the secret to his wife that he knew of Burgess' innocence; next, Richards began to imagine that he had heard the swish of a gown in there at that time; next, he was sure he *had* heard it. They would call Sarah in, on a pretext, and watch her face: if she had been betraying them to Mr. Burgess, it would show in her manner. They asked her some questions–questions which were so random and incoherent and seemingly purposeless that the girl felt sure that the old people's minds had been affected by their sudden good fortune; the sharp and watchful gaze which they bent upon her frightened her, and that completed the business. She blushed, she became nervous and confused, and to the old people these were plain signs of guilt–guilt of some fearful sort or other–without doubt she was a spy and a traitor. When they were alone again they began to piece many unrelated things together and get horrible results out of the combination. When things had got about to the worst, Richards was delivered of a sudden gasp, and his wife asked:

"Oh, what is it?–What is it?"

"The note–Burgess' note! Its language was sarcastic, I see it now." He quoted: "'At bottom you cannot respect me, *knowing,* as you do, of *that matter* of which I am accused'–oh, it is perfectly plain, now, God help me! He knows that I know! You see the ingenuity of the phrasing. It was a trap–and like a fool, I walked into it. And Mary–?"

"Oh, it is dreadful–I know what you are going to say–he didn't return your transcript of the pretended test remark."

"No–kept it to destroy us with. Mary, he has exposed us to some already. I know it–I know it well. I saw it in a dozen faces after church. Ah, he wouldn't answer our nod of recognition–*he* knew what he had been doing!"

In the night the doctor was called. The news went around in the morning that the old couple were rather seriously ill–prostrated by the exhausting excitement growing out of their great windfall, the congratulations, and the late hours, the doctor said. The town was sincerely distressed; for these old people were about all it had left to be proud of, now.

Two days later the news was worse. The old couple were delirious, and were doing strange things. By witness of the nurses, Richards had exhibited checks–for $8,500? No–for an amazing sum–$38,500! What could be the explanation of this gigantic piece of luck?

The following day the nurses had more news–and wonderful. They had concluded to hide the checks, lest harm come to them; but when they searched they were gone from under the patient's pillow–vanished away. The patient said:

"Let the pillow alone; what do you want?"

"We thought it best that the checks–"

"You will never see them again–they are destroyed. They came from Satan. I saw the hell-brand on them, and I knew they were sent to betray me to sin." Then he fell to gabbling strange and dreadful things which were not clearly understandable, and which the doctor admonished them to keep to themselves.

Richards was right; the checks were never seen again.

A nurse must have talked in her sleep, for within two days the forbidden gabblings were the property of the town; and they were of a surprising sort. They seemed to indicate that Richards had been a claimant for the sack himself, and that Burgess had concealed that fact and then maliciously betrayed it.

Burgess was taxed with this and stoutly denied it. And he said it was not fair to attach weight to the chatter of a sick old man who was out of his mind. Still, suspicion was in the air, and there was much talk.

After a day or two it was reported that Mrs. Richards' delirious deliveries were getting to be duplicates of her husband's. Suspicion flamed up into conviction, now, and the town's pride in the purity of its one undiscredited important citizen began to dim down and flicker toward extinction.

Six days passed; then came more news. The old couple were dying.

Richards' mind cleared in his latest hour, and he sent for Burgess. Burgess said:

"Let the room be cleared. I think he wishes to say something in privacy."

"No!" said Richards. "I want witnesses. I want you all to hear my confession, so that I may die a man, and not a dog. I was clean–artificially–like the rest; and like the rest I fell when temptation came. I signed a lie, and claimed the miserable sack. Mr. Burgess remembered that I had done him a service, and in gratitude (and ignorance) he suppressed my claim and saved me. You know the thing that was charged against Burgess years ago. My testimony, and mine alone, could have cleared him, and I was a coward, and left him to suffer disgrace–"

"No–no–Mr. Richards, you–"

"My servant betrayed my secret to him–"

"No one has betrayed anything to me–"

–"and then he did a natural and justifiable thing, he repented of the saving kindness which he had done me, and he *exposed* me–as I deserved–"

"Never!–I make oath–"

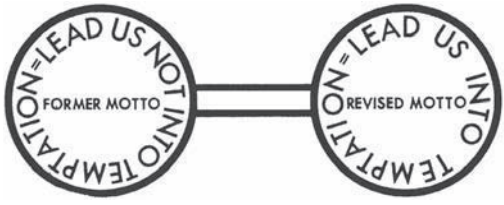
"Out of my heart I forgive him."

Burgess' impassioned protestations fell upon deaf ears; the dying man passed away without knowing that once more he had done poor Burgess a wrong. The old wife died that night.

The last of the sacred Nineteen had fallen a prey to the fiendish sack; the town was stripped of the last rag of its ancient glory. Its mourning was not showy, but it was deep.

By act of the Legislature–upon prayer and petition–Hadleyburg was allowed to change its name to (never mind what–I will not give it away), and leave one word out of the motto that for many generations had graced the town's official seal.

It is an honest town once more, and the man will have to rise early that catches it napping again.



Charles Dickens

1812–1870

Charles Dickens was born in Landport, now a section of Portsea, England, February 7, 1812. His father clerked for the Navy Pay Office. A convivial, easygoing man, he was held for a time in Marshalsea debtors' prison. Young Charles got little schooling. For some months he was put to work in a blacking warehouse. He served in an attorney's office, became a shorthand writer and a first-rate Parliamentary reporter. His first book, *Sketches by Boz,* was published in 1836.

That same year he married Catherine Hogarth and began to bring out *The Pickwick Papers* (see below) in monthly parts. Before the year was out his tremendous audience had found him. It grew with the publication of *Oliver Twist* in 1838 and *Nicholas Nickleby* a year later. *The Old Curiosity Shop* and *Barnaby Rudge* followed in 1841. Dickens was handsomely received on his first tour of the United States but the acid tone of *American Notes* outraged his transatlantic readers.

In 1843–45 he settled in Genoa and toured Italy and France on the way back to England. During this period, *Martin Chuzzlewit, A Christmas Carol,* and *The Chimes* appeared. Dickens founded the *London Daily News* but soon returned to the Continent. In Paris he met Chateaubriand, Dumas and Victor Hugo. By March, 1847, he was back in London, working on *Dombey and Son.* The monthly parts of *David Copperfield,* probably his most widely read novel, began to appear in 1849.

He founded the periodical *Household Words* in 1850. Publication of *Bleak House,* the first of his somber later novels, began in 1852. It was followed by *Hard Times* and *Little Dorrit.* In June, 1857, he gave the first of his public readings in London. About this time he

was separated from his wife and his association with the actress Ellen Ternan began. In 1859 he published *A Tale of Two Cities* and set up a new periodical, *All the Year Round.*

During the early 1860's, in the midst of many lectures, he found time to write *Great Expectations* and *Our Mutual Friend.* His second tour of the United States in 1867–68 was an unparalleled triumph. In his time he was the most popular novelist in English and earned his rank among the greatest. He began publication of his unfinished novel, *The Mystery of Edwin Drood,* just before he died on June 9, 1870.

The celebrated Mr. Pickwick, famous alike for his round and rosy good nature and his incomparable intellect, has got himself into a pickle. Indeed, it is one of the most renowned pickles in all literature—the pickle of Bardell *v.* Pickwick, tried under Mr. Justice Stareleigh at Guildhall, London, on February 14 in some imaginary year of the late 1820's. Mr. Pickwick stands accused of the most horrible, monstrous and unnatural crime ever bound into law calf. It is nothing less than breach of promise. He is charged with having defaulted on a promise of marriage to a respectable female—to wit, a certain Mrs. Bardell, his former landlady, widow of a customhouse officer and mother of that "little villain," Master Bardell.

So we are into *Pickwick Papers,* a great book that is not so much a book as a world. In it Dickens first discovered the huge power of his own talent and went a little mad with the fun of it. He never wrote a book quite like it again. Perhaps no one ever will. We can read it for a week. Many a man has read it for a lifetime. We can eat it, and sleep in it, and dream about it, and never once wish we were somewhere else or doing something else. Of how many great books can this be said?

In our excerpt, we meet Mr. Pickwick on one of the critical days in his life. Two things happen: he is caught in a horribly false posi-

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Notes from the artist: ". . . three of Dickens' creations—Alfred Jingle, Mr. Pickwick, and Fagin—rendered in a contemporary version of the famous George Cruikshank drawings, stand behind the head of the author."

Gran Sorriseno

tion with Mrs. Bardell, and he engages the incomparable Sam Weller as his manservant. A few pages back we had the pleasure of meeting Sam for the first time, complete with striped waistcoat, white hat, and red neckerchief, in the yard at the White Hart Inn. There, in consideration of a sovereign passed from hand to hand, Sam had been able to assist Mr. Pickwick, Mr. Wardle, and Mr. Perker the lawyer in thwarting the marriage plans of Mr. Jingle.

In a book in which nearly everyone else is funny without quite meaning to be, Sam Weller is funny by wit and intention. Edwin Pugh, a specialist in Cockney life, wrote that the average Cockney "is often witty; he is sometimes eloquent; he has a notable gift of phrase-making and nicknaming." All this applies to Sam, who is far from average. He is, in fact, the Great Cockney, the Cockney of Cockneys. His aplomb is limited but complete, his competence unfailing. He is an Odysseus who "is never at a loss"; and like any Homeric hero, he speaks in metaphors. His worldliness in the world of London—and of England, for that matter—shows never a crack.

Thus he is the good right hand, and precisely the right one, for that confederation of innocents, the Pickwick Club, and especially for Mr. Pickwick himself. Who but the self-possessed young Mr. Weller would have been able to catch Mrs. Bardell's gossip cronies in an indiscretion—to wit, the revelation that the shysters Dodson and Fogg had taken her case on speculation? And who but Sam, on the witness stand, would have been able to make such good use of it with the lawyers who had reduced Mr. Winkle to the point of burying his head under the sofa cushions?

We tend to forget how much Dickens—the young Dickens, at least—was a man of the Romantic movement, blood brother to Pushkin, Lamb, Scott, the early Balzac and the Gogol of *Dead Souls*. *The Pickwick Papers* belongs among the great and few Romantic comedies; and the story of Mr. Pickwick's involvement with Mrs. Bardell and the law is one of its crowning episodes.

A Full and Faithful Report of the Memorable Trial of Bardell against Pickwick

from *The Pickwick Papers*

Mr. Pickwick's apartments in Goswell Street, although on a limited scale, were not only of a very neat and comfortable description, but peculiarly adapted for the residence of a man of his genius and observation. His sitting-room was the first floor front, his bedroom the second floor front; and thus, whether he were sitting at his desk in his parlour, or standing before the dressing-glass in his dormitory, he had an equal opportunity of contemplating human nature in all the numerous phases it exhibits, in that not more populous than popular thoroughfare. His landlady, Mrs. Bardell—the relict and sole executrix of a deceased custom-house officer—was a comely woman of bustling manners and agreeable appearance, with a natural genius for cooking, improved by study and long practice, into an exquisite talent. There were no children, no servants, no fowls. The only other inmates of the house were a large man and a small boy; the first a lodger, the second a production of Mrs. Bardell's. The large man was always home precisely at ten o'clock at night, at which hour he regularly condensed himself into the limits of a dwarfish French bedstead in the back parlour; and the infantine sports and gymnastic exercises of Master Bardell were exclusively confined to the neighbouring pavements and gutters. Cleanliness and quiet reigned throughout the house; and in it Mr. Pickwick's will was law.

To any one acquainted with these points of the domestic economy of the establishment, and conversant with the admirable regulation of Mr. Pickwick's mind, his appearance and behaviour on the morning previous to that which had been fixed upon for the journey to Eatanswill would

have been most mysterious and unaccountable. He paced the room to and fro with hurried steps, popped his head out of the window at intervals of about three minutes each, constantly referred to his watch, and exhibited many other manifestations of impatience very unusual with him. It was evident that something of great importance was in contemplation, but what that something was, not even Mrs. Bardell herself had been enabled to discover.

"Mrs. Bardell," said Mr. Pickwick, at last, as that amiable female approached the termination of a prolonged dusting of the apartment.

"Sir," said Mrs. Bardell.

"Your little boy is a very long time gone."

"Why, it's a good long way to the Borough, sir," remonstrated Mrs. Bardell.

"Ah," said Mr. Pickwick, "very true; so it is."

Mr. Pickwick relapsed into silence, and Mrs. Bardell resumed her dusting.

"Mrs. Bardell," said Mr. Pickwick, at the expiration of a few minutes.

"Sir," said Mrs. Bardell again.

"Do you think it a much greater expense to keep two people, than to keep one?"

"La, Mr. Pickwick," said Mrs. Bardell, colouring up to the very border of her cap, as she fancied she observed a species of matrimonial twinkle in the eyes of her lodger; "La, Mr. Pickwick, what a question!"

"Well, but do you?" inquired Mr. Pickwick.

"That depends—" said Mrs. Bardell, approaching the duster very near to Mr. Pickwick's elbow, which was planted on the table, "that depends a good deal upon the person, you know, Mr. Pickwick; and whether it's a saving and careful person, sir."

"That's very true," said Mr. Pickwick, "but the person I have in my eye" (here he looked very hard at Mrs. Bardell) "I think possesses these qualities; and has, moreover, a considerable knowledge of the world, and a great deal of sharpness, Mrs. Bardell; which may be of material use to me."

"La, Mr. Pickwick," said Mrs. Bardell, the crimson rising to her cap border again.

"I do," said Mr. Pickwick, growing energetic, as was his wont in speaking of a subject which interested him, "I do, indeed; and to tell you the truth, Mrs. Bardell, I have made up my mind."

"Dear me, sir," exclaimed Mrs. Bardell.

"You'll think it very strange now," said the amiable Mr. Pickwick, with a

good-humoured glance at his companion, "that I never consulted you about this matter, and never even mentioned it, till I sent your little boy out this morning–eh?"

Mrs. Bardell could only reply by a look. She had long worshipped Mr. Pickwick at a distance, but here she was, all at once, raised to a pinnacle to which her wildest and most extravagant hopes had never dared to aspire. Mr. Pickwick was going to propose–a deliberate plan, too–sent her little boy to the Borough, to get him out of the way–how thoughtful–how considerate!

"Well," said Mr. Pickwick, "what do you think?"

"Oh, Mr. Pickwick," said Mrs. Bardell, trembling with agitation, "you're very kind, sir."

"It'll save you a good deal of trouble, won't it?" said Mr. Pickwick.

"Oh, I never thought anything of the trouble, sir," replied Mrs. Bardell; "and, of course, I should take more trouble to please you then, than ever; but it is so kind of you, Mr. Pickwick, to have so much consideration for my loneliness."

"Ah, to be sure," said Mr. Pickwick; "I never thought of that. When I am in town, you'll always have somebody to sit with you. To be sure, so you will."

"I'm sure I ought to be a very happy woman," said Mrs. Bardell.

"And your little boy–" said Mr. Pickwick.

"Bless his heart!" interposed Mrs. Bardell, with a maternal sob.

"He, too, will have a companion," resumed Mr. Pickwick, "a lively one, who'll teach him, I'll be bound, more tricks in a week than he would ever learn in a year." And Mr. Pickwick smiled placidly.

"Oh, you dear–" said Mrs. Bardell.

Mr. Pickwick started.

"Oh, you kind, good, playful dear," said Mrs. Bardell; and without more ado, she rose from her chair, and flung her arms round Mr. Pickwick's neck, with a cataract of tears and a chorus of sobs.

"Bless my soul," cried the astonished Mr. Pickwick; "Mrs. Bardell my good woman–dear me, what a situation–pray consider. Mrs. Bardell, don't–if anybody should come–"

"Oh, let them come," exclaimed Mrs. Bardell, frantically; "I'll never leave you, dear, kind, good soul"; and, with these words, Mrs. Bardell clung the tighter.

"Mercy upon me," said Mr. Pickwick, struggling violently, "I hear somebody coming up the stairs. Don't, don't, there's a good creature, don't." But entreaty and remonstrance were alike unavailing: for Mrs. Bardell

had fainted in Mr. Pickwick's arms; and before he could gain time to deposit her on a chair, Master Bardell entered the room, ushering in Mr. Tupman, Mr. Winkle, and Mr. Snodgrass.

Mr. Pickwick was struck motionless and speechless. He stood with his lovely burden in his arms, gazing vacantly on the countenances of his friends, without the slightest attempt at recognition or explanation. They, in their turn, stared at him; and Master Bardell, in his turn, stared at everybody.

The astonishment of the Pickwickians was so absorbing, and the perplexity of Mr. Pickwick was so extreme, that they might have remained in exactly the same relative situations until the suspended animation of the lady was restored, had it not been for a most beautiful and touching expression of filial affection on the part of her youthful son. Clad in a tight suit of corduroy, spangled with brass buttons of a very considerable size, he at first stood at the door astounded and uncertain; but by degrees, the impression that his mother must have suffered some personal damage pervaded his partially developed mind, and considering Mr. Pickwick as the aggressor, he set up an appalling and semi-earthly kind of howling, and butting forward with his head, commenced assailing that immortal gentleman about the back and legs, with such blows and pinches as the strength of his arm, and the violence of his excitement, allowed.

"Take this little villain away," said the agonized Mr. Pickwick, "he's mad."

"What *is* the matter?" said the three tongue-tied Pickwickians.

"I don't know," replied Mr. Pickwick, pettishly. "Take away the boy" (here Mr. Winkle carried the interesting boy, screaming and struggling, to the further end of the apartment). "Now, help me, lead this woman downstairs."

"Oh, I am better now," said Mrs. Bardell, faintly.

"Let me lead you downstairs," said the ever-gallant Mr. Tupman.

"Thank you, sir–thank you"; exclaimed Mrs. Bardell, hysterically. And downstairs she was led accordingly, accompanied by her affectionate son.

"I cannot conceive–" said Mr. Pickwick, when his friend returned, "I cannot conceive what has been the matter with that woman. I had merely announced to her my intention of keeping a man-servant, when she fell into the extraordinary paroxysm in which you found her. Very extraordinary thing."

"Very," said his three friends.

"Placed me in such an extremely awkward situation," continued Mr. Pickwick.

"Very," was the reply of his followers, as they coughed slightly, and looked dubiously at each other.

This behaviour was not lost upon Mr. Pickwick. He remarked their incredulity. They evidently suspected him.

"There is a man in the passage now," said Mr. Tupman.

"It's the man I spoke to you about," said Mr. Pickwick. "I sent for him up to the Borough this morning. Have the goodness to call him up, Snodgrass."

Mr. Snodgrass did as he was desired; and Mr. Samuel Weller forthwith presented himself.

"Oh—you remember me, I suppose?" said Mr. Pickwick.

"I should think so," replied Sam, with a patronising wink. "Queer start that'ere, but he was one too many for you, warn't he? Up to snuff and a pinch or two over—eh?"

"Never mind that matter now," said Mr. Pickwick hastily. "I want to speak to you about something else. Sit down."

"Thank'ee, sir," said Sam. And down he sat without further bidding, having previously deposited his old white hat on the landing outside the door. "Ta'nt a werry good 'un to look at," said Sam, "but it's an astonishin' 'un to wear; and afore the brim went, it was a werry handsome tile. Hows'ever it's lighter without it, that's one thing, and every hole lets in some air, that's another—wentilation gossamer I calls it." On the delivery of this sentiment, Mr. Weller smiled agreeably upon the assembled Pickwickians.

"Now with regard to the matter on which I, with the concurrence of these gentlemen, sent for you," said Mr. Pickwick.

"That's the pint, sir," interposed Sam; "out vith it, as the father said to the child, wen he swallowed a farden."

"We want to know in the first place," said Mr. Pickwick, "whether you have any reason to be discontented with your present situation."

"Afore I answers that 'ere question, gen'l'm'n," replied Mr. Weller, "*I* should like to know, in the first place, whether you're a goin' to purwide me with a better?"

A sunbeam of placid benevolence played on Mr. Pickwick's features as he said, "I have half made up my mind to engage you myself."

"Have you, though?" said Sam.

Mr. Pickwick nodded in the affirmative.

"Wages?" inquired Sam.

"Twelve pounds a year," replied Mr. Pickwick.

"Clothes?"

"Two suits."

"Work?"

"To attend upon me; and travel about with me and these gentlemen here."

"Take the bill down," said Sam, emphatically. "I'm let to a single gentleman, and the terms is agreed upon."

"You accept the situation?" inquired Mr. Pickwick.

"Cert'nly," replied Sam. "If the clothes fits me half as well as the place, they'll do."

"You can get a character of course?" said Mr. Pickwick.

"Ask the landlady o' the White Hart about that, sir," replied Sam.

"Can you come this evening?"

"I'll get into the clothes this minute, if they're here," said Sam with great alacrity.

"Call at eight this evening," said Mr. Pickwick; "and if the inquiries are satisfactory, they shall be provided."

With the single exception of one amiable indiscretion, in which an assistant housemaid had equally participated, the history of Mr. Weller's conduct was so very blameless, that Mr. Pickwick felt fully justified in closing the engagement that very evening. With the promptness and energy which characterized not only the public proceedings but all the private actions of this extraordinary man, he at once led his new attendant to one of those convenient emporiums where gentlemen's new and second-hand clothes are provided, and the troublesome and inconvenient formality of measurement dispensed with; and before night had closed in, Mr. Weller was furnished with a grey coat with the P.C. button, a black hat with a cockade to it, a pink striped waistcoat, light breeches and gaiters, and a variety of other necessaries, too numerous to recapitulate.

"Well," said that suddenly transformed individual, as he took his seat on the outside of the Eatanswill coach next morning, "I wonder whether I'm meant to be a footman, or a groom, or a gamekeeper, or a seedsman. I looks like a sort of compo of every one on 'em. Never mind; there's change of air, plenty to see, and little to do; and all this suits my complaint uncommon; so long life to the Pickvicks, says I!"

[*After several Pickwickian adventures, in the course of which Sam and Mr. Pickwick are bound in mutual affection, Sam delivers a letter.*]

Mr. Pickwick would in all probability have gone on for some time, had not the entrance of Sam, with a letter, caused him to break off in his elo-

quent discourse. He passed his handkerchief across his forehead, took off his spectacles, wiped them, and put them on again; and his voice had recovered its wonted softness of tone when he said:

"What have you there, Sam?"

"Called at the Post-office just now, and found this here letter, as has laid there for two days," replied Mr. Weller. "It's sealed with a vafer, and directed in round hand."

"I don't know this hand," said Mr. Pickwick, opening the letter. "Mercy on us; what's this? It must be a jest; it—it—can't be true."

"What's the matter?" was the general inquiry.

"Nobody dead, is there?" said Wardle, alarmed at the horror in Mr. Pickwick's countenance.

Mr. Pickwick made no reply, but, pushing the letter across the table, and desiring Mr. Tupman to read it aloud, fell back in his chair with a look of vacant astonishment quite alarming to behold.

Mr. Tupman, with a trembling voice, read the letter, of which the following is a copy:

Freeman's Court, Cornhill, August 28th, 1830.
Bardell against Pickwick

Sir,

Having been instructed by Mrs. Martha Bardell to commence an action against you for a breach of promise of marriage, for which the plaintiff lays her damages at fifteen hundred pounds, we beg to inform you that a writ has been issued against you in this suit in the Court of Common Pleas; and request to know, by return of post, the name of your attorney in London, who will accept service thereof.

We are, Sir,
Your obedient servants,
Dodson and Fogg

Mr. Samuel Pickwick

There was something so impressive in the mute astonishment with which each man regarded his neighbour, and every man regarded Mr. Pickwick, that all seemed afraid to speak. The silence was at length broken by Mr. Tupman.

"Dodson and Fogg," he repeated mechanically.

"Bardell and Pickwick," said Mr. Snodgrass, musing.

"Peace of mind and happiness of confiding females," murmured Mr. Winkle, with an air of abstraction.

"It's a conspiracy," said Mr. Pickwick, at length recovering the power of speech; "a base conspiracy between these two grasping attorneys, Dodson and Fogg. Mrs. Bardell would never do it–she hasn't the heart to do it–she hasn't the case to do it. Ridiculous–ridiculous."

"Of her heart," said Wardle, with a smile, "you should certainly be the best judge. I don't wish to discourage you, but I should certainly say that, of her case, Dodson and Fogg are far better judges than any of us can be."

"It's a vile attempt to extort money," said Mr. Pickwick.

"I hope it is," said Wardle, with a short, dry cough.

"Who ever heard me address her in any way but that in which a lodger would address his landlady?" continued Mr. Pickwick, with great vehemence. "Who ever saw me with her? Not even my friends here–"

"Except on one occasion," said Mr. Tupman.

Mr. Pickwick changed colour.

"Ah," said Mr. Wardle. "Well, that's important. There was nothing suspicious then, I suppose?"

Mr. Tupman glanced timidly at his leader. "Why," said he, "there was nothing suspicious; but–I don't know how it happened, mind–she certainly was reclining in his arms."

"Gracious powers!" ejaculated Mr. Pickwick, as the recollection of the scene in question struck forcibly upon him; "what a dreadful instance of the force of circumstances! So she was–so she was."

"And our friend was soothing her anguish," said Mr. Winkle, rather maliciously.

"So I was," said Mr. Pickwick. "I won't deny it. So I was."

"Hallo!" said Wardle; "for a case in which there's nothing suspicious, this looks rather queer–eh, Pickwick? Ah, sly dog–sly dog!" and he laughed till the glasses on the sideboard rang again.

"What a dreadful conjunction of appearances!" exclaimed Mr. Pickwick, resting his chin upon his hands. "Winkle–Tupman–I beg your pardon for the observations I made just now. We are all the victims of circumstances, and I the greatest." With this apology Mr. Pickwick buried his head in his hands, and ruminated; while Wardle measured out a regular circle of nods and winks, addressed to the other members of the company.

"I'll have it explained, though," said Mr. Pickwick, raising his head and hammering the table. "I'll see this Dodson and Fogg! I'll go to London tomorrow."

"Not to-morrow," said Wardle; "you're too lame."

"Well, then, next day."

"Next day is the first of September, and you're pledged to ride out with us, as far as Sir Geoffrey Manning's grounds, at all events, and to meet us at lunch, if you don't take the field."

"Well, then, the day after," said Mr. Pickwick; "Thursday. Sam!"

"Sir," replied Mr. Weller.

"Take two places outside to London, on Thursday morning, for yourself and me."

"Wery well, sir."

Mr. Weller left the room, and departed slowly on his errand, with his hands in his pockets and his eyes fixed on the ground.

"Rum feller, the hemperor," said Mr. Weller as he walked slowly up the street. "Think o' his making up to that ere Mrs. Bardell—vith a little boy, too! Always the vay with these here old 'uns hows'ever, as is such steady goers to look at. I didn't think he'd ha' done it, though—I didn't think he'd ha'done it!" Moralising in this strain, Mr. Samuel Weller bent his steps towards the booking-office.

[*Mr. Pickwick, unbelieving, visits Mrs. Bardell's attorneys.*]

In the ground-floor front of a dingy house, at the very furthest end of Freeman's Court, Cornhill, sat the four clerks of Messrs. Dodson and Fogg, two of His Majesty's Attorneys of the Courts of King's Bench and Common Pleas at Westminster, and solicitors of the High Court of Chancery: the aforesaid clerks catching as favourable glimpses of Heaven's light and Heaven's sun, in the course of their daily labours, as a man might hope to do, were he placed at the bottom of a reasonably deep well; and without the opportunity of perceiving the stars in the day-time, which the latter secluded situation affords.

The clerks' office of Messrs. Dodson and Fogg was a dark, mouldy, earthy-smelling room, with a high wainscoted partition to screen the clerks from the vulgar gaze: a couple of old wooden chairs, a very loud-ticking clock, an almanac, an umbrella-stand, a row of hat-pegs, and a few shelves, on which were deposited several ticketed bundles of dirty papers, some old deal boxes with paper labels, and sundry decayed stone ink bottles of various shapes and sizes. There was a glass door leading into the passage which formed the entrance to the court, and on the outer side of this glass door, Mr. Pickwick, closely followed by Sam Weller, presented himself on the [succeeding] Friday morning. . . .

"Come in, can't you!" cried a voice from behind the partition, in reply

to Mr. Pickwick's gentle tap at the door. And Mr. Pickwick and Sam entered accordingly.

"Mr. Dodson or Mr. Fogg at home, sir?" inquired Mr. Pickwick, gently, advancing, hat in hand, towards the partition.

"Mr. Dodson ain't at home, and Mr. Fogg's particularly engaged," replied the voice; and at the same time the head to which the voice belonged, with a pen behind its ear, looked over the partition, and at Mr. Pickwick.

It was a ragged head, the sandy hair of which, scrupulously parted on one side, and flattened down with pomatum, was twisted into little semi-circular tails round a flat face ornamented with a pair of small eyes, and garnished with a very dirty shirt collar, and a rusty black stock.

"Mr. Dodson ain't at home, and Mr. Fogg's particularly engaged," said the man to whom the head belonged.

"When will Mr. Dodson be back, sir?" inquired Mr. Pickwick.

"Can't say."

"Will it be long before Mr. Fogg is disengaged, sir?"

"Don't know."

Here the man proceeded to mend his pen with great deliberation, while another clerk, who was mixing a Seidlitz powder, under cover of the lid of his desk, laughed approvingly.

"I think I'll wait," said Mr. Pickwick. There was no reply; so Mr. Pickwick sat down unbidden, and listened to the loud ticking of the clock and the murmured conversation of the clerks.

"That was a game, wasn't it?" said one of the gentlemen, in a brown coat and brass buttons, inky drabs, and bluchers, at the conclusion of some inaudible relation of his previous evening's adventures.

"Devilish good—devilish good," said the Seidlitz-powder man.

"Tom Cummins was in the chair," said the man with the brown coat; "It was half past four when I got to Somers Town, and then I was so uncommon lushy that I couldn't find the place where the latch-key went in, and was obliged to knock up the old 'ooman. I say, I wonder what old Fogg 'ud say, if he knew it. I should get the sack, I s'pose—eh?"

At this humorous notion, all the clerks laughed in concert.

"There was such a game with Fogg here, this mornin'," said the man in the brown coat, "while Jack was upstairs sorting the papers, and you two were gone to the stamp office. Fogg was down here, opening the letters, when that chap as we issued the writ against at Camberwell, you know, came in—what's his name again?"

"Ramsey," said the clerk who had spoken to Mr. Pickwick.

"Ah, Ramsey—a precious seedy-looking customer. 'Well, sir,' says old Fogg, looking at him very fierce—you know his way—'well, sir, have you come to settle?' 'Yes, I have, sir,' said Ramsey, putting his hand in his pocket, and bringing out the money, 'the debt's two pound ten, and the costs three pound five, and here it is, sir'; and he sighed like bricks as he lugged out the money, done up in a bit of blotting-paper. Old Fogg looked first at the money, and then at him, and then he coughed in his rum way, so that I knew something was coming. 'You don't know there's a declaration filed, which increases the costs materially, I suppose?' said Fogg. 'You don't say that, sir,' said Ramsey, starting back; 'the time was only out last night, sir.' 'I do say it, though,' said Fogg, 'my clerk's just gone to file it. Hasn't Mr. Jackson gone to file that declaration in Bullman and Ramsey, Mr. Wicks?' Of course I said yes, and then Fogg coughed again, and looked at Ramsey. 'My God!' said Ramsey; 'and here have I nearly driven myself mad, scraping this money together, and all to no purpose.' 'None at all,' said Fogg, coolly; 'so you had better go back and scrape some more together, and bring it here in time.' 'I can't get it, by God!' said Ramsey, striking the desk with his fist. 'Don't bully me, sir,' said Fogg, getting into a passion on purpose. 'I am not bullying you, sir,' said Ramsey. 'You are,' said Fogg; 'get out, sir; get out of this office, sir, and come back, sir, when you know how to behave yourself.' Well, Ramsey tried to speak, but Fogg wouldn't let him, so he put the money in his pocket, and sneaked out. The door was scarcely shut, when old Fogg turned round to me, with a sweet smile on his face, and drew the declaration out of his coat pocket. 'Here, Wicks,' says Fogg, 'take a cab, and go down to the Temple as quick as you can, and file that. The costs are quite safe, for he's a steady man with a large family, at a salary of five-and-twenty shillings a week, and if he gives us a warrant of attorney, as he must in the end, I know his employers will see it paid; so we may as well get all we can out of him, Mr. Wicks; it's a Christian act to do it, Mr. Wicks, for with his large family and small income, he'll be all the better for a good lesson against getting into debt—won't he, Mr. Wicks, won't he?'—and he smiled so good-naturedly as he went away that it was delightful to see him. He is a capital man of business," said Wicks, in a tone of the deepest admiration, "capital, isn't he?"

The other three cordially subscribed to this opinion, and the anecdote afforded the most unlimited satisfaction.

"Nice men these here, sir," whispered Mr. Weller to his master; "wery nice notion of fun they has, sir."

Mr. Pickwick nodded assent, and coughed to attract the attention of the

young gentlemen behind the partition, who, having now relaxed their minds by a little conversation among themselves, condescended to take some notice of the stranger.

"I wonder whether Fogg's disengaged now?" said Jackson.

"I'll see," said Wicks, dismounting leisurely from his stool. "What name shall I tell Mr. Fogg?"

"Pickwick," replied the illustrious subject of these memoirs.

Mr. Jackson departed upstairs on his errand, and immediately returned with a message that Mr. Fogg would see Mr. Pickwick in five minutes; and having delivered it, returned again to his desk.

"What did he say his name was?" whispered Wicks.

"Pickwick," replied Jackson; "it's the defendant in Bardell and Pickwick."

A sudden scraping of feet, mingled with the sound of suppressed laughter, was heard from behind the partition.

"They're a twiggin' of you, sir," whispered Mr. Weller.

"Twigging of me, Sam!" replied Mr. Pickwick; "what do you mean by twigging me?"

Mr. Weller replied by pointing with his thumb over his shoulder, and Mr. Pickwick, on looking up, became sensible of the pleasing fact that all the four clerks, with countenances expressive of the utmost amusement, and with their heads thrust over the wooden screen, were minutely inspecting the figure and general appearance of the supposed trifler with female hearts, and disturber of female happiness. On his looking up, the row of heads suddenly disappeared, and the sound of pens travelling at a furious rate over paper, immediately succeeded.

A sudden ring at the bell which hung in the office summoned Mr. Jackson to the apartment of Fogg, from whence he came back to say that he (Fogg) was ready to see Mr. Pickwick if he would step upstairs.

Upstairs Mr. Pickwick did step accordingly, leaving Sam Weller below. The room door of the one-pair back bore inscribed in legible characters the imposing words "Mr. Fogg"; and, having tapped thereat, and been desired to come in, Jackson ushered Mr. Pickwick into the presence.

"Is Mr. Dodson in?" inquired Mr. Fogg.

"Just come in, sir," replied Jackson.

"Ask him to step here."

"Yes, sir." Exit Jackson.

"Take a seat, sir," said Fogg; "there is the paper, sir; my partner will be here directly, and we can converse about this matter, sir."

Mr. Pickwick took a seat and the paper, but instead of reading the lat-

ter, peeped over the top of it, and took a survey of the man of business, who was an elderly, pimply-faced, vegetable-diet sort of man, in a black coat, dark-mixture trousers, and small black gaiters; a kind of being who seemed to be an essential part of the desk at which he was writing, and to have as much thought or sentiment.

After a few minutes' silence, Mr. Dodson, a plump, portly, stern-looking man, with a loud voice, appeared; and the conversation commenced.

"This is Mr. Pickwick," said Fogg.

"Ah! You are the defendant, sir, in Bardell and Pickwick?" said Dodson.

"I am, sir," replied Mr. Pickwick.

"Well, sir," said Dodson, "and what do you propose?"

"Ah!" said Fogg, thrusting his hands into his trouser pockets, and throwing himself back in his chair, "what do you propose, Mr. Pickwick?"

"Hush, Fogg," said Dodson, "let me hear what Mr. Pickwick has to say."

"I came, gentlemen," said Mr. Pickwick, gazing placidly on the two partners, "I came here, gentlemen, to express the surprise with which I received your letter of the other day, and to inquire what grounds of action you can have against me."

"Grounds of–" Fogg had ejaculated this much, when he was stopped by Dodson.

"Mr. Fogg," said Dodson, "I am going to speak."

"I beg your pardon, Mr. Dodson," said Fogg.

"For the grounds of action, sir," continued Dodson, with moral elevation in his air, "you will consult your own conscience and your own feelings. We, sir, we, are guided entirely by the statement of our client. That statement, sir, may be true, or it may be false; it may be credible, or it may be incredible; but if it be true, and if it be credible, I do not hesitate to say, sir, that our grounds of action, sir, are strong, and not to be shaken. You may be an unfortunate man, sir, or you may be a designing one; but if I were called upon, as a juryman upon my oath, sir, to express an opinion of your conduct, sir, I do not hesitate to assert that I should have but one opinion about it." Here Dodson drew himself up, with an air of offended virtue, and looked at Fogg, who thrust his hands further in his pockets and, nodding his head sagely, said, in a tone of the fullest concurrence, "Most certainly."

"Well, sir," said Mr. Pickwick, with considerable pain depicted in his countenance, "you will permit me to assure you that I am a most unfortunate man, so far as this case is concerned."

"I hope you are, sir," replied Dodson; "I trust you may be, sir. If you are really innocent of what is laid to your charge, you are more unfortunate

than I had believed any man could possibly be. What do *you* say, Mr. Fogg?"

"I say precisely what you say," replied Fogg, with a smile of incredulity.

"The writ, sir, which commences the action," continued Dodson, "was issued regularly. Mr. Fogg, where is the *praecipe* book?"

"Here it is," said Fogg, handing over a square book with a parchment cover.

"Here is the entry," resumed Dodson. "'Middlesex, Capias *Martha Bardell, widow,* v. *Samuel Pickwick*. Damages, £1,500. Dodson and Fogg for the plaintiff, Aug. 28, 1830.' All regular, sir; perfectly." Dodson coughed and looked at Fogg, who said, "Perfectly," also. And then they both looked at Mr. Pickwick.

"I am to understand, then," said Mr. Pickwick, "that it really is your intention to proceed with this action?"

"Understand, sir? That you certainly may," replied Dodson, with something as near a smile as his importance would allow.

"And that the damages are actually laid at fifteen hundred pounds?" said Mr. Pickwick.

"To which understanding you may add my assurance that if we could have prevailed upon our client, they would have been laid at treble the amount, sir," replied Dodson.

"I believe Mrs. Bardell specially said, however," observed Fogg, glancing at Dodson, "that she would not compromise for a farthing less."

"Unquestionably," replied Dodson, sternly. For the action was only just begun; and it wouldn't have done to let Mr. Pickwick compromise it then, even if he had been so disposed.

"As you offer no terms, sir," said Dodson, displaying a slip of parchment in his right hand, and affectionately pressing a paper copy of it on Mr. Pickwick with his left, "I had better serve you with a copy of this writ, sir. Here is the original, sir."

"Very well, gentlemen, very well," said Mr. Pickwick, rising in person and wrath at the same time; "you shall hear from my solicitor, gentlemen."

"We shall be very happy to do so," said Fogg, rubbing his hands.

"Very," said Dodson, opening the door.

"And before I go, gentlemen," said the excited Mr. Pickwick, turning round on the landing, "permit me to say, that of all the disgraceful and rascally proceedings–"

"Stay, sir, stay," interposed Dodson, with great politeness. "Mr. Jackson! Mr. Wicks!"

"Sir," said the two clerks, appearing at the bottom of the stairs.

"I merely want you to hear what this gentleman says," replied Dodson. "Pray, go on, sir—disgraceful and rascally proceedings, I think you said?"

"I did," said Mr. Pickwick, thoroughly roused. "I said, sir, that of all the disgraceful and rascally proceedings that ever were attempted, this is the most so. I repeat it, sir."

"You hear that, Mr. Wicks?" said Dodson.

"You won't forget these expressions, Mr. Jackson?" said Fogg.

"Perhaps you would like to call us swindlers, sir," said Dodson. "Pray do, sir, if you feel disposed; now pray do, sir."

"I do," said Mr. Pickwick. "You *are* swindlers."

"Very good," said Dodson. "You can hear down there, I hope, Mr. Wicks?"

"Oh yes, sir," said Wicks.

"You had better come up a step or two higher, if you can't," added Mr. Fogg. "Go on, sir; do go on. You had better call us thieves, sir; or perhaps you would like to assault one of us. Pray do it, sir, if you would; we will not make the smallest resistance. Pray do it, sir."

As Fogg put himself very temptingly within the reach of Mr. Pickwick's clenched fist, there is little doubt that that gentleman would have complied with his earnest entreaty, but for the interposition of Sam, who, hearing the dispute, emerged from the office, mounted the stairs, and seized his master by the arm.

"You just come avay," said Mr. Weller. "Battledore and shuttlecock's a wery good game, vhen you an't the shuttlecock and two lawyers the battledores, in which case it gets too excitin' to be pleasant. Come avay, sir. If you want to ease your mind by blowing up somebody, come out into the court and blow up me; but it's rayther too expensive work to be carried on here."

And without the slightest ceremony, Mr. Weller hauled his master down the stairs, and down the court, and having safely deposited him in Cornhill, fell behind, prepared to follow whithersoever he should lead.

[*Mr. Pickwick, after some adventures in the country, is still very much in the dark, and sends Sam to reconnoiter.*]

. . . Mr. Pickwick resolved on immediately returning to London, with the view of becoming acquainted with the proceedings which had been taken against him, in the meantime, by Messrs. Dodson and Fogg. Acting upon this resolution with all the energy and decision of his character, he mounted to the back seat of the first coach which left Ipswich in the

morning . . . ; and accompanied by his three friends, and Mr. Samuel Weller, arrived in the metropolis, in perfect health and safety, the same evening.

Here, the friends, for a short time, separated. Messrs. Tupman, Winkle, and Snodgrass repaired to their several homes to make such preparations as might be requisite for their forthcoming visit to Dingley Dell; and Mr. Pickwick and Sam took up their present abode in very good, old-fashioned, and comfortable quarters: to wit, the George and Vulture Tavern and Hotel, George Yard, Lombard Street.

Mr. Pickwick had dined, finished his second pint of particular port, pulled his silk handkerchief over his head, put his feet on the fender, and thrown himself back in an easy chair, when the entrance of Mr. Weller with his carpet-bag aroused him from his tranquil meditations.

"Sam," said Mr. Pickwick.

"Sir," said Mr. Weller.

"I have just been thinking, Sam," said Mr. Pickwick, "that having left a good many things at Mrs. Bardell's, in Goswell Street, I ought to arrange for taking them away, before I leave town again."

"Wery good, sir," replied Mr. Weller.

"I could send them to Mr. Tupman's, for the present, Sam," continued Mr. Pickwick, "but before we take them away, it is necessary that they should be looked up, and put together. I wish you would step up to Goswell Street, Sam, and arrange about it."

"At once, sir?" inquired Mr. Weller.

"At once," replied Mr. Pickwick. "And stay, Sam," added Mr. Pickwick, pulling out his purse. "There is some rent to pay. The quarter is not due till Christmas, but you may pay it, and have done with it. A month's notice terminates my tenancy. Here it is, written out. Give it, and tell Mrs. Bardell she may put a bill up, as soon as she likes."

"Wery good, sir," replied Mr. Weller; "anythin' more, sir?"

"Nothing more, Sam."

Mr. Weller stepped slowly to the door, as if he expected something more; slowly opened it, slowly stepped out, and had slowly closed it within a couple of inches, when Mr. Pickwick called out,

"Sam."

"Sir," said Mr. Weller, stepping quickly back, and closing the door behind him.

"I have no objection, Sam, to your endeavouring to ascertain how Mrs. Bardell herself seems disposed towards me, and whether it is really probable that this vile and groundless action is to be carried to extremity.

I say I do not object to your doing this, if you wish it, Sam," said Mr. Pickwick.

Sam gave a short nod of intelligence, and left the room. Mr. Pickwick drew the silk handkerchief once more over his head, and composed himself for a nap. Mr. Weller promptly walked forth, to execute his commission.

It was nearly nine o'clock when he reached Goswell Street. A couple of candles were burning in the little front parlour, and a couple of caps were reflected on the window-blind. Mrs. Bardell had got company.

Mr. Weller knocked at the door, and after a pretty long interval—occupied by the party without, in whistling a tune, and by the party within, in persuading a refractory flat candle to allow itself to be lighted—a pair of small boots pattered over the floor-cloth, and Master Bardell presented himself.

"Well, young town-skip," said Sam, "how's mother?"

"She's pretty well," replied Master Bardell, "so am I."

"Well, that's a mercy," said Sam; "tell her I want to speak to her, will you, my hinfant fernomenon?"

Master Bardell, thus adjured, placed the refractory flat candle on the bottom stair, and vanished into the front parlour with the message.

The two caps, reflected on the window-blind, were the respective head-dresses of a couple of Mrs. Bardell's most particular acquaintance, who had just stepped in, to have a quiet cup of tea, and a little warm supper of a couple of sets of pettitoes and some toasted cheese. The cheese was simmering and browning away, most delightfully, in a little Dutch oven before the fire; the pettitoes were getting on deliciously in a little tin saucepan on the hob; and Mrs. Bardell and her two friends were getting on very well, also in a little quiet conversation about and concerning all their particular friends and acquaintance; when Master Bardell came back from answering the door, and delivered the message intrusted to him by Mr. Samuel Weller.

"Mr. Pickwick's servant!" said Mrs. Bardell, turning pale.

"Bless my soul!" said Mrs. Cluppins.

"Well, I raly would *not* ha' believed it, unless I had ha' happened to ha' been here!" said Mrs. Sanders.

Mrs. Cluppins was a little, brisk, busy-looking woman; Mrs. Sanders was a big, fat, heavy-faced personage; and the two were the company.

Mrs. Bardell felt it proper to be agitated; and as none of the three exactly knew whether, under existing circumstances, any communication, otherwise than through Dodson and Fogg, ought to be held with Mr.

Pickwick's servant, they were all rather taken by surprise. In this state of indecision, obviously the first thing to be done was to thump the boy for finding Mr. Weller at the door. So his mother thumped him, and he cried melodiously.

"Hold your noise–do–you naughty creetur!" said Mrs. Bardell.

"Yes; don't worrit your poor mother," said Mrs. Sanders.

"She's quite enough to worrit her, as it is, without you, Tommy," said Mrs. Cluppins, with sympathizing resignation.

"Ah! worse luck, poor lamb!" said Mrs. Sanders.

At all which moral reflections, Master Bardell howled the louder.

"Now, what *shall* I do?" said Mrs. Bardell to Mrs. Cluppins.

"*I* think you ought to see him," replied Mrs. Cluppins. "But on no account without a witness."

"*I* think two witnesses would be more lawful," said Mrs. Sanders, who, like the other friend, was bursting with curiosity.

"Perhaps he'd better come in here," said Mrs. Bardell.

"To be sure," replied Mrs. Cluppins, eagerly catching at the idea; "Walk in, young man; and shut the street door first, please."

Mr. Weller immediately took the hint; and presenting himself in the parlour, explained his business to Mrs. Bardell thus:

"Wery sorry to 'casion any personal inconwenience, ma'am, as the housebreaker said to the old lady when he put her on the fire; but as me and my governor's only jest come to town, and is jest going away agin, it can't be helped, you see."

"Of course, the young man can't help the faults of his master," said Mrs. Cluppins, much struck by Mr. Weller's appearance and conversation.

"Certainly not," chimed in Mrs. Sanders, who, from certain wistful glances at the little tin saucepan, seemed to be engaged in a mental calculation of the probable extent of the pettitoes, in the event of Sam's being asked to stop to supper.

"So all I've come about, is jest this here," said Sam, disregarding the interruption; "First, to give my governor's notice–there it is. Secondly, to pay the rent–here it is. Thirdly, to say as all his things is to be put together, and give to anybody as we sends for 'em. Fourthly, that you may let the place as soon as you like–and that's all."

"Whatever has happened," said Mrs. Bardell, "I always have said, and always will say, that in every respect but one, Mr. Pickwick has always behaved himself like a perfect gentleman. His money always was as good as the bank: always."

As Mrs. Bardell said this, she applied her handkerchief to her eyes, and went out of the room to get the receipt.

Sam well knew that he had only to remain quiet, and the women were sure to talk; so he looked alternately at the tin saucepan, the toasted cheese, the wall, and the ceiling, in profound silence.

"Poor dear!" said Mrs. Cluppins.

"Ah, poor thing!" replied Mrs. Sanders.

Sam said nothing. He saw they were coming to the subject.

"I raly cannot contain myself," said Mrs. Cluppins, "when I think of such perjury. I don't wish to say anything to make you uncomfortable, young man, but your master's an old brute, and I wish I had him here to tell him so."

"I wish you had," said Sam.

"To see how dreadful she takes on, going moping about, and taking no pleasure in nothing, except when her friends come in, out of charity, to sit with her, and make her comfortable," resumed Mrs. Cluppins, glancing at the tin saucepan and the Dutch oven, "it's shocking!"

"Barbareous," said Mrs. Sanders.

"And your master, young man! A gentleman with money, as could never feel the expense of a wife, no more than nothing," continued Mrs. Cluppins, with great volubility; "why there ain't the faintest shade of an excuse for his behaviour! Why don't he marry her?"

"Ah," said Sam, "to be sure; that's the question."

"Question, indeed," retorted Mrs. Cluppins; "she'd question him, if she'd my spirit. Hows'ever, there *is* law for us women, mis'rable creeturs as they'd make us, if they could; and that your master will find out, young man, to his cost, afore he's six months older."

At this consolatory reflection, Mrs. Cluppins bridled up, and smiled at Mrs. Sanders, who smiled back again.

"The action's going on, and no mistake," thought Sam, as Mrs. Bardell re-entered with the receipt.

"Here's the receipt, Mr. Weller," said Mrs. Bardell, "and here's the change, and I hope you'll take a little drop of something to keep the cold out, if it's only for old acquaintance' sake, Mr. Weller."

Sam saw the advantage he should gain, and at once acquiesced; whereupon Mrs. Bardell produced, from a small closet, a black bottle and a wine glass; and so great was her abstraction in her deep mental affliction that after filling Mr. Weller's glass, she brought out three more wine glasses, and filled them too.

"Lauk, Mrs. Bardell," said Mrs. Cluppins, "see what you've been and done!"

"Well, that is a good one!" ejaculated Mrs. Sanders.

"Ah, my poor head!" said Mrs. Bardell, with a faint smile.

Sam understood all this, of course, so he said at once that he never could drink before supper unless a lady drank with him. A great deal of laughing ensued, and Mrs. Sanders volunteered to humour him, so she took a slight sip out of her glass. Then, Sam said it must go all round, so they all took a slight sip. Then, little Mrs. Cluppins proposed as a toast, "Success to Bardell agin Pickwick"; and then the ladies emptied their glasses in honour of the sentiment, and got very talkative directly.

"I suppose you've heard what's going forward, Mr. Weller?" said Mrs. Bardell.

"I've heerd somethin' on it," replied Sam.

"It's a terrible thing to be dragged before the public, in that way, Mr. Weller," said Mrs. Bardell; "but I see now that it's the only thing I ought to do, and my lawyers, Mr. Dodson and Fogg, tell me, that with the evidence as we shall call, we must succeed. I don't know what I should do, Mr. Weller, if I didn't."

The mere idea of Mrs. Bardell's failing in her action affected Mrs. Sanders so deeply that she was under the necessity of refilling and re-emptying her glass immediately, feeling, as she said afterwards, that if she hadn't had the presence of mind to do so, she must have dropped.

"Ven is it expected to come on?" inquired Sam.

"Either in February or March," replied Mrs. Bardell.

"What a number of witnesses there'll be, won't there?" said Mrs. Cluppins.

"Ah, won't there!" replied Mrs. Sanders.

"And won't Mr. Dodson and Fogg be wild if the plaintiff shouldn't get it?" added Mrs. Cluppins, "when they do it all on speculation!"

"Ah! won't they!" said Mrs. Sanders.

"But the plaintiff must get it," resumed Mrs. Cluppins.

"I hope so," said Mrs. Bardell.

"Oh, there can't be any doubt about it," rejoined Mrs. Sanders.

"Vell," said Sam, rising and setting down his glass, "All I can say is, that I wish you *may* get it."

"Thank'ee, Mr. Weller," said Mrs. Bardell fervently.

"And of them Dodson and Foggs, as does these sort o' things on spec," continued Mr. Weller, "as well as for the other kind and gen'rous people o' the same purfession, as sets people by the ears, free gratis for nothin',

and set their clerks to work to find out little disputes among their neighbours and acquaintances as vants settlin' by means o' lawsuits—all I can say o' them is that I vish they had the revard I'd give 'em."

"Ah, I wish they had the reward that every kind and generous heart would be inclined to bestow upon them!" said the gratified Mrs. Bardell.

"Amen to that," replied Sam, "and a fat and happy livin' they'd get out of it! Wish you good night, ladies."

To the great relief of Mrs. Sanders, Sam was allowed to depart without any reference, on the part of the hostess, to the pettitoes and toasted cheese, to which the ladies, with such juvenile assistance as Master Bardell could afford, soon afterwards rendered the amplest justice—indeed they wholly vanished before their strenuous exertions.

Mr. Weller went his way back to the George and Vulture, and faithfully recounted to his master such indications of the sharp practice of Dodson and Fogg as he had contrived to pick up in his visit to Mrs. Bardell's. An interview with Mr. Perker, next day, more than confirmed Mr. Weller's statement; and Mr. Pickwick was fain to prepare for his Christmas visit to Dingley Dell, with the pleasant anticipation that, some two or three months afterwards, an action brought against him for damages sustained by reason of a breach of promise of marriage would be publicly tried in the Court of Common Pleas: the plaintiff having all the advantages derivable, not only from the force of circumstances, but from the sharp practice of Dodson and Fogg to boot. . . .

Scattered about, in various holes and corners of the Temple, are certain dark and dirty chambers, in and out of which, all the morning in Vacation, and half the evening too in Term time, there may be seen constantly hurrying with bundles of papers under their arms, and protruding from their pockets, an almost uninterrupted succession of Lawyers' Clerks. There are several grades of Lawyers' Clerks. There is the Articled Clerk, who has paid a premium, and is an attorney in perspective, who runs a tailor's bill, receives invitations to parties, knows a family in Gower Street, and another in Tavistock Square, who goes out of town every Long Vacation to see his father, who keeps live horses innumerable, and who is, in short, the very aristocrat of clerks. There is the salaried clerk—out of door, or in door, as the case may be—who devotes the major part of his thirty shillings a week to his personal pleasure and adornment, repairs half-price to the Adelphi Theatre at least three times a week, dissipates majestically at the cider cellars afterwards, and is a dirty caricature of the fashion which expired six months ago. There is the middle-

aged copying clerk, with a large family, who is always shabby, and often drunk. And there are the office lads in their first surtouts, who feel a befitting contempt for boys at day-schools: club as they go home at night, for saveloys and porter: and think there's nothing like "life." There are varieties of the genus, too numerous to recapitulate, but however numerous they may be, they are all to be seen, at certain regulated business hours, hurrying to and from the places we have just mentioned.

These sequestered nooks are the public offices of the legal profession, where writs are issued, judgments signed, declarations filed, and numerous other ingenious machines put in motion for the torture and torment of His Majesty's liege subjects, and the comfort and emolument of the practitioners of the law. They are, for the most part, low-roofed, mouldy rooms, where innumerable rolls of parchment, which have been perspiring in secret for the last century, send forth an agreeable odour, which is mingled by day with the scent of the dry rot, and by night with the various exhalations which arise from damp cloaks, festering umbrellas, and the coarsest tallow candles.

About half-past seven o'clock in the evening, some ten days or a fortnight after Mr. Pickwick and his friends returned to London, there hurried into one of these offices an individual in a brown coat and brass buttons, whose long hair was scrupulously twisted round the rim of his napless hat, and whose soiled drab trousers were so tightly strapped over his blucher boots, that his knees threatened every moment to start from their concealment. He produced from his coat pockets a long and narrow strip of parchment, on which the presiding functionary impressed an illegible black stamp. He then drew forth four scraps of paper, of similar dimensions, each containing a printed copy of the strip of parchment with blanks for a name; and having filled up the blanks, put all the five documents in his pocket and hurried away.

The man in the brown coat, with the cabalistic documents in his pocket, was no other than our old acquaintance Mr. Jackson, of the house of Dodson and Fogg, Freeman's Court, Cornhill. Instead of returning to the office from whence he came, however, he bent his steps direct to Sun Court, and walking straight into the George and Vulture, demanded to know whether one Mr. Pickwick was within.

"Call Mr. Pickwick's servant, Tom," said the barmaid of the George and Vulture.

"Don't trouble yourself," said Mr. Jackson, "I've come on business. If you'll show me Mr. Pickwick's room I'll step up myself."

"What name, sir?" said the waiter.

"Jackson," replied the clerk.

The waiter stepped upstairs to announce Mr. Jackson; but Mr. Jackson saved him the trouble by following close at his heels, and walking into the apartment before he could articulate a syllable.

Mr. Pickwick had, that day, invited his three friends to dinner; they were all seated round the fire, drinking their wine, when Mr. Jackson presented himself, as above described.

"How de do, sir?" said Mr. Jackson, nodding to Mr. Pickwick.

That gentleman bowed, and looked somewhat surprised, for the physiognomy of Mr. Jackson dwelt not in his recollection.

"I have called from Dodson and Fogg's," said Mr. Jackson, in an explanatory tone.

Mr. Pickwick roused at the name. "I refer you to my attorney, sir: Mr. Perker, of Gray's Inn," said he. "Waiter, show this gentleman out."

"Beg your pardon, Mr. Pickwick," said Jackson, deliberately depositing his hat on the floor, and drawing from his pocket the strip of parchment. "But personal service, by clerk or agent, in these cases, you know, Mr. Pickwick—nothing like caution, sir, in all legal forms?"

Here Mr. Jackson cast his eye on the parchment; and, resting his hands on the table, and looking round with a winning and persuasive smile, said: "Now, come; don't let's have no words about such a little matter as this. Which of you gentleman's name's Snodgrass?"

At this inquiry Mr. Snodgrass gave such a very undisguised and palpable start that no further reply was needed.

"Ah! I thought so," said Mr. Jackson, more affably than before. "I've got a little something to trouble you with, sir."

"Me!" exclaimed Mr. Snodgrass.

"It's only a *subpoena* in Bardell and Pickwick on behalf of the plaintiff," replied Jackson, singling out one of the slips of paper, and producing a shilling from his waistcoat pocket. "It'll come on, in the settens after Term; fourteenth of Febooary, we expect; we've marked it a special jury cause, and it's only ten down the paper. That's yours, Mr. Snodgrass." As Jackson said this he presented the parchment before the eyes of Mr. Snodgrass, and slipped the paper and the shilling into his hand.

Mr. Tupman had witnessed this process in silent astonishment, when Jackson, turning sharply upon him, said:

"I think I ain't mistaken when I say your name's Tupman, am I?"

Mr. Tupman looked at Mr. Pickwick; but, perceiving no encouragement in that gentleman's widely opened eyes to deny his name, said:

"Yes, my name *is* Tupman, sir."

"And that other gentleman's Mr. Winkle, I think?" said Jackson.

Mr. Winkle faltered out a reply in the affirmative; and both gentlemen were forthwith invested with a slip of paper, and a shilling each, by the dexterous Mr. Jackson.

"Now," said Jackson, "I'm afraid you'll think me rather troublesome, but I want somebody else, if it ain't inconvenient. I *have* Samuel Weller's name here, Mr. Pickwick."

"Send my servant here, waiter," said Mr. Pickwick. The waiter retired, considerably astonished, and Mr. Pickwick motioned Jackson to a seat.

There was a painful pause, which was at length broken by the innocent defendant.

"I suppose, sir," said Mr. Pickwick, his indignation rising while he spoke; "I suppose, sir, that it is the intention of your employers to seek to criminate me upon the testimony of my own friends?"

Mr. Jackson struck his forefinger several times against the left side of his nose, to intimate that he was not there to disclose the secrets of the prison-house, and playfully rejoined:

"Not knowin', can't say."

"For what other reason, sir," pursued Mr. Pickwick, "are these *subpoenas* served upon them, if not for this?"

"Very good plant, Mr. Pickwick," replied Jackson, slowly shaking his head. "But it won't do. No harm in trying, but there's little to be got out of me."

Here Mr. Jackson smiled once more upon the company, and, applying his left thumb to the tip of his nose, worked a visionary coffee-mill with his right hand: thereby performing a very graceful piece of pantomime (then much in vogue, but now, unhappily, almost obsolete) which was familiarly denominated "taking a grinder."

"No, no, Mr. Pickwick," said Jackson, in conclusion; "Perker's people must guess what we've served these *subpoenas* for. If they can't, they must wait till the action comes on, and then they'll find out."

Mr. Pickwick bestowed a look of excessive disgust on his unwelcome visitor, and would probably have hurled some tremendous anathema at the heads of Messrs. Dodson and Fogg, had not Sam's entrance at the instant interrupted him.

"Samuel Weller," said Mr. Jackson, inquiringly.

"Vun o' the truest things as you've said for many a long year," replied Sam, in a most composed manner.

"Here's a *subpoena* for you, Mr. Weller," said Jackson.

"What's that in English?" inquired Sam.

"Here's the original," said Jackson, declining the required explanation.

"Which?" said Sam.

"This," replied Jackson, shaking the parchment.

"Oh, that's the 'rig'nal, is it?" said Sam. "Well, I'm wery glad I've seen the 'rig'nal, cos it's a gratifyin' sort o' thing, and eases vun's mind so much."

"And here's the shilling," said Jackson. "It's from Dodson and Fogg's."

"And it's uncommon handsome o' Dodson and Fogg, as knows so little of me, to come down vith a present," said Sam. "I feel it as a wery high compliment, sir; it's a wery hon'rable thing to them, as they knows how to reward merit werever they meets it. Besides wich, it's affectin' to one's feelin's."

As Mr. Weller said this, he inflicted a little friction on his right eyelid, with the sleeve of his coat, after most approved manner of actors when they are in domestic pathetics.

Mr. Jackson seemed rather puzzled by Sam's proceedings; but, as he had served the *subpoenas,* and had nothing more to say, he made a feint of putting on the one glove which he usually carried in his hand, for the sake of appearances; and returned to the office to report progress.

Mr. Pickwick slept little that night; his memory had received a very disagreeable refresher on the subject of Mrs. Bardell's action. He breakfasted betimes next morning, and, desiring Sam to accompany him, set forth towards Gray's Inn Square.

"Sam!" said Mr. Pickwick, looking round, when they got to the end of Cheapside.

"Sir?" said Sam, stepping up to his master.

"Which way?"

"Up Newgate Street."

Mr. Pickwick did not turn round immediately, but looked vacantly in Sam's face for a few seconds, and heaved a deep sigh.

"What's the matter, sir?" inquired Sam.

"This action, Sam," said Mr. Pickwick, "is expected to come on, on the fourteenth of next month."

"Remarkable coin*ci*dence that 'ere, sir," replied Sam.

"Why remarkable, Sam?" inquired Mr. Pickwick.

"Walentine's day, sir," responded Sam; "reg'lar good day for a breach o' promise trial."

Mr. Weller's smile awakened no gleam of mirth in his master's countenance. Mr. Pickwick turned abruptly round and led the way in silence.

They had walked some distance: Mr. Pickwick trotting on before,

plunged in profound meditation, and Sam following behind, with a countenance expressive of the most enviable and easy defiance of everything and everybody: when the latter, who was always especially anxious to impart to his master any exclusive information he possessed, quickened his pace until he was close at Mr. Pickwick's heels; and, pointing up at a house they were passing, said:

"Wery nice pork-shop that 'ere, sir."

"Yes, it seems so," said Mr. Pickwick.

"Celebrated sassage factory," said Sam.

"Is it?" said Mr. Pickwick.

"Is it!" reiterated Sam, with some indignation; "I should rayther think it was. Why, sir, bless your innocent eyebrows, that's where the mysterious disappearance of a 'spectable tradesman took place four year ago."

"You don't mean to say he was burked, Sam?" said Mr. Pickwick, looking hastily round.

"No, I don't indeed, sir," replied Mr. Weller, "I wish I did; far worse than that. He was the master o' that 'ere shop, sir, and the inwentor o' the patent-never-leavin'-off sassage steam ingine, as ud swaller up a pavin' stone if you put it too near, and grind it into sassages as easy as if it was a tender young babby. Wery proud o' that machine he was, as it was nat'ral he should be, and he'd stand down in the celler a lookin' at it wen it was in full play, till he got quite melancholy with joy. A wery happy man he'd ha' been, sir, in the procession o' that ere ingine and two more lovely hinfants besides, if it hadn't been for his wife, who was a most owdacious wixin. She was always a follerin' him about and dinnin' in his ears, 'till at last he couldn't stand it no longer. 'I'll tell you what it is, my dear,' he says one day; 'if you persewere in this here sort of amusement,' he says, 'I'm blessed if I don't go away to 'Merriker; and that's all about it.' 'You're a idle willin,' says she, 'and I wish the 'Merrikins joy of their bargain.' Arter which she keeps on abusin' of him for half an hour, and then runs into the little parlour behind the shop, sets to a screamin', says he'll be the death on her, and falls in a fit, which lasts for three good hours—one o' them fits wich is all screamin' and kickin'. Well, next mornin' the husband was missin'. He hadn't taken nothin' from the till—hadn't even put on his great-coat—so it was quite clear he warn't gone to 'Merriker. Didn't come back next day; didn't come back next week; Missis had bills printed, sayin' that, if he'd come back, he should be forgiven everythin' (which was very liberal, seein' that he hadn't done nothin' at all); the canals was dragged, and for two months artervards, wenever a body turned up, it was carried, as a reg'lar thing,

straight off to the sassage shop. Hows'ever, none on 'em answered; so they gave out that he'd run avay, and she kep on the bis'ness. One Saturday night, a little thin old gen'l'm'n comes into the shop in a great passion and says, 'Are you the missis o' this here shop?' 'Yes, I am,' says she. 'Well, ma'am,' says he, 'then I've just looked in to say that me and my family ain't a goin' to be choked for nothin'; and more than that, ma'am,' he says, 'you'll allow me to observe, that as you don't use the primest parts of the meat in the manafacter o' sassages, I think you'd find beef come nearly as cheap as buttons.' 'As buttons, sir!' says she. 'Buttons, ma'am,' says the little old gentleman, unfolding a bit of paper, and shewin' twenty or thirty halves o' buttons. 'Nice seasonin' for sassages, is trousers' buttons, ma'am.' 'They're my husband's buttons!' says the widder beginnin' to faint. 'What!' screams the little old gen'l'm'n, turnin' wery pale. 'I see it all,' says the widder; 'in a fit of temporary insanity he rashly converted his-self into sassages!' And so he had, sir," said Mr. Weller, looking steadily into Mr. Pickwick's horror-stricken countenance, "or else he'd been draw'd into the ingine; but however that might ha' been, the little old gen'l'm'n, who had been remarkably partial to sassages all his life, rushed out o' the shop in a wild state, and was never heerd on artervards!"

The relation of this affecting incident of private life brought master and man to Mr. Perker's chambers. Lowten, holding the door half open, was in conversation with a rustily clad, miserable-looking man, in boots without toes and gloves without fingers. There were traces of privation and suffering—almost of despair—in his lank and care-worn countenance; he felt his poverty, for he shrunk to the dark side of the staircase as Mr. Pickwick approached.

"It's very unfortunate," said the stranger, with a sigh.

"Very," said Lowten, scribbling his name on the door-post with his pen, and rubbing it out again with the feather. "Will you leave a message for him?"

"When do you think he'll be back?" inquired the stranger.

"Quite uncertain," replied Lowten, winking at Mr. Pickwick, as the stranger cast his eyes towards the ground.

"You don't think it would be of any use my waiting for him?" said the stranger, looking wistfully into the office.

"Oh no, I'm sure it wouldn't," replied the clerk, moving a little more into the centre of the doorway. "He's certain not to be back this week, and it's a chance whether he will be next; for when Perker once gets out of town, he's never in a hurry to come back again."

"Out of town!" said Mr. Pickwick; "dear me, how unfortunate!"

"Don't go away, Mr. Pickwick," said Lowten, "I've got a letter for you." The stranger, seeming to hesitate, once more looked towards the ground, and the clerk winked slyly at Mr. Pickwick, as if to intimate that some exquisite piece of humour was going forward, though what it was Mr. Pickwick could not for the life of him divine.

"Step in, Mr. Pickwick," said Lowten. "Well, will you leave a message, Mr. Watty, or will you call again?"

"Ask him to be so kind as to leave out word what has been done in my business," said the man; "for God's sake don't neglect it, Mr. Lowten."

"No, no; I won't forget it," replied the clerk. "Walk in, Mr. Pickwick. Good morning, Mr. Watty; it's a fine day for walking, isn't it?" Seeing that the stranger still lingered, he beckoned Sam Weller to follow his master in, and shut the door in his face.

"There never was such a pestering bankrupt as that since the world began, I do believe!" said Lowten, throwing down his pen with the air of an injured man. "His affairs haven't been in Chancery quite four years yet, and I'm d–d if he don't come worrying here twice a week. Step this way, Mr. Pickwick. Perker *is* in, and he'll see you, I know. Devilish cold," he added, pettishly, "standing at that door, wasting one's time with such seedy vagabonds!" Having very vehemently stirred a particularly large fire with a particularly small poker, the clerk led the way to his principal's private room, and announced Mr. Pickwick.

"Ah, my dear sir," said little Mr. Perker, bustling up from his chair. "Well, my dear sir, and what's the news about your matter, eh? Anything more about our friends in Freeman's Court? They've not been sleeping, *I* know that. Ah, they're very smart fellows; very smart, indeed."

As the little man concluded, he took an emphatic pinch of snuff, as a tribute to the smartness of Messrs. Dodson and Fogg.

"They are great scoundrels," said Mr. Pickwick.

"Aye, aye," said the little man; "that's a matter of opinion, you know, and we won't dispute about terms; because of course you can't be expected to view these subjects with a professional eye. Well, we've done everything that's necessary. I have retained Serjeant Snubbin."

"Is he a good man?" inquired Mr. Pickwick.

"Good man!" replied Perker; "bless your heart and soul, my dear sir, Serjeant Snubbin is at the very top of his profession. Gets treble the business of any man in court–engaged in every case. You needn't mention it abroad; but we say–we of the profession–that Serjeant Snubbin leads the court by the nose."

The little man took another pinch of snuff as he made this communication, and nodded mysteriously to Mr. Pickwick.

"They have *subpoena'd* my three friends," said Mr. Pickwick.

"Ah! of course they would," replied Perker. "Important witnesses; saw you in a delicate situation."

"But she fainted of her own accord," said Mr. Pickwick. "She threw herself into my arms."

"Very likely, my dear sir," replied Perker; "very likely and very natural. Nothing more so, my dear sir, nothing. But who's to prove it?"

"They have *subpoena'd* my servant too," said Mr. Pickwick quitting the other point; for there Mr. Perker's question had somewhat staggered him.

"Sam?" said Perker.

Mr. Pickwick replied in the affirmative.

"Of course, my dear sir; of course. I knew they would. I could have told *you* that, a month ago. You know, my dear sir, if you *will* take the management of your affairs into your own hands after intrusting them to your solicitor, you must also take the consequences." Here Mr. Perker drew himself up with conscious dignity, and brushed some stray grains of snuff from his shirt frill.

"And what do they want him to prove?" asked Mr. Pickwick, after two or three minutes' silence.

"That you sent him up to the plaintiff's to make some offer of a compromise, I suppose," replied Perker. "It don't matter much, though; I don't think many counsel could get a great deal out of *him*."

"I don't think they could," said Mr. Pickwick, smiling, despite his vexation, at the idea of Sam's appearance as a witness. "What course do we pursue?"

"We have only one to adopt, my dear sir," replied Perker; "cross-examine the witnesses; trust to Snubbin's eloquence; throw dust in the eyes of the judge; throw ourselves on the jury."

"And suppose the verdict is against me?" said Mr. Pickwick.

Mr. Perker smiled, took a very long pinch of snuff, stirred the fire, shrugged his shoulders, and remained expressively silent.

"You mean that in that case I must pay the damages?" said Mr. Pickwick, who had watched this telegraphic answer with considerable sternness.

Perker gave the fire another very unnecessary poke and said "I am afraid so."

"Then I beg to announce to you my unalterable determination to pay no damages whatever," said Mr. Pickwick, most emphatically. "None,

Perker. Not a pound, not a penny, of my money, shall find its way into the pockets of Dodson and Fogg. That is my deliberate and irrevocable determination." Mr. Pickwick gave a heavy blow on the table before him, in confirmation of the irrevocability of his intention.

"Very well, my dear sir, very well," said Perker. "You know best, of course."

"Of course," replied Mr. Pickwick hastily. "Where does Serjeant Snubbin live?"

"In Lincoln's Inn Old Square," replied Perker.

"I should like to see him," said Mr. Pickwick.

"See Serjeant Snubbin, my dear sir!" rejoined Perker, in utter amazement. "Pooh, pooh, my dear sir, impossible. See Serjeant Snubbin! Bless you, my dear sir, such a thing was never heard of, without a consultation fee being previously paid, and a consultation fixed. It couldn't be done, my dear sir; it couldn't be done."

Mr. Pickwick, however, had made up his mind not only that it could be done, but that it should be done; and the consequence was, that within ten minutes after he had received the assurance that the thing was impossible, he was conducted by his solicitor into the outer office of the great Serjeant Snubbin himself.

It was an uncarpeted room of tolerable dimensions, with a large writing-table drawn up near the fire; the baize top of which had long since lost all claim to its original hue of green, and had gradually grown grey with dust and age, except where all traces of its natural colour were obliterated by ink-stains. Upon the table were numerous little bundles of papers tied with red tape; and behind it, sat an elderly clerk, whose sleek appearance, and heavy gold watch-chain, presented imposing indications of the extensive and lucrative practice of Mr. Serjeant Snubbin.

"Is the Serjeant in his room, Mr. Mallard?" inquired Perker, offering his box with all imaginable courtesy.

"Yes, he is," was the reply, "but he's very busy. Look here; not an opinion given yet, on any one of these cases; and an expedition fee paid with all of 'em." The clerk smiled as he said this, and inhaled the pinch of snuff with a zest which seemed to be compounded of a fondness for snuff and a relish for fees.

"Something like practice that," said Perker.

"Yes," said the barrister's clerk, producing his own box, and offering it with the greatest cordiality; "and the best of it is, that as nobody alive except myself can read the Serjeant's writing, they are obliged to wait

for the opinions, when he has given them, till I have copied 'em, ha–ha–ha!"

"Which makes good for we know who, besides the Serjeant, and draws a little more out of the clients, eh?" said Perker; "ha, ha, ha!" At this the Serjeant's clerk laughed again; not a noisy boisterous laugh, but a silent, internal chuckle, which Mr. Pickwick disliked to hear. When a man bleeds inwardly, it is a dangerous thing for himself; but when he laughs inwardly, it bodes no good to other people.

"You haven't made me out that little list of the fees that I'm in your debt, have you?" said Perker.

"No, I have not," replied the clerk.

"I wish you would," said Perker. "Let me have them, and I'll send you a cheque. But I suppose you're too busy pocketing the ready money, to think of the debtors, eh? ha, ha, ha!" This sally seemed to tickle the clerk amazingly, and he once more enjoyed a little quiet laugh to himself.

"But, Mr. Mallard, my dear friend," said Perker, suddenly recovering his gravity, and drawing the great man's great man into a corner, by the lapel of his coat; "you must persuade the Serjeant to see me, and my client here."

"Come, come," said the clerk, "that's not bad either. See the Serjeant! come, that's too absurd." Notwithstanding the absurdity of the proposal, however, the clerk allowed himself to be gently drawn beyond the hearing of Mr. Pickwick; and after a short conversation conducted in whispers, walked softly down a little dark passage, and disappeared into the legal luminary's sanctum: whence he shortly returned on tiptoe, and informed Mr. Perker and Mr. Pickwick that the Serjeant had been prevailed upon, in violation of all established rules and customs, to admit them at once.

Mr. Serjeant Snubbin was a lantern-faced, sallow-complexioned man, of about five-and-forty, or–as the novels say–he might be fifty. He had that dull-looking boiled eye which is often to be seen in the heads of people who have applied themselves during many years to a weary and laborious course of study; and which would have been sufficient, without the additional eye-glass which dangled from a broad black riband round his neck, to warn a stranger that he was very near-sighted. His hair was thin and weak, which was partly attributable to his having never devoted much time to its arrangement, and partly to his having worn for five-and-twenty years the forensic wig which hung on a block beside him. The marks of hair-powder on his coat-collar, and the ill-washed and worse-tied white neckerchief round his throat, showed that he had not found

leisure since he left the court to make an alteration in his dress: while the slovenly style of the remainder of his costume warranted the inference that his personal appearance would not have been very much improved if he had. Books of practice, heaps of papers, and opened letters were scattered over the table, without any attempt at order or arrangement; the furniture of the room was old and rickety; the doors of the bookcase were rotting on their hinges; the dust flew out from the carpet in little clouds at every step; the blinds were yellow with age and dirt; the state of everything in the room showed, with a clearness not to be mistaken, that Mr. Serjeant Snubbin was far too much occupied with his professional pursuits to take any great heed or regard of his personal comforts.

The Serjeant was writing when his clients entered; he bowed abstractedly when Mr. Pickwick was introduced by his solicitor; and then, motioning them to a seat, put his pen carefully in the inkstand, nursed his left leg, and waited to be spoken to.

"Mr. Pickwick is the defendant in Bardell and Pickwick, Serjeant Snubbin," said Perker.

"I am retained in that, am I?" said the Serjeant.

"You are, sir," replied Perker.

The Serjeant nodded his head, and waited for something else.

"Mr. Pickwick was anxious to call upon you, Serjeant Snubbin," said Perker, "to state to you, before you entered upon the case, that he denies there being any ground or pretence whatever for the action against him; and that unless he came into court with clean hands, and without the most conscientious conviction that he was right in resisting the plaintiffs demand, he would not be there at all. I believe I state your views correctly; do I not, my dear sir?" said the little man, turning to Mr. Pickwick.

"Quite so," replied that gentleman.

Mr. Serjeant Snubbin unfolded his glasses, raised them to his eyes; and, after looking at Mr. Pickwick for a few seconds with great curiosity, turned to Mr. Perker, and said, smiling slightly as he spoke:

"Has Mr. Pickwick a strong case?"

The attorney shrugged his shoulders.

"Do you purpose calling witnesses?"

"No."

The smile on the Serjeant's countenance became more defined; he rocked his leg with increased violence; and, throwing himself back in his easy chair, coughed dubiously.

These tokens of the Serjeant's presentiments on the subject, slight as

they were, were not lost on Mr. Pickwick. He settled the spectacles, through which he had attentively regarded such demonstrations of the barrister's feelings as he had permitted himself to exhibit, more firmly on his nose; and said with great energy, and in utter disregard of all Mr. Perker's admonitory winkings and frownings:

"My wishing to wait upon you, for such a purpose as this, sir, appears, I have no doubt, to a gentleman who sees so much of these matters as you must necessarily do, a very extraordinary circumstance."

The Serjeant tried to look gravely at the fire, but the smile came back again.

"Gentlemen of your profession, sir," continued Mr. Pickwick, "see the worst side of human nature. All its disputes, all its ill-will and bad blood, rise up before you. You know from your experience of juries (I mean no disparagement to you, or them) how much depends upon *effect:* and you are apt to attribute to others a desire to use, for purposes of deception and self-interest, the very instruments which you, in pure honesty and honour of purpose, and with a laudable desire to do your utmost for your client, know the temper and worth of so well, from constantly employing them yourselves. I really believe that to this circumstance may be attributed the vulgar but very general notion of your being, as a body, suspicious, distrustful, and over-cautious. Conscious as I am, sir, of the disadvantage of making such a declaration to you, under such circumstances, I have come here because I wish you distinctly to understand, as my friend Mr. Perker has said, that I am innocent of the falsehood laid to my charge; and although I am very well aware of the inestimable value of your assistance, sir, I must beg to add, that unless you sincerely believe this, I would rather be deprived of the aid of your talents than have the advantage of them."

Long before the close of this address, which we are bound to say was of a very prosy character for Mr. Pickwick, the Serjeant had relapsed into a state of abstraction. After some minutes, however, during which he had reassumed his pen, he appeared to be again aware of the presence of his clients; raising his head from the paper, he said, rather snappishly,

"Who is with me in this case?"

"Mr. Phunky, Serjeant Snubbin," replied the attorney.

"Phunky, Phunky," said the Serjeant, "I never heard the name before. He must be a very young man."

"Yes, he is a very young man," replied the attorney. "He was only called the other day. Let me see–he has not been at the Bar eight years yet."

"Ah, I thought not," said the Serjeant, in that sort of pitying tone in

which ordinary folks would speak of a very helpless little child. "Mr. Mallard, send round to Mr.–Mr.–"

"Phunky's–Holborn Court, Gray's Inn," interposed Perker. (Holborn Court, by the bye, is South Square now.) "Mr. Phunky, and say I should be glad if he'd step here, a moment."

Mr. Mallard departed to execute his commission; and Serjeant Snubbin relapsed into abstraction until Mr. Phunky himself was introduced.

Although an infant barrister, he was a full-grown man. He had a very nervous manner, and a painful hesitation in his speech; it did not appear to be a natural defect, but seemed rather the result of timidity, arising from the consciousness of being "kept down" by want of means, or interest, or connection, or impudence, as the case might be. He was overawed by the Serjeant, and profoundly courteous to the attorney.

"I have not had the pleasure of seeing you before, Mr. Phunky," said Serjeant Snubbin, with haughty condescension.

Mr. Phunky bowed. He *had* had the pleasure of seeing the Serjeant, and of envying him too, with all a poor man's envy, for eight years and a quarter.

"You are with me in this case, I understand?" said the Serjeant.

If Mr. Phunky had been a rich man, he would have instantly sent for his clerk to remind him: if he had been a wise one, he would have applied his forefinger to his forehead, and endeavoured to recollect, whether, in the multiplicity of his engagements he had undertaken this one, or not; but as he was neither rich nor wise (in this sense at all events) he turned red, and bowed.

"Have you read the papers, Mr. Phunky?" inquired the Serjeant.

Here again, Mr. Phunky should have professed to have forgotten all about the merits of the case; but as he had read such papers as had been laid before him in the course of the action, and had thought of nothing else, waking or sleeping, throughout the two months during which he had been retained as Mr. Serjeant Snubbin's junior, he turned a deeper red, and bowed again.

"This is Mr. Pickwick," said the Serjeant, waving his pen in the direction in which that gentleman was standing.

Mr. Phunky bowed to Mr. Pickwick with a reverence which a first client must ever awaken; and again inclined his head towards his leader.

"Perhaps you will take Mr. Pickwick away," said the Serjeant, "and–and–and–hear anything Mr. Pickwick may wish to communicate. We shall have a consultation, of course." With this hint that he had been interrupted quite long enough, Mr. Serjeant Snubbin, who had been grad-

ually growing more and more abstracted, applied his glass to his eyes for an instant, bowed slightly round, and was once more deeply immersed in the case before him: which arose out of an interminable lawsuit, originating in the act of an individual, deceased a century or so ago, who had stopped up a pathway leading from some place which nobody ever came from, to some other place which nobody ever went to.

Mr. Phunky would not hear of passing through any door until Mr. Pickwick and his solicitor had passed through before him, so it was some time before they got into the Square; and when they did reach it, they walked up and down, and held a long conference, the result of which was that it was a very difficult matter to say how the verdict would go; that nobody could presume to calculate on the issue of an action; that it was very lucky they had prevented the other party from getting Serjeant Snubbin; and other topics of doubt and consolation, common in such a position of affairs.

Mr. Weller was then roused by his master from a sweet sleep of an hour's duration; and, bidding adieu to Lowten, they returned to the City.

[*Sam's father, Mr. Weller, proffers some advice*.]

. . . Mr. Weller the elder proceeded to open that [business] on which he had summoned his son.

"The first matter relates to your governor, Sammy," said Mr. Weller. "He's a goin' to be tried to-morrow, ain't he?"

"The trial's a comin' on," replied Sam.

"Vell," said Mr. Weller, "Now I s'pose he'll want to call some witnesses to speak to his character, or p'raps to prove a alleybi. I've been a turnin' the bis'ness over in my mind, and he may make his-self easy, Sammy. I've got some friends as'll do either for him, but my adwice 'ud be this here—never mind the character, and stick to the alleybi. Nothing like a alleybi, Sammy, nothing." Mr. Weller looked very profound as he delivered this legal opinion; and burying his nose in his tumbler, winked over the top thereof at his astonished son.

"Why, what do you mean?" said Sam. "You don't think he's a goin' to be tried at the Old Bailey, do you?"

"That ain't no part of the present con-sideration, Sammy," replied Mr. Weller. "Verever he's a goin' to be tried, my boy, a alleybi's the thing to get him off. Ve got Tom Vildspark off that 'ere manslaughter, with a alleybi, ven all the big vigs to a man said as nothing couldn't save him. And my 'pinion is, Sammy, that if your governor don't prove a alleybi, he'll be what the Italians call reg'larly flummoxed, and that's all about it."

As the elder Mr. Weller entertained a firm and unalterable conviction that the Old Bailey was the supreme court of judicature in this country, and that its rules and forms of proceeding regulated and controlled the practice of all other courts of justice whatsoever, he totally disregarded the assurances and arguments of his son tending to show that the alibi was inadmissible; and vehemently protested that Mr. Pickwick was being "wictimised."

[*The memorable trial of Bardell against Pickwick proceeds.*]

"I wonder what the foreman of the jury, whoever he'll be, has got for breakfast," said Mr. Snodgrass, by way of keeping up a conversation on the eventful morning of the fourteenth of February.

"Ah!" said Perker, "I hope he's got a good one."

"Why so?" inquired Mr. Pickwick.

"Highly important; very important, my dear sir," replied Perker. "A good, contented, well-breakfasted juryman is a capital thing to get hold of. Discontented or hungry jurymen, my dear sir, always find for the plaintiff."

"Bless my heart," said Mr. Pickwick, looking very blank; "what do they do that for?"

"Why, I don't know," replied the little man, coolly; "saves time, I suppose. If it's near dinner-time, the foreman takes out his watch when the jury has retired, and says, 'Dear me, gentlemen, ten minutes to five, I declare! I dine at five, gentlemen.' 'So do I,' says everybody else, except two men who ought to have dined at three, and seem more than half disposed to stand out in consequence. The foreman smiles, and puts up his watch: 'Well, gentlemen, what do we say, plaintiff or defendant, gentlemen? I rather think, so far as I am concerned, gentlemen–I say, I rather think–but don't let that influence you–I *rather* think the plaintiff's the man.' Upon this, two or three other men are sure to say that they think so too–as of course they do; and then they get on very unanimously and comfortably. Ten minutes past nine!" said the little man, looking at his watch. "Time we were off, my dear sir; breach of promise trial–court is generally full in such cases. You had better ring for a coach, my dear sir, or we shall be rather late."

Mr. Pickwick immediately rang the bell; and a coach having been procured, the four Pickwickians and Mr. Perker ensconced themselves therein, and drove to Guildhall; Sam Weller, Mr. Lowten, and the blue bag, following in a cab.

"Lowten," said Perker, when they reached the outer hall of the court,

"put Mr. Pickwick's friends in the students' box; Mr. Pickwick himself had better sit by me. This way, my dear sir, this way." Taking Mr. Pickwick by the coat-sleeve, the little man led him to the low seat just beneath the desks of the King's Counsel, which is constructed for the convenience of attorneys, who from that spot can whisper into the ear of the leading counsel in the case any instructions that may be necessary during the progress of the trial. The occupants of this seat are invisible to the great body of spectators, inasmuch as they sit on a much lower level than either the barristers or the audience, whose seats are raised above the floor. Of course they have their backs to both, and their faces towards the judge.

"That's the witness-box, I suppose?" said Mr. Pickwick, pointing to a kind of pulpit, with a brass rail, on his left hand.

"That's the witness-box, my dear sir," replied Perker, disinterring a quantity of papers from the blue bag, which Lowten had just deposited at his feet.

"And that," said Mr. Pickwick, pointing to a couple of enclosed seats on his right, "that's where the jurymen sit, is it not?"

"The identical place, my dear sir," replied Perker, tapping the lid of his snuff-box.

Mr. Pickwick stood up in a state of great agitation, and took a glance at the court. There were already a pretty large sprinkling of spectators in the gallery, and a numerous muster of gentlemen in wigs, in the barristers' seats: who presented, as a body, all that pleasing and extensive variety of nose and whisker for which the Bar of England is so justly celebrated. Such of the gentlemen as had a brief to carry, carried it in as conspicuous a manner as possible, and occasionally scratched their noses therewith, to impress the fact more strongly on the observation of the spectators. Other gentlemen, who had no briefs to show, carried under their arms goodly octavos, with a red label behind, and that underdone-pie-crust-coloured cover, which is technically known as "law calf." Others, who had neither briefs nor books, thrust their hands into their pockets, and looked as wise as they conveniently could; others, again, moved here and there with great restlessness and earnestness of manner, content to awaken thereby the admiration and astonishment of the uninitiated strangers. The whole, to the great wonderment of Mr. Pickwick, were divided into little groups, who were chatting and discussing the news of the day in the most unfeeling manner possible—just as if no trial at all were coming on.

A bow from Mr. Phunky, as he entered, and took his seat behind the

row appropriated to the King's Counsel, attracted Mr. Pickwick's attention; and he had scarcely returned it, when Mr. Serjeant Snubbin appeared, followed by Mr. Mallard, who half hid the Serjeant behind a large crimson bag, which he placed on his table, and, after shaking hands with Perker, withdrew. Then there entered two or three more Serjeants; and among them, one with a fat body and a red face, who nodded in a friendly manner to Mr. Serjeant Snubbin, and said it was a fine morning.

"Who's that red-faced man, who said it was a fine morning, and nodded to our counsel?" whispered Mr. Pickwick.

"Mr. Serjeant Buzfuz," replied Perker. "He's opposed to us; he leads on the other side. That gentleman behind him is Mr. Skimpin, his junior."

Mr. Pickwick was on the point of inquiring, with great abhorrence of the man's cold-blooded villainy, how Mr. Serjeant Buzfuz, who was counsel for the opposite party, dared to presume to tell Mr. Serjeant Snubbin, who was counsel for him, that it was a fine morning, when he was interrupted by a general rising of the barristers, and a loud cry of "Silence!" from the officers of the court. Looking round, he found that this was caused by the entrance of the judge.

Mr. Justice Stareleigh (who sat in the absence of the Chief Justice, occasioned by indisposition) was a most particularly short man, and so fat that he seemed all face and waistcoat. He rolled in, upon two little turned legs, and having bobbed gravely to the bar, who bobbed gravely to him, put his little legs underneath his table, and his little three-cornered hat upon it; and when Mr. Justice Stareleigh had done this, all you could see of him was two queer little eyes, one broad pink face, and somewhere about half of a big and very comical-looking wig.

The judge had no sooner taken his seat than the officer on the floor of the court called out "Silence!" in a commanding tone, upon which another officer in the gallery cried "Silence!" in an angry manner, whereupon three or four more ushers shouted "Silence!" in a voice of indignant remonstrance. This being done, a gentleman in black, who sat below the judge, proceeded to call over the names of the jury; and after a great deal of bawling, it was discovered that only ten special jurymen were present. Upon this, Mr. Serjeant Buzfuz prayed a *tales;* the gentleman in black then proceeded to press into the special jury two of the common jurymen; and a greengrocer and a chemist were caught directly.

"Answer to your names, gentlemen, that you may be sworn," said the gentleman in black. "Richard Upwitch."

"Here," said the greengrocer.

"Thomas Groffin."

"Here," said the chemist.

"Take the book, gentlemen. You shall well and truly try—"

"I beg this court's pardon," said the chemist, who was a tall, thin, yellow-visaged man, "but I hope this court will excuse my attendance."

"On what grounds, sir?" said Mr. Justice Stareleigh.

"I have no assistant, my Lord," said the chemist.

"I can't help that, sir," replied Mr. Justice Stareleigh. "You should hire one."

"I can't afford it, my Lord," rejoined the chemist.

"Then you ought to be able to afford it, sir," said the judge, reddening; for Justice Stareleigh's temper bordered on the irritable, and brooked not contradiction.

"I know I *ought* to do, if I got on as well as I deserved, but I don't, my Lord," answered the chemist.

"Swear the gentleman," said the judge, peremptorily.

The officer had got no further than the "You shall well and truly try," when he was again interrupted by the chemist.

"I am to be sworn, my Lord, am I?" said the chemist.

"Certainly, sir," replied the testy little judge.

"Very well, my Lord," replied the chemist, in a resigned manner. "Then there'll be murder before this trial's over; that's all. Swear me, if you please, sir"; and sworn the chemist was, before the judge could find words to utter.

"I merely wanted to observe, my Lord," said the chemist, taking his seat with great deliberation, "that I've left nobody but an errand-boy in my shop. He is a very nice boy, my Lord, but he is not acquainted with drugs; and I know that the prevailing impression on his mind is, that Epsom salts means oxalic acid; and syrup of senna, laudanum. That's all, my Lord." With this, the tall chemist composed himself into a comfortable attitude, and, assuming a pleasant expression of countenance, appeared to have prepared himself for the worst.

Mr. Pickwick was regarding the chemist with feelings of the deepest horror, when a slight sensation was perceptible in the body of the court; and immediately afterwards Mrs. Bardell, supported by Mrs. Cluppins, was led in, and placed in a drooping state, at the other end of the seat on which Mr. Pickwick sat. An extra-sized umbrella was then handed in by Mr. Dodson, and a pair of pattens by Mr. Fogg, each of whom had prepared a most sympathizing and melancholy face for the occasion. Mrs. Sanders then appeared, leading in Master Bardell. At sight of her child, Mrs. Bardell started; suddenly recollecting herself, she kissed him

in a frantic manner; then relapsing into a state of hysterical imbecility, the good lady requested to be informed where she was. In reply to this, Mrs. Cluppins and Mrs. Sanders turned their heads away and wept, while Messrs. Dodson and Fogg intreated the plaintiff to compose herself. Serjeant Buzfuz rubbed his eyes very hard with a large white handkerchief, and gave an appealing look towards the jury, while the judge was visibly affected, and several of the beholders tried to cough down their emotions.

"Very good notion, that, indeed," whispered Perker to Mr. Pickwick. "Capital fellows those Dodson and Fogg; excellent ideas of effect, my dear sir, excellent."

As Perker spoke, Mrs. Bardell began to recover by slow degrees, while Mrs. Cluppins, after a careful survey of Master Bardell's buttons and the button-holes to which they severally belonged, placed him on the floor of the court in front of his mother—a commanding position in which he could not fail to awaken the full commiseration and sympathy of both judge and jury. This was not done without considerable opposition, and many tears, on the part of the young gentleman himself, who had certain inward misgivings that the placing him within the full glare of the judge's eye was only a formal prelude to his being immediately ordered away for instant execution, or for transportation beyond the seas, during the whole term of his natural life, at the very least.

"Bardell and Pickwick," cried the gentleman in black, calling on the case, which stood first on the list.

"I am for the plaintiff, my Lord," said Mr. Serjeant Buzfuz.

"Who is with you, Brother Buzfuz?" said the judge. Mr. Skimpin bowed, to intimate that he was.

"I appear for the defendant, my Lord," said Mr. Serjeant Snubbin.

"Anybody with you, Brother Snubbin?" inquired the court.

"Mr. Phunky, my Lord," replied Serjeant Snubbin.

"Serjeant Buzfuz and Mr. Skimpin for the plaintiff," said the judge, writing down the names in his note-book, and reading as he wrote; "for the defendant, Serjeant Snubbin and Mr. Monkey."

"Beg your Lordship's pardon, Phunky."

"Oh, very good," said the judge; "I never had the pleasure of hearing the gentleman's name before." Here Mr. Phunky bowed and smiled, and the judge bowed and smiled too, and then Mr. Phunky, blushing into the very whites of his eyes, tried to look as if he didn't know that everybody was gazing at him: a thing which no man ever succeeded in doing yet, or in all reasonable probability, ever will.

"Go on," said the judge.

The ushers again called silence, and Mr. Skimpin proceeded to open the case; and the case appeared to have very little inside it when he had opened it, for he kept such particulars as he knew completely to himself, and sat down, after a lapse of three minutes, leaving the jury in precisely the same advanced stage of wisdom as they were in before.

Serjeant Buzfuz then rose with all the majesty and dignity which the grave nature of the proceedings demanded, and having whispered to Dodson, and conferred briefly with Fogg, pulled his gown over his shoulders, settled his wig, and addressed the jury.

Serjeant Buzfuz began by saying, that never, in the whole course of his professional experience—never, from the very first moment of his applying himself to the study and practice of the law—had he approached a case with feelings of such deep emotion, or with such a heavy sense of the responsibility imposed upon him—a responsibility, he would say, which he could never have supported were he not buoyed up and sustained by a conviction so strong that it amounted to positive certainty that the cause of truth and justice, or, in other words, the cause of his much-injured and most oppressed client, must prevail with the high-minded and intelligent dozen of men whom he now saw in that box before him.

Counsel usually begin in this way, because it puts the jury on the very best terms with themselves, and makes them think what sharp fellows they must be. A visible effect was produced immediately, several jurymen beginning to take voluminous notes with the utmost eagerness.

"You have heard from my learned friend, gentlemen," continued Serjeant Buzfuz, well knowing that, from the learned friend alluded to, the gentlemen of the jury had heard just nothing at all—"you have heard from my learned friend, gentlemen, that this is an action for a breach of promise of marriage, in which the damages are laid at £1,500. But you have not heard from my learned friend, inasmuch as it did not come within my learned friend's province to tell you, what are the facts and circumstances of the case. Those facts and circumstances, gentlemen, you shall hear detailed by me, and proved by the unimpeachable female whom I will place in that box before you."

Here Mr. Serjeant Buzfuz, with a tremendous emphasis on the word "box," smote his table with a mighty sound, and glanced at Dodson and Fogg, who nodded admiration of the serjeant, and indignant defiance of the defendant.

"The plaintiff, gentlemen," continued Serjeant Buzfuz, in a soft and melancholy voice, "the plaintiff is a widow; yes, gentlemen, a widow. The

late Mr. Bardell, after enjoying, for many years, the esteem and confidence of his sovereign, as one of the guardians of his royal revenues, glided almost imperceptibly from the world to seek elsewhere for that repose and peace which a custom-house can never afford."

At this pathetic description of the decease of Mr. Bardell, who had been knocked on the head with a quart-pot in a public-house cellar, the learned serjeant's voice faltered, and he proceeded with emotion:

"Some time before his death, he had stamped his likeness upon a little boy. With this little boy, the only pledge of her departed exciseman, Mrs. Bardell shrunk from the world, and courted the retirement and tranquillity of Goswell Street; and here she placed in her front parlour window a written placard, bearing this inscription—'Apartments furnished for a single gentleman. Inquire within.'" Here Serjeant Buzfuz paused, while several gentlemen of the jury took a note of the document.

"There is no date to that, is there, sir?" inquired a juror.

"There is no date, gentlemen," replied Serjeant Buzfuz; "but I am instructed to say that it was put in the plaintiff's parlour window just this time three years. I intreat the attention of the jury to the wording of this document, 'Apartments furnished for a single gentleman'! Mrs. Bardell's opinions of the opposite sex, gentlemen, were derived from a long contemplation of the inestimable qualities of her lost husband. She had no fear, she had no distrust, she had no suspicion, all was confidence and reliance. 'Mr. Bardell,' said the widow, 'Mr. Bardell was a man of honour, Mr. Bardell was a man of his word, Mr. Bardell was no deceiver, Mr. Bardell was once a single gentleman himself; *to* single gentlemen I look for protection, for assistance, for comfort, and for consolation; *in* single gentlemen I shall perpetually see something to remind me of what Mr. Bardell was when he first won my young and untried affections; to a single gentleman, then, shall my lodgings be let.' Actuated by this beautiful and touching impulse (among the best impulses of our imperfect nature, gentlemen), the lonely and desolate widow dried her tears, furnished her first floor, caught the innocent boy to her maternal bosom, and put the bill up in her parlour window. Did it remain there long? No. The serpent was on the watch, the train was laid, the mine was preparing, the sapper and miner was at work. Before the bill had been in the parlour window three days—three days—gentlemen—a Being, erect upon two legs, and bearing all the outward semblance of a man, and not of a monster, knocked at the door of Mrs. Bardell's house. He inquired within; he took the lodgings; and on the very next day he entered into possession of them. This man was Pickwick—Pickwick, the defendant."

Serjeant Buzfuz, who had proceeded with such volubility that his face was perfectly crimson, here paused for breath. The silence awoke Mr. Justice Stareleigh, who immediately wrote down something with a pen without any ink in it, and looked unusually profound, to impress the jury with the belief that he always thought most deeply with his eyes shut. Serjeant Buzfuz proceeded.

"Of this man Pickwick I will say little; the subject presents but few attractions; and I, gentlemen, am not the man, nor are you, gentlemen, the men, to delight in the contemplation of revolting heartlessness, and of systematic villainy."

Here Mr. Pickwick, who had been writhing in silence for some time, gave a violent start, as if some vague idea of assaulting Serjeant Buzfuz, in the august presence of justice and law, suggested itself to his mind. An admonitory gesture from Perker restrained him, and he listened to the learned gentleman's continuation with a look of indignation, which contrasted forcibly with the admiring faces of Mrs. Cluppins and Mrs. Sanders.

"I say systematic villainy, gentlemen," said Serjeant Buzfuz, looking through Mr. Pickwick, and talking *at* him; "and when I say systematic villainy, let me tell the defendant Pickwick, if he be in court, as I am informed he is, that it would have been more decent in him, more becoming, in better judgment, and in better taste, if he had stopped away. Let me tell him, gentlemen, that any gestures of dissent or disapprobation in which he may indulge in this court will not go down with you; that you will know how to value and how to appreciate them; and let me tell him further, as my lord will tell you, gentlemen, that a counsel, in the discharge of his duty to his client, is neither to be intimidated, nor bullied, nor put down; and that any attempt to do either the one or the other, or the first, or the last, will recoil on the head of the attempter, be he plaintiff or be he defendant, be his name Pickwick, or Noakes, or Stoakes, or Stiles, or Brown, or Thompson."

This little divergence from the subject in hand had, of course, the intended effect of turning all eyes to Mr. Pickwick. Serjeant Buzfuz, having partially recovered from the state of moral elevation into which he had lashed himself, resumed:

"I shall show you, gentlemen, that for two years Pickwick continued to reside constantly, and without interruption or intermission, at Mrs. Bardell's house. I shall show you that Mrs. Bardell during the whole of that time waited on him, attended to his comforts, cooked his meals, looked out his linen for the washerwoman when it went abroad, darned, aired,

and prepared it for wear, when it came home, and, in short, enjoyed his fullest trust and confidence. I shall show you that, on many occasions, he gave halfpence, and on some occasions even sixpences, to her little boy; and I shall prove to you, by a witness whose testimony it will be impossible for my learned friend to weaken or controvert, that on one occasion he patted the boy on the head, and, after inquiring whether he had won any 'alley tors' or 'commoneys' lately (both of which I understand to be a particular species of marbles much prized by the youth of this town), made use of this remarkable expression: 'How should you like to have another father?' I shall prove to you, gentlemen, that about a year ago, Pickwick suddenly began to absent himself from home, during long intervals, as if with the intention of gradually breaking off from my client; but I shall show you also, that his resolution was not at that time sufficiently strong, or that his better feelings conquered, if better feelings he has, or that the charms and accomplishments of my client prevailed against his unmanly intentions; by proving to you, that on one occasion, when he returned from the country, he distinctly and in terms, offered her marriage: previously however, taking special care that there should be no witness to their solemn contract; and I am in a situation to prove to you, on the testimony of three of his own friends–most unwilling witnesses, gentlemen–most unwilling witnesses–that on that morning he was discovered by them holding the plaintiff in his arms, and soothing her agitation by his caresses and endearments."

A visible impression was produced upon the auditors by this part of the learned serjeant's address. Drawing forth two very small scraps of paper, he proceeded:

"And now, gentlemen, but one word more. Two letters have passed between these parties, letters which are admitted to be in the handwriting of the defendant, and which speak volumes indeed. These letters, too, bespeak the character of the man. They are not open, fervent, eloquent epistles, breathing nothing but the language of affectionate attachment. They are covert, sly, underhanded communications, but, fortunately, far more conclusive than if couched in the most glowing language and the most poetic imagery–letters that must be viewed with a cautious and suspicious eye–letters that were evidently intended at the time, by Pickwick, to mislead and delude any third parties into whose hands they might fall. Let me read the first: 'Garraway's, twelve o'clock. Dear Mrs. B.–Chops and Tomato sauce. Yours, PICKWICK.' Gentlemen, what does this mean? Chops and Tomato sauce! Yours, Pickwick! Chops! Gracious heavens! and Tomato sauce! Gentlemen, is the happiness of a sensi-

tive and confiding female to be trifled away, by such shallow artifices as these? The next has no date whatever, which in itself is suspicious. 'Dear Mrs. B., I shall not be at home till to-morrow. Slow coach.' And then follows this very remarkable expression. 'Don't trouble yourself about the warming-pan.' The warming-pan! Why, gentlemen, who *does* trouble himself about a warming-pan? When was the peace of mind of man or woman broken or disturbed by a warming-pan, which is in itself a harmless, a useful, and I will add, gentlemen, a comforting article of domestic furniture? Why is Mrs. Bardell so earnestly entreated not to agitate herself about this warming-pan, unless (as is no doubt the case) it is a mere cover for hidden fire—a mere substitute for some endearing word or promise, agreeably to a preconcerted system of correspondence, artfully contrived by Pickwick with a view to his contemplated desertion, and which I am not in a condition to explain? And what does this allusion to the slow coach mean? For aught I know, it may be a reference to Pickwick himself, who has most unquestionably been a criminally slow coach during the whole of this transaction, but whose speed will now be very unexpectedly accelerated, and whose wheels, gentlemen, as he will find to his cost, will very soon be greased by you!"

Mr. Serjeant Buzfuz paused in this place, to see whether the jury smiled at his joke: but as nobody took it but the greengrocer, whose sensitiveness on the subject was very probably occasioned by his having subjected a chaise-cart to the process in question on that identical morning, the learned serjeant considered it advisable to undergo a slight relapse into the dismals before he concluded.

"But enough of this, gentlemen," said Mr. Serjeant Buzfuz, "it is difficult to smile with an aching heart; it is ill jesting when our deepest sympathies are awakened. My client's hopes and prospects are ruined, and it is no figure of speech to say that her occupation is gone indeed. The bill is down—but there is no tenant. Eligible single gentlemen pass and repass—but there is no invitation for them to inquire within or without. All is gloom and silence in the house; even the voice of the child is hushed; his infant sports are disregarded when his mother weeps; his 'alley tors' and his 'commoneys' are alike neglected; he forgets the long familiar cry of 'knuckle down,' and at tip-cheese, or odd and even, his hand is out. But Pickwick, gentlemen, Pickwick, the ruthless destroyer of this domestic oasis in the desert of Goswell Street—Pickwick, who has choked up the well, and thrown ashes on the sward—Pickwick, who comes before you to-day with his heartless Tomato sauce and warming-pans—Pickwick still rears his head with unblushing effrontery, and gazes

without a sigh on the ruin he has made. Damages, gentlemen–heavy damages–is the only punishment with which you can visit him; the only recompense you can award to my client. And for those damages she now appeals to an enlightened, a high-minded, a right-feeling, a conscientious, a dispassionate, a sympathizing, a contemplative jury of her civilized countrymen." With this beautiful peroration, Mr. Serjeant Buzfuz sat down, and Mr. Justice Stareleigh woke up.

"Call Elizabeth Cluppins," said Serjeant Buzfuz, rising a minute afterwards, with renewed vigour.

The nearest usher called for Elizabeth Tuppins; another one, at a little distance off, demanded Elizabeth Jupkins; and a third rushed in a breathless state into King Street, and screamed for Elizabeth Muffins till he was hoarse.

Meanwhile Mrs. Cluppins, with the combined assistance of Mrs. Bardell, Mrs. Sanders, Mr. Dodson, and Mr. Fogg, was hoisted into the witness-box; and when she was safely perched on the top step, Mrs. Bardell stood on the bottom one, with the pocket-handkerchief and pattens in one hand, and a glass bottle that might hold about a quarter of a pint of smelling salts in the other, ready for any emergency. Mrs. Sanders, whose eyes were intently fixed on the judge's face, planted herself close by, with the large umbrella: keeping her right thumb pressed on the spring with an earnest countenance, as if she were fully prepared to put it up at a moment's notice.

"Mrs. Cluppins," said Serjeant Buzfuz, "pray compose yourself, ma'am." Of course, directly Mrs. Cluppins was desired to compose herself she sobbed with increased vehemence, and gave divers alarming manifestations of an approaching fainting fit, or, as she afterwards said, of her feelings being too many for her.

"Do you recollect, Mrs. Cluppins?" said Serjeant Buzfuz, after a few unimportant questions, "do you recollect being in Mrs. Bardell's back one-pair of stairs, on one particular morning in July last, when she was dusting Pickwick's apartment?"

"Yes, my Lord and Jury, I do," replied Mrs. Cluppins.

"Mr. Pickwick's sitting-room was the first-floor front, I believe?"

"Yes, it were, sir," replied Mrs. Cluppins.

"What were you doing in the back room, ma'am?" inquired the little judge.

"My Lord and Jury," said Mrs. Cluppins, with interesting agitation, "I will not deceive you."

"You had better not, ma'am," said the little judge.

"I was there," resumed Mrs. Cluppins, "unbeknown to Mrs. Bardell; I had been out with a little basket, gentlemen, to buy three pound of red kidney purtaties, which was three pound tuppence ha'penny, when I see Mrs. Bardell's street door on the jar."

"On the what?" exclaimed the little judge.

"Partly open, my Lord," said Serjeant Snubbin.

"She *said* on the jar," said the little judge, with a cunning look.

"It's all the same, my Lord," said Serjeant Snubbin. The little judge looked doubtful, and said he'd make a note of it. Mrs. Cluppins then resumed:

"I walked in, gentlemen, just to say good mornin', and went, in a permiscuous manner, upstairs, and into the back room. Gentlemen, there was the sound of voices in the front room, and–"

"And you listened, I believe, Mrs. Cluppins?" said Serjeant Buzfuz.

"Beggin' your pardon, sir," replied Mrs. Cluppins, in a majestic manner, "I would scorn the haction. The voices was very loud, sir, and forced themselves upon my ear."

"Well, Mrs. Cluppins, you were not listening, but you heard the voices. Was one of those voices, Pickwick's?"

"Yes, it were, sir."

And Mrs. Cluppins, after distinctly stating that Mr. Pickwick addressed himself to Mrs. Bardell, repeated, by slow degrees, and by dint of many questions, the conversation with which our readers are already acquainted.

The jury looked suspicious, and Mr. Serjeant Buzfuz smiled and sat down. They looked positively awful when Serjeant Snubbin intimated that he should not cross-examine the witness, for Mr. Pickwick wished it to be distinctly stated that it was due to her to say that her account was in substance correct.

Mrs. Cluppins, having once broken the ice, thought it a favourable opportunity for entering into a short dissertation on her own domestic affairs; so, she straightway proceeded to inform the court that she was the mother of eight children at that present speaking, and that she entertained confident expectations of presenting Mr. Cluppins with a ninth, somewhere about that day six months. At this interesting point, the little judge interposed most irascibly; and the effect of the interposition was that both the worthy lady and Mrs. Sanders were politely taken out of court, under the escort of Mr. Jackson, without further parley.

"Nathaniel Winkle!" said Mr. Skimpin.

"Here!" replied a feeble voice. Mr. Winkle entered the witness-box, and having been duly sworn, bowed to the judge with considerable deference.

"Don't look at me, sir," said the judge, sharply, in acknowledgment of the salute; "look at the jury."

Mr. Winkle obeyed the mandate, and looked at the place where he thought it most probable the jury might be; for seeing anything in his then state of intellectual complication was wholly out of the question.

Mr. Winkle was then examined by Mr. Skimpin, who, being a promising young man of two or three and forty, was of course anxious to confuse a witness who was notoriously predisposed in favour of the other side, as much as he could.

"Now, sir," said Mr. Skimpin, "have the goodness to let his Lordship and the jury know what your name is, will you?" and Mr. Skimpin inclined his head on one side to listen with great sharpness to the answer, and glanced at the jury meanwhile, as if to imply that he rather expected Mr. Winkle's natural taste for perjury would induce him to give some name which did not belong to him.

"Winkle," replied the witness.

"What's your Christian name, sir?" angrily inquired the little judge.

"Nathaniel, sir."

"Daniel–any other name?"

"Nathaniel, sir–my Lord, I mean."

"Nathaniel Daniel, or Daniel Nathaniel?"

"No, my Lord, only Nathaniel; not Daniel at all."

"What did you tell me it was Daniel for, then, sir?" inquired the judge.

"I didn't, my Lord," replied Mr. Winkle.

"You did, sir," replied the judge, with a severe frown. "How could I have got Daniel on my notes, unless you told me so, sir?"

This argument was, of course, unanswerable.

"Mr. Winkle has rather a short memory, my Lord," interposed Mr. Skimpin, with another glance at the jury. "We shall find means to refresh it before we have quite done with him, I daresay."

"You had better be careful, sir," said the little judge, with a sinister look at the witness.

Poor Mr. Winkle bowed, and endeavoured to feign an easiness of manner, which, in his then state of confusion, gave him rather the air of a disconcerted pickpocket.

"Now, Mr. Winkle," said Mr. Skimpin, "attend to me, if you please, sir; and let me recommend you, for your own sake, to bear in mind his

Lordship's injunction to be careful. I believe you are a particular friend of Pickwick, the defendant, are you not?"

"I have known Mr. Pickwick now, as well as I recollect at this moment, nearly–"

"Pray, Mr. Winkle, do not evade the question. Are you, or are you not, a particular friend of the defendant's?"

"I was just about to say, that–"

"Will you, or will you not, answer my question, sir?"

"If you don't answer the question you'll be committed, sir," interposed the little judge, looking over his note-book.

"Come, sir," said Mr. Skimpin, "yes or no, if you please."

"Yes, I am," replied Mr. Winkle.

"Yes, you are. And why couldn't you say that at once, sir? Perhaps you know the plaintiff, too? Eh, Mr. Winkle?"

"I don't know her; I've seen her."

"Oh, you don't know her, but you've seen her? Now, have the goodness to tell the gentlemen of the jury what you mean by *that,* Mr. Winkle."

"I mean that I am not intimate with her, but I have seen her when I went to call on Mr. Pickwick in Goswell Street."

"How often have you seen her, sir?"

"How often?"

"Yes, Mr. Winkle, how often? I'll repeat the question for you a dozen times, if you require it, sir." And the learned gentleman, with a firm and steady frown, placed his hands on his hips, and smiled suspiciously at the jury.

On this question there arose the edifying browbeating, customary on such points. First of all, Mr. Winkle said it was quite impossible for him to say how many times he had seen Mrs. Bardell. Then he was asked if he had seen her twenty times, to which he replied, "Certainly–more than that." Then he was asked whether he hadn't seen her a hundred times–whether he couldn't swear that he had seen her more than fifty times–whether he didn't know that he had seen her at least seventy-five times–and so forth; the satisfactory confusion which was arrived at, at last, being, that he had better take care of himself, and mind what he was about. The witness having been by these means reduced to the requisite ebb of nervous perplexity, the examination was continued as follows:

"Pray, Mr. Winkle, do you remember calling on the defendant Pickwick at these apartments in the plaintiff's house in Goswell Street, on one particular morning, in the month of July last?"

"Yes, I do."

"Were you accompanied on that occasion by a friend of the name of Tupman, and another of the name of Snodgrass?"

"Yes, I was."

"Are they here?"

"Yes, they are," replied Mr. Winkle, looking very earnestly towards the spot where his friends were stationed.

"Pray attend to me, Mr. Winkle, and never mind your friends," said Mr. Skimpin, with another expressive look at the jury. "They must tell their stories without any previous consultation with you, if none has yet taken place (another look at the jury). Now, sir, tell the gentlemen of the jury what you saw on entering the defendant's room, on this particular morning. Come; out with it, sir; we must have it, sooner or later."

"The defendant, Mr. Pickwick, was holding the plaintiff in his arms, with his hands clasping her waist," replied Mr. Winkle with natural hesitation, "and the plaintiff appeared to have fainted away."

"Did you hear the defendant say anything?"

"I heard him call Mrs. Bardell a good creature, and I heard him ask her to compose herself, for what a situation it was, if anybody should come, or words to that effect."

"Now, Mr. Winkle, I have only one more question to ask you, and I beg you to bear in mind his Lordship's caution. Will you undertake to swear that Pickwick, the defendant, did not say on the occasion in question, 'My dear Mrs. Bardell, you're a good creature; compose yourself to this situation, for to this situation you must come,' or words to *that* effect?"

"I–I didn't understand him so, certainly," said Mr. Winkle, astounded at this ingenious dovetailing of the few words he had heard, "I was on the staircase, and couldn't hear distinctly; the impression on my mind is–"

"The gentlemen of the jury want none of the impressions on your mind, Mr. Winkle, which I fear would be of little service to honest, straightforward men," interposed Mr. Skimpin. "You were on the staircase, and didn't distinctly hear; but you will not swear that Pickwick did not make use of the expressions I have quoted? Do I understand that?"

"No, I will not," replied Mr. Winkle; and down sat Mr. Skimpin with a triumphant countenance.

Mr. Pickwick's case had not gone off in so particularly happy a manner, up to this point, that it could very well afford to have any additional suspicion cast upon it. But as it could afford to be placed in a rather better light, if possible, Mr. Phunky rose for the purpose of getting something

important out of Mr. Winkle in cross-examination. Whether he did get anything important out of him, will immediately appear.

"I believe, Mr. Winkle," said Mr. Phunky, "that Mr. Pickwick is not a young man?"

"Oh, no," replied Mr. Winkle, "old enough to be my father."

"You have told my learned friend that you have known Mr. Pickwick a long time. Had you ever any reason to suppose or believe that he was about to be married?"

"Oh, no; certainly not," replied Mr. Winkle with so much eagerness that Mr. Phunky ought to have got him out of the box with all possible dispatch. Lawyers hold that there are two kinds of particularly bad witnesses: a reluctant witness, and a too willing witness; it was Mr. Winkle's fate to figure in both characters.

"I will even go further than this, Mr. Winkle," continued Mr. Phunky in a most smooth and complacent manner. "Did you ever see anything in Mr. Pickwick's manner and conduct towards the opposite sex, to induce you to believe that he ever contemplated matrimony of late years, in any case?"

"Oh, no; certainly not," replied Mr. Winkle.

"Has his behaviour, when females have been in the case, always been that of a man, who, having attained a pretty advanced period of life, content with his own occupations and amusements, treats them only as a father might his daughters?"

"Not the least doubt of it," replied Mr. Winkle, in the fulness of his heart. "That is—yes—oh yes—certainly."

"You have never known anything in his behaviour towards Mrs. Bardell, or any other female, in the least degree suspicious?" said Mr. Phunky, preparing to sit down, for Serjeant Snubbin was winking at him.

"N—n—no," replied Mr. Winkle, "except on one trifling occasion, which, I have no doubt, might be easily explained."

Now, if the unfortunate Mr. Phunky had sat down when Serjeant Snubbin winked at him, or if Serjeant Buzfuz had stopped this irregular cross-examination at the outset (which he knew better than to do, observing Mr. Winkle's anxiety, and well knowing it would, in all probability, lead to something serviceable to him), this unfortunate admission would not have been elicited. The moment the words fell from Mr. Winkle's lips, Mr. Phunky sat down, and Serjeant Snubbin rather hastily told him he might leave the box, which Mr. Winkle prepared to do with great readiness, when Serjeant Buzfuz stopped him.

"Stay, Mr. Winkle, stay!" said Serjeant Buzfuz, "will your Lordship

have the goodness to ask him, what this one instance of suspicious behaviour towards females on the part of this gentleman, who is old enough to be his father, was?"

"You hear what the learned counsel says, sir," observed the judge, turning to the miserable and agonized Mr. Winkle. "Describe the occasion to which you refer."

"My Lord," said Mr. Winkle, trembling with anxiety, "I–I'd rather not."

"Perhaps so," said the little judge; "but you must."

Amid the profound silence of the whole court, Mr. Winkle faltered out that the trifling circumstance of suspicion was Mr. Pickwick's being found in a lady's sleeping apartment at midnight; which had terminated, he believed, in the breaking off of the projected marriage of the lady in question, and had led, he knew, to the whole party being forcibly carried before George Nupkins, Esq., magistrate and justice of the peace, for the borough of Ipswich!

"You may leave the box, sir," said Serjeant Snubbin. Mr. Winkle *did* leave the box, and rushed with delirious haste to the George and Vulture, where he was discovered some hours after, by the waiter, groaning in a hollow and dismal manner, with his head buried beneath the sofa cushions.

Tracy Tupman and Augustus Snodgrass were severally called into the box; both corroborated the testimony of their unhappy friend; and each was driven to the verge of desperation by excessive badgering.

Susannah Sanders was then called, and examined by Serjeant Buzfuz, and cross-examined by Serjeant Snubbin. Had always said and believed that Pickwick would marry Mrs. Bardell; knew that Mrs. Bardell's being engaged to Pickwick was the current topic of conversation in the neighbourhood, after the fainting in July; had been told it herself by Mrs. Mudberry which kept a mangle, and Mrs. Bunkin which clear-starched, but did not see either Mrs. Mudberry or Mrs. Bunkin in court. Had heard Pickwick ask the little boy how he should like to have another father. Did not know that Mrs. Bardell was at that time keeping company with the baker, but did know that the baker was then a single man and is now married. Couldn't swear that Mrs. Bardell was not very fond of the baker, but should think that the baker was not very fond of Mrs. Bardell, or he wouldn't have married somebody else. Thought Mrs. Bardell fainted away on the morning in July because Pickwick asked her to name the day; knew that she (witness) fainted away stone dead when Mr. Sanders asked *her* to name the day, and believed that everybody as called herself a lady would do the same under similar circumstances.

Heard Pickwick ask the boy the question about the marbles, but upon her oath did not know the difference between an "alley tor" and a "commoney."

By the COURT–During the period of her keeping company with Mr. Sanders, had received love letters, like other ladies. In the course of their correspondence Mr. Sanders had often called her a "duck," but never "chops," nor yet "tomato sauce." He was particularly fond of ducks. Perhaps if he had been as fond of chops and tomato sauce, he might have called her that, as a term of affection.

Serjeant Buzfuz now rose with more importance than he had yet exhibited, if that were possible, and vociferated: "Call Samuel Weller."

It was quite unnecessary to call Samuel Weller; for Samuel Weller stepped briskly into the box the instant his name was pronounced; and placing his hat on the floor, and his arms on the rail, took a bird's-eye view of the bar, and a comprehensive survey of the bench, with a remarkably cheerful and lively aspect.

"What's your name, sir?" inquired the judge.

"Sam Weller, my Lord," replied that gentleman.

"Do you spell it with a 'V' or a 'W'?" inquired the judge.

"That depends upon the taste and fancy of the speller, my Lord," replied Sam; "I never had occasion to spell it more than once or twice in my life, but I spells it with a 'V.'"

Here a voice in the gallery exclaimed aloud, "Quite right too, Samivel, quite right. Put it down a we, my Lord, put it down a we."

"Who is that, who dares to address the court?" said the little judge, looking up. "Usher."

"Yes, my Lord."

"Bring that person here instantly."

"Yes, my Lord."

But as the usher didn't find the person, he didn't bring him; and, after a great commotion, all the people who had got up to look for the culprit sat down again. The little judge turned to the witness as soon as his indignation would allow him to speak, and said, "Do you know who that was, sir?"

"I raythe suspect it was my father, my Lord," replied Sam.

"Do you see him here now?" said the judge.

"No, I don't, my Lord," replied Sam, staring right up into the lantern in the roof of the court.

"If you could have pointed him out, I would have committed him instantly," said the judge.

Sam bowed his acknowledgments and turned, with unimpaired cheerfulness of countenance, towards Serjeant Buzfuz.

"Now, Mr. Weller," said Serjeant Buzfuz.

"Now, sir," replied Sam.

"I believe you are in the service of Mr. Pickwick, the defendant in this case. Speak up, if you please, Mr. Weller."

"I mean to speak up, sir," replied Sam; "I am in the service o' that 'ere gen'l'm'n, and a wery good service it is."

"Little to do, and plenty to get, I suppose?" said Serjeant Buzfuz, with jocularity.

"Oh, quite enough to get, sir, as the soldier said ven they ordered him three hundred and fifty lashes," replied Sam.

"You must not tell us what the soldier, or any other man, said, sir," interposed the judge; "it's not evidence."

"Wery good, my Lord," replied Sam.

"Do you recollect anything particular happening on the morning when you were first engaged by the defendant, eh, Mr. Weller?" said Serjeant Buzfuz.

"Yes I do, sir," replied Sam.

"Have the goodness to tell the jury what it was."

"I had a reg'lar new fit out o' clothes that mornin', gen'l'men of the jury," said Sam, "and that was a wery partickler and uncommon circumstance vith me in those days."

Hereupon there was a general laugh; and the little judge, looking with an angry countenance over his desk, said, "You had better be careful, sir."

"So Mr. Pickwick said at the time, my Lord," replied Sam; "and I was wery careful o' that 'ere suit o' clothes; wery careful indeed, my Lord."

The judge looked sternly at Sam for full two minutes, but Sam's features were so perfectly calm and serene that the judge said nothing, and motioned Serjeant Buzfuz to proceed.

"Do you mean to tell me, Mr. Weller," said Serjeant Buzfuz, folding his arms emphatically, and turning half-round to the jury, as if in mute assurance that he would bother the witness yet: "Do you mean to tell me, Mr. Weller, that you saw nothing of this fainting on the part of the plaintiff in the arms of the defendant, which you have heard described by the witnesses?"

"Certainly not," replied Sam. "I was in the passage 'till they called me up, and then the old lady was not there."

"Now, attend, Mr. Weller," said Serjeant Buzfuz, dipping a large pen

into the inkstand before him, for the purpose of frightening Sam with a show of taking down his answer. "You were in the passage, and yet saw nothing of what was going forward. Have you a pair of eyes, Mr. Weller?"

"Yes, I have a pair of eyes," replied Sam, "and that's just it. If they wos a pair o' patent double million magnifyin' gas microscopes of hextra power, p'raps I might be able to see through a flight o' stairs and a deal door; but bein' only eyes, you see, my wision's limited."

At this answer, which was delivered without the slightest appearance of irritation, and with the most complete simplicity and equanimity of manner, the spectators tittered, the little judge smiled, and Serjeant Buzfuz looked particularly foolish. After a short consultation with Dodson and Fogg, the learned Serjeant again turned towards Sam, and said, with a painful effort to conceal his vexation, "Now, Mr. Weller, I'll ask you a question on another point, if you please."

"If you please, sir," rejoined Sam, with the utmost good humour.

"Do you remember going up to Mrs. Bardell's house, one night in November last?"

"Oh yes, very well."

"Oh, you *do* remember that, Mr. Weller," said Serjeant Buzfuz, recovering his spirits; "I thought we should get at something at last."

"I rayther thought that, too, sir," replied Sam; and at this the spectators tittered again.

"Well; I suppose you went up to have a little talk about this trial—eh, Mr. Weller?" said Serjeant Buzfuz, looking knowingly at the jury.

"I went up to pay the rent; but we *did* get a talkin' about the trial," replied Sam.

"Oh, you did get a talking about the trial," said Serjeant Buzfuz, brightening up with the anticipation of some important discovery. "Now what passed about the trial; will you have the goodness to tell us, Mr. Weller?"

"Vith all the pleasure in life, sir," replied Sam. "Arter a few unimportant observations from the two wirtuous females as has been examined here to-day, the ladies gets into a great state o' admiration at the honourable conduct of Mr. Dodson and Fogg—them two gen'l'm'n as is settin' near you now." This, of course, drew general attention to Dodson and Fogg, who looked as virtuous as possible.

"The attorneys for the plaintiff," said Mr. Serjeant Buzfuz. "Well! They spoke in high praise of the honourable conduct of Messrs. Dodson and Fogg, the attorneys for the plaintiff, did they?"

"Yes," said Sam, "they said what a wery gen'rous thing it was o' them to have taken up the case on spec, and to charge nothing at all for costs, unless they got 'em out of Mr. Pickwick."

At this very unexpected reply, the spectators tittered again, and Dodson and Fogg, turning very red, leant over to Serjeant Buzfuz, and in a hurried manner whispered something in his ear.

"You are quite right," said Serjeant Buzfuz aloud, with affected composure. "It's perfectly useless, my Lord, attempting to get at any evidence through the impenetrable stupidity of this witness. I will not trouble the court by asking him any more questions. Stand down, sir."

"Would any other gen'l'man like to ask me anythin'?" inquired Sam, taking up his hat, and looking round most deliberately.

"Not I, Mr. Weller, thank you," said Serjeant Snubbin, laughing.

"You may go down, sir," said Serjeant Buzfuz, waving his hand impatiently. Sam went down accordingly, after doing Messrs. Dodson and Fogg's case as much harm as he conveniently could, and saying just as little respecting Mr. Pickwick as might be, which was precisely the object he had had in view all along.

"I have no objection to admit, my Lord," said Serjeant Snubbin, "if it will save the examination of another witness, that Mr. Pickwick has retired from business, and is a gentleman of considerable independent property."

"Very well," said Serjeant Buzfuz, putting in the two letters to be read, "Then that's my case, my Lord."

Serjeant Snubbin then addressed the jury on behalf of the defendant; and a very long and a very emphatic address he delivered, in which he bestowed the highest possible eulogiums on the conduct and character of Mr. Pickwick; but inasmuch as our readers are far better able to form a correct estimate of that gentleman's merits and deserts, than Serjeant Snubbin could possibly be, we do not feel called upon to enter at any length into the learned gentleman's observations. He attempted to show that the letters which had been exhibited, merely related to Mr. Pickwick's dinner, or to the preparations for receiving him in his apartments on his return from some country excursion. It is sufficient to add in general terms, that he did the best he could for Mr. Pickwick; and the best, as everybody knows, on the infallible authority of the old adage, could do no more.

Mr. Justice Stareleigh summed up, in the old established and most approved form. He read as much of his notes to the jury as he could decipher on so short a notice, and made running comments on the evi-

dence as he went along. If Mrs. Bardell were right, it was perfectly clear that Mr. Pickwick was wrong, and if they thought the evidence of Mrs. Cluppins worthy of credence they would believe it, and, if they didn't, why they wouldn't. If they were satisfied that a breach of promise of marriage had been committed, they would find for the plaintiff with such damages as they thought proper; and if, on the other hand, it appeared to them that no promise of marriage had ever been given, they would find for the defendant with no damages at all. The jury then retired to their private room to talk the matter over, and the judge retired to *his* private room, to refresh himself with a mutton chop and a glass of sherry.

An anxious quarter of an hour elapsed; the jury came back; the judge was fetched in. Mr. Pickwick put on his spectacles, and gazed at the foreman with an agitated countenance and a quickly beating heart.

"Gentlemen," said the individual in black, "are you all agreed upon your verdict?"

"We are," replied the foreman.

"Do you find for the plaintiff, gentlemen, or for the defendant?"

"For the plaintiff."

"With what damages, gentlemen?"

"Seven hundred and fifty pounds."

Mr. Pickwick took off his spectacles, carefully wiped the glasses, folded them into their case, and put them in his pocket; then having drawn on his gloves with great nicety, and stared at the foreman all the while, he mechanically followed Mr. Perker and the blue bag out of court.

They stopped in a side room while Perker paid the court fees; and here, Mr. Pickwick was joined by his friends. Here, too, he encountered Messrs. Dodson and Fogg, rubbing their hands with every token of outward satisfaction.

"Well, gentlemen," said Mr. Pickwick.

"Well, sir," said Dodson: for self and partner.

"You imagine you'll get your costs, don't you, gentlemen?" said Mr. Pickwick.

Fogg said they thought it rather probable. Dodson smiled, and said they'd try.

"You may try, and try, and try again, Messrs. Dodson and Fogg," said Mr. Pickwick vehemently, "but not one farthing of costs or damages do you ever get from me, if I spend the rest of my existence in a debtor's prison."

"Ha, ha!" laughed Dodson. "You'll think better of that, before next term, Mr. Pickwick."

"He, he, he! Well soon see about that, Mr. Pickwick," grinned Fogg.

Speechless with indignation, Mr. Pickwick allowed himself to be led by his solicitor and friends to the door, and there assisted into a hackney-coach, which had been fetched for the purpose by the ever watchful Sam Weller.

Sam had put up the steps, and was preparing to jump upon the box, when he felt himself gently touched on the shoulder; and looking round, his father stood before him. The old gentleman's countenance wore a mournful expression, as he shook his head gravely, and said, in warning accents:

"I know'd what 'ud come o' this here mode o' doin' bisness. Oh Sammy, Sammy, vy worn't there a alleybi!"

The foregoing consists of selections from Chapters XII, XVIII, XX, XXVI, XXXI, XXXIII, and XXXIV of THE PICKWICK PAPERS.

Nikolai Gogol

1809–1852

Nikolai Gogol was born in Sorochintsky, Russia, March 31, 1809. His family were Ukrainian Cossack landowners. In St. Petersburg at the end of the 1820's, Gogol tried the theater and poetry. He resolved to emigrate to America. He got as far as Lübeck, Germany, then turned back to St. Petersburg and found a job in the civil service. In 1831–32, the two volumes of his *Evenings on a Farm Near Dikanka,* a reworking of Ukrainian folk stories, made him famous at once.

He planned an eight- or nine-volume history of medieval Russia, never written. He was given a chair in history at the University of St. Petersburg, but resigned in 1835. During this period he published *Arabesques* and *Cossack Tales,* which included the renowned *Taras Bulba,* an account of the Cossack wars with Poles and Tartars in the sixteenth century. His best-known short story, *The Overcoat* (see below), also appeared at this time.

Gogol's great comedy, *The Inspector-General,* was first produced on April 19, 1836. This satire on officialdom has been translated into many languages and made into an American motion picture. Gogol spoke of Italy as his "true homeland." He spent most of the years between 1836 and 1848 in Rome, though he hardly strayed from the Russian colony there. In Rome he wrote the famous comic novel, *Dead Souls,* published in 1842. This chronicle of a promoter who travels about Russia buying up the credentials of dead serfs becomes a mocking parade of Russian provincial types and customs.

His second comedy for the stage, *Marriage,* was also written during his time in Italy. Back in Russia, he found himself the hero of the reformers. Like Tolstoy in his later years, Gogol began to regard himself as a moral missionary. He wrote a sequel to *Dead Souls,* in

which the quick-witted promoter was redeemed, but destroyed it. When he published *Selected Passages from a Correspondence With Friends,* he was charged with "falsifying Christianity for the profit of those in power." He made a melancholy pilgrimage to the Holy Land. Later he fell under the domination of a fanatic priest, Father Matthew Konstantinovsky, who convinced him that fiction was sinful. Gogol burned some of his manuscripts. He died on February 21, 1852.

Akaky Akakievich, the antihero who becomes at last the hero of *The Overcoat,* is at once completely Russian and completely universal. We know him. Perhaps, worse luck, we have even been him. He is all but immemorial. He is the man at the bottom of the ladder in every business and government office—the least essential and the first to go, to be replaced by the manager's cousin or a new machine. No doubt he or his ancestors existed in the ancient bureaucracies of Egypt and China. His descendants, men or more likely women, sit in the office chairs of Paris and New York. Gogol caught him once and for all with the skill of a great sociologist joined to the mastery of a great writer of fiction.

This Akaky, this little man of the cities, came late to literature, but he came with a rush. We can find him under a dozen names in Balzac and Dickens and Zola and Dostoevsky. He is the obdurate old copyist of Wall Street in Melville's *Bartleby the Scrivener.* He is the terrified clerk in Kafka's *The Metamorphosis.* Indeed, without ever having given a thought to such things, he has become a world figure. He is the consumer. Advertisements are written for him. He is the man in the street. Candidates for office speak well of him and solicit his vote.

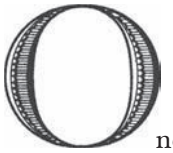
But we need not be grandiose. He is Akaky, a simple man who has a simple problem. He needs a new overcoat. Gogol tells us about it as informally as a friend we had happened to meet, a good-hearted friend who knows very well that the story is both pitiful and comic. We see Akaky working in his office, the butt of the young clerks, who call his worn-out overcoat "the old dressing gown." We see him at home, gulping his cabbage soup. Even there he gets out the inkwell and copies a document "for his own pleasure."

He works "with love." He is happy. And little by little it comes

to us that Akaky is a "fool of God," a small saint in an icon, a man too simplehearted for the mere act of living, so that he goes about with melon rinds on his hat and wakes up in the middle of the street with a horse's nose thrust against his face. So we are pleased at how neatly he and his friend Petrovich the tailor solve the problem of a new overcoat. Like Akaky himself, we are "bubbling with good spirits" when he first puts it on.

But we know that this little splendor will not last. Wrong from the start, when no one could find a name for him and he was forced to borrow his father's, Akaky has no luck. We are not surprised at that brutal night scene in the square so wide it was "like being in the middle of the sea." We only hope, for an instant, that these are his office friends, playing a trick on him. We witness the rage of "the important personage," and Akaky's death. Yes, we say. That is how it would be. But at the same time, we are struck by the sadness of the human condition.

The Overcoat

 nce, in a department . . . but better not mention which department. There is nothing touchier than departments, regiments, bureaus, in fact, any caste of officials. Things have reached the point where every individual takes an insult to himself as a slur on society as a whole. It seems that not long ago a complaint was lodged by the police inspector of I forget which town, in which he stated clearly that government institutions had been imperiled and his own sacred name taken in vain. In evidence he produced a huge volume, practically a novel, in which, every ten pages, a police inspector appears, and what's more, at times completely drunk. So, to stay out of trouble, let us refer to it just as *a department.*

And so, once, in *a department,* there worked a clerk. This clerk was nothing much to speak of: he was small, somewhat pock-marked, his hair was somewhat reddish and he even looked somewhat blind. Moreover, he was getting thin on top, had wrinkled cheeks and a complexion that might be aptly described as hemorrhoidal. But that's the Petersburg climate for you.

As to his civil-service category (for first a man's standing should be established), he was what is called an eternal pen-pusher, a lowly ninth-class clerk, the usual butt of the jeers and jokes of those writers who have the congenial habit of biting those who cannot bite back.

The clerk's name was Shoenik. There is no doubt that this name derives from shoe but we know nothing of how, why, or when. His father, his grandfather, and even his brother-in-law wore boots, having new soles put on them not more than three times a year.

His first name was Akaky, like his father's, which made him Akaky Akakievich. This may sound somewhat strange and contrived but it is not contrived at all, and, in view of the circumstances, any other name was unthinkable. If I am not mistaken, Akaky Akakievich was born on the night between the 22nd and the 23rd of March. His late mother, an

excellent woman and the wife of a clerk, had made all the arrangements for the child's christening, and, while she was still confined to her bed, the godparents arrived: the worthy Ivan Yeroshkin, head clerk in the Senate, and Arina Whitetumkin, the wife of a police captain, a woman of rare virtue.

The new mother was given her pick of the following three names for her son: Mochius, Sossius, and that of the martyr Hotzazat. "That won't do," Akaky's late mother thought. "Those names are . . . how shall I put it . . ." To please her, the godparents opened the calendar at another page and again three names came out: Strifilius, Dulius, and Varachasius.

"We're in a mess," the old woman said. "Who ever heard of such names? If it was something like Varadat or Varuch, I wouldn't object . . . but Strifilius and Varachasius . . ."

So they turned to yet another page and out came Pavsicachius and Vachtisius.

"Well, that's that," the mother said. "That settles it. He'll just have to be Akaky like his father."

So that's how Akaky Akakievich originated.

And when they christened the child it cried and twisted its features into a sour expression as though it had a foreboding that it would become a ninth-class clerk.

Well, that's how it all happened and it has been reported here just to show that the child couldn't have been called anything but Akaky.

No one remembers who helped him get his appointment to the department or when he started working there. Directors and all sorts of chiefs came and went but he was always to be found at the same place, in the same position, and in the same capacity, that of copying clerk. Until, after a while, people began to believe that he must have been born just as he was, shabby frock coat, bald patch, and all.

In the office, not the slightest respect was shown him. The porters didn't get up when he passed. In fact, they didn't even raise their eyes, as if nothing but an ordinary fly had passed through the reception room. His chiefs were cold and despotic with him. Some head clerks would just thrust a paper under his nose without even saying, "Copy this," or "Here's a nice interesting little job for you," or some such pleasant remark as is current in well-bred offices. And Akaky Akakievich would take the paper without glancing up to see who had put it under his nose or whether the person was entitled to do so. And right away he would set about copying it.

The young clerks laughed at him and played tricks on him to the limit

of their clerkish wit. They made up stories about him and told them in front of him. They said that his seventy-year-old landlady beat him and asked him when the wedding would be. They scattered scraps of paper which they said was snow over his head. But with all this going on, Akaky Akakievich never said a word and even acted as though no one were there. It didn't even affect his work and in spite of their loud badgering he made no mistakes in his copying. Only when they tormented him unbearably, when they jogged his elbow and prevented him from getting on with his work, would he say:

"Let me be. Why do you do this to me? . . ."

And his words and the way he said them sounded strange. There was something touching about them. Once a young man who was new to the office started to tease him, following the crowd. Suddenly he stopped as if awakened from a trance and, after that, he couldn't stand the others, whom at first he had deemed decent people. And for a long time to come, during his gayest moments, he would suddenly see in his mind's eye the little, balding clerk and he would hear the words, "Let me be. Why do you do this to me?" and within those words rang the phrase, "I am your brother." And the young man would cover his face with his hands. Later in life, he often shuddered, musing about the wickedness of man toward man and all the cruelty and vulgarity which are concealed under refined manners. And this, he decided, was also true of men who were considered upright and honorable.

It would be hard to find a man who so lived for his job. It would not be enough to say that he worked conscientiously–he worked with love. There, in his copying, he found an interesting, pleasant world for himself and his delight was reflected in his face. He had his favorites among the letters of the alphabet and, when he came to them, he would chuckle, wink and help them along with his lips so that they could almost be read on his face as they were formed by his pen.

Had he been rewarded in proportion with his zeal, he would, perhaps to his own surprise, have been promoted to fifth-class clerk. But all he got out of it was, as his witty colleagues put it, a pin for his buttonhole and hemorrhoids to sit on.

Still, it would be unfair to say that no attention had ever been paid him. One of the successive directors, a kindly man, who thought Akaky Akakievich should be rewarded for his long service, suggested that he be given something more interesting than ordinary copying. So he was asked to prepare an already drawn-up document for referral to another department. Actually, all he had to do was to give it a new heading and

change some of the verbs from the first to the third person. But Akaky Akakievich found this work so complicated that he broke into a sweat and finally, mopping his brow, he said:

"Oh no, I would rather have something to copy instead."

After that they left him to his copying forever. And aside from it, it seemed, nothing existed for him.

He never gave a thought to his clothes. His frock coat, which was supposed to be green, had turned a sort of mealy reddish. Its collar was very low and very narrow so that his neck, which was really quite ordinary, looked incredibly long–like the spring necks of the head-shaking plaster kittens which foreign peddlers carry around on their heads on trays. And, somehow, there was always something stuck to Akaky Akakievich's frock coat, a wisp of hay, a little thread. Then too, he had a knack of passing under windows just when refuse happened to be thrown out and as a result was forever carrying around on his hat melon rinds and other such rubbish.

Never did he pay any attention to what was going on around him in the street. In this he was very different from the other members of the pen-pushing brotherhood, who are so keen-eyed and observant that they'll notice an undone strap on the bottom of someone's trousers, an observation that unfailingly molds their features into a sly sneer. But even when Akaky Akakievich's eyes were resting on something, he saw superimposed on it his own well-formed, neat handwriting. Perhaps it was only when, out of nowhere, a horse rested its head on his shoulder and sent a blast of wind down his cheek that he'd realize he was not in the middle of a line but in the middle of a street.

When he got home he would sit straight down to the table and quickly gulp his cabbage soup, followed by beef and onions. He never noticed the taste and ate it with flies and whatever else God happened to send along. When his stomach began to feel bloated, he would get up from the table, take out his inkwell, and copy papers he had brought with him from the office. And if there weren't any papers to copy for the office, he would make a copy for his own pleasure, especially if the document were unusual. Unusual, not for the beauty of its style, but because it was addressed to some new or important personage.

Even during those hours when light has completely disappeared from the gray Petersburg sky and the pen-pushing brotherhood have filled themselves with dinner of one sort or another, each as best he can according to his income and his preference; when everyone has rested from the

scraping of pens in the office, from running around on their own and others' errands; when the restless human being has relaxed after the tasks, sometimes unnecessary, he sets himself; and the clerks hasten to give over the remaining hours to pleasure–the more enterprising among them rushes to the theater, another walks in the streets, allotting his time to the inspection of ladies' hats; another spends his evening paying compliments to some prettyish damsel, the queen of a small circle of clerks; another, the most frequent case, goes to visit a brother clerk, who lives somewhere on the third or fourth floor, in two small rooms with a hall of a kitchen and some little pretensions to fashion, a lamp or some other article bought at great sacrifice, such as going without dinner or outside pleasures–in brief, at the time when all clerks have dispersed among the lodgings of their friends to play a little game of whist, sipping tea from glasses and nibbling biscuits, inhaling the smoke from their long pipes, relaying, while the cards are dealt, some bit of gossip that has trickled down from high society, a thing which a Russian cannot do without whatever his circumstances, and even, when there's nothing else to talk about, telling once again the ancient joke about the commandant to whom it was reported that someone had hacked the tail off the horse of the monument to Peter the First–in a word, when everyone else was trying to have a good time, Akaky Akakievich was not even thinking of diverting himself.

No one had ever seen him at a party in the evening. Having written to his heart's content, he would go to bed, smiling in anticipation of the morrow, of what God would send him to copy.

Thus flowed the life of a man who, on a yearly salary of four hundred rubles, was content with his lot. And perhaps it would have flowed on to old age if it hadn't been for the various disasters which are scattered along life's paths, not only for ninth-class clerks, but even for eighth-, seventh-, sixth-class clerks and all the way up to State Councilors, Privy Councilors, and even to those who counsel no one, not even themselves.

In Petersburg, there's a formidable enemy for all those who receive a salary in the neighborhood of four hundred rubles a year. The enemy is none other than our northern cold, although they say it's very healthy.

Between eight and nine in the morning, at just the time when the streets are filled with people walking to their offices, the cold starts to mete out indiscriminately such hard, stinging flicks on noses that the wretched clerks don't know where to put them. And when the cold

pinches the brows and brings tears to the eyes of those in high positions, ninth-class clerks are completely defenseless. They can only wrap themselves in their threadbare overcoats and run as fast as they can the five or six blocks to the office. Once arrived, they have to stamp their feet in the vestibule until their abilities and talents, which have been frozen on the way, thaw out once again.

Akaky Akakievich had noticed that for some time the cold had been attacking his back and shoulders quite viciously, try as he might to sprint the prescribed distance. He finally began to wonder whether the fault did not lie with his overcoat. When he gave it a good looking-over in his room, he discovered that in two or three places—the shoulders and back—it had become very much like gauze. The cloth was worn so thin that it let the draft in, and, to make things worse, the lining had disintegrated.

It must be noted that Akaky Akakievich's overcoat had also been a butt of the clerks' jokes. They had even deprived it of its respectable name, referring to it as the old dressing gown. And, as far as that goes, it did have a strange shape. Its collar shrank with every year, since it was used to patch other areas. And the patching, which did not flatter the tailor, made the overcoat baggy and ugly.

Having located the trouble, Akaky Akakievich decided to take the cloak to Petrovich, a tailor who lived somewhere on the fourth floor, up a back stairs, and who, one-eyed and pock-marked as he was, was still quite good at repairing clerks' and other such people's trousers and frock coats, provided he happened to be sober and hadn't other things on his mind.

We shouldn't, of course, waste too many words on the tailor, but since it has become the fashion to give a thorough description of every character figuring in a story, there's nothing to be done but to give you Petrovich.

At first he was called just Grigory and was the serf of some gentleman or other. He began to call himself Petrovich when he received his freedom and took to drinking rather heavily on all holidays, on the big ones at first and then, without distinction, on all church holidays—on any day marked by a little cross on the calendar. In this he was true to the traditions of his forefathers, and, when his wife nagged him about it, he called her impious and a German. Now that we've mentioned his wife, we'd better say a word or two about her, too. But unfortunately very little is known about her, except that Petrovich had a wife who wore a bonnet instead of a kerchief, but was apparently no beauty, since,

on meeting her, it occurred to no one but an occasional soldier to peek under that bonnet of hers, twitching his mustache and making gurgling sounds.

Going up the stairs leading to Petrovich's place, which, to be honest about it, were saturated with water and slops and exuded that ammonia smell which burns your eyes and which you'll always find on the back stairs of all Petersburg houses–going up those stairs, Akaky Akakievich was already conjecturing how much Petrovich would ask and making up his mind not to pay more than two rubles.

The door stood open because Petrovich's wife was cooking some fish or other and had made so much smoke in the kitchen that you couldn't even see the cockroaches. Akaky Akakievich went through the kitchen without even seeing Mrs. Petrovich and finally reached the other room, where he saw Petrovich sitting on a wide, unpainted wooden table, with his legs crossed under him like a Turkish pasha.

He was barefoot, as tailors at work usually are, and the first thing Akaky Akakievich saw was Petrovich's big toe, with its twisted nail, thick and hard like a tortoise shell. A skein of silk and cotton thread hung around Petrovich's neck. On his knees there was some old garment. For the past three minutes he had been trying to thread his needle, very irritated at the darkness of the room and even with the thread itself, muttering under his breath: "It won't go through, the pig, it's killing me, the bitch!" Akaky Akakievich was unhappy to find Petrovich so irritated. He preferred to negotiate when the tailor was a little under the weather, or, as his wife put it, "when the one-eyed buzzard had a load on." When caught in such a state, Petrovich usually gave way very readily on the price and would even thank Akaky Akakievich with respectful bows and all that. True, afterwards, his wife would come whining that her husband had charged too little because he was drunk; but all you had to do was to add ten kopeks and it was a deal.

This time, however, Petrovich seemed to be sober and therefore curt, intractable, and likely to charge an outrageous price. Akaky Akakievich realized this and would have liked to beat a hasty retreat, but the die was cast. Petrovich had fixed his one eye on him and Akaky Akakievich involuntarily came out with:

"Hello, Petrovich."

"Wish you good day, sir," said Petrovich and bent his eye toward Akaky Akakievich's hands to see what kind of spoil he had brought him.

"Well, Petrovich, I've come . . . see . . . the thing is . . . to . . ."

It should be realized that Akaky Akakievich used all sorts of preposi-

tions, adverbs and all those meaningless little parts of speech when he spoke. Moreover, if the matter were very involved, he generally didn't finish his sentences and opened them with the words: "This, really, is absolutely, I mean to say . . ." and then nothing more—he had forgotten that he hadn't said what he wanted to.

"What is it then?" Petrovich asked, looking over Akaky Akakievich's frock coat with his one eye, the collar, the sleeves, the back, the tails, the buttonholes, all of which he was already acquainted with, since, repairs and all, it was his own work. That's just what tailors do as soon as they see you.

"Well, it's like this, Petrovich . . . my cloak, well, the material . . . look, you can see, everywhere else it's very strong, well, it's a bit dusty and it looks rather shabby, but it's not really . . . look, it's just in one place it's a little . . . on the back here, and here too . . . it's a little worn . . . and here on this shoulder too, a little—and that's all. There's not much work . . ."

Petrovich took Akaky Akakievich's old dressing gown, as his colleagues called it, spread it out on the table and looked it over at length. Then he shook his head and, stretching out his hand, took from the window sill a snuffbox embellished with the portrait of a general, though just what general it was impossible to tell since right where his face used to be there was now a dent glued over with a piece of paper. Taking some snuff, Petrovich spread the overcoat out on his hands, held it up against the light and again shook his head. Then he turned the overcoat inside out, with the lining up, and shook his head again. Then, once more, he removed the snuffbox lid with its general under the piece of paper, and, stuffing snuff into his nose, closed the box, put it away, and finally said:

"No. It can't be mended. It's no use."

At these words, Akaky Akakievich's heart turned over.

"But why can't it be, Petrovich?" he said in the imploring voice of a child. "Look, the only trouble is that it's worn around the shoulders. I'm sure you have some scraps of cloth . . ."

"As for scraps, I suppose I could find them," Petrovich said, "but I couldn't sew them on. The whole thing is rotten. It'd go to pieces the moment you touched it with a needle."

"Well, if it starts to go, you'll catch it with a patch . . ."

"But there's nothing for patches to hold to. It's too far gone. It's only cloth in name—a puff of wind and it'll disintegrate."

"Still, I'm sure you can make them hold just the same. Otherwise, really, Petrovich, see what I mean . . ."

"No," Petrovich said with finality, "nothing can be done with it. It's just no good. You'd better make yourself some bands out of it to wrap round your legs when it's cold and socks aren't enough to keep you warm. The Germans thought up those things to make money for themselves."–Petrovich liked to take a dig at the Germans whenever there was a chance.–"As to the overcoat, it looks as if you'll have to have a new one made."

At the word "new" Akaky Akakievich's vision became foggy and the whole room began to sway. The only thing he saw clearly was the general with the paper-covered face on the lid of Petrovich's snuffbox.

"What do you mean a *new* one?" he said, talking as if in a dream. "I haven't even got the money . . ."

"A new one," Petrovich repeated with savage calm.

"Well, but if I really had to have a new one, how would it be that . . ."

"That is, what will it cost?"

"Yes."

"Well, it will be over one hundred and fifty rubles," Petrovich said, pursing his lips meaningfully. He liked strong effects, he liked to perplex someone suddenly and then observe the grimace that his words produced.

"A hundred and fifty rubles for an overcoat!" shrieked the poor Akaky Akakievich, shrieked perhaps for the first time in his life, since he was always noted for his quietness.

"Yes, sir," said Petrovich, "but what an overcoat! And if it is to have marten on the collar and a silk-lined hood, that'll bring it up to two hundred."

"Please, Petrovich, please," Akaky Akakievich said beseechingly, not taking in Petrovich's words or noticing his dramatic effects, "mend it somehow, just enough to make it last a little longer."

"No sir, it won't work. It would be a waste of labor and money."

Akaky Akakievich left completely crushed. And when he left, Petrovich, instead of going back to his work, remained for a long time immobile, his lips pursed meaningfully. He was pleased with himself for having upheld his own honor as well as that of the entire tailoring profession.

Akaky Akakievich emerged into the street feeling as if he were in a dream. "So that's it," he repeated to himself. "I never suspected it would turn out this way . . ." and then, after a brief pause, he went on: "So that's it! Here's how it turns out in the end, and I, really, simply couldn't have foreseen it." After another, longer pause, he added: "And so here we are! Here's how things stand. I in no way expected . . . but this is

impossible . . . what a business!" Muttering thus, instead of going home, he went in the opposite direction, without having the slightest idea of what was going on.

As he was walking, a chimney sweep brushed his dirty side against him and blackened his whole shoulder; a whole bucketful of lime was showered over him from the top of a house under construction. But he noticed nothing and only when he bumped into a watchman who, resting his halberd near him, was shaking some snuff out of a horn into his calloused palm, did he come to a little and that only because the watchman said:

"Ya hafta knock my head off? Ya got the whole sidewalk, ain'tcha?"

This caused him to look about him and turn back toward home. Only then did he start to collect his thoughts and to see his real position clearly. He began to talk to himself, not in bits of phrases now but sensibly, as to a wise friend in whom he could confide.

"Oh no," he said, "this wasn't the moment to speak to Petrovich. Right now he's sort of . . . his wife obviously has given him a beating . . . that sort of thing. It'd be better if I went and saw him Sunday morning. After Saturday night, his one eye will be wandering and he'll be tired and in need of another drink, and his wife won't give him the money. So I'll slip him a quarter and that will make him more reasonable and so, for the overcoat . . ." Thus Akaky Akakievich tried to reassure himself, and persuaded himself to wait for Sunday.

When that day came, he waited at a distance until he saw Petrovich's wife leave the house and then went up. After his Saturday night libations, Petrovich's eye certainly was wandering. He hung his head and looked terribly sleepy. But, despite all that, as soon as he learned what Akaky Akakievich had come about, it was as if the devil had poked him.

"It can't be done," he said. "You must order a new one."

Here Akaky Akakievich pressed the quarter on him.

"Thank you," Petrovich said. "I'll drink a short one to you, sir. And as to the overcoat, you can stop worrying. It's worthless. But I'll make you a first-rate new one. That I'll see to."

Akaky Akakievich tried once more to bring the conversation around to mending, but Petrovich, instead of listening, said:

"I'll make you a new one, sir, and you can count on me to do my best. I may even make the collar fastened with silver-plated clasps for you."

At this point Akaky Akakievich saw that he'd have to have a new overcoat and he became utterly depressed. Where was he going to get the money? There was of course the next holiday bonus. But the sum involved

had long ago been allotted to other needs. He had to order new trousers, to pay the cobbler for replacing the tops on his boots. He owed the seamstress for three shirts and simply had to have two items of underwear which one cannot refer to in print. In fact, all the money, to the last kopek, was owed, and even if the director made an unexpectedly generous gesture and allotted him, instead of forty rubles, a whole forty-five or even fifty, the difference would be a drop in the ocean in the overcoat outlay.

It is true Akaky Akakievich knew that, on occasions, Petrovich slapped on heaven knows what exorbitant price, so that even his wife couldn't refrain from exclaiming:

"Have you gone mad, you fool! One day he accepts work for nothing, and the next, something gets into him and makes him ask for more than he's worth himself."

But he also knew that Petrovich would agree to make him a new overcoat for eighty rubles. Even so, where was he to find the eighty? He could perhaps scrape together half that sum. Even a little more. But where would he get the other half? . . . Let us, however, start with the first half and see where it was to come from.

Akaky Akakievich had a rule: whenever he spent one ruble, he slipped a copper into a little box with a slot in its side. Every six months, he counted the coppers and changed them for silver. He'd been doing this for a long time and, after all these years, had accumulated more than forty rubles. So this came to one half. But what about the remaining forty rubles?

Akaky Akakievich thought and thought and decided that he would have to reduce his regular expenses for an entire year at least. It would mean going without his evening tea; not burning candles at night, and, if he absolutely had to have light, going to his landlady's room and working by her candle. It would mean, when walking in the street, stepping as carefully as possible over the cobbles and paving stones, almost tiptoeing, so as not to wear out the soles of his boots too rapidly, and giving out his laundry as seldom as possible, and, so that it shouldn't get too soiled, undressing as soon as he got home and staying in just his thin cotton dressing gown, which, if time hadn't taken pity on it, would itself have collapsed long ago.

It must be admitted that, at first, he suffered somewhat from these restrictions. But then he became accustomed to them somehow and things went smoothly again. He even got used to going hungry in the evenings, but then he was able to feed himself spiritually, carrying within him

the eternal idea of his overcoat-to-be. It was as if his existence had become somehow fuller, as if he had married and another human being were there with him, as if he were no longer alone on life's road but walking by the side of a delightful companion. And that companion was none other than the overcoat itself, with its thick padding and strong lining that would last forever. In some way, he became more alive, even stronger-minded, like a man who has determined his ultimate goal in life.

From his face and actions all the marks of vacillation and indecision vanished.

At times, there was even a fire in his eyes and the boldest, wildest notions flashed through his head—perhaps he should really consider having marten put on the collar? The intensity of these thoughts almost distracted his attention from his work. Once he almost made a mistake, which caused him to exclaim—true, very softly—"Oof!" and to cross himself.

At least once each month he looked in on Petrovich to discuss the overcoat—the best place to buy the material, its color, its price . . . Then, on the way home, a little worried but always pleased, he mused about how, finally, all this buying would be over and the coat would be made.

Things went ahead faster than he had expected. Beyond all expectations, the director granted Akaky Akakievich not forty, nor forty-five, but a whole sixty rubles. Could he have had a premonition that Akaky Akakievich needed a new overcoat, or had it just happened by itself? Whatever it was, Akaky Akakievich wound up with an extra twenty rubles. This circumstance speeded matters up. Another two or three months of moderate hunger and he had almost all of the eighty rubles he needed. His heartbeat, generally very quiet, grew faster.

As soon as he could, he set out for the store with Petrovich. They bought excellent material, which is not surprising since they had been planning the move for all of six months, and a month had seldom gone by without Akaky Akakievich dropping into the shop to work out prices. Petrovich himself said that there was no better material to be had.

For the lining they chose calico, but so good and thick that, Petrovich said, it even looked better and glossier than silk. They did not buy marten because it was too expensive. Instead they got cat, the best available—cat which at a distance could always be taken for marten. Petrovich spent two full weeks on the overcoat because of all the quilting he had to do. He charged twelve rubles for his work—it was impossible to take less; it had been sewn with silk, with fine double seams, and Petrovich had

gone over each seam again afterwards with his own teeth, squeezing out different patterns with them.

It was—well, it's hard to say exactly which day it was, but it was probably the most solemn day in Akaky Akakievich's life, the day Petrovich finally brought him the overcoat. He brought it in the morning, just before it was time to go to the office. There couldn't have been a better moment for the coat to arrive, because cold spells had been creeping in and threatened to become even more severe. Petrovich appeared with the coat, as befits a good tailor. He had an expression of importance on his face that Akaky Akakievich had never seen before. He looked very much aware of having performed an important act, an act that carries tailors over the chasm which separates those who merely put in linings and do repairs from those who create.

He took the overcoat out of the gigantic handkerchief—just fresh from the wash—in which he had wrapped it to deliver it. The handkerchief he folded neatly and put in his pocket, ready for use. Then he took the coat, looked at it with great pride and, holding it in both hands, threw it quite deftly around Akaky Akakievich's shoulders. He pulled and smoothed it down at the back, wrapped it around Akaky Akakievich, leaving it a little open at the front. Akaky Akakievich, a down-to-earth sort of man, wanted to try out the sleeves. Petrovich helped him to pull his arms through and it turned out that with the sleeves too it was good. In a word, it was clear that the coat fitted perfectly.

Petrovich didn't fail to take advantage of the occasion to remark that it was only because he did without a signboard, lived in a small side street, and had known Akaky Akakievich for a long time that he had charged him so little. On Nevsky Avenue, nowadays, he said, they'd have taken seventy-five rubles for the work alone. Akaky Akakievich had no desire to debate the point with Petrovich—he was always rather awed by the big sums which Petrovich liked to mention to impress people. He paid up, thanked Petrovich, and left for the office wearing his new overcoat.

Petrovich followed him and stood for a long time in the street, gazing at the overcoat from a distance. Then he plunged into a curving side street, took a short cut, and reemerged on the street ahead of Akaky Akakievich, so that he could have another look at the coat from another angle.

Meanwhile, Akaky Akakievich walked on, bubbling with good spirits. Every second of every minute he felt the new overcoat on his shoulders and several times he even let out a little chuckle of inward pleasure. In-

deed, the overcoat presented him with a double advantage: it was warm and it was good. He didn't notice his trip at all and suddenly found himself before the office building. In the porter's lodge, he slipped off the overcoat, inspected it, and entrusted it to the porter's special care.

No one knows how, but it suddenly became general knowledge in the office that Akaky Akakievich had a new overcoat and that the old dressing gown no longer existed. Elbowing one another, they all rushed to the cloakroom to see the new coat. Then they proceeded to congratulate him. He smiled at first, but then the congratulations became too exuberant, and he felt embarrassed. And when they surrounded him and started trying to persuade him that the very least he could do was to invite them over one evening to drink to the coat, Akaky Akakievich felt completely at a loss, didn't know what to do with himself, what to say or how to talk himself out of it. And a few minutes later, all red in the face, he was trying rather naively to convince them that it wasn't a new overcoat at all, that it wasn't much, that it was an old one.

In the end, a clerk, no lesser person than an assistant to the head clerk, probably wanting to show that he wasn't too proud to mingle with those beneath him, said:

"All right then, I'll do it instead of Akaky Akakievich. I invite you all over for a party. Come over to my place tonight. Incidentally, it happens to be my birthday today."

Naturally the clerks now congratulated the head clerk's assistant and happily accepted his invitation. Akaky Akakievich started to excuse himself, but he was told that it would be rude on his part, a disgrace, so he had to give way in the end. And later he was even rather pleased that he had accepted, since it would give him an opportunity to wear the new coat in the evening too.

Akaky Akakievich felt as if it were a holiday. He arrived home in the happiest frame of mind, took off the overcoat, hung it up very carefully on the wall, gave the material and the lining one more admiring inspection. Then he took out that ragged item known as the old dressing gown and put it next to the new overcoat, looked at it and began to laugh, so great was the difference between the two. And long after that, while eating his dinner, he snorted every time he thought of the dressing gown. He felt very gay during his dinner, and afterwards he did no copying whatsoever. Instead he wallowed in luxury for a while, lying on his bed until dark. Then, without further dallying, he dressed, pulled on his new overcoat and went out.

It is, alas, impossible to say just where the party-giving clerk lived. My

memory is beginning to fail me badly and everything in Petersburg, streets and houses, has become so mixed up in my head that it's very difficult to extract anything from it and to present it in an orderly fashion. Be that as it may, it is a fact that the clerk in question lived in a better district of the city, which means not too close to Akaky Akakievich.

To start with, Akaky Akakievich had to pass through a maze of deserted, dimly lit streets, but, toward the clerk's house, the streets became lighter and livelier. More pedestrians began flashing by more often; there were some well-dressed ladies and men with beaver collars. And, instead of the drivers with their wooden, fretworked sledges studded with gilt nails, he came across smart coachmen in crimson velvet caps, in lacquered sledges, with bearskin lap rugs. He even saw some carriages darting past with decorated boxes, their wheels squeaking on the snow.

Akaky Akakievich gazed around him. For several years now he hadn't been out in the evening. He stopped before the small, lighted window of a shop, staring curiously at a picture of a pretty woman kicking off her shoe and thereby showing her whole leg, which was not bad at all; in the background, some man or other with side whiskers and a handsome Spanish goatee was sticking his head through a door leading to another room. Akaky Akakievich shook his head, snorted, smiled and walked on. Why did he snort? Was it because he had come across something that, although completely strange to him, still aroused in him, as it would in anyone, a certain instinct—or did he think, as many clerks do, along the following lines: "Well, really, the French! If they are after something . . . that sort of thing . . . then, really! . . ." Maybe he didn't even think that. After all, one can't just creep into a man's soul and find out everything he's thinking.

At last he reached the house in which the head clerk's assistant lived. And he lived in style, on the second floor, with the staircase lighted by a lantern. In the hall, Akaky Akakievich found several rows of galoshes. Amidst the galoshes, a samovar was hissing and puffing steam. All around the walls hung overcoats and cloaks, some with beaver collars and others with velvet lapels. The noise and talk that could be heard through the partition became suddenly clear and resounding when the door opened and a servant came out with a tray of empty glasses, a cream jug, and a basket of cookies. It was clear that the clerks had arrived long before and had already drunk their first round of tea.

Akaky Akakievich hung his coat up and went in. In a flash, he took in the candles, the clerks, the pipes, the card tables, while his ears were filled with the hubbub of voices rising all around him and the banging of

chairs being moved. Awkwardly, he paused in the middle of the room, trying to think what to do. But he had been noticed and his arrival was greeted with a huge yell. Immediately everybody rushed out into the hall to have another look at his new overcoat. Akaky Akakievich felt a bit confused, but, being an uncomplicated man, he was rather pleased when everyone agreed that it was a good overcoat.

Soon, however, they abandoned him and his overcoat and turned their attention, as was to be expected, to the card tables.

The din, the voices, the presence of so many people—all this was unreal to Akaky Akakievich. He had no idea how to behave, where to put his hands, his feet, or, for that matter, his whole body. He sat down near a card table, stared at the cards and peeked in turn into the faces of the players. In a little while he got bored and began to yawn, feeling rather sleepy—it was long past his usual bedtime. He wanted to take leave of the host, but they wouldn't let him go. He really had to toast his new overcoat with champagne, they insisted. They made Akaky Akakievich drink two glasses of champagne, after which he felt that the party was becoming gayer, but nevertheless he was quite unable to forget that it was now midnight and that he should have gone home long ago.

In spite of everything his host could think up to keep him, he went quietly out into the hall, found his overcoat, which to his annoyance was lying on the floor, shook it, carefully removed every speck he could find on it, put it on and walked down the stairs and out into the street.

The street was still lighted. Some little stores, those meeting places for servants and people of every sort, were open, while others, although closed, still showed a long streak of light under their doors, which indicated that the company had not yet dispersed and that the menservants and maids were finishing up their gossip and their conversations, leaving their masters perplexed as to their whereabouts.

Akaky Akakievich walked along in such a gay mood that, who knows why, he almost darted after a lady who flashed by him like a streak of lightning, every part of her body astir with independent, fascinating motion. Still, he restrained himself immediately, went back to walking slowly and even wondered where that compulsion to gallop had come from.

Soon there stretched out before him those deserted streets which, even in the daytime, are not so gay, and, now that it was night, looked even more desolate. Fewer street lamps were lit—obviously a smaller oil allowance was given out in this district. Then came wooden houses and fences; not a soul around, nothing but glistening snow and the black silhouettes of the low, sleeping hovels with their shuttered windows. He came to the

spot where the street cut through a square so immense that the houses opposite were hardly visible beyond its sinister emptiness.

God knows where, far away on the edge of the world, he could see the glow of a brazier by a watchman's hut.

Akaky Akakievich's gay mood definitely waned. He could not suppress a shiver as he stepped out into the square, a foreboding of evil in his heart. He glanced behind him and to either side—it was like being in the middle of the sea. "No, it's better not to look," he thought, and walked on with his eyes shut. And when he opened them again to see if the other side of the square was close, he saw instead, standing there, almost in front of his nose, people with mustaches, although he couldn't make out exactly who or what. Then his vision became foggy and there was a beating in his chest.

"Why, here's my overcoat," one of the people thundered, grabbing him by the collar.

Akaky Akakievich was just going to shout out "Help!" when another brought a fist about the size of a clerk's head up to his very mouth, and said:

"You just try and yell . . ."

Akaky Akakievich felt them pull off his coat, then he received a knee in the groin. He went down on his back and after that he lay in the snow and felt nothing more.

When he came to a few minutes later and scrambled to his feet, there was no one around. He felt cold and, when he realized that the overcoat was gone, desperate. He let out a yell. But his voice didn't come close to reaching the other side of the square.

Frantic, he hollered all the way across the square as he scrambled straight toward the watchman's hut. The watchman was standing beside it, leaning on his halberd, and gazing out across the square, wondering who it could be running toward him and shouting. At last Akaky Akakievich reached him. Gasping for breath, he began shouting at him—what sort of a watchman did he think he was, hadn't he seen anything, and why the devil had he allowed them to rob a man? The watchman said he had seen no one except the two men who had stopped Akaky Akakievich in the middle of the square, who he had thought were friends of his, and that instead of hollering at the watchman, he'd better go and see the police inspector tomorrow and the inspector would find out who had taken the overcoat.

Akaky Akakievich hurried home; he was in a terrible state. The little hair he had left, on his temples and on the back of his head, was com-

pletely disheveled, there was snow all down one side of him and on his chest and all over his trousers. His old landlady, hearing his impatient banging on the door, jumped out of bed and, with only one shoe on, ran to open up, clutching her nightgown at the neck, probably out of modesty. When she saw the state Akaky Akakievich was in, she stepped back.

When he told her what had happened, she threw up her hands and said that he should go straight to the borough Police Commissioner, that the local police inspector could not be trusted, that he'd just make promises and give him the runaround. So it was best, she said, to go straight to the borough Commissioner. In fact, she even knew him because Anna, her former Finnish cook, had now got a job as a nanny at his house. And the landlady herself often saw him driving past their house. Moreover, she knew he went to church every Sunday and prayed and at the same time looked cheerful and was obviously a good man. Having heard her advice, Akaky Akakievich trudged off sadly to his room and somehow got through the night, though exactly how must be imagined by those who know how to put themselves in another man's place.

Early the next morning, he went to the borough Commissioner's. But it turned out that he was still asleep. He returned at ten and again was told he was asleep. He went back at eleven and was told that the Commissioner was not home. He tried again during the dinner hour but the secretaries in the reception room would not let him in and wanted to know what business had brought him. For once in his life Akaky Akakievich decided to show some character and told them curtly that he must see the Commissioner personally, that they'd better let him in since he was on official government business, that he would lodge a complaint against them and that then they would see.

The secretaries didn't dare say anything to that and one of them went to call the Commissioner. The Commissioner reacted very strangely to Akaky Akakievich's story of the robbery. Instead of concentrating on the main point, he asked Akaky Akakievich what he had been doing out so late, whether he had stopped off somewhere on his way, hadn't he been to a house of ill repute. Akaky Akakievich became very confused and when he left he wasn't sure whether something would be done about his overcoat or not.

That day he did not go to his office for the first time in his life. The next day he appeared, looking very pale and wearing his old dressing gown, which now seemed shabbier than ever. His account of the theft of his overcoat touched many of the clerks, although, even now, there were some who poked fun at him. They decided on the spot to take up a collec-

tion for him but they collected next to nothing because the department employees had already had to donate money for a portrait of the Director and to subscribe to some book or other, on the suggestion of the section chief, who was a friend of the author's. So the sum turned out to be the merest trifle.

Someone, moved by compassion, decided to help Akaky Akakievich by giving him good advice. He told him that he had better not go to his local inspector because, even supposing the inspector wanted to impress his superiors and managed to recover the coat, Akaky Akakievich would still find it difficult to obtain it at the police station unless he could present irrefutable proof of ownership. The best thing was to go through a certain important personage who, by writing and contacting the right people, would set things moving faster. So Akaky Akakievich decided to seek an audience with the important personage.

Even to this day, it is not known exactly what position the important personage held or what his duties consisted of. All we need to know is that this important personage had become important quite recently and that formerly he had been an unimportant person. And even his present position was unimportant compared with other, more important ones. But there is always a category of people for whom somebody who is unimportant to others is an important personage. And the personage in question used various devices to play up his importance: for instance, he made the civil servants of lower categories come out to meet him on the stairs before he'd even reached his office; and a subordinate could not approach him directly but had to go through proper channels. That's the way things are in Holy Russia—everyone tries to ape his superior.

They say that one ninth-class clerk, when he was named section chief in a small office, immediately had a partition put up to make a separate room, which he called the conference room. He stationed an usher at the door who had to open it for all those who came in, although the conference room had hardly enough space for a writing table, even without visitors. The audiences and the manner of our important personage were impressive and stately, but quite uncomplicated. The key to his system was severity. He liked to say: "Severity, severity, severity," and as he uttered the word for the third time, he usually looked very meaningfully into the face of the person he was talking to. True, it was not too clear what need there was for all this severity since the ten-odd employees who made up the whole administrative apparatus of his office were quite frightened enough as it was. Seeing him coming, they would leave their work and stand to attention until he had crossed the room. His usual communica-

tion with his inferiors was full of severity and consisted almost entirely of three phrases: "How dare you!" "Who do you think you're talking to?" and "Do you appreciate who I am?" Actually, he was a kindly man, a good friend and obliging, but promotion to a high rank had gone to his head, knocked him completely off balance, and he just didn't know how to act. When he happened to be with equals, he was still a decent fellow, and, in a way, by no means stupid. But whenever he found himself among those who were below him—even a single rank—he became impossible. He fell silent and was quite pitiable, because even he himself realized that he could have been having a much better time. Sometimes he was obviously longing to join some group in a lively conversation, but he would be stopped by the thought that he would be going too far, putting himself on familiar terms and thereby losing face. And so he remained eternally in silent, aloof isolation, only occasionally uttering some monosyllabic sounds, and, as a result, he acquired a reputation as a deadly bore.

It was to this important personage that Akaky Akakievich presented himself, and at a most unpropitious moment to boot. That is, very unpropitious for him, although quite suitable for the important personage. The latter was in his office talking gaily to a childhood friend who had recently come to Petersburg and whom he hadn't seen for many years. This was the moment when they announced that there was a man named Shoenik to see him.

"Who's he?" the personage wanted to know.

"Some clerk," they told him.

"I see. Let him wait. I am not available now."

Here it should be noted that the important personage was greatly exaggerating. He was available. He and his friend had talked over everything imaginable. For some time now the conversation had been interlaced with lengthy silences, and they weren't doing much more than slapping each other on the thigh and saying:

"So that's how it is, Ivan Abramovich."

"Yes, indeed, Stepan Varlamovich!"

Still Akaky Akakievich had to wait, so that his friend, who had left the government service long ago and now lived in the country, could see what a long time employees had to wait in his reception room.

At last, when they had talked and had sat silent facing each other for as long as they could stand it, when they had smoked a cigar reclining in comfortable armchairs with sloping backs, the important personage, as if he had just recalled it, said to his secretary who was standing at the door with papers for a report:

"Wait a minute. Wasn't there a clerk waiting? Tell him to come in."

Seeing Akaky Akakievich's humble appearance and his wretched old frock coat, he turned abruptly to face him and said. "What do you want?"

He spoke in the hard, sharp voice which he had deliberately developed by practicing at home before a mirror an entire week before he had taken over his present exalted position.

Akaky Akakievich, who had felt properly subdued even before this, felt decidedly embarrassed. He did his best, as far as he could control his tongue, to explain what had happened. Of course, he added even more than his usual share of phrases like "that is to say" and "so to speak." The overcoat, he explained, was completely new and had been cruelly taken away from him and he had turned to the important personage, that is to say, come to him, in the hope that he would, so to speak, intercede for him somehow, that is to say, write to the Superintendent of Police or, so to speak, to someone, and find the overcoat.

For some unimaginable reason the important personage found his manner too familiar.

"My dear sir," he answered sharply, "don't you know the proper channels? Do you realize whom you're addressing and what the proper procedure should be? You should first have handed in a petition to the office. It would have gone to the head clerk. From him it would have reached the section head, who would have approached my secretary and only then would the secretary have presented it to me. . . ."

"But, Your Excellency," said Akaky Akakievich, trying to gather what little composure he had and feeling at the same time that he was sweating terribly, "I, Your Excellency, ventured to trouble you because secretaries, that is to say . . . are, so to speak, an unreliable lot. . . ."

"What, what, what?" demanded the important personage. "Where did you pick up such an attitude? Where did you get such ideas? What is this insubordination that is spreading among young people against their chiefs and superiors?"

The important personage, apparently, had not noticed that Akaky Akakievich was well over fifty. Thus, surely, if he could be called young at all it would only be relatively, that is, to someone of seventy.

"Do you realize to whom you are talking? Do you appreciate who I am? Do you really realize, do you, I'm asking you?"

Here he stamped his foot and raised his voice to such a pitch that there was no need to be an Akaky Akakievich to be frightened.

And Akaky Akakievich froze completely. He staggered, his whole body shook, and he was quite unable to keep his feet. If a messenger hadn't

rushed over and supported him, he would have collapsed onto the floor. They carried him out almost unconscious.

And the important personage, pleased to see that his dramatic effect had exceeded his expectations, and completely delighted with the idea that a word from him could knock a man unconscious, glanced at his friend to see what he thought of it all and was pleased to see that the friend looked somewhat at a loss and that fear had extended to him too.

Akaky Akakievich remembered nothing about getting downstairs and out into the street. He could feel neither hand nor foot. In all his life he had never been so severely reprimanded by a high official, and not a direct chief of his at that. He walked openmouthed through a blizzard, again and again stumbling off the sidewalk. The wind, according to Petersburg custom, blew at him from all four sides at once, out of every side street. In no time it had blown him a sore throat and he got himself home at last quite unable to say a word. His throat was swollen and he went straight to bed. That's how severe the effects of an adequate reprimand can be.

The next day he was found to have a high fever. Thanks to the generous assistance of the Petersburg climate, the illness progressed beyond all expectations. A doctor came, felt his pulse, found there was nothing he could do and prescribed a poultice. That was done so that the patient would not be deprived of the beneficial aid of medicine. The doctor added, however, that, by the way, the patient had another day and a half to go, after which he would be what is called kaput. Then, turning to the landlady, the doctor said:

"And you, my good woman, I'd not waste my time if I were you. I'd order him the coffin right away. A pine one. The oak ones, I imagine, would be too expensive for him."

Whether Akaky Akakievich heard what for him were fateful words, and, if he heard, whether they had a shattering effect on him and whether he was sorry to lose his wretched life are matters of conjecture. He was feverish and delirious the whole time. Apparitions, each stranger than the last, kept crowding before him. He saw Petrovich and ordered an overcoat containing some sort of concealed traps to catch the thieves who were hiding under his bed, so that every minute he kept calling his landlady to come and pull out the one who had even slipped under his blanket. Next, he would ask why his old dressing gown was hanging there in front of him when he had a new overcoat. Then he would find himself

standing before the important personage, listening to the reprimand and repeating over and over: "I am sorry, Your Excellency, I am sorry."

Then he began to swear, using the most frightful words, which caused his old landlady to cross herself in horror; never in her life had she heard anything like it from him, and what made it even worse was that they came pouring out on the heels of the phrase, "Your Excellency." After that he talked complete nonsense and it was impossible to make out anything he was saying, except that his disconnected words kept groping for that lost overcoat of his. Then, at last, poor Akaky Akakievich gave up the ghost.

They did not bother to seal his room or his belongings because there were no heirs and, moreover, very little to inherit—namely, a bundle of goose quills, a quire of white government paper, three pairs of socks, a few buttons that had come off his trousers, and the old dressing-gown coat already mentioned. God knows whom they went to; even the reporter of this story did not care enough to find out.

They took Akaky Akakievich away and buried him. And Petersburg went on without him exactly as if he had never existed. A creature had vanished, disappeared. He had had no one to protect him. No one had ever paid him the slightest attention. Not even that which a naturalist pays to a common fly which he mounts on a pin and looks at through his microscope. True, this creature, who had meekly borne the office jokes and gone quietly to his grave, had had, toward the end of his life, a cherished visitor—the overcoat, which for a brief moment had brightened his wretched existence. Then a crushing blow had finished everything, a blow such as befalls the powerful of the earth. . . .

A few days after his death, a messenger from his office was sent to his lodgings with an order summoning him to report immediately; the chief was asking for him. But the messenger had to return alone and to report that Akaky Akakievich could not come.

"Why not?" he was asked.

"Because," the messenger said, "he died. They buried him four days ago."

That is how the department found out about Akaky Akakievich's death, and the next day a new clerk sat in his place: he was much taller and his handwriting was not as straight. In fact, his letters slanted considerably.

But who would have imagined that that was not the end of Akaky Akakievich, that he was fated to live on and make his presence felt for a few days after his death as if in compensation for having spent his life unnoticed by anyone? But that's the way it happened and our little story

gains an unexpectedly fantastic ending. Rumors suddenly started to fly around Petersburg that a ghost was haunting the streets at night in the vicinity of the Kalinkin Bridge. The ghost, which looked like a little clerk, was purportedly searching for a stolen overcoat and used this pretext to pull the coats off the shoulders of everyone he met without regard for rank or title. And it made no difference what kind of coat it was—cat, beaver, fox, bearskin, in fact any of the furs and skins people have thought up to cover their own skins with.

One of the department employees saw the ghost with his own eyes and instantly recognized Akaky Akakievich. However, he was so terrified that he dashed off as fast as his legs would carry him and so didn't get a good look; he only saw from a distance that the ghost was shaking his finger at him. Complaints kept pouring in, and not only from petty employees, which would have been understandable. One and all, even Privy Councilors, were catching chills in their backs and shoulders from having their overcoats peeled off. The police were ordered to catch the ghost at any cost, dead or alive, and to punish him with due severity as a warning to others. And what's more, they nearly succeeded.

To be precise, a watchman caught the ghost red-handed, grabbed it by the collar, in Kiryushkin Alley, as it was trying to pull the coat off a retired musician who, in his day, used to tootle on the flute. Grabbing it, he called for help from two colleagues of his and asked them to hold on to it for just a minute. He had, he said, to get his snuffbox out of his boot so that he could bring some feeling back to his nose, which had been frostbitten six times in his life. But it was evidently snuff that even a ghost couldn't stand. The man, closing his right nostril with his finger, had hardly sniffed up half a fistful into the left when the ghost sneezed so violently that the three watchmen were blinded by the resulting shower. They all raised their fists to wipe their eyes and, when they could see again, the ghost had vanished. They even wondered whether they had really held him at all. After that, watchmen were so afraid of the ghost that they felt reluctant to interfere with live robbers and contented themselves with shouting from a distance: "Hey you! On your way!"

And the clerk's ghost began to haunt the streets well beyond the Kalinkin Bridge, spreading terror among the meek.

However, we have completely neglected the important personage, who really, in a sense, was the cause of the fantastic direction that this story—which, by the way, is completely true—has taken. First of all, it is only fair to say that, shortly after poor Akaky Akakievich, reduced to a pulp, had left his office, the important personage felt a twinge of regret. Com-

passion was not foreign to him—many good impulses stirred his heart, although his position usually prevented them from coming to the surface. As soon as his visiting friend had left the office, his thoughts returned to Akaky Akakievich. And after that, almost every day, he saw in his mind's eye the bloodless face of the little clerk who had been unable to take a proper reprimand. This thought was so disturbing that a week later he went so far as to send a clerk from his office to see how Akaky Akakievich was doing and to find out whether, in fact, there was any way to help him. And when he heard the news that Akaky Akakievich had died suddenly of a fever, it was almost a blow to him, even made him feel guilty and spoiled his mood for the whole day.

Trying to rid himself of these thoughts, to forget the whole unpleasant business, he went to a party at a friend's house. There he found himself in respectable company and, what's more, among people nearly all of whom were of the same standing so that there was absolutely nothing to oppress him. A great change came over him. He let himself go, chatted pleasantly, was amiable, in a word, spent a very pleasant evening. At supper, he drank a couple of glasses of champagne, a well-recommended prescription for inducing good spirits. The champagne gave him an inclination for something special and so he decided not to go home but instead to pay a little visit to a certain well-known lady named Karolina Ivanovna, a lady, it seems, of German extraction, toward whom he felt very friendly. It should be said that the important personage was no longer a young man, that he was a good husband, the respected father of a family. His two sons, one of whom already had a civil-service post, and his sweet-faced sixteen-year-old daughter, who had a slightly hooked but nevertheless pretty little nose, greeted him every day with a "Bon jour, Papa." His wife, a youngish woman and not unattractive at that, gave him her hand to kiss and then kissed his. But although the important personage was quite content with these displays of family family affection, he considered it the proper thing to do to have, for friendship's sake, a lady friend in another part of the city. This lady friend was not a bit prettier or younger than his wife, but the world is full of such puzzling things and it is not our business to judge them.

So the important personage came down the steps, stepped into his sledge, and said to the coachman:

"To Karolina Ivanovna's."

Wrapping his warm luxurious fur coat around him, he sat back in his seat. He was in that state so cherished by Russians, in which, without your

having to make any effort, thoughts, each one pleasanter than the last, slip into your head by themselves.

Perfectly content, he went over all the most pleasant moments at the party, over the clever retorts that had caused that select gathering to laugh. He even repeated many of them under his breath and, still finding them funny, laughed heartily at them all over again, which was natural enough. However, he kept being bothered by gusts of wind which would suddenly blow, God knows from where or for what reason, cutting his face, throwing lumps of snow into it, filling the cape of his coat like a sail and throwing it over his head, so that he had to extricate himself from it again and again.

Suddenly the important personage felt someone grab him violently from behind. He turned around and saw a small man in a worn-out frock coat. Terrified, he recognized Akaky Akakievich, his face as white as the snow and looking altogether very ghostly indeed. Fear took over completely when the important personage saw the ghost's mouth twist and, sending a whiff of the grave into his face, utter the following words:

"I've caught you at last. I've got you by the collar now! It's the coat I need. You did nothing about mine and hollered at me to boot. Now I'll take yours!"

The poor important personage almost died. He may have displayed force of character in the office and, in general, toward his inferiors, so that after one glance at his strong face and manly figure, people would say: "Quite a man," but now, like many other mighty-looking people, he was so frightened that he began to think, and not without reason, that he was about to have an attack of something or other. He was even very helpful in peeling off his coat, after which he shouted to the coachman in a ferocious tone:

"Home! As fast as you can!"

The coachman, hearing the ferocious tone which the important personage used in critical moments and which was sometimes accompanied with something even more drastic, instinctively ducked his head and cracked his whip, so that they tore away like a streak. In a little over six minutes the important personage was in front of his house. Instead of being at Karolina Ivanovna's, he was somehow staggering to his room, pale, terrified, and coatless. There he spent such a restless night that the next morning, at breakfast, his daughter said:

"You look terribly pale this morning, Papa."

But Papa was silent, and he didn't say a word to anyone about what

had happened to him, or where he had been or where he had intended to go. This incident made a deep impression upon him. From then on his subordinates heard far less often: "How dare you!" and "Do you know whom you're talking to?" And even when he did use these expressions it was after listening to what others had to say.

But even more remarkable–after that night, Akaky Akakievich's ghost was never seen again. The important personage's overcoat must have fitted him snugly. At any rate, one no longer heard of coats being torn from people's shoulders. However, many busybodies wouldn't let the matter rest there and maintained that the ghost was still haunting certain distant parts of the city. And, sure enough, a watchman in the Kolomna district caught a glimpse of the ghost behind a house. But he was rather a frail watchman. (Once an ordinary, but mature, piglet, rushing out of a private house, knocked him off his feet to the huge delight of a bunch of cabbies, whom he fined two kopeks each for their lack of respect–then he spent the proceeds on tobacco.) So, being rather frail, the watchman didn't dare to arrest the ghost. Instead he followed it in the darkness until at last it stopped suddenly, turned to face him, and asked:

"You looking for trouble?"

And it shook a huge fist at him, much larger than any you'll find among the living.

'"No," the watchman said, turning away.

This ghost, however, was a much taller one and wore an enormous mustache. It walked off, it seems, in the direction of the Obukhov Bridge and soon dissolved into the gloom of night.

Translated by Andrew R. MacAndrew.

Samuel Butler

1835–1902

Samuel Butler (not to be mistaken for the seventeenth-century author of the same name who wrote *Hudibras*) was born in Nottinghamshire, England, December 4, 1835. He attended St. John's College, Cambridge. His clergyman father had intended him for the ministry. Young Butler would have none of it. In 1859 he emigrated to New Zealand and set up a sheep run on the south island. Like so many of his contemporaries, he read Darwin's *Origin of Species* with an effect of dazzling revelation.

In five years he doubled his investment and sailed back to London. He tried painting and later composing music. His paintings were shown at the Royal Academy and his music was published. He wrote an anonymous book, *Evidence for the Resurrection of Jesus Christ*, in 1865. Seven years later, *Erewhon* (see below) gave him a first modest reputation. His more famous book, *The Way of All Flesh*, did not appear until a year after his death.

An ironic argument for Christianity, *The Fair Haven*, was published in 1873. In three books on evolution, the last in 1887, Butler suggested that changes in species might be accounted for by the organism's response to felt needs. His term, "the Life Force," was later exploited by George Bernard Shaw.

Butler, who was a devoted mountaineer, wrote an engaging book about Italian Switzerland. He translated the *Iliad* and the *Odyssey*. This interest in the Greek world led to his theory that the *Odyssey* had been written by a woman. Butler's *Notebooks*—only a selection has been published—belong among the most fascinating of his works. He spent the better part of twelve years writing *The Way of All Flesh*, his massive condemnation of English family life. He died in London on June 18, 1902.

We read four chapters from the fantasy *Erewhon* (pronounced *er-uh-whon,* an anagram for *nowhere*). It is nowhere indeed. Higgs, a big, blond Englishman, tells the story. Beyond the raw peaks and chasms of the mountain range, past the terrifying "circle of gigantic forms" like the stone statues on Easter Island, he looks down into the unheard-of country of Erewhon. It is the familiar entry into every Promised Land from the Hebrew Canaan to Daniel Boone's Kentucky.

But is Erewhon a Promised Land? Not quite. In the four centuries between Sir Thomas More's *Utopia* and George Orwell's *1984,* the Utopian society has changed from heaven to something like hell, from the country that "ought to be" to the country that we hope will never be. In character and time, Erewhon lies somewhere between. It comes to us much later than Sir Francis Bacon's *New Atlantis* or *Gulliver's Travels* but earlier than Edward Bellamy's *Looking Backward* or Aldous Huxley's *Brave New World.*

When Higgs goes down into Erewhon, he is put in prison at first and then taken in as the guest of one of the country's richest men, Mr. Nosnibor–that is, Robinson spelled backwards. Everything else appears to be backwards too. We meet the narrator just as he is beginning to understand the laws and customs of the country.

One of the first things he finds out is that in Erewhon illness is treated as a crime or misdemeanor, according to its severity, whereas crime is regarded as an illness. Thus it is the worst of bad form to say, "How do you do?" With Higgs we witness the trial of a man accused of chronic tuberculosis. He is sentenced to hard labor for life. Higgs, dismayed at first, comes round to the view that this is after all only an extreme example of the way unfortunate people are treated in his own country.

Here we have a characteristic demonstration of the author's satiric method. Butler's method makes for an especially rich kind of

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Notes from the artist: ". . . *sketches of three influences on Butler–Darwin, Handel, and Butler's father–are pictured above the portrait. The scene of the family at prayer is taken from a painting by Butler. His signature and his comments about his painting are printed backwards, after the fashion of* Erewhon."

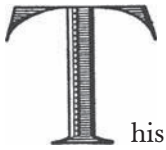
fi I dah enogno gniod
sgniht two foym
nuo deah daesni
fo gnikam seidats.
I dnohs evah neeb
lla thgir.
Lewnas reltub

compound satire. It reflects our own experience. In it nothing is altogether "wrong" or "right." It is unfavorable to bold moral stands, but it allows Butler to show us the pros and cons on every side of a question. We are given, not the advocate's view, but a fairly rounded and complete one.

In the Erewhonian order of things, our own attitudes toward crime and illness have been transposed. We feel that there is something monstrous about the outlawing of physicians and the criminal prosecution of the sick. So, too, we may come to associate crime with sickness, and ask ourselves whether it is not sickness of another sort. Thus we are prepared for the lawbreaker who regards himself as a patient to be treated by the "straightener"—that uncanny anticipation of the present-day psychiatrist.

Customs and Opinions of the Erewhonians

from *Erewhon*



CURRENT OPINIONS

his is what I gathered. That in that country if a man falls into ill health, or catches any disorder, or fails bodily in any way before he is seventy years old, he is tried before a jury of his countrymen, and if convicted is held up to public scorn and sentenced more or less severely as the case may be. There are subdivisions of illnesses into crimes and misdemeanours as with offences amongst ourselves—a man being punished very heavily for serious illness, while failure of eyes or hearing in one over sixty-five who has had good health hitherto is dealt with by fine only, or imprisonment in default of payment. But if a man forges a check, or sets his house on fire, or robs with violence from the person, or does any other such things as are criminal in our own country, he is either taken to a hospital and most carefully tended at the public expense, or if he is in good circumstances, he lets it be known to all his friends that he is suffering from a severe fit of immorality, just as we do when we are ill, and they come and visit him with great solicitude, and inquire with interest how it all came about, what symptoms first showed themselves, and so forth—questions which he will answer with perfect unreserve; for bad conduct, though considered no less deplorable than illness with ourselves, and as unquestionably indicating something seriously wrong with the individual who misbehaves, is nevertheless held to be the result of either prenatal or postnatal misfortune.

The strange part of the story, however, is that though they ascribe moral defects to the effect of misfortune either in character or surroundings, they will not listen to the plea of misfortune in cases that in England

meet with sympathy and commiseration only. Ill luck of any kind, or even ill treatment at the hands of others, is considered an offence against society, inasmuch as it makes people uncomfortable to hear of it. Loss of fortune, therefore, or loss of some dear friend on whom another was much dependent, is punished hardly less severely than physical delinquency.

Foreign, indeed, as such ideas are to our own, traces of somewhat similar opinions can be found even in nineteenth-century England. If a person has an abscess, the medical man will say that it contains "peccant" matter, and people say that they have a "bad" arm or finger, or that they are very "bad" all over, when they only mean "diseased." Among foreign nations Erewhonian opinions may be still more clearly noted. The Mohammedans, for example, to this day, send their female prisoners to hospitals, and the New Zealand Maoris visit any misfortune with forcible entry into the house of the offender, and the breaking up and burning of all his goods. The Italians, again, use the same word for "disgrace" and "misfortune." I once heard an Italian lady speak of a young friend whom she described as endowed with every virtue under heaven: "Ma," she exclaimed, "povero disgraziato, ha ammazzato suo zio." ("Poor unfortunate fellow, he has murdered his uncle.")

On mentioning this, which I heard when taken to Italy as a boy by my father, the person to whom I told it showed no surprise. He said that he had been driven for two or three years in a certain city by a young Sicilian cab-driver of prepossessing manners and appearance, but then lost sight of him. On asking what had become of him, he was told that he was in prison for having shot at his father with intent to kill him—happily without serious results. Some years later my informant again found himself warmly accosted by the prepossessing young cab-driver. "Ah, caro signore," he exclaimed, "sono cinque anni che non lo vedo—tre anni di militare, e due anni di disgrazia," etc. ("My dear sir, it is five years since I saw you—three years of military service, and two of misfortune")—during which last the poor fellow had been in prison. Of moral sense he showed not so much as a trace. He and his father were now on excellent terms, and were likely to remain so unless either of them should again have the misfortune mortally to offend the other.

In the following chapter I will give a few examples of the way in which what we should call misfortune, hardship, or disease are dealt with by the Erewhonians, but for the moment will return to their treatment of cases that with us are criminal. As I have already said, these, though not judicially punishable, are recognized as requiring correction.

Accordingly, there exists a class of men trained in soul craft, whom they call straighteners, as nearly as I can translate a word which literally means "one who bends back the crooked." These men practise much as medical men in England, and receive a quasi-surreptitious fee on every visit. They are treated with the same unreserve, and obeyed as readily, as our own doctors–that is to say, on the whole sufficiently–because people know that it is their interest to get well as soon as they can, and that they will not be scouted as they would be if their bodies were out of order, even though they may have to undergo a very painful course of treatment.

When I say that they will not be scouted, I do not mean that an Erewhonian will suffer no social inconvenience in consequence, we will say, of having committed fraud. Friends will fall away from him because of his being less pleasant company, just as we ourselves are disinclined to make companions of those who are either poor or poorly. No one with any sense of self-respect will place himself on an equality in the matter of affection with those who are less lucky than himself in birth, health, money, good looks, capacity, or anything else. Indeed, that dislike and even disgust should be felt by the fortunate for the unfortunate, or at any rate for those who have been discovered to have met with any of the more serious and less familiar misfortunes, is not only natural, but desirable for any society, whether of man or brute.

The fact, therefore, that the Erewhonians attach none of the guilt to crime which they do to physical ailments does not prevent the more selfish among them from neglecting a friend who has robbed a bank, for instance, till he has fully recovered; but it does prevent them from even thinking of treating criminals with that contemptuous tone which would seem to say, "I, if I were you, should be a better man than you are," a tone which is held quite reasonable in regard to physical ailment. Hence, though they conceal ill health by every cunning and hypocrisy and artifice which they can devise, they are quite open about the most flagrant mental diseases, should they happen to exist, which to do the people justice is not often. Indeed, there are some who are, so to speak, spiritual valetudinarians, and who make themselves exceedingly ridiculous by their nervous supposition that they are wicked, while they are very tolerable people all the time. This however is exceptional; and on the whole they use much the same reserve or unreserve about the state of their moral welfare as we do about our health.

Hence all the ordinary greetings among ourselves, such as, "How do you do?" and the like, are considered signs of gross ill breeding; nor do

the politer classes tolerate even such a common complimentary remark as telling a man that he is looking well. They salute each other with, "I hope you are good this morning"; or "I hope you have recovered from the snappishness from which you were suffering when I last saw you"; and if the person saluted has not been good, or is still snappish, he says so at once and is condoled with accordingly. Indeed, the straighteners have gone so far as to give names from the hypothetical language (as taught at the Colleges of Unreason) to all known forms of mental indisposition, and to classify them according to a system of their own, which, though I could not understand it, seemed to work well in practice; for they are always able to tell a man what is the matter with him as soon as they have heard his story, and their familiarity with the long names assures him that they thoroughly understand his case.

The reader will have no difficulty in believing that the laws regarding ill health were frequently evaded by the help of recognized fictions, which every one understood, but which it would be considered gross ill breeding to even seem to understand. Thus, a day or two after my arrival at the Nosnibors', one of the many ladies who called on me made excuses for her husband's only sending his card, on the ground that when going through the public market-place that morning he had stolen a pair of socks. I had already been warned that I should never show surprise, so I merely expressed my sympathy, and said that though I had only been in the capital so short a time, I had already had a very narrow escape from stealing a clothes-brush, and that though I had resisted temptation so far, I was sadly afraid that if I saw any object of special interest that was neither too hot nor too heavy, I should have to put myself in the straightener's hands.

Mrs. Nosnibor, who had been keeping an ear on all that I had been saying, praised me when the lady had gone. Nothing, she said, could have been more polite according to Erewhonian etiquette. She then explained that to have stolen a pair of socks, or "to have the socks" (in more colloquial language), was a recognized way of saying that the person in question was slightly indisposed.

In spite of all this they have a keen sense of the enjoyment consequent upon what they call being "well." They admire mental health and love it in other people, and take all the pains they can (consistently with their other duties) to secure it for themselves. They have an extreme dislike to marrying into what they consider unhealthy families. They send for the straightener at once whenever they have been guilty of anything seriously

flagitious—often even if they think that they are on the point of committing it; and though his remedies are sometimes exceedingly painful, involving close confinement for weeks, and in some cases the most cruel physical tortures, I never heard of a reasonable Erewhonian refusing to do what his straightener told him, any more than of a reasonable Englishman refusing to undergo even the most frightful operation, if his doctors told him it was necessary.

We in England never shrink from telling our doctor what is the matter with us merely through the fear that he will hurt us. We let him do his worst upon us, and stand it without a murmur, because we are not scouted for being ill, and because we know that the doctor is doing his best to cure us, and that he can judge of our case better than we can; but we should conceal all illness if we were treated as the Erewhonians are when they have anything the matter with them; we should do the same as with moral and intellectual diseases—we should feign health with the most consummate art, till we were found out, and should hate a single flogging given in the way of mere punishment more than the amputation of a limb, if it were kindly and courteously performed from a wish to help us out of our difficulty, and with the full consciousness on the part of the doctor that it was only by an accident of constitution that he was not in the like plight himself. So the Erewhonians take a flogging once a week, and a diet of bread and water for two or three months together, whenever their straightener recommends it.

I do not suppose that even my host, on having swindled a confiding widow out of the whole of her property, was put to more actual suffering than a man will readily undergo at the hands of an English doctor. And yet he must have had a very bad time of it. The sounds I heard were sufficient to show that his pain was exquisite, but he never shrank from undergoing it. He was quite sure that it did him good; and I think he was right. I cannot believe that that man will ever embezzle money again. He may—but it will be a long time before he does so.

During my confinement in prison, and on my journey, I had already discovered a great deal of the above; but it still seemed surpassingly strange, and I was in constant fear of committing some piece of rudeness, through my inability to look at things from the same standpoint as my neighbours; but after a few weeks' stay with the Nosnibors, I got to understand things better, especially on having heard all about my host's illness, of which he told me fully and repeatedly.

It seemed that he had been on the Stock Exchange of the city for many

years and had amassed enormous wealth, without exceeding the limits of what was generally considered justifiable or, at any rate, permissible dealing; but at length on several occasions he had become aware of a desire to make money by fraudulent representations, and had actually dealt with two or three sums in a way which had made him rather uncomfortable. He had unfortunately made light of it and pooh-poohed the ailment, until circumstances eventually presented themselves which enabled him to cheat upon a very considerable scale;–he told me what they were, and they were about as bad as anything could be, but I need not detail them;–he seized the opportunity, and became aware, when it was too late, that he must be seriously out of order. He had neglected himself too long.

He drove home at once, broke the news to his wife and daughters as gently as he could, and sent off for one of the most celebrated straighteners of the kingdom to a consultation with the family practitioner, for the case was plainly serious. On the arrival of the straightener he told his story, and expressed his fear that his morals must be permanently impaired.

The eminent man reassured him with a few cheering words, and then proceeded to make a more careful diagnosis of the case. He inquired concerning Mr. Nosnibor's parents–had their moral health been good? He was answered that there had not been anything seriously amiss with them, but that his maternal grandfather, whom he was supposed to resemble somewhat in person, had been a consummate scoundrel and had ended his days in a hospital, while a brother of his father's, after having led a most flagitious life for many years, had been at last cured by a philosopher of a new school, which as far as I could understand it bore much the same relation to the old as homoeopathy to allopathy. The straightener shook his head at this, and laughingly replied that the cure must have been due to nature. After a few more questions he wrote a prescription and departed.

I saw the prescription. It ordered a fine to the state of double the money embezzled, no food but bread and milk for six months, and a severe flogging once a month for twelve. I was surprised to see that no part of the fine was to be paid to the poor woman whose money had been embezzled, but on inquiry I learned that she would have been prosecuted in the Misplaced Confidence Court, if she had not escaped its clutches by dying shortly after she had discovered her loss.

As for Mr. Nosnibor, he had received his eleventh flogging on the day of my arrival. I saw him later on the same afternoon, and he was still

twinged; but there had been no escape from following out the straightener's prescription, for the so-called sanitary laws of Erewhon are very rigorous, and unless the straightener was satisfied that his orders had been obeyed, the patient would have been taken to a hospital (as the poor are), and would have been much worse off. Such at least is the law, but it is never necessary to enforce it.

On a subsequent occasion I was present at an interview between Mr. Nosnibor and the family straightener, who was considered competent to watch the completion of the cure. I was struck with the delicacy with which he avoided even the remotest semblance of inquiry after the physical well-being of his patient, though there was a certain yellowness about my host's eyes which argued a bilious habit of body. To have taken notice of this would have been a gross breach of professional etiquette. I was told, however, that a straightener sometimes thinks it right to glance at the possibility of some slight physical disorder if he finds it important in order to assist him in his diagnosis; but the answers which he gets are generally untrue or evasive, and he forms his own conclusions upon the matter as well as he can. Sensible men have been known to say that the straightener should in strict confidence be told of every physical ailment that is likely to bear upon the case; but people are naturally shy of doing this, for they do not like lowering themselves in the opinion of the straightener, and his ignorance of medical science is supreme. I heard of one lady, indeed, who had the hardihood to confess that a furious outbreak of ill humour and extravagant fancies for which she was seeking advice was possibly the result of indisposition. "You should resist that," said the straightener, in a kind, but grave voice; "we can do nothing for the bodies of our patients; such matters are beyond our province, and I desire that I may hear no further particulars." The lady burst into tears, and promised faithfully that she would never be unwell again.

But to return to Mr. Nosnibor. As the afternoon wore on many carriages drove up with callers to inquire how he had stood his flogging. It had been very severe, but the kind inquiries upon every side gave him great pleasure, and he assured me that he felt almost tempted to do wrong again by the solicitude with which his friends had treated him during his recovery: in this I need hardly say that he was not serious.

During the remainder of my stay in the country Mr. Nosnibor was constantly attentive to his business, and largely increased his already great possessions; but I never heard a whisper to the effect of his having been indisposed a second time, or made money by other than the most strictly honourable means. I did hear afterwards in confidence that there

had been reason to believe that his health had been not a little affected by the straightener's treatment, but his friends did not choose to be over-curious upon the subject, and on his return to his affairs it was by common consent passed over as hardly criminal in one who was otherwise so much afflicted. For they regard bodily ailments as the more venial in proportion as they have been produced by causes independent of the constitution. Thus if a person ruin his health by excessive indulgence at the table or by drinking, they count it to be almost a part of the mental disease which brought it about, and so it goes for little, but they have no mercy on such illnesses as fevers or catarrhs or lung diseases, which to us appear to be beyond the control of the individual. They are only more lenient towards the diseases of the young—such as measles, which they think to be like sowing one's wild oats—and look over them as pardonable indiscretions if they have not been too serious, and if they are atoned for by complete subsequent recovery.

It is hardly necessary to say that the office of straightener is one which requires long and special training. It stands to reason that he who would cure a moral ailment must be practically acquainted with it in all its bearings. The student for the profession of straightener is required to set apart certain seasons for the practice of each vice in turn, as a religious duty. These seasons are called "fasts," and are continued by the student until he finds that he really can subdue all the more usual vices in his own person, and hence can advise his patients from the results of his own experience.

Those who intend to be specialists, rather than general practitioners, devote themselves more particularly to the branch in which their practice will mainly lie. Some students have been obliged to continue their exercises during their whole lives, and some devoted men have actually died as martyrs to the drink, or gluttony, or whatever branch of vice they may have chosen for their especial study. The greater number, however, take no harm by the excursions into the various departments of vice which it is incumbent upon them to study.

For the Erewhonians hold that unalloyed virtue is not a thing to be immoderately indulged in. I was shown more than one case in which the real or supposed virtues of parents were visited upon the children to the third and fourth generation. The straighteners say that the most that can be truly said for virtue is that there is a considerable balance in its favour, and that it is on the whole a good deal better to be on its side than against it; but they urge that there is much pseudo-virtue going about, which is apt to let people in very badly before they find it out. Those men, they say, are best who are not remarkable either for vice or virtue. I told

them about Hogarth's idle and industrious apprentices, but they did not seem to think that the industrious apprentice was a very nice person.

SOME EREWHONIAN TRIALS

In Erewhon as in other countries there are some courts of justice that deal with special subjects. Misfortune generally, as I have above explained, is considered more or less criminal, but it admits of classification, and a court is assigned to each of the main heads under which it can be supposed to fall. Not very long after I had reached the capital I strolled into the Personal Bereavement Court, and was much both interested and pained by listening to the trial of a man who was accused of having just lost a wife to whom he had been tenderly attached, and who had left him with three little children, of whom the eldest was only three years old.

The defence which the prisoner's counsel endeavoured to establish was that the prisoner had never really loved his wife; but it broke down completely, for the public prosecutor called witness after witness who deposed to the fact that the couple had been devoted to one another, and the prisoner repeatedly wept as incidents were put in evidence that reminded him of the irreparable nature of the loss he had sustained. The jury returned a verdict of guilty after very little deliberation, but recommended the prisoner to mercy on the ground that he had but recently insured his wife's life for a considerable sum, and might be deemed lucky inasmuch as he had received the money without demur from the insurance company, though he had only paid two premiums.

I have just said that the jury found the prisoner guilty. When the judge passed sentence, I was struck with the way in which the prisoner's counsel was rebuked for having referred to a work in which the guilt of such misfortunes as the prisoner's was extenuated to a degree that roused the indignation of the court.

"We shall have," said the judge, "these crude and subversionary books from time to time until it is recognized as an axiom of morality that luck is the only fit object of human veneration. How far a man has any right to be more lucky and hence more venerable than his neighbours is a point that always has been, and always will be, settled proximately by a kind of higgling and haggling of the market, and ultimately by brute force; but however this may be, it stands to reason that no man should be allowed to be unlucky to more than a very moderate extent."

Then, turning to the prisoner, the judge continued: "You have suffered

a great loss. Nature attaches a severe penalty to such offenses, and human law must emphasize the decrees of nature. But for the recommendation of the jury I should have given you six months' hard labor. I will, however, commute your sentence to one of three months, with the option of a fine of twenty-five per cent of the money you have received from the insurance company."

The prisoner thanked the judge, and said that as he had no one to look after his children if he was sent to prison, he would embrace the option mercifully permitted him by his lordship, and pay the sum he had named. He was then removed from the dock.

The next case was that of a youth barely arrived at man's estate, who was charged with having been swindled out of large property during his minority by his guardian, who was also one of his nearest relations. His father had been long dead, and it was for this reason that his offense came on for trial in the Personal Bereavement Court. The lad, who was undefended, pleaded that he was young, inexperienced, greatly in awe of his guardian, and without independent professional advice. "Young man," said the judge sternly, "do not talk nonsense. People have no right to be young, inexperienced, greatly in awe of their guardians, and without independent professional advice. If by such indiscretions they outrage the moral sense of their friends, they must expect to suffer accordingly." He then ordered the prisoner to apologize to his guardian, and to receive twelve strokes with a cat-o'-nine-tails.

But I shall perhaps best convey to the reader an idea of the entire perversion of thought which exists among this extraordinary people by describing the public trial of a man who was accused of pulmonary consumption—an offense which was punished with death until quite recently. It did not occur till I had been some months in the country, and I am deviating from chronological order in giving it here; but I had perhaps better do so in order that I may exhaust this subject before proceeding to others. Moreover, I should never come to an end were I to keep to a strictly narrative form, and detail the infinite absurdities with which I daily came in contact.

The prisoner was placed in the dock, and the jury were sworn much as in Europe; almost all our own modes of procedure were reproduced, even to the requiring the prisoner to plead guilty or not guilty. He pleaded not guilty, and the case proceeded. The evidence for the prosecution was very strong; but I must do the court the justice to observe that the trial was absolutely impartial. Counsel for the prisoner was allowed to urge

everything that could be said in his defense: the line taken was that the prisoner was simulating consumption in order to defraud an insurance company, from which he was about to buy an annuity, and that he hoped thus to obtain it on more advantageous terms. If this could have been shown to be the case he would have escaped a criminal prosecution, and been sent to a hospital as for a moral ailment. The view, however, was one which could not be reasonably sustained, in spite of all the ingenuity and eloquence of one of the most celebrated advocates of the country. The case was only too clear, for the prisoner was almost at the point of death, and it was astonishing that he had not been tried and convicted long previously. His coughing was incessant during the whole trial, and it was all that the two jailers in charge of him could do to keep him on his legs until it was over.

The summing up of the judge was admirable. He dwelt upon every point that could be construed in favor of the prisoner, but as he proceeded it became clear that the evidence was too convincing to admit of doubt, and there was but one opinion in the court as to the impending verdict when the jury retired from the box. They were absent for about ten minutes, and on their return the foreman pronounced the prisoner guilty. There was a faint murmur of applause, but it was instantly repressed. The judge then proceeded to pronounce sentence in words which I can never forget, and which I copied out into a note-book next day from the report that was published in the leading newspaper. I must condense it somewhat, and nothing which I could say would give more than a faint idea of the solemn, not to say majestic, severity with which it was delivered. The sentence was as follows:

"Prisoner at the bar, you have been accused of the great crime of labouring under pulmonary consumption, and after an impartial trial before a jury of your countrymen, you have been found guilty. Against the justice of the verdict I can say nothing: the evidence against you was conclusive, and it only remains for me to pass such a sentence upon you as shall satisfy the ends of the law. That sentence must be a very severe one. It pains me much to see one who is yet so young, and whose prospects in life were otherwise so excellent, brought to this distressing condition by a constitution which I can only regard as radically vicious; but yours is no case for compassion: this is not your first offence: you have led a career of crime, and have only profited by the leniency shown you upon past occasions to offend yet more seriously against the laws and institutions of your country. You were convicted of aggravated bronchitis

last year; and I find that though you are now only twenty-three years old, you have been imprisoned on no less than fourteen occasions for illnesses of a more or less hateful character; in fact, it is not too much to say that you have spent the greater part of your life in a jail.

"It is all very well for you to say that you came of unhealthy parents, and had a severe accident in your childhood which permanently undermined your constitution; excuses such as these are the ordinary refuge of the criminal; but they cannot for one moment be listened to by the ear of justice. I am not here to enter upon curious metaphysical questions as to the origin of this or that—questions to which there would be no end were their introduction once tolerated, and which would result in throwing the only guilt on the tissues of the primordial cell, or on the elementary gases. There is no question of how you came to be wicked, but only this—namely, are you wicked or not? This has been decided in the affirmative, neither can I hesitate for a single moment to say that it has been decided justly. You are a bad and dangerous person, and stand branded in the eyes of your fellow-countrymen with one of the most heinous known offenses.

"It is not my business to justify the law: the law may in some cases have its inevitable hardships, and I may feel regret at times that I have not the option of passing a less severe sentence than I am compelled to do. But yours is no such case; on the contrary, had not the capital punishment for consumption been abolished, I should certainly inflict it now.

"It is intolerable that an example of such terrible enormity should be allowed to go at large unpunished. Your presence in the society of respectable people would lead the less able-bodied to think more lightly of all forms of illness; neither can it be permitted that you should have the chance of corrupting unborn beings who might hereafter pester you. The unborn must not be allowed to come near you: and this not so much for their protection (for they are our natural enemies) as for our own; for since they will not be utterly gainsaid, it must be seen to that they shall be quartered upon those who are least likely to corrupt them.

"But independently of this consideration, and independently of the physical guilt which attaches itself to a crime so great as yours, there is yet another reason why we should be unable to show you mercy, even if we were inclined to do so. I refer to the existence of a class of men who lie hidden among us, and who are called physicians. Were the severity of the law or the current feeling of the country to be relaxed ever so slightly, these abandoned persons, who are now compelled to practise secretly and who can be consulted only at the greatest risk, would become

frequent visitors in every household; their organization and their intimate acquaintance with all family secrets would give them a power, both social and political, which nothing could resist. The head of the household would become subordinate to the family doctor, who would interfere between man and wife, between master and servant, until the doctors should be the only depositaries of power in the nation, and have all that we hold precious at their mercy. A time of universal dephysicalization would ensue; medicine vendors of all kinds would abound in our streets and advertise in all our newspapers. There is one remedy for this, and one only. It is that which the laws of this country have long received and acted upon, and consists in the sternest repression of all diseases whatsoever, as soon as their existence is made manifest to the eye of the law. Would that that eye were far more piercing than it is.

"But I will enlarge no further upon things that are themselves so obvious. You may say that it is not your fault. The answer is ready enough at hand, and it amounts to this—that if you had been born of healthy and well-to-do parents, and been well taken care of when you were a child, you would never have offended against the laws of your country, nor found yourself in your present disgraceful position. If you tell me that you had no hand in your parentage and education, and that it is therefore unjust to lay these things to your charge, I answer that whether your being in a consumption is your fault or no, it is a fault in you, and it is my duty to see that against such faults as this the commonwealth shall be protected. You may say that it is your misfortune to be criminal; I answer that it is your crime to be unfortunate.

"Lastly, I should point out that even though the jury had acquitted you—a supposition that I cannot seriously entertain—I should have felt it my duty to inflict a sentence hardly less severe than that which I must pass at present; for the more you had been found guiltless of the crime imputed to you, the more you would have been found guilty of one hardly less heinous—I mean the crime of having been maligned unjustly.

"I do not hesitate therefore to sentence you to imprisonment, with hard labour, for the rest of your miserable existence. During that period I would earnestly entreat you to repent of the wrongs you have done already, and to entirely reform the constitution of your whole body. I entertain but little hope that you will pay attention to my advice; you are already far too abandoned. Did it rest with myself, I should add nothing in mitigation of the sentence which I have passed, but it is the merciful provision of the law that even the most hardened criminal shall be allowed some one of the three official remedies, which is to be prescribed

at the time of his conviction. I shall therefore order that you receive two tablespoonfuls of castor oil daily, until the pleasure of the court be further known."

When the sentence was concluded the prisoner acknowledged in a few scarcely audible words that he was justly punished, and that he had had a fair trial. He was then removed to the prison from which he was never to return. There was a second attempt at applause when the judge had finished speaking, but as before it was at once repressed; and though the feeling of the court was stongly against the prisoner, there was no show of any violence against him, if one may except a little hooting from the bystanders when he was being removed in the prisoners' van. Indeed, nothing struck me more during my whole sojourn in the country than the general respect for law and order.

MALCONTENTS

I confess that I felt rather unhappy when I got home, and thought more closely over the trial that I had just witnessed. For the time I was carried away by the opinion of those among whom I was. They had no misgivings about what they were doing. There did not seem to be a person in the whole court who had the smallest doubt but that all was exactly as it should be. This universal unsuspecting confidence was imparted by sympathy to myself, in spite of all my training in opinions so widely different. So it is with most of us: that which we observe to be taken as a matter of course by those around us, we take as a matter of course ourselves. And after all, it is our duty to do this, save upon grave occasion.

But when I was alone, and began to think the trial over, it certainly did strike me as betraying a strange and untenable position. Had the judge said that he acknowledged the probable truth, namely, that the prisoner was born of unhealthy parents, or had been starved in infancy, or had met with some accidents which had developed consumption, and had he then gone on to say that though he knew all this, and bitterly regretted that the protection of society obliged him to inflict additional pain on one who had suffered so much already, yet that there was no help for it, I could have understood the position, however mistaken I might have thought it. The judge was fully persuaded that the infliction of pain upon the weak and sickly was the only means of preventing weakness and sickliness from spreading, and that ten times the suffering now inflicted upon the accused was eventually warded off from others by the present apparent severity. I could therefore perfectly understand his

inflicting whatever pain he might consider necessary in order to prevent so bad an example from spreading further and lowering the Erewhonian standard; but it seemed almost childish to tell the prisoner that he could have been in good health if he had been more fortunate in his constitution, and been exposed to less hardships when he was a boy.

I write with great diffidence, but it seems to me that there is no unfairness in punishing people for their misfortunes, or rewarding them for their sheer good luck; it is the normal condition of human life that this should be done, and no right-minded person will complain of being subjected to the common treatment. There is no alternative open to us. It is idle to say that men are not responsible for their misfortunes. What is responsibility? Surely to be responsible means to be liable to have to give an answer should it be demanded, and all things which live are responsible for their lives and actions should society see fit to question them through the mouth of its authorized agent.

What is the offense of a lamb that we should rear it, and tend it, and lull it into security, for the express purpose of killing it? Its offense is the misfortune of being something which society wants to eat, and which cannot defend itself. This is ample. Who shall limit the right of society except society itself? And what consideration for the individual is tolerable unless society be the gainer thereby? Wherefore should a man be so richly rewarded for having been son to a millionaire, were it not clearly provable that the common welfare is thus better furthered? We cannot seriously detract from a man's merit in having been the son of a rich father without imperilling our own tenure of things which we do not wish to jeopardize; if this were otherwise we should not let him keep his money for a single hour; we would have it ourselves at once. For property *is* robbery, but then, we are all robbers or would-be robbers together, and have found it essential to organize our thieving, as we have found it necessary to organize our lust and our revenge. Property, marriage, the law; as the bed to the river, so rule and convention to the instinct; and woe to him who tampers with the banks while the flood is flowing.

But to return. Even in England a man on board a ship with yellow fever is held responsible for his mischance, no matter what his being kept in quarantine may cost him. He may catch the fever and die; we cannot help it; he must take his chance as other people do; but surely it would be desperate unkindness to add contumely to our self-protection, unless, indeed, we believe that contumely is one of our best means of self-protection. Again, take the case of maniacs. We say that they are irresponsible for their actions, but we take good care, or ought to take good care, that

they shall answer to us for their insanity, and we imprison them in what we call an asylum (that modern sanctuary!) if we do not like their answers. This is a strange kind of irresponsibility. What we ought to say is that we can afford to be satisfied with a less satisfactory answer from a lunatic than from one who is not mad, because lunacy is less infectious than crime.

We kill a serpent if we go in danger by it, simply for being such and such a serpent in such and such a place; but we never say that the serpent has only itself to blame for not having been a harmless creature. Its crime is that of being the thing which it is: but this is a capital offence, and we are right in killing it out of the way, unless we think it more danger to do so than to let it escape; nevertheless we pity the creature, even though we kill it.

But in the case of him whose trial I have described above, it was impossible that any one in the court should not have known that it was but by an accident of birth and circumstances that he was not himself also in a consumption; and yet none thought that it disgraced them to hear the judge give vent to the most cruel truisms about him. The judge himself was a kind and thoughtful person. He was a man of magnificent and benign presence. He was evidently of an iron constitution, and his face wore an expression of the maturest wisdom and experience; yet for all this, old and learned as he was, he could not see things which one would have thought would have been apparent even to a child. He could not emancipate himself from, nay, it did not even occur to him to feel, the bondage of the ideas in which he had been born and bred.

So was it also with the jury and bystanders; and—most wonderful of all—so was it even with the prisoner. Throughout he seemed fully impressed with the notion that he was being dealt with justly: he saw nothing wanton in his being told by the judge that he was to be punished not so much as a necessary protection to society (although this was not entirely lost sight of) as because he had not been better born and bred than he was. But this led me to hope that he suffered less than he would have done if he had seen the matter in the same light that I did. And, after all, justice is relative.

I may here mention that only a few years before my arrival in the country, the treatment of all convicted invalids had been much more barbarous than now, for no physical remedy was provided, and prisoners were put to the severest labour in all sorts of weather, so that most of them soon succumbed to the extreme hardships which they suffered; this was supposed to be beneficial in some ways, inasmuch as it put the country to

less expense for the maintenance of its criminal class; but the growth of luxury had induced a relaxation of the old severity, and a sensitive age would no longer tolerate what appeared to be an excess of rigour, even towards the most guilty; moreover, it was found that juries were less willing to convict, and justice was often cheated because there was no alternative between virtually condemning a man to death and letting him go free; it was also held that the country paid in recommittals for its over-severity, for those who had been imprisoned even for trifling ailments were often permanently disabled by their imprisonment, and when a man had been once convicted, it was probable that he would seldom afterwards be off the hands of the country.

These evils had long been apparent and recognized; yet people were too indolent, and too indifferent to suffering not their own, to bestir themselves about putting an end to them, until at last a benevolent reformer devoted his whole life to effecting the necessary changes. He divided all illnesses into three classes—those affecting the head, the trunk, and the lower limbs—and obtained an enactment that all diseases of the head, whether internal or external, should be treated with laudanum, those of the body with castor oil, and those of the lower limbs with an embrocation of strong sulphuric acid and water.

It may be said that the classification was not sufficiently careful, and that the remedies were ill chosen; but it is a hard thing to initiate any reform, and it was necessary to familiarize the public mind with the principle, by inserting the thin end of the wedge first: it is not, therefore, to be wondered at that among so practical a people there should still be some room for improvement. The mass of the nation are well pleased with existing arrangements, and believe that their treatment of criminals leaves little or nothing to be desired; but there is an energetic minority who hold what are considered to be extreme opinions, and who are not at all disposed to rest contented until the principle lately admitted has been carried further.

I was at some pains to discover the opinions of these men, and their reasons for entertaining them. They are held in great odium by the generality of the public, and are considered as subverters of all morality whatever. The malcontents, on the other hand, assert that illness is the inevitable result of certain antecedent causes, which, in the great majority of cases, were beyond the control of the individual, and that therefore a man is only guilty for being in a consumption in the same way as rotten fruit is guilty for having gone rotten. True, the fruit must be thrown on one side as unfit for man's use, and the man in a consumption must be

put in prison for the protection of his fellow-citizens; but these radicals would not punish him further than by loss of liberty and a strict surveillance. So long as he was prevented from injuring society, they would allow him to make himself useful by supplying whatever of society's wants he could supply. If he succeeded in thus earning money, they would have him made as comfortable in prison as possible, and would in no way interfere with his liberty more than was necessary to prevent him from escaping, or from becoming more severely indisposed within the prison walls; but they would deduct from his earnings the expenses of his board, lodging, surveillance, and half those of his conviction. If he was too ill to do anything for his support in prison, they would allow him nothing but bread and water, and very little of that.

They say that society is foolish in refusing to allow itself to be benefited by a man merely because he has done it harm hitherto, and that objection to the labour of the diseased classes is only protection in another form. It is an attempt to raise the natural price of a commodity by saying that such and such persons, who are able and willing to produce it, shall not do so, whereby every one has to pay more for it.

Besides, so long as a man has not been actually killed he is our fellow-creature, though perhaps a very unpleasant one. It is in a great degree the doing of others that he is what he is, or in other words, the society which now condemns him is partly answerable concerning him. They say that there is no fear of any increase of disease under these circumstances; for the loss of liberty, the surveillance, the considerable and compulsory deduction from the prisoner's earnings, the very sparing use of stimulants (of which they would allow but little to any, and none to those who did not earn them), the enforced celibacy, and, above all, the loss of reputation among friends are in their opinion as ample safeguards to society against a general neglect of health as those now resorted to. A man, therefore (so they say), should carry his profession or trade into prison with him if possible; if not, he must earn his living by the nearest thing to it that he can; but if he be a gentleman born and bred to no profession, he must pick oakum, or write art criticisms for a newspaper.

These people say further that the greater part of the illness which exists in their country is brought about by the insane manner in which it is treated.

They believe that illness is in many cases just as curable as the moral diseases which they see daily cured around them, but that a great reform is impossible till men learn to take a juster view of what physical obliquity proceeds from. Men will hide their illnesses as long as they are scouted

on its becoming known that they are ill; it is the scouting, not the physic, which produces the concealment; and if a man felt that the news of his being in ill health would be received by his neighbours as a deplorable fact, but one as much the result of necessary antecedent causes as though he had broken into a jeweler's shop and stolen a valuable diamond necklace—as a fact which might just as easily have happened to themselves, only that they had the luck to be better born or reared, and if they also felt that they would not be made more uncomfortable in the prison than the protection of society against infection and the proper treatment of their own disease actually demanded, men would give themselves up to the police as readily on perceiving that they had taken smallpox, as they go now to the straightener when they feel that they are on the point of forging a will, or running away with somebody else's wife.

But the main argument on which they rely is that of economy: for they know that they will sooner gain their end by appealing to men's pockets, in which they have generally something of their own, than to their heads, which contain for the most part little but borrowed or stolen property; and also, they believe it to be the readiest test and the one which has most to show for itself. If a course of conduct can be shown to cost a country less, and this by no dishonourable saving and with no indirectly increased expenditure in other ways, they hold that it requires a good deal to upset the arguments in favour of its being adopted, and whether rightly or wrongly I cannot pretend to say, they think that the more medicinal and humane treatment of the diseased of which they are the advocates would in the long run be much cheaper to the country: but I did not gather that these reformers were opposed to meeting some of the more violent forms of illness with the cat-o'-nine-tails, or with death; for they saw no so effectual way of checking them; they would therefore both flog and hang, but they would do so pitifully.

I have perhaps dwelt too long upon opinions which can have no possible bearing upon our own, but I have not said the tenth part of what these would-be reformers urged upon me. I feel, however, that I have sufficiently trespassed upon the attention of the reader.

THE VIEWS OF THE EREWHONIANS CONCERNING DEATH

The Erewhonians regard death with less abhorrence than disease. If it is an offence at all, it is one beyond the reach of the law, which is therefore silent on the subject; but they insist that the greater number of those

who are commonly said to die have never yet been born—not, at least, into that unseen world which is alone worthy of consideration. As regards this unseen world I understand them to say that some miscarry in respect to it before they have even reached the seen, and some after, while few are ever truly born into it at all—the greater part of all the men and women over the whole country miscarrying before they reach it. And they say that this does not matter so much as we think it does.

As for what we call death, they argue that too much has been made of it. The mere knowledge that we shall one day die does not make us very unhappy; no one thinks that he or she will escape, so that none are disappointed. We do not care greatly even though we know that we have not long to live; the only thing that would seriously affect us would be the knowing—or rather thinking that we know—the precise moment at which the blow will fall. Happily no one can ever certainly know this, though many try to make themselves miserable by endeavouring to find it out. It seems as though there were some power somewhere which mercifully stays us from putting that sting into the tail of death, which we would put there if we could, and which ensures that though death must always be a bugbear, it shall never under any conceivable circumstances be more than a bugbear.

For even though a man is condemned to die in a week's time and is shut up in a prison from which it is certain that he cannot escape, he will always hope that a reprieve may come before the week is over. Besides, the prison may catch fire, and he may be suffocated not with a rope but with common ordinary smoke; or he may be struck dead by lightning while exercising in the prison yards. When the morning is come on which the poor wretch is to be hanged, he may choke at his breakfast, or die from failure of the heart's action before the drop has fallen; and even though it has fallen, he cannot be quite certain that he is going to die, for he cannot know this till his death has actually taken place, and it will be too late then for him to discover that he was going to die at the appointed hour after all. The Erewhonians, therefore, hold that death, like life, is an affair of being more frightened than hurt.

They burn their dead, and the ashes are presently scattered over any piece of ground which the deceased may himself have chosen. No one is permitted to refuse this hospitality to the dead: people, therefore, generally choose some garden or orchard which they may have known and been fond of when they were young. The superstitious hold that those whose ashes are scattered over any land become its jealous guardians from that time forward; and the living like to think that they shall become

identified with this or that locality where they have once been happy.

They do not put up monuments, nor write epitaphs, for their dead, though in former ages their practice was much as ours, but they have a custom which comes to much the same thing, for the instinct of preserving the name alive after the death of the body seems to be common to all mankind. They have statues of themselves made while they are still alive (those, that is, who can afford it), and write inscriptions under them, which are often quite as untruthful as are our own epitaphs—only in another way. For they do not hesitate to describe themselves as victims to ill temper, jealousy, covetousness, and the like, but almost always lay claim to personal beauty, whether they have it or not, and, often, to the possession of a large sum in the funded debt of the country. If a person is ugly he does not sit as a model for his own statue, although it bears his name. He gets the handsomest of his friends to sit for him, and one of the ways of paying a compliment to another is to ask him to sit for such a statue. Women generally sit for their own statues, from a natural disinclination to admit the superior beauty of a friend, but they expect to be idealized. I understood that the multitude of these statues was beginning to be felt as an encumbrance in almost every family, and that the custom would probably before long fall into desuetude.

Indeed, this has already come about to the satisfaction of every one, as regards the statues of public men—not more than three of which can be found in the whole capital. I expressed my surprise at this, and was told that some five hundred years before my visit, the city had been so overrun with these pests that there was no getting about, and people were worried beyond endurance by having their attention called at every touch and turn to something, which, when they had attended to it, they found not to concern them. Most of these statues were mere attempts to do for some man or woman what an animal stuffer does more successfully for a dog, or bird, or pike. They were generally foisted on the public by some coterie that was trying to exalt itself in exalting some one else, and not unfrequently they had no other inception than desire on the part of some member of the coterie to find a job for a young sculptor to whom his daughter was engaged. Statues so begotten could never be anything but deformities, and this is the way in which they are sure to be begotten, as soon as the art of making them at all has become widely practised.

I know not why, but all the noblest arts hold in perfection but for a very little moment. They soon reach a height from which they begin to decline, and when they have begun to decline it is a pity that they cannot be knocked on the head; for an art is like a living organism—better

dead than dying. There is no way of making an aged art young again; it must be born anew and grow up from infancy as a new thing, working out its own salvation from effort to effort in all fear and trembling.

The Erewhonians five hundred years ago understood nothing of all this—I doubt whether they even do so now. They wanted to get the nearest thing they could to a stuffed man whose stuffing should not grow mouldy. They should have had some such an establishment as our Madame Tussaud's, where the figures wear real clothes, and are painted up to nature. Such an institution might have been made self-supporting, for people might have been made to pay before going in. As it was, they had let their poor cold grimy colourless heroes and heroines loaf about in squares and in corners of streets in all weathers, without any attempt at artistic sanitation—for there was no provision for burying their dead works of art out of their sight—no drainage, so to speak, whereby statues that had been sufficiently assimilated, so as to form part of the residuary impression of the country, might be carried away out of the system. Hence they put them up with a light heart on the cackling of their coteries, and they and their children had to live, often enough, with some wordy windbag whose cowardice had cost the country untold loss in blood and money.

At last the evil reached such a pitch that the people rose, and with indiscriminate fury destroyed good and bad alike. Most of what was destroyed was bad, but some few works were good, and the sculptors of to-day wring their hands over some of the fragments that have been preserved in museums up and down the country. For a couple of hundred years or so, not a statue was made from one end of the kingdom to the other, but the instinct for having stuffed men and women was so strong that people at length again began to try to make them. Not knowing how to make them, and having no academies to mislead them, the earliest sculptors of this period thought things out for themselves, and again produced works that were full of interest, so that in three or four generations they reached a perfection hardly if at all inferior to that of several hundred years earlier.

On this the same evils recurred. Sculptors obtained high prices—the art became a trade—schools arose which professed to sell the holy spirit of art for money; pupils flocked from far and near to buy it, in the hopes of selling it later on, and were struck purblind as a punishment for the sin of those who sent them. Before long a second iconoclastic fury would infallibly have followed, but for the prescience of a statesman who succeeded in passing an act to the effect that no statue of any public man or woman should be allowed to remain unbroken for more than fifty years,

unless at the end of that time a jury of twenty-four men taken at random from the street pronounced in favour of its being allowed a second fifty years of life. Every fifty years this reconsideration was to be repeated, and unless there was a majority of eighteen in favour of the retention of the statue, it was to be destroyed.

Perhaps a simple plan would have been to forbid the erection of a statue to any public man or woman till he or she had been dead at least one hundred years, and even then to insist on reconsideration of the claims of the deceased and the merit of the statue every fifty years—but the working of the act brought about results that on the whole were satisfactory. For in the first place, many public statues that would have been voted under the old system were not ordered when it was known that they would be almost certainly broken up after fifty years, and in the second, public sculptors knowing their work to be so ephemeral scamped it to an extent that made it offensive even to the most uncultured eye. Hence before long subscribers took to paying the sculptor for the statue of their dead statesmen on condition that he did not make it. The tribute of respect was thus paid to the deceased, the public sculptors were not mulcted, and the rest of the public suffered no inconvenience.

I was told, however, that an abuse of this custom is growing up, inasmuch as the competition for the commission not to make a statue is so keen that sculptors have been known to return a considerable part of the purchase money to the subscribers, by an arrangement made with them beforehand. Such transactions, however, are always clandestine. A small inscription is let into the pavement where the public statue would have stood, which informs the reader that such a statue has been ordered for the person, whoever he or she may be, but that as yet the sculptor has not been able to complete it. There has been no act to repress statues that are intended for private consumption, but as I have said, the custom is falling into desuetude.

Returning to Erewhonian customs in connection with death, there is one which I can hardly pass over. When any one dies, the friends of the family write no letters of condolence, neither do they attend the scattering, nor wear mourning, but they send little boxes filled with artificial tears, and with the name of the sender painted neatly upon the outside of the lid. The tears vary in number from two to fifteen or sixteen, according to degree of intimacy or relationship; and people sometimes find it a nice point of etiquette to know the exact number which they ought to send. Strange as it may appear, this attention is highly valued, and its omission by those from whom it might be expected is keenly felt. These tears were formerly stuck with adhesive plaster to the cheeks of the

bereaved, and were worn in public for a few months after the death of a relative; they were then banished to the hat or bonnet, and are now no longer worn.

The birth of a child is looked upon as a painful subject on which it is kinder not to touch: the illness of the mother is carefully concealed until the necessity for signing the birth formula (of which hereafter) renders further secrecy impossible, and for some months before the event the family live in retirement, seeing very little company. When the offense is over and done with, it is condoned by the common want of logic; for this merciful provision of nature, this buffer against collisions, this friction which upsets our calculations but without which existence would be intolerable, this crowning glory of human invention whereby we can be blind and see at one and the same moment, this blessed inconsistency exists here as elsewhere; and though the strictest writers on morality have maintained that it is wicked for a woman to have children at all, inasmuch as it is wrong to be out of health that good may come, yet the necessity of the case has caused a general feeling in favour of passing over such events in silence, and of assuming their non-existence except in such flagrant cases as force themselves on the public notice. Against these the condemnation of society is inexorable, and if it is believed that the illness has been dangerous and protracted, it is almost impossible for a woman to recover her former position in society.

The above conventions struck me as arbitrary and cruel, but they put a stop to many fancied ailments; for the situation, so far from being considered interesting, is looked upon as savouring more or less distinctly of a very reprehensible condition of things, and the ladies take care to conceal it as long as they can even from their own husbands, in anticipation of a severe scolding as soon as the misdemeanour is discovered. Also the baby is kept out of sight, except on the day of signing the birth formula, until it can walk and talk. Should the child unhappily die, a coroner's inquest is inevitable, but in order to avoid disgracing a family which may have been hitherto respected, it is almost invariably found that the child was over seventy-five years old, and died from the decay of nature.

The foregoing comprises Chapters X–XIII of Samuel Butler's EREWHON

Sherwood Anderson

1876–1941

Sherwood Anderson was born in Camden, Ohio, on September 13, 1876. His boyhood as a member of a sturdy poor man's family became a long wandering from one Middle Western backwater town to another. He got little schooling. He learned the trade of life as a newsboy, house painter, farm hand, warehouse worker and race-track swipe. He wrote later that he had "always understood horses better than men."

He joined the army during the Spanish-American War and served in Cuba as a corporal. When he got back, he put in a year of study at Wittenberg Academy in Ohio and became an advertising writer in Chicago. For a while he managed a paint factory in Ohio. One day in 1913 he walked out in the middle of dictating a letter, went back to Chicago and wrote advertising copy while he worked at his own writing. A first novel, *Windy McPherson's Son*, was published in 1916, and *Marching Men* the next year.

In 1919 he made his name with *Winesburg, Ohio*, a suite of stories that compose into the picture of a small town more repressive than Fitzgerald's Hades or Sinclair Lewis' Gopher Prairie. Anderson followed this with the novel *Poor White*. He received the first *Dial* Award of $2,000 in 1921, the same year in which a second collection of stories, *The Triumph of the Egg*, was published.

During this period he joined the Port of New York group that included Paul Rosenfeld, Waldo Frank, Lewis Mumford, and Alfred Stieglitz. He spoke for them too when he said that "Americans had to begin to stay, in spirit at least, at home. We had to accept our materials. . . ." In two later novels, *Many Marriages* and *Dark Laughter*, his sense of the interior flow of feeling in his characters brought him close to D. H. Lawrence.

In 1925 he settled in Marion, Virginia, where he published both the Democratic and the Republican newspapers. He wrote three volumes of autobiography: *A Story Teller's Story*, *Tar: a Midwest Childhood* and the posthumous *Memoirs*. He was taken ill aboard a cruise ship and died in Colón, Panamá, on March 8, 1941.

The story which follows, *I'm a Fool*, appeared in Anderson's 1923 volume of stories, *Horses and Men*. Like Turgenev's short novel and Galsworthy's *The Apple-Tree*, it is a story of first love. These three narratives turn on a conflict between the emotion of the lovers and the social circumstances in which they are caught.

When Hemingway's work first began to be published, a few critics suggested that he had learned his style from Anderson. Anderson disclaimed this. To us too it seems much more likely that—as Hemingway pointed out later in his own case—each had derived a style from *The Adventures of Huckleberry Finn*. In that book, Twain wrote that he had employed seven Middle Western dialects. These, he said, were set down "not in a haphazard fashion, by guesswork; but painstakingly, and with the trustworthy guidance and support of personal familiarity. . . ."

For all three writers, "personal familiarity" with the common talk of their region must have been the main source. The problem was how to transform it into a literary language. Sometimes Anderson solved this very well, sometimes badly. At his worst, he could write the colloquial as if he had learned it in a three-months' correspondence course; and his years of advertising writing betrayed him now and again into a twisted syntax that had little to do with conventional prose or any spoken language. All these aspects of Anderson's work, plus strong echoes of *Huckleberry Finn*, appear in *I'm a Fool*.

But in this story, as is usually the case with Anderson, faithfulness to human meaning is the thing; and here he triumphs. It is simply

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Notes from the artist: ". . . *apples that fall to the ground and are rejected by the big-city packers—Anderson's analysis of some of the small-town people, seen here partly as phantoms, he described in* Winesburg, Ohio."

SHERWOOD
ANDERSON

told, but it is not simple. It suggests much more than the narrator tells us, and it is full of hidden ironies he is not aware of. It is, at bottom, a story of love versus custom and convention. Anderson gives us the delicate shades of social feeling. We see finally, as indeed the narrator himself does, that the conflict has largely taken place inside him.

Would it have been any different if he had told the Wessens and Miss Woodbury who he was and what kind of work he did? They are not snobs. We feel at least, as he does, that the future might have been open to him. Is it closed now? He believes that it is. His folly has closed it. But what is this folly, after all? What youth has *not* lied to impress a girl—and if he has not, what sort of youth *is* he? If the narrator could lie well enough to convince his new friends, why did he lack the wit to talk himself out of it afterwards?

We see why. He is paralyzed with guilt, not at the lie itself, but at the nature of it. He feels that he has given himself away—literally, as he says, made a fool of himself. Here we need to recall what the American small town was like in the late nineteenth century. Underneath the genuine good nature of its democratic manners, it had settled into a caste system. This was what Mark Twain's Hannibal had come to. It would be broken up in its turn by the changes after World War I. The narrator protests to himself that he is as good as the next man. He does not feel it. And once he has been accepted by his new friends as what he is not, he feels free to think of ordinary people as "yaps" and the "common kind of cattle." So he prepares his own grief.

I'm a Fool

It was a hard jolt for me, one of the most bitterest I ever had to face. And it all came about through my own foolishness, too. Even yet sometimes, when I think of it, I want to cry or swear or kick myself. Perhaps, even now, after all this time, there will be a kind of satisfaction in making myself look cheap by telling of it.

It began at three o'clock one October afternoon as I sat in the grandstand at the fall trotting and pacing meet at Sandusky, Ohio.

To tell the truth, I felt a little foolish that I should be sitting in the grandstand at all. During the summer before I had left my home town with Harry Whitehead and, with a nigger named Burt, had taken a job as swipe with one of the two horses Harry was campaigning through the fall race meets that year. Mother cried and my sister Mildred, who wanted to get a job as a schoolteacher in our town that fall, stormed and scolded about the house all during the week before I left. They both thought it something disgraceful that one of our family should take a place as a swipe with race horses. I've an idea Mildred thought my taking the place would stand in the way of her getting the job she'd been working so long for.

But after all I had to work, and there was no other work to be got. A big lumbering fellow of nineteen couldn't just hang around the house and I had got too big to mow people's lawns and sell newspapers. Little chaps who could get next to people's sympathies by their sizes were always getting jobs away from me. There was one fellow who kept saying to everyone who wanted a lawn mowed or a cistern cleaned that he was saving money to work his way through college, and I used to lay awake nights thinking up ways to injure him without being found out. I kept thinking of wagons running over him and bricks falling on his head as he walked along the street. But never mind him.

I got the place with Harry and I liked Burt fine. We got along splendid together. He was a big nigger with a lazy sprawling body and soft, kind

eyes, and when it came to a fight he could hit like Jack Johnson. He had Bucephalus, a big black pacing stallion that could do 2.09 or 2.10, if he had to, and I had a little gelding named Doctor Fritz that never lost a race all fall when Harry wanted him to win.

We set out from home late in July in a boxcar with the two horses and after that, until late November, we kept moving along to the race meets and the fairs. It was a peachy time for me, I'll say that. Sometimes now I think that boys who are raised regular in houses, and never have a fine nigger like Burt for best friend, and go to high schools and college, and never steal anything, or get drunk a little, or learn to swear from fellows who know how, or come walking up in front of a grandstand in their shirt sleeves and with dirty horsey pants on when the races are going on and the grandstand is full of people all dressed up–What's the use of talking about it? Such fellows don't know nothing at all. They've never had no opportunity.

But I did. Burt taught me how to rub down a horse and put the bandages on after a race and steam a horse out and a lot of valuable things for any man to know. He could wrap a bandage on a horse's leg so smooth that if it had been the same color you would think it was his skin, and I guess he'd have been a big driver, too, and got to the top like Murphy and Walter Cox and the others if he hadn't been black.

Gee whizz, it was fun. You got to a county seat town, maybe say on a Saturday or Sunday, and the fair began the next Tuesday and lasted until Friday afternoon. Doctor Fritz would be, say in the 2.25 trot on Tuesday afternoon and on Thursday afternoon Bucephalus would knock 'em cold in the "free-for-all" pace. It left you a lot of time to hang around and listen to horse talk, and see Burt knock some yap cold that got too gay, and you'd find out about horses and men and pick up a lot of stuff you could use all the rest of your life, if you had some sense and salted down what you heard and felt and saw.

And then at the end of the week when the race meet was over, and Harry had run home to tend up to his livery stable business, you and Burt hitched the two horses to carts and drove slow and steady across country, to the place for the next meeting, so as to not overheat the horses, etc., etc., you know.

Gee whizz, Gosh amighty, the nice hickory nut and beechnut and oaks and other kinds of trees along the roads, all brown and red, and the good smells, and Burt singing a song that was called Deep River, and the country girls at the windows of houses and everything. You can stick

your colleges up your nose for all me. I guess I know where I got my education.

Why, one of those little burgs of towns you come to on the way, say now on a Saturday afternoon, and Burt says, "Let's lay up here." And you did.

And you took the horses to a livery stable and fed them, and you got your good clothes out of a box and put them on.

And the town was full of farmers gaping, because they could see you were race-horse people, and the kids maybe never see a nigger before and was afraid and run away when the two of us walked down their main street.

And that was before prohibition and all that foolishness, and so you went into a saloon, the two of you, and all the yaps come and stood around, and there was always someone pretended he was horsey and knew things and spoke up and began asking questions, and all you did was to lie and lie all you could about what horses you had, and I said I owned them, and then some fellow said, "will you have a drink of whisky" and Burt knocked his eye out the way he could say, offhand-like, "Oh well, all right, I'm agreeable to a little nip. I'll split a quart with you." Gee whizz.

But that isn't what I want to tell my story about. We got home late in November and I promised mother I'd quit the race horses for good. There's a lot of things you've got to promise a mother because she don't know any better.

And so, there not being any work in our town any more than when I left there to go to the races, I went off to Sandusky and got a pretty good place taking care of horses for a man who owned a teaming and delivery and storage and coal and real estate business there. It was a pretty good place with good eats, and a day off each week, and sleeping on a cot in a big barn, and mostly just shoveling in hay and oats to a lot of big good-enough skates of horses, that couldn't have trotted a race with a toad. I wasn't dissatisfied and I could send money home.

And then, as I started to tell you, the fall races come to Sandusky and I got the day off and I went. I left the job at noon and had on my good clothes and my new brown derby hat I'd just bought the Saturday before, and a stand-up collar.

First of all I went downtown and walked about with the dudes. I've always thought to myself, "put up a good front" and so I did it. I had

forty dollars in my pocket and so I went into the West House, a big hotel, and walked up to the cigar stand. "Give me three twenty-five cent cigars," I said. There was a lot of horsemen and strangers and dressed-up people from other towns standing around in the lobby and in the bar, and I mingled amongst them. In the bar there was a fellow with a cane and a Windsor tie on, that it made me sick to look at him. I like a man to be a man and dress up, but not to go put on that kind of airs. So I pushed him aside, kind of rough, and had me a drink of whisky. And then he looked at me, as though he thought maybe he'd get gay, but he changed his mind and didn't say anything. And then I had another drink of whisky, just to show him something, and went out and had a hack out to the races, all to myself, and when I got there I bought myself the best seat I could get up in the grandstand, but didn't go in for any of these boxes. That's putting on too many airs.

And so there I was, sitting up in the grandstand as gay as you please and looking down on the swipes coming out with their horses, and with their dirty horsey pants on and the horse blankets swung over their shoulders, same as I had been doing all the year before. I liked one thing about the same as the other, sitting up there and feeling grand and being down there and looking up at the yaps and feeling grander and more important, too. One thing's about as good as another, if you take it just right. I've often said that.

Well, right in front of me, in the grandstand that day, there was a fellow with a couple of girls and they was about my age. The young fellow was a nice guy all right. He was the kind maybe that goes to college and then comes to be a lawyer or maybe a newspaper editor or something like that, but he wasn't stuck on himself. There are some of that kind are all right and he was one of the ones.

He had his sister with him and another girl and the sister looked around over his shoulder, accidental at first, not intending to start anything—she wasn't that kind—and her eyes and mine happened to meet.

You know how it is. Gee, she was a peach! She had on a soft dress, kind of a blue stuff and it looked carelessly made, but was well sewed and made and everything. I knew that much. I blushed when she looked right at me and so did she. She was the nicest girl I've ever seen in my life. She wasn't stuck on herself and she could talk proper grammar without being like a schoolteacher or something like that. What I mean is, she was O. K. I think maybe her father was well-to-do, but not rich to make her chesty because she was his daughter, as some are. Maybe he

owned a drugstore or a drygoods store in their home town, or something like that. She never told me and I never asked.

My own people are all O. K. too, when you come to that. My grandfather was Welsh and over in the old country, in Wales he was– But never mind that.

The first heat of the first race come off and the young fellow setting there with the two girls left them and went down to make a bet. I knew what he was up to, but he didn't talk big and noisy and let everyone around know he was a sport, as some do. He wasn't that kind. Well, he come back and I heard him tell the two girls what horse he'd bet on, and when the heat was trotted they all half got to their feet and acted in the excited, sweaty way people do when they've got money down on a race, and the horse they bet on is up there pretty close at the end, and they think maybe he'll come on with a rush, but he never does because he hasn't got the old juice in him, come right down to it.

And then, pretty soon, the horses came out for the 2.18 pace and there was a horse in it I knew. He was a horse Bob French had in his string but Bob didn't own him. He was a horse owned by a Mr. Mathers down at Marietta, Ohio.

This Mr. Mathers had a lot of money and owned some coal mines or something, and he had a swell place out in the country, and he was stuck on race horses, but was a Presbyterian or something, and I think more than likely his wife was one, too, maybe a stiffer one than himself. So he never raced his horses hisself, and the story round the Ohio race tracks was that when one of his horses got ready to go to the races he turned him over to Bob French and pretended to his wife he was sold.

So Bob had the horses and he did pretty much as he pleased and you can't blame Bob, at least, I never did. Sometimes he was out to win and sometimes he wasn't. I never cared much about that when I was swiping a horse. What I did want to know was that my horse had the speed and could go out in front, if you wanted him to.

And, as I'm telling you, there was Bob in this race with one of Mr. Mathers' horses, was named About Ben Ahem or something like that, and was fast as a streak. He was a gelding and had a mark of 2.21, but could step in .08 or .09.

Because when Burt and I were out, as I've told you, the year before, there was a nigger Burt knew, worked for Mr. Mathers and we went out there one day when we didn't have no race on at the Marietta Fair and our boss Harry was gone home.

And so everyone was gone to the fair but just this one nigger and he took us all through Mr. Mathers' swell house and he and Burt tapped a bottle of wine Mr. Mathers had hid in his bedroom, back in a closet, without his wife knowing, and he showed us this Ahem horse. Burt was always stuck on being a driver but didn't have much chance to get to the top, being a nigger, and he and the other nigger gulped that whole bottle of wine and Burt got a little lit up.

So the nigger let Burt take this About Ben Ahem and step him a mile in a track Mr. Mathers had all to himself, right there on the farm. And Mr. Mathers had one child, a daughter, kinda sick and not very good-looking, and she came home and we had to hustle and get About Ben Ahem stuck back in the barn.

I'm only telling you to get everything straight. At Sandusky, that afternoon I was at the fair, this young fellow with the two girls was fussed, being with the girls and losing his bet. You know how a fellow is that way. One of them was his girl and the other his sister. I had figured that out.

"Gee whizz," I says to myself, "I'm going to give him the dope."

He was mighty nice when I touched him on the shoulder. He and the girls were nice to me right from the start and clear to the end. I'm not blaming them.

And so he leaned back and I give him the dope on About Ben Ahem. "Don't bet a cent on this first heat because he'll go like an oxen hitched to a plow, but when the first heat is over go right down and lay on your pile." That's what I told him.

Well, I never saw a fellow treat anyone sweller. There was a fat man sitting beside the little girl that had looked at me twice by this time, and I at her, and both blushing, and what did he do but have the nerve to turn and ask the fat man to get up and change places with me so I could set with his crowd.

Gee whizz, craps amighty. There I was. What a chump I was to go and get gay up there in the West House bar, and just because that dude was standing there with a cane and that kind of a necktie on, to go and get all balled up and drink that whisky, just to show off.

Of course she would know, me setting right beside her and letting her smell of my breath. I could have kicked myself right down out of that grandstand and all around that race track and made a faster record than most of the skates of horses they had there that year.

Because that girl wasn't any mutt of a girl. What wouldn't I have give right then for a stick of chewing gum to chew, or a lozenger, or some

licorice, or most anything. I was glad I had those twenty-five cent cigars in my pocket and right away I give that fellow one and lit one myself. Then that fat man got up and we changed places and there I was, plunked right down beside her.

They introduced themselves and the fellow's best girl, he had with him, was named Miss Elinor Woodbury, and her father was a manufacturer of barrels from a place called Tiffin, Ohio. And the fellow himself was named Wilbur Wessen and his sister was Miss Lucy Wessen.

I suppose it was their having such swell names got me off my trolley. A fellow, just because he has been a swipe with a race horse, and works taking care of horses for a man in the teaming, delivery, and storage business, isn't any better or worse than anyone else. I've often thought that, and said it too.

But you know how a fellow is. There's something in that kind of nice clothes, and the kind of nice eyes she had, and the way she had looked at me, awhile before, over her brother's shoulder, and me looking back at her, and both of us blushing.

I couldn't show her up for a boob, could I?

I made a fool of myself, that's what I did. I said my name was Walter Mathers from Marietta, Ohio, and then I told all three of them the smashingest lie you ever heard. What I said was that my father owned the horse About Ben Ahem and that he had let him out to this Bob French for racing purposes, because our family was proud and had never gone into racing that way, in our own name, I mean. Then I had got started and they were all leaning over and listening, and Miss Lucy Wessen's eyes were shining, and I went the whole hog.

I told about our place down at Marietta, and about the big stables and the grand brick house we had on a hill, up above the Ohio River, but I knew enough not to do it in no bragging way. What I did was to start things and then let them drag the rest out of me. I acted just as reluctant to tell as I could. Our family hasn't got any barrel factory, and, since I've known us, we've always been pretty poor, but not asking anything of anyone at that, and my grandfather, over in Wales– But never mind that.

We set there talking like we had known each other for years and years, and I went and told them that my father had been expecting maybe this Bob French wasn't on the square, and had sent me up to Sandusky on the sly to find out what I could.

And I bluffed it through I had found out all about the 2.18 pace, in which About Ben Ahem was to start.

I said he would lose the first heat by pacing like a lame cow and then he would come back and skin 'em alive after that. And to back up what I said I took thirty dollars out of my pocket and handed it to Mr. Wilbur Wessen and asked him, would he mind, after the first heat, to go down and place it on About Ben Ahem for whatever odds he could get. What I said was that I didn't want Bob French to see me and none of the swipes.

Sure enough the first heat come off and About Ben Ahem went off his stride, up the back stretch, and looked like a wooden horse or a sick one, and come in to be last. Then this Wilbur Wessen went down to the betting place under the grandstand and there I was with the two girls, and when that Miss Woodbury was looking the other way once, Lucy Wessen kinda, with her shoulder you know, kinda touched me. Not just tucking down, I don't mean. You know how a woman can do. They get close, but not getting gay either. You know what they do. Gee whizz.

And then they give me a jolt. What they had done, when I didn't know, was to get together, and they had decided Wilbur Wessen would bet fifty dollars, and the two girls had gone and put in ten dollars each, of their own money, too. I was sick then, but I was sicker later.

About the gelding, About Ben Ahem, and their winning their money, I wasn't worried a lot about that. It come out O. K. Ahem stepped the next three heats like a bushel of spoiled eggs going to market before they could be found out, and Wilbur Wessen had got nine to two for the money. There was something else eating at me.

Because Wilbur come back, after he had bet the money, and after that he spent most of his time talking to that Miss Woodbury, and Lucy Wessen and I was left alone together like on a desert island. Gee, if I'd only been on the square or if there had been any way of getting myself on the square. There ain't any Walter Mathers, like I said to her and them, and there hasn't ever been one, but if there was, I bet I'd go to Marietta, Ohio, and shoot him tomorrow.

There I was, big boob that I am. Pretty soon the race was over, and Wilbur had gone down and collected our money, and we had a hack downtown, and he stood us a swell supper at the West House, and a bottle of champagne beside.

And I was with that girl and she wasn't saying much, and I wasn't saying much either. One thing I know. She wasn't stuck on me because of the lie about my father being rich and all that. There's a way you know. . . . Craps amighty. There's a kind of girl, you see just once in your life,

and if you don't get busy and make hay, then you're gone for good and all, and might as well go jump off a bridge. They give you a look from inside of them somewhere, and it ain't no vamping, and what it means is–you want that girl to be your wife, and you want nice things around her like flowers and swell clothes, and you want her to have the kids you're going to have, and you want good music played and no ragtime. Gee whizz.

There's a place over near Sandusky, across a kind of bay, and it's called Cedar Point. And after we had supper we went over to it in a launch, all by ourselves. Wilbur and Miss Lucy and that Miss Woodbury had to catch a ten o'clock train back to Tiffin, Ohio, because, when you're out with girls like that you can't get careless and miss any trains and stay out all night, like you can with some kinds of Janes.

And Wilbur blowed himself to the launch and it cost him fifteen cold plunks, but I wouldn't never have knew if I hadn't listened. He wasn't no tin-horn kind of a sport.

Over at the Cedar Point place, we didn't stay around where there was a gang of common kind of cattle at all.

There was big dance halls and dining places for yaps, and there was a beach you could walk along and get where it was dark, and we went there.

She didn't talk hardly at all and neither did I, and I was thinking how glad I was my mother was all right, and always made us kids learn to eat with a fork at table, and not swill soup, and not be noisy and rough like a gang you see around a race track that way.

Then Wilbur and his girl went away up the beach and Lucy and I sat down in a dark place, where there was some roots of old trees, the water had washed up, and after that the time, till we had to go back in the launch and they had to catch their trains, wasn't nothing at all. It went like winking your eye.

Here's how it was. The place we were setting in was dark, like I said, and there was the roots from that old stump sticking up like arms, and there was a watery smell, and the night was like–as if you could put your hand out and feel it–so warm and soft and dark and sweet like an orange.

I most cried and I most swore and I most jumped up and danced, I was so mad and happy and sad.

When Wilbur come back from being alone with his girl, and she saw him coming, Lucy she says, "we got to go to the train now," and she was most crying too, but she never knew nothing I knew, and she couldn't

be so all busted up. And then, before Wilbur and Miss Woodbury got up to where we was, she put her face up and kissed me quick and put her head up against me and she was all quivering and– Gee whizz.

Sometimes I hope I have cancer and die. I guess you know what I mean. We went in the launch across the bay to the train like that, and it was dark, too. She whispered and said it was like she and I could get out of the boat and walk on the water, and it sounded foolish, but I knew what she meant.

And then quick we were right at the depot, and there was a big gang of yaps, the kind that goes to the fairs, and crowded and milling around like cattle, and how could I tell her? "It won't be long because you'll write and I'll write to you." That's all she said.

I got a chance like a hay barn afire. A swell chance I got.

And maybe she would write me, down at Marietta that way, and the letter would come back, and stamped on the front of it by the U.S.A. "there ain't any such guy," or something like that, whatever they stamp on a letter that way.

And me trying to pass myself off for a bigbug and a swell–to her, as decent a little body as God ever made. Craps amighty–a swell chance I got!

And then the train come in, and she got on it, and Wilbur Wessen he come and shook hands with me, and that Miss Woodbury was nice too and bowed to me, and I at her, and the train went and I busted out and cried like a kid.

Gee, I could have run after that train and made Dan Patch look like a freight train after a wreck but, socks amighty, what was the use? Did you ever see such a fool?

I'll bet you what–if I had an arm broke right now or a train had run over my foot–I wouldn't go to no doctor at all. I'd go set down and let her hurt and hurt–that's what I'd do.

I'll bet you what–if I hadn't a drunk that booze I'd a never been such a boob as to go tell such a lie–that couldn't never be made straight to a lady like her.

I wish I had that fellow right here that had on a Windsor tie and carried a cane. I'd smash him for fair. Gosh darn his eyes. He's a big fool–that's what he is.

And if I'm not another you just go find me one and I'll quit working and be a bum and give him my job. I don't care nothing for working, and earning money, and saving it for no such boob as myself.

Anonymous

c. early 13th century

Among all the springtime flowers of literature, *Aucassin and Nicolette* must be counted one of the freshest and most delightful. It has the scent and soft brightness of a May morning. We may thank our luck that we have it at all. Only one manuscript survived from the late thirteenth century. The story probably dates from the early part of that century, in France the heyday of the northern court poets or trouvères, who corresponded to the troubadours of the South.

But it is more likely that such a story as *Aucassin and Nicolette* was composed—or performed, at least—not by trouvères but by the wandering minstrels and mimes called jongleurs. It belongs loosely among what are called the *romans d'aventure*, the adventure romances or novels. Its form is the *chantefable*—alternate prose and verse. The prose was recited, the verse sung, and all of it might be acted out "to the accompaniment of viol and pipes." In short, it is, at its best, almost a rudimentary opera. The music derived from "the most ancient form of popular French melody." So we have what was in the beginning not a reader's but a performer's art. Most of all, it was meant to be light entertainment, and still is.

Let us imagine the scene. It is a warm June afternoon in Normandy. Against the gray, rounded bulk of the castle towers, the lord's household is gathered on the garden terrace. The lord and his lady occupy the highest step. Others sit according to rank below them. The men wear long, colored hose and belted tunics worked with small figures of animals, flowers, or their initial letters. The white kirtles and pointed headdresses of the women ripple softly in the wind off the sea. The garden has a warm smell of roses and gillyflowers.

The pipes sound. From a corner of the garden the chief jongleur comes bounding out on the flagstones below. He is shabby and impudently gay. He sweeps off his cap, makes his compliments to the company and announces the story. Out behind him come his wife, viol in hand, an old man playing on a pipe, and four singing children. When the song is ended the jongleur takes a step forward and begins: "Now they say and tell and relate. . . ."

The battle in the story begins. He acts it out. We see Aucassin, who was "so gracious in all good graces." We think of Achilles in the *Iliad*, who also refused to fight because the girl Briseis had been taken away from him. The children come forward and sing the first verse. Aucassin goes into battle and is captured because he can think of nothing but Nicolette. Then, while the audience gasps, he comes to himself, fights his way out, and captures the enemy lord.

Then the jongleur's wife takes over while he speaks the tale behind her. She is Nicolette in her dark chamber, sliding down the twisted sheets from her window and, skirts lifted, running in the night garden. The adventures by land and sea go on. Nicolette sings in her minstrel's costume, searching for Aucassin. The shadows of the towers fall across the garden.

Suddenly it is over, the jongleur is sweeping his bow again and–if he is lucky, and the company pleased–the gold and silver coins rain down on the flagstones at his feet.

Aucassin and Nicolette

Who will deign to hear the song
Solace of a captive's wrong,
Telling how two children met,
Aucassin and Nicolette;
How by grievous pains distraught,
Noble deeds the varlet wrought
For his love, and her bright face!
Sweet my rhyme, and full of grace,
Fair my tale, and debonair.
He who lists—though full of care,
Sore astonied, much amazed,
All cast down, by men mispraised,
Sick in body, sick in soul,
Hearing shall be glad and whole,
So sweet the tale.

ow they say and tell and relate:

How the Count Bougars of Valence made war on Count Garin of Beaucaire, war so great, so wonderful, and so mortal, that never dawned the day but that he was at the gates and walls and barriers of the town, with a hundred knights and ten thousand men-at-arms, on foot and on horse. So he burned the Count's land, and spoiled his heritage, and dealt death to his men. The Count Garin of Beaucaire was full of years, and frail; he had long outworn his day. He had no heir, neither son nor daughter, save one only varlet, and he was such as I will tell you. Aucassin was the name of the lad. Fair he was, and pleasant to look

upon, tall and shapely of body in every whit of him. His hair was golden, and curled in little rings about his head; he had grey and dancing eyes, a clear, oval face, a nose high and comely, and he was so gracious in all good graces that nought in him was found to blame, but good alone. But Love, that high prince, so utterly had cast him down, that he cared not to become knight, neither to bear arms, nor to tilt at tourneys, nor yet to do aught that it became his name to do.

His father and his mother spake him thus–

"Son, don now thy mail, mount thy horse, keep thy land, and render aid to thy men. Should they see thee amongst them the better will the men-at-arms defend their bodies and their substance, thy fief and mine."

"Father," said Aucassin, "why speakest thou in such fashion to me? May God give me nothing of my desire if I become knight, or mount to horse, or thrust into the press to strike other or be smitten down, save only that thou give me Nicolette, my sweet friend, whom I love so well."

"Son," answered the father, "this may not be. Put Nicolette from mind. For Nicolette is but a captive maid, come hither from a far country, and the Viscount of this town bought her with money from the Saracens, and set her in this place. He hath nourished and baptized her, and held her at the font. On a near day he will give her to some young bachelor who will gain her bread in all honour. With this what hast thou to do? Ask for a wife, and I will find thee the daughter of a king, or a count. Were he the richest man in France his daughter shalt thou have, if so thou wilt."

"Faith, my father," said Aucassin, "what honour of all this world would not Nicolette, my very sweet friend, most richly become! Were she Empress of Byzantium or of Allemaigne, or Queen of France or England, low enough would be her degree, so noble is she, so courteous and debonair, and gracious in all good graces."

Now is sung:

Aucassin was of Beaucaire,
Of the mighty castle there,
But his heart was ever set
On his fair friend, Nicolette.
Small he heeds his father's blame,
Or the harsh words of his dame.
"Fool, to weep the livelong day,
Nicolette trips light and gay.
Scouring she from far Carthage,
Bought of Paynims for a wage.
Since a wife beseems thee good

Take a wife of wholesome blood."
"Mother, naught for this I care,
Nicolette is debonair;
Slim the body, fair the face,
Make my heart a lighted place;
Love has set her as my peer,
Too sweet, my dear."

Now they say and tell and relate:

When the Count Garin of Beaucaire found that in nowise could he withdraw Aucassin his son from the love of Nicolette, he sought out the Viscount of the town, who was his man, and spake him thus–

"Sir Count, send Nicolette your god-child straightly from this place. Cursed be the land wherefrom she was carried to this realm; for because of her I lose Aucassin, who will not become knight, nor do aught that it becometh knight to do. Know well that were she once within my power I would hurry her to the fire; and look well to yourself, for you stand in utmost peril and fear."

"Sire," answered the Viscount, "this lies heavy upon me, that ever Aucassin goes and comes seeking speech with my ward. I have bought her with my money, and nourished and baptized her, and held her at the font. Moreover, I am fain to give her to some young bachelor who will gain her bread in all honour. With this Aucassin your son had nought to do. But since this is your will and your pleasure, I will send her to so far a country that nevermore shall he see her with his eyes."

"Walk warily," replied the Count Garin, "for great evil easily may fall to you of this."

So they went their ways.

Now the Viscount was a very rich man, and had a rich palace standing within a garden. In a certain chamber of an upper floor he set Nicolette in ward, with an old woman to bear her company, and to watch; and he put there bread and meat and wine and all things for their need. Then he placed a seal upon the door, so that none might enter in, nor issue forth, save only that there was a window looking on the garden, strict and close, whereby they breathed a little fresh air.

Now is sung:

Nicolette is prisoned fast,
In a vaulted chamber cast,
Shaped and carven wondrous well,
Painted as by miracle.

At the marble casement stayed
On her elbow leaned the maid;
Golden showed her golden hair,
Softly curved her eyebrows rare,
Fair her face, and brightly flushed,
Sweeter maiden never blushed.
In the garden from her room
She might watch the roses bloom,
Hear the birds make tender moan;
Then she knew herself alone.
" 'Lack, great pity 'tis to place
Maid in such an evil case.
Aucassin, my liege, my squire,
Friend, and dear, and heart's desire,
Since thou dost not hate me quite
Men have done me foul despite,
Sealed me in this vaulted room,
Thrust me to this bitter doom.
But by God, Our Lady's Son,
Soon will I from here begone,
So it be won."

Now they say and tell and relate:

Nicolette was prisoned in the chamber, as you have heard and known. The hue and cry went through all the land that Nicolette was stolen away. Some said that she had fled the country, and some that the Count Garin of Beaucaire had done her to death. Whatever man may have rejoiced, Aucassin had no joy therein, so he sought out the Viscount of the town and spake him thus–

"Sir Viscount, what have you done with Nicolette, my very sweet friend, the thing that most I love in all the world? Have you borne her off, or hidden her from my sight? Be sure that should I die hereof, my blood will be required of you, as is most just, for I am slain of your two hands, since you steal from me the thing that most I love in all the world."

"Fair sire," answered the Viscount, "put this from mind. Nicolette is a captive maid whom I brought here from a far country. For her price I trafficked with the Saracens, and I have bred and baptized her, and held her at the font. I have nourished her duly, and on a day will give her to some young bachelor who will gain her bread in honourable fashion. With this you have nought to do; but only to wed the daughter of some count or king. Beyond this, what profit would you have, had you be-

come her lover, and taken her to your bed? Little enough would be your gain therefrom, for your soul would lie tormented in Hell all the days of all time, so that to Paradise never should you win."

"In Paradise what have I to do? I care not to enter, but only to have Nicolette, my very sweet friend, whom I love so dearly well. For into Paradise go none but such people as I will tell you of. There go those aged priests, and those old cripples, and the maimed, who all day long and all night cough before the altars, and in the crypts beneath the churches; those who go in worn old mantles and old tattered habits; who are naked, and barefoot, and full of sores; who are dying of hunger and of thirst, of cold and of wretchedness. Such as these enter in Paradise, and with them have I nought to do. But in Hell will I go. For to Hell go the fair clerks and the fair knights who are slain in the tourney and the great wars, and the stout archer and the loyal man. With them will I go. And there go the fair and courteous ladies who have friends, two or three, together with their wedded lords. And there pass the gold and the silver, the ermine and all rich furs, harpers and minstrels, and the happy of the world. With these will I go, so only that I have Nicolette, my very sweet friend, by my side."

"Truly," cried the Viscount, "you talk idly, for never shall you see her more; yea, and if perchance you spoke together, and your father heard thereof, he would burn both me and her in one fire, and yourself might well have every fear."

"This lies heavy upon me," answered Aucassin.

Thus he parted from the Viscount making great sorrow.

Now is sung:

Aucassin departed thus
Sad at heart and dolorous;
Gone is she his fairest friend,
None may comfort give or mend,
None by counsel make good end.
To the palace turned he home,
Climbed the stair, and sought his room.
In the chamber all alone
Bitterly he made his moan,
Presently began to weep
For the love he might not keep.
"Nicolette, so gent, so sweet,
Fair the faring of thy feet,
Fair thy laughter, sweet thy speech,

Fair our playing each with each,
Fair thy clasping, fair thy kiss,
Yet it endeth all in this.
Since from me my love is ta'en
I misdoubt that I am slain;
Sister, sweet friend."

Now they say and tell and relate:

Whilst Aucassin was in the chamber lamenting Nicolette, his friend, the Count Bougars of Valence, wishful to end the war, pressed on his quarrel, and setting his pikemen and horsemen in array, drew near the castle to take it by storm. Then the cry arose, and the tumult; and the knights and the men-at-arms took their weapons, and hastened to the gates and the walls to defend the castle, and the burgesses climbed to the battlements, flinging quarrels and sharpened darts upon the foe. Whilst the siege was so loud and perilous the Count Garin of Beaucaire sought the chamber where Aucassin lay mourning, assotted upon Nicolette, his very sweet friend, whom he loved so well.

"Ha, son," cried he, "craven art thou and shamed, that seest thy best and fairest castle so hardly beset. Know well that if thou lose it thou art a naked man. Son, arm thyself lightly, mount to horse, keep thy land, aid thy men, hurtle into the press. Thou needest not to strike another, neither to be smitten down, but if they see thee amongst them, the better will they defend their goods and their bodies, thy land and mine. And thou art so stout and strong that very easily thou canst do this thing, as is but right."

"Father," answered Aucassin, "what sayest thou now? May God give me nought that I require of Him if I become knight, or mount to horse, or thrust into the press to strike knight or be smitten down, save only thou givest me Nicolette, my sweet friend, whom I love so well."

"Son," replied the father, "this can never be. Rather will I suffer to lose my heritage, and go bare of all, than that thou shouldest have her, either as woman or as dame."

So he turned without farewell. But when Aucassin saw him part he stayed him, saying–

"Father, come now, I will make a true bargain with thee."

"What bargain, fair son?"

"I will arm me, and thrust into the press on such bargain as this, that if God bring me again safe and sound, thou wilt let me look on Nicolette, my sweet friend, so long that I may have with her two words or three, and kiss her one only time."

"I pledge my word to this," said the father.
Of this covenant had Aucassin much joy.
Now is sung:

Aucassin the more was fain
Of the kiss he sought to gain,
Rather than his coffers hold
A hundred thousand marks of gold.
At the call his squire drew near,
Armed him fast in battle gear;
Shirt and hauberk donned the lad,
Laced the helmet on his head,
Girt his golden-hilted sword,
Came the war-horse at his word,
Gripped the buckler and the lance,
At the stirrups cast a glance;
Then most brave from plume to heel
Pricked the charger with the steel,
Called to mind his absent dear,
Passed the gateway without fear
Straight to the fight.

Now they say and tell and relate:

Aucassin was armed and horsed as you have heard. God! how bravely showed the shield about his neck, the helmet on his head, and the fringes of the baldric upon his left thigh. The lad was tall and strong, slender and comely to look upon, and the steed he bestrode was great and speedy, and fiercely had he charged clear of the gate. Now think not that he sought spoil of oxen and cattle, nor to smite others and himself escape. Nay, but of all this he took no heed. Another was with him, and he thought so dearly upon Nicolette, his fair friend, that the reins fell from his hand, and he struck never a blow. Then the charger, yet smarting from the spur, bore him into the battle, amidst the thickest of the foe, so that hands were laid upon him from every side, and he was made prisoner. Thus they spoiled him of shield and lance, and forthwith led him from the field a captive, questioning amongst themselves by what death he should be slain. When Aucassin marked their words,

"Ha, God," cried he, "sweet Creature, these are my mortal foes who lead me captive, and who soon will strike off my head; and when my head is smitten, never again may I have fair speech with Nicolette, my sweet friend, whom I hold so dear. Yet have I a good sword, and my

horse is yet unblown. Now if I defend me not for her sake, may God keep her never, should she love me still."

The varlet was hardy and stout, and the charger he bestrode was right fierce. He plucked forth his sword, and smote suddenly on the right hand and on the left, cutting sheer through nasal and headpiece, gauntlet and arm, making such ruin around him as the wild boar deals when brought to bay by hounds in the wood; until he had struck down ten knights, and hurt seven more, and won clear of the *melée*, and rode back at utmost speed, sword in his hand.

The Count Bougars of Valence heard tell that his men were about to hang Aucassin, his foe, in shameful wise, so he hastened to the sight, and Aucassin passed him not by. His sword was yet in hand, and he struck the Count so fiercely upon the helm, that the headpiece was cleft and shattered upon the head. So bewildered was he by the stroke that he tumbled to the ground, and Aucassin stretched forth his hand, and took him, and led him captive by the nasal of the helmet, and delivered him to his father.

"Father," said Aucassin, "behold the foe who wrought such war and mischief upon you! Twenty years hath this war endured, and none was there to bring it to an end."

"Fair son," replied his father, "better are such deeds as these than foolish dreams."

"Father," returned Aucassin, "preach me no preachings; but carry out our bargain."

"Ha, what bargain, fair son?"

"How now, father, hast thou returned from the market? By my head, I will remember, whosoever may forget; so close is it to my heart. Didst thou not bargain with me when I armed me and fared into the press, that if God brought me again safe and sound, thou wouldst grant me sight of Nicolette, my sweet friend, so long that I might have with her two words or three, and kiss her once? Such was the bargain, so be thou honest dealer."

"I," cried the father, "God aid me never should I keep such terms. Were she here I would set her in the flames, and thou thyself might well have every fear."

"Is this the very end?" said Aucassin.

"So help me God," said his father; "yea."

"Certes," said Aucassin, "grey hairs go ill with a lying tongue."

"Count of Valence," said Aucassin, "thou art my prisoner?"

"Sire," answered the Count, "it is verily and truly so."

"Give me thy hand," said Aucassin.

"Sire, as you wish."

So each took the other's hand.

"Plight me thy faith," said Aucassin, "that so long as thou drawest breath, never shall pass a day but thou shalt deal with my father in shameful fashion, either in goods or person, if so thou canst!"

"Sire, for God's love make me not a jest, but name me a price for my ransom. Whether you ask gold or silver, steed or palfrey, pelt or fur, hawk or hound, it shall be paid."

"What!" said Aucassin; "art thou not my prisoner?"

"Truly, sire," said the Count Bougars.

"God aid me never," quoth Aucassin, "but I send thy head flying, save thou plight me such faith as I said."

"In God's name," cried he, "I plight such affiance as seems most meet to thee."

He pledged his troth, so Aucassin set him upon a horse, and brought him into a place of surety, himself riding by his side.

Now is sung:

When Count Garin knew his son
Aucassin still loved but one,
That his heart was ever set
Fondly on fond Nicolette;
Straight a prison he hath found,
Paved with marble, walled around,
Where in vault beneath the earth
Aucassin made little mirth,
But with wailing filled his cell
In such wise as now I tell.
"Nicolette, white lily-flow'r,
Sweetest lady found in bow'r;
Sweet as grape that brimmeth up
Sweetness in the spiced cup.
On a day this chanced to you;
Out of Limousin there drew
One, a pilgrim, sore adread,
Lay in pain upon his bed,
Tossed, and took with fear his breath,
Very dolent, near to death.
Then you entered, pure and white,
Softly to the sick man's sight,
Raised the train that swept adown,

Raised the ermine-bordered gown,
Raised the smock, and bared to him
Daintily each lovely limb.
Then a wondrous thing befell,
Straight he rose up sound and well,
Left his bed, took cross in hand,
Sought again his own dear land.
Lily-flow'r, so white, so sweet,
Fair the faring of thy feet,
Fair thy laughter, fair thy speech,
Fair our playing each with each.
Sweet thy kisses, soft thy touch,
All must love thee over much.
'Tis for thee that I am thrown
In this vaulted cell alone;
'Tis for thee that I attend
Death, that comes to make an end,
For thee, sweet friend."

Now they say and tell and relate:

Aucassin was set in prison as you have heard tell, and Nicolette for her part was shut in the chamber. It was in the time of summer heat, in the month of May, when the days are warm, long and clear, and the nights coy and serene. Nicolette lay one night sleepless on her bed, and watched the moon shine brightly through the casement, and listened to the nightingale plain in the garden. Then she bethought her of Aucassin, her friend, whom she loved so well. She called also to mind the Count Garin of Beaucaire, her mortal foe, and feared greatly to remain lest her hiding-place should be told to him, and she be put to death in some shameful fashion. She made certain that the old woman who held her in ward was sound asleep. So she rose, and wrapped herself in a very fair silk mantle, the best she had, and taking the sheets from her bed and the towels of her bath, knotted them together to make so long a rope as she was able, tied it about a pillar of the window, and slipped down into the garden. Then she took her skirt in both hands, the one before, and the other behind, and kilted her lightly against the dew which lay thickly upon the grass, and so passed through the garden. Her hair was golden, with little love-locks; her eyes blue and laughing; her face most dainty to see, with lips more vermeil than ever was rose or cherry in the time of summer heat; her teeth white and small; her breasts so firm that they showed beneath her vesture like two rounded nuts; so frail was she about the girdle that your two hands could have spanned her, and the daisies that

she brake with her feet in passing showed altogether black against her instep and her flesh, so white was the fair young maiden.

She came to the postern, and unbarring the gate, issued forth upon the streets of Beaucaire, taking heed to keep within the shadows, for the moon shone very bright, and thus she fared until she chanced upon the tower where her lover was prisoned. The tower was buttressed with pieces of wood in many places, and Nicolette hid herself amongst the pillars, wrapped close in her mantle. She set her face to a crevice of the tower, which was old and ruinous, and there she heard Aucassin weeping within, making great sorrow for the sweet friend whom he held so dear; and when she had hearkened awhile she began to speak.

Now is sung:

Nicolette, so bright of face,
Leaned within this buttressed place,
Heard her lover weep within,
Marked the woe of Aucassin.
Then in words her thought she told,
"Aucassin, fond heart and bold,
What avails thine heart should ache
For a Paynim maiden's sake.
Ne'er may she become thy mate,
Since we prove thy father's hate,
Since thy kinsfolk hate me too;
What for me is left to do?
Nothing, but to seek the strand,
Pass o'er sea to some far land."
Shore she then one golden tress,
Thrust it in her love's duress;
Aucassin hath seen the gold
Shining bright in that dark hold,
Took the lock at her behest,
Kissed and placed it in his breast,
Then once more his eyes were wet
For Nicolette.

Now they say and tell and relate:

When Aucassin heard Nicolette say that she would fare into another country, he was filled with anger.

"Fair sweet friend," said he, "this be far from thee, for then wouldst thou have slain me. And the first man who saw thee, if so he might, would take thee forthwith and carry thee to his bed, and make thee his

leman. Be sure that if thou wert found in any man's bed, save it be mine, I should not need a dagger to pierce my heart and slay me. Certes, no; wait would I not for a knife; but on the first wall or the nearest stone would I cast myself, and beat out my brains altogether. Better to die so foul a death as this, than know thee to be in any man's bed, save mine."

"Aucassin," said she, "I fear that thou lovest me less than thy words; and that my love is fonder than thine."

"Alack," cried Aucassin, "fair sweet friend, how can it be that thy love should be so great? Woman cannot love man, as man loves woman; for woman's love is in the glance of her eye, and the blossom of her breast and the tip of the toe of her foot; but the love of man is set deep in the hold of his heart, from whence it cannot be torn away."

Whilst Aucassin and Nicolette were thus at odds together, the town watch entered the street, bearing naked swords beneath their mantles, for Count Garin had charged them strictly, once she were taken, to put her to death. The warder from his post upon the tower marked their approach, and as they drew near heard them speaking of Nicolette, menacing her with death.

"God," said he, "it is great pity that so fair a damsel should be slain, and a rich alms should I give if I could warn her privily, and so she escape the snare; for of her death Aucassin, my liege, were dead already, and truly this were a piteous case."

Now is sung:

Brave the warder, full of guile,
Straight he sought some cunning wile;
Sought and found a song betime,
Raised this sweet and pleasant rhyme.
"Lady of the loyal mind,
Slender, gracious, very kind,
Gleaming head and golden hair,
Laughing lips and eyes of vair!
Easy, Lady, 'tis to tell
Two have speech who love full well.
Yet in peril are they met,
Set the snare, and spread the net.
Lo, the hunters draw this way,
Cloaked, with privy knives, to slay.
Ere the huntsmen spy the chase
Let the quarry haste apace
And keep her well."

Now they say and tell and relate:

"Ah," said Nicolette, "may the soul of thy father and of thy mother find sweetest rest, since in so fair and courteous a manner hast thou warned me. So God please, I will indeed keep myself close, and may He keep me too."

She drew the folds of her cloak about her, and crouched in the darkness of the pillars till the watch had passed beyond; then she bade farewell to Aucassin, and bent her steps to the castle wall. The wall was very ruinous, and mended with timber, so she climbed the fence, and went her way till she found herself between wall and moat. Gazing below, she saw that the fosse was very deep and perilous, and the maid had great fear.

"Ah, God," cried she, "sweet Creature, should I fall, my neck must be broken; and if I stay, tomorrow shall I be taken, and men will burn my body in a fire. Yet were it better to die, now, in this place, than to be made a show to-morrow in the market."

She crossed her brow, and let herself slide down into the moat, and when she reached the bottom, her fair feet and pretty hands, which had never learned that they could be hurt, were so bruised and wounded that the blood came from them in places a many; yet knew she neither ill nor dolour because of the mightiness of her fear. But if with pain she had entered in, still more it cost her to issue forth. She called to mind that it were death to tarry, and by chance found there a stake of sharpened wood, which those within the keep had flung forth in their defence of the tower. With this she cut herself a foothold, one step above the other, till with extreme labour she climbed forth from the moat. Now the forest lay but the distance of two bolts from a crossbow, and ran some thirty leagues in length and breadth; moreover, within were many wild beasts and serpents. She feared these greatly, lest they should do her a mischief; but presently she remembered that should men lay hands upon her, they would lead her back to the city to burn her at the fire.

Now is sung:

Nicolette the fair, the fond,
Climbed the fosse and won beyond;
There she kneeled her, and implored
Very help of Christ the Lord.
"Father, King of majesty,
Where to turn I know not, I.
So, within the woodland gloom
Wolf and boar and lion roam,
Fearful things, with rav'ning maw,

Rending tusk and tooth and claw.
Yet, if all adread I stay,
Men will come at break of day,
Treat me to their heart's desire,
Burn my body in the fire.
But by God's dear majesty
Such a death I will not die;
Since I die, ah, better then
Trust the boar than trust to men.
Since all's evil, men and beast,
Choose I the least."

Now they say and tell and relate:

Nicolette made great sorrow in such manner as you have heard. She commended herself to God's keeping, and fared on until she entered the forest. She kept upon the fringes of the woodland, for dread of the wild beasts and reptiles; she hid herself within some thick bush, sleep overtook her, and she slept fast until six hours of the morn, when shepherds and herdsmen came from the city to lead their flocks to pasture between the wood and the river. The shepherds sat by a clear, sweet spring, which bubbled forth on the outskirts of the greenwood, and spreading a cloak upon the grass, set bread thereon. Whilst they ate together, Nicolette awoke at the song of the birds and the laughter, and hastened to the well.

"Fair children," said she, "God have you in His keeping."

"God bless you also," answered one who was more fluent of tongue than his companions.

"Fair child," said she, "do you know Aucassin, the son of Count Garin of this realm?"

"Yes, we know him well."

"So God keep you, pretty boy," said she, "as you tell him that within this wood there is a fair quarry for his hunting; and if he may take her he would not part with one of her members for a hundred golden marks, nor for five hundred, nay, nor for aught that man can give."

Then looking upon her steadfastly, their hearts were troubled, the maid was so beautiful.

"Will I tell him?" cried he who was readier of word than his companions. "Woe to him who speaks of it ever, or tells Aucassin what you say. You speak not truth but faery, for in all this forest there is no beast—neither stag, nor lion, nor boar—one of whose legs would be worth two pence, or three at the very best, and you talk of five hundred marks of gold. Woe betide him who believes your story, or shall spread it abroad.

You are a fay, and no fit company for such as us, so pass upon your road."

"Ah, fair child," answered she, "yet you will do as I pray. For this beast is the only medicine that may heal Aucassin of his hurt. And I have here five sous in my purse, take them, and give him my message. For within three days must he hunt this chase, and if within three days he find not the quarry, never may he cure him of his wound."

"By my faith," said he, "we will take the money, and if he comes this way we will give him your message, but certainly we will not go and look for him."

"As God pleases," answered she.

So she bade farewell to the shepherds, and went her way.

Now is sung:

Nicolette as you heard tell
Bade the shepherd lads farewell,
Through deep woodlands warily
Fared she 'neath the leafy tree;
Till the grass-grown way she trod
Brought her to a forest road,
Whence, like fingers on a hand,
Forked sev'n paths throughout the land.
There she called to heart her love,
There bethought her she would prove
Whether true her lover's vows.
Plucked she then young sapling boughs,
Grasses, leaves that branches yield,
Oak shoots, lilies of the field;
Built a lodge with frond and flow'r,
Fairest mason, fairest bow'r!
Swore then by the truth of God
Should her lover come that road,
Nor for love of her who made
Dream a little in its shade,
'Spite his oath no true love, he,
Nor fond heart, she.

Now they say and tell and relate:

Nicolette builded the lodge, as you have heard; very pretty it was and very dainty, and well furnished, both outside and in, with a tapestry of flowers and of leaves. Then she withdrew herself a little way from the bower, and hid within a thicket to spy what Aucassin would do. And the cry and the haro went through all the realm that Nicolette was lost. Some

had it that she had stolen away, and others that Count Garin had done her to death. Whoever had joy thereof, Aucassin had little pleasure. His father, Count Garin, brought him out of his prison, and sent letters to the lords and ladies of those parts bidding them to a very rich feast, so that Aucassin, his son, might cease to dote. When the feast was at its merriest, Aucassin leaned against the musicians' gallery, sad and all discomforted. No laugh had he for any jest, since she, whom most he loved, was not amongst the ladies set in hall. A certain knight marked his grief, and coming presently to him, said–

"Aucassin, of such fever as yours I, too, have been sick. I can give you good counsel, if you are willing to listen."

"Sir knight," said Aucassin, "great thanks; good counsel, above all things, I would hear."

"Get to horse," said he; "take your pleasure in the woodland, amongst flowers and bracken, and the songs of the birds. Perchance, who knows? you may hear some word of which you will be glad."

"Sir knight," answered Aucassin, "great thanks; this I will do."

He left the hall privily, and went downstairs to the stable where was his horse. He caused the charger to be saddled and bridled, then put foot in stirrup, mounted, and left the castle, riding till he entered the forest, and so by adventure came upon the well whereby the shepherd lads were sitting, and it was then about three hours after noon. They had spread a cloak upon the grass, and were eating their bread, with great mirth and jollity.

Now is sung:

Round about the well were set
Martin, Robin, Esmeret;
Jolly shepherds, gaily met,
Frulin, Jack and Aubriet.
Laughed the one, "God keep in ward
Aucassin, our brave young lord.
Keep besides the damsel fair,
Blue of eye and gold of hair,
Gave us wherewithal to buy
Cate[1] and sheath knife presently,
Horn and quarterstaff and fruit,
Shepherd's pipe and country flute;
God make him well."

1. Choice food.

Now they say and tell and relate:

When Aucassin marked the song of the herd-boys he called to heart Nicolette, his very sweet friend, whom he held so dear. He thought she must have passed that way, so he struck his horse with the spurs and came quickly to the shepherds.

"Fair children, God keep you."

"God bless you," replied he who was readier of tongue than his fellows.

"Fair children," said he, "tell over again the song that you told but now."

"We will not tell it," answered he who was more fluent of speech than the others; "sorrow be his who sings it to you, fair sir."

"Fair children," returned Aucassin, "do you not know me?"

"Oh yes, we know well that you are Aucassin, our young lord; but we are not your men; we belong to the Count."

"Fair children, sing me the song once more, I pray you!"

"By the Wounded Heart, what fine words! Why should I sing for you, if I have no wish to do so? Why, the richest man in all the land—saving the presence of Count Garin—would not dare to drive my sheep and oxen and cows from out his wheatfield or his pasture, for fear of losing his eyes. Wherefore, then, should I sing for you, if I have no wish to do so?"

"God keep you, fair children; yet you will do this thing for me. Take these ten sous that I have here in my purse."

"Sire, we will take the money; but I will not sing for you, since I have sworn not to do so; but I will tell it in plain prose, if such be your pleasure."

"As God pleases," answered Aucassin; "better the tale in prose than no story at all."

"Sire, we were in this glade between six and nine of the morn, and were breaking our bread by the well, just as we are doing now, when a girl came by, the loveliest thing in all the world, so fair that we thought her a fay, and she brimmed our wood with light. She gave us money, and made a bargain with us that if you came here we would tell you that you must hunt in this forest, for in it is such a quarry that if you may take her you would not part with one of her members for five hundred silver marks, nor for aught that man can give. For in the quest is so sweet a salve that if you take her you shall be cured of your wound; and within three days must the chase be taken, for if she be not found by then, never will you see her more. Now go to your hunting if you will, and if you will not, let it go, for truly have I carried out my bargain with her."

"Fair children," cried Aucassin, "enough have you spoken, and may God set me on her track."

Now is sung:

Aucassin's fond heart was moved
When this hidden word he proved
Sent him by the maid he loved.
Straight his charger he bestrode,
Bade farewell, and swiftly rode
Deep within the forest dim,
Saying o'er and o'er to him:
"Nicolette, so sweet, so good,
'Tis for you I search this wood;
Antlered stag nor boar I chase,
Hot I follow on your trace.
Slender shape and deep, blue eyes,
Dainty laughter, low replies,
Fledge the arrow in my heart.
Ah, to find you, ne'er to part!
Pray God give so fair an end,
Sister, sweet friend.

Now they say and tell and relate:

Aucassin rode through the wood in search of Nicolette, and the charger went right speedily. Do not think that the spines and thorns were pitiful to him. Truly it was not so; for his raiment was so torn that the least tattered of his garments could scarcely hold to his body, and the blood ran from his arms and legs and flanks in forty places, or at least in thirty, so that you could have followed after him by the blood which he left upon the grass. But he thought so fondly of Nicolette, his sweet friend, that he felt neither ill nor dolour. Thus all day long he searched the forest in this fashion, but might learn no news of her, and when it drew towards dusk he commenced to weep because he had heard nothing. He rode at adventure down an old grass-grown road, and looking before him saw a young man standing, such as I will tell you. Tall he was, and marvellously ugly and hideous. His head was big and blacker than smoked meat; the palm of your hand could easily have gone between his two eyes; he had very large cheeks and a monstrous flat nose with great nostrils; lips redder than uncooked flesh; teeth yellow and foul; he was shod with shoes and gaiters of bull's hide, bound about the leg with ropes to well above the knee; upon his back was a rough cloak; and he stood leaning on a huge club. Aucassin urged his steed towards him, but was all afeared when he saw him as he was.

"Fair brother, God keep you."

"God bless you too," said he.

"As God keeps you, what do you here?"

"What is that to you?" said he.

"Truly, naught," answered Aucassin. "I asked with no wish to do you wrong."

"And you, for what cause do you weep?" asked the other, "and make such heavy sorrow? Certainly, were I so rich a man as you are, not the whole world should make me shed a tear."

"Do you know me, then?" said Aucassin.

"Yes, well I know you to be Aucassin, the son of the Count, and if you will tell me why you weep, well, then I will tell you what I do here."

"Certes," said Aucassin, "I will tell you with all my heart. I came this morning to hunt in the forest, and with me a white greyhound, the swiftest in the whole world. I have lost him, and that is why I weep."

"Hear him," cried he, "by the Sacred Heart, and you make all this lamentation for a filthy dog! Sorrow be his who shall esteem you more. Why, there is not a man of substance in these parts who would not give you ten or fifteen or twenty hounds–if so your father wished–and be right glad to make you the gift. But for my part I have full reason to weep and cry aloud."

"And what is your grief, brother?"

"Sire, I will tell you. I was hired by a rich farmer to drive his plough, with a yoke of four oxen. Now three days ago, by great mischance, I lost the best of my bullocks, Roget, the very best ox in the plough. I have been looking for him ever since, and have neither eaten nor drunk for three days, since I dare not go back to the town, because men would put me into prison, as I have no money to pay for my loss. Of all the riches of the world I have nought but the rags upon my back. My poor old mother, too, who had nothing but one worn-out mattress, why, they have taken that from under her, and left her lying on the naked straw. That hurts me more than my own trouble. For money comes and money goes; if I have lost to-day, why, I may win to-morrow; and I will pay for my ox when pay I can. Not for this will I wring my hands. And you–you weep aloud for a filthy cur. Sorrow take him who shall esteem you more."

"Certes, thou art a true comforter, fair brother, and blessed may you be. What is the worth of your bullock?"

"Sire, the villein demands twenty sous for his ox. I cannot beat the price down by a single farthing."

"Hold out your hand," said Aucassin; "take these twenty sous which I have in my purse, and pay for your ox."

"Sire," answered the hind, "many thanks, and God grant you find that for which you seek."

So they parted from each other, and Aucassin rode upon his way. The night was beautiful and still, and so he fared along the forest path until he came to the seven cross-roads where Nicolette had builded her bower. Very pretty it was, and very dainty, and well furnished both outside and in, ceiling and floor, with arras and carpet of freshly plucked flowers; no sweeter habitation could man desire to see. When Aucassin came upon it he reined back his horse sharply, and the moonbeams fell within the lodge.

"Dear God," cried Aucassin, "here was Nicolette, my sweet friend, and this has she builded with her fair white hands. For the sweetness of the house and for love of her, now will I dismount, and here will I refresh me this night."

He withdrew his foot from the stirrup, and the charger was tall and high. He dreamed so deeply on Nicolette, his very sweet friend, that he fell heavily upon a great stone, and his shoulder came from its socket. He knew himself to be grievously wounded, but he forced himself to do all that he was able, and fastened his horse with the other hand to a thorn. Then he turned on his side, and crawled as best he might into the lodge. Looking through a crevice of the bower he saw the stars shining in the sky, and one brighter than all the others, so he began to repeat–

Now is sung:

Little Star I gaze upon
Sweetly drawing to the moon,
In such golden haunt is set
Love, and bright-haired Nicolette.
God hath taken from our war
Beauty, like a shining star.
Ah, to reach her, though I fell
From her Heaven to my Hell.
Who were worthy such a thing,
Were he emperor or king?
Still you shine, oh, perfect Star,
Beyond, afar.

Now they say and tell and relate:

When Nicolette heard Aucassin speak these words she hastened to

him from where she was hidden near by. She entered in the bower, and clasping her arms about his neck, kissed and embraced him straitly.

"Fair sweet friend, very glad am I to find you."

"And you, fair sweet friend, glad am I to meet."

So they kissed, and held each other fast, and their joy was lovely to see.

"Ah, sweet friend," cried Aucassin, "it was but now that I was in grievous pain with my shoulder, but since I hold you close I feel neither sorrow nor wound."

Nicolette searched his hurt, and perceived that the shoulder was out of joint. She handled it so deftly with her white hands, and used such skilful surgery, that by the grace of God (who loveth all true lovers) the shoulder came back to its place. Then she plucked flowers, and fresh grass and green leafage, and bound them tightly about the setting with the hem torn from her shift, and he was altogether healed.

"Aucassin," said she, "fair sweet friend, let us take thought together as to what must be done. If your father beats the wood to-morrow, and men take me, whatever may chance to you, certainly I shall be slain."

"Certes, fair sweet friend, the sorer grief would be mine. But so I may help, never shall you come to his hands."

So he mounted to horse, and setting his love before him, held her fast in his arms, kissing her as he rode, and thus they came forth to the open fields.

Now is sung:

Aucassin, that loving squire,
Dainty fair to heart's desire,
Rode from out the forest dim
Clasping her he loved to him.
'Laced upon the saddle bow
There he kissed her, chin and brow,
There embraced her, mouth and eyes.
But she spake him, sweetly wise;
"Love, a term to dalliance,
Since for us no home in France
Seek we Rome or far Byzance?"
"Sweet my love, all's one to me,
Dale or woodland, earth or sea;
Nothing care I where we ride
So I hold you at my side."
So, enlaced, the lovers went,
Skirting town and battlement,

Rocky scaur, and quiet lawn;
Till one morning, with the dawn,
Broke the cliffs down to the shore,
Loud they heard the surges roar,
Stood by the sea.

Now they say and tell and relate:

Aucassin dismounted upon the sand, he and Nicolette together, as you have heard tell. He took his horse by the bridle, and his damsel by the hand, and walked along the beach. Soon they perceived a ship, belonging to merchants of those parts, sailing close by, so Aucassin made signs to the sailors, and presently they came to him. For a certain price they agreed to take them upon the ship, but when they had reached the open sea a great and marvellous storm broke upon the vessel, and drove them from land to land until they drew to a far-off country, and cast anchor in the port of the castle of Torelore. Then they asked to what realm they had fared, and men told them that it was the fief of the King of Torelore. Then inquired Aucassin what manner of man was this King, and whether there was any war, and men answered–

"Yes, a mighty war."

So Aucassin bade farewell to the merchants, and they commended him to God. He belted his sword about him, climbed to horse, taking his love before him on the saddle bow, and went his way till he came to the castle. He asked where the King might be found, and was told that he was in childbed.

"Where, then, is his wife?"

And they answered that she was with the host, and had carried with her all the armed men of those parts. When Aucassin heard these things he marvelled very greatly. He came to the palace door and there dismounted, bidding Nicolette to hold the bridle. Then, making his sword ready, he climbed the palace stair, and searched until he came to the chamber where the King lay.

Now is sung:

Hot from searching, Aucassin
Found the room and entered in;
There before the couch he stayed
Where the King, alone, was laid,
Marked the King, and marked the bed,
Marked this lying-in, then said,
"Fool, why doest thou this thing?"

"I'm a mother," quoth the King:
"When my month is gone at length,
And I come to health and strength,
Then shall I hear Mass once more
As my fathers did before,
Arm me lightly, take my lance,
Set my foe a right fair dance,
Where horses prance."

Now they say and tell and relate:

When Aucassin heard the King speak thus he took the linen from the bed, and flung it about the chamber. He saw a staff in the corner, so he seized it, returned to the bed, and beat the King so rudely therewith, that he was near to die.

"Ha, fair sire," cried the King, "what do you require of me? Are you mad that you treat me thus in my own house?"

"By the Sacred Heart," said Aucassin, "bad son of a shameless mother, I will strike with the sword if you do not swear to me that man shall never lie in childbed in your realm again."

He plighted troth, and when he was thus pledged, "Sire," required Aucassin, "bring me now where your wife is with the host."

"Sire, willingly," said the King.

He got to horse, and Aucassin mounted his, leaving Nicolette at peace in the Queen's chamber. The King and Aucassin rode at adventure until they came to where the Queen was set, and they found that the battle was joined with roasted crab-apples and eggs and fresh cheeses. So Aucassin gazed upon the sight and marvelled greatly.

Now is sung:

Aucassin hath drawn his rein,
From the saddle stared amain,
Marked the set and stricken field,
Cheered the hearts that would not yield.
They had carried to the fight
Mushrooms, apples baked aright,
And for arrows, if you please,
Pelted each with good fresh cheese.
He who muddied most the ford
Bore the prize in that award.
Aucassin, the brave, the true,
Watched these deeds of derring do,
Laughed loudly too.

Now they say and tell and relate:

When Aucassin saw this strange sight he went to the King and asked of him–

"Sire, are these your foes?"

"Yea, sire," answered the King.

"And would you that I should avenge you on them?"

"Yea," answered he, "right willingly."

So Aucassin took sword in hand, and throwing himself in the *melée,* struck fiercely on the right and on the left, and slew many. When the King saw the death that Aucassin dealt he snatched at his bridle and cried–

"Hold, fair sire, deal not with them so cruelly."

"What," said Aucassin, "was it not your wish that I should avenge you on your enemies?"

"Sire," replied the King, "too ready is such payment as yours. It is not our custom, nor theirs, to fight a quarrel to the death."

Thereon the foemen fled the field.

The King and Aucassin returned in triumph to the castle of Torelore, and the men of the country persuaded the King that he should cast Aucassin forth from the realm, and give Nicolette to his son, for she seemed a fair woman of high lineage. When Nicolette heard thereof she had little comfort, so began to say–

Now is sung:

Simple folk, and simple King,
Deeming maid so slight a thing.
When my lover finds me sweet,
Sweetly shapen, brow to feet,
Then know I such dalliance,
No delight of harp, or dance,
Sweetest tune, or fairest mirth,
All the play of all the earth
Seems aught of worth.

[*A section of the only Old French manuscript extant is missing at this point.–Editor*]

Now they say and tell and relate:

Aucassin abode in the castle of Torelore in ease and great delight, having with him Nicolette his sweet friend, whom he loved so well. Whilst his days passed in so easy and delightful a manner a great company of Saracens came in galleys oversea and beset the castle, and pres-

ently took it by storm. They gathered together the spoil, and bore off the townsfolk, both men and women, into captivity. Amongst these were seized Nicolette and Aucassin, and having bound Aucassin, both hands and feet, they flung him into one vessel, and bestowed Nicolette upon another. Thereafter a great tempest arose at sea, and drove these galleys apart. The ship whereon Aucassin lay bound, drifted idly, here and there, on wind and tide, till by chance she went ashore near by the castle of Beaucaire, and the men of that part hurrying to the wreck, found Aucassin, and knew him again. When the men of Beaucaire saw their lord they had much joy, for Aucassin had lived at the castle of Torelore in all ease for three full years, and his father and his mother were dead. They brought him to the castle of Beaucaire, and knelt before him; so held he his realm in peace.

Now is sung:

Aucassin hath gained Beaucaire,
Men have done him homage there;
Holds he now in peace his fief,
Castellan and count and chief.
Yet with heaviness and grief
Goeth he in that fair place,
Lacking love and one sweet face;
Grieving more for one bright head
Than he mourneth for his dead.
"Dearest love, and lady kind,
Treasure I may never find,
God hath never made that strand
Far o'er sea or long by land,
Where I would not seek such prize
And merchandise."

Now they say and tell and relate:

Now leave we Aucassin and let us tell of Nicolette. The ship which carried Nicolette belonged to the King of Carthage, and he was her father, and she had twelve brothers, all princes or kings in the land. When they saw the beauty of the girl, they made much of her, and bore her in great reverence, and questioned her straitly as to her degree, for certainly she seemed to them a very gracious lady and of high lineage. But she could not tell them aught thereof, for she was but a little child when men sold her into captivity. So the oarsmen rowed until the galley cast anchor beneath the city of Carthage, and when Nicolette gazed on

the battlements and the country round about, she called to mind that there had she been cherished, and from thence borne away when but an unripe maid; yet she was not snatched away so young but that she could clearly remember that she was the daughter of the King of Carthage, and once was nourished in the city.

Now is sung:

Nicolette, that maid demure,
Set her foot on alien shore;
Marked the city fenced with walls,
Gazed on palaces and halls.
Then she sighed, "Ah, little worth
All the pomp of all the earth,
Since the daughter of a king,
Come of Sultan's blood, they bring
Stripped to market, as a slave.
Aucassin, true heart and brave,
Sweet thy love upon me steals,
Urges, clamours, pleads, appeals;
Would to God that peril past
In my arms I held you fast;
Would to God that in this place
We were stayed in one embrace,
Fell your kisses on my face,
My dear, my fere."

Now they say and tell and relate:

When the King of Carthage heard Nicolette speak in this wise he put his arms about her neck.

"Fair sweet friend," said he, "tell me truly who you are, and be not esmayed of me."

"Sire," answered she, "truly am I daughter to the King of Carthage, and was stolen away when but a little child, full fifteen years ago."

When they heard her say this thing they were assured that her words were true, so they rejoiced greatly, and brought her to the palace in such pomp as became the daughter of a king. They sought to give her some king of those parts as husband and baron, but she had no care to marry. She stayed in the palace three or four days, and considered in her mind by what means she might flee and seek Aucassin. So she obtained a viol, and learned to play thereon; and when on a certain day they would have given her in marriage to a rich king among the Paynim, she rose at night and stole away secretly, wandering until she came to the seaport,

where she lodged with some poor woman in a house near the shore. There, by means of a herb, she stained her head and face, so that her fairness was all dark and discoloured; and having made herself coat and mantle, shirt and hose, she equipped her in the guise of a minstrel. Then, taking her viol, she sought out a sailor, and persuaded him sweetly to grant her a passage in his ship. They hoisted sail, and voyaged over the rough seas until they came to the land of Provence; and Nicolette set foot on shore, carrying her viol, and fared playing through the country, until she came to the castle of Beaucaire, in the very place where Aucassin was.

Now is sung:

'Neath the keep of strong Beaucaire
On a day of summer fair,
At his pleasure, Aucassin
Sat with baron, friend and kin.
Then upon the scent of flow'rs,
Song of birds, and golden hours,
Full of beauty, love, regret,
Stole the dream of Nicolette,
Came the tenderness of years;
So he drew apart in tears.
Then there entered to his eyes
Nicolette, in minstrel guise,
Touched the viol with the bow,
Sang as I will let you know.
"Lords and ladies, list to me,
High and low, of what degree;
Now I sing, for your delight,
Aucassin, that loyal knight,
And his fond friend, Nicolette.
Such the love betwixt them set
When his kinsfolk sought her head
Fast he followed where she fled.
From their refuge in the keep
Paynims bore them o'er the deep.
Nought of him I know to end.
But for Nicolette, his friend,
Dear she is, desirable,
For her father loves her well;
Famous Carthage owns him king,
Where she has sweet cherishing.

Now, as lord he seeks for her,
Sultan, Caliph, proud Emir.
But the maid of these will none,
For she loves a dansellon,
Aucassin, who plighted troth.
Sworn has she some pretty oath
Ne'er shall she be wife or bride,
Never lie at baron's side
Be he denied."

Now they say and tell and relate:

When Aucassin heard Nicolette sing in this fashion he was glad at heart, so he drew her aside, and asked–

"Fair sweet friend," said Aucassin, "know you naught of this Nicolette, whose ballad you have sung?"

"Sire, truly, yes; well I know her for the most loyal of creatures, and as the most winning and modest of maidens born. She is daughter to the King of Carthage, who took her when Aucassin also was taken, and brought her to the city of Carthage, till he knew for certain that she was his child, whereat he rejoiced greatly. Any day he would give her for husband one of the highest kings in all Spain; but rather would she be hanged or burned than take him, however rich he be."

"Ah, fair sweet friend," cried the Count Aucassin, "if you would return to that country and persuade her to have speech with me here, I would give you of my riches more than you would dare to ask of me or to take. Know that for love of her I choose not to have a wife, however proud her race, but I stand and wait; for never will there be wife of mine if it be not her, and if I knew where to find her I should not need to grope blindly for her thus."

"Sire," answered she, "if you will do these things I will go and seek her for your sake, and for hers too; because to me she is very dear."

He pledged his word, and caused her to be given twenty pounds. So she bade him farewell, and he was weeping for the sweetness of Nicolette. And when she saw his tears–

"Sire," said she, "take it not so much to heart; in so short a space will I bring her to this town, and you shall see her with your eyes."

When Aucassin knew this he rejoiced greatly. So she parted from him, and fared in the town to the house of the Viscountess, for the Viscount, her godfather, was dead. There she lodged, and opened her mind fully to the lady on all the business; and the Viscountess recalled the past, and knew well that it was Nicolette whom she had cherished. So she caused

the bath to be heated, and made her take her ease for fully eight days. Then Nicolette sought an herb that was called celandine, and washed herself therewith, and became so fair as she had never been before. She arrayed herself in a rich silken gown from the lady's goodly store; and seated herself in the chamber on a rich stuff of broidered sendal; then she whispered the dame, and begged her to fetch Aucassin, her friend. This she did. When she reached the palace, lo, Aucassin in tears, making great sorrow for the long tarrying of Nicolette, his friend; and the lady called to him, and said–

"Aucassin, behave not so wildly; but come with me, and I will show you that thing you love best in all the world; for Nicolette, your sweet friend, is here from a far country to seek her love."

So Aucassin was glad at heart.

Now is sung:

When he learned that in Beaucaire
Lodged his lady, sweet and fair,
Aucassin arose, and came
To her hostel, with the dame;
Entered in, and passed straightway
To the chamber where she lay.
When she saw him, Nicolette
Had such joy as never yet;
Sprang she lightly to her feet
Swiftly came with welcome meet.
When he saw her, Aucassin
Oped both arms, and drew her in,
Clasped her close in fond embrace,
Kissed her eyes and kissed her face.
In such greeting sped the night,
Till, at dawning of the light,
Aucassin, with pomp most rare,
Crowned her Countess of Beaucaire.
Such delight these lovers met,
Aucassin and Nicolette.
Length of days and joy did win,
Nicolette and Aucassin,
Endeth song and tale I tell
With marriage bell.

Translated by Eugene Mason.

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Stephen Crane

1871–1900

Stephen Crane, the fourteenth child of a Methodist Episcopal clergyman in Newark, New Jersey, was born on November 1, 1871. He spent one term at Lafayette College and another at Syracuse University, where he played varsity baseball. At that time he began a first novel, later called *Maggie*. Crane paid for its printing in 1893. Scarcely a copy was sold.

He was a thin, blond young man of less than medium height. His gray-blue eyes saw everything. From late 1892 until 1896 he was in and out of New York City. He made an occasional living from newspaper assignments along Park Row. In 1895 a newspaper syndicate sent him on a trip to the West and into Mexico. There he was chased by a "fashionable bandit." Crane, a good rider, got away.

The same year he published *The Black Riders,* a book of poems, and *The Red Badge of Courage,* his brilliant novel about the Civil War. (He had never seen a battle.) *The Red Badge,* hardly noticed at first, reacted to praise from England and went through fourteen American printings in 1896. In that one year *The Red Badge, Maggie,* and the poems came out in England. Another novel, *George's Mother,* appeared in London and New York. Crane became the most talked about young writer of his period.

Early in 1897 he was aboard the tugboat *Commodore,* outbound with arms for the Cuban insurgents. She sank off the Florida coast. *The Open Boat* derived from this misadventure. In Jacksonville he met Cora Stewart, daughter of a Boston artist. She was with him, as perhaps the first woman war correspondent, when he covered the Greco-Turkish War in 1897. Later she became his common-law wife. They settled in England, welcomed by such friends as Harold Frederic, Henry James, and Joseph Conrad.

The Spanish-American War began in April, 1898. Crane, back in New York, was rejected by the Navy. As a correspondent, he got into much of the land fighting around Santiago de Cuba. He was cited for bravery. In January, 1899, he returned to England, where Cora had found an old manor house in Sussex. His last year of work was the final battle in a war against debt, illness, and time. He was taken to a sanitarium in Germany. There he died of tuberculosis, aged twenty-eight, on June 5, 1900.

In the delirium of his last illness in the Black Forest, Crane talked about "changing places" in the boat. "By the very star of truth," he had written, "it is easier to steal eggs from under a hen than it was to change seats in the dinghy." His wife knew what boat he meant. It was a ten-foot dinghy, built for pulling in to the wharf in quiet harbors. It rode the sea, among swells "most wrongfully and barbarously abrupt and tall." This was the boat that brought Crane and three other men to the beach at Daytona after the sinking of the *Commodore*. He wrote the story quickly, after the event, in Jacksonville. Conrad, a veteran seaman, thought it a great story; and H. G. Wells said it was "beyond all question, the crown of all his work."

It needs no interpretation. Everything is there, in the story. What could be plainer than this day and night and morning in the indifferent universe of the sea, with life or death at the end of it? It is every man's life in miniature. Crane caught it when it first took fire in his imagination, while the recollection was still fresh. His all but instinctive sense of form told him where to begin and where to stop. He gives us the tugboat's sinking in one remembered image: ". . . a stump of a topmast with a white ball on it, that slashed to and fro at the waves, went low and lower, and down." After that everything is contained in the Greek unities of a boat, four men, the sea, the sky, and the land.

Like the poet Rimbaud, Crane deliberately made himself "a testing ground for all the sensations of living." He was a man who had to

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Notes from the artist: ". . . *a sparse, severe treatment of Stephen Crane as the seeker of human values in a grim, chaotic world . . . Above his head, standing between the Union and Confederate flags, is Henry Fleming, the coward-hero of* The Red Badge of Courage."

STEPHEN
CRANE

find out how things worked and how they felt. The discovery of this truth of feeling was his business, in baseball (he said it had taught him about war), in rowing a dinghy in the open sea, or in war itself. The things that other people dismissed as mere sensation–"sport" or "adventure" or "war"–were simply life to him. He lived them with the same faithful intensity he gave to the observation of a dog's behavior or a boy's gang fight.

This is what made it possible for Crane to create that sense of the raw world we get in *The Open Boat* and in the best of his other stories. He was called an "impressionist." The label was false. He was no passive receiver of impressions. His point of vision, in life as in his stories, was that of a participant in the given action. The "psychology" of the men in *The Open Boat* is almost purely a matter of dealing with their situation, plus the sense of community that comes out of that. Even the correspondent's reflections are only an extension of these feelings. Such treatment might have produced a melodrama. It is lifted into art by the detachment of Crane's style: by the surprises of the poet, the precision of the man of action, the oblique angle of the ironist.

The Open Boat

A Tale Intended to Be after the Fact:
Being the Experience of Four Men
from the Sunk Steamer Commodore

None of them knew the color of the sky. Their eyes glanced level, and were fastened upon the waves that swept toward them. These waves were of the hue of slate, save for the tops, which were of foaming white, and all of the men knew the colors of the sea. The horizon narrowed and widened, and dipped and rose, and at all times its edge was jagged with waves that seemed thrust up in points like rocks.

Many a man ought to have a bathtub larger than the boat which here rode upon the sea. These waves were most wrongfully and barbarously abrupt and tall, and each froth-top was a problem in small-boat navigation.

The cook squatted in the bottom, and looked with both eyes at the six inches of gunwale which separated him from the ocean. His sleeves were rolled over his fat forearms, and the two flaps of his unbuttoned vest dangled as he bent to bail out the boat. Often he said, "Gawd! that was a narrow clip." As he remarked it he invariably gazed eastward over the broken sea.

The oiler, steering with one of the two oars in the boat, sometimes raised himself suddenly to keep clear of water that swirled in over the stern. It was a thin little oar, and it seemed often ready to snap.

The correspondent, pulling at the other oar, watched the waves and wondered why he was there.

The injured captain, lying in the bow, was at this time buried in that

profound dejection and indifference which comes, temporarily at least, to even the bravest and most enduring when, willy-nilly, the firm fails, the army loses, the ship goes down. The mind of the master of a vessel is rooted deep in the timbers of her, though he command for a day or a decade; and this captain had on him the stern impression of a scene in the grays of dawn of seven turned faces, and later a stump of a topmast with a white ball on it, that slashed to and fro at the waves, went low and lower, and down. Thereafter there was something strange in his voice. Although steady, it was deep with mourning, and of a quality beyond oration or tears.

"Keep 'er a little more south, Billie," said he.

"A little more south, sir," said the oiler in the stern.

A seat in his boat was not unlike a seat upon a bucking broncho, and by the same token a broncho is not much smaller. The craft pranced and reared and plunged like an animal. As each wave came, and she rose for it, she seemed like a horse making at a fence outrageously high. The manner of her scramble over these walls of water is a mystic thing, and, moreover, at the top of them were ordinarily these problems in white water, the foam racing down from the summit of each wave requiring a new leap, and a leap from the air. Then, after scornfully bumping a crest, she would slide and race and splash down a long incline, and arrive bobbing and nodding in front of the next menace.

A singular disadvantage of the sea lies in the fact that after successfully surmounting one wave you discover that there is another behind it just as important and just as nervously anxious to do something effective in the way of swamping boats. In a ten-foot dinghy one can get an idea of the resources of the sea in the line of waves that is not probable to the average experience which is never at sea in a dinghy. As each slaty wall of water approached, it shut all else from the view of the men in the boat, and it was not difficult to imagine that this particular wave was the final outburst of the ocean, the last effort of the grim water. There was a terrible grace in the move of the waves, and they came in silence, save for the snarling of the crests.

In the wan light the faces of the men must have been gray. Their eyes must have glinted in strange ways as they gazed steadily astern. Viewed from a balcony, the whole thing would doubtless have been weirdly picturesque. But the men in the boat had no time to see it, and if they had had leisure, there were other things to occupy their minds. The sun swung steadily up the sky, and they knew it was broad day because

the color of the sea changed from slate to emerald green streaked with amber lights, and the foam was like tumbling snow. The process of the breaking day was unknown to them. They were aware only of this effect upon the color of the waves that rolled toward them.

In disjointed sentences the cook and the correspondent argued as to the difference between a life-saving station and a house of refuge. The cook had said: "There's a house of refuge just north of the Mosquito Inlet Light, and as soon as they see us they'll come off in their boat and pick us up."

"As soon as who see us?" said the correspondent.

"The crew," said the cook.

"Houses of refuge don't have crews," said the correspondent. "As I understand them, they are only places where clothes and grub are stored for the benefit of shipwrecked people. They don't carry crews."

"Oh, yes, they do," said the cook.

"No, they don't," said the correspondent.

"Well, we're not there yet, anyhow," said the oiler, in the stern.

"Well," said the cook, "perhaps it's not a house of refuge that I'm thinking of as being near Mosquito Inlet Light; perhaps it's a life-saving station."

"We're not there yet," said the oiler in the stern.

As the boat bounced from the top of each wave the wind tore through the hair of the hatless men, and as the craft plopped her stern down again the spray slashed past them. The crest of each of these waves was a hill, from the top of which the men surveyed for a moment a broad tumultuous expanse, shining and wind-riven. It was probably splendid, it was probably glorious, this play of the free sea, wild with lights of emerald and white and amber.

"Bully good thing it's an on-shore wind," said the cook. "If not, where would we be? Wouldn't have a show."

"That's right," said the correspondent.

The busy oiler nodded his assent.

Then the captain, in the bow, chuckled in a way that expressed humor, contempt, tragedy, all in one. "Do you think we've got much of a show now, boys?" said he.

Whereupon the three were silent, save for a trifle of hemming and hawing. To express any particular optimism at this time they felt to be childish and stupid, but they all doubtless possessed this sense of the

situation in their minds. A young man thinks doggedly at such times. On the other hand, the ethics of their condition was decidedly against any open suggestion of hopelessness. So they were silent.

"Oh, well," said the captain, soothing his children, "we'll get ashore all right."

But there was that in his tone which made them think; so the oiler quoth, "Yes! if this wind holds."

The cook was bailing. "Yes! if we don't catch hell in the surf."

Canton-flannel gulls flew near and far. Sometimes they sat down on the sea, near patches of brown seaweed that rolled over the waves with a movement like carpets on a line in a gale. The birds sat comfortably in groups, and they were envied by some in the dinghy, for the wrath of the sea was no more to them than it was to a covey of prairie chickens a thousand miles inland. Often they came very close and stared at the men with black beadlike eyes. At these times they were uncanny and sinister in their unblinking scrutiny, and the men hooted angrily at them, telling them to be gone. One came, and evidently decided to alight on the top of the captain's head. The bird flew parallel to the boat and did not circle, but made short sidelong jumps in the air in chicken fashion. His black eyes were wistfully fixed upon the captain's head. "Ugly brute," said the oiler to the bird. "You look as if you were made with a jackknife." The cook and the correspondent swore darkly at the creature. The captain naturally wished to knock it away with the end of the heavy painter, but he did not dare do it, because anything resembling an emphatic gesture would have capsized this freighted boat; and so, with his open hand, the captain gently and carefully waved the gull away. After it had been discouraged from the pursuit the captain breathed easier on account of his hair, and others breathed easier because the bird struck their minds at this time as being somehow gruesome and ominous.

In the meantime the oiler and the correspondent rowed. And also they rowed. They sat together in the same seat, and each rowed an oar. Then the oiler took both oars; then the correspondent took both oars; then the oiler; then the correspondent. They rowed and they rowed. The very ticklish part of the business was when the time came for the reclining one in the stern to take his turn at the oars. By the very last star of truth, it is easier to steal eggs from under a hen than it was to change seats in the dinghy. First the man in the stern slid his hand along the thwart and moved with care, as if he were of Sèvres. Then the man in the rowing seat slid his hand along the other thwart. It was all done with the most extraordinary care. As the two sidled past each other, the whole party

kept watchful eyes on the coming wave, and the captain cried: "Look out, now! Steady, there!"

The brown mats of seaweed that appeared from time to time were like islands, bits of earth. They were traveling, apparently, neither one way nor the other. They were, to all intents, stationary. They informed the man in the boat that it was making progress slowly toward the land.

The captain, rearing cautiously in the bow after the dinghy soared on a great swell, said that he had seen the lighthouse at Mosquito Inlet. Presently the cook remarked that he had seen it. The correspondent was at the oars then, and for some reason he too wished to look at the lighthouse; but his back was toward the far shore, and the waves were important, and for some time he could not seize an opportunity to turn his head. But at last there came a wave more gentle than the others, and when at the crest of it he swiftly scoured the western horizon.

"See it?" said the captain.

"No," said the correspondent, slowly; "I didn't see anything."

"Look again," said the captain. He pointed. "It's exactly in that direction."

At the top of another wave the correspondent did as he was bid, and this time his eyes chanced on a small, still thing on the edge of the swaying horizon. It was precisely like the point of a pin. It took an anxious eye to find a lighthouse so tiny.

"Think well make it, Captain?"

"If this wind holds and the boat don't swamp, we can't do much else," said the captain.

The little boat, lifted by each towering sea and splashed viciously by the crests, made progress that in the absence of seaweed was not apparent to those in her. She seemed just a wee thing wallowing, miraculously top up, at the mercy of five oceans. Occasionally a great spread of water, like white flames, swarmed into her.

"Bail her, cook," said the captain, serenely.

"All right, Captain," said the cheerful cook.

It would be difficult to describe the subtle brotherhood of men that was here established on the seas. No one said that it was so. No one mentioned it. But it dwelt in the boat, and each man felt it warm him. They were a captain, an oiler, a cook, and a correspondent, and they were friends—friends in a more curiously iron-bound degree than may be common. The hurt captain, lying against the water jar in the bow, spoke always in a

low voice and calmly; but he could never command a more ready and swiftly obedient crew than the motley three of the dinghy. It was more than a mere recognition of what was best for the common safety. There was surely in it a quality that was personal and heart-felt. And after this devotion to the commander of the boat, there was this comradeship, that the correspondent, for instance, who had been taught to be cynical of men, knew even at the time was the best experience of his life. But no one said that it was so. No one mentioned it.

"I wish we had a sail," remarked the captain. "We might try my overcoat on the end of an oar, and give you two boys a chance to rest." So the cook and the correspondent held the mast and spread wide the overcoat; the oiler steered; and the little boat made good way with her new rig. Sometimes the oiler had to scull sharply to keep a sea from breaking into the boat, but otherwise sailing was a success.

Meanwhile the lighthouse had been growing slowly larger. It had now almost assumed color, and appeared like a little gray shadow on the sky. The man at the oars could not be prevented from turning his head rather often to try for a glimpse of this little gray shadow.

At last, from the top of each wave, the men in the tossing boat could see land. Even as the lighthouse was an upright shadow on the sky, this land seemed but a long black shadow on the sea. It certainly was thinner than paper. "We must be about opposite New Smyrna," said the cook, who had coasted this shore often in schooners. "Captain, by the way, I believe they abandoned that life-saving station there about a year ago."

"Did they?" said the captain.

The wind slowly died away. The cook and the correspondent were not now obliged to slave in order to hold high the oar. But the waves continued their old impetuous swooping at the dinghy, and the little craft, no longer under way, struggled woundily over them. The oiler or the correspondent took the oars again.

Shipwrecks are apropos of nothing. If men could only train for them and have them occur when the men had reached pink condition, there would be less drowning at sea. Of the four in the dinghy none had slept any time worth mentioning for two days and two nights previous to embarking in the dinghy, and in the excitement of clambering about the deck of a foundering ship they had also forgotten to eat heartily.

For these reasons, and for others, neither the oiler nor the correspondent was fond of rowing at this time. The correspondent wondered ingenuously how in the name of all that was sane could there be people who thought it amusing to row a boat. It was not an amusement; it was a

diabolical punishment, and even a genius of mental aberrations could never conclude that it was anything but a horror to the muscles and a crime against the back. He mentioned to the boat in general how the amusement of rowing struck him, and the weary-faced oiler smiled in full sympathy. Previously to the foundering, by the way, the oiler had worked a double watch in the engine room of the ship.

"Take her easy now, boys," said the captain. "Don't spend yourselves. If we have to run a surf you'll need all your strength, because we'll sure have to swim for it. Take your time."

Slowly the land arose from the sea. From a black line it became a line of black and a line of white—trees and sand. Finally the captain said that he could make out a house on the shore. "That's the house of refuge, sure," said the cook. "They'll see us before long, and come out after us."

The distant lighthouse reared high. "The keeper ought to be able to make us out now, if he's looking through a glass," said the captain. "He'll notify the life-saving people."

"None of those other boats could have got ashore to give word of this wreck," said the oiler, in a low voice, "else the lifeboat would be out hunting us."

Slowly and beautifully the land loomed out of the sea. The wind came again. It had veered from the northeast to the southeast. Finally a new sound struck the ears of the men in the boat. It was the low thunder of the surf on the shore. "We'll never be able to make the lighthouse now," said the captain. "Swing her head a little more north, Billie."

"A little more north, sir," said the oiler.

Whereupon the little boat turned her nose once more down the wind, and all but the oarsman watched the shore grow. Under the influence of this expansion doubt and direful apprehension were leaving the minds of the men. The management of the boat was still most absorbing, but it could not prevent a quiet cheerfulness. In an hour, perhaps, they would be ashore.

Their backbones had become thoroughly used to balancing in the boat, and they now rode this wild colt of a dinghy like circus men. The correspondent thought that he had been drenched to the skin, but happening to feel in the top pocket of his coat, he found therein eight cigars. Four of them were soaked with sea water; four were perfectly scatheless. After a search, somebody produced three dry matches; and thereupon the four waifs rode impudently in their little boat and, with an assurance of an impending rescue shining in their eyes, puffed at the big cigars, and judged well and ill of all men. Everybody took a drink of water.

"Cook," remarked the captain, "there don't seem to be any signs of life about your house of refuge."

"No," replied the cook. "Funny they don't see us!"

A broad stretch of lowly coast lay before the eyes of the men. It was of low dunes topped with dark vegetation. The roar of the surf was plain, and sometimes they could see the white lip of a wave as it spun up the beach. A tiny house was blocked out black upon the sky. Southward, the slim lighthouse lifted its little gray length.

Tide, wind, and waves were swinging the dinghy northward. "Funny they don't see us," said the men.

The surf's roar was here dulled, but its tone was nevertheles thunderous and mighty. As the boat swam over the great rollers the men sat listening to this roar. "We'll swamp sure," said everybody.

It is fair to say here that there was not a life-saving station within twenty miles in either direction; but the men did not know this fact, and in consequence they made dark and opprobious remarks concerning the eyesight of the nation's life-savers. Four scowling men sat in the dinghy and surpassed records in the invention of epithets.

"Funny they don't see us."

The light-heartedness of a former time had completely faded. To their sharpened minds it was easy to conjure pictures of all kinds of incompetency and blindness and, indeed, cowardice. There was the shore of the populous land, and it was bitter and bitter to them that from it came no sign.

"Well," said the captain, ultimately, "I suppose we'll have to make a try for ourselves. If we stay out here too long, we'll none of us have strength left to swim after the boat swamps."

And so the oiler, who was at the oars, turned the boat straight for the shore. There was a sudden tightening of muscles. There was some thinking.

"If we don't all get ashore," said the captain—"if we don't all get ashore, I suppose you fellows know where to send news of my finish?"

They then briefly exchanged some addresses and admonitions. As for the reflections of the men, there was a great deal of rage in them. Perchance they might be formulated thus: "If I am going to be drowned—if I am going to be drowned—if I am going to be drowned, why, in the name of the seven mad gods who rule the sea, was I allowed to come thus far and contemplate sand and trees? Was I brought here merely to have my nose dragged away as I was about to nibble the sacred cheese of life? It is preposterous. If this old ninny-woman, Fate, cannot do better

than this, she should be deprived of the management of men's fortunes. She is an old hen who knows not her intention. If she has decided to drown me, why did she not do it in the beginning and save me all this trouble? The whole affair is absurd.—But no; she cannot mean to drown me. She dare not drown me. She cannot drown me. Not after all this work." Afterward the man might have had an impulse to shake his fist at the clouds. "Just you drown me, now, and then hear what I call you!"

The billows that came at this time were more formidable. They seemed always just about to break and roll over the little boat in a turmoil of foam. There was a preparatory and long growl in the speech of them. No mind unused to the sea would have concluded that the dinghy could ascend these sheer heights in time. The shore was still afar. The oiler was a wily surfman. "Boys," he said swiftly, "she won't live three minutes more, and we're too far out to swim. Shall I take her to sea again, Captain?"

"Yes; go ahead!" said the captain.

This oiler, by a series of quick miracles and fast and steady oarsmanship, turned the boat in the middle of the surf and took her safely to sea again.

There was a considerable silence as the boat bumped over the furrowed sea to deeper water. Then somebody in gloom spoke: "Well, anyhow, they must have seen us from the shore by now."

The gulls went in slanting flight up the wind toward the gray, desolate east. A squall, marked by dingy clouds and clouds brick-red like smoke from a burning building, appeared from the southeast.

"What do you think of those life-saving people? Ain't they peaches?"

"Funny they haven't seen us."

"Maybe they think we're out here for sport! Maybe they think we're fishin'. Maybe they think we're damned fools."

It was a long afternoon. A changed tide tried to force them southward, but wind and wave said northward. Far ahead, where coast line, sea, and sky formed their mighty angle, there were little dots which seemed to indicate a city on the shore.

"St. Augustine?"

The captain shook his head. "Too near Mosquito Inlet."

And the oiler rowed, and then the correspondent rowed; then the oiler rowed. It was a weary business. The human back can become the seat of more aches and pains than are registered in books for the composite anatomy of a regiment. It is a limited area, but it can become the theatre of innumerable muscular conflicts, tangles, wrenches, knots, and other comforts.

"Did you ever like to row, Billie?" asked the correspondent.

"No," said the oiler; "hang it!"

When one exchanged the rowing seat for a place in the bottom of the boat, he suffered a bodily depression that caused him to be careless of everything save an obligation to wiggle one finger. There was cold sea water swashing to and fro in the boat, and he lay in it. His head, pillowed on a thwart, was within an inch of the swirl of a wave crest, and sometimes a particularly obstreperous sea came inboard and drenched him once more. But these matters did not annoy him. It is almost certain that if the boat had capsized he would have tumbled comfortably out upon the ocean as if he felt sure that it was a great soft mattress.

"Look! There's a man on the shore!"

"Where?"

"There! See 'im? See 'im?"

"Yes, sure! He's walking along."

"Now he's stopped. Look! He's facing us!"

"He's waving at us!"

"So he is! By thunder!"

"Ah, now we're all right! Now we're all right! There'll be a boat out here for us in half an hour."

"He's going on. He's running. He's going up to that house there."

The remote beach seemed lower than the sea, and it required a searching glance to discern the little black figure. The captain saw a floating stick, and they rowed to it. A bath towel was by some weird chance in the boat, and, tying this on the stick, the captain waved it. The oarsman did not dare turn his head, so he was obliged to ask questions.

"What's he doing now?"

"He's standing still again. He's looking, I think.–There he goes again–toward the house.–Now he's stopped again."

"Is he waving at us?"

"No, not now; he was, though."

"Look! There comes another man!"

"He's running."

"Look at him go, would you!"

"Why, he's on a bicycle. Now he's met the other man. They're both waving at us. Look!"

"There comes something up the beach."

"What the devil is that thing?"

"Why, it looks like a boat."

"Why, certainly, it's a boat."

"No; it's on wheels."

"Yes, so it is. Well, that must be the lifeboat. They drag them along shore on a wagon."

"That's the lifeboat, sure."

"No, by God, it's–it's an omnibus."

"I tell you it's a lifeboat."

"It is not! It's an omnibus. I can see it plain. See? One of these big hotel omnibuses."

"By thunder, you're right. It's an omnibus, sure as fate. What do you suppose they are doing with an omnibus? Maybe they are going around collecting the life-crew, hey?"

"That's it, likely. Look! There's a fellow waving a little black flag. He's standing on the steps of the omnibus. There come those other two fellows. Now they're all talking together. Look at the fellow with the flag. Maybe he ain't waving it!"

"That ain't a flag, is it? That's his coat. Why, certainly, that's his coat."

"So it is; it's his coat. He's taken it off and is waving it around his head. But would you look at him swing it!"

"Oh, say, there isn't any life-saving station there. That's just a winter-resort hotel omnibus that has brought over some of the boarders to see us drown."

"What's that idiot with the coat mean? What's he signaling, anyhow?"

"It looks as if he were trying to tell us to go north. There must be a life-saving station up there."

"No; he thinks we're fishing. Just giving us a merry hand. See? Ah, there, Willie!"

"Well, I wish I could make something out of those signals. What do you suppose he means?"

"He don't mean anything; he's just playing."

"Well, if he'd just signal us to try the surf again, or to go to sea and wait, or go north, or go south, or go to hell, there would be some reason in it. But look at him! He just stands there and keeps his coat revolving like a wheel. The ass!"

"There come more people."

"Now there's quite a mob. Look! Isn't that a boat?"

"Where? Oh, I see where you mean. No, that's no boat."

"That fellow is still waving his coat."

"He must think we like to see him do that. Why don't he quit it? It don't mean anything."

"I don't know. I think he is trying to make us go north. It must be that there's a life-saving station there somewhere."

"Say, he ain't tired yet. Look at 'im wave!"

"Wonder how long he can keep that up. He's been revolving his coat ever since he caught sight of us. He's an idiot. Why aren't they getting men to bring a boat out? A fishing boat—one of those big yawls—could come out here all right. Why don't he do something?"

"Oh, it's all right now."

"They'll have a boat out here for us in less than no time, now that they've seen us."

A faint yellow tone came into the sky over the low land. The shadows on the sea slowly deepened. The wind bore coldness with it, and the men began to shiver.

"Holy smoke!" said one, allowing his voice to express his impious mood, "if we keep on monkeying out here! If we've got to flounder out here all night!"

"Oh, we'll never have to stay here all night! Don't you worry. They've seen us now, and it won't be long before they'll come chasing out after us."

The shore grew dusky. The man waving a coat blended gradually into this gloom, and it swallowed in the same manner the omnibus and the group of people. The spray, when it dashed uproariously over the side, made the voyagers shrink and swear like men who were being branded.

"I'd like to catch the chump who waved the coat. I feel like socking him one, just for luck."

"Why? What did he do?"

"Oh, nothing, but then he seemed so damned cheerful."

In the meantime the oiler rowed, and then the correspondent rowed, and then the oiler rowed. Gray-faced and bowed forward, they mechanically, turn by turn, plied the leaden oars. The form of the lighthouse had vanished from the southern horizon, but finally a pale star appeared, just lifting from the sea. The streaked saffron in the west passed before the all-merging darkness, and the sea to the east was black. The land had vanished, and was expressed only by the low and drear thunder of the surf.

"If I am going to be drowned—if I am going to be drowned—if I am going to be drowned, why, in the name of the seven mad gods who rule the sea, was I allowed to come thus far and contemplate sand and trees? Was I brought here merely to have my nose dragged away as I was about to nibble the sacred cheese of life?"

The patient captain, drooped over the water jar, was sometimes obliged to speak to the oarsman.

"Keep her head up! Keep her head up!"

"Keep her head up, sir." The voices were weary and low.

This was surely a quiet evening. All save the oarsman lay heavily and listlessly in the boat's bottom. As for him, his eyes were just capable of noting the tall black waves that swept forward in a most sinister silence, save for an occasional subdued growl of a crest.

The cook's head was on a thwart, and he looked without interest at the water under his nose. He was deep in other scenes. Finally he spoke. "Billie," he murmured, dreamfully, "what kind of pie do you like best?"

"Pie!" said the oiler and the correspondent, agitatedly. "Don't talk about those things, blast you!"

"Well," said the cook, "I was just thinking about ham sandwiches and—"

A night on the sea in an open boat is a long night. As darkness settled finally, the shine of the light, lifting from the sea in the south, changed to full gold. On the northern horizon a new light appeared, a small bluish gleam on the edge of the waters. These two lights were the furniture of the world. Otherwise there was nothing but waves.

Two men huddled in the stern, and distances were so magnificent in the dinghy that the rower was enabled to keep his feet partly warm by thrusting them under his companions. Their legs indeed extended far under the rowing seat until they touched the feet of the captain forward. Sometimes, despite the efforts of the tired oarsman, a wave came piling into the boat, an icy wave of the night, and the chilling water soaked them anew. They would twist their bodies for a moment and groan, and sleep the dead sleep once more, while the water in the boat gurgled about them as the craft rocked.

The plan of the oiler and the correspondent was for one to row until he lost the ability, and then arouse the other from his sea-water couch in the bottom of the boat.

The oiler plied the oars until his head drooped forward and the overpowering sleep blinded him; and he rowed yet afterward. Then he touched a man in the bottom of the boat, and called his name. "Will you spell me for a little while?" he said, meekly.

"Sure, Billie," said the correspondent, awaking and dragging himself to a sitting position. They exchanged places carefully, and the oiler, cuddling down in the sea water at the cook's side, seemed to go to sleep instantly.

The particular violence of the sea had ceased. The waves came without snarling. The obligation of the man at the oars was to keep the boat

headed so that the tilt of the rollers would not capsize her, and to preserve her from filling when the crests rushed past. The black waves were silent and hard to be seen in the darkness. Often one was almost upon the boat before the oarsman was aware.

In a low voice the correspondent addressed the captain. He was not sure that the captain was awake, although this iron man seemed to be always awake. "Captain, shall I keep her making for that light north, sir?"

The same steady voice answered him. "Yes. Keep it about two points off the port bow."

The cook had tied a life belt around himself in order to get even the warmth which this clumsy cork contrivance could donate, and he seemed almost stovelike when a rower, whose teeth invariably chattered wildly as soon as he ceased his labor, dropped down to sleep.

The correspondent, as he rowed, looked down at the two men sleeping underfoot. The cook's arm was around the oiler's shoulders, and, with their fragmentary clothing and haggard faces, they were the babes of the sea—a grotesque rendering of the old babes in the wood.

Later he must have grown stupid at his work, for suddenly there was a growling of water, and a crest came with a roar and a swash into the boat, and it was a wonder that it did not set the cook afloat in his life belt. The cook continued to sleep, but the oiler sat up, blinking his eyes and shaking with the new cold.

"Oh, I'm awful sorry, Billie," said the correspondent, contritely.

"That's all right, old boy," said the oiler, and lay down again and was asleep.

Presently it seemed that even the captain dozed, and the correspondent thought that he was the one man afloat on all the oceans. The wind had a voice as it came over the waves, and it was sadder than the end.

There was a long, loud swishing astern of the boat, and a gleaming trail of phosphorescence, like blue flame, was furrowed on the black waters. It might have been made by a monstrous knife.

Then there came a stillness, while the correspondent breathed with open mouth and looked at the sea.

Suddenly there was another swish and another long flash of bluish light, and this time it was alongside the boat, and might almost been reached with an oar. The correspondent saw an enormous fin speed like a shadow through the water, hurling the crystalline spray and leaving the long glowing trail.

The correspondent looked over his shoulder at the captain. His face

was hidden, and he seemed to be asleep. He looked at the babes of the sea. They certainly were asleep. So, being bereft of sympathy, he leaned a little way to one side and swore softly into the sea.

But the thing did not then leave the vicinity of the boat. Ahead or astern, on one side or the other, at intervals long or short, fled the long sparkling streak, and there was to be heard the *whirroo* of the dark fin. The speed and power of the thing was greatly to be admired. It cut the water like a gigantic and keen projectile.

The presence of this biding thing did not affect the man with the same horror that it would if he had been a picnicker. He simply looked at the sea dully and swore in an undertone.

Nevertheless, it is true that he did not wish to be alone with the thing. He wished one of his companions to awake by chance and keep him company with it. But the captain hung motionless over the water jar, and the oiler and the cook in the bottom of the boat were plunged in slumber.

"If I am going to be drowned–if I am going to be drowned–if I am going to be drowned, why, in the name of the seven mad gods who rule the sea, was I allowed to come thus far and contemplate sand and trees?"

During this dismal night, it may be remarked that a man would conclude that it was really the intention of the seven mad gods to drown him, despite the abominable injustice of it. For it was certainly an abominable injustice to drown a man who had worked so hard, so hard. The man felt it would be a crime most unnatural. Other people had drowned at sea since galleys swarmed with painted sails, but still–

When it occurs to a man that nature does not regard him as important, and that she feels she would not maim the universe by disposing of him, he at first wishes to throw bricks at the temple, and he hates deeply the fact that there are no bricks and no temples. Any visible expression of nature would surely be pelleted with his jeers.

Then, if there be no tangible thing to hoot, he feels, perhaps, the desire to confront a personification and indulge in pleas, bowed to one knee, and with hands supplicant, saying, "Yes, but I love myself."

A high cold star on a winter's night is the word he feels that she says to him. Thereafter he knows the pathos of his situation.

The men in the dinghy had not discussed these matters, but each had, no doubt, reflected upon them in silence and according to his

mind. There was seldom any expression upon their faces save the general one of complete weariness. Speech was devoted to the business of the boat.

To chime the notes of his emotion, a verse mysteriously entered the correspondent's head. He had even forgotten that he had forgotten this verse, but it suddenly was in his mind.

> A soldier of the Legion lay dying in Algiers;
> There was lack of woman's nursing, there was dearth of woman's tears;
> But a comrade stood beside him, and he took that comrade's hand,
> And he said, "I never more shall see my own, my native land."

In his childhood the correspondent had been made acquainted with the fact that a soldier of the Legion lay dying in Algiers, but he had never regarded the fact as important. Myriads of his school fellows had informed him of the soldier's plight, but the dinning had naturally ended by making him perfectly indifferent. He had never considered it his affair that a soldier of the Legion lay dying in Algiers, nor had it appeared to him as a matter for sorrow. It was less to him than the breaking of a pencil's point.

Now, however, it quaintly came to him as a human, living thing. It was no longer merely a picture of a few throes in the breast of a poet, meanwhile drinking tea and warming his feet at the grate; it was an actuality—stern, mournful, and fine.

The correspondent plainly saw the soldier. He lay on the sand with his feet out straight and still. While his pale left hand was upon his chest in an attempt to thwart the going of his life, the blood came between his fingers. In the far Algerian distance, a city of low square forms was set against a sky that was faint with the last sunset hues. The correspondent, plying the oars and dreaming of the slow and slower movements of the lips of the soldier, was moved by a profound and perfectly impersonal comprehension. He was sorry for the soldier of the Legion who lay dying in Algiers.

The thing which had followed the boat and waited had evidently grown bored at the delay. There was no longer to be heard the slash of the cutwater, and there was no longer the flame of the long trail. The light in the north still glimmered, but it was apparently no nearer to the boat. Sometimes the boom of the surf rang in the correspondent's ears, and he turned the craft seaward then and rowed harder. Southward, some one had evidently built a watch-fire on the beach. It was too low and too far to be seen, but it made a shimmering, roseate reflection upon

the bluff in back of it, and this could be discerned from the boat. The wind came stronger, and sometimes a wave suddenly raged out like a mountain cat, and there was to be seen the sheen and sparkle of a broken crest.

The captain, in the bow, moved on his water jar and sat erect. "Pretty long night," he observed to the correspondent. He looked at the shore. "Those life-saving people take their time."

"Did you see that shark playing around?"

"Yes, I saw him. He was a big fellow, all right."

"Wish I had known you were awake."

Later the correspondent spoke into the bottom of the boat. "Billie!" There was a slow and gradual disentanglement. "Billie, will you spell me?"

"Sure," said the oiler.

As soon as the correspondent touched the cold, comfortable sea water in the bottom of the boat and had huddled close to the cook's life belt he was deep in sleep, despite the fact that his teeth played all the popular airs. This sleep was so good to him that it was but a moment before he heard a voice call his name in a tone that demonstrated the last stages of exhaustion. "Will you spell me?"

"Sure, Billie."

The light in the north had mysteriously vanished, but the correspondent took his course from the wide-awake captain.

Later in the night they took the boat farther out to sea, and the captain directed the cook to take one oar at the stern and keep the boat facing the seas. He was to call out if he should hear the thunder of the surf. This plan enabled the oiler and the correspondent to get respite together. "We'll give those boys a chance to get into shape again," said the captain. They curled down and, after a few preliminary chatterings and trembles, slept once more the dead sleep. Neither knew they had bequeathed to the cook the company of another shark, or perhaps the same shark.

As the boat caroused on the waves, spray occasionally bumped over the side and gave them a fresh soaking, but this had no power to break their repose. The ominous slash of the wind and the water affected them as it would have affected mummies.

"Boys," said the cook, with the notes of every reluctance in his voice, "she's drifted in pretty close. I guess one of you had better take her to sea again." The correspondent, aroused, heard the crash of the toppled crests.

As he was rowing, the captain gave him some whisky and water, and

this steadied the chills out of him. "If I ever get ashore and anybody shows me even a photograph of an oar–"

At last there was a short conversation.

"Billie!–Billie, will you spell me?"

"Sure," said the oiler.

When the correspondent again opened his eyes, the sea and the sky were each of the gray hue of the dawning. Later, carmine and gold was painted upon the waters. The morning appeared finally, in its splendor, with a sky of pure blue, and the sunlight flamed on the tips of the waves.

On the distant dunes were set many little black cottages, and a tall white windmill reared above them. No man, nor dog, nor bicycle appeared on the beach. The cottages might have formed a deserted village.

The voyagers scanned the shore. A conference was held in the boat. "Well," said the captain, "if no help is coming, we might better try a run through the surf right away. If we stay out here much longer we will be too weak to do anything for ourselves at all." The others silently acquiesced in this reasoning. The boat was headed for the beach. The correspondent wondered if none ever ascended the tall wind tower, and if then they never looked seaward. This tower was a giant, standing with its back to the plight of the ants. It represented in a degree, to the correspondent, the serenity of nature amid the struggles of the individual–nature in the wind, and nature in the vision of men. She did not seem cruel to him then, nor beneficent, nor treacherous, nor wise. But she was indifferent, flatly indifferent. It is, perhaps, plausible that a man in this situation, impressed with the unconcern of the universe, should see the innumerable flaws of his life, and have them taste wickedly in his mind, and wish for another chance. A distinction between right and wrong seems absurdly clear to him, then, in this new ignorance of the grave edge, and he understands that if he were given another opportunity he would mend his conduct and his words, and be better and brighter during an introduction or at a tea.

"Now, boys," said the captain, "she is going to swamp sure. All we can do is to work her in as far as possible, and then when she swamps, pile out and scramble for the beach. Keep cool now, and don't jump until she swamps sure."

The oiler took the oars. Over his shoulders he scanned the surf.

"Captain," he said, "I think I'd better bring her about and keep her head-on to the seas and back her in."

"All right, Billie," said the captain. "Back her in." The oiler swung the boat then, and, seated in the stern, the cook and the correspondent were obliged to look over their shoulders to contemplate the lonely and indifferent shore.

The monstrous inshore rollers heaved the boat high until the men were again enabled to see the white sheets of water scudding up the slanted beach. "We won't get in very close," said the captain. Each time a man could wrest his attention from the rollers, he turned his glance toward the shore, and in the expression of the eyes during this contemplation there was a singular quality. The correspondent, observing the others, knew that they were not afraid, but the full meaning of their glances was shrouded.

As for himself, he was too tired to grapple fundamentally with the fact. He tried to coerce his mind into thinking of it, but the mind was dominated at this time by the muscles, and the muscles said they did not care. It merely occurred to him that if he should drown it would be a shame.

There were no hurried words, no pallor, no plain agitation. The men simply looked at the shore. "Now, remember to get well clear of the boat when you jump," said the captain.

Seaward the crest of a roller suddenly fell with a thunderous crash, and the long white comber came roaring down upon the boat.

"Steady now," said the captain. The men were silent. They turned their eyes from the shore to the comber and waited. The boat slid up the incline, leaped at the furious top, bounced over it, and swung down the long back of the wave. Some water had been shipped, and the cook bailed it out.

But the next crest crashed also. The tumbling, boiling flood of white water caught the boat and whirled it almost perpendicular. Water swarmed in from all sides. The correspondent had his hands on the gunwale at this time, and when the water entered at that place he swiftly withdrew his fingers, as if he objected to wetting them.

The little boat, drunken with this weight of water, reeled and snuggled deeper into the sea.

"Bail her out, cook! Bail her out!" said the captain.

"All right, Captain," said the cook.

"Now, boys, the next one will do for us sure," said the oiler. "Mind to jump clear of the boat."

The third wave moved forward, huge, furious, implacable. It fairly swallowed the dinghy, and almost simultaneously the men tumbled into the sea. A piece of life belt had lain in the bottom of the boat, and as the correspondent went overboard he held this to his chest with his left hand.

The January water was icy, and he reflected immediately that it was colder than he had expected to find it off the coast of Florida. This appeared to his dazed mind as a fact important enough to be noted at the time. The coldness of the water was sad; it was tragic. This fact was somehow mixed and confused with his opinion of his own situation, so that it seemed almost a proper reason for tears. The water was cold.

When he came to the surface he was conscious of little but the noisy water. Afterward he saw his companions in the sea. The oiler was ahead in the race. He was swimming strongly and rapidly. Off to the correspondent's left, the cook's great white and corked back bulged out of the water; and in the rear the captain was hanging with his one good hand to the keel of the overturned dinghy.

There is a certain immovable quality to a shore, and the correspondent wondered at it amid the confusion of the sea.

It seemed also very attractive; but the correspondent knew that it was a long journey, and he paddled leisurely. The piece of life preserver lay under him, and sometimes he whirled down the incline of a wave as if he were on a hand sled.

But finally he arrived at a place in the sea where travel was beset with difficulty. He did not pause swimming to inquire what manner of current had caught him, but there his progress ceased. The shore was set before him like a bit of scenery on a stage, and he looked at it and understood with his eyes each detail of it.

As the cook passed, much farther to the left, the captain was calling to him, "Turn over on your back, cook! Turn over on your back and use the oar."

"All right, sir." The cook turned on his back, and, paddling with an oar, went ahead as if he were a canoe.

Presently the boat also passed to the left of the correspondent, with the captain clinging with one hand to the keel. He would have appeared like a man raising himself to look over a board fence if it were not for the extraordinary gymnastics of the boat. The correspondent marveled that the captain could still hold to it.

They passed on nearer to shore—the oiler, the cook, the captain—and following them went the water jar, bouncing gaily over the seas.

The correspondent remained in the grip of this strange new enemy—

a current. The shore, with its white slope of sand and its green bluff topped with little silent cottages, was spread like a picture before him. It was very near to him then, but he was impressed as one who, in a gallery, looks at a scene from Brittany or Algiers.

He thought: "I am going to drown? Can it be possible? Can it be possible? Can it be possible?" Perhaps an individual must consider his own death to be the final phenomenon of nature.

But later a wave perhaps whirled him out of this small deadly current, for he found suddenly that he could again make progress toward the shore. Later still he was aware that the captain, clinging with one hand to the keel of the dinghy, had his face turned away from the shore and toward him, and was calling his name. "Come to the boat! Come to the boat!"

In his struggle to reach the captain and the boat, he reflected that when one gets properly wearied drowning must really be a comfortable arrangement–a cessation of hostilities accompanied by a large degree of relief; and he was glad of it, for the main thing in his mind for some moments had been horror of the temporary agony. He did not wish to be hurt.

Presently he saw a man running along the shore. He was undressing with most remarkable speed. Coat, trousers, shirt, everything flew magically off him.

"Come to the boat!" called the captain.

"All right, Captain." As the correspondent paddled, he saw the captain let himself down to bottom and leave the boat. Then the correspondent performed his one little marvel of the voyage. A large wave caught him and flung him with ease and supreme speed completely over the boat and far beyond it. It struck him even then as an event in gymnastics and a true miracle of the sea. An overturned boat in the surf is not a plaything to a swimming man.

The correspondent arrived in water that reached only to his waist, but his condition did not enable him to stand for more than a moment. Each wave knocked him into a heap, and the undertow pulled at him.

Then he saw the man who had been running and undressing, and undressing and running, come bounding into the water. He dragged ashore the cook, and then waded toward the captain; but the captain waved him away and sent him to the correspondent. He was naked–naked as a tree in winter; but a halo was about his head, and he shone like a saint. He gave a strong pull, and a long drag, and a bully heave at the correspondent's hand. The correspondent, schooled in the minor

formulae, said, "Thanks, old man." But suddenly the man cried, "What's that?" He pointed a swift finger. The correspondent said, "Go."

In the shallows, face downward, lay the oiler. His forehead touched sand that was periodically, between each wave, clear of the sea.

The correspondent did not know all that transpired afterward. When he achieved safe ground he fell, striking the sand with each particular part of his body. It was as if he had dropped from a roof, but the thud was grateful to him.

It seemed that instantly the beach was populated with men with blankets, clothes, and flasks, and women with coffee pots and all the remedies sacred to their minds. The welcome of the land to the men from the sea was warm and generous; but a still and dripping shape was carried slowly up the beach, and the land's welcome for it could only be the different and sinister hospitality of the grave.

When it came night, the white waves paced to and fro in the moonlight, and the wind brought the sound of the great sea's voice to the men on the shore, and they felt that they could then be interpreters.

Herman Melville

1819–1891

Herman Melville, of Scottish, Dutch, and Irish stock, was born in New York City on August 1, 1819. His father's business failure and death left Herman's mother with eight children to bring up. He tried schoolteaching. At nineteen he signed on a Liverpool trader. In January, 1841, he shipped aboard the whaler *Acushnet* outbound for the South Seas. The following year he and a companion jumped ship at Nukuhiva, in the Marquesas Islands, and lived for a while as compulsory guests of the Taipi tribe. He reached Tahiti aboard the Australian whaler *Lucy Ann.* After a short imprisonment there, another whaler, *Charles and Henry,* brought him to Maui in the Hawaiian (then Sandwich) Islands.

In Honolulu, on August 17, 1843, he signed on the frigate *United States* as an ordinary seaman. He saw fourteen months of sea duty and was discharged in Boston. That winter of 1844–45 he began to write *Typee.* It was published the next year in England and the United States. He was famous at once as "the man who had lived among cannibals." *Omoo* appeared in 1847, and was equally popular. He married Elizabeth Shaw, daughter of the Chief Justice of Massachusetts, and joined the New York literary coterie.

In 1849 he published *Mardi* and *Redburn.* That year he made a brief voyage to England and the Continent. In 1850 *White-Jacket* appeared. Melville settled near Pittsfield, Massachusetts, where he met Nathaniel Hawthorne and began *Moby Dick,* his masterpiece. The publication of that work in 1851, and of *Pierre* a year later, quenched his reputation as a popular writer. *Israel Potter, The Piazza Tales,* and *The Confidence-Man* appeared between 1855 and 1857.

In 1856 to 1857 Melville traveled in Europe and the Holy Land. He tried lecturing and in 1860 accompanied his brother, master of

the clipper ship *Meteor,* on a voyage to San Francisco. In 1866 he was made a District Inspector of Customs in New York and remained at that post until 1885. During this period he published two volumes of poetry, *Battle-Pieces* and *Clarel.* Two others appeared later. Even if he had written nothing else, *Moby Dick* would have earned him a place among the highest in American and world literature. He died in New York City on September 28, 1891.

In the early winter of 1888, Melville set out to write *Billy Budd,* his last great work. He began a first revision and enlargement in March, 1889. The book, left in an all but final state at his death, remained unpublished until Raymond M.Weaver brought it out in 1924 as a part of his Melville revival. It was later turned into a play, a motion picture, and an opera composed by Benjamin Britten. Many critics have come to regard it as second only to *Moby Dick* in the Melville canon.

It is, like so much of Melville's work, a story of the sea–and what a story it is! We discover at once, as in Hugo's account of the cannon adrift or Scott's *The Two Drovers,* that the story is inseparable from its meaning. We have hardly got well into it before we begin to ask ourselves questions. We notice that these questions are chiefly ethical and philosophical. What is the nature of good and evil in human beings? Are these qualities inborn or taught? Must we make a distinction between law and justice? If so, which must we observe? Is there a justice according to law and a justice of the heart? Moreover, we observe that these questions originate, not as ideas, but in our feelings about the characters.

Claggart, the master-at-arms, falsely denounce s Billy Budd to Captain Vere as a plotter of mutiny. Captain Vere summons Budd to face the charge. He, tongue-tied with horror, strikes out at Claggart and kills him. At once Captain Vere convenes a court-martial to try Budd. Is this proper? The other officers and the surgeon feel that

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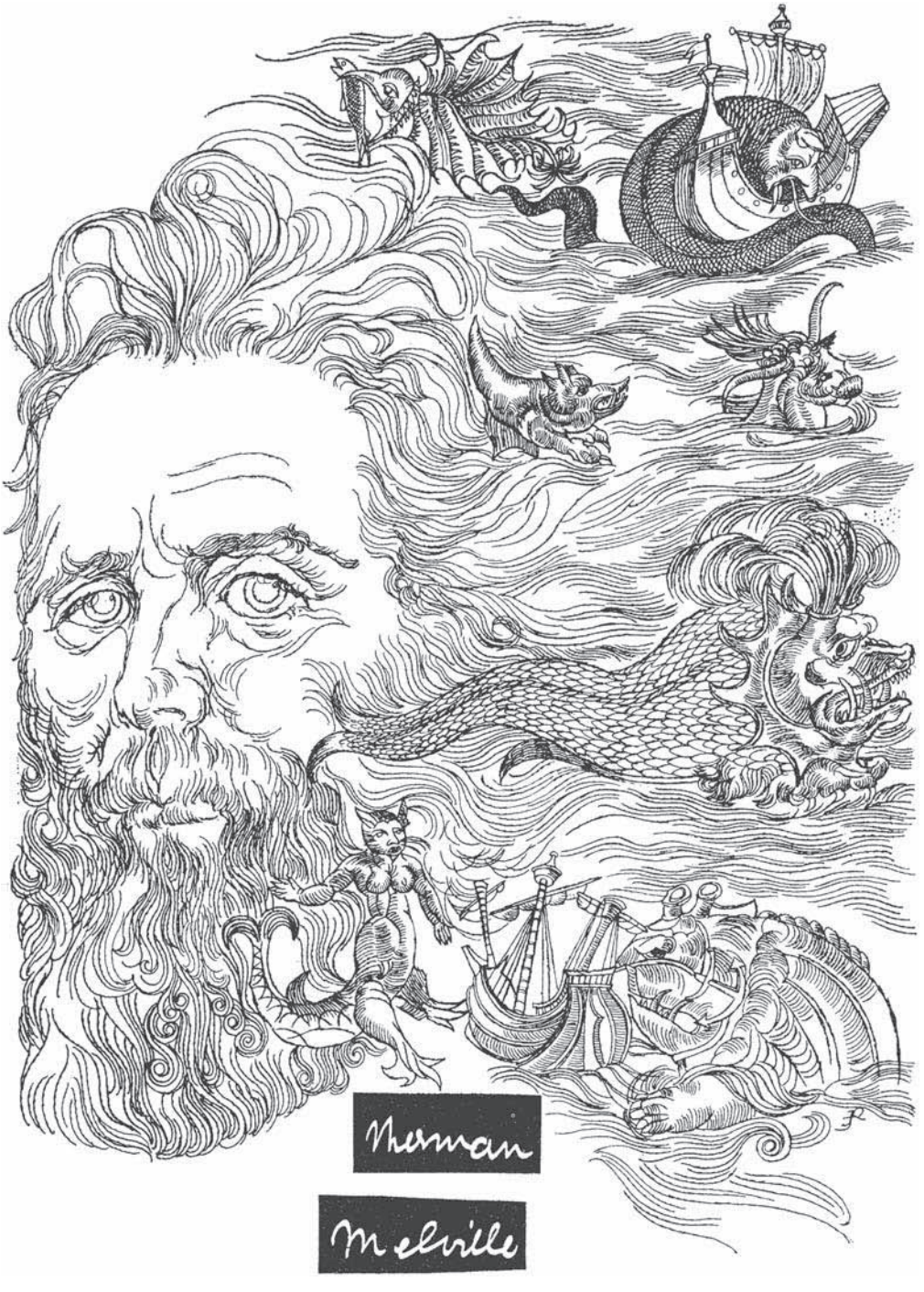
Notes from the artist: ". . . the sea–and some of its imaginary creatures and monsters–flows from the hair and beard of Melville, forming a living part of the author whose works often suggest the strange, fantastic effects of the sea on men's souls."


Herman
Melville

the matter should be referred to the admiral. This is evidently in accord with the laws and regulations then in force in the British navy.

Harrison Hayford and Merton M. Sealts, Jr., who have made a full study of *Billy Budd,* and whose text follows, show that the Mutiny Act cited by Melville clearly applied to British land forces, not to the navy. Moreover, naval regulations provided that a death sentence for any act other than mutiny must not be carried out until it had been reviewed and affirmed by the Admiralty or the squadron or fleet commander. Budd is not being tried for any mutinous act—no one, not even Claggart, believed him guilty of that—but for killing an officer.

Thus Captain Vere, far from being a letter-of-the-law man, is clearly exceeding his authority in convening a court-martial and executing sentence. More than that, he has made up his mind beforehand that Budd must die. The sentence of the court is in effect a directed verdict. Why? Even if Captain Vere believed that his actions were legal, his great sympathy for Budd—so great, in fact, that the French critic Mayoux has suggested that he might be Budd's natural father—darkens the mystery. Did he believe that, against the background of recent mutiny, Budd must be made a swift example? How did he know that this would not rouse the crew?

We speculate, as Melville intended we should. Is Billy Budd meant to be a Christ figure? Are he and Claggart the respective symbols of good and evil? Is the novel first of all a social criticism of a barbarous time? Or is it Melville's final "testament of acceptance"? "Acceptance" of injustice in the name of social order? Or is it all meant to be taken as dark irony? We go on questioning. But we notice that, in all our questions, we hold to our feeling of common humanity in the face of every circumstance that threatens it.

Billy Budd

DEDICATED
TO
JACK CHASE
ENGLISHMAN

Wherever that great heart may now be
Here on Earth or harbored in Paradise

Captain of the Maintop
in the year 1843
in the U.S. Frigate
United States

In the time before steamships, or then more frequently than now, a stroller along the docks of any considerable seaport would occasionally have his attention arrested by a group of bronzed mariners, man-of-war's men or merchant sailors in holiday attire, ashore on liberty. In certain instances they would flank, or like a bodyguard quite surround, some superior figure of their own class, moving along with them like Aldebaran among the lesser lights of his constellation. That signal object was the "Handsome Sailor" of the less prosaic time alike of the military and merchant navies. With no perceptible trace of the vainglorious about him, rather with the offhand unaffectedness of natural regality, he seemed to accept the spontaneous homage of his shipmates.

A somewhat remarkable instance recurs to me. In Liverpool, now half a century ago, I saw under the shadow of the great dingy street-wall of Prince's Dock (an obstruction long since removed) a common sailor so

intensely black that he must needs have been a native African of the unadulterate blood of Ham—a symmetric figure much above the average height. The two ends of a gay silk handkerchief thrown loose about the neck danced upon the displayed ebony of his chest, in his ears were big hoops of gold, and a Highland bonnet with a tartan band set off his shapely head. It was a hot noon in July; and his face, lustrous with perspiration, beamed with barbaric good humor. In jovial sallies right and left, his white teeth flashing into view, he rollicked along, the center of a company of his shipmates. These were made up of such an assortment of tribes and complexions as would have well fitted them to be marched up by Anacharsis Cloots before the bar of the first French Assembly as Representatives of the Human Race. At each spontaneous tribute rendered by the wayfarers to this black pagod of a fellow—the tribute of a pause and stare, and less frequently an exclamation—the motley retinue showed that they took that sort of pride in the evoker of it which the Assyrian priests doubtless showed for their grand sculptured Bull when the faithful prostrated themselves.

To return. If in some cases a bit of a nautical Murat in setting forth his person ashore, the Handsome Sailor of the period in question evinced nothing of the dandified Billy-be-Dam, an amusing character all but extinct now, but occasionally to be encountered, and in a form yet more amusing than the original, at the tiller of the boats on the tempestuous Erie Canal or, more likely, vaporing in the groggeries along the towpath. Invariably a proficient in his perilous calling, he was also more or less of a mighty boxer or wrestler. It was strength and beauty. Tales of his prowess were recited. Ashore he was the champion; afloat the spokesman; on every suitable occasion always foremost. Close-reefing topsails in a gale, there he was, astride the weather yardarm-end, foot in the Flemish horse as stirrup, both hands tugging at the earing as at a bridle, in very much the attitude of young Alexander curbing the fiery Bucephalus. A superb figure, tossed up as by the horns of Taurus against the thunderous sky, cheerily hallooing to the strenuous file along the spar.

The moral nature was seldom out of keeping with the physical make. Indeed, except as toned by the former, the comeliness and power, always attractive in masculine conjunction, hardly could have drawn the sort of honest homage the Handsome Sailor in some examples received from his less gifted associates.

Such a cynosure, at least in aspect, and something such too in nature, though with important variations made apparent as the story proceeds, was welkin-eyed Billy Budd—or Baby Budd, as more familiarly, under

circumstances hereafter to be given, he at last came to be called—aged twenty-one, a foretopman of the British fleet toward the close of the last decade of the eighteenth century. It was not very long prior to the time of the narration that follows that he had entered the King's service, having been impressed on the Narrow Seas from a homeward-bound English merchantman into a seventy-four outward-bound, H.M.S. *Bellipotent;* which ship, as was not unusual in those hurried days, having been obliged to put to sea short of her proper complement of men. Plump upon Billy at first sight in the gangway the boarding officer, Lieutenant Ratcliffe, pounced, even before the merchantman's crew was formally mustered on the quarter-deck for his deliberate inspection. And him only he elected. For whether it was because the other men when ranged before him showed to ill advantage after Billy, or whether he had some scruples in view of the merchantman's being rather short-handed, however it might be, the officer contented himself with his first spontaneous choice. To the surprise of the ship's company, though much to the lieutenant's satisfaction, Billy made no demur. But, indeed, any demur would have been as idle as the protest of a goldfinch popped into a cage.

Noting this uncomplaining acquiescence, all but cheerful, one might say, the shipmaster turned a surprised glance of silent reproach at the sailor. The shipmaster was one of those worthy mortals found in every vocation, even the humbler ones—the sort of person whom everybody agrees in calling "a respectable man." And—nor so strange to report as it may appear to be—though a plowman of the troubled waters, lifelong contending with the intractable elements, there was nothing this honest soul at heart loved better than simple peace and quiet. For the rest, he was fifty or thereabouts, a little inclined to corpulence, a prepossessing face, unwhiskered, and of an agreeable color—a rather full face, humanely intelligent in expression. On a fair day with a fair wind and all going well, a certain musical chime in his voice seemed to be the veritable unobstructed outcome of the innermost man. He had much prudence, much conscientiousness, and there were occasions when these virtues were the cause of overmuch disquietude in him. On a passage, so long as his craft was in any proximity to land, no sleep for Captain Graveling. He took to heart those serious responsibilities not so heavily borne by some shipmasters.

Now while Billy Budd was down in the forecastle getting his kit together, the *Bellipotent's* lieutenant, burly and bluff, nowise disconcerted by Captain Graveling's omitting to proffer the customary hospitalities on an occasion so unwelcome to him, an omission simply caused by pre-

occupation of thought, unceremoniously invited himself into the cabin, and also to a flask from the spirit locker, a receptacle which his experienced eye instantly discovered. In fact he was one of those sea dogs in whom all the hardship and peril of naval life in the great prolonged wars of his time never impaired the natural instinct for sensuous enjoyment. His duty he always faithfully did; but duty is sometimes a dry obligation, and he was for irrigating its aridity, whensoever possible, with a fertilizing decoction of strong waters. For the cabin's proprietor there was nothing left but to play the part of the enforced host with whatever grace and alacrity were practicable. As necessary adjuncts to the flask, he silently placed tumbler and water jug before the irrepressible guest. But excusing himself from partaking just then, he dismally watched the unembarrassed officer deliberately diluting his grog a little, then tossing it off in three swallows, pushing the empty tumbler away, yet not so far as to be beyond easy reach, at the same time settling himself in his seat and smacking his lips with high satisfaction, looking straight at the host.

These proceedings over, the master broke the silence; and there lurked a rueful reproach in the tone of his voice: "Lieutenant, you are going to take my best man from me, the jewel of 'em."

"Yes, I know," rejoined the other, immediately drawing back the tumbler preliminary to a replenishing. "Yes, I know. Sorry."

"Beg pardon, but you don't understand, Lieutenant. See here, now. Before I shipped that young fellow, my forecastle was a rat-pit of quarrels. It was black times, I tell you, aboard the *Rights* here. I was worried to that degree my pipe had no comfort for me. But Billy came; and it was like a Catholic priest striking peace in an Irish shindy. Not that he preached to them or said or did anything in particular; but a virtue went out of him, sugaring the sour ones. They took to him like hornets to treacle; all but the buffer of the gang, the big shaggy chap with the fire-red whiskers. He indeed, out of envy, perhaps, of the newcomer, and thinking such a "sweet and pleasant fellow," as he mockingly designated him to the others, could hardly have the spirit of a gamecock, must needs bestir himself in trying to get up an ugly row with him. Billy forebore with him and reasoned with him in a pleasant way—he is something like myself, Lieutenant, to whom aught like a quarrel is hateful—but nothing served. So, in the second dogwatch one day, the Red Whiskers in presence of the others, under pretense of showing Billy just whence a sirloin steak was cut—for the fellow had once been a butcher—insultingly gave him a dig under the ribs. Quick as lightning Billy let fly his arm. I dare say he never meant to do quite as much as he did, but anyhow he

gave the burly fool a terrible drubbing. It took about half a minute, I should think. And, Lord bless you, the lubber was astonished at the celerity. And will you believe it, Lieutenant, the Red Whiskers now really loves Billy—loves him, or is the biggest hypocrite that ever I heard of. But they all love him. Some of 'em do his washing, darn his old trousers for him; the carpenter is at odd times making a pretty little chest of drawers for him. Anybody will do anything for Billy Budd; and it's the happy family here. But now, Lieutenant, if that young fellow goes—I know how it will be aboard the *Rights*. Not again very soon shall I, coming up from dinner, lean over the capstan smoking a quiet pipe—no, not very soon again, I think. Ay, Lieutenant, you are going to take away the jewel of 'em; you are going to take away my peacemaker!" And with that the good soul had really some ado in checking a rising sob.

"Well," said the lieutenant, who had listened with amused interest to all this and now was waxing merry with his tipple; "well, blessed are the peacemakers, especially the fighting peacemakers. And such are the seventy-four beauties some of which you see poking their noses out of the portholes of yonder warship lying to for me," pointing through the cabin window at the *Bellipotent*. "But courage! Don't look so downhearted, man. Why, I pledge you in advance the royal approbation. Rest assured that His Majesty will be delighted to know that in a time when his hardtack is not sought for by sailors with such avidity as should be, a time also when some shipmasters privily resent the borrowing from them a tar or two for the service, His Majesty, I say, will be delighted to learn that *one* shipmaster at least cheerfully surrenders to the King the flower of his flock, a sailor who with equal loyalty makes no dissent. But where's my beauty? Ah," looking through the cabin's open door, "here he comes; and, by Jove, lugging along his chest—Apollo with his portmanteau! My man," stepping out to him, "you can't take that big box aboard a warship. The boxes there are mostly shot boxes. Put your duds in a bag, lad. Boot and saddle for the cavalryman, bag and hammock for the man-of-war's man."

The transfer from chest to bag was made. And, after seeing his man into the cutter and then following him down, the lieutenant pushed off from the *Rights-of-Man*. That was the merchant-ship's name, though by her master and crew abbreviated in sailor fashion into the *Rights*. The hardheaded Dundee owner was a staunch admirer of Thomas Paine, whose book in rejoinder to Burke's arraignment of the French Revolution had then been published for some time and had gone everywhere. In christening his vessel after the title of Paine's volume the man of Dundee

was something like his contemporary shipowner, Stephen Girard of Philadelphia, whose sympathies, alike with his native land and its liberal philosophers, he evinced by naming his ships after Voltaire, Diderot, and so forth.

But now, when the boat swept under the merchantman's stern, and officer and oarsmen were noting—some bitterly and others with a grin—the name emblazoned there, just then it was that the new recruit jumped up from the bow where the coxswain had directed him to sit, and waving hat to his silent shipmates sorrowfully looking over at him from the taff-rail, bade the lads a genial good-by. Then, making a salutation as to the ship herself, "And good-by to you too, old *Rights-of-Man*."

"Down, Sir!" roared the lieutenant, instantly assuming all the rigor of his rank, though with difficulty repressing a smile.

To be sure, Billy's action was a terrible breach of naval decorum. But in that decorum he had never been instructed; in consideration of which the lieutenant would hardly have been so energetic in reproof but for the concluding farewell to the ship. This he rather took as meant to convey a covert sally on the new recruit's part, a sly slur at impressment in general, and that of himself in especial. And yet, more likely, if satire it was in effect, it was hardly so by intention, for Billy, though happily endowed with the gaiety of high health, youth, and a free heart, was yet by no means of a satirical turn. The will to it and the sinister dexterity were alike wanting. To deal in double meanings and insinuations of any sort was quite foreign to his nature.

As to his enforced enlistment, that he seemed to take pretty much as he was wont to take any vicissitude of weather. Like the animals, though no philosopher, he was, without knowing it, practically a fatalist. And it may be that he rather liked this adventurous turn in his affairs, which promised an opening into novel scenes and martial excitements.

Aboard the *Bellipotent* our merchant sailor was forthwith rated as an able seaman and assigned to the starboard watch of the foretop. He was soon at home in the service, not at all disliked for his unpretentious good looks and a sort of genial happy-go-lucky air. No merrier man in his mess: in marked contrast to certain other individuals included like himself among the impressed portion of the ship's company; for these when not actively employed were sometimes, and more particularly in the last dog-watch when the drawing near of twilight induced reverie, apt to fall into a saddish mood which in some partook of sullenness. But they were not so young as our foretopman, and no few of them must have known a hearth of some sort, others may have had wives and children left, too

probably, in uncertain circumstances, and hardly any but must have had acknowledged kith and kin, while for Billy, as will shortly be seen, his entire family was practically invested in himself.

Though our new-made foretopman was well received in the top and on the gun decks, hardly here was he that cynosure he had previously been among those minor ship's companies of the merchant marine, with which companies only had he hitherto consorted.

He was young; and despite his all but fully developed frame, in aspect looked even younger than he really was, owing to a lingering adolescent expression in the as yet smooth face all but feminine in purity of natural complexion but where, thanks to his seagoing, the lily was quite suppressed and the rose had some ado visibly to flush through the tan.

To one essentially such a novice in the complexities of factitious life, the abrupt transition from his former and simpler sphere to the ampler and more knowing world of a great warship, this might well have abashed him had there been any conceit or vanity in his composition. Among her miscellaneous multitude, the *Bellipotent* mustered several individuals who however inferior in grade were of no common natural stamp, sailors more signally susceptive of that air which continuous martial discipline and repeated presence in battle can in some degree impart even to the average man. As the Handsome Sailor, Billy Budd's position aboard the seventy-four was something analogous to that of a rustic beauty transplanted from the provinces and brought into competition with the high-born dames of the court. But this change of circumstances he scarce noted. As little did he observe that something about him provoked an ambiguous smile in one or two harder faces among the bluejackets. Nor less unaware was he of the peculiar favorable effect his person and demeanor had upon the more intelligent gentlemen of the quarter-deck. Nor could this well have been otherwise. Cast in a mold peculiar to the finest physical examples of those Englishmen in whom the Saxon strain would seem not at all to partake of any Norman or other admixture, he showed in face that humane look of reposeful good nature which the Greek sculptor in some instances gave to his heroic strong man, Hercules. But this again was subtly modified by another and pervasive quality. The ear, small and shapely, the arch of the foot, the curve in mouth and nostril, even the indurated hand dyed to the orange-tawny of the toucan's bill, a hand telling alike of the halyards and tar bucket; but, above all, something in the mobile expression, and every chance attitude and movement, something suggestive of a mother eminently favored by Love

and the Graces; all this strangely indicated a lineage in direct contradiction to his lot. The mysteriousness here became less mysterious through a matter of fact elicited when Billy at the capstan was being formally mustered into the service. Asked by the officer, a small, brisk little gentleman as it chanced, among other questions, his place of birth, he replied, "Please, Sir, I don't know."

"Don't know where you were born? Who was your father?"

"God knows, Sir."

Struck by the straightforward simplicity of these replies, the officer next asked, "Do you know anything about your beginning?"

"No, Sir. But I have heard that I was found in a pretty silk-lined basket hanging one morning from the knocker of a good man's door in Bristol."

"*Found,* say you? Well," throwing back his head and looking up and down the new recruit; "well, it turns out to have been a pretty good find. Hope they'll find some more like you, my man; the fleet sadly needs them."

Yes, Billy Budd was a foundling, a presumable by-blow, and, evidently, no ignoble one. Noble descent was as evident in him as in a blood horse.

For the rest, with little or no sharpness of faculty or any trace of the wisdom of the serpent, nor yet quite a dove, he possessed that kind and degree of intelligence going along with the unconventional rectitude of a sound human creature, one to whom not yet has been proffered the questionable apple of knowledge. He was illiterate; he could not read, but he could sing, and like the illiterate nightingale was sometimes the composer of his own song.

Of self-consciousness he seemed to have little or none, or about as much as we may reasonably impute to a dog of Saint Bernard's breed.

Habitually living with the elements and knowing little more of the land than as a beach, or, rather, that portion of the terraqueous globe providentially set apart for dance houses, doxies, and tapsters, in short what sailors call a "fiddler's green," his simple nature remained unsophisticated by those moral obliquities which are not in every case incompatible with that manufacturable thing known as respectability. But are sailors, frequenters of fiddlers' greens, without vices? No; but less often than with landsmen do their vices, so called, partake of crookedness of heart, seeming less to proceed from viciousness than exuberance of vitality after long constraint: frank manifestations in accordance with natural law. By his original constitution aided by the co-operating influences of his lot, Billy in many respects was little more than a sort of upright barbarian, much such perhaps as Adam presumably might have been ere the urbane Serpent wriggled himself into his company.

And here be it submitted that apparently going to corroborate the doctrine of man's Fall, a doctrine now popularly ignored, it is observable that where certain virtues pristine and unadulterate peculiarly characterize anybody in the external uniform of civilization, they will upon scrutiny seem not to be derived from custom or convention, but rather to be out of keeping with these, as if indeed exceptionally transmitted from a period prior to Cain's city and citified man. The character marked by such qualities has to an unvitiated taste an untampered-with flavor like that of berries, while the man thoroughly civilized, even in a fair specimen of the breed, has to the same moral palate a questionable smack as of a compounded wine. To any stray inheritor of these primitive qualities found, like Caspar Hauser, wandering dazed in any Christian capital of our time, the good-natured poet's famous invocation, near two thousand years ago, of the good rustic out of his latitude in the Rome of the Caesars, still appropriately holds:

> Honest and poor, faithful in word and thought,
> What hath thee, Fabian, to the city brought?

Though our Handsome Sailor had as much of masculine beauty as one can expect anywhere to see; nevertheless, like the beautiful woman in one of Hawthorne's minor tales, there was just one thing amiss in him. No visible blemish indeed, as with the lady; no, but an occasional liability to a vocal defect. Though in the hour of elemental uproar or peril he was everything that a sailor should be, yet under sudden provocation of strong heart-feeling his voice, otherwise singularly musical, as if expressive of the harmony within, was apt to develop an organic hesitancy, in fact more or less of a stutter or even worse. In this particular Billy was a striking instance that the arch interferer, the envious marplot of Eden, still has more or less to do with every human consignment to this planet of Earth. In every case, one way or another he is sure to slip in his little card, as much as to remind us–I too have a hand here.

The avowal of such an imperfection in the Handsome Sailor should be evidence not alone that he is not presented as a conventional hero, but also that the story in which he is the main figure is no romance.

At the time of Billy Budd's arbitrary enlistment into the *Bellipotent* that ship was on her way to join the Mediterranean fleet. No long time elapsed before the junction was effected. As one of that fleet the seventy-four participated in its movements, though at times on account of her superior sailing qualities, in the absence of frigates, dispatched on separate duty as a scout and at times on less temporary service. But with all

this the story has little concernment, restricted as it is to the inner life of one particular ship and the career of an individual sailor.

It was the summer of 1797. In the April of that year had occurred the commotion at Spithead followed in May by a second and yet more serious outbreak in the fleet at the Nore. The latter is known, and without exaggeration in the epithet, as "the Great Mutiny." It was indeed a demonstration more menacing to England than the contemporary manifestoes and conquering and proselyting armies of the French Directory. To the British Empire the Nore Mutiny was what a strike in the fire brigade would be to London threatened by general arson. In a crisis when the kingdom might well have anticipated the famous signal that some years later published along the naval line of battle what it was that upon occasion England expected of Englishmen; *that* was the time when at the mastheads of the three-deckers and seventy-fours moored in her own roadstead—a fleet the right arm of a Power then all but the sole free conservative one of the Old World—the bluejackets, to be numbered by thousands, ran up with huzzas the British colors with the union and cross wiped out; by that cancellation transmuting the flag of founded law and freedom defined into the enemy's red meteor of unbridled and unbounded revolt. Reasonable discontent growing out of practical grievances in the fleet had been ignited into irrational combustion as by live cinders blown across the Channel from France in flames.

The event converted into irony for a time those spirited strains of Dibdin—as a song writer no mean auxiliary to the English government at that European conjuncture—strains celebrating, among other things, the patriotic devotion of the British tar: "And as for my life, 'tis the King's!"

Such an episode in the Island's grand naval story her naval historians naturally abridge, one of them (William James) candidly acknowledging that fain would he pass it over did not "impartiality forbid fastidiousness." And yet his mention is less a narration than a reference, having to do hardly at all with details. Nor are these readily to be found in the libraries. Like some other events in every age befalling states everywhere, including America, the Great Mutiny was of such character that national pride along with views of policy would fain shade it off into the historical background. Such events cannot be ignored, but there is a considerate way of historically treating them. If a well-constituted individual refrains from blazoning aught amiss or calamitous in his family, a nation in the like circumstance may without reproach be equally discreet.

Though after parleyings between government and the ringleaders, and concessions by the former as to some glaring abuses, the first uprising—

that at Spithead—with difficulty was put down, or matters for the time pacified; yet at the Nore the unforeseen renewal of insurrection on a yet larger scale, and emphasized in the conferences that ensued by demands deemed by the authorities not only inadmissible but aggressively insolent, indicated—if the Red Flag did not sufficiently do so—what was the spirit animating the men. Final suppression, however, there was; but only made possible perhaps by the unswerving loyalty of the marine corps and a voluntary resumption of loyalty among influential sections of the crews.

To some extent the Nore Mutiny may be regarded as analogous to the distempering irruption of contagious fever in a frame constitutionally sound, and which anon throws it off.

At all events, of these thousands of mutineers were some of the tars who not so very long afterwards—whether wholly prompted thereto by patriotism, or pugnacious instinct, or by both—helped to win a coronet for Nelson at the Nile, and the naval crown of crowns for him at Trafalgar. To the mutineers, those battles and especially Trafalgar were a plenary absolution and a grand one. For all that goes to make up scenic naval display and heroic magnificence in arms, those battles, especially Trafalgar, stand unmatched in human annals.

In this matter of writing, resolve as one may to keep to the main road, some bypaths have an enticement not readily to be withstood. I am going to err into such a bypath. If the reader will keep me company I shall be glad. At the least, we can promise ourselves that pleasure which is wickedly said to be in sinning, for a literary sin the divergence will be.

Very likely it is no new remark that the inventions of our time have at last brought about a change in sea warfare in degree corresponding to the revolution in all warfare effected by the original introduction from China into Europe of gunpowder. The first European firearm, a clumsy contrivance, was, as is well known, scouted by no few of the knights as a base implement, good enough peradventure for weavers too craven to stand up crossing steel with steel in frank fight. But as ashore knightly valor, though shorn of its blazonry, did not cease with the knights, neither on the seas—though nowadays in encounters there a certain kind of displayed gallantry be fallen out of date as hardly applicable under changed circumstances—did the nobler qualities of such naval magnates as Don John of Austria, Doria, Van Tromp, Jean Bart, the long line of British admirals, and the American Decaturs of 1812 become obsolete with their wooden walls.

Nevertheless, to anybody who can hold the Present at its worth without

being inappreciative of the Past, it may be forgiven, if to such a one the solitary old hulk at Portsmouth, Nelson's *Victory,* seems to float there, not alone as the decaying monument of a fame incorruptible, but also as a poetic reproach, softened by its picturesqueness, to the *Monitors* and yet mightier hulls of the European ironclads. And this not altogether because such craft are unsightly, unavoidably lacking the symmetry and grand lines of the old battleships, but equally for other reasons.

There are some, perhaps, who while not altogether inaccessible to that poetic reproach just alluded to, may yet on behalf of the new order be disposed to parry it; and this to the extent of iconoclasm, if need be. For example, prompted by the sight of the star inserted in the *Victory*'s quarter-deck designating the spot where the Great Sailor fell, these martial utilitarians may suggest considerations implying that Nelson's ornate publication of his person in battle was not only unnecessary, but not military, nay, savored of foolhardiness and vanity. They may add, too, that at Trafalgar it was in effect nothing less than a challenge to death; and death came; and that but for his bravado the victorious admiral might possibly have survived the battle, and so, instead of having his sagacious dying injunctions overruled by his immediate successor in command, he himself when the contest was decided might have brought his shattered fleet to anchor, a proceeding which might have averted the deplorable loss of life by shipwreck in the elemental tempest that followed the martial one.

Well, should we set aside the more than disputable point whether for various reasons it was possible to anchor the fleet, then plausibly enough the Benthamites of war may urge the above. But the *might-have-been* is but boggy ground to build on. And, certainly, in foresight as to the larger issue of an encounter, and anxious preparations for it—buoying the deadly way and mapping it out, as at Copenhagen—few commanders have been so painstakingly circumspect as this same reckless declarer of his person in fight.

Personal prudence, even when dictated by quite other than selfish considerations, surely is no special virtue in a military man; while an excessive love of glory, impassioning a less burning impulse, the honest sense of duty, is the first. If the name *Wellington* is not so much of a trumpet to the blood as the simpler name *Nelson,* the reason for this may perhaps be inferred from the above. Alfred [Lord Tennyson] in his funeral ode on the victor of Waterloo ventures not to call him the greatest soldier of all time, though in the same ode he invokes Nelson as "the greatest sailor since our world began."

At Trafalgar Nelson on the brink of opening the fight sat down and wrote his last brief will and testament. If under the presentiment of the most magnificent of all victories to be crowned by his own glorious death, a sort of priestly motive led him to dress his person in the jeweled vouchers of his own shining deeds; if thus to have adorned himself for the altar and the sacrifice were indeed vainglory, then affectation and fustian is each more heroic line in the great epics and dramas, since in such lines the poet but embodies in verse those exaltations of sentiment that a nature like Nelson, the opportunity being given, vitalizes into acts.

Yes, the outbreak at the Nore was put down. But not every grievance was redressed. If the contractors, for example, were no longer permitted to ply some practices peculiar to their tribe everywhere, such as providing shoddy cloth, rations not sound, or false in the measure, not the less impressment, for one thing, went on. By custom sanctioned for centuries, and judicially maintained by a Lord Chancellor as late as Mansfield, that mode of manning the fleet, a mode now fallen into a sort of abeyance but never formally renounced, it was not practicable to give up in those years. Its abrogation would have crippled the indispensable fleet, one wholly under canvas, no steam power, its innumerable sails and thousands of cannon, everything in short, worked by muscle alone; a fleet the more insatiate in demand for men, because then multiplying its ships of all grades against contingencies present and to come of the convulsed Continent.

Discontent foreran the Two Mutinies, and more or less it lurkingly survived them. Hence it was not unreasonable to apprehend some return of trouble sporadic or general. One instance of such apprehensions: In the same year with this story, Nelson, then Rear Admiral Sir Horatio, being with the fleet off the Spanish coast, was directed by the admiral in command to shift his pennant from the *Captain* to the *Theseus;* and for this reason: that the latter ship having newly arrived on the station from home, where it had taken part in the Great Mutiny, danger was apprehended from the temper of the men; and it was thought that an officer like Nelson was the one, not indeed to terrorize the crew into base subjection, but to win them, by force of his mere presence and heroic personality, back to an allegiance if not as enthusiastic as his own yet as true.

So it was that for a time, on more than one quarter-deck, anxiety did exist. At sea, precautionary vigilance was strained against relapse. At short notice an engagement might come on. When it did, the lieutenants

assigned to batteries felt it incumbent on them, in some instances, to stand with drawn swords behind the men working the guns.

But on board the seventy-four in which Billy now swung his hammock, very little in the manner of the men and nothing obvious in the demeanor of the officers would have suggested to an ordinary observer that the Great Mutiny was a recent event. In their general bearing and conduct the commissioned officers of a warship naturally take their tone from the commander, that is if he have that ascendancy of character that ought to be his.

Captain the Honorable Edward Fairfax Vere, to give his full title, was a bachelor of forty or thereabouts, a sailor of distinction even in a time prolific of renowned seamen. Though allied to the higher nobility, his advancement had not been altogether owing to influences connected with that circumstance. He had seen much service, been in various engagements, always acquitting himself as an officer mindful of the welfare of his men, but never tolerating an infraction of discipline; thoroughly versed in the science of his profession, and intrepid to the verge of temerity, though never injudiciously so. For his gallantry in the West Indian waters as flag lieutenant under Rodney in that admiral's crowning victory over De Grasse, he was made a post captain.

Ashore, in the garb of a civilian, scarce anyone would have taken him for a sailor, more especially that he never garnished unprofessional talk with nautical terms, and grave in his bearing, evinced little appreciation of mere humor. It was not out of keeping with these traits that on a passage when nothing demanded his paramount action, he was the most undemonstrative of men. Any landsman observing this gentleman, not conspicuous by his stature and wearing no pronounced insignia, emerging from his cabin to the open deck, and noting the silent deference of the officers retiring to leeward, might have taken him for the King's guest, a civilian aboard the King's ship, some highly honorable discreet envoy on his way to an important post. But in fact this unobtrusiveness of demeanor may have proceeded from a certain unaffected modesty of manhood sometimes accompanying a resolute nature, a modesty evinced at all times not calling for pronounced action, which shown in any rank of life suggests a virtue aristocratic in kind. As with some others engaged in various departments of the world's more heroic activities, Captain Vere though practical enough upon occasion would at times betray a certain dreaminess of mood. Standing alone on the weather side of the quarter-

deck, one hand holding by the rigging, he would absently gaze off at the blank sea. At the presentation to him then of some minor matter interrupting the current of his thoughts, he would show more or less irascibility; but instantly he would control it.

In the navy he was popularly known by the appellation "Starry Vere." How such a designation happened to fall upon one who whatever his sterling qualities was without any brilliant ones was in this wise: A favorite kinsman, Lord Denton, a freehearted fellow, had been the first to meet and congratulate him upon his return to England from his West Indian cruise; and but the day previous turning over a copy of Andrew Marvell's poems had lighted, not for the first time, however, upon the lines entitled "Appleton House," the name of one of the seats of their common ancestor, a hero in the German wars of the seventeenth century, in which poem occur the lines:

> This 'tis to have been from the first
> In a domestic heaven nursed,
> Under the discipline severe
> Of Fairfax and the starry Vere.

And so, upon embracing his cousin fresh from Rodney's great victory wherein he had played so gallant a part, brimming over with just family pride in the sailor of their house, he exuberantly exclaimed, "Give ye joy, Ed; give ye joy, my starry Vere!" This got currency, and the novel prefix serving in familiar parlance readily to distinguish the *Bellipotent's* captain from another Vere his senior, a distant relative, an officer of like rank in the navy, it remained permanently attached to the surname.

In view of the part that the commander of the *Bellipotent* plays in scenes shortly to follow, it may be well to fill out that sketch of him outlined in the previous chapter.

Aside from his qualities as a sea officer Captain Vere was an exceptional character. Unlike no few of England's renowned sailors, long and arduous service with signal devotion to it had not resulted in absorbing and *salting* the entire man. He had a marked leaning toward everything intellectual. He loved books, never going to sea without a newly replenished library, compact but of the best. The isolated leisure, in some cases so wearisome, falling at intervals to commanders even during a war cruise, never was tedious to Captain Vere. With nothing of that literary

taste which less heeds the thing conveyed than the vehicle, his bias was toward those books to which every serious mind of superior order occupying any active post of authority in the world naturally inclines: books treating of actual men and events no matter of what era–history, biography, and unconventional writers like Montaigne, who, free from cant and convention, honestly and in the spirit of common sense philosophize upon realities. In this line of reading he found confirmation of his own more reserved thoughts–confirmation which he had vainly sought in social converse, so that as touching most fundamental topics, there had got to be established in him some positive convictions which he forefelt would abide in him essentially unmodified so long as his intelligent part remained unimpaired. In view of the troubled period in which his lot was cast, this was well for him. His settled convictions were as a dike against those invading waters of novel opinion, social, political, and otherwise, which carried away as in a torrent no few minds in those days, minds by nature not inferior to his own. While other members of that aristocracy to which by birth he belonged were incensed at the innovators mainly because their theories were inimical to the privileged classes, Captain Vere disinterestedly opposed them not alone because they seemed to him insusceptible of embodiment in lasting institutions, but at war with the peace of the world and the true welfare of mankind.

With minds less stored than his and less earnest, some officers of his rank, with whom at times he would necessarily consort, found him lacking in the companionable quality, a dry and bookish gentleman, as they deemed. Upon any chance withdrawal from their company one would be apt to say to another something like this: "Vere is a noble fellow, Starry Vere. 'Spite the gazettes, Sir Horatio" (meaning him who became Lord Nelson) "is at bottom scarce a better seaman or fighter. But between you and me now, don't you think there is a queer streak of the pedantic running through him? Yes, like the King's yarn in a coil of navy rope?"

Some apparent ground there was for this sort of confidential criticism; since not only did the captain's discourse never fall into the jocosely familiar, but in illustrating of any point touching the stirring personages and events of the time he would be as apt to cite some historic character or incident of antiquity as he would be to cite from the moderns. He seemed unmindful of the circumstance that to his bluff company such remote allusions, however pertinent they might really be, were altogether alien to men whose reading was mainly confined to the journals. But considerateness in such matters is not easy to natures constituted like Captain Vere's. Their honesty prescribes to them directness, sometimes far-

reaching like that of a migratory fowl that in its flight never heeds when it crosses a frontier.

The lieutenants and other commissioned gentlemen forming Captain Vere's staff it is not necessary here to particularize, nor needs it to make any mention of any of the warrant officers. But among the petty officers was one who, having much to do with the story, may as well be forthwith introduced. His portrait I essay, but shall never hit it. This was John Claggart, the master-at-arms. But that sea title may to landsmen seem somewhat equivocal. Originally, doubtless, that petty officer's function was the instruction of the men in the use of arms, sword or cutlass. But very long ago, owing to the advance in gunnery making hand-to-hand encounters less frequent and giving to niter and sulphur the preeminence over steel, that function ceased; the master-at-arms of a great warship becoming a sort of chief of police charged among other matters with the duty of preserving order on the populous lower gun decks.

Claggart was a man about five-and-thirty, somewhat spare and tall, yet of no ill figure upon the whole. His hand was too small and shapely to have been accustomed to hard toil. The face was a notable one, the features all except the chin cleanly cut as those on a Greek medallion; yet the chin, beardless as Tecumseh's, had something of strange protuberant broadness in its make that recalled the prints of the Reverend Dr. Titus Oates, the historic deponent with the clerical drawl in the time of Charles II and the fraud of the alleged Popish Plot. It served Claggart in his office that his eye could cast a tutoring glance. His brow was of the sort phrenologically associated with more than average intellect; silken jet curls partly clustering over it, making a foil to the pallor below, a pallor tinged with a faint shade of amber akin to the hue of time-tinted marbles of old. This complexion, singularly contrasting with the red or deeply bronzed visages of the sailors, and in part the result of his official seclusion from the sunlight, though it was not exactly displeasing, nevertheless seemed to hint of something defective or abnormal in the constitution and blood. But his general aspect and manner were so suggestive of an education and career incongruous with his naval function that when not actively engaged in it he looked like a man of high quality, social and moral, who for reasons of his own was keeping incog. Nothing was known of his former life. It might be that he was an Englishman; and yet there lurked a bit of accent in his speech suggesting that possibly he was not such by birth, but through naturalization in early childhood. Among certain grizzled sea gossips of the gun decks and

forecastle went a rumor perdue that the master-at-arms was a chevalier who had volunteered into the King's Navy by way of compounding for some mysterious swindle whereof he had been arraigned at the King's Bench. The fact that nobody could substantiate this report was, of course, nothing against its secret currency. Such a rumor once started on the gun decks in reference to almost anyone below the rank of a commissioned officer would, during the period assigned to this narrative, have seemed not altogether wanting in credibility to the tarry old wiseacres of a man-of-war crew. And indeed a man of Claggart's accomplishments, without prior nautical experience entering the navy at mature life, as he did, and necessarily allotted at the start to the lowest grade in it; a man too who never made allusion of his previous life ashore; these were circumstances which in the dearth of exact knowledge as to his true antecedents opened to the invidious a vague field for unfavorable surmise.

But the sailors' dogwatch gossip concerning him derived a vague plausibility from the fact that now for some period the British Navy could so little afford to be squeamish in the matter of keeping up the muster rolls that not only were press gangs notoriously abroad both afloat and ashore but there was little or no secret about another matter, namely, that the London police were at liberty to capture any able-bodied suspect, any questionable fellow at large, and summarily ship him to the dockyard or fleet. Furthermore, even among voluntary enlistments there were instances where the motive thereto partook neither of patriotic impulse nor yet of a random desire to experience a bit of sea life and martial adventure. Insolvent debtors of minor grade, together with the promiscuous lame ducks of morality, found in the navy a convenient and secure refuge, secure because, once enlisted aboard a King's ship, they were as much in sanctuary as the transgressor of the Middle Ages harboring himself under the shadow of the altar. Such sanctioned irregularities, which for obvious reasons the government would hardly think to parade at the time and which consequently, and as affecting the least influential class of mankind, have all but dropped into oblivion, lend color to something for the truth whereof I do not vouch, and hence have some scruple in stating; something I remember having seen in print though the book I cannot recall; but the same thing was personally communicated to me now more than forty years ago by an old pensioner in a cocked hat with whom I had a most interesting talk on the terrace at Greenwich, a Baltimore Negro, a Trafalgar man. It was to this effect: In the case of a warship short of hands whose speedy sailing was imperative, the deficient quota, in lack of any other way of making it good,

would be eked out by drafts culled direct from the jails. For reasons previously suggested it would not perhaps be easy at the present day directly to prove or disprove the allegation. But allowed as a verity, how significant would it be of England's straits at the time confronted by those wars which like a flight of harpies rose shrieking from the din and dust of the fallen Bastille. That era appears measurably clear to us who look back at it, and but read of it. But to the grandfathers of us graybeards, the more thoughtful of them, the genius of it presented an aspect like that of Camoëns' Spirit of the Cape, an eclipsing menace mysterious and prodigious. Not America was exempt from apprehension. At the height of Napoleon's unexampled conquests, there were Americans who had fought at Bunker Hill who looked forward to the possibility that the Atlantic might prove no barrier against the ultimate schemes of this French portentous upstart from the revolutionary chaos who seemed in act of fulfilling judgment prefigured in the Apocalypse.

But the less credence was to be given to the gun-deck talk touching Claggart, seeing that no man holding his office in a man-of-war can ever hope to be popular with the crew. Besides, in derogatory comments upon anyone against whom they have a grudge, or for any reason or no reason mislike, sailors are much like landsmen: they are apt to exaggerate or romance it.

About as much was really known to the *Bellipotent's* tars of the master-at-arms' career before entering the service as an astronomer knows about a comet's travels prior to its first observable appearance in the sky. The verdict of the sea quidnuncs has been cited only by way of showing what sort of moral impression the man made upon rude uncultivated natures whose conceptions of human wickedness were necessarily of the narrowest, limited to ideas of vulgar rascality—a thief among the swinging hammocks during a night watch, or the man brokers and land sharks of the seaports.

It was no gossip, however, but fact that though, as before hinted, Claggart upon his entrance into the navy was, as a novice, assigned to the least honorable section of a man-of-war's crew, embracing the drudgery, he did not long remain there. The superior capacity he immediately evinced, his constitutional sobriety, an ingratiating deference to superiors, together with a peculiar ferreting genius manifested on a singular occasion; all this, capped by a certain austere patriotism, abruptly advanced him to the position of master-at-arms.

Of this maritime chief of police the ship's corporals, so called, were the immediate subordinates, and compliant ones; and this, as is to be

noted in some business departments ashore, almost to a degree inconsistent with entire moral volition. His place put various converging wires of underground influence under the chief's control, capable when astutely worked through his understrappers of operating to the mysterious discomfort, if nothing worse, of any of the sea commonalty.

Life in the foretop well agreed with Billy Budd. There, when not actually engaged on the yards yet higher aloft, the topmen, who as such had been picked out for youth and activity, constituted an aerial club lounging at ease against the smaller stunsails rolled up into cushions, spinning yarns like the lazy gods, and frequently amused with what was going on in the busy world of the decks below. No wonder then that a young fellow of Billy's disposition was well content in such society. Giving no cause of offense to anybody, he was always alert at a call. So in the merchant service it had been with him. But now such a punctiliousness in duty was shown that his topmates would sometimes good-naturedly laugh at him for it. This heightened alacrity had its cause, namely, the impression made upon him by the first formal gangway-punishment he had ever witnessed, which befell the day following his impressment. It had been incurred by a little fellow, young, a novice after-guardsman absent from his assigned post when the ship was being put about; a dereliction resulting in a rather serious hitch to that maneuver, one demanding instantaneous promptitude in letting go and making fast. When Billy saw the culprit's naked back under the scourge, gridironed with red welts and worse, when he marked the dire expression in the liberated man's face as with his woolen shirt flung over him by the executioner he rushed forward from the spot to bury himself in the crowd, Billy was horrified. He resolved that never through remissness would he make himself liable to such a visitation or do or omit aught that might merit even verbal reproof. What then was his surprise and concern when ultimately he found himself getting into petty trouble occasionally about such matters as the stowage of his bag or something amiss in his hammock, matters under the police oversight of the ship's corporals of the lower decks, and which brought down on him a vague threat from one of them.

So heedful in all things as he was, how could this be? He could not understand it, and it more than vexed him. When he spoke to his young topmates about it they were either lightly incredulous or found something comical in his unconcealed anxiety. "Is it your bag, Billy?" said one. "Well, sew yourself up in it, bully boy, and then you'll be sure to know if anybody meddles with it."

Now there was a veteran aboard who because his years began to disqualify him for more active work had been recently assigned duty as mainmastman in his watch, looking to the gear belayed at the rail round-about that great spar near the deck. At off-times the foretopman had picked up some acquaintance with him, and now in his trouble it occurred to him that he might be the sort of person to go to for wise counsel. He was an old Dansker [Dane] long anglicized in the service, of few words, many wrinkles, and some honorable scars. His wizened face, time-tinted and weather-stained to the complexion of an antique parchment, was here and there peppered blue by the chance explosion of a gun cartridge in action.

He was an *Agamemnon* man, some two years prior to the time of this story having served under Nelson when still captain in that ship immortal in naval memory, which dismantled and in part broken up to her bare ribs is seen a grand skeleton in Haden's etching. As one of a boarding party from the *Agamemnon* he had received a cut slantwise along one temple and cheek, leaving a long pale scar like a streak of dawn's light falling athwart the dark visage. It was on account of that scar and the affair in which it was known that he had received it, as well as from his blue-peppered complexion, that the Dansker went among the *Bellipotent*'s crew by the name of Board-Her-in-the-Smoke.

Now the first time that his small weasel eyes happened to light on Billy Budd, a certain grim internal merriment set all his ancient wrinkles into antic play. Was it that his eccentric unsentimental old sapience, primitive in its kind, saw or thought it saw something which in contrast with the warship's environment looked oddly incongruous in the Handsome Sailor? But after slyly studying him at intervals, the old Merlin's equivocal merriment was modified; for now when the twain would meet, it would start in his face a quizzing sort of look, but it would be but momentary and sometimes replaced by an expression of speculative query as to what might eventually befall a nature like that, dropped into a world not without some mantraps and against whose subtleties simple courage lacking experience and address, and without any touch of defensive ugliness, is of little avail; and where such innocence as man is capable of does yet in a moral emergency not always sharpen the faculties or enlighten the will.

However it was, the Dansker in his ascetic way rather took to Billy. Nor was this only because of a certain philosophic interest in such a character. There was another cause. While the old man's eccentricities, sometimes bordering on the ursine, repelled the juniors, Billy, undeterred thereby, revering him as a salt hero, would make advances, never passing

the old *Agamemnon* man without a salutation marked by that respect which is seldom lost on the aged, however crabbed at times or whatever their station in life.

There was a vein of dry humor, or what not, in the mastman; and, whether in freak of patriarchal irony touching Billy's youth and athletic frame, or for some other and more recondite reason, from the first in addressing him he always substituted *Baby* for Billy, the Dansker in fact being the originator of the name by which the foretopman eventually became known aboard ship.

Well then, in his mysterious little difficulty going in quest of the wrinkled one, Billy found him off duty in a dogwatch ruminating by himself, seated on a shot box of the upper gun deck, now and then surveying with a somewhat cynical regard certain of the more swaggering promenaders there. Billy recounted his trouble, again wondering how it all happened. The salt seer attentively listened, accompanying the foretopman's recital with queer twitchings of his wrinkles and problematical little sparkles of his small ferret eyes. Making an end of his story, the foretopman asked, "And now, Dansker, do tell me what you think of it."

The old man, shoving up the front of his tarpaulin and deliberately rubbing the long slant scar at the point where it entered the thin hair, laconically said, "Baby Budd, *Jemmy Legs*" (meaning the master-at-arms) "is down on you."

"Jemmy Legs!" ejaculated Billy, his welkin eyes expanding. "What for? Why, he calls me 'the sweet and pleasant young fellow,' they tell me."

"Does he so?" grinned the grizzled one; then said, "Ay, Baby lad, a sweet voice has Jemmy Legs."

"No, not always. But to me he has. I seldom pass him but there comes a pleasant word."

"And that's because he's down upon you, Baby Budd."

Such reiteration, along with the manner of it, incomprehensible to a novice, disturbed Billy almost as much as the mystery for which he had sought explanation. Something less unpleasingly oracular he tried to extract; but the old sea Chiron, thinking perhaps that for the nonce he had sufficiently instructed his young Achilles, pursed his lips, gathered all his wrinkles together, and would commit himself to nothing further.

Years, and those experiences which befall certain shrewder men subordinated lifelong to the will of superiors, all this had developed in the Dansker the pithy guarded cynicism that was his leading characteristic.

The next day an incident served to confirm Billy Budd in his incredulity as to the Dansker's strange summing up of the case submitted. The ship at noon, going large before the wind, was rolling on her course, and he below at dinner and engaged in some sportful talk with the members of his mess chanced in a sudden lurch to spill the entire contents of his soup pan upon the new-scrubbed deck. Claggart, the master-at-arms, official rattan in hand, happened to be passing along the battery in a bay of which the mess was lodged, and the greasy liquid streamed just across his path. Stepping over it, he was proceeding on his way without comment, since the matter was nothing to take notice of under the circumstances, when he happened to observe who it was that had done the spilling. His countenance changed. Pausing, he was about to ejaculate something hasty at the sailor, but checked himself, and pointing down to the streaming soup, playfully tapped him from behind with his rattan, saying in a low musical voice peculiar to him at times, "Handsomely done, my lad! And handsome is as handsome did it, too!" And with that passed on. Not noted by Billy as not coming within his view was the involuntary smile, or rather grimace, that accompanied Claggart's equivocal words. Aridly it drew down the thin corners of his shapely mouth. But everybody taking his remark as meant for humorous, and at which therefore as coming from a superior they were bound to laugh "with counterfeited glee," acted accordingly; and Billy, tickled, it may be, by the allusion to his being the Handsome Sailor, merrily joined in; then addressing his messmates exelaimed, "There now, who says that Jemmy Legs is down on me!"

"And who said he was, Beauty?" demanded one Donald with some surprise. Whereat the foretopman looked a little foolish, recalling that it was only one person, Board-Her-in-the-Smoke, who had suggested what to him was the smoky idea that this master-at-arms was in any peculiar way hostile to him. Meantime that functionary, resuming his path, must have momentarily worn some expression less guarded than that of the bitter smile, usurping the face from the heart—some distorting expression perhaps, for a drummer boy heedlessly frolicking along from the opposite direction and chancing to come into light collision with his person was strangely disconcerted by his aspect. Nor was the impression lessened when the official, impetuously giving him a sharp cut with the rattan, vehemently exclaimed, "Look where you go!"

What was the matter with the master-at-arms? And, be the matter what it might, how could it have direct relation to Billy Budd, with

whom prior to the affair of the spilled soup he had never come into any special contact official or otherwise? What indeed could the trouble have to do with one so little inclined to give offense as the merchantship's "peacemaker," even him who in Claggart's own phrase was "the sweet and pleasant young fellow"? Yes, why should Jemmy Legs, to borrow the Dansker's expression, be "down" on the Handsome Sailor? But, at heart and not for nothing, as the late chance encounter may indicate to the discerning, down on him, secretly down on him, he assuredly was.

Now to invent something touching the more private career of Claggart, something involving Billy Budd, of which something the latter should be wholly ignorant, some romantic incident implying that Claggart's knowledge of the young bluejacket began at some period anterior to catching sight of him on board the seventy-four—all this, not so difficult to do, might avail in a way more or less interesting to account for whatever of enigma may appear to lurk in the case. But in fact there was nothing of the sort. And yet the cause necessarily to be assumed as the sole one assignable is in its very realism as much charged with that prime element of Radcliffian romance, the mysterious, as any that the ingenuity of the author of *The Mysteries of Udolpho* could devise. For what can more partake of the mysterious than an antipathy spontaneous and profound such as is evoked in certain exceptional mortals by the mere aspect of some other mortal, however harmless he may be, if not called forth by this very harmlessness itself?

Now there can exist no irritating juxtaposition of dissimilar personalities comparable to that which is possible aboard a great warship fully manned and at sea. There, every day among all ranks, almost every man comes into more or less of contact with almost every other man. Wholly there to avoid even the sight of an aggravating object one must needs give it Jonah's toss or jump overboard himself. Imagine how all this might eventually operate on some peculiar human creature the direct reverse of a saint!

But for the adequate comprehending of Claggart by a normal nature these hints are insufficient. To pass from a normal nature to him one must cross "the deadly space between." And this is best done by indirection.

Long ago an honest scholar, my senior, said to me in reference to one who like himself is now no more, a man so unimpeachably respectable that against him nothing was ever openly said though among the few something was whispered, "Yes, X— is a nut not to be cracked by

the tap of a lady's fan. You are aware that I am the adherent of no organized religion, much less of any philosophy built into a system. Well, for all that, I think that to try and get into X—, enter his labyrinth and get out again, without a clue derived from some source other than what is known as 'knowledge of the world'–that were hardly possible, at least for me."

"Why," said I, "X—, however singular a study to some, is yet human, and knowledge of the world assuredly implies the knowledge of human nature, and in most of its varieties."

"Yes, but a superficial knowledge of it, serving ordinary purposes. But for anything deeper, I am not certain whether to know the world and to know human nature be not two distinct branches of knowledge, which while they may coexist in the same heart, yet either may exist with little or nothing of the other. Nay, in an average man of the world, his constant rubbing with it blunts that finer spiritual insight indispensable to the understanding of the essential in certain exceptional characters, whether evil ones or good. In a matter of some importance I have seen a girl wind an old lawyer about her little finger. Nor was it the dotage of senile love. Nothing of the sort. But he knew law better than he knew the girl's heart. Coke and Blackstone hardly shed so much light into obscure spiritual places as the Hebrew prophets. And who were they? Mostly recluses."

At the time, my inexperience was such that I did not quite see the drift of all this. It may be that I see it now. And, indeed, if that lexicon which is based on Holy Writ were any longer popular, one might with less difficulty define and denominate certain phenomenal men. As it is, one must turn to some authority not liable to the charge of being tinctured with the biblical element.

In a list of definitions included in the authentic translation of Plato, a list attributed to him, occurs this: "Natural Depravity: a depravity according to nature," a definition which, though savoring of Calvinism, by no means involves Calvin's dogma as to total mankind. Evidently its intent makes it applicable but to individuals. Not many are the examples of this depravity which the gallows and jail supply. At any rate, for notable instances, since these have no vulgar alloy of the brute in them, but invariably are dominated by intellectuality, one must go elsewhere. Civilization, especially if of the austerer sort, is auspicious to it. It folds itself in the mantle of respectability. It has its certain negative virtues serving as silent auxiliaries. It never allows wine to get within its guard. It is not going too far to say that it is without vices or small sins.

There is a phenomenal pride in it that excludes them. It is never mercenary or avaricious. In short, the depravity here meant partakes nothing of the sordid or sensual. It is serious, but free from acerbity. Though no flatterer of mankind it never speaks ill of it.

But the thing which in eminent instances signalizes so exceptional a nature is this: Though the man's even temper and discreet bearing would seem to intimate a mind peculiarly subject to the law of reason, not the less in heart he would seem to riot in complete exemption from that law, having apparently little to do with reason further than to employ it as an ambidexter implement for effecting the irrational. That is to say: Toward the accomplishment of an aim which in wantonness of atrocity would seem to partake of the insane, he will direct a cool judgment sagacious and sound. These men are madmen, and of the most dangerous sort, for their lunacy is not continuous, but occasional, evoked by some special object; it is protectively secretive, which is as much as to say it is self-contained, so that when, moreover, most active it is to the average mind not distinguishable from sanity, and for the reason above suggested: that whatever its aims may be–and the aim is never declared–the method and the outward proceeding are always perfectly rational.

Now something such a one was Claggart, in whom was the mania of an evil nature, not engendered by vicious training or corrupting books or licentious living, but born with him and innate, in short "a depravity according to nature."

Dark sayings are these, some will say. But why? Is it because they somewhat savor of Holy Writ in its phrase "mystery of iniquity"? If they do, such savor was far enough from being intended, for little will it commend these pages to many a reader of today.

The point of the present story turning on the hidden nature of the master-at-arms has necessitated this chapter. With an added hint or two in connection with the incident at the mess, the resumed narrative must be left to vindicate, as it may, its own credibility.

That Claggart's figure was not amiss, and his face, save the chin, well molded, has already been said. Of these favorable points he seemed not insensible, for he was not only neat but careful in his dress. But the form of Billy Budd was heroic; and if his face was without the intellectual look of the pallid Claggart's, not the less was it lit, like his, from within, though from a different source. The bonfire in his heart made luminous the rosetan in his cheek.

In view of the marked contrast between the persons of the twain, it is more than probable that when the master-at-arms in the scene last given applied to the sailor the proverb "Handsome is as handsome does," he there let escape an ironic inkling, not caught by the young sailors who heard it, as to what it was that had first moved him against Billy, namely, his significant personal beauty.

Now envy and antipathy, passions irreconcilable in reason, nevertheless in fact may spring conjoined like Chang and Eng in one birth. Is Envy then such a monster? Well, though many an arraigned mortal has in hopes of mitigated penalty pleaded guilty to horrible actions, did ever anybody seriously confess to envy? Something there is in it universally felt to be more shameful than even felonious crime. And not only does everybody disown it, but the better sort are inclined to incredulity when it is in earnest imputed to an intelligent man. But since its lodgment is in the heart not the brain, no degree of intellect supplies a guarantee against it. But Claggart's was no vulgar form of the passion. Nor, as directed toward Billy Budd, did it partake of that streak of apprehensive jealousy that marred Saul's visage perturbedly brooding on the comely young David. Claggart's envy struck deeper. If askance he eyed the good looks, cheery health, and frank enjoyment of young life in Billy Budd, it was because these went along with a nature that, as Claggart magnetically felt, had in its simplicity never willed malice or experienced the reactionary bite of that serpent. To him, the spirit lodged within Billy, and looking out from his welkin eyes as from windows, that ineffability it was which made the dimple in his dyed cheek, suppled his joints, and dancing in his yellow curls made him pre-eminently the Handsome Sailor. One person excepted, the master-at-arms was perhaps the only man in the ship intellectually capable of adequately appreciating the moral phenomenon presented in Billy Budd. And the insight but intensified his passion, which, assuming various secret forms within him, at times assumed that of cynic disdain, disdain of innocence—to be nothing more than innocent! Yet in an aesthetic way he saw the charm of it, the courageous free and easy temper of it, and fain would have shared it, but he despaired of it.

With no power to annul the elemental evil in him, though readily enough he could hide it; apprehending the good, but powerless to be it; a nature like Claggart's, surcharged with energy as such natures almost invariably are, what recourse is left to it but to recoil upon itself and, like the scorpion for which the Creator alone is responsible, act out to the end the part allotted it.

Passion, and passion in its profoundest, is not a thing demanding a palatial stage whereon to play its part. Down among the groundlings, among the beggars and rakers of the garbage, profound passion is enacted. And the circumstances that provoke it, however trivial or mean, are no measure of its power. In the present instance the stage is a scrubbed gun deck, and one of the external provocations a man-of-war's man's spilled soup.

Now when the master-at-arms noticed whence came that greasy fluid streaming before his feet, he must have taken it—to some extent willfully, perhaps—not for the mere accident it assuredly was, but for the sly escape of a spontaneous feeling on Billy s part more or less answering to the antipathy on his own. In effect a foolish demonstration, he must have thought, and very harmless, like the futile kick of a heifer, which yet were the heifer a shod stallion would not be so harmless. Even so was it that into the gall of Claggart's envy he infused the vitriol of his contempt. But the incident confirmed to him certain telltale reports purveyed to his ear by "Squeak," one of his more cunning corporals, a grizzled little man, so nicknamed by the sailors on account of his squeaky voice and sharp visage ferreting about the dark corners of the lower decks after interlopers, satirically suggesting to them the idea of a rat in a cellar.

From his chief's employing him as an implicit tool in laying little traps for the worriment of the foretopman—for it was from the master-at-arms that the petty persecutions heretofore adverted to had proceeded—the corporal, having naturally enough concluded that his master could have no love for the sailor, made it his business, faithful understrapper that he was, to foment the ill blood by perverting to his chief certain innocent frolics of the good-natured foretopman, besides inventing for his mouth sundry contumelious epithets he claimed to have overheard him let fall. The master-at-arms never suspected the veracity of these reports, more especially as to the epithets, for he well knew how secretly unpopular may become a master-at-arms, at least a master-at-arms of those days, zealous in his function, and how the bluejackets shoot at him in private their raillery and wit; the nickname by which he goes among them (Jemmy Legs) implying under the form of merriment their cherished disrespect and dislike. But in view of the greediness of hate for pabulum it hardly needed a purveyor to feed Claggart's passion.

An uncommon prudence is habitual with the subtler depravity, for it has everything to hide. And in case of an injury but suspected, its secretiveness voluntarily cuts it off from enlightenment or disillusion; and, not unreluctantly, action is taken upon surmise as upon certainty.

And the retaliation is apt to be in monstrous disproportion to the supposed offense; for when in anybody was revenge in its exactions aught else but an inordinate usurer? But how with Claggart's conscience? For though consciences are unlike as foreheads, every intelligence, not excluding the scriptural devils who "believe and tremble," has one. But Claggart's conscience, being but the lawyer to his will, made ogres of trifles, probably arguing that the motive imputed to Billy in spilling the soup just when he did, together with the epithets alleged, these, if nothing more, made a strong case against him; nay, justified animosity into a sort of retributive righteousness. The Pharisee is the Guy Fawkes prowling in the hid chambers underlying some natures like Claggart's. And they can really form no conception of an unreciprocated malice. Probably the master-at-arms' clandestine persecution of Billy was started to try the temper of the man; but it had not developed any quality in him that enmity could make official use of or even pervert into plausible self-justification; so that the occurrence at the mess, petty if it were, was a welcome one to that peculiar conscience assigned to be the private mentor of Claggart; and, for the rest, not improbably it put him upon new experiments.

Not many days after the last incident narrated, something befell Billy Budd that more graveled him than aught that had previously occurred.

It was a warm night for the latitude; and the foretopman, whose watch at the time was properly below, was dozing on the uppermost deck whither he had ascended from his hot hammock, one of hundreds suspended so closely wedged together over a lower gun deck that there was little or no swing to them. He lay as in the shadow of a hillside, stretched under the lee of the booms, a piled ridge of spare spars amidships between foremast and mainmast among which the ship's largest boat, the launch, was stowed. Alongside of three other slumberers from below, he lay near that end of the booms which approaches the foremast; his station aloft on duty as a foretopman being just over the deck station of the forecastlemen, entitling him according to usage to make himself more or less at home in that neighborhood.

Presently he was stirred into semiconsciousness by somebody, who must have previously sounded the sleep of the others, touching his shoulder, and then, as the foretopman raised his head, breathing into his ear in a quick whisper, "Slip into the lee fore-chains, Billy; there is something in the wind. Don't speak. Quick, I will meet you there," and disappearing.

Now Billy, like sundry other essentially good-natured ones, had some of the weaknesses inseparable from essential good nature; and among

these was a reluctance, almost an incapacity, of plumply saying *no* to an abrupt proposition not obviously absurd on the face of it, nor obviously unfriendly, nor iniquitous. And being of warm blood, he had not the phlegm tacitly to negative any proposition by unresponsive inaction. Like his sense of fear, his apprehension as to aught outside of the honest and natural was seldom very quick. Besides, upon the present occasion, the drowse from his sleep still hung upon him.

However it was, he mechanically rose and, sleepily wondering what could be in the wind, betook himself to the designated place, a narrow platform, one of six, outside of the high bulwarks and screened by the great deadeyes and multiple columned lanyards of the shrouds and backstays; and, in a great warship of that time, of dimensions commensurate to the hull's magnitude; a tarry balcony in short, overhanging the sea, and so secluded that one mariner of the *Bellipotent,* a Nonconformist old tar of a serious turn, made it even in daytime his private oratory.

In this retired nook the stranger soon joined Billy Budd. There was no moon as yet; a haze obscured the starlight. He could not distinctly see the stranger's face. Yet from something in the outline and carriage, Billy took him, and correctly, for one of the afterguard.

"Hist! Billy," said the man, in the same quick cautionary whisper as before. "You were impressed, weren't you? Well, so was I"; and he paused, as to mark the effect. But Billy, not knowing exactly what to make of this, said nothing. Then the other: "We are not the only impressed ones, Billy. There's a gang of us. Couldn't you–help–at a pinch?"

"What do you mean?" demanded Billy, here thoroughly shaking off his drowse.

"Hist, hist!" the hurried whisper now growing husky. "See here," and the man held up two small objects faintly twinkling in the night light; "see, they are yours, Billy, if you'll only—"

But Billy broke in, and in his resentful eagerness to deliver himself his vocal infirmity somewhat intruded. "D–d–damme, I don't know what you are d–d–driving at, or what you mean, but you had better g–g–go where you belong!" For the moment the fellow, as confounded, did not stir; and Billy, springing to his feet, said, "If you d–don't start, I'll t–t–toss you back over the r–rail!" There was no mistaking this, and the mysterious emissary decamped, disappearing in the direction of the mainmast in the shadow of the booms.

"Hallo, what's the matter?" here came growling from a forecastleman awakened from his deck doze by Billy's raised voice. And as the foretop-

man reappeared and was recognized by him: "Ah, Beauty, is it you? Well, something must have been the matter, for you st–st–stuttered."

"Oh," rejoined Billy, now mastering the impediment, "I found an afterguardsman in our part of the ship here, and I bid him be off where he belongs."

"And is that all you did about it, Foretopman?" gruffly demanded another, an irascible old fellow of brick-colored visage and hair who was known to his associate forecastlemen as "Red Pepper." "Such sneaks I should like to marry to the gunner's daughter!"–by that expression meaning that he would like to subject them to disciplinary castigation over a gun.

However, Billy's rendering of the matter satisfactorily accounted to these inquirers for the brief commotion, since of all the sections of a ship's company the forecastlemen, veterans for the most part and bigoted in their sea prejudices, are the most jealous in resenting territorial encroachments, especially on the part of any of the afterguard, of whom they have but a sorry opinion–chiefly landsmen, never going aloft except to reef or furl the mainsail, and in no wise competent to handle a marlinespike or turn in a deadeye, say.

This incident sorely puzzled Billy Budd. It was an entirely new experience, the first time in his life that he had ever been personally approached in underhand intriguing fashion. Prior to this encounter he had known nothing of the afterguardsman, the two men being stationed wide apart, one forward and aloft during his watch, the other on deck and aft.

What could it mean? And could they really be guineas, those two glittering objects the interloper had held up to his (Billy's) eyes? Where could the fellow get guineas? Why, even spare buttons are not so plentiful at sea. The more he turned the matter over, the more he was non-plused, and made uneasy and discomfited. In his disgustful recoil from an overture which, though he but ill comprehended, he instinctively knew must involve evil of some sort, Billy Budd was like a young horse fresh from the pasture suddenly inhaling a vile whiff from some chemical factory, and by repeated snortings trying to get it out of his nostrils and lungs. This frame of mind barred all desire of holding further parley with the fellow, even were it but for the purpose of gaining some enlightenment as to his design in approaching him. And yet he was not without natural curiosity to see how such a visitor in the dark would look in broad day.

He espied him the following afternoon in his first dogwatch below, one

of the smokers on that forward part of the upper gun deck allotted to the pipe. He recognized him by his general cut and build more than by his round freckled face and glassy eyes of pale blue, veiled with lashes all but white. And yet Billy was a bit uncertain whether indeed it were he—yonder chap about his own age chatting and laughing in freehearted way, leaning against a gun; a genial young fellow enough to look at, and something of a rattlebrain, to all appearance. Rather chubby too for a sailor, even an afterguardsman. In short, the last man in the world, one would think, to be overburdened with thoughts, especially those perilous thoughts that must needs belong to a conspirator in any serious project, or even to the underling of such a conspirator.

Although Billy was not aware of it, the fellow, with a sidelong watchful glance, had perceived Billy first, and then noting that Billy was looking at him, thereupon nodded a familiar sort of friendly recognition as to an old acquaintance, without interrupting the talk he was engaged in with the group of smokers. A day or two afterwards, chancing in the evening promenade on a gun deck to pass Billy, he offered a flying word of good fellowship, as it were, which by its unexpectedness, and equivocalness under the circumstances, so embarrassed Billy that he knew not how to respond to it, and let it go unnoticed.

Billy was now left more at a loss than before. The ineffectual speculations into which he was led were so disturbingly alien to him that he did his best to smother them. It never entered his mind that here was a matter which, from its extreme questionableness, it was his duty as a loyal bluejacket to report in the proper quarter. And, probably, had such a step been suggested to him, he would have been deterred from taking it by the thought, one of novice magnanimity, that it would savor overmuch of the dirty work of a telltale. He kept the thing to himself. Yet upon one occasion he could not forbear a little disburdening himself to the old Dansker, tempted thereto perhaps by the influence of a balmy night when the ship lay becalmed; the twain, silent for the most part, sitting together on deck, their heads propped against the bulwarks. But it was only a partial and anonymous account that Billy gave, the unfounded scruples above referred to preventing full disclosure to anybody. Upon hearing Billy's version, the sage Dansker seemed to divine more than he was told; and after a little meditation, during which his wrinkles were pursed as into a point, quite effacing for the time that quizzing expression his face sometimes wore: "Didn't I say so, Baby Budd?"

"Say what?" demanded Billy.

"Why, *Jemmy Legs* is *down* on you."

"And what," rejoined Billy in amazement, "has *Jemmy Legs* to do with that cracked afterguardsman?"

"Ho, it was an afterguardsman, then. A cat's-paw, a cat's-paw!" And with that exclamation, whether it had reference to a light puff of air just then coming over the calm sea, or a subtler relation to the afterguardsman, there is no telling, the old Merlin gave a twisting wrench with his black teeth at his plug of tobacco, vouchsafing no reply to Billy's impetuous question, though now repeated, for it was his wont to relapse into grim silence when interrogated in skeptical sort as to any of his sententious oracles, not always very clear ones, rather partaking of that obscurity which invests most Delphic deliverances from any quarter.

Long experience had very likely brought this old man to that bitter prudence which never interferes in aught and never gives advice.

Yes, despite the Dansker's pithy insistence as to the master-at-arms being at the bottom of these strange experiences of Billy on board the *Bellipotent,* the young sailor was ready to ascribe them to almost anybody but the man who, to use Billy's own expression, "always had a pleasant word for him." This is to be wondered at. Yet not so much to be wondered at. In certain matters, some sailors even in mature life remain unsophisticated enough. But a young seafarer of the disposition of our athletic foretopman is much of a child-man. And yet a child's utter innocence is but its blank ignorance, and the innocence more or less wanes as intelligence waxes. But in Billy Budd intelligence, such as it was, had advanced while yet his simple-mindedness remained for the most part unaffected. Experience is a teacher indeed; yet did Billy's years make his experience small. Besides, he had none of that intuitive knowledge of the bad which in natures not good or incompletely so foreruns experience, and therefore may pertain, as in some instances it too clearly does pertain, even to youth.

And what could Billy know of man except of man as a mere sailor? And the old-fashioned sailor, the veritable man before the mast, the sailor from boyhood up, he, though indeed of the same species as a landsman, is in some respects singularly distinct from him. The sailor is frankness, the landsman is finesse. Life is not a game with the sailor, demanding the long head—no intricate game of chess where few moves are made in straightforwardness and ends are attained by indirection, an oblique, tedious, barren game hardly worth that poor candle burned out in playing it.

Yes, as a class, sailors are in character a juvenile race. Even their devia-

tions are marked by juvenility, this more especially holding true with the sailors of Billy's time. Then, too, certain things which apply to all sailors do more pointedly operate here and there upon the junior one. Every sailor, too, is accustomed to obey orders without debating them; his life afloat is externally ruled for him; he is not brought into that promiscuous commerce with mankind where unobstructed free agency on equal terms—equal superficially, at least—soon teaches one that unless upon occasion he exercise a distrust keen in proportion to the fairness of the appearance, some foul turn may be served him. A ruled undemonstrative distrustfulness is so habitual, not with businessmen so much as with men who know their kind in less shallow relations than business, namely, certain men of the world, that they come at last to employ it all but unconsciously; and some of them would very likely feel real surprise at being charged with it as one of their general characteristics.

But after the little matter at the mess Billy Budd no more found himself in strange trouble at times about his hammock or his clothes bag or what not. As to that smile that occasionally sunned him, and the pleasant passing word, these were, if not more frequent, yet if anything more pronounced than before.

But for all that, there were certain other demonstrations now. When Claggart's unobserved glance happened to light on belted Billy rolling along the upper gun deck in the leisure of the second dogwatch, exchanging passing broadsides of fun with other young promenaders in the crowd, that glance would follow the cheerful sea Hyperion with a settled meditative and melancholy expression, his eyes strangely suffused with incipient feverish tears. Then would Claggart look like the man of sorrows. Yes, and sometimes the melancholy expression would have in it a touch of soft yearning, as if Claggart could even have loved Billy but for fate and ban. But this was an evanescence, and quickly repented of, as it were, by an immitigable look, pinching and shriveling the visage into the momentary semblance of a wrinkled walnut. But sometimes catching sight in advance of the foretopman coming in his direction, he would, upon their nearing, step aside a little to let him pass, dwelling upon Billy for the moment with the glittering dental satire of a Guise. But upon any abrupt unforeseen encounter a red light would flash forth from his eye like a spark from an anvil in a dusk smithy. That quick, fierce light was a strange one, darted from orbs which in repose were of a color nearest approaching a deeper violet, the softest of shades.

Though some of these caprices of the pit could not but be observed by their object, yet were they beyond the construing of such a nature. And the thews of Billy were hardly compatible with that sort of sensitive spiritual organization which in some cases instinctively conveys to ignorant innocence an admonition of the proximity of the malign. He thought the master-at-arms acted in a manner rather queer at times. That was all. But the occasional frank air and pleasant word went for what they purported to be, the young sailor never having heard as yet of the "too fair-spoken man."

Had the foretopman been conscious of having done or said anything to provoke the ill will of the official, it would have been different with him, and his sight might have been purged if not sharpened. As it was, innocence was his blinder.

So was it with him in yet another matter. Two minor officers, the armorer and captain of the hold, with whom he had never exchanged a word, his position in the ship not bringing him into contact with them, these men now for the first began to cast upon Billy, when they chanced to encounter him, that peculiar glance which evidences that the man from whom it comes has been some way tampered with, and to the prejudice of him upon whom the glance lights. Never did it occur to Billy as a thing to be noted or a thing suspicious, though he well knew the fact that the armorer and captain of the hold, with the ship's yeoman, apothecary, and others of that grade, were by naval usage messmates of the master-at-arms, men with ears convenient to his confidential tongue.

But the general popularity that came from our Handsome Sailor's manly forwardness upon occasion and irresistible good nature, indicating no mental superiority tending to excite an invidious feeling, this good will on the part of most of his shipmates made him the less to concern himself about such mute aspects toward him as those whereto allusion has just been made, aspects he could not so fathom as to infer their whole import.

As to the afterguardsman, though Billy for reasons already given necessarily saw little of him, yet when the two did happen to meet, invariably came the fellow's offhand cheerful recognition, sometimes accompanied by a passing pleasant word or two. Whatever that equivocal young person's original design may really have been, or the design of which he might have been the deputy, certain it was from his manner upon these occasions that he had wholly dropped it.

It was as if his precocity of crookedness (and every vulgar villain is

precocious) had for once deceived him, and the man he had sought to entrap as a simpleton had through his very simplicity ignominiously baffled him.

But shrewd ones may opine that it was hardly possible for Billy to refrain from going up to the afterguardsman and bluntly demanding to know his purpose in the initial interview so abruptly closed in the fore-chains. Shrewd ones may also think it but natural in Billy to set about sounding some of the other impressed men of the ship in order to discover what basis, if any, there was for the emissary's obscure suggestions as to plotting disaffection aboard. Yes, shrewd ones may so think. But something more, or rather something else, than mere shrewdness is perhaps needful for the due understanding of such a character as Billy Budd's.

As to Claggart, the monomania in the man—if that indeed it were—as involuntarily disclosed by starts in the manifestations detailed, yet in general covered over by his self-contained and rational demeanor; this, like a subterranean fire, was eating its way deeper and deeper in him. Something decisive must come of it.

After the mysterious interview in the fore-chains, the one so abruptly ended there by Billy, nothing especially germane to the story occurred until the events now about to be narrated.

Elsewhere it has been said that in the lack of frigates (of course better sailers than line-of-battle ships) in the English squadron up the Straits at that period, the *Bellipotent 74* was occasionally employed not only as an available substitute for a scout but at times on detached service of more important kind. This was not alone because of her sailing qualities, not common in a ship of her rate, but quite as much, probably, that the character of her commander, it was thought, specially adapted him for any duty where under unforeseen difficulties a prompt initiative might have to be taken in some matter demanding knowledge and ability in addition to those qualities implied in good seamanship. It was on an expedition of the latter sort, a somewhat distant one, and when the *Bellipotent* was almost at her furthest remove from the fleet, that in the latter part of an afternoon watch she unexpectedly came in sight of a ship of the enemy. It proved to be a frigate. The latter, perceiving through the glass that the weight of men and metal would be heavily against her, invoking her light heels crowded sail to get away. After a chase urged almost against hope and lasting until about the middle of the first dogwatch, she signally succeeded in effecting her escape.

Not long after the pursuit had been given up, and ere the excitement incident thereto had altogether waned away, the master-at-arms, ascending from his cavernous sphere, made his appearance cap in hand by the mainmast respectfully waiting the notice of Captain Vere, then solitary walking the weather side of the quarter-deck, doubtless somewhat chafed at the failure of the pursuit. The spot where Claggart stood was the place allotted to men of lesser grades seeking some more particular interview either with the officer of the deck or the captain himself. But from the latter it was not often that a sailor or petty officer of those days would seek a hearing; only some exceptional cause would, according to established custom, have warranted that.

Presently, just as the commander, absorbed in his reflections, was on the point of turning aft in his promenade, he became sensible of Claggart's presence, and saw the doffed cap held in deferential expectancy. Here be it said that Captain Vere's personal knowledge of this petty officer had only begun at the time of the ship's last sailing from home, Claggart then for the first, in transfer from a ship detained for repairs, supplying on board the *Bellipotent* the place of a previous master-at-arms disabled and ashore.

No sooner did the commander observe who it was that now deferentially stood awaiting his notice than a peculiar expression came over him. It was not unlike that which uncontrollably will flit across the countenance of one at unawares encountering a person who, though known to him indeed, has hardly been long enough known for thorough knowledge, but something in whose aspect nevertheless now for the first provokes a vaguely repellent distaste. But coming to a stand and resuming much of his wonted official manner, save that a sort of impatience lurked in the intonation of the opening word, he said "Well? What is it, Master-at-arms?"

With the air of a subordinate grieved at the necessity of being a messenger of ill tidings, and while conscientiously determined to be frank yet equally resolved upon shunning overstatement, Claggart at this invitation, or rather summons, to disburden, spoke up. What he said, conveyed in the language of no uneducated man, was to the effect following, if not altogether in these words, namely, that during the chase and preparations for the possible encounter he had seen enough to convince him that at least one sailor aboard was a dangerous character in a ship mustering some who not only had taken a guilty part in the late serious troubles, but others also who, like the man in question, had entered His Majesty's service under another form than enlistment.

At this point Captain Vere with some impatience interrupted him: "Be direct, man; say *impressed men*."

Claggart made a gesture of subservience, and proceeded. Quite lately he (Claggart) had begun to suspect that on the gun decks some sort of movement prompted by the sailor in question was covertly going on, but he had not thought himself warranted in reporting the suspicion so long as it remained indistinct. But from what he had that afternoon observed in the man referred to, the suspicion of something clandestine going on had advanced to a point less removed from certainty. He deeply felt, he added, the serious responsibility assumed in making a report involving such possible consequences to the individual mainly concerned, besides tending to augment those natural anxieties which every naval commander must feel in view of extraordinary outbreaks so recent as those which, he sorrowfully said it, it needed not to name.

Now at the first broaching of the matter Captain Vere, taken by surprise, could not wholly dissemble his disquietude. But as Claggart went on, the former's aspect changed into restiveness under something in the testifier's manner in giving his testimony. However, he refrained from interrupting him. And Claggart, continuing, concluded with this: "God forbid, your honor, that the *Bellipotent's* should be the experience of the—"

"Never mind that!" here peremptorily broke in the superior, his face altering with anger, instinctively divining the ship that the other was about to name, one in which the Nore Mutiny had assumed a singularly tragical character that for a time jeopardized the life of its commander. Under the circumstances he was indignant at the purposed allusion. When the commissioned officers themselves were on all occasions very heedful how they referred to the recent events in the fleet, for a petty officer unnecessarily to allude to them in the presence of his captain, this struck him as a most immodest presumption. Besides, to his quick sense of self-respect it even looked under the circumstances something like an attempt to alarm him. Nor at first was he without some surprise that one who so far as he had hitherto come under his notice had shown considerable tact in his function should in this particular evince such lack of it.

But these thoughts and kindred dubious ones flitting across his mind were suddenly replaced by an intuitional surmise which, though as yet obscure in form, served practically to affect his reception of the ill tidings. Certain it is that, long versed in everything pertaining to the com-

plicated gun-deck life, which like every other form of life has its secret mines and dubious side, the side popularly disclaimed, Captain Vere did not permit himself to be unduly disturbed by the general tenor of his subordinate's report.

Furthermore, if in view of recent events prompt action should be taken at the first palpable sign of recurring insubordination, for all that, not judicious would it be, he thought, to keep the idea of lingering disaffection alive by undue forwardness in crediting an informer, even if his own subordinate and charged among other things with police surveillance of the crew. This feeling would not perhaps have so prevailed with him were it not that upon a prior occasion the patriotic zeal officially evinced by Claggart had somewhat irritated him as appearing rather supersensible and strained. Furthermore, something even in the official's self-possessed and somewhat ostentatious manner in making his specifications strangely reminded him of a bandsman, a perjurous witness in a capital case before a court-martial ashore of which when a lieutenant he (Captain Vere) had been a member.

Now the peremptory check given to Claggart in the matter of the arrested allusion was quickly followed up by this: "You say that there is at least one dangerous man aboard. Name him."

"William Budd, a foretopman, your honor."

"William Budd!" repeated Captain Vere with unfeigned astonishment. "And mean you the man that Lieutenant Ratcliffe took from the merchantman not very long ago, the young fellow who seems to be so popular with the men–Billy, the Handsome Sailor, as they call him?"

"The same, your honor; but for all his youth and good looks, a deep one. Not for nothing does he insinuate himself into the good will of his shipmates, since at the least they will at a pinch say–all hands will–a good word for him, and at all hazards. Did Lieutenant Ratcliffe happen to tell your honor of that adroit fling of Budd's, jumping up in the cutter's bow under the merchantman's stern when he was being taken off? It is even masked by that sort of good-humored air that at heart he resents his impressment. You have but noted his fair cheek. A mantrap may be under the ruddy-tipped daisies."

Now the Handsome Sailor as a signal figure among the crew had naturally enough attracted the captain's attention from the first. Though in general not very demonstrative to his officers, he had congratulated Lieutenant Ratcliffe upon his good fortune in lighting on such a fine specimen of the *genus homo,* who in the nude might have posed for a statue of young Adam before the Fall. As to Billy's adieu to the ship

Rights-of-Man, which the boarding lieutenant had indeed reported to him, but, in a deferential way, more as a good story than aught else, Captain Vere, though mistakenly understanding it as a satiric sally, had but thought so much the better of the impressed man for it; as a military sailor, admiring the spirit that could take an arbitrary enlistment so merrily and sensibly. The foretopman's conduct, too, so far as it had fallen under the captain's notice, had confirmed the first happy augury, while the new recruit's qualities as a "sailorman" seemed to be such that he had thought of recommending him to the executive officer for promotion to a place that would more frequently bring him under his own observation, namely, the captaincy of the mizzentop, replacing there in the starboard watch a man not so young whom partly for that reason he deemed less fitted for the post. Be it parenthesized here that since the mizzentopmen have not to handle such breadths of heavy canvas as the lower sails on the mainmast and foremast, a young man if of the right stuff not only seems best adapted to duty there, but in fact is generally selected for the captaincy of that top, and the company under him are light hands and often but striplings. In sum, Captain Vere had from the beginning deemed Billy Budd to be what in the naval parlance of the time was called a "King's bargain": that is to say, for His Britannic Majesty's navy a capital investment at small outlay or none at all.

After a brief pause, during which the reminiscences above mentioned passed vividly through his mind and he weighed the import of Claggart's last suggestion conveyed in the phrase "mantrap under the daisies," and the more he weighed it the less reliance he felt in the informer's good faith, suddenly he turned upon him and in a low voice demanded: "Do you come to me, Master-at-arms, with so foggy a tale? As to Budd, cite me an act or spoken word of his confirmatory of what you in general charge against him. Stay," drawing nearer to him; "heed what you speak. Just now, and in a case like this, there is a yardarm-end for the false witness."

"Ah, your honor!" sighed Claggart, mildly shaking his shapely head as in sad deprecation of such unmerited severity of tone. Then, bridling—erecting himself as in virtuous self-assertion—he circumstantially alleged certain words and acts which collectively, if credited, led to presumptions mortally inculpating Budd. And for some of these averments, he added, substantiating proof was not far.

With gray eyes impatient and distrustful essaying to fathom to the bottom Claggart's calm violet ones, Captain Vere again heard him out; then for the moment stood ruminating. The mood he evinced, Claggart—

himself for the time liberated from the other's scrutiny—steadily regarded with a look difficult to render: a look curious of the operation of his tactics, a look such as might have been that of the spokesman of the envious children of Jacob deceptively imposing upon the troubled patriarch the blood-dyed coat of young Joseph.

Though something exceptional in the moral quality of Captain Vere made him, in earnest encounter with a fellow man, a veritable touchstone of that man's essential nature, yet now as to Claggart and what was really going on in him his feeling partook less of intuitional conviction than of strong suspicion clogged by strange dubieties. The perplexity he evinced proceeded less from aught touching the man informed against—as Claggart doubtless opined—than from considerations how best to act in regard to the informer. At first, indeed, he was naturally for summoning that substantiation of his allegations which Claggart said was at hand. But such a proceeding would result in the matter at once getting abroad, which in the present stage of it, he thought, might undesirably affect the ship's company. If Claggart was a false witness—that closed the affair. And therefore, before trying the accusation, he would first practically test the accuser; and he thought this could be done in a quiet, undemonstrative way.

The measure he determined upon involved a shifting of the scene, a transfer to a place less exposed to observation than the broad quarter-deck. For although the few gun-room officers there at the time had, in due observance of naval etiquette, withdrawn to leeward the moment Captain Vere had begun his promenade on the deck's weather side; and though during the colloquy with Claggart they of course ventured not to diminish the distance; and though throughout the interview Captain Vere's voice was far from high, and Claggart's silvery and low; and the wind in the cordage and the wash of the sea helped the more to put them beyond earshot; nevertheless, the interview's continuance already had attracted observation from some topmen aloft and other sailors in the waist or further forward.

Having determined upon his measures, Captain Vere forthwith took action. Abruptly turning to Claggart, he asked, "Master-at-arms, is it now Budd's watch aloft?"

"No, your honor."

Whereupon, "Mr. Wilkes!" summoning the nearest midshipman. "Tell Albert to come to me." Albert was the captain's hammock boy, a sort of sea valet in whose discretion and fidelity his master had much confidence. The lad appeared.

"You know Budd, the foretopman?"

"I do, Sir."

"Go find him. It is his watch off. Manage to tell him out of earshot that he is wanted aft. Contrive it that he speaks to nobody. Keep him in talk yourself. And not till you get well aft here, not till then let him know that the place where he is wanted is my cabin. You understand. Go.–Master-at-arms, show yourself on the decks below, and when you think it time for Albert to be coming with his man, stand by quietly to follow the sailor in."

Now when the foretopman found himself in the cabin, closeted there, as it were, with the captain and Claggart, he was surprised enough. But it was a surprise unaccompanied by apprehension or distrust. To an immature nature essentially honest and humane, forewarning intimations of subtler danger from one's kind come tardily if at all. The only thing that took shape in the young sailor's mind was this: Yes, the captain, I have always thought, looks kindly upon me. Wonder if he's going to make me his coxswain. I should like that. And maybe now he is going to ask the master-at-arms about me.

"Shut the door there, sentry," said the commander; "stand without, and let nobody come in.–Now, Master-at-arms, tell this man to his face what you told of him to me," and stood prepared to scrutinize the mutually confronting visages.

With the measured step and calm collected air of an asylum physician approaching in the public hall some patient beginning to show indications of a coming paroxysm, Claggart deliberately advanced within short range of Billy and, mesmerically looking him in the eye, briefly recapitulated the accusation.

Not at first did Billy take it in. When he did, the rosetan of his cheek looked struck as by white leprosy. He stood like one impaled and gagged. Meanwhile the accuser's eyes, removing not as yet from the blue dilated ones, underwent a phenomenal change, their wonted rich violet color blurring into a muddy purple. Those lights of human intelligence, losing human expression, were gelidly protruding like the alien eyes of certain uncatalogued creatures of the deep. The first mesmeristic glance was one of serpent fascination; the last was as the paralyzing lurch of the torpedo fish.

"Speak, man!" said Captain Vere to the transfixed one, struck by his aspect even more than by Claggart's. "Speak! Defend yourself!" Which appeal caused but a strange dumb gesturing and gurgling in Billy;

amazement at such an accusation so suddenly sprung on inexperienced nonage; this, and, it may be, horror of the accuser's eyes, serving to bring out his lurking defect and in this instance for the time intensifying it into a convulsed tongue-tie; while the intent head and entire form straining forward in an agony of ineffectual eagerness to obey the injunction to speak and defend himself gave an expression to the face like that of a condemned vestal priestess in the moment of being buried alive, and in the first struggle against suffocation.

Though at the time Captain Vere was quite ignorant of Billy's liability to vocal impediment, he now immediately divined it, since vividly Billy's aspect recalled to him that of a bright young schoolmate of his whom he had once seen struck by much the same startling impotence in the act of eagerly rising in the class to be foremost in response to a testing question put to it by the master. Going close up to the young sailor, and laying a soothing hand on his shoulder, he said, "There is no hurry, my boy. Take your time, take your time." Contrary to the effect intended, these words so fatherly in tone, doubtless touching Billy's heart to the quick, prompted yet more violent efforts at utterance—efforts soon ending for the time in confirming the paralysis, and bringing to his face an expression which was as a crucifixion to behold. The next instant, quick as the flame from a discharged cannon at night, his right arm shot out, and Claggart dropped to the deck. Whether intentionally or but owing to the young athlete's superior height, the blow had taken effect full upon the forehead, so shapely and intellectual-looking a feature in the master-at-arms, so that the body fell over lengthwise, like a heavy plank tilted from erectness. A gasp or two, and he lay motionless.

"Fated boy," breathed Captain Vere in tone so low as to be almost a whisper, "what have you done! But here, help me."

The twain raised the felled one from the loins up into a sitting position. The spare form flexibly acquiesced, but inertly. It was like handling a dead snake. They lowered it back. Regaining erectness, Captain Vere with one hand covering his face stood to all appearance as impassive as the object at his feet. Was he absorbed in taking in all the bearings of the event and what was best not only now at once to be done, but also in the sequel? Slowly he uncovered his face; and the effect was as if the moon emerging from eclipse should reappear with quite another aspect than that which had gone into hiding. The father in him, manifested towards Billy thus far in the scene, was replaced by the military disciplinarian. In his official tone he bade the foretopman retire to a stateroom

aft (pointing it out), and there remain till thence summoned. This order Billy in silence mechanically obeyed. Then going to the cabin door where it opened on the quarter-deck, Captain Vere said to the sentry without, "Tell somebody to send Albert here." When the lad appeared, his master so contrived it that he should not catch sight of the prone one. "Albert," he said to him, "tell the surgeon I wish to see him. You need not come back till called."

When the surgeon entered—a self-poised character of that grave sense and experience that hardly anything could take him aback—Captain Vere advanced to meet him, thus unconsciously intercepting his view of Claggart, and, interrupting the other's wonted ceremonious salutation, said, "Nay. Tell me how it is with yonder man," directing his attention to the prostrate one.

The surgeon looked, and for all his self-command somewhat started at the abrupt revelation. On Claggart's always pallid complexion, thick black blood was now oozing from nostril and ear. To the gazer's professional eye it was unmistakably no living man that he saw.

"Is it so, then?" said Captain Vere, intently watching him. "I thought it. But verify it." Whereupon the customary tests confirmed the surgeon's first glance, who now, looking up in unfeigned concern, cast a look of intense inquisitiveness upon his superior. But Captain Vere, with one hand to his brow, was standing motionless. Suddenly, catching the surgeon's arm convulsively, he exclaimed, pointing down to the body, "It is the divine judgment on Ananias! Look!"

Disturbed by the excited manner he had never before observed in the *Bellipotent's* captain, and as yet wholly ignorant of the affair, the prudent surgeon nevertheless held his peace, only again looking an earnest interrogatory as to what it was that had resulted in such a tragedy.

But Captain Vere was now again motionless, standing absorbed in thought. Again starting, he vehemently exclaimed, "Struck dead by an angel of God! Yet the angel must hang!"

At these passionate interjections, mere incoherences to the listener as yet unapprised of the antecedents, the surgeon was profoundly discomposed. But now, as recollecting himself, Captain Vere in less passionate tone briefly related the circumstances leading up to the event. "But come; we must dispatch," he added. "Help me to remove him" (meaning the body) "to yonder compartment," designating one opposite that where the foretopman remained immured. Anew disturbed by a request that, as

implying a desire for secrecy, seemed unaccountably strange to him, there was nothing for the subordinate to do but comply.

"Go now," said Captain Vere with something of his wonted manner. "Go now. I presently shall call a drumhead court. Tell the lieutenants what has happened, and tell Mr. Mordant" (meaning the captain of marines), "and charge them to keep the matter to themselves."

Full of disquietude and misgiving, the surgeon left the cabin. Was Captain Vere suddenly affected in his mind, or was it but a transient excitement, brought about by so strange and extraordinary a tragedy? As to the drumhead court, it struck the surgeon as impolitic, if nothing more. The thing to do, he thought, was to place Billy Budd in confinement, and in a way dictated by usage, and postpone further action in so extraordinary a case to such time as they should rejoin the squadron, and then refer it to the admiral. He recalled the unwonted agitation of Captain Vere and his excited exclamations, so at variance with his normal manner. Was he unhinged?

But assuming that he is, it is not so susceptible of proof. What then can the surgeon do? No more trying situation is conceivable than that of an officer subordinate under a captain whom he suspects to be not mad, indeed, but yet not quite unaffected in his intellects. To argue his order to him would be insolence. To resist him would be mutiny.

In obedience to Captain Vere, he communicated what had happened to the lieutenants and captain of marines, saying nothing as to the captain's state. They fully shared his own surprise and concern. Like him too, they seemed to think that such a matter should be referred to the admiral.

Who in the rainbow can draw the line where the violet tint ends and the orange tint begins? Distinctly we see the difference of the colors, but where exactly does the one first blendingly enter into the other? So with sanity and insanity. In pronounced cases there is no question about them. But in some supposed cases, in various degrees supposedly less pronounced, to draw the exact line of demarcation few will undertake, though for a fee becoming considerate some professional experts will. There is nothing namable but that some men will, or undertake to, do it for pay.

Whether Captain Vere, as the surgeon professionally and privately surmised, was really the sudden victim of any degree of aberration,

everyone must determine for himself by such light as this narrative may afford.

That the unhappy event which has been narrated could not have happened at a worse juncture was but too true. For it was close on the heel of the suppressed insurrections, an aftertime very critical to naval authority, demanding from every English sea commander two qualities not readily interfusable—prudence and rigor. Moreover, there was something crucial in the case.

In the jugglery of circumstances preceding and attending the event on board the *Bellipotent,* and in the light of that martial code whereby it was formally to be judged, innocence and guilt personified in Claggart and Budd in effect changed places. In a legal view the apparent victim of the tragedy was he who had sought to victimize a man blameless; and the indisputable deed of the latter, navally regarded, constituted the most heinous of military crimes. Yet more. The essential right and wrong involved in the matter, the clearer that might be, so much the worse for the responsibility of a loyal sea commander, inasmuch as he was not authorized to determine the matter on that primitive basis.

Small wonder then that the *Bellipotent's* captain, though in general a man of rapid decision, felt that circumspectness not less than promptitude was necessary. Until he could decide upon his course, and in each detail; and not only so, but until the concluding measure was upon the point of being enacted, he deemed it advisable, in view of all the circumstances, to guard as much as possible against publicity. Here he may or may not have erred. Certain it is, however, that subsequently in the confidential talk of more than one or two gun rooms and cabins he was not a little criticized by some officers, a fact imputed by his friends and vehemently by his cousin Jack Denton to professional jealousy of Starry Vere. Some imaginative ground for invidious comment there was. The maintenance of secrecy in the matter, the confining all knowledge of it for a time to the place where the homicide occurred, the quarter-deck cabin—in these particulars lurked some resemblance to the policy adopted in those tragedies of the palace which have occurred more than once in the capital founded by Peter the Barbarian.

The case indeed was such that fain would the *Bellipotent's* captain have deferred taking any action whatever respecting it further than to keep the foretopman a close prisoner till the ship rejoined the squadron and then submitting the matter to the judgment of his admiral.

But a true military officer is in one particular like a true monk. Not with more of self-abnegation will the latter keep his vows of mo-

nastic obedience than the former his vows of allegiance to martial duty.

Feeling that unless quick action was taken on it, the deed of the foretopman, so soon as it should be known on the gun decks, would tend to awaken any slumbering embers of the Nore among the crew, a sense of the urgency of the case overruled in Captain Vere every other consideration. But though a conscientious disciplinarian, he was no lover of authority for mere authority's sake. Very far was he from embracing opportunities for monopolizing to himself the perils of moral responsibility, none at least that could properly be referred to an official superior or shared with him by his official equals or even subordinates. So thinking, he was glad it would not be at variance with usage to turn the matter over to a summary court of his own officers, reserving to himself, as the one on whom the ultimate accountability would rest, the right of maintaining a supervision of it, or formally or informally interposing at need. Accordingly a drumhead court was summarily convened, he electing the individuals composing it: the first lieutenant, the captain of marines, and the sailing master.

In associating an officer of marines with the sea lieutenant and the sailing master in a case having to do with a sailor, the commander perhaps deviated from general custom. He was prompted thereto by the circumstance that he took that soldier to be a judicious person, thoughtful, and not altogether incapable of grappling with a difficult case unprecedented in his prior experience. Yet even as to him he was not without some latent misgiving, for withal he was an extremely good-natured man, an enjoyer of his dinner, a sound sleeper, and inclined to obesity—a man who though he would always maintain his manhood in battle might not prove altogether reliable in a moral dilemma involving aught of the tragic. As to the first lieutenant and the sailing master, Captain Vere could not but be aware that though honest natures, of approved gallantry upon occasion, their intelligence was mostly confined to the matter of active seamanship and the fighting demands of their profession.

The court was held in the same cabin where the unfortunate affair had taken place. This cabin, the commander's, embraced the entire area under the poop deck. Aft, and on either side, was a small stateroom, the one now temporarily a jail and the other a deadhouse, and a yet smaller compartment, leaving a space between expanding forward into a goodly oblong of length coinciding with the ship's beam. A skylight of moderate dimension was overhead, and at each end of the oblong space were two

sashed porthole windows easily convertible back into embrasures for short carronades.

All being quickly in readiness, Billy Budd was arraigned, Captain Vere necessarily appearing as the sole witness in the case, and as such temporarily sinking his rank, though singularly maintaining it in a matter apparently trivial, namely, that he testified from the ship's weather side, with that object having caused the court to sit on the lee side. Concisely he narrated all that had led up to the catastrophe, omitting nothing in Claggart's accusation and deposing as to the manner in which the prisoner had received it. At this testimony the three officers glanced with no little surprise at Billy Budd, the last man they would have suspected either of the mutinous design alleged by Claggart or the undeniable deed he himself had done. The first lieutenant, taking judicial primacy and turning toward the prisoner, said, "Captain Vere has spoken. Is it or is it not as Captain Vere says?"

In response came syllables not so much impeded in the utterance as might have been anticipated. They were these: "Captain Vere tells the truth. It is just as Captain Vere says, but it is not as the master-at-arms said. I have eaten the King's bread and I am true to the King."

"I believe you, my man," said the witness, his voice indicating a suppressed emotion not otherwise betrayed.

"God will bless you for that, your honor!" not without stammering said Billy, and all but broke down. But immediately he was recalled to self-control by another question, to which with the same emotional difficulty of utterance he said, "No, there was no malice between us. I never bore malice against the master-at-arms. I am sorry that he is dead. I did not mean to kill him. Could I have used my tongue I would not have struck him. But he foully lied to my face and in presence of my captain, and I had to say something, and I could only say it with a blow, God help me!"

In the impulsive aboveboard manner of the frank one the court saw confirmed all that was implied in words that just previously had perplexed them, coming as they did from the testifier to the tragedy and promptly following Billy's impassioned disclaimer of mutinous intent–Captain Vere's words, "I believe you, my man."

Next it was asked of him whether he knew of or suspected aught savoring of incipient trouble (meaning mutiny, though the explicit term was avoided) going on in any section of the ship's company.

The reply lingered. This was naturally imputed by the court to the same vocal embarrassment which had retarded or obstructed previous answers. But in main it was otherwise here, the question immediately

recalling to Billy's mind the interview with the afterguardsman in the fore-chains. But an innate repugnance to playing a part at all approaching that of an informer against one's own shipmates—the same erring sense of uninstructed honor which had stood in the way of his reporting the matter at the time, though as a loyal man-of-war's man it was incumbent on him, and failure so to do, if charged against him and proven, would have subjected him to the heaviest of penalties; this, with the blind feeling now his that nothing really was being hatched, prevailed with him. When the answer came it was a negative.

"One question more," said the officer of marines, now first speaking and with a troubled earnestness. "You tell us that what the master-at-arms said against you was a lie. Now why should he have so lied, so maliciously lied, since you declare there was no malice between you?"

At that question, unintentionally touching on a spiritual sphere wholly obscure to Billy's thoughts, he was nonplussed, evincing a confusion indeed that some observers, such as can readily be imagined, would have construed into involuntary evidence of hidden guilt. Nevertheless, he strove some way to answer, but all at once relinquished the vain endeavor, at the same time turning an appealing glance towards Captain Vere as deeming him his best helper and friend. Captain Vere, who had been seated for a time, rose to his feet, addressing the interrogator. "The question you put to him comes naturally enough. But how can he rightly answer it?—or anybody else, unless indeed it be he who lies within there," designating the compartment where lay the corpse. "But the prone one there will not rise to our summons. In effect, though, as it seems to me, the point you make is hardly material. Quite aside from any conceivable motive actuating the master-at-arms, and irrespective of the provocation to the blow, a martial court must needs in the present case confine its attention to the blow's consequence, which consequence justly is to be deemed not otherwise than as the striker's deed."

This utterance, the full significance of which it was not at all likely that Billy took in, nevertheless caused him to turn a wistful interrogative look toward the speaker, a look in its dumb expressiveness not unlike that which a dog of generous breed might turn upon his master, seeking in his face some elucidation of a previous gesture ambiguous to the canine intelligence. Nor was the same utterance without marked effect upon the three officers, more especially the soldier. Couched in it seemed to them a meaning unanticipated, involving a prejudgment on the speaker's part. It served to augment a mental disturbance previously evident enough.

The soldier once more spoke, in a tone of suggestive dubiety addressing at once his associates and Captain Vere: "Nobody is present—none of the ship's company, I mean—who might shed lateral light, if any is to be had, upon what remains mysterious in this matter."

"That is thoughtfully put," said Captain Vere; "I see your drift. Ay, there is a mystery; but, to use a scriptural phrase, it is a 'mystery of iniquity,' a matter for psychologic theologians to discuss. But what has a military court to do with it? Not to add that for us any possible investigation of it is cut off by the lasting tongue-tie of—him—in yonder," again designating the mortuary stateroom. "The prisoner's deed—with that alone we have to do."

To this, and particularly the closing reiteration, the marine soldier, knowing not how aptly to reply, sadly abstained from saying aught. The first lieutenant, who at the outset had not unnaturally assumed primacy in the court, now overrulingly instructed by a glance from Captain Vere, a glance more effective than words, resumed that primacy. Turning to the prisoner, "Budd," he said, and scarce in equable tones, "Budd, if you have aught further to say for yourself, say it now."

Upon this the young sailor turned another quick glance toward Captain Vere; then, as taking a hint from that aspect, a hint confirming his own instinct that silence was now best, replied to the lieutenant, "I have said all, Sir."

The marine—the same who had been the sentinel without the cabin door at the time that the foretopman, followed by the master-at-arms, entered it—he, standing by the sailor throughout these judicial proceedings, was now directed to take him back to the after compartment originally assigned to the prisoner and his custodian. As the twain disappeared from view, the three officers, as partially liberated from some inward constraint associated with Billy's mere presence, simultaneously stirred in their seats. They exchanged looks of troubled indecision, yet feeling that decide they must and without long delay. For Captain Vere, he for the time stood—unconsciously with his back toward them, apparently in one of his absent fits—gazing out from a sashed porthole to windward upon the monotonous blank of the twilight sea. But the court's silence continuing, broken only at moments by brief consultations, in low earnest tones, this served to arouse him and energize him. Turning, he to and fro paced the cabin athwart; in the returning ascent to windward climbing the slant deck in the ship's lee roll, without knowing it symbolizing thus in his action a mind resolute to surmount difficulties even if against primitive instincts strong as the wind and the sea. Presently he

came to a stand before the three. After scanning their faces he stood less as mustering his thoughts for expression than as one inly deliberating how best to put them to well-meaning men not intellectually mature, men with whom it was necessary to demonstrate certain principles that were axioms to himself. Similar impatience as to talking is perhaps one reason that deters some minds from addressing any popular assemblies.

When speak he did, something, both in the substance of what he said and his manner of saying it, showed the influence of unshared studies modifying and tempering the practical training of an active career. This, along with his phraseology, now and then was suggestive of the grounds whereon rested that imputation of a certain pedantry socially alleged against him by certain naval men of wholly practical cast, captains who nevertheless would frankly concede that His Majesty's navy mustered no more efficient officer of their grade than Starry Vere.

What he said was to this effect: "Hitherto I have been but the witness, little more; and I should hardly think now to take another tone, that of your coadjutor for the time, did I not perceive in you—at the crisis too—a troubled hesitancy, proceeding, I doubt not, from the clash of military duty with moral scruple—scruple vitalized by compassion. For the compassion, how can I otherwise than share it? But, mindful of paramount obligations, I strive against scruples that may tend to enervate decision. Not, gentlemen, that I hide from myself that the case is an exceptional one. Speculatively regarded, it well might be referred to a jury of casuists. But for us here, acting not as casuists or moralists, it is a case practical, and under martial law practically to be dealt with.

"But your scruples: do they move as in a dusk? Challenge them. Make them advance and declare themselves. Come now; do they import something like this: If, mindless of palliating circumstances, we are bound to regard the death of the master-at-arms as the prisoner's deed, then does that deed constitute a capital crime whereof the penalty is a mortal one? But in natural justice is nothing but the prisoner's overt act to be considered? How can we adjudge to summary and shameful death a fellow creature innocent before God, and whom we feel to be so?—Does that state it aright? You sign sad assent. Well, I too feel that, the full force of that. It is Nature. But do these buttons that we wear attest that our allegiance is to Nature? No, to the King. Though the ocean, which is inviolate Nature primeval, though this be the element where we move and have our being as sailors, yet as the King's officers lies our duty in a sphere correspondingly natural? So little is that true, that in receiv-

ing our commissions we in the most important regards ceased to be natural free agents. When war is declared are we the commissioned fighters previously consulted? We fight at command. If our judgments approve the war, that is but coincidence. So in other particulars. So now. For suppose condemnation to follow these present proceedings. Would it be so much we ourselves that would condemn as it would be martial law operating through us? For that law and the rigor of it, we are not responsible. Our vowed responsibility is in this: That however pitilessly that law may operate in any instances, we nevertheless adhere to it and administer it.

"But the exceptional in the matter moves the hearts within you. Even so too is mine moved. But let not warm hearts betray heads that should be cool. Ashore in a criminal case, will an upright judge allow himself off the bench to be waylaid by some tender kinswoman of the accused seeking to touch him with her tearful plea? Well, the heart here, sometimes the feminine in man, is as that piteous woman, and, hard though it be, she must here be ruled out."

He paused, earnestly studying them for a moment; then resumed.

"But something in your aspect seems to urge that it is not solely the heart that moves in you, but also the conscience, the private conscience. But tell me whether or not, occupying the position we do, private conscience should not yield to that imperial one formulated in the code under which alone we officially proceed?"

Here the three men moved in their seats, less convinced than agitated by the course of an argument troubling but the more the spontaneous conflict within.

Perceiving which, the speaker paused for a moment; then, abruptly changing his tone, went on.

"To steady us a bit, let us recur to the facts.–In wartime at sea a man-of-war's man strikes his superior in grade, and the blow kills. Apart from its effect the blow itself is, according to the Articles of War, a capital crime. Furthermore––"

"Ay, Sir," emotionally broke in the officer of marines, "in one sense it was. But surely Budd purposed neither mutiny nor homicide."

"Surely not, my good man. And before a court less arbitrary and more merciful than a martial one, that plea would largely extenuate. At the Last Assizes it shall acquit. But how here? We proceed under the law of the Mutiny Act. In feature no child can resemble his father more than that act resembles in spirit the thing from which it derives–War. In His Majesty's service–in this ship, indeed–there are Englishmen forced to fight for the King against their will. Against their conscience, for aught

we know. Though as their fellow creatures some of us may appreciate their position, yet as navy officers what reck we of it? Still less recks the enemy. Our impressed men he would fain cut down in the same swath with our volunteers. As regards the enemy's naval conscripts, some of whom may even share our own abhorrence of the regicidal French Directory, it is the same on our side. War looks but to the frontage, the appearance. And the Mutiny Act, War's child, takes after the father. Budd's intent or nonintent is nothing to the purpose.

"But while, put to it by those anxieties in you which I cannot but respect, I only repeat myself—while thus strangely we prolong proceedings that should be summary—the enemy may be sighted and an engagement result. We must do; and one of two things must we do—condemn or let go."

"Can we not convict and yet mitigate the penalty?" asked the sailing master, here speaking, and falteringly, for the first.

"Gentlemen, were that clearly lawful for us under the circumstances, consider the consequences of such clemency. The people" (meaning the ship's company) "have native sense; most of them are familiar with our naval usage and tradition; and how would they take it? Even could you explain to them—which our official position forbids—they, long molded by arbitrary discipline, have not that kind of intelligent responsiveness that might qualify them to comprehend and discriminate. No, to the people the foretopman's deed, however it be worded in the announcement, will be plain homicide committed in a flagrant act of mutiny. What penalty for that should follow, they know. But it does not follow. *Why?* they will ruminate. You know what sailors are. Will they not revert to the recent outbreak at the Nore? Ay. They know the well-founded alarm—the panic it struck throughout England. Your clement sentence they would account pusillanimous. They would think that we flinch, that we are afraid of them—afraid of practicing a lawful rigor singularly demanded at this juncture, lest it should provoke new troubles. What shame to us such a conjecture on their part, and how deadly to discipline. You see then whither, prompted by duty and the law, I steadfastly drive. But I beseech you, my friends, do not take me amiss. I feel as you do for this unfortunate boy. But did he know our hearts, I take him to be of that generous nature that he would feel even for us on whom in this military necessity so heavy a compulsion is laid."

With that, crossing the deck he resumed his place by the sashed port-hole, tacitly leaving the three to come to a decision. On the cabin's opposite side the troubled court sat silent. Loyal lieges, plain and practical, though at bottom they dissented from some points Captain Vere had put

to them, they were without the faculty, hardly had the inclination, to gainsay one whom they felt to be an earnest man, one too not less their superior in mind than in naval rank. But it is not improbable that even such of his words as were not without influence over them less came home to them than his closing appeal to their instinct as sea officers: in the forethought he threw out as to the practical consequences to discipline, considering the unconfirmed tone of the fleet at the time, should a man-of-war's man's violent killing at sea of a superior in grade be allowed to pass for aught else than a capital crime demanding prompt infliction of the penalty.

Not unlikely they were brought to something more or less akin to that harassed frame of mind which in the year 1842 actuated the commander of the U.S. brig-of-war *Somers* to resolve, under the so-called Articles of War, articles modeled upon the English Mutiny Act, to resolve upon the execution at sea of a midshipman and two sailors as mutineers designing the seizure of the brig. Which resolution was carried out though in a time of peace and within not many days' sail of home: an act vindicated by a naval court of inquiry subsequently convened ashore. History, and here cited without comment. True, the circumstances on board the *Somers* were different from those on board the *Bellipotent*. But the urgency felt, well-warranted or otherwise, was much the same.

Says a writer whom few know, "Forty years after a battle it is easy for a noncombatant to reason about how it ought to have been fought. It is another thing personally and under fire to have to direct the fighting while involved in the obscuring smoke of it. Much so with respect to other emergencies involving considerations both practical and moral, and when it is imperative promptly to act. The greater the fog the more it imperils the steamer, and speed is put on though at the hazard of running somebody down. Little ween the snug card players in the cabin of the responsibilities of the sleepless man on the bridge."

In brief, Billy Budd was formally convicted and sentenced to be hung at the yardarm in the early morning watch, it being now night. Otherwise, as is customary in such cases, the sentence would forthwith have been carried out. In wartime on the field or in the fleet, a mortal punishment decreed by a drumhead court—on the field sometimes decreed by but a nod from the general—follows without delay on the heel of conviction, without appeal.

It was Captain Vere himself who of his own motion communicated the finding of the court to the prisoner, for that purpose going to the com-

partment where he was in custody and bidding the marine there to withdraw for the time.

Beyond the communication of the sentence, what took place at this interview was never known. But in view of the character of the twain briefly closeted in that stateroom, each radically sharing in the rarer qualities of our nature—so rare indeed as to be all but incredible to average minds however much cultivated—some conjectures may be ventured.

It would have been in consonance with the spirit of Captain Vere should he on this occasion have concealed nothing from the condemned one—should he indeed have frankly disclosed to him the part he himself had played in bringing about the decision, at the same time revealing his actuating motives. On Billy's side it is not improbable that such a confession would have been received in much the same spirit that prompted it. Not without a sort of joy, indeed, he might have appreciated the brave opinion of him implied in his captain's making such a confidant of him. Nor, as to the sentence itself, could he have been insensible that it was imparted to him as to one not afraid to die. Even more may have been. Captain Vere in end may have developed the passion sometimes latent under an exterior stoical or indifferent. He was old enough to have been Billy's father. The austere devotee of military duty, letting himself melt back into what remains primeval in our formalized humanity, may in end have caught Billy to his heart, even as Abraham may have caught young Isaac on the brink of resolutely offering him up in obedience to the exacting behest. But there is no telling the sacrament, seldom if in any case revealed to the gadding world, wherever under circumstances at all akin to those here attempted to be set forth two of great Nature's nobler order embrace. There is privacy at the time, inviolable to the survivor; and holy oblivion, the sequel to each diviner magnanimity, providentially covers all at last.

The first to encounter Captain Vere in act of leaving the compartment was the senior lieutenant. The face he beheld, for the moment one expressive of the agony of the strong, was to that officer, though a man of fifty, a startling revelation. That the condemned one suffered less than he who mainly had effected the condemnation was apparently indicated by the former's exclamation in the scene soon perforce to be touched upon.

Of a series of incidents within a brief term rapidly following each other, the adequate narration may take up a term less brief, especially if explanation or comment here and there seem requisite to the better under-

standing of such incidents. Between the entrance into the cabin of him who never left it alive, and him who when he did leave it left it as one condemned to die; between this and the closeted interview just given, less than an hour and a half had elapsed. It was an interval long enough, however, to awaken speculations among no few of the ship's company as to what it was that could be detaining in the cabin the master-at-arms and the sailor; for a rumor that both of them had been seen to enter it and neither of them had been seen to emerge, this rumor had got abroad upon the gun decks and in the tops, the people of a great warship being in one respect like villagers, taking microscopic note of every outward movement or nonmovement going on. When, therefore, in weather not at all tempestuous, all hands were called in the second dogwatch, a summons under such circumstances not usual in those hours, the crew were not wholly unprepared for some announcement extraordinary, one having connection too with the continued absence of the two men from their wonted haunts.

There was a moderate sea at the time; and the moon, newly risen and near to being at its full, silvered the white spar deck wherever not blotted by the clear-cut shadows horizontally thrown of fixtures and moving men. On either side the quarter-deck the marine guard under arms was drawn up; and Captain Vere, standing in his place surrounded by all the wardroom officers, addressed his men. In so doing, his manner showed neither more nor less than that properly pertaining to his supreme position aboard his own ship. In clear terms and concise he told them what had taken place in the cabin: that the master-at-arms was dead, that he who had killed him had been already tried by a summary court and condemned to death, and that the execution would take place in the early morning watch. The word *mutiny* was not named in what he said. He refrained too from making the occasion an opportunity for any preachment as to the maintenance of discipline, thinking perhaps that under existing circumstances in the navy the consequence of violating discipline should be made to speak for itself.

Their captain's announcement was listened to by the throng of standing sailors in a dumbness like that of a seated congregation of believers in hell listening to the clergyman's announcement of his Calvinistic text.

At the close, however, a confused murmur went up. It began to wax. All but instantly, then, at a sign, it was pierced and suppressed by shrill whistles of the boatswain and his mates. The word was given to about ship.

To be prepared for burial Claggart's body was delivered to certain petty officers of his mess. And here, not to clog the sequel with lateral

matters, it may be added that, at a suitable hour, the master-at-arms was committed to the sea with every funeral honor properly belonging to his naval grade.

In this proceeding, as in every public one growing out of the tragedy, strict adherence to usage was observed. Nor in any point could it have been at all deviated from, either with respect to Claggart or Billy Budd, without begetting undesirable speculations in the ship's company, sailors, and more particularly men-of-war's men, being of all men the greatest sticklers for usage. For similar cause, all communication between Captain Vere and the condemned one ended with the closeted interview already given, the latter being now surrendered to the ordinary routine preliminary to the end. His transfer under guard from the captain's quarters was effected without unusual precautions—at least no visible ones. If possible, not to let the men so much as surmise that their officers anticipate aught amiss from them is the tacit rule in a military ship. And the more that some sort of trouble should really be apprehended, the more do the officers keep that apprehension to themselves, though not the less unostentatious vigilance may be augmented. In the present instance, the sentry placed over the prisoner had strict orders to let no one have communication with him but the chaplain. And certain unobtrusive measures were taken absolutely to insure this point.

In a seventy-four of the old order the deck known as the upper gun deck was the one covered over by the spar deck, which last, though not without its armament, was for the most part exposed to the weather. In general it was at all hours free from hammocks; those of the crew swinging on the lower gun deck and berth deck, the latter being not only a dormitory but also the place for the stowing of the sailors' bags, and on both sides lined with the large chests or movable pantries of the many messes of the men.

On the starboard side of the *Bellipotent's* upper gun deck, behold Billy Budd under sentry lying prone in irons in one of the bays formed by the regular spacing of the guns comprising the batteries on either side. All these pieces were of the heavier caliber of that period. Mounted on lumbering wooden carriages, they were hampered with cumbersome harness of breeching and strong side tackles for running them out. Guns and carriages, together with the long rammers and shorter linstocks lodged in loops overhead—all these, as customary, were painted black; and the heavy hempen breechings, tarred to the same tint, wore the like livery of the undertakers. In contrast with the funeral hue of these surroundings, the prone sailor's exterior apparel, white jumper and white

duck trousers, each more or less soiled, dimly glimmered in the obscure light of the bay like a patch of discolored snow in early April lingering at some upland cave's black mouth. In effect he is already in his shroud, or the garments that shall serve him in lieu of one. Over him but scarce illuminating him, two battle lanterns swing from two massive beams of the deck above. Fed with the oil supplied by the war contractors (whose gains, honest or otherwise, are in every land an anticipated portion of the harvest of death), with flickering splashes of dirty yellow light they pollute the pale moonshine all but ineffectually struggling in obstructed flecks through the open ports from which the tampioned cannon protrude. Other lanterns at intervals serve but to bring out somewhat the obscurer bays which, like small confessionals or side chapels in a cathedral, branch from the long dim-vistaed broad aisle between the two batteries of that covered tier.

Such was the deck where now lay the Handsome Sailor. Through the rosetan of his complexion no pallor could have shown. It would have taken days of sequestration from the winds and the sun to have brought about the effacement of that. But the skeleton in the cheekbone at the point of its angle was just beginning delicately to be defined under the warm-tinted skin. In fervid hearts self-contained, some brief experiences devour our human tissue as secret fire in a ship's hold consumes cotton in the bale.

But now lying between the two guns, as nipped in the vice of fate, Billy's agony, mainly proceeding from a generous young heart's virgin experience of the diabolical incarnate and effective in some men–the tension of that agony was over now. It survived not the something healing in the closeted interview with Captain Vere. Without movement, he lay as in a trance, that adolescent expression previously noted as his taking on something akin to the look of a slumbering child in the cradle when the warm hearth glow of the still chamber at night plays on the dimples that at whiles mysteriously form in the cheek, silently coming and going there. For now and then in the gyved one's trance a serene happy light born of some wandering reminiscence or dream would diffuse itself over his face, and then wane away only anew to return.

The chaplain, coming to see him and finding him thus, and perceiving no sign that he was conscious of his presence, attentively regarded him for a space, then slipping aside, withdrew for the time, peradventure feeling that even he, the minister of Christ though receiving his stipend from Mars, had no consolation to proffer which could result in a peace transcending that which he beheld. But in the small hours he came again.

And the prisoner, now awake to his surroundings, noticed his approach, and civilly, all but cheerfully, welcomed him. But it was to little purpose that in the interview following, the good man sought to bring Billy Budd to some godly understanding that he must die, and at dawn. True, Billy himself freely referred to his death as a thing close at hand; but it was something in the way that children will refer to death in general, who yet among their other sports will play a funeral with hearse and mourners.

Not that like children Billy was incapable of conceiving what death really is. No, but he was wholly without irrational fear of it, a fear more prevalent in highly civilized communities than those so-called barbarous ones which in all respects stand nearer to unadulterate Nature. And, as elsewhere said, a barbarian Billy radically was—as much so, for all the costume, as his countrymen the British captives, living trophies, made to march in the Roman triumph of Germanicus. Quite as much so as those later barbarians, young men probably, and picked specimens among the earlier British converts to Christianity, at least nominally such, taken to Rome (as today converts from lesser isles of the sea may be taken to London), of whom the Pope of that time, admiring the strangeness of their personal beauty so unlike the Italian stamp, their clear ruddy complexion and curled flaxen locks, exclaimed, "Angles" (meaning *English,* the modern derivative), "Angles, do you call them? And is it because they look so like angels?" Had it been later in time, one would think that the Pope had in mind Fra Angelico's seraphs, some of whom, plucking apples in gardens of the Hesperides, have the faint rosebud complexion of the more beautiful English girls.

If in vain the good chaplain sought to impress the young barbarian with ideas of death akin to those conveyed in the skull, dial, and cross-bones on old tombstones, equally futile to all appearance were his efforts to bring home to him the thought of salvation and a Savior. Billy listened, but less out of awe or reverence, perhaps, than from a certain natural politeness, doubtless at bottom regarding all that in much the same way that most mariners of his class take any discourse abstract or out of the common tone of the workaday world. And this sailor way of taking clerical discourse is not wholly unlike the way in which the primer of Christianity, full of transcendent miracles, was received long ago on tropic isles by any superior *savage,* so called—a Tahitian, say, of Captain Cook's time or shortly after that time. Out of natural courtesy he received, but did not appropriate. It was like a gift placed in the palm of an outreached hand upon which the fingers do not close.

But the *Bellipotent's* chaplain was a discreet man possessing the good

sense of a good heart. So he insisted not in his vocation here. At the instance of Captain Vere, a lieutenant had apprised him of pretty much everything as to Billy; and since he felt that innocence was even a better thing than religion wherewith to go to Judgment, he reluctantly withdrew; but in his emotion not without first performing an act strange enough in an Englishman, and under the circumstances yet more so in any regular priest. Stooping over, he kissed on the fair cheek his fellow man, a felon in martial law, one whom though on the confines of death he felt he could never convert to a dogma; nor for all that did he fear for his future.

Marvel not that having been made acquainted with the young sailor's essential innocence the worthy man lifted not a finger to avert the doom of such a martyr to martial discipline. So to do would not only have been as idle as invoking the desert but would also have been an audacious transgression of the bounds of his function, one as exactly prescribed to him by military law as that of the boatswain or any other naval officer. Bluntly put, a chaplain is the minister of the Prince of Peace serving in the host of the God of War–Mars. As such, he is as incongruous as a musket would be on the altar at Christmas. Why, then, is he there? Because he indirectly subserves the purpose attested by the cannon; because too he lends the sanction of the religion of the meek to that which practically is the abrogation of everything but brute force.

The night so luminous on the spar deck, but otherwise on the cavernous ones below, levels so like the tiered galleries in a coal mine–the luminous night passed away. But like the prophet in the chariot disappearing in heaven and dropping his mantle to Elisha, the withdrawing night transferred its pale robe to the breaking day. A meek, shy light appeared in the east, where stretched a diaphanous fleece of white furrowed vapor. That light slowly waxed. Suddenly *eight bells* was struck aft, responded to by one louder metallic stroke from forward. It was four o'clock in the morning. Instantly the silver whistles were heard summoning all hands to witness punishment. Up through the great hatchways rimmed with racks of heavy shot the watch below came pouring, overspreading with the watch already on deck the space between the mainmast and foremast including that occupied by the capacious launch and the black booms tiered on either side of it, boat and booms making a summit of observation for the powder boys and younger tars. A different group comprising one watch of topmen leaned over the rail of that sea balcony, no small one in a seventy-four, looking down on the crowd be-

low. Man or boy, none spake but in whisper, and few spake at all. Captain Vere—as before, the central figure among the assembled commissioned officers—stood nigh the break of the poop deck facing forward. Just below him on the quarter-deck the marines in full equipment were drawn up much as at the scene of the promulgated sentence.

At sea in the old time, the execution by halter of a military sailor was generally from the foreyard. In the present instance, for special reasons the main yard was assigned. Under an arm of that yard the prisoner was presently brought up, the chaplain attending him. It was noted at the time, and remarked upon afterwards, that in this final scene the good man evinced little or nothing of the perfunctory. Brief speech indeed he had with the condemned one, but the genuine Gospel was less on his tongue than in his aspect and manner towards him. The final preparations personal to the latter being speedily brought to an end by two boatswain's mates, the consummation impended. Billy stood facing aft. At the penultimate moment, his words, his only ones, words wholly unobstructed in the utterance, were these: "God bless Captain Vere!" Syllables so unanticipated coming from one with the ignominious hemp about his neck—a conventional felon's benediction directed aft towards the quarters of honor; syllables, too, delivered in the clear melody of a singing bird on the point of launching from the twig—had a phenomenal effect, not unenhanced by the rare personal beauty of the young sailor, spiritualized now through late experiences so poignantly profound.

Without volition, as it were, as if indeed the ship's populace were but the vehicles of some vocal current electric, with one voice from alow and aloft came a resonant sympathetic echo: "God bless Captain Vere!" And yet at that instant Billy alone must have been in their hearts, even as in their eyes.

At the pronounced words and the spontaneous echo that voluminously rebounded them, Captain Vere, either through stoic self-control or a sort of momentary paralysis induced by emotional shock, stood erectly rigid as a musket in the shiparmorer's rack.

The hull, deliberately recovering from the periodic roll to leeward, was just regaining an even keel when the last signal, a preconcerted dumb one, was given. At the same moment it chanced that the vapory fleece hanging low in the east was shot through with a soft glory as of the fleece of the Lamb of God seen in mystical vision, and simultaneously therewith, watched by the wedged mass of upturned faces, Billy ascended; and, ascending, took the full rose of the dawn.

In the pinioned figure arrived at the yard-end, to the wonder of all

no motion was apparent, none save that created by the slow roll of the hull in moderate weather, so majestic in a great ship ponderously cannoned.

When some days afterwards, in reference to the singularity just mentioned, the purser, a rather ruddy, rotund person more accurate as an accountant than profound as a philosopher, said at mess to the surgeon, "What testimony to the force lodged in will power," the latter, saturnine, spare, and tall, one in whom a discreet causticity went along with a manner less genial than polite, replied, "Your pardon, Mr. Purser. In a hanging scientifically conducted—and under special orders I myself directed how Budd's was to be effected—any movement following the completed suspension and originating in the body suspended, such movement indicates mechanical spasm in the muscular system. Hence the absence of that is no more attributable to will power, as you call it, than to horsepower—begging your pardon."

"But this muscular spasm you speak of, is not that in a degree more or less invariable in these cases?"

"Assuredly so, Mr. Purser."

"How then, my good Sir, do you account for its absence in this instance?"

"Mr. Purser, it is clear that your sense of the singularity in this matter equals not mine. You account for it by what you call will power—a term not yet included in the lexicon of science. For me, I do not, with my present knowledge, pretend to account for it at all. Even should we assume the hypothesis that at the first touch of the halyards the action of Budd's heart, intensified by extraordinary emotion at its climax, abruptly stopped—much like a watch when in carelessly winding it up you strain at the finish, thus snapping the chain—even under that hypothesis how account for the phenomenon that followed?"

"You admit, then, that the absence of spasmodic movement was phenomenal."

"It was phenomenal, Mr. Purser, in the sense that it was an appearance the cause of which is not immediately to be assigned."

"But tell me, my dear Sir," pertinaciously continued the other, "was the man's death effected by the halter, or was it a species of euthanasia?"

"*Euthanasia,* Mr. Purser, is something like your *will power:* I doubt its authenticity as a scientific term—begging your pardon again. It is at once imaginative and metaphysical—in short, Greek. But," abruptly changing his tone, "there is a case in the sick bay that I do not care to

leave to my assistants. Beg your pardon, but excuse me." And rising from the mess he formally withdrew.

The silence at the moment of execution and for a moment or two continuing thereafter, a silence but emphasized by the regular wash of the sea against the hull or the flutter of a sail caused by the helmsman's eyes being tempted astray, this emphasized silence was gradually disturbed by a sound not easily to be verbally rendered. Whoever has heard the freshet wave of a torrent suddenly swelled by pouring showers in tropical mountains, showers not shared by the plain; whoever has heard the first muffled murmur of its sloping advance through precipitous woods may form some conception of the sound now heard. The seeming remoteness of its source was because of its murmurous indistinctness, since it came from close by, even from the men massed on the ship's open deck. Being inarticulate, it was dubious in significance further than it seemed to indicate some capricious revulsion of thought or feeling such as mobs ashore are liable to, in the present instance possibly implying a sullen revocation on the men's part of their involuntary echoing of Billy's benediction. But ere the murmur had time to wax into clamor it was met by a strategic command, the more telling that it came with abrupt unexpectedness: "Pipe down the starboard watch, Boatswain, and see that they go."

Shrill as the shriek of the sea hawk, the silver whistles of the boatswain and his mates pierced that ominous low sound, dissipating it; and yielding to the mechanism of discipline the throng was thinned by one-half. For the remainder, most of them were set to temporary employments connected with trimming the yards and so forth, business readily to be got up to serve occasion by any officer of the deck.

Now each proceeding that follows a mortal sentence pronounced at sea by a drumhead court is characterized by promptitude not perceptibly merging into hurry, though bordering that. The hammock, the one which had been Billy's bed when alive, having already been ballasted with shot and otherwise prepared to serve for his canvas coffin, the last offices of the sea undertakers, the sailmaker's mates, were now speedily completed. When everything was in readiness a second call for all hands, made necessary by the strategic movement before mentioned, was sounded, now to witness burial.

The details of this closing formality it needs not to give. But when the tilted plank let slide its freight into the sea, a second strange human murmur was heard, blended now with another inarticulate sound proceeding from certain larger seafowl who, their attention having been attracted by

the peculiar commotion in the water resulting from the heavy sloped dive of the shotted hammock into the sea, flew screaming to the spot. So near the hull did they come that the stridor or bony creak of their gaunt double-jointed pinions was audible. As the ship under light airs passed on, leaving the burial spot astern, they still kept circling it low down with the moving shadow of their outstretched wings and the croaked requiem of their cries.

Upon sailors as superstitious as those of the age preceding ours, men-of-war's men too who had just beheld the prodigy of repose in the form suspended in air, and now foundering in the deeps; to such mariners the action of the seafowl, though dictated by mere animal greed for prey, was big with no prosaic significance. An uncertain movement began among them, in which some encroachment was made. It was tolerated but for a moment. For suddenly the drum beat to quarters, which familiar sound, happening at least twice every day, had upon the present occasion a signal peremptoriness in it. True martial discipline long continued superinduces in average man a sort of impulse whose operation at the official word of command much resembles in its promptitude the effect of an instinct.

The drumbeat dissolved the multitude, distributing most of them along the batteries of the two covered gun decks. There, as wonted, the guns' crews stood by their respective cannon erect and silent. In due course the first officer, sword under arm and standing in his place on the quarter-deck, formally received the successive reports of the sworded lieutenants commanding the sections of batteries below; the last of which reports being made, the summed report he delivered with the customary salute to the commander. All this occupied time, which in the present case was the object in beating to quarters at an hour prior to the customary one. That such variance from usage was authorized by an officer like Captain Vere, a martinet as some deemed him, was evidence of the necessity for unusual action implied in what he deemed to be temporarily the mood of his men. "With mankind," he would say, "forms, measured forms, are everything; and that is the import couched in the story of Orpheus with his lyre spellbinding the wild denizens of the wood." And this he once applied to the disruption of forms going on across the Channel and the consequences thereof.

At this unwonted muster at quarters, all proceeded as at the regular hour. The band on the quarter-deck played a sacred air, after which the chaplain went through the customary morning service. That done, the drum beat the retreat; and toned by music and religious rites subserving

the discipline and purposes of war, the men in their wonted orderly manner dispersed to the places allotted them when not at the guns.

And now it was full day. The fleece of low-hanging vapor had vanished, licked up by the sun that late had so glorified it. And the circumambient air in the clearness of its serenity was like smooth white marble in the polished block not yet removed from the marble-dealer's yard.

The symmetry of form attainable in pure fiction cannot so readily be achieved in a narration essentially having less to do with fable than with fact. Truth uncompromisingly told will always have its ragged edges; hence the conclusion of such a narration is apt to be less finished than an architectural finial.

How it fared with the Handsome Sailor during the year of the Great Mutiny has been faithfully given. But though properly the story ends with his life, something in way of sequel will not be amiss. Three brief chapters will suffice.

In the general rechristening under the Directory of the craft originally forming the navy of the French monarchy, the *St. Louis* line-of-battle ship was named the *Athée* (the *Atheist*). Such a name, like some other substituted ones in the Revolutionary fleet, while proclaiming the infidel audacity of the ruling power, was yet, though not so intended to be, the aptest name, if one consider it, ever given to a warship; far more so indeed than the *Devastation,* the *Erebus* (the *Hell*), and similar names bestowed upon fighting ships.

On the return passage to the English fleet from the detached cruise during which occurred the events already recorded, the *Bellipotent* fell in with the *Athée.* An engagement ensued, during which Captain Vere, in the act of putting his ship alongside the enemy with a view of throwing his boarders across her bulwarks, was hit by a musket ball from a porthole of the enemy's main cabin. More than disabled, he dropped to the deck and was carried below to the same cockpit where some of his men already lay. The senior lieutenant took command. Under him the enemy was finally captured, and though much crippled was by rare good fortune successfully taken into Gibraltar, an English port not very distant from the scene of the fight. There, Captain Vere with the rest of the wounded was put ashore. He lingered for some days, but the end came. Unhappily he was cut off too early for the Nile and Trafalgar. The spirit that 'spite its philosophic austerity may yet have indulged in the most secret of all passions, ambition, never attained to the fullness of fame.

Not long before death, while lying under the influence of that magical

drug which, soothing the physical frame, mysteriously operates on the subtler element in man, he was heard to murmur words inexplicable to his attendant: "Billy Budd, Billy Budd." That these were not the accents of remorse would seem clear from what the attendant said to the *Bellipotent's* senior officer of marines, who, as the most reluctant to condemn of the members of the drumhead court, too well knew, though here he kept the knowledge to himself, who Billy Budd was.

Some few weeks after the execution, among other matters under the head of "News from the Mediterranean," there appeared in a naval chronicle of the time, an authorized weekly publication, an account of the affair. It was doubtless for the most part written in good faith, though the medium, partly rumor, through which the facts must have reached the writer served to deflect and in part falsify them. The account was as follows:

"On the tenth of the last month a deplorable occurrence took place on board H.M.S. *Bellipotent.* John Claggart, the ship's master-at-arms, discovering that some sort of plot was incipient among an inferior section of the ship's company, and that the ringleader was one William Budd; he, Claggart, in the act of arraigning the man before the captain, was vindictively stabbed to the heart by the suddenly drawn sheath knife of Budd.

"The deed and the implement employed sufficiently suggest that though mustered into the service under an English name the assassin was no Englishman, but one of those aliens adopting English cognomens whom the present extraordinary necessities of the service have caused to be admitted into it in considerable numbers.

"The enormity of the crime and the extreme depravity of the criminal appear the greater in view of the character of the victim, a middle-aged man respectable and discreet, belonging to that minor official grade, the petty officers, upon whom, as none know better than the commissioned gentlemen, the efficiency of His Majesty's navy so largely depends. His function was a responsible one, at once onerous and thankless; and his fidelity in it the greater because of his strong patriotic impulse. In this instance as in so many other instances in these days, the character of this unfortunate man signally refutes, if refutation were needed, that peevish saying attributed to the late Dr. Johnson, that patriotism is the last refuge of a scoundrel.

"The criminal paid the penalty of his crime. The promptitude of the punishment has proved salutary. Nothing amiss is now apprehended aboard H.M.S. *Bellipotent*."

The above, appearing in a publication now long ago superannuated and forgotten, is all that hitherto has stood in human record to attest what manner of men respectively were John Claggart and Billy Budd.

Everything is for a term venerated in navies. Any tangible object associated with some striking incident of the service is converted into a monument. The spar from which the foretopman was suspended was for some few years kept trace of by the bluejackets. Their knowledge followed it from ship to dockyard and again from dockyard to ship, still pursuing it even when at last reduced to a mere dockyard boom. To them a chip of it was as a piece of the Cross. Ignorant though they were of the secret facts of the tragedy, and not thinking but that the penalty was somehow unavoidably inflicted from the naval point of view, for all that, they instinctively felt that Billy was a sort of man as incapable of mutiny as of willful murder. They recalled the fresh young image of the Handsome Sailor, that face never deformed by a sneer or subtler vile freak of the heart within. This impression of him was doubtless deepened by the fact that he was gone, and in a measure mysteriously gone. On the gun decks of the *Bellipotent* the general estimate of his nature and its unconscious simplicity eventually found rude utterance from another foretopman, one of his own watch, gifted, as some sailors are, with an artless *poetic* temperament. The tarry hand made some lines which, after circulating among the shipboard crews for a while, finally got rudely printed at Portsmouth as a ballad. The title given to it was the sailor's.

BILLY IN THE DARBIES

Good of the chaplain to enter Lone Bay
And down on his marrowbones here and pray
For the likes just o' me, Billy Budd.–But, look:
Through the port comes the moonshine astray!
It tips the guard's cutlass and silvers this nook;
But 'twill die in the dawning of Billy's last day.
A jewel block they'll make of me tomorrow,
Pendant pearl from the yardarm-end
Like the eardrop I gave to Bristol Molly–
O, 'tis me, not the sentence they'll suspend.
Ay, ay, all is up; and I must up too,
Early in the morning, aloft from alow.
On an empty stomach now never it would do.
They'll give me a nibble–bit o' biscuit ere I go.
Sure, a messmate will reach me the last parting cup;
But, turning heads away from the hoist and the belay,

Heaven knows who will have the running of me up!
No pipe to those halyards.–But aren't it all sham?
A blur's in my eyes; it is dreaming that I am.
A hatchet to my hawser? All adrift to go?
The drum roll to grog, and Billy never know?
But Donald he has promised to stand by the plank;
So I'll shake a friendly hand ere I sink.
But–no! It is dead then I'll be, come to think.
I remember Taff the Welshman when he sank.
And his cheek it was like the budding pink.
But me they'll lash in hammock, drop me deep.
Fathoms down, fathoms down, how I'll dream fast asleep.
I feel it stealing now. Sentry, are you there?
Just ease these darbies at the wrist,
And roll me over fair!
I am sleepy, and the oozy weeds about me twist.

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Ivan Bunin

1870–1953

Ivan Bunin was born in Voronezh, Russia, October 10, 1870. His family belonged to the old landed nobility. Bunin grew up on his father's estates in central Russia. A painter at first, he turned early to writing. His first poems came out in 1889. He was twice awarded the Pushkin Prize, the second time for his translation of Longfellow's *Hiawatha.* In 1909 he was elected one of the Twelve Honorary Academicians of the Russian Academy. Leo Tolstoy was also one of the twelve.

In his youth Bunin was a Tolstoyan, dedicated to good works and making barrel hoops. He met the Master, a tall old man who came at him with a frighteningly quick stride and spoke gently. In Moscow Bunin was associated with the writers Leonid Andreev and Maxim Gorky and the singer Feodor Chaliapin. He was so thin that the painter Ilya Repin asked him to model for one of his angels.

Bunin traveled all over Russia and visited Syria, Palestine, Egypt, Algeria, Tunisia, and the tropics. At Yalta, he and Anton Chekhov were close friends. They had a game, each repeating to the other some solemn remark the critics had made about him. "You are 'a man of crystal purity,' " Chekhov would say. Bunin would reply by calling him "the singer of twilight moods."

Bunin's novel *The Village* appeared in 1910. It was one of the first books to break down the traditional idealization of the Russian people in literature. Dismayed by the "utterly intolerable spectacle" of the Revolution, Bunin moved to South Russia in May, 1918. He left the country for good in February, 1920. Such works as *The Gentleman from San Francisco, Suchodol, An Evening in the Spring,* and *The Dreams of Chang and Other Stories* made him known all over the world. He lived an exile's life in Paris and at Grasse in Pro-

vence. His later works include *The Well of Days, Dark Avenues,* and *Memories and Portraits*. In 1933 Bunin was awarded the Nobel Prize for literature. He died in Paris on November 8, 1953.

When we read *The Gentleman from San Francisco* for the first time, we are so enchanted by the shimmer of a multitude of details that we hardly notice anything else. Even so, we are aware that this detail is not simply piled up, as Zola might do it. Whether it refers to the snowy winter sea, a crystal chandelier, or a little Sicilian horse, it evokes whatever it touches. We can see it and feel it. It is *there*. The story is created out of it.

Then we notice that this detail is of two kinds, one continually played off against the other. The first is our actual world of work, hardship, and weather, but also of light on the sea, of that Italy where each island "has its especial aroma" after rain. The other is the luxury world of the transatlantic liners and the grand hotels, in which the traveler does not need to do anything at all. His whole duty consists in answering the gong–that ironic gong!–for dinner, like one of Pavlov's salivating dogs. For a moment, at the crisis of the story, the author brings these two worlds together.

Is it a period story? We feel that it is, that the author meant it to be that. Its time is easy to guess: the period not long before World War I. The travelers take tea, not cocktails, at five o'clock. Women are evidently not permitted in the ship's bar. The Chinese stewards wear queues. But the sense of period is conveyed to us by other and more subtle intimations–by the naïveté of that young couple aboard the *Atlantida* hired to "play at love," and by the general sense, displayed in the attitudes of everyone from the San Francisco gentleman to Luigi the bell-boy, that this dream world is completely insulated, permanent, and untouchable. No one knew better than Bunin that it was not.

Moreover, we are aware that these two contrasted worlds are also two exclusive worlds of people. Each is covertly hostile to the other. The Gentleman from San Francisco is offended by the sight of the fishermen's miserable stone huts; after his death, Luigi the waiter mocks him with his obsequious *"Ha sonato, Signore?"* at the door. Here are the two worlds of those who serve and those who are served.

Those who are served, the San Franciscan and his family, are

nameless. The "hereditary prince of a certain Asiatic kingdom" is not merely nameless, he is "travelling incognito"—a double loss of identity. Symbolic figures moving in a dream have no need of identity. They are simply kinds of people: ticketed, consigned from one port to another, summoned by gongs, unobtrusively guarded to see that they do not get out of step. And it comes to us suddenly, in a kind of ironic reversal, that these travelers are servants too—of their schedules, of their arrangements, of the need to do and see everything, to get their money's worth.

They are servants, too, of their pleasure. They are going to Europe "for two whole years . . . solely for the sake of pleasure." Finally, the dead man is the servant of those forces—"the darkness, the ocean, the snow storm"—which govern and control all transient things.

The Gentleman from San Francisco

Alas, alas that great city Babylon,
that mighty city!
The Apocalypse.

The gentleman from San Francisco—neither at Naples nor at Capri had any one remembered his name—was going to the Old World for two whole years, with wife and daughter, solely for the sake of pleasure.

He was firmly convinced that he was fully entitled to rest, to pleasure, to prolonged and comfortable travel, and to not a little else besides. For such a conviction he had his reasons—that, in the first place, he was rich, and, in the second, that he was only now beginning to live, despite his eight and fifty years. Until now he had not lived, but had merely existed—not at all badly, it is true, but nevertheless, putting all his hopes on the future. He had laboured with never a pause for rest [1]—the coolies, whom he had imported by whole thousands, well knew what this meant! —and finally he saw that much had already been accomplished, that he had almost come abreast of those whom he had at one time set out to emulate, and he decided to enjoy breathing space. It was a custom among the class of people to which he belonged to commence their enjoyment of life with a journey to Europe, to India, to Egypt. He, too, proposed to do the same. Of course he desired, first of all, to reward himself for his years of toil; however, he rejoiced on account of his wife and daughter as well. His wife had never been distinguished for any special sensitiveness to new impressions, but then, all elderly American women are fervid travellers. As for his daughter, a girl no longer in her first youth, and

1. More literal translation: "He worked without folding his hands" [Ed.].

somewhat sickly, travel was a downright necessity for her: to say nothing of the benefit to her health, were there no fortuitous encounters during travels? It is while travelling that one may at times sit at table with a *milliardaire,* or scrutinize frescos by his side.

The itinerary worked out by the gentleman from San Francisco was an extensive one. In December and January he hoped to enjoy the sun of southern Italy, the monuments of antiquity, the *tarantella,* the serenades of strolling singers, and that which men of his age relish with the utmost finesse: the love of little, youthful Neapolitaines, even though it be given not entirely without ulterior motives; he contemplated spending the Carnival in Nice, in Monte Carlo, whither the very pick of society gravitates at that time—that very society upon which all the benefits of civilization depend: not merely the cut of tuxedos, but, as well, the stability of thrones, and the declaration of wars, and the prosperity of hotels—Monte Carlo, where some give themselves up with passion to automobile and sail races; others to roulette; a third group to that which it is the custom to call flirting; a fourth, to trap-shooting, in which the pigeons, released from their cotes, soar up most gracefully above emerald-green swards, against the background of a sea that is the colour of forget-me-nots, only, in the same minute, to strike against the ground as little, crumpled clods of white. . . . The beginning of March he wanted to devote to Florence; about the time of the Passion of Our Lord to arrive at Rome, in order to hear the *Miserere* there; his plans also embraced Venice, and Paris, and bull-fighting in Seville, and sea-bathing in the British Islands, and Athens, and Constantinople, and Palestine, and Egypt, and even Japan—of course, be it understood, already on the return trip. . . . And everything went very well at first.

It was the end of November; almost as far as Gibraltar it was necessary to navigate now through an icy murk, now amidst a blizzard of wet snow; but the ship sailed in all safety and even without rolling; the passengers the steamer was carrying proved to be many, and all of them people of note; the ship—the famous *Atlantida*—resembled the most expensive of European hotels, with all conveniences: an all-night bar, Turkish baths, a newspaper of its own; and life upon it flowed in accordance with a most complicated system of regulations: people got up early, to the sounds of bugles, stridently resounding through the corridors at that dark hour when day was so slowly and inimically dawning over the greyish-green desert of waters, ponderously turbulent in the mist. Putting on their flannel pyjamas, the passengers drank coffee, chocolate, cocoa; then they got into marble baths, did their exercises, inducing an

appetite and a sense of well-being, performed their toilet for the day, and went to breakfast. Until eleven one was supposed to promenade the decks vigorously, inhaling the fresh coolness of the ocean, or to play at shuffle-board and other games for the sake of arousing the appetite anew, and, at eleven, to seek sustenance in bouillon and sandwiches; having refreshed themselves, the passengers perused their newspaper with gusto and calmly awaited lunch, a meal still more nourishing and varied than the breakfast. The next two hours were sacred to repose—the decks were then encumbered with *chaises-longues,* upon which the travellers reclined, covered up with plaids, contemplating the cloud-flecked sky and the foaming hummocks flashing by over the side, or else pleasantly dozing off; at five o'clock, refreshed and put in good spirits, they were drenched with strong fragrant tea, served with cookies; at seven they were apprized by bugle signals of a dinner of nine courses. . . . And thereupon the gentleman from San Francisco, in an access of animal spirits, would hurry to his resplendent *cabine de luxe,* to dress.

In the evening the tiers of the *Atlantida* gaped through the dusk as though they were fiery, countless eyes, and a great multitude of servants worked with especial feverishness in the kitchens, sculleries, and wine vaults. The ocean, heaving on the other side of the walls, was awesome; but none gave it a thought, firmly believing it under the sway of the captain, a red-haired man of monstrous bulk and ponderousness, always seeming sleepy, resembling, in his uniform frock-coat, with its golden chevrons, an enormous idol; it was only very rarely that he left his mysterious quarters to appear in public. A siren on the forecastle howled every minute in hellish sullenness and whined in frenzied malice, but not many of the diners heard the siren—it was drowned by the strains of a splendid stringed orchestra, playing exquisitely and ceaselessly in the two-tiered hall, decorated with marble; its floors covered with velvet rugs; festively flooded with the lights of crystal lustres and gilded girandoles; filled to overflowing with diamond-bedecked ladies in *décolleté* and men in tuxedos, graceful waiters and deferent *maîtres d'hôtel*—among whom one, who took orders for wines exclusively, even walked about with a chain around his neck, like a lord mayor. A tuxedo and perfect linen made the gentleman from San Francisco appear very much younger. Spare, not tall, clumsily but strongly built, groomed until he shone and moderately animated, he sat in the aureate-pearly refulgence of this palatial room, at a table with a bottle of amber Johannesberg, with countless goblets, small and large, of the thinnest glass, with a curly bouquet of curly hyacinths. There was something of the Mongol about

his yellowish face with clipped silvery moustache; his large teeth gleamed with gold fillings; his stalwart, bald head glistened like old ivory. Rich, yet in keeping with her years, was the dress of his wife—a big woman, expansive and calm; elaborate, yet light and diaphanous, with an innocent frankness, was that of his daughter—tall, slender, with magnificent hair, exquisitely dressed, with breath aromatic from violet *cachou* and with the tenderest of tiny, rosy pimples about her lips and between her shoulder blades, just the least bit powdered. . . . The dinner lasted for two whole hours, while after dinner there was dancing in the ball-room, during which the men—the gentleman from San Francisco among their number, of course—with their feet cocked up, determined, upon the basis of the latest political and stock-exchange news, the destinies of nations, smoking Havana cigars and drinking *liqueurs* until they were crimson in the face, seated in the bar, where the waiters were Negroes in red jackets, the whites of their eyes resembling hard-boiled eggs with the shell off. The ocean, with a dull roar, was moiling in black mountains on the other side of the wall; the snow-gale whistled mightily through the sodden rigging; the whole steamer quivered as it mastered both the gale and the mountains, sundering to either side, as though with a plough, their shifting masses, that again and again boiled up and reared high, with tails of foam; the siren, stifled by the fog, was moaning with a deathly anguish; the look-outs up in their crow's nest froze from the cold and grew dazed from straining their attention beyond their strength. Like to the grim and sultry depths of the infernal regions, like to their ultimate, their ninth circle, was the womb of the steamer, below the waterline—that womb where dully gurgled the gigantic furnaces, devouring with their incandescent maws mountains of hard coal, cast into them by men stripped to the waist, purple from the flames, and with smarting, filthy sweat pouring over them; whereas here, in the bar, men threw their legs over the arms of their chairs with never a care, sipping cognac and *liqueurs,* and were wafted among clouds of spicy smoke as they indulged in well-turned conversation; in the ball-room everything was radiant with light and warmth and joy; the dancing couples were now a-whirl in waltzes, now twisting in the tango, and the music insistently, in some delectably shameless melancholy, was suppliant always of the one, always of the same thing. . . . There was an ambassador among this brilliant throng—a lean, modest little old man; there was a great man of riches—clean-shaven, lanky, of indeterminate years, and with the appearance of a prelate, in his dress-coat of an old-fashioned cut; there was a well-known Spanish writer; there was a world-celebrated beauty, already

just the very least trifle faded and of an unenviable morality; there was an exquisite couple in love with each other, whom all watched with curiosity and whose happiness was unconcealed: *he* danced only with *her;* sang–and with great ability–only to *her* accompaniment; and everything they did was carried out so charmingly that the captain was the only one who knew that this pair was hired by Lloyd's to play at love for a good figure, and that they had been sailing for a long time, now on one ship, now on another.

At Gibraltar everybody was gladdened by the sun–it seemed to be early spring; a new passenger, whose person aroused the general interest, made his appearance on board the *Atlantida*–he was the hereditary prince of a certain Asiatic kingdom, travelling incognito; a little man who somehow seemed to be all made of wood, even though he was alert in his movements; broad of face, with narrow eyes, in gold-rimmed spectacles; a trifle unpleasant through the fact that his skin showed through his coarse black moustache like that of a cadaver; on the whole, however, he was charming, unpretentious, and modest. On the Mediterranean Sea there was a whiff of winter again; the billows ran high, and were as multi-coloured as the tail of a peacock; they had snowy-white crests, lashed up–although the sun was sparkling brightly and the sky was perfectly clear–by a *tramontana,* a chill northern wind from beyond the mountains, that was joyously and madly rushing to meet the ship. . . . Then, on the second day, the sky began to pale, the horizon became covered with mist, land was nearing; Ischia, Capri appeared; through the binoculars Naples–lumps of sugar strewn at the foot of some dove-coloured mass–could be seen; while over it and this dove-coloured thing were visible the ridges of distant mountains, vaguely glimmering with the dead whiteness of snows. There was a great number of people on deck; many of the ladies and gentlemen had already put on short, light fur coats, with the fur outside; Chinese boys, never contradictory and never speaking above a whisper, bow-legged striplings with pitch-black queues reaching to their heels and with eye-lashes as long and thick as those of young girls, were already dragging, little by little, sundry plaids, canes, and portmanteaux and grips of alligator hide toward the companionways. . . . The daughter of the gentleman from San Francisco was standing beside the prince, who had been, through a fortuitous circumstance, presented to her yesterday evening, and she pretended to be looking intently into the distance, in a direction he was pointing out to her, telling, explaining something or other to her, hurriedly and quietly. On account of his height he seemed a boy by contrast with others–he was

queer and not at all prepossessing of person, with his spectacles, his derby, his English great-coat, while his scanty moustache looked just as if it were of horsehair, and the swarthy, thin skin seemed to be drawn tightly over his face, and somehow had the appearance of being lacquered–but the young girl was listening to him, without understanding, in her agitation, what he was saying; her heart was thumping from an incomprehensible rapture before his presence and from pride that he was speaking with her, and not some other; everything about him that was different from others–his lean hands, his clear skin, under which flowed the ancient blood of kings, even his altogether unpretentious, yet somehow distinctively neat, European dress–everything held a secret, inexplicable charm, evoked a feeling of amorousness. As for the gentleman from San Francisco himself, he, in a high silk hat, in grey spats over patent-leather shoes, kept on glancing at the famous beauty, who was standing beside him–a tall blonde of striking figure, her eyes painted in the latest Parisian fashion; she was holding a diminutive, hunched-up, mangy lap-dog on a silver chain and was chattering to it without cease. And the daughter, in some vague embarrassment, tried not to notice her father.

Like all Americans of means, he was very generous on his travels, and, like all of them, believed in the full sincerity and goodwill of those who brought him food and drink with such solicitude, who served him from morn till night, forestalling his least wish; of those who guarded his cleanliness and rest, lugged his things around, summoned porters for him, delivered his trunks to hotels. Thus had it been everywhere, thus had it been on the ship, and thus was it to be in Naples as well. Naples grew, and drew nearer; the musicians, the brass of their instruments flashing, had already clustered upon the deck, and suddenly deafened everybody with the triumphant strains of a march; the gigantic captain, in his full-dress uniform, appeared upon his stage, and, like a condescending heathen god, waved his hand amiably to the passengers–and to the gentleman from San Francisco it seemed that it was for him alone that the march so beloved by proud America was thundering, that it was he whom the captain was felicitating upon a safe arrival. And every other passenger felt similarly about himself–or herself. And when the *Atlantida* did finally enter the harbour, had heaved to at the wharf with her many-tiered mass, black with people, and the gang-planks clattered down–what a multitude of porters and their helpers in caps with gold braid, what a multitude of different *commissionaires,* whistling gamins, and strapping ragamuffins with packets of coloured postal cards in their hands made a

rush toward the gentleman from San Francisco, with offers of their services! And he smiled, with a kindly contemptuousness, at these ragamuffins, as he went toward the automobile of precisely that hotel where there was a possibility of the prince's stopping as well, and drawled through his teeth, now in English, now in Italian:

"Go away! *Via!*"

Life at Naples at once assumed its wonted, ordered current: in the early morning, breakfast in the sombre dining-room with its damp draught from windows opening on some sort of a stony little garden; the sky was usually overcast, holding out but little promise, and there was the usual crowd of guides at the door of the vestibule; then came the first smiles of a warm, rosy sun; there was, from the high hanging balcony, a view of Vesuvius, enveloped to its foot by radiant morning mists, and of silver and pearl eddies on the surface of the bay, and of the delicate contour of Capri against the horizon; one could see tiny burros, harnessed in twos to little carts, running down below over the quay, sticky with mire, and detachments of diminutive soldiers, marching off to somewhere or other to lively and exhilarating music. Next came the procession to the waiting automobile and the slow progress through populous, narrow, and damp corridors of streets, between tall, many-windowed houses; the inspection of lifelessly clean museums, evenly and pleasantly, yet bleakly, lit, seemingly illuminated by snow; or of cool churches, smelling of wax, which everywhere and always contain the same things: a majestic portal, screened by a heavy curtain of leather, and inside–silence, empty vastness, unobtrusive little flames of a seven-branched candlestick glowing redly in the distant depths, on an altar bedecked with laces; a solitary old woman among the dark wooden pews; slippery tombstones underfoot; and somebody's *Descent from the Cross*–inevitably a celebrated one. At one o'clock there was luncheon upon the mountain of San Martino, where, toward noon, gathered not a few people of the very first quality, and where the daughter of the gentleman from San Francisco had once almost fainted away for joy, because she thought she saw the prince sitting in the hall, although she already knew through the newspapers that he had left for a temporary stay at Rome. At five came tea at the hotel, in the showy salon, so cosy with its rugs and flaming fire-places; and after that it was already time to get ready for dinner, and once more came the mighty, compelling reverberation of the gong through all the stories; once more the processions in Indian file of ladies in *décolleté,* rustling in their silks upon the staircases and reflected in all the mirrors; once more the palatial dining-room, widely and hospitably opened, and

the red jackets of the musicians upon their platform, and the black cluster of waiters about the *maître d'hôtel,* who, with a skill out of the ordinary, was ladling some sort of a thick, roseate soup into plates. . . . The dinners, as everywhere else, were the crowning glory of each day; the guests dressed for them as for a rout, and these dinners were so abundant in edibles, and wines, and mineral waters, and sweets, and fruits that toward eleven o'clock at night the chambermaids were distributing through all the corridors rubber bags with hot water to warm sundry stomachs.

However, the December of that year proved to be not altogether a successful one for Naples; the porters grew confused when one talked with them of the weather, and merely shrugged their shoulders guiltily, muttering that they could not recall such another year, although it was not the first year that they had been forced to mutter this, and to urge in extenuation that "something terrible is happening everywhere"; there were unheard of storms and torrents of rain on the Riviera; there was snow in Athens; Etna was also all snowed over and was aglow of nights; tourists were fleeing from Palermo in all directions, escaping from the cold. The morning sun deceived the Neapolitans every day that winter: toward noon the sky became grey and a fine rain began falling, but growing heavier and colder all the time; at such times the palms near the entrance of the hotel glistened as though they were of tin, the town seemed especially dirty and cramped, the museums exceedingly alike; the cigar stumps of the corpulent cabmen, whose rubber coats flapped in the wind like wings, seemed to have an insufferable stench, while the energetic snapping of their whips over their scrawny-necked nags was patently false; the foot-gear of the *signori* sweeping the rails of the tramways seemed horrible; the women, splashing through the mud, their black-haired heads bared to the rain, appeared hideously short legged; as for the dampness, and the stench of putrid fish from the sea foaming at the quay, they were a matter of course. The gentleman and the lady from San Francisco began quarrelling in the morning; their daughter either walked about pale, with a headache, or, coming to life again, went into raptures over everything, and was, at such times, both charming and beautiful: beautiful were those tender and complex emotions which had been awakened within her by meeting that homely man through whose veins flowed uncommon blood; for, after all is said and done, perhaps it is of no real importance just what it is, precisely, that awakens a maiden's soul—whether it be money, or fame, or illustrious ancestry. . . .

Everybody affirmed that things were entirely different in Sorrento, in Capri–there it was both warmer and sunnier, and the lemons were in blossom, and the customs were more honest, and the wine was more natural. And so the family from San Francisco determined to set out with all its trunks to Capri, and, after seeing it all, after treading the stones where the palace of Tiberius had once stood, after visiting the fairylike caverns of the Azure Grotto, and hearing the bagpipers of Abruzzi, who for a whole month preceding Christmas wander over the island and sing the praises of the Virgin Mary, they meant to settle in Sorrento.

On the day of departure–a most memorable one for the family from San Francisco!–there was no sun from the early morning. A heavy fog hid Vesuvius to the very base; this grey fog spread low over the leaden heaving of the sea that was lost to the eye at a distance of a half a mile. Capri was entirely invisible, as though there had never been such a thing in the world. And the little steamer that set out for it was so tossed from side to side that the family from San Francisco was laid prostrate upon the divans in the sorry general cabin of this tub, their feet wrapped up in plaids, and their eyes closed from nausea. Mrs. suffered, so she thought, more than anybody; she was overcome by sea-sickness several times; it seemed to her that she was dying, whereas the stewardess, who always ran up to her with a small basin–she had been, for many years, day in and day out, rolling on these waves, in freezing weather and in torrid, and yet was still tireless and kind to everybody–merely laughed. Miss was dreadfully pale and held a slice of lemon between her teeth; now she could not have been cheered even by the hope of a chance encounter with the prince at Sorrento, where he intended to be about Christmas. Mr., who was lying on his back, in roomy overcoat and large cap, never unlocked his jaws all the way over; his face had grown darker and his moustache whiter, and his head ached dreadfully: during the last days, thanks to the bad weather, he had been drinking too heavily of evenings, and had too much admired the "living pictures" in dives of *recherché* libertinage. But the rain kept on lashing against the jarring windows, the water from them running down on the divans; the wind, howling, bent the masts, and at times, aided by the onslaught of a wave, careened the little steamer entirely to one side, and then something in the hold would roll with a rumble. During the stops, at Castellammare, at Sorrento, things were a trifle more bearable, but even then the rocking was fearful–the shore, with all its cliffs, gardens, *pigin,* its pink and white hotels and hazy mountains clad in curly greenery, swayed up and down

as if on a swing; boats bumped up against the sides of the ship; sailors and steerage passengers were yelling vehemently; somewhere, as though it had been crushed, a baby was wailing and smothering; a raw wind was blowing in at the door; and, from a swaying boat with a flag of the Hotel Royal, a lisping gamin was screaming, luring travellers: "Kgoya-al! Hôtel Kgoya-al! . . ." And the gentleman from San Francisco, feeling that he was an old man, which was but proper, was already thinking with sadness and melancholy of all these Royals, Splendids, Excelsiors, and of these greedy, insignificant manikins, reeking of garlic, that are called Italians. Once, having opened his eyes and raised himself from the divan, he saw, underneath the craggy steep of the shore, a cluster of stone hovels, mouldy through and through, stuck one on top of another near the very edge of the water, near boats, near all sorts of rags, tins, and brown nets—hovels so miserable that, at the recollection that this was that very Italy he had come hither to enjoy, he felt despair. . . . Finally, at twilight, the dark mass of the island began to draw near, seemingly bored through and through by little red lights near its base; the wind became softer, warmer, more fragrant; over the abating waves, as opalescent as black oil, golden pythons flowed from the lanterns on the wharf. . . . Then came the sudden rumble of the anchor, and it fell with a splash into the water; the ferocious yells of the boatmen, vying with one another, floated in from all quarters—and at once the heart grew lighter, the lights in the general cabin shone more brightly, a desire arose to eat, to drink, to smoke, to be stirring. . . . Ten minutes later the family from San Francisco had descended into a large boat; within fifteen minutes it had set foot upon the stones of the wharf, and had then got into a bright little railway car and to its buzzing started the ascent of the slope, amid the stakes of the vineyards, half-crumbled stone enclosures, and wet, gnarled orange-trees, some of them under coverings of straw—trees with thick, glossy foliage, and aglimmer with the orange fruits; all these objects were sliding downward, past the open windows of the little car, toward the base of the mountain. . . . Sweetly smells the earth of Italy after rain, and her every island has its own, its especial aroma!

The island of Capri was damp and dark on this evening. But now it came into life for an instant; lights sprang up here and there, as always on the steamer's arrival. At the top of the mountain, where stood the station of the funicular, there was another throng of those whose duty lay in receiving fittingly the gentleman from San Francisco. There were other arrivals also, but they merited no attention—several Russians, who

had taken up their abode in Capri, absent-minded because of their bookish meditations, unkempt, bearded, spectacled, the collars of their old drab overcoats turned up; and a group of long-legged, long-necked, round-headed German youths in Tyrolean costumes, with canvas knapsacks slung over their shoulders—these latter stood in need of nobody's services, feeling themselves at home everywhere, and were not at all generous in their expenditures. The gentleman from San Francisco, on the other hand, who was calmly keeping aloof from both the one group and the other, was immediately noticed. He and his ladies were bustlingly assisted to get out, some men running ahead of him to show him the way: he was surrounded anew by urchins, and by those robust Caprian wives who carry on their heads the portmanteaux and trunks of respectable travellers. The wooden pattens of these women clattered over a *piazzetta* that seemed to belong to some opera, an electric globe swaying above it in the damp wind; the rabble of urchins burst into sharp, bird-like whistles, and, as though on a stage, the gentleman from San Francisco proceeded in their midst toward some mediaeval arch, underneath houses that had become welded into one mass, beyond which a little echoing street—with the tuft of a palm above flat roofs on its left, and with blue stars in the black sky overhead—led slopingly to the grand entrance of the hotel, glittering ahead. . . . And again it seemed that it was in honour of the guests from San Francisco that this damp little town of stone on a craggy little island of the Mediterranean Sea had come to life, that it was they who had made so happy and affable the proprietor of the hotel, that it was they only who had been waited for by the Chinese gong that now began wailing the summons to dinner through all the stories of the hotel, the instant they had set foot in the vestibule.

The proprietor, a young man of haughty elegance, who had met them with a polite and exquisite bow, for a minute dumbfounded the gentleman from San Francisco: having glanced at him, the gentleman from San Francisco suddenly recalled that just the night before, among the rest of the confusion of images that had beset him in his sleep, he had seen precisely this gentleman—just like him, down to the least detail: in the same sort of frock with rounded skirts, and with the same pomaded and painstakingly combed head. Startled, he was almost taken aback; but since, from long, long before, there was not even a mustard seed of any sort of so-called mystical emotions left in his soul, his astonishment was dimmed the same instant, passing through a corridor of the hotel, he spoke jestingly to his wife and daughter of this strange coincidence of

dream and reality. And only his daughter glanced at him with alarm at that moment: her heart suddenly contracted from sadness, from a feeling of their loneliness upon this foreign, dark island—a feeling so strong that she almost burst into tears. But still she said nothing of her feelings to her father—as always.

An exalted personage—Rais [Rex] XVII—who had been visiting Capri, had just taken his departure, and the guests from San Francisco were given the same apartments that he had occupied. To them was assigned the handsomest and most expert chambermaid, a Belgian, whose waist was slenderly and firmly corseted, and who wore a little starched cap that looked like a pronged crown; also, the stateliest and most dignified of flunkies, a fiery-eyed Sicilian, swarthy as coal; and the nimblest of bell-boys, the short and stout Luigi, a fellow who was very fond of a joke, and who had changed many places in his time. And a minute later there was a slight tap at the door of the room of the gentleman from San Francisco—the French *maître d'hôtel* had come to find out if the newly arrived guests would dine, and, in the event of an answer in the affirmative—of which, however, there was no doubt—to inform them that the *carte de jour* consisted of crawfish, roast beef, asparagus, pheasants, and so forth. The floor was still rocking under the gentleman from San Francisco—so badly had the atrocious little Italian steamer tossed him about—but, without hurrying, with his own hands, although somewhat clumsily from being unaccustomed to such things, he shut a window that had banged upon the entrance of the *maître d'hôtel* and had let in the odours of the distant kitchen and of the wet flowers in the garden, and with a leisurely precision replied that they would dine, that their table must be placed at a distance from the door, at the farthest end of the dining-room, that they would drink local wine and champagne, moderately dry and only slightly chilled. The *maître d'hôtel* concurred in every word of his, in intonations most varied, having, however, but one significance—that there was never a doubt, nor could there possibly be any, about the correctness of the wishes of the gentleman from San Francisco, and that everything would be carried out punctiliously. In conclusion he inclined his head, and asked deferentially:

"Will that be all, Sir?"

And, having received a long-drawn-out "Yes" in answer, he added that the *tarantella* would be danced in the vestibule to-day—the dancers would be Carmella and Giuseppe, known to all Italy, and to "the entire world of tourists."

"I have seen her on post cards," said the gentleman from San Francisco

in a voice devoid of all expression. "About this Giuseppe, now–is he her husband?"

"Her cousin, Sir," answered the *maître d'hôtel.*

And, after a little wait, after considering something, the gentleman from San Francisco dismissed him with a nod.

And then he began his preparations anew, as though for a wedding ceremony: he turned on all the electric lights, filling all the mirrors with reflections of light and glitter, of furniture and opened trunks; he began shaving and washing, ringing the bell every minute, while other impatient rings from his wife's and daughter's rooms floated through the entire corridor and interrupted his. And Luigi, in his red apron, was rushing headlong to answer the bell, with an ease peculiar to many stout men, the while he made grimaces of horror that made the chambermaids, running by with glazed porcelain pails in their hands, laugh till they cried. Having knocked on the door with his knuckles, he asked with an assumed timidity, with a respectfulness that verged on idiocy:

"*Ha sonato, Signore?* [Did you ring, Sir?]"

And from the other side of the door came an unhurried, grating voice, insultingly polite:

"Yes, come in. . . ."

What were the thoughts, what were the emotions of the gentleman from San Francisco on this evening that was of such portent to him? He felt nothing exceptional, for the trouble in this world is just that everything is apparently all too simple! And even if he had sensed within his soul that something was impending, he would, nevertheless, have thought that this thing would not occur for some time to come–in any case, not immediately. Besides that, like everyone who has gone through the rocking of a ship, he wanted very much to eat, was anticipating with enjoyment the first spoonful of soup, the first mouthful of wine, and performed the usual routine of dressing even with a certain degree of exhilaration that left no time for reflections.

Having shaved and washed himself, having inserted several artificial teeth properly, he, standing before a mirror, wetted the remnants of his thick, pearly-grey hair and plastered it down around his swarthy-yellow skull, with brushes set in silver; drew a suit of cream-coloured silk underwear over his strong old body, beginning to be full at the waist from excesses in food, and put on silk socks and dancing slippers on his shrivelled, splayed feet; sitting down, he put in order his black trousers, drawn high by black silk braces, as well as his snowy-white shirt, with the bosom bulging out; put the links through the glossy cuffs, and began

the torturous pursuit of the collar-button underneath the stiffly starched collar. The floor was still swaying beneath him, the tips of his fingers pained him greatly, the collar-button at times nipped hard the flabby skin in the hollow under his Adam's-apple, but he was persistent and finally, his eyes glittering from the exertion, his face all livid from the collar that was choking his throat–a collar far too tight–he did contrive to accomplish his task, and sat down in exhaustion in front of the pier-glass, reflected in it from head to foot, a reflection that was repeated in all the other mirrors.

"Oh, this is dreadful!" he muttered, letting his strong bald head drop, and without trying to understand, without reflecting, just what, precisely, was dreadful; then, with an accustomed and attentive glance, he inspected his stubby fingers, with gouty hardenings at the joints, and his convex nails of an almond colour, repeating, with conviction: "This is dreadful. . . ."

But at this point the second gong, sonorously, as in some heathen temple, reverberated through the entire house. And, getting up quickly from his seat, the gentleman from San Francisco drew his collar still tighter with the neck-tie and his stomach by means of the low-cut vest, put on his tuxedo, drew out his cuffs, scrutinized himself once more in the mirror. . . . This Carmella, swarthy, with eyes which she knew well how to use most effectively, resembling a mulatto woman, clad in a dress of many colours, with the colour of orange predominant, must dance exceptionally, he reflected. And, stepping briskly out of his room and walking over the carpet to the next one–his wife's–he asked, loudly, if they would be ready soon?

"In five minutes, Dad!" a girl's voice, ringing and by now gay, responded from the other side of the door.

"Very well," said the gentleman from San Francisco.

And, leisurely, he walked down red-carpeted corridors and staircases, descending in search of the reading room. The servants he met stood aside and hugged, the wall to let him pass, but he kept on his way as though he had never even noticed them. An old woman who was late for dinner, already stooping, with milky hair but *décolleté* in a light-grey gown of silk, was hurrying with all her might, but drolly, in a hen-like manner, and he easily outstripped her. Near the glass doors of the dining-room, where all the guests had already assembled, and were beginning their dinner, he stopped before a little table piled with boxes of cigars and Egyptian cigarettes, took a large Manila cigar, and tossed three *lire* upon the little table; upon the closed veranda he glanced, in passing,

through the open window: out of the darkness he felt a breath of the balmy air upon him, thought he saw the tip of an ancient palm that had flung wide across the stars its fronds, which seemed gigantic, heard the distant, even noise of the sea floating in to him. . . . In the reading room, snug, quiet, and illuminated only above the tables, some grey-haired German was standing, rustling the newspapers–unkempt, resembling Ibsen, in round silver spectacles and with the astonished eyes of a madman. Having scrutinized him coldly, the gentleman from San Francisco sat down in a deep leather chair in a corner near a green-shaded lamp, put on his *pince-nez,* twitching his head because his collar was choking him, and hid himself completely behind the newspaper sheet. He rapidly ran through the headlines of certain items, read a few lines about the never ceasing Balkan War, with an accustomed gesture turned the newspaper over–when suddenly the lines flared up before him with a glassy glare, his neck became taut, his eyes bulged out, the *pince-nez* flew off his nose. . . . He lunged forward, tried to swallow some air, and gasped wildly; his lower jaw sank, lighting up his entire mouth with the reflection of the gold fillings; his head dropped back on his shoulder and began to sway; the bosom of his shirt bulged out like a basket–and his whole body, squirming, his heels catching the carpet, slid downward to the floor, desperately struggling with someone.

Had the German not been in the reading room, the personnel of the hotel would have managed, quickly and adroitly, to hush up this dreadful occurrence; instantly, through back passages, seizing him by the head and feet, they would have rushed off the gentleman from San Francisco as far away as possible–and never a soul among the guests would have found out what he had been up to. But the German had dashed out of the reading room with a scream–he had aroused the entire house, the entire dining-room. And many jumped up from their meal, overturning their chairs; many, paling, ran toward the reading room. "What–what has happened?" was heard in all languages–and no one gave a sensible answer, no one comprehended anything, since even up to now men are amazed most of all by death, and will not, under any circumstances, believe in it. The proprietor dashed from one guest to another, trying to detain those who were running away and to pacify them with hasty assurances that this was just a trifling occurrence, a slight fainting spell of a certain gentleman from San Francisco. . . . But no one listened to him; many had seen the waiters and bell-boys tearing the neck-tie, the vest, and the rumpled tuxedo off this gentleman, and even, for some reason or other, the dancing slippers off his splayed feet, clad in black silk.

But he was still struggling. He was still obdurately wrestling with death; he absolutely refused to yield to her, who had so unexpectedly and churlishly fallen upon him. His head was swaying, he rattled hoarsely, like one with his throat cut; his eyes had rolled up, like a drunkard's. . . . When he was hurriedly carried in and laid upon a bed in room number forty-three–the smallest, the poorest, the dampest and the coldest, situated at the end of the bottom corridor–his daughter ran in, with her hair down, in a little dressing gown that had flown open, her bosom, raised up by the corset, uncovered; then his wife, big and ponderous, already dressed for dinner, her mouth rounded in terror. . . . But by now he had ceased even to bob his head.

A quarter of an hour later everything in the hotel had assumed some semblance of order. But the evening was irreparably spoiled. Some guests, returning to the dining-room, finished their dinner, but in silence, with aggrieved countenances, while the proprietor would approach now one group, now another, shrugging his shoulders in polite yet impotent irritation, feeling himself guilty without guilt, assuring everybody that he understood very well "how unpleasant all this was," and pledging his word that he would take "all measures within his power" to remove this unpleasantness. It was necessary to call off the *tarantella,* all unnecessary electric lights were switched off, the majority of the guests withdrew into the bar, and it became so quiet that one heard distinctly the ticking of the clock in the vestibule, whose sole occupant was a parrot, dully muttering something, fussing in his cage before going to sleep, contriving to doze off at last with one claw ludicrously stretched up to the upper perch. . . . The gentleman from San Francisco was lying upon a cheap iron bed, under coarse woollen blankets, upon which the dull light of a single bulb beat down from the ceiling. An ice-bag hung down to his moist and cold forehead. The livid face, already dead, was gradually growing cold; the hoarse rattling, expelled from the open mouth, illuminated by the reflection of gold, was growing fainter. This was no longer the gentleman from San Francisco rattling–he no longer existed–but some other. His wife, his daughter, the doctor and the servants were standing, gazing at him dully. Suddenly, that which they awaited and feared was consummated–the rattling ceased abruptly. And slowly, slowly, before the eyes of all, a pallor flowed over the face of the man who had died, and his features seemed to grow finer, to become irradiated, with a beauty which had been rightfully his in the long ago. . . .

The proprietor entered. "*Già è morto* [He's dead now]," said the doctor to him in a whisper. The proprietor, his face dispassionate, shrugged

his shoulders. The wife, down whose cheeks the tears were quietly coursing, walked up to him and timidly said that the deceased ought now to be carried to his own room.

"Oh, no, Madam," hastily, correctly, but now without any amiability and not in English, but in French, retorted the proprietor, who was not at all interested now in such trifling sums as the arrivals from San Francisco might leave in his coffers. "That is absolutely impossible, Madam," said he, and added in explanation that he valued the apartments occupied by them very much; that, were he to carry out her wishes, everybody in Capri would know it and the tourists would shun those apartments.

The young lady, who had been gazing at him strangely, sat down on a chair, and, stuffing her mouth with a handkerchief, burst into sobs. The wife dried her tears immediately, her face flaring up. She adopted a louder tone, making demands in her own language, and still incredulous of the fact that all respect for them had been completely lost. The proprietor, with a polite dignity, cut her short: if madam was not pleased with the customs of the hotel, he would not venture to detain her; and he firmly announced that the body must be gotten away this very day, at dawn, that the police had already been notified, and one of the police officers would be here very soon and would carry out all the necessary formalities. Was it possible to secure even a common coffin in Capri, madam asks? Regrettably, no–it was beyond possibility, and no one would be able to make one in time. It would be necessary to have recourse to something else. . . . For instance, English soda water came in large and long boxes. . . . It was possible to knock the partitions out of such a box. . . .

At night the whole hotel slept. The window in room number forty-three was opened–it gave out upon a corner of the garden where, near a high stone wall with broken glass upon its crest, a phthisic banana-tree was growing; the electric light was switched off; the key was turned in the door, and everybody went away. The dead man remained in the darkness–the blue stars looked down upon him from the sky, a cricket with a pensive insouciance began his song in the wall. . . . In the dimly lit corridor two chambermaids were seated on a window-sill, at some darning. Luigi, in slippers, entered with a pile of clothing in his arms.

"*Pronto?* [All ready?]" he asked solicitously, in a ringing whisper, indicating with his eyes the fearsome door at the end of the corridor. And, he waved his hand airily in that direction. . . . *"Partenza!"* he called out in a whisper, as though he were speeding a train, the usual phrase

used in Italian depots at the departure of trains, and the chambermaids, choking with silent laughter, let their heads sink on each other's shoulder.

Thereupon, hopping softly, he ran up to the very door, gave it the merest tap, and, inclining his head to one side, in a low voice, asked with the utmost deference:

"Ha sonato, Signore?"

And, squeezing his throat, thrusting out his lower jaw, in a grating voice, slowly and sadly, he answered his own question, as though from the other side of the door:

"Yes, come in. . . ."

And at dawn, when it had become light beyond the window of room number forty-three, and a humid wind had begun to rustle the tattered leaves of the banana-tree; when the blue sky of morning had lifted and spread out over the Island of Capri, and the pure and clear-cut summit of Monte Solaro had grown aureate against the sun that was rising beyond the distant blue mountains of Italy; when the stonemasons, who were repairing the tourists' paths on the island, had set out to work—a long box that had formerly been used for soda water was brought to room number forty-three. Soon it became very heavy, and was pressing hard against the knees of the junior porter, who bore it off briskly on a one-horse cab over the white paved highway that was sinuously winding to and fro over the slopes of Capri, among the stone walls and the vineyards, ever downwards, to the very sea. The cabby, a puny little man with reddened eyes, in an old, wretched jacket with short sleeves and in trodden-down shoes, was undergoing the after-effects of drink—he had diced the whole night through in a *trattoria,* and kept on lashing his sturdy little horse, tricked out in the Sicilian fashion, with all sorts of little bells livelily jingling upon the bridle with its tufts of coloured wool, and upon the brass points of its high pad; with a yard-long feather stuck in its cropped forelock, a feather that shook as the horse ran. The cabby kept silent; he was oppressed by his shiftlessness, his vices, by the fact that he had, that night, lost to the last mite all those coppers with which his pockets had been filled. But the morning was fresh; in air such as this, with the sea all around, under the morning sky, the after-effects of drink quickly evaporate, and a man is soon restored to a carefree mood, and the cabby was furthermore consoled by that unexpected sum, the opportunity to earn which had been granted him by some gentleman from San Francisco whose lifeless head was bobbing from side to side in the box at his back. . . . The little steamer—a beetle lying far down below, against the tender and vivid deep-blue with which the Bay of

Naples is so densely and highly flooded–was already blowing its final whistles, which reverberated loudly all over the island, whose every bend, every ridge, every stone was as distinctly visible from every point as if there were absolutely no such thing as atmosphere. Near the wharf the junior porter was joined by the senior, who was speeding with the daughter and wife of the gentleman from San Francisco in his automobile–they were pale, with eyes hollow from tears and a sleepless night. And ten minutes later the little steamer was again chugging through the water, again running toward Sorrento, toward Castellammare, carrying away from Capri, for all time, the family from San Francisco. . . . And again peace and quiet resumed their reign upon the island.

Upon this island, two thousand years ago, had lived a man who had become completely enmeshed in his cruel and foul deeds, who had for some reason seized the power over millions of people in his hands, and who, having himself lost his head at the senselessness of this power and from the fear of death by assassination, lurking in ambush behind every corner, had committed cruelties beyond all measure–and humankind has remembered him for all time; and those who, in their collusion, just as incomprehensively and, in substance, just as cruelly as he, reign at present in power over this world gather from all over the earth to gaze upon the ruins of that stone villa where he had dwelt on one of the steepest ascents of the island. On this splendid morning all those who had come to Capri for just this purpose were still sleeping in the hotels, although, toward their entrances, were already being led little mouse-grey burros with red saddles, upon which, after awaking and sating themselves with food, Americans and Germans, men and women, young and old, would again clamber up ponderously this day, and after whom would again run the old Caprian beggar women, with sticks in their gnarled hands–would run over stony paths, and always uphill, up to the very summit of Mount Tiberio. Set at rest by the fact that the dead old man from San Francisco, who had likewise been planning to go with them but instead of that had only frightened them with a *memento mori,* had already been shipped off to Naples, the travellers slept on heavily, and the quiet of the island was still undisturbed, the shops in the city were still shut. The market-place on the *piazzetta* alone was carrying on traffic–in fish and greens; and the people there were all simple folk, among whom, without anything to do, as always, was standing Lorenzo the boatman, famous all over Italy, a tall old man, a carefree rake and a handsome fellow, who had served more than once as a model to many artists; he had brought, and had already sold for a song, two lobsters that

he had caught that night and which were already rustling in the apron of the cook of that very hotel where the family from San Francisco had passed the night, and now he could afford to stand in calm idleness even until the evening, looking about him with a kingly bearing (a little trick of his), consciously picturesque with his tatters, clay pipe, and a red woollen *berretta* drooping over one ear.

And, along the precipices of Monte Solaro, upon the ancient Phoenician road, hewn out of the crags, down its stone steps, two mountaineers of Abruzzi were descending from Anacapri. One had bagpipes under his leathern mantle, a large bag made from the skin of a she-goat, with two pipes; the other had something in the nature of wooden Pan's-reeds. They went on, and all the land, joyous, splendid, sun-flooded, spread out below them: the stony humps of the island, which was lying almost in its entirety at their feet; and that fairy-like deep-blue in which it was a-swim; and the radiant morning vapours over the sea, toward the east, under the blinding sun, which was now beating down hotly, rising ever higher and higher; and, still in their morning vagueness, the mistily azure massive outlines of Italy, of her mountains near and far, whose beauty human speech is impotent to express. . . . Half-way down the pipers slackened their pace: over the path, within a grotto in the craggy side of Monte Solaro, all illumed by the sun, all bathed in its warmth and glow, in snowy-white raiment of gypsum, and in a royal crown, golden-rusty from inclement weathers, stood the Mother of God, meek and gracious, her orbs lifted up to heaven, to the eternal and happy abodes of Her thrice-blessed Son. The pipers bared their heads, put their reeds to their lips, and there poured forth their naïve and humbly jubilant praises to the sun, to the morning, to Her, the Immaculate Intercessor for all those who suffer in this evil and beautiful world, and to Him Who had been born of Her womb in a cavern at Bethlehem, in a poor shepherd's shelter in the distant land of Judaea. . . .

Meanwhile, the body of the dead old man from San Francisco was returning to its home, to a grave on the shores of the New World. Having gone through many humiliations, through much human neglect, having wandered for a week from one port warehouse to another, it had finally gotten once more on board that same famous ship upon which but so recently, with so much deference, he had been borne to the Old World. But now he was already being concealed from the quick–he was lowered in his tarred coffin deep into the black hold. And once more the ship was sailing on and on upon its long sea voyage. In the night-time it sailed past the Island of Capri, and, to one watching them from the is-

land, there was something sad about the ship's lights, slowly disappearing over the dark sea. But, upon the ship itself, in its brilliant *salons* resplendent with lustres and marbles, there was a crowded ball that night, as usual.

There was a ball on the second night also, and on the third—again in the midst of a raging snow storm, whirling over an ocean booming like a funeral mass, and heaving in mountains trapped out in mourning by the silver spindrift. The innumerable fiery eyes of the ship that was retreating into the night and the snow-gale were barely visible for the snow to the Devil watching from the crags of Gibraltar, from the stony gateway of two worlds. The Devil was as enormous as a cliff, but the ship was still more enormous than he; many-tiered, many-funnelled, created by the pride of the New Man with an ancient heart. The snow-gale smote upon its rigging and wide-throated funnels, hoary from the snow, but the ship was steadfast, firm, majestic—and awesome. Upon its topmost deck were reared, in their solitude among the snowy whirlwinds, those snug, dimly lit chambers where, plunged in a light and uneasy slumber, was its ponderous guide who resembled a heathen idol, reigning over the entire ship. He heard the pained howlings and the ferocious squealings of the storm-stifled siren, but soothed himself by the proximity of that which, in the final summing up, was incomprehensible even to himself, that which was on the other side of his wall: that large cabin, which had the appearance of being armoured, and was being constantly filled by the mysterious rumbling, quivering, and crisp sputtering of blue flames, flaring up and exploding around the pale-faced operator with a metal half-hoop upon his head. In the very depths, in the underwater womb of the *Atlantida,* were the thirty-thousand-pound masses of boilers and of all sorts of other machinery—dully glittering with steel, hissing out steam and exuding oil and boiling water—of that kitchen, made red-hot from infernal furnaces underneath, wherein was brewing the motion of the ship. Forces, fearful in their concentration, were bubbling, were being transmitted to its very keel, into an endlessly long catacomb, into a tunnel, illuminated by electricity, wherein slowly, with an inexorability that was crushing to the human soul, was revolving within its oily couch the gigantean shaft, exactly like a living monster that had stretched itself out in this tunnel. Meanwhile, amidship the *Atlantida,* its warm and luxurious cabins, its dining-halls and ball-rooms poured forth radiance and joyousness, were humming with the voices of a well-dressed gathering, were sweetly odorous with fresh flowers, and the strains of the stringed orchestra were their song. And again excruciatingly writhed and at inter-

vals came together among this throng, among this glitter of lights, silks, diamonds and bared feminine shoulders, the supple pair of hired lovers: the sinfully modest, very pretty young woman, with eye-lashes cast down, with a chaste coiffure, and the well-built young man, with black hair that seemed to be pasted on, with his face pale from powder, shod in the most elegant of patent-leather foot-gear, clad in a tight-fitting dresscoat with long tails—an Adonis who resembled a huge leech. And none knew that, already for a long time, this pair had grown wearied of languishing dissemblingly in their blissful torment to the sounds of the shamelessly sad music, nor that far, far below, at the bottom of the black hold, stood a tarred coffin, in close proximity to the sombre and sultry depths of the ship that was toilsomely overpowering the darkness, the ocean, the snow storm. . . .

Translated by Bernard Guilbert Guerney.

Nathaniel Hawthorne

1804–1864

Nathaniel Hawthorne (he added a *w* to the family name of Hathorne) was born in Salem, Massachusetts, on July 4, 1804. His father was a shipmaster, and one of his ancestors had been a judge in the Salem witch trials. Young Hawthorne was graduated from Bowdoin College in 1825. He went back to Salem to learn how to write. Two years later he paid for the printing of his first novel, *Fanshawe*, but burned all the copies he could find.

His stories began to appear in many periodicals. In 1837 he published a first edition of *Twice-Told Tales* and enlarged it in 1842. He worked in the Boston Customhouse. For about six months in 1841, he was a founding member of Brook Farm, a Utopian community near Boston. Out of this experience came a novel, *The Blithedale Romance*, written eleven years later. In 1842 Hawthorne married Sophia Peabody of Salem. They settled in the Old Manse in Concord, where Emerson and Thoreau often came to visit.

Their life in the gray seventeenth-century house was commemorated in an essay, *The Old Manse*, and in *Mosses from an Old Manse*, a collection of stories published in 1846. In 1845, when he could not pay the rent, Hawthorne moved to his mother's house in Salem. The following year he was given a political appointment in

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Notes from the artist: ". . . *Hawthorne at age thirty-six, before he grew his mustache. The basic construction is derived from the letter* A, *the 'scarlet' letter . . . at the top, on the pillory scaffold, is Hester Prynne of* The Scarlet Letter."

With Hawthorne

the Salem Customhouse. Three years later he was dropped when the Whigs returned to power.

At first he tried to fight his dismissal. Then, in grim anger, he sat down to write his best-known work, *The Scarlet Letter*, which appeared in 1850. At long last he was famous. In the following year he produced *The House of the Seven Gables* and *The Snow-Image and Other Twice-Told Tales;* in 1852 *The Blithedale Romance*, *A Wonder-Book for Boys and Girls*, and a campaign biography of Franklin Pierce, his schoolmate at Bowdoin. In 1853 came *Tangle-wood Tales for Girls and Boys.*

During this period he lived for a while at Lenox in western Massachusetts. In nearby Pittsfield, Herman Melville was writing *Moby Dick.* They became mutually admiring friends. Hawthorne bought "The Wayside" house at Concord in 1852. The following year President Pierce appointed him American consul at Liverpool. He served four years there, spent most of 1858 to 1859 in Rome and Florence, and returned to England to write *The Marble Faun.*

Back in Concord by the middle of 1860, his health "rapidly and mysteriously" worsened. In 1862 he visited the Civil War battlefields and wrote an article that contains a striking picture of Lincoln.[1] On a trip with ex-President Pierce, he died at Plymouth, New Hampshire, on May 19, 1864.

Hawthorne, as Newton Arvin writes, felt "a cloudy and obfuscating sense of guilt at the heart of all human relations. . . ." It is perhaps the most profound thing that can be said about him, as man or writer. The testimony comes to us in a hundred voices. Henry James, Sr. said that Hawthorne had "the look all the time . . . of a rogue who suddenly finds himself in a company of detectives." Hawthorne himself was well aware of this quality. He once remarked, putting it lightly, that he was a "lover of the moral picturesque."

How can we help but find him one of the most puzzling of nineteenth-century writers? We hardly need to be told that *Pilgrim's Progress* was a favorite of his. In certain ways he seems more a man of Bunyan's century than of Balzac's. Few of his stories remain plausible under any sort of hard scrutiny. They are "romance" and claim the privileges of romance. But they are *moral* "romance." Like

[1] See Vol. 6, pp. 168–171, in this set.

an eighteenth-century writer, he states or implies a moral judgment on each of his characters. Who could guess that he was Flaubert's contemporary? And even on his home ground, New England history, we get the sense that he is often uninformed, confused, or prejudiced.

Why then do we read him? Because he is a powerful writer who can build a story stone by stone to its full height. Because he was perhaps the greatest historian of the Puritan conscience in America. He knew it in its darkest depth, in its involvement with every other human feeling. He came to it at that point in time when it was most in conflict with itself, when it was reaching out toward a larger and more humane life. He endured that conflict in himself and wrote it out of himself. In him, as in Melville, the sense of sin and guilt was still powerful. Like Melville, he said no to American free will, to Emerson's optimism and his call to the self.

Rappaccini's Daughter, like *The Marble Faun*, may be said to have come out of his two-year sojourn in Italy. But in it the "sunny Italy" of the ballads turns "desolate" and "gloomy." Perhaps it resembles the real Italy as little as the setting of some of his other tales resembles the New England of his own time. We cannot help but feel that all his stories take place in the Country of Hawthorne, an allegorical region as unmapped as Erewhon or Bluebeard's domain. Through it runs the dark River of Predestination, and the Mountains of Evil are never far off.

As we read *Rappaccini's Daughter,* we catch ourselves asking questions. How does Giovanni, alone among unpoisonous things, escape death in Rappaccini's garden? Why is the innocent and vital Beatrice made the carrier of evil and guilt? Is this meant to suggest the old Christian association between woman and sexual "evil"? Why are we—and Giovanni—not warned that Dr. Baglioni's antidote may not have the effect he intended? But we concede the author's freedom in his fable and pass on to the allegory. It stands out bold and plain: the scientist who puts himself beyond good and evil may also put himself outside the human community and work great evil in his pride of power.

Rappaccini's Daughter

young man, named Giovanni Guasconti, came, very long ago, from the more southern region of Italy to pursue his studies at the University of Padua. Giovanni, who had but a scanty supply of gold ducats in his pocket, took lodgings in a high and gloomy chamber of an old edifice which looked not unworthy to have been the palace of a Paduan noble, and which, in fact, exhibited over its entrance the armorial bearings of a family long since extinct. The young stranger, who was not unstudied in the great poem of his country, recollected that one of the ancestors of this family, and perhaps an occupant of this very mansion, had been pictured by Dante as a partaker of the immortal agonies of his Inferno. These reminiscences and associations, together with the tendency to heartbreak natural to a young man for the first time out of his native sphere, caused Giovanni to sigh heavily as he looked around the desolate and ill-furnished apartment.

"Holy Virgin, signor!" cried old Dame Lisabetta, who, won by the youth's remarkable beauty of person, was kindly endeavoring to give the chamber a habitable air, "what a sigh was that to come out of a young man's heart! Do you find this old mansion gloomy? For the love of Heaven, then, put your head out of the window, and you will see as bright sunshine as you have left in Naples."

Guasconti mechanically did as the old woman advised, but could not quite agree with her that the Paduan sunshine was as cheerful as that of southern Italy. Such as it was, however, it fell upon a garden beneath the window and expended its fostering influences on a variety of plants, which seemed to have been cultivated with exceeding care.

"Does this garden belong to the house?" asked Giovanni.

"Heaven forbid, signor, unless it were fruitful of better pot herbs than

any that grow there now," answered old Lisabetta. "No; that garden is cultivated by the own hands of Signor Giacomo Rappaccini, the famous doctor, who, I warrant him, has been heard of as far as Naples. It is said that he distills these plants into medicines that are as potent as a charm. Oftentimes you may see the signor doctor at work, and perchance the signora, his daughter, too, gathering the strange flowers that grow in the garden."

The old woman had now done what she could for the aspect of the chamber; and, commending the young man to the protection of the saints, took her departure.

Giovanni still found no better occupation than to look down into the garden beneath his window. From its appearance, he judged it to be one of those botanic gardens which were of earlier date in Padua than elsewhere in Italy or in the world. Or, not improbably, it might once have been the pleasure place of an opulent family; for there was the ruin of a marble fountain in the center, sculptured with rare art, but so woefully shattered that it was impossible to trace the original design from the chaos of remaining fragments. The water, however, continued to gush and sparkle into the sunbeams as cheerfully as ever. A little gurgling sound ascended to the young man's window, and made him feel as if the fountain were an immortal spirit that sung its song unceasingly and without heeding the vicissitudes around it, while one century embodied it in marble and another scattered the perishable garniture on the soil. All about the pool into which the water subsided grew various plants that seemed to require a plentiful supply of moisture for the nourishment of gigantic leaves, and, in some instances, flowers gorgeously magnificent. There was one shrub in particular, set in a marble vase in the midst of the pool, that bore a profusion of purple blossoms, each of which had the luster and richness of a gem; and the whole together made a show so resplendent that it seemed enough to illuminate the garden, even had there been no sunshine. Every portion of the soil was peopled with plants and herbs, which, if less beautiful, still bore tokens of assiduous care, as if all had their individual virtues, known to the scientific mind that fostered them. Some were placed in urns, rich with old carving, and others in common garden pots; some crept serpentlike along the ground or climbed on high, using whatever means of ascent was offered them. One plant had wreathed itself round a statue of Vertumnus, which was thus quite veiled and shrouded in a drapery of hanging foliage, so happily arranged that it might have served a sculptor for a study.

While Giovanni stood at the window he heard a rustling behind a

screen of leaves, and became aware that a person was at work in the garden. His figure soon emerged into view, and showed itself to be that of no common laborer, but a tall, emaciated, sallow, and sickly looking man, dressed in a scholar's garb of black. He was beyond the middle term of life, with gray hair, a thin, gray beard, and a face singularly marked with intellect and cultivation, but which could never, even in his more youthful days, have expressed much warmth of heart.

Nothing could exceed the intentness with which this scientific gardener examined every shrub which grew in his path: it seemed as if he was looking into their inmost nature, making observations in regard to their creative essence, and discovering why one leaf grew in this shape and another in that, and wherefore such and such flowers differed among themselves in hue and perfume. Nevertheless, in spite of this deep intelligence on his part, there was no approach to intimacy between himself and these vegetable existences. On the contrary, he avoided their actual touch or the direct inhaling of their odors with a caution that impressed Giovanni most disagreeably; for the man's demeanor was that of one walking among malignant influences, such as savage beasts, or deadly snakes, or evil spirits, which, should he allow them one moment of license, would wreak upon him some terrible fatality. It was strangely frightful to the young man's imagination to see this air of insecurity in a person cultivating a garden, that most simple and innocent of human toils, and which had been alike the joy and labor of the unfallen parents of the race. Was this garden, then, the Eden of the present world? And this man, with such a perception of harm in what his own hands caused to grow—was he the Adam?

The distrustful gardener, while plucking away the dead leaves or pruning the too luxuriant growth of the shrubs, defended his hands with a pair of thick gloves. Nor were these his only armor. When, in his walk through the garden, he came to the magnificent plant that hung its purple gems beside the marble fountain, he placed a kind of mask over his mouth and nostrils, as if all this beauty did but conceal a deadlier malice; but, finding his task still too dangerous, he drew back, removed the mask, and called loudly, but in the infirm voice of a person affected with inward disease, "Beatrice! Beatrice!"

"Here am I, my father. What would you?" cried a rich and youthful voice from the window of the opposite house—a voice as rich as a tropical sunset, and which made Giovanni, though he knew not why, think of deep hues of purple or crimson and of perfumes heavily delectable. "Are you in the garden?"

"Yes, Beatrice," answered the gardener, "and I need your help."

Soon there emerged from under a sculptured portal the figure of a young girl, arrayed with as much richness of taste as the most splendid of the flowers, beautiful as the day, and with a bloom so deep and vivid that one shade more would have been too much. She looked redundant with life, health, and energy; all of which attributes were bound down and compressed, as it were, and girdled tensely, in their luxuriance, by her virgin zone. Yet Giovanni's fancy must have grown morbid while he looked down into the garden; for the impression which the fair stranger made upon him was as if here were another flower, the human sister of those vegetable ones, as beautiful as they, more beautiful than the richest of them, but still to be touched only with a glove, nor to be approached without a mask. As Beatrice came down the garden path, it was observable that she handled and inhaled the odor of several of the plants which her father had most sedulously avoided.

"Here, Beatrice," said the latter, "see how many needful offices require to be done to our chief treasure. Yet, shattered as I am, my life might pay the penalty of approaching it so closely as circumstances demand. Henceforth, I fear, this plant must be consigned to your sole charge."

"And gladly will I undertake it," cried again the rich tones of the young lady, as she bent towards the magnificent plant and opened her arms as if to embrace it. "Yes, my sister, my splendor, it shall be Beatrice's task to nurse and serve thee; and thou shalt reward her with thy kisses and perfumed breath, which to her is as the breath of life."

Then, with all the tenderness in her manner that was so strikingly expressed in her words, she busied herself with such attentions as the plant seemed to require; and Giovanni, at his lofty window, rubbed his eyes and almost doubted whether it were a girl tending her favorite flower, or one sister performing the duties of affection to another. The scene soon terminated. Whether Dr. Rappaccini had finished his labors in the garden, or that his watchful eye had caught the stranger's face, he now took his daughter's arm and retired. Night was already closing in; oppressive exhalations seemed to proceed from the plants and steal upward past the open window; and Giovanni, closing the lattice, went to his couch and dreamed of a rich flower and beautiful girl. Flower and maiden were different, and yet the same, and fraught with some strange peril in either shape.

But there is an influence in the light of morning that tends to rectify whatever errors of fancy, or even of judgment, we may have incurred during the sun's decline, or among the shadows of the night, or in the less

wholesome glow of moonshine. Giovanni's first movement, on starting from sleep, was to throw open the window and gaze down into the garden which his dreams had made so fertile of mysteries. He was surprised and a little ashamed to find how real and matter-of-fact an affair it proved to be, in the first rays of the sun which gilded the dewdrops that hung upon leaf and blossom, and, while giving a brighter beauty to each rare flower, brought everything within the limits of ordinary experience. The young man rejoiced that, in the heart of the barren city, he had the privilege of overlooking this spot of lovely and luxuriant vegetation. It would serve, he said to himself, as a symbolic language to keep him in communion with Nature. Neither the sickly and thought-worn Dr. Giacomo Rappaccini, it is true, nor his brilliant daughter, were now visible; so that Giovanni could not determine how much of the singularity which he attributed to both was due to their own qualities and how much to his wonder-working fancy; but he was inclined to take a most rational view of the whole matter. In the course of the day he paid his respects to Signor Pietro Baglioni, professor of medicine in the university, a physician of eminent repute, to whom Giovanni had brought a letter of introduction. The professor was an elderly personage, apparently of genial nature, and habits that might almost be called jovial. He kept the young man to dinner, and made himself very agreeable by the freedom and liveliness of his conversation, especially when warmed by a flask or two of Tuscan wine. Giovanni, conceiving that men of science, inhabitants of the same city, must needs be on familiar terms with one another, took an opportunity to mention the name of Dr. Rappaccini. But the professor did not respond with so much cordiality as he had anticipated.

"Ill would it become a teacher of the divine art of medicine," said Professor Pietro Baglioni, in answer to a question of Giovanni, "to withhold due and well-considered praise of a physician so eminently skilled as Rappaccini; but, on the other hand, I should answer it but scantily to my conscience were I to permit a worthy youth like yourself, Signor Giovanni, the son of an ancient friend, to imbibe erroneous ideas respecting a man who might hereafter chance to hold your life and death in his hands. The truth is, our worshipful Dr. Rappaccini has as much science as any member of the faculty—with perhaps one single exception—in Padua, or all Italy; but there are certain grave objections to his professional character."

"And what are they?" asked the young man.

"Has my friend Giovanni any disease of body or heart, that he is so inquisitive about physicians?" said the professor, with a smile. "But as for

Rappaccini, it is said of him—and I, who know the man well, can answer for its truth—that he cares infinitely more for science than for mankind. His patients are interesting to him only as subjects for some new experiment. He would sacrifice human life, his own among the rest, or whatever else was dearest to him, for the sake of adding so much as a grain of mustard seed to the great heap of his accumulated knowledge."

"Methinks he is an awful man indeed," remarked Guasconti, mentally recalling the cold and purely intellectual aspect of Rappaccini. "And yet, worshipful professor, is it not a noble spirit? Are there many men capable of so spiritual a love of science?"

"God forbid," answered the professor, somewhat testily; "at least, unless they take sounder views of the healing art than those adopted by Rappaccini. It is his theory that all medicinal virtues are comprised within those substances which we term vegetable poisons. These he cultivates with his own hands, and is said even to have produced new varieties of poison, more horribly deleterious than Nature, without the assistance of this learned person, would ever have plagued the world withal. That the signor doctor does less mischief than might be expected with such dangerous substances is undeniable. Now and then, it must be owned, he has effected, or seemed to effect, a marvellous cure; but, to tell you my private mind, Signor Giovanni, he should receive little credit for such instances of success—they being probably the work of chance—but should be held strictly accountable for his failures, which may justly be considered his own work."

The youth might have taken Baglioni's opinions with many grains of allowance had he known that there was a professional warfare of long continuance between him and Dr. Rappaccini, in which the latter was generally thought to have gained the advantage. If the reader be inclined to judge for himself, we refer him to certain black-letter tracts on both sides, preserved in the medical department of the University of Padua.

"I know not, most learned professor," returned Giovanni, after musing on what had been said of Rappaccini's exclusive zeal for science. "I know not how dearly this physician may love his art; but surely there is one object more dear to him. He has a daughter."

"Aha!" cried the professor, with a laugh. "So now our friend Giovanni's secret is out. You have heard of this daughter, whom all the young men in Padua are wild about, though not half a dozen have ever had the good hap to see her face. I know little of the Signora Beatrice save that Rappaccini is said to have instructed her deeply in his science, and that, young and beautiful as fame reports her, she is already qualified to fill a

professor's chair. Perchance her father destines her for mine! Other absurd rumors there be, not worth talking about or listening to. So now, Signor Giovanni, drink off your glass of lachryma."

Guasconti returned to his lodgings somewhat heated with the wine he had quaffed, and which caused his brain to swim with strange fantasies in reference to Dr. Rappaccini and the beautiful Beatrice. On his way, happening to pass by a florist's, he bought a fresh bouquet of flowers.

Ascending to his chamber, he seated himself near the window, but within the shadow thrown by the depth of the wall, so that he could look down into the garden with little risk of being discovered. All beneath his eye was a solitude. The strange plants were basking in the sunshine, and now and then nodding gently to one another, as if in acknowledgment of sympathy and kindred. In the midst, by the shattered fountain, grew the magnificent shrub, with its purple gems clustering all over it; they glowed in the air, and gleamed back again out of the depths of the pool, which thus seemed to overflow with colored radiance from the rich reflection that was steeped in it. At first, as we have said, the garden was a solitude. Soon, however—as Giovanni had half hoped, half feared, would be the case—a figure appeared beneath the antique sculptured portal, and came down between the rows of plants, inhaling their various perfumes as if she were one of those beings of old classic fable that lived upon sweet odors. On again beholding Beatrice, the young man was even startled to perceive how much her beauty exceeded his recollection of it; so brilliant, so vivid, was its character, that she glowed amid the sunlight, and, as Giovanni whispered to himself, positively illuminated the more shadowy intervals of the garden path. Her face being now more revealed than on the former occasion, he was struck by its expression of simplicity and sweetness—qualities that had not entered into his idea of her character, and which made him ask anew what manner of mortal she might be. Nor did he fail again to observe, or imagine, an analogy between the beautiful girl and the gorgeous shrub that hung its gemlike flowers over the fountain—a resemblance which Beatrice seemed to have indulged a fantastic humor in heightening, both by the arrangement of her dress and the selection of its hues.

Approaching the shrub, she threw open her arms, as with a passionate ardor, and drew its branches into an intimate embrace—so intimate that her features were hidden in its leafy bosom and her glistening ringlets all intermingled with the flowers.

"Give me thy breath, my sister," exclaimed Beatrice; "for I am faint with

common air. And give me this flower of thine, which I separate with gentlest fingers from the stem and place it close beside my heart."

With these words the beautiful daughter of Rappaccini plucked one of the richest blossoms of the shrub, and was about to fasten it in her bosom. But now, unless Giovanni's draughts of wine had bewildered his senses, a singular incident occurred. A small orange-colored reptile, of the lizard or chameleon species, chanced to be creeping along the path, just at the feet of Beatrice. It appeared to Giovanni—but, at the distance from which he gazed, he could scarcely have seen anything so minute—it appeared to him, however, that a drop or two of moisture from the broken stem of the flower descended upon the lizard's head. For an instant the reptile contorted itself violently, and then lay motionless in the sunshine. Beatrice observed this remarkable phenomenon, and crossed herself, sadly, but without surprise; nor did she therefore hesitate to arrange the fatal flower in her bosom. There it blushed, and almost glimmered with the dazzling effect of a precious stone, adding to her dress and aspect the one appropriate charm which nothing else in the world could have supplied. But Giovanni, out of the shadow of his window, bent forward and shrank back, and murmured and trembled.

"Am I awake? Have I my senses?" said he to himself. "What is this being? Beautiful shall I call her, or inexpressibly terrible?"

Beatrice now strayed carelessly through the garden, approaching closer beneath Giovanni's window, so that he was compelled to thrust his head quite out of its concealment in order to gratify the intense and painful curiosity which she excited. At this moment there came a beautiful insect over the garden wall; it had, perhaps, wandered through the city, and found no flowers or verdure among those antique haunts of men until the heavy perfumes of Dr. Rappaccini's shrubs had lured it from afar. Without alighting on the flowers, this winged brightness seemed to be attracted by Beatrice, and lingered in the air and fluttered about her head. Now, here it could not be but that Giovanni Guasconti's eyes deceived him. Be that as it might, he fancied that, while Beatrice was gazing at the insect with childish delight, it grew faint and fell at her feet; its bright wings shivered; it was dead—from no cause that he could discern, unless it were the atmosphere of her breath. Again Beatrice crossed herself and sighed heavily as she bent over the dead insect.

An impulsive movement of Giovanni drew her eyes to the window. There she beheld the beautiful head of the young man—rather a Grecian than an Italian head, with fair, regular features, and a glistening of gold

among his ringlets—gazing down upon her like a being that hovered in mid air. Scarcely knowing what he did, Giovanni threw down the bouquet which he had hitherto held in his hand.

"Signora," said he, "there are pure and healthful flowers. Wear them for the sake of Giovanni Guasconti."

"Thanks, signor," replied Beatrice, with her rich voice, that came forth as it were like a gush of music, and with a mirthful expression half childish and half womanlike. "I accept your gift, and would fain recompense it with this precious purple flower; but if I toss it into the air it will not reach you. So Signor Guasconti must even content himself with my thanks."

She lifted the bouquet from the ground, and then, as if inwardly ashamed at having stepped aside from her maidenly reserve to respond to a stranger's greeting, passed swiftly homeward through the garden. But few as the moments were, it seemed to Giovanni, when she was on the point of vanishing beneath the sculptured portal, that his beautiful bouquet was already beginning to wither in her grasp. It was an idle thought; there could be no possibility of distinguishing a faded flower from a fresh one at so great a distance.

For many days after this incident the young man avoided the window that looked into Dr. Rappaccini's garden, as if something ugly and monstrous would have blasted his eyesight had he been betrayed into a glance. He felt conscious of having put himself, to a certain extent, within the influence of an unintelligible power by the communication which he had opened with Beatrice. The wisest course would have been, if his heart were in any real danger, to quit his lodgings and Padua itself at once; the next wiser, to have accustomed himself, as far as possible, to the familiar and daylight view of Beatrice—thus bringing her rigidly and systematically within the limits of ordinary experience. Least of all, while avoiding her sight, ought Giovanni to have remained so near this extraordinary being that the proximity and possibility even of intercourse should give a kind of substance and reality to the wild vagaries which his imagination ran riot continually in producing. Guasconti had not a deep heart—or, at all events, its depths were not sounded now; but he had a quick fancy, and an ardent southern temperament, which rose every instant to a higher fever pitch. Whether or no Beatrice possessed those terrible attributes, that fatal breath, the affinity with those so beautiful and deadly flowers which were indicated by what Giovanni had witnessed, she had at least instilled a fierce and subtle poison into his system. It

was not love, although her rich beauty was a madness to him; nor horror, even while he fancied her spirit to be imbued with the same baneful essence that seemed to pervade her physical frame; but a wild offspring of both love and horror that had each parent in it, and burned like one and shivered like the other. Giovanni knew not what to dread; still less did he know what to hope; yet hope and dread kept a continual warfare in his breast, alternately vanquishing one another and starting up afresh to renew the contest. Blessed are all simple emotions, be they dark or bright! It is the lurid inter-mixture of the two that produces the illuminating blaze of the infernal regions

Sometimes he endeavored to assuage the fever of his spirit by a rapid walk through the streets of Padua or beyond its gates: his footsteps kept time with the throbbings of his brain, so that the walk was apt to accelerate itself to a race. One day he found himself arrested; his arm was seized by a portly personage, who had turned back on recognizing the young man and expended much breath in overtaking him.

"Signor Giovanni! Stay, my young friend!" cried he. "Have you forgotten me? That might well be the case if I were as much altered as yourself."

It was Baglioni, whom Giovanni had avoided ever since their first meeting, from a doubt that the professor's sagacity would look too deeply into his secrets. Endeavoring to recover himself, he stared forth wildly from his inner world into the outer one and spoke like a man in a dream.

"Yes; I am Giovanni Guasconti. You are Professor Pietro Baglioni. Now let me pass!"

"Not yet, not yet, Signor Giovanni Guasconti," said the professor, smiling, but at the same time scrutinizing the youth with an earnest glance. "What! did I grow up side by side with your father? and shall his son pass me like a stranger in these old streets of Padua? Stand still, Signor Giovanni; for we must have a word or two before we part."

"Speedily, then, most worshipful professor, speedily," said Giovanni, with feverish impatience. "Does not your worship see that I am in haste?"

Now, while he was speaking there came a man in black along the street, stooping and moving feebly like a person in inferior health. His face was all overspread with a most sickly and sallow hue, but yet so pervaded with an expression of piercing and active intellect that an observer might easily have overlooked the merely physical attributes and have seen only this wonderful energy. As he passed, this person exchanged a cold and distant salutation with Baglioni, but fixed his eyes upon Giovanni with an

intentness that seemed to bring out whatever was within him worthy of notice. Nevertheless, there was a peculiar quietness in the look, as if taking merely a speculative, not a human, interest in the young man.

"It is Dr. Rappaccini!" whispered the professor when the stranger had passed. "Has he ever seen your face before?"

"Not that I know," answered Giovanni, starting at the name.

"He *has* seen you! he must have seen you!" said Baglioni, hastily. "For some purpose or other, this man of science is making a study of you. I know that look of his! It is the same that coldly illuminates his face as he bends over a bird, a mouse, or a butterfly, which, in pursuance of some experiment, he has killed by the perfume of a flower; a look as deep as Nature itself, but without Nature's warmth of love. Signor Giovanni, I will stake my life upon it, you are the subject of one of Rappaccini's experiments!"

"Will you make a fool of me?" cried Giovanni, passionately. "*That,* signor professor, were an untoward experiment."

"Patience! patience!" replied the imperturbable professor. "I tell thee, my poor Giovanni, that Rappaccini has a scientific interest in thee. Thou hast fallen into fearful hands! And the Signora Beatrice—what part does she act in this mystery?"

But Guasconti, finding Baglioni's pertinacity intolerable, here broke away, and was gone before the professor could again seize his arm. He looked after the young man intently and shook his head.

"This must not be," said Baglioni to himself. "The youth is the son of my old friend, and shall not come to any harm from which the arcana of medical science can preserve him. Besides, it is too insufferable an impertinence in Rappaccini, thus to snatch the lad out of my own hands, as I may say, and make use of him for his infernal experiments. This daughter of his! It shall be looked to. Perchance, most learned Rappaccini, I may foil you where you little dream of it!"

Meanwhile Giovanni had pursued a circuitous route, and at length found himself at the door of his lodgings. As he crossed the threshold he was met by old Lisabetta, who smirked and smiled, and was evidently desirous to attract his attention; vainly, however, as the ebullition of his feelings had momentarily subsided into a cold and dull vacuity. He turned his eyes full upon the withered face that was puckering itself into a smile, but seemed to behold it not. The old dame, therefore, laid her grasp upon his cloak.

"Signor! signor!" whispered she, still with a smile over the whole breadth of her visage, so that it looked not unlike a grotesque carving in

wood, darkened by centuries. "Listen, signor! There is a private entrance into the garden!"

"What do you say?" exclaimed Giovanni, turning quickly about, as if an inanimate thing should start into feverish life. "A private entrance into Dr. Rappaccini's garden?"

"Hush! hush! not so loud!" whispered Lisabetta, putting her hand over his mouth. "Yes; into the worshipful doctor's garden, where you may see all his fine shrubbery. Many a young man in Padua would give gold to be admitted among those flowers."

Giovanni put a piece of gold into her hand.

"Show me the way," said he.

A surmise, probably excited by his conversation with Baglioni, crossed his mind, that this interposition of old Lisabetta might perchance be connected with the intrigue, whatever were its nature, in which the professor seemed to suppose that Dr. Rappaccini was involving him. But such a suspicion, though it disturbed Giovanni, was inadequate to restrain him. The instant that he was aware of the possibility of approaching Beatrice, it seemed an absolute necessity of his existence to do so. It mattered not whether she were angel or demon; he was irrevocably within her sphere, and must obey the law that whirled him onward, in ever-lessening circles, toward a result which he did not attempt to foreshadow; and yet, strange to say, there came across him a sudden doubt whether this intense interest on his part were not delusory; whether it were really of so deep and positive a nature as to justify him in now thrusting himself into an incalculable position; whether it were not merely the fantasy of a young man's brain, only slightly or not at all connected with his heart.

He paused, hesitated, turned half about, but again went on. His withered guide led him along several obscure passages, and finally undid a door, through which, as it was opened, there came the sight and sound of rustling leaves, with the broken sunshine glimmering among them. Giovanni stepped forth, and, forcing himself through the entanglement of a shrub that wreathed its tendrils over the hidden entrance, stood beneath his own window in the open area of Dr. Rappaccini's garden.

How often is it the case that, when impossibilities have come to pass and dreams have condensed their misty substance into tangible realities, we find ourselves calm, and even coldly self-possessed, amid circumstances which it would have been a delirium of joy or agony to anticipate! Fate delights to thwart us thus. Passion will choose his own time to rush upon the scene, and lingers sluggishly behind when an appropriate

adjustment of events would seem to summon his appearance. So was it now with Giovanni. Day after day his pulses had throbbed with feverish blood at the improbable idea of an interview with Beatrice, and of standing with her, face to face, in this very garden, basking in the Oriental sunshine of her beauty, and snatching from her full gaze the mystery which he deemed the riddle of his own existence. But now there was a singular and untimely equanimity within his breast. He threw a glance around the garden to discover if Beatrice or her father were present, and, perceiving that he was alone, began a critical observation of the plants.

The aspect of one and all of them dissatisfied him; their gorgeousness seemed fierce, passionate, and even unnatural. There was hardly an individual shrub which a wanderer, straying by himself through a forest, would not have been startled to find growing wild, as if an unearthly face had glared at him out of the thicket. Several also would have shocked a delicate instinct by an appearance of artificialness indicating that there had been such commixture, and, as it were, adultery, of various vegetable species, that the production was no longer of God's making, but the monstrous offspring of man's depraved fancy, glowing with only an evil mockery of beauty. They were probably the result of experiment, which in one or two cases had succeeded in mingling plants individually lovely into a compound possessing the questionable and ominous character that distinguished the whole growth of the garden. In fine, Giovanni recognized but two or three plants in the collection, and those of a kind that he well knew to be poisonous. While busy with these contemplations he heard the rustling of a silken garment, and, turning, beheld Beatrice emerging from beneath the sculptured portal.

Giovanni had not considered with himself what should be his deportment; whether he should apologize for his intrusion into the garden, or assume that he was there with the privity at least, if not by the desire, of Dr. Rappaccini or his daughter; but Beatrice's manner placed him at his ease, though leaving him still in doubt by what agency he had gained admittance. She came lightly along the path and met him near the broken fountain. There was surprise in her face, but brightened by a simple and kind expression of pleasure.

"You are a connoisseur in flowers, signor," said Beatrice, with a smile, alluding to the bouquet which he had flung her from the window. "It is no marvel, therefore, if the sight of my father's rare collection has tempted you to take a nearer view. If he were here, he could tell you many strange and interesting facts as to the nature and habits of these shrubs; for he has spent a lifetime in such studies, and this garden is his world."

"And yourself, lady," observed Giovanni, "if fame says true, you likewise are deeply skilled in the virtues indicated by these rich blossoms and these spicy perfumes. Would you deign to be my instructress, I should prove an apter scholar than if taught by Signor Rappaccini himself."

"Are there such idle rumors?" asked Beatrice, with the music of a pleasant laugh. "Do people say that I am skilled in my father's science of plants? What a jest is there! No; though I have grown up among these flowers, I know no more of them than their hues and perfume; and sometimes methinks I would fain rid myself of even that small knowledge. There are many flowers here, and those not the least brilliant, that shock and offend me when they meet my eye. But pray, signor, do not believe these stories about my science. Believe nothing of me save what you see with your own eyes."

"And must I believe all that I have seen with my own eyes?" asked Giovanni, pointedly, while the recollection of former scenes made him shrink. "No, signora; you demand too little of me. Bid me believe nothing save what comes from your own lips."

It would appear that Beatrice understood him. There came a deep flush to her cheek; but she looked full into Giovanni's eyes, and responded to his gaze of uneasy suspicion with a queenlike haughtiness.

"I do so bid you, signor," she replied. "Forget whatever you may have fancied in regard to me. If true to the outward senses, still it may be false in its essence; but the words of Beatrice Rappaccini's lips are true from the depths of the heart outward. Those you may believe."

A fervor glowed in her whole aspect and beamed upon Giovanni's consciousness like the light of truth itself; but while she spoke there was a fragrance in the atmosphere around her, rich and delightful, though evanescent, yet which the young man, from an indefinable reluctance, scarcely dared to draw into his lungs. It might be the odor of the flowers. Could it be Beatrice's breath which thus embalmed her words with a strange richness, as if by steeping them in her heart? A faintness passed like a shadow over Giovanni and flitted away; he seemed to gaze through the beautiful girl's eyes into her transparent soul, and felt no more doubt or fear.

The tinge of passion that had colored Beatrice's manner vanished; she became gay, and appeared to derive a pure delight from her communion with the youth, not unlike what the maiden of a lonely island might have felt conversing with a voyager from the civilized world. Evidently her experience of life had been confined within the limits of that garden. She talked now about matters as simple as the daylight or summer clouds, and

now asked questions in reference to the city, or Giovanni's distant home, his friends, his mother, and his sisters—questions indicating such seclusion, and such lack of familiarity with modes and forms, that Giovanni responded as if to an infant. Her spirit gushed out before him like a fresh rill that was just catching its first glimpse of the sunlight and wondering at the reflections of earth and sky which were flung into its bosom. There came thoughts, too, from a deep source, and fantasies of a gemlike brilliancy, as if diamonds and rubies sparkled upward among the bubbles of the fountain. Ever and anon there gleamed across the young man's mind a sense of wonder that he should be walking side by side with the being who had so wrought upon his imagination, whom he had idealized in such hues of terror, in whom he had positively witnessed such manifestations of dreadful attributes—that he should be conversing with Beatrice like a brother, and should find her so human and so maidenlike. But such reflections were only momentary; the effect of her character was too real not to make itself familiar at once.

In this free intercourse they had strayed through the garden, and now, after many turns among its avenues, were come to the shattered fountain, beside which grew the magnificent shrub, with its treasury of glowing blossoms. A fragrance was diffused from it which Giovanni recognized as identical with that which he had attributed to Beatrice's breath, but incomparably more powerful. As her eyes fell upon it, Giovanni beheld her press her hand to her bosom as if her heart were throbbing suddenly and painfully.

"For the first time in my life," murmured she, addressing the shrub, "I had forgotten thee."

"I remember, signora," said Giovanni, "that you once promised to reward me with one of these living gems for the bouquet which I had the happy boldness to fling at your feet. Permit me now to pluck it as a memorial of this interview."

He made a step towards the shrub with extended hand; but Beatrice darted forward, uttering a shriek that went through his heart like a dagger. She caught his hand and drew it back with the whole force of her slender figure. Giovanni felt her touch thrilling through his fibers.

"Touch it not!" exclaimed she, in a voice of agony. "Not for thy life! It is fatal!"

Then, hiding her face, she fled from him and vanished beneath the sculptured portal. As Giovanni followed her with his eyes, he beheld the emaciated figure and pale intelligence of Dr. Rappaccini, who had been

watching the scene, he knew not how long, within the shadow of the entrance.

No sooner was Guasconti alone in his chamber than the image of Beatrice came back to his passionate musings, invested with all the witchery that had been gathering around it ever since his first glimpse of her, and now likewise imbued with a tender warmth of girlish womanhood. She was human; her nature was endowed with all gentle and feminine qualities; she was worthiest to be worshiped; she was capable, surely, on her part, of the height and heroism of love. Those tokens which he had hitherto considered as proofs of a frightful peculiarity in her physical and moral system were now either forgotten or, by the subtle sophistry of passion, transmitted into a golden crown of enchantment, rendering Beatrice the more admirable by so much as she was the more unique. Whatever had looked ugly was now beautiful; or, if incapable of such a change, it stole away and hid itself among those shapeless half ideas which throng the dim region beyond the daylight of our perfect consciousness. Thus did he spend the night, nor fell asleep until the dawn had begun to awake the slumbering flowers in Dr. Rappaccini's garden, whither Giovanni's dreams doubtless led him. Up rose the sun in his due season, and, flinging his beams upon the young man's eyelids, awoke him to a sense of pain. When thoroughly aroused, he became sensible of a burning and tingling agony in his hand—in his right hand—the very hand which Beatrice had grasped in her own when he was on the point of plucking one of the gemlike flowers. On the back of that hand there was now a purple print like that of four small fingers, and the likeness of a slender thumb upon his wrist.

Oh, how stubbornly does love—or even that cunning semblance of love which flourishes in the imagination, but strikes no depth of root into the heart—how stubbornly does it hold its faith until the moment comes when it is doomed to vanish into thin mist! Giovanni wrapped a handkerchief about his hand and wondered what evil thing had stung him, and soon forgot his pain in a reverie of Beatrice.

After the first interview, a second was in the inevitable course of what we call fate. A third; a fourth; and a meeting with Beatrice in the garden was no longer an incident in Giovanni's daily life, but the whole space in which he might be said to live; for the anticipation and memory of that ecstatic hour made up the remainder. Nor was it otherwise with the daughter of Rappaccini. She watched for the youth's appearance, and flew to his side with confidence as unreserved as if they had been play-

mates from early infancy—as if they were such playmates still. If, by any unwonted chance, he failed to come at the appointed moment, she stood beneath the window and sent up the rich sweetness of her tones to float around him in his chamber and echo and reverberate throughout his heart: "Giovanni! Giovanni! Why tarriest thou? Come down!" And down he hastened into that Eden of poisonous flowers.

But, with all this intimate familiarity, there was still a reserve in Beatrice's demeanor, so rigidly and invariably sustained that the idea of infringing it scarcely occurred to his imagination. By all appreciable signs, they loved; they had looked love with eyes that conveyed the holy secret from the depths of one soul into the depths of the other, as if it were too sacred to be whispered by the way; they had even spoken love in those gushes of passion when their spirits darted forth in articulated breath like tongues of long-hidden flame; and yet there had been no seal of lips, no clasp of hands, nor any slightest caress such as love claims and hallows. He had never touched one of the gleaming ringlets of her hair; her garment—so marked was the physical barrier between them—had never been waved against him by a breeze. On the few occasions when Giovanni had seemed tempted to overstep the limit, Beatrice grew so sad, so stern, and withal wore such a look of desolate separation, shuddering at itself, that not a spoken word was requisite to repel him. At such times he was startled at the horrible suspicions that rose, monsterlike, out of the caverns of his heart and stared him in the face; his love grew thin and faint as the morning mist, his doubts alone had substance. But, when Beatrice's face brightened again after the momentary shadow, she was transformed at once from the mysterious, questionable being whom he had watched with so much awe and horror; she was now the beautiful and unsophisticated girl whom he felt that his spirit knew with a certainty beyond all other knowledge.

A considerable time had now passed since Giovanni's last meeting with Baglioni. One morning, however, he was disagreeably surprised by a visit from the professor, whom he had scarcely thought of for whole weeks, and would willingly have forgotten still longer. Given up as he had long been to a pervading excitement, he could tolerate no companions except upon condition of their perfect sympathy with his present state of feeling. Such sympathy was not to be expected from Professor Baglioni.

The visitor chatted carelessly for a few moments about the gossip of the city and the university, and then took up another topic.

"I have been reading an old classic author lately," said he, "and met

with a story that strangely interested me. Possibly you may remember it. It is of an Indian prince, who sent a beautiful woman as a present to Alexander the Great. She was as lovely as the dawn and gorgeous as the sunset; but what especially distinguished her was a certain rich perfume in her breath—richer than a garden of Persian roses. Alexander, as was natural to a youthful conqueror, fell in love at first sight with this magnificent stranger; but a certain sage physician, happening to be present, discovered a terrible secret in regard to her."

"And what was that?" asked Giovanni, turning his eyes downward to avoid those of the professor.

"That this lovely woman," continued Baglioni, with emphasis, "had been nourished with poisons from her birth upward, until her whole nature was so imbued with them that she herself had become the deadliest poison in existence. Poison was her element of life. With that rich perfume of her breath she blasted the very air. Her love would have been poison—her embrace death. Is not this a marvellous tale?"

"A childish fable," answered Giovanni, nervously starting from his chair. "I marvel how your worship finds time to read such nonsense among your graver studies."

"By the by," said the professor, looking uneasily about him, "what singular fragrance is this in your apartment? Is it the perfume of your gloves? It is faint, but delicious; and yet, after all, by no means agreeable. Were I to breathe it long, methinks it would make me ill. It is like the breath of a flower; but I see no flowers in the chamber."

"Nor are there any," replied Giovanni, who had turned pale as the professor spoke; "nor, I think, is there any fragrance except in your worship's imagination. Odors, being a sort of element combined of the sensual and the spiritual, are apt to deceive us in this manner. The recollection of a perfume, the bare idea of it, may easily be mistaken for a present reality."

"Ay; but my sober imagination does not often play such tricks," said Baglioni; "and, were I to fancy any kind of odor, it would be that of some vile apothecary drug, wherewith my fingers are likely enough to be imbued. Our worshipful friend Rappaccini, as I have heard, tinctures his medicaments with odors richer than those of Araby. Doubtless, likewise, the fair and learned Signora Beatrice would minister to her patients with draughts as sweet as a maiden's breath; but woe to him that sips them!"

Giovanni's face evinced many contending emotions. The tone in which the professor alluded to the pure and lovely daughter of Rappaccini was a torture to his soul; and yet the intimation of a view of her character, opposite to his own, gave instantaneous distinctness to a thou-

sand dim suspicions, which now grinned at him like so many demons. But he strove hard to quell them and to respond to Baglioni with a true lover's perfect faith.

"Signor professor," said he, "you were my father's friend; perchance, too, it is your purpose to act a friendly part towards his son. I would fain feel nothing toward you save respect and deference; but I pray you to observe, signor, that there is one subject on which we must not speak. You know not the Signora Beatrice. You cannot, therefore, estimate the wrong—the blasphemy, I may even say—that is offered to her character by a light or injurious word."

"Giovanni! my poor Giovanni!" answered the professor, with a calm expression of pity, "I know this wretched girl far better than yourself. You shall hear the truth in respect to the poisoner Rappaccini and his poisonous daughter; yes, poisonous as she is beautiful. Listen; for, even should you do violence to my gray hairs, it shall not silence me. That old fable of the Indian woman has become a truth by the deep and deadly science of Rappaccini and in the person of the lovely Beatrice."

Giovanni groaned and hid his face.

"Her father," continued Baglioni, "was not restrained by natural affection from offering up his child in this horrible manner as the victim of his insane zeal for science; for, let us do him justice, he is as true a man of science as ever distilled his own heart in an alembic. What, then, will be your fate? Beyond a doubt you are selected as the material of some new experiment. Perhaps the result is to be death; perhaps a fate more awful still. Rappaccini, with what he calls the interest of science before his eyes, will hesitate at nothing."

"It is a dream," muttered Giovanni to himself; "surely it is a dream."

"But," resumed the professor, "be of good cheer, son of my friend. It is not yet too late for the rescue. Possibly we may even succeed in bringing back this miserable child within the limits of ordinary nature, from which her father's madness has estranged her. Behold this little silver vase! It was wrought by the hands of the renowned Benvenuto Cellini, and is well worthy to be a love gift to the fairest dame in Italy. But its contents are invaluable. One little sip of this antidote would have rendered the most virulent poisons of the Borgias innocuous. Doubt not that it will be as efficacious against those of Rappaccini. Bestow the vase, and the precious liquid within it, on your Beatrice, and hopefully await the result."

Baglioni laid a small, exquisitely wrought silver vial on the table and withdrew, leaving what he had said to produce its effect upon the young man's mind.

"We will thwart Rappaccini yet," thought he, chuckling to himself, as he descended the stairs; "but, let us confess the truth of him, he is a wonderful man—a wonderful man indeed; a vile empiric, however, in his practice, and therefore not to be tolerated by those who respect the good old rules of the medical profession."

Throughout Giovanni's whole acquaintance with Beatrice, he had occasionally, as we have said, been haunted by dark surmises as to her character; yet so thoroughly had she made herself felt by him as a simple, natural, most affectionate, and guileless creature, that the image now held up by Professor Baglioni looked as strange and incredible as if it were not in accordance with his own original conception. True, there were ugly recollections connected with his first glimpses of the beautiful girl; he could not quite forget the bouquet that withered in her grasp, and the insect that perished amid the sunny air, by no ostensible agency save the fragrance of her breath. These incidents, however, dissolving in the pure light of her character, had no longer the efficacy of facts, but were acknowledged as mistaken fantasies, by whatever testimony of the senses they might appear to be substantiated. There is something truer and more real than what we can see with the eyes and touch with the finger. On such better evidence had Giovanni founded his confidence in Beatrice, though rather by the necessary force of her high attributes than by any deep and generous faith on his part. But now his spirit was incapable of sustaining itself at the height to which the early enthusiasm of passion had exalted it; he fell down, groveling among earthly doubts, and defiled therewith the pure whiteness of Beatrice's image. Not that he gave her up; he did but distrust. He resolved to institute some decisive test that should satisfy him, once for all, whether there were those dreadful peculiarities in her physical nature which could not be supposed to exist without some corresponding monstrosity of soul. His eyes, gazing down afar, might have deceived him as to the lizard, the insect, and the flowers; but if he could witness, at the distance of a few paces, the sudden blight of one fresh and healthful flower in Beatrice's hand, there would be room for no further question. With this idea he hastened to the florist's and purchased a bouquet that was still gemmed with the morning dewdrops.

It was now the customary hour of his daily interview with Beatrice. Before descending into the garden, Giovanni failed not to look at his figure in the mirror—a vanity to be expected in a beautiful young man, yet, as displaying itself at that troubled and feverish moment, the token of a certain shallowness of feeling and insincerity of character. He did

gaze, however, and said to himself that his features had never before possessed so rich a grace, nor his eyes such vivacity, nor his cheeks so warm a hue of superabundant life.

"At least," thought he, "her poison has not yet insinuated itself into my system. I am no flower to perish in her grasp."

With that thought he turned his eyes on the bouquet, which he had never once laid aside from his hand. A thrill of indefinable horror shot through his frame on perceiving that those dewy flowers were already beginning to droop; they wore the aspect of things that had been fresh and lovely yesterday. Giovanni grew white as marble, and stood motionless before the mirror, staring at his own reflection there as at the likeness of something frightful. He remembered Baglioni's remark about the fragrance that seemed to pervade the chamber. It must have been the poison in his breath! Then he shuddered—shuddered at himself. Recovering from his stupor, he began to watch with curious eye a spider that was busily at work hanging its web from the antique cornice of the apartment, crossing and recrossing the artful system of interwoven lines—as vigorous and active a spider as ever dangled from an old ceiling. Giovanni bent toward the insect, and emitted a deep, long breath. The spider suddenly ceased its toil; the web vibrated with a tremor originating in the body of the small artisan. Again Giovanni sent forth a breath, deeper, longer, and imbued with a venomous feeling out of his heart: he knew not whether he were wicked, or only desperate. The spider made a convulsive gripe with his limbs and hung dead across the window.

"Accursed! accursed!" muttered Giovanni, addressing himself. "Hast thou grown so poisonous that this deadly insect perishes by thy breath?"

At that moment a rich, sweet voice came floating up from the garden.

"Giovanni! Giovanni! It is past the hour! Why tarriest thou? Come down!"

"Yes," muttered Giovanni again. "She is the only being whom my breath may not slay! Would that it might!"

He rushed down, and in an instant was standing before the bright and loving eyes of Beatrice. A moment ago his wrath and despair had been so fierce that he could have desired nothing so much as to wither her by a glance; but with her actual presence there came influences which had too real an existence to be at once shaken off: recollections of the delicate and benign power of her feminine nature, which had so often enveloped him in a religious calm; recollections of many a holy and passionate outgush of her heart, when the pure fountain had been unsealed from its depths and made visible in its transparency to his mental

eye; recollections which, had Giovanni known how to estimate them, would have assured him that all this ugly mystery was but an earthly illusion, and that, whatever mist of evil might seem to have gathered over her, the real Beatrice was a heavenly angel. Incapable as he was of such high faith, still her presence had not utterly lost its magic. Giovanni's rage was quelled into an aspect of sullen insensibility. Beatrice, with a quick spiritual sense, immediately felt that there was a gulf of blackness between them which neither he nor she could pass. They walked on together, sad and silent, and came thus to the marble fountain and to its pool of water on the ground, in the midst of which grew the shrub that bore gemlike blossoms. Giovanni was affrighted at the eager enjoyment—the appetite, as it were—with which he found himself inhaling the fragrance of the flowers.

"Beatrice," asked he, abruptly, "whence came this shrub?"

"My father created it," answered she, with simplicity.

"Created it! created it!" repeated Giovanni. "What mean you, Beatrice?"

"He is a man fearfully acquainted with the secrets of Nature," replied Beatrice; "and, at the hour when I first drew breath, this plant sprang from the soil, the offspring of his science, of his intellect, while I was but his earthly child. Approach it not!" continued she, observing with terror that Giovanni was drawing nearer to the shrub. "It has qualities that you little dream of. But I, dearest Giovanni, I grew up and blossomed with the plant and was nourished with its breath. It was my sister, and I loved it with a human affection; for, alas!—hast thou not suspected it?—there was an awful doom."

Here Giovanni frowned so darkly upon her that Beatrice paused and trembled. But her faith in his tenderness reassured her, and made her blush that she had doubted for an instant.

"There was an awful doom," she continued, "the effect of my father's fatal love of science, which estranged me from all society of my kind. Until Heaven sent thee, dearest Giovanni, oh, how lonely was thy poor Beatrice!"

"Was it a hard doom?" asked Giovanni, fixing his eyes upon her.

"Only of late have I known how hard it was," answered she, tenderly. "Oh, yes; but my heart was torpid, and therefore quiet."

Giovanni's rage broke forth from his sullen gloom like a lightning flash out of a dark cloud.

"Accursed one!" cried he, with venomous scorn and anger. "And, finding thy solitude wearisome, thou hast severed me likewise from all the warmth of life and enticed me into thy region of unspeakable horror!"

"Giovanni!" exclaimed Beatrice, turning her large bright eyes upon his

face. The force of his words had not found its way into her mind; she was merely thunderstruck.

"Yes, poisonous thing!" repeated Giovanni, beside himself with passion. "Thou hast done it! Thou hast blasted me! Thou hast filled my veins with poison! Thou hast made me as hateful, as ugly, as loathsome and deadly a creature as thyself—a world's wonder of hideous monstrosity! Now, if our breath be happily as fatal to ourselves as to all others, let us join our lips in one kiss of unutterable hatred, and so die!"

"What has befallen me?" murmured Beatrice, with a low moan out of her heart. "Holy Virgin, pity me, a poor heart broken child!"

"Thou—dost thou pray?" cried Giovanni, still with the same fiendish scorn. "Thy very prayers, as they come from thy lips, taint the atmosphere with death. Yes, yes; let us pray! Let us to church and dip our fingers in the holy water at the portal! They that come after us will perish as by a pestilence! Let us sign crosses in the air! It will be scattering curses abroad in the likeness of holy symbols!"

"Giovanni," said Beatrice, calmly, for her grief was beyond passion, "why dost thou join thyself with me thus in those terrible words? I, it is true, am the horrible thing thou namest me. But thou—what hast thou to do, save with one other shudder of my hideous misery to go forth out of the garden and mingle with thy race, and forget that there ever crawled on earth such a monster as poor Beatrice?"

"Dost thou pretend ignorance?" asked Giovanni, scowling upon her. "Behold! this power have I gained from the pure daughter of Rappaccini."

There was a swarm of summer insects flitting through the air in search of the food promised by the flower odors of the fatal garden. They circled round Giovanni's head, and were evidently attracted toward him by the same influence which had drawn them for an instant within the sphere of several of the shrubs. He sent forth a breath among them, and smiled bitterly at Beatrice as at least a score of the insects fell dead upon the ground.

"I see it! I see it!" shrieked Beatrice. "It is my father's fatal science! No, no, Giovanni; it was not I! Never! never! I dreamed only to love thee and be with thee a little time, and so to let thee pass away, leaving but thine image in mine heart; for, Giovanni, believe it, though my body be nourished with poison, my spirit is God's creature, and craves love as its daily food. But my father, he has united us in this fearful sympathy. Yes; spurn me, tread upon me, kill me! Oh, what is death after such words as thine? But it was not I. Not for a world of bliss would I have done it."

Giovanni's passion had exhausted itself in its outburst from his lips.

There now came across him a sense, mournful, and not without tenderness, of the intimate and peculiar relationship between Beatrice and himself. They stood, as it were, in an utter solitude, which would be made none the less solitary by the densest throng of human life. Ought not, then, the desert of humanity around them to press this insulated pair closer together? If they should be cruel to one another, who was there to be kind to them? Besides, thought Giovanni, might there not still be a hope of his returning within the limits of ordinary nature, and leading Beatrice, the redeemed Beatrice, by the hand? O, weak, and selfish, and unworthy spirit, that could dream of an earthly union and earthly happiness as possible, after such deep love had been so bitterly wronged as was Beatrice's love by Giovanni's blighting words! No, no; there could be no such hope. She must pass heavily, with that broken heart, across the borders of Time–she must bathe her hurts in some fount of paradise, and forget her grief in the light of immortality, and *there* be well.

But Giovanni did not know it.

"Dear Beatrice," said he, approaching her, while she shrank away as always at his approach, but now with a different impulse, "dearest Beatrice, our fate is not yet so desperate. Behold! there is a medicine, potent, as a wise physician has assured me, and almost divine in its efficacy. It is composed of ingredients the most opposite to those by which thy awful father has brought this calamity upon thee and me. It is distilled of blessed herbs. Shall we not quaff it together, and thus be purified from evil?"

"Give it me!" said Beatrice, extending her hand to receive the little silver vial which Giovanni took from his bosom. She added, with a peculiar emphasis, "I will drink; but do thou await the result."

She put Baglioni's antidote to her lips; and, at the same moment, the figure of Rappaccini emerged from the portal and came slowly towards the marble fountain. As he drew near, the pale man of science seemed to gaze with a triumphant expression at the beautiful youth and maiden, as might an artist who should spend his life in achieving a picture or a group of statuary and finally be satisfied with his success. He paused; his bent form grew erect with conscious power; he spread out his hands over them in the attitude of a father imploring a blessing upon his children; but those were the same hands that had thrown poison into the stream of their lives. Giovanni trembled. Beatrice shuddered nervously, and pressed her hand upon her heart.

"My daughter," said Rappaccini, "thou art no longer lonely in the world. Pluck one of those precious gems from thy sister shrub and bid thy bridegroom wear it in his bosom. It will not harm him now. My science

and the sympathy between thee and him have so wrought within his system that he now stands apart from common men, as thou dost, daughter of my pride and triumph, from ordinary women. Pass on, then, through the world, most dear to one another and dreadful to all besides!"

"My father," said Beatrice, feebly,—and still as she spoke she kept her hand upon her heart—"wherefore didst thou inflict this miserable doom upon thy child?"

"Miserable!" exclaimed Rappaccini. "What mean you, foolish girl? Dost thou deem it misery to be endowed with marvellous gifts against which no power nor strength could avail an enemy—misery, to be able to quell the mightiest with a breath—misery, to be as terrible as thou art beautiful? Wouldst thou, then, have preferred the condition of a weak woman, exposed to all evil and capable of none?"

"I would fain have been loved, not feared," murmured Beatrice, sinking down upon the ground. "But now it matters not. I am going, father, where the evil which thou hast striven to mingle with my being will pass away like a dream—like the fragrance of these poisonous flowers, which will no longer taint my breath among the flowers of Eden. Farewell, Giovanni! Thy words of hatred are like lead within my heart; but they, too, will fall away as I ascend. Oh, was there not, from the first, more poison in thy nature than in mine?"

To Beatrice—so radically had her earthly part been wrought upon by Rappaccini's skill—as poison had been life, so the powerful antidote was death; and thus the poor victim of man's ingenuity and of thwarted nature, and of the fatality that attends all such efforts of perverted wisdom, perished there, at the feet of her father and Giovanni. Just at that moment Professor Pietro Baglioni looked forth from the window, and called loudly, in a tone of triumph mixed with horror, to the thunder-stricken man of science—

"Rappaccini! Rappaccini! and is *this* the upshot of your experiment!"

"Rappaccini's Daughter" is from a collection of Hawthorne's stories entitled
MOSSES FROM AN OLD MANSE.

George Eliot

1819–1880

George Eliot (the pen name of Mary Ann or Marian Evans) was born at Chilvers Coton, Warwickshire, England, November 22, 1819. Limited by an extremely narrow religious upbringing, she managed to school herself in German, Italian, music and literature. When she was twenty-two she made new philosophic friends in Coventry and became a rationalist for the rest of her life. In 1844 she began to translate Strauss's *The Life of Jesus*. After her father died in 1849, she lived abroad for a while.

From 1851 to 1853 she served as assistant editor of the *Westminster Review*. This led to an acquaintance with Herbert Spencer, Carlyle, Francis Newman, and others. In 1851 she met the philosopher George Henry Lewes, who was separated from his wife. He and the future novelist traveled together on the continent. Later they settled in London, in a "singularly happy" union both regarded as a marriage. Their receptions were select and famous.

She published *Scenes of Clerical Life* in 1858. With *Adam Bede*, in the next year, the tremendous reputation of "George Eliot" was made. She brought out *The Mill on the Floss* in 1860 and *Silas Marner* in 1861. That year she spent a month in Florence preparing to write *Romola*. She was offered £10,000 for the copyright and *Cornhill Magazine* paid £7,000 for its serialization.

Between 1866 and 1879, she published *Felix Holt*, *The Spanish Gypsy* (a blank-verse play), *Middlemarch*, *Daniel Deronda* (a strong argument against anti-Semitism) and a book of essays, *Impressions of Theophrastus Such*. Her work grew more and more intellectual. Like Tolstoy's later books, it was increasingly weighted with moral pleading.

In 1876 Lewes and George Eliot moved to Witley, near Godalm-

ing. Lewes died on November 28, 1878. "Here I and sorrow sit," she wrote in her journal. John W. Cross, a friend since 1869, helped to settle her affairs. In 1880—he forty and she sixty-one—she married him. That same year, on December 22, she died in London.

The Lifted Veil is a fascinating story on several counts. About the middle of the nineteenth century, psychic phenomena of all kinds were so popular that they became half-serious parlor games. The spiritualist Fox sisters bewitched New York. A medium from Connecticut, D. D. Home, excited the foreign colony in Florence, where George Eliot studied Savonarola and his times in 1861. Ruskin asked Home to help him get in touch with the sixteenth-century painter Paolo Veronese.

Against this background, Latimer, the narrator in *The Lifted Veil*, might have been a fashionable hero of his time. He is both telepathic and clairvoyant—that is, he can receive and read other people's streams of consciousness, and he has accurate visions of future events and scenes not otherwise known to him. Both talents, verified or not, are included under the current term ESP or psi cognition.

Given these talents, plus a sensibility so acute that he can hardly bear the ordinary stresses of life, and Latimer becomes one of the most exasperating characters in English fiction. What does he do? Nothing—or as nearly nothing as any man can and still remain alive. No character in a Russian novel is so helplessly inert. He has a taste for poetry, perhaps some gift. How can he know unless he tries? He does not try. His qualifications as a mind reader and clairvoyant might have made him the most sought-after man in London. Instead, they remain his secret terror. He makes no use of them.

His one positive act is his marriage to Bertha. On this the story revolves. Cautiously enough, the author makes Latimer's psychic powers stop short of penetrating his wife's thoughts. There he draws a blank, or shows only the most ordinary awareness. We grant the

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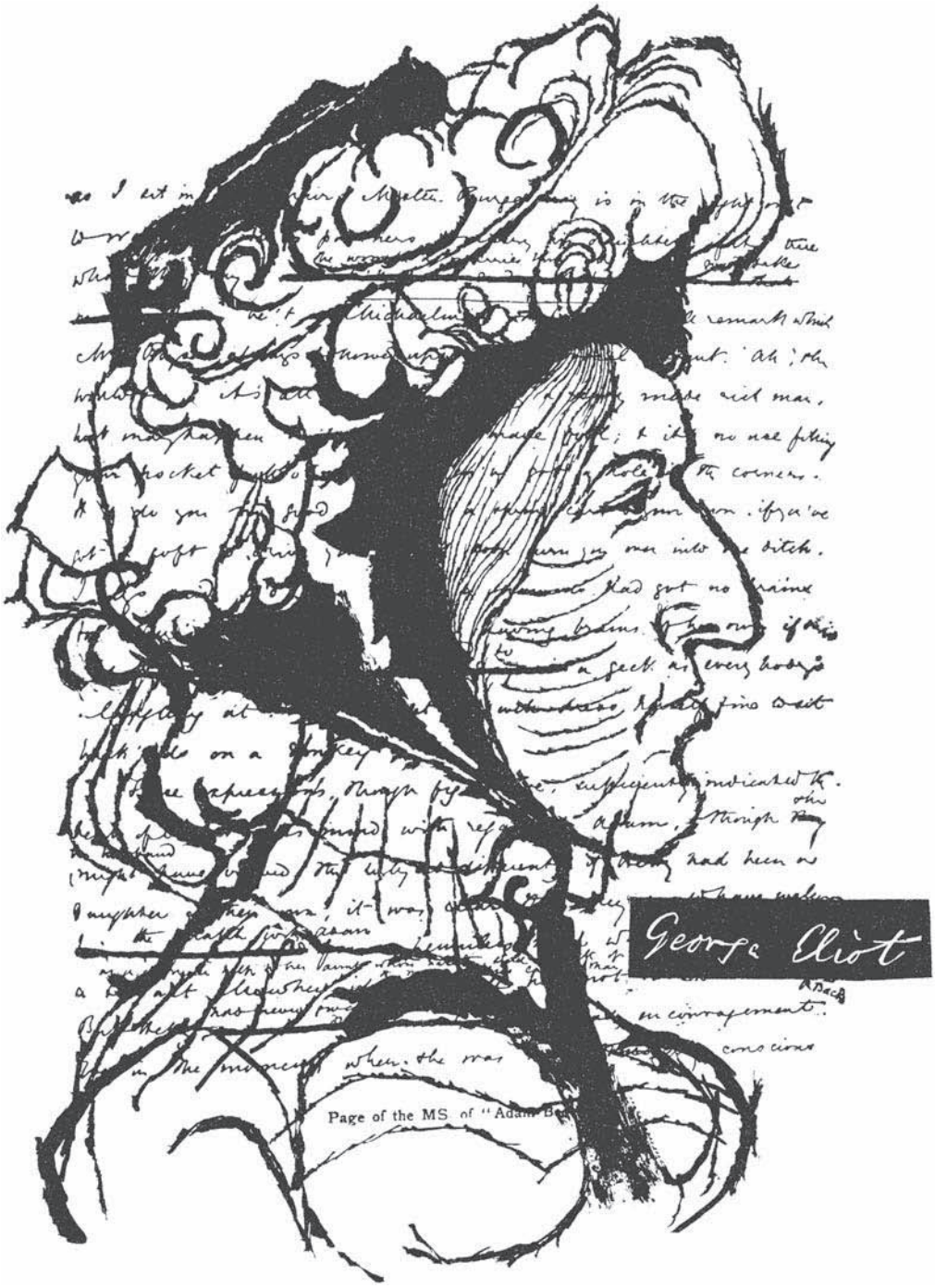
Notes from the artist: "*. . . the profile of George Eliot is superimposed over a facsimile of the original manuscript of her novel* Adam Bede."



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ironic rightness of this. He is not the first or last husband whose insight fails to include his wife. But what if the author had not done this? What if she had allowed Latimer to see into his wife's mind? And what if their hostility to each other had become a duel–his psychic powers against her feminine penetration?

But we see at once that Latimer is not the man for it. If we allow for his limitations, as the author intended we should, he becomes the center of a solidly written story. His psychic gift works as a technical device. It allows the author to foretell each crisis in his life, even the last, but with one exception: Bertha's plot against him. This is revealed, almost by chance, in the doctor's experiment. Only then does Latimer–and the reader–understand the depth of her hatred.

The Lifted Veil

CHAPTER I

The time of my end approaches. I have lately been subject to attacks of angina pectoris; and in the ordinary course of things, my physician tells me, I may fairly hope that my life will not be protracted many months. Unless, then, I am cursed with an exceptional physical constitution, as I am cursed with an exceptional mental character, I shall not much longer groan under the wearisome burden of this earthly existence. If it were to be otherwise–if I were to live on to the age most men desire and provide for–I should for once have known whether the miseries of delusive expectation can outweigh the miseries of true prevision. For I foresee when I shall die, and everything that will happen in my last moments.

Just a month from this day, on September 20, 1850, I shall be sitting in this chair, in this study, at ten o'clock at night, longing to die, weary of incessant insight and foresight, without delusions and without hope. Just as I am watching a tongue of blue flame rising in the fire, and my lamp is burning low, the horrible contraction will begin at my chest. I shall only have time to reach the bell, and pull it violently, before the sense of suffocation will come. No one will answer my bell. I know why. My two servants are lovers, and will have quarrelled. My housekeeper will have rushed out of the house in a fury, two hours before, hoping that Perry will believe she has gone to drown herself. Perry is alarmed at last, and is gone out after her. The little scullery-maid is asleep on a bench: she never answers the bell; it does not wake her. The sense of suffocation increases: my lamp goes out with a horrible stench: I make a great effort, and snatch at the bell again. I long for life, and there is no help. I thirsted for the unknown: the thirst is gone. O God, let me stay with

the known, and be weary of it: I am content. Agony of pain and suffocation–and all the while the earth, the fields, the pebbly brook at the bottom of the rookery, the fresh scent after the rain, the light of the morning through my chamber-window, the warmth of the hearth after the frosty air–will darkness close over them forever?

Darkness–darkness–no pain–nothing but darkness: but I am passing on and on through the darkness: my thought stays in the darkness, but always with a sense of moving onward. . . .

Before that time comes, I wish to use my last hours of ease and strength in telling the strange story of my experience. I have never fully unbosomed myself to any human being; I have never been encouraged to trust much in the sympathy of my fellow-men. But we have all a chance of meeting with some pity, some tenderness, some charity, when we are dead: it is the living only who cannot be forgiven–the living only from whom men's indulgence and reverence are held off, like the rain by the hard east wind. While the heart beats, bruise it–it is your only opportunity; while the eye can still turn towards you with moist, timid entreaty, freeze it with an icy unanswering gaze; while the ear, that delicate messenger to the inmost sanctuary of the soul, can still take in the tones of kindness, put it off with hard civility, or sneering compliment, or envious affectation of indifference; while the creative brain can still throb with the sense of injustice, with the yearning for brotherly recognition–make haste–oppress it with your ill-considered judgements, your trivial comparisons, your careless misrepresentations. The heart will by and by be still–*ubi saeva indignatio ulterius cor lacerare nequit* [Where fierce indignation can no longer tear his heart] [1]; the eye will cease to entreat; the ear will be deaf; the brain will have ceased from all wants as well as from all work. Then your charitable speeches may find vent; then you may remember and pity the toil and the struggle and the failure; then you may give due honour to the work achieved; then you may find extenuation for errors, and may consent to bury them.

That is a trivial schoolboy text; why do I dwell on it? It has little reference to me, for I shall leave no works behind me for men to honour. I have no near relatives who will make up, by weeping over my grave, for the wounds they inflicted on me when I was among them. It is only the story of my life that will perhaps win a little more sympathy from strangers when I am dead, than I ever believed it would obtain from my friends while I was living.

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1. Jonathan Swift's epitaph, written by himself.

My childhood perhaps seems happier to me than it really was, by contrast with all the after-years. For then the curtain of the future was as impenetrable to me as to other children: I had all their delight in the present hour, their sweet indefinite hopes for the morrow; and I had a tender mother: even now, after the dreary lapse of long years, a slight trace of sensation accompanies the remembrance of her caress as she held me on her knee—her arms round my little body, her cheek pressed on mine. I had a complaint of the eyes that made me blind for a little while, and she kept me on her knee from morning till night. That unequalled love soon vanished out of my life, and even to my childish consciousness it was as if that life had become more chill. I rode my little white pony with the groom by my side as before, but there were no loving eyes looking at me as I mounted, no glad arms opened to me when I came back. Perhaps I missed my mother's love more than most children of seven or eight would have done, to whom the other pleasures of life remained as before; for I was certainly a very sensitive child. I remember still the mingled trepidation and delicious excitement with which I was affected by the tramping of the horses on the pavement in the echoing stables, by the loud resonance of the grooms' voices, by the booming bark of the dogs as my father's carriage thundered under the archway of the courtyard, by the din of the gong as it gave notice of luncheon and dinner. The measured tramp of soldiery which I sometimes heard—for my father's house lay near a county town where there were large barracks—made me sob and tremble; and yet when they were gone past, I longed for them to come back again.

I fancy my father thought me an odd child, and had little fondness for me; though he was very careful in fulfilling what he regarded as a parent's duties. But he was already past the middle of life, and I was not his only son. My mother had been his second wife, and he was five-and-forty when he married her. He was a firm, unbending, intensely orderly man, in root and stem a banker, but with a flourishing graft of the active landholder, aspiring to county influence: one of those people who are always like themselves from day to day, who are uninfluenced by the weather, and neither know melancholy nor high spirits. I held him in great awe, and appeared more timid and sensitive in his presence than at other times; a circumstance which, perhaps, helped to confirm him in the intention to educate me on a different plan from the prescriptive one with which he had complied in the case of my elder brother, already a tall youth at Eton. My brother was to be his representative and successor; he must go to Eton and Oxford, for the sake of making connections, of

course: my father was not a man to underrate the bearing of Latin satirists or Greek dramatists on the attainment of an aristocratic position. But, intrinsically, he had slight esteem for "those dead but sceptred spirits"; having qualified himself for forming an independent opinion by reading Potter's *Aeschylus*, and dipping into Francis's *Horace*. To this negative view he added a positive one, derived from a recent connection with mining speculations; namely, that a scientific education was the really useful training for a younger son. Moreover, it was clear that a shy, sensitive boy like me was not fit to encounter the rough experience of a public school. Mr. Letherall had said so very decidedly. Mr. Letherall was a large man in spectacles, who one day took my small head between his large hands, and pressed it here and there in an exploratory, suspicious manner—then placed each of his great thumbs on my temples, and pushed me a little way from him, and stared at me with glittering spectacles. The contemplation appeared to displease him, for he frowned sternly, and said to my father, drawing his thumbs across my eyebrows—

"The deficiency is there, sir—there; and here," he added, touching the upper sides of my head, "here is the excess. That must be brought out, sir, and this must be laid to sleep."

I was in a state of tremor, partly at the vague idea that I was the object of reprobation, partly in the agitation of my first hatred—hatred of this big, spectacled man, who pulled my head about as if he wanted to buy and cheapen it.

I am not aware how much Mr. Letherall had to do with the system afterwards adopted towards me, but it was presently clear that private tutors, natural history, science, and the modern languages, were the appliances by which the defects of my organization were to be remedied. I was very stupid about machines, so I was to be greatly occupied with them; I had no memory for classification, so it was particularly necessary that I should study systematic zoology and botany; I was hungry for human deeds and humane motions, so I was to be plentifully crammed with the mechanical powers, the elementary bodies, and the phenomena of electricity and magnetism. A better-constituted boy would certainly have profited under my intelligent tutors, with their scientific apparatus; and would, doubtless, have found the phenomena of electricity and magnetism as fascinating as I was, every Thursday, assured they were. As it was, I could have paired off, for ignorance of whatever was taught me, with the worst Latin scholar that was ever turned out of a classical academy. I read Plutarch, and Shakespeare, and Don Quixote by the sly, and supplied myself in that way with wandering thoughts, while my

tutor was assuring me that "an improved man, as distinguished from an ignorant one, was a man who knew the reason why water ran downhill." I had no desire to be this improved man; I was glad of the running water; I could watch it and listen to it gurgling among the pebbles, and bathing the bright green water-plants, by the hour together. I did not want to know *why* it ran; I had perfect confidence that there were good reasons for what was so very beautiful.

There is no need to dwell on this part of my life. I have said enough to indicate that my nature was of the sensitive, unpractical order, and that it grew up in an uncongenial medium, which could never foster it into happy, healthy development. When I was sixteen I was sent to Geneva to complete my course of education; and the change was a very happy one to me, for the first sight of the Alps, with the setting sun on them, as we descended the Jura, seemed to me like an entrance into heaven; and the three years of my life there were spent in a perpetual sense of exaltation, as if from a draught of delicious wine, at the presence of Nature in all her awful loveliness. You will think, perhaps, that I must have been a poet, from this early sensibility to Nature. But my lot was not so happy as that. A poet pours forth his song and *believes* in the listening ear and answering soul, to which his song will be floated sooner or later. But the poet's sensibility without his voice—the poet's sensibility that finds no vent but in silent tears on the sunny bank, when the noonday light sparkles on the water, or in an inward shudder at the sound of harsh human tones, the sight of a cold human eye—this dumb passion brings with it a fatal solitude of soul in the society of one's fellow-men. My least solitary moments were those in which I pushed off in my boat, at evening, towards the centre of the lake; it seemed to me that the sky, and the glowing mountain tops, and the wide blue water, surrounded me with a cherishing love such as no human face had shed on me since my mother's love had vanished out of my life. I used to do as Jean Jacques did—lie down in my boat and let it glide where it would, while I looked up at the departing glow leaving one mountain top after the other, as if the prophet's chariot of fire were passing over them on its way to the home of light. Then, when the white summits were all sad and corpse-like, I had to push homeward, for I was under careful surveillance, and was allowed no late wanderings. This disposition of mine was not favourable to the formation of intimate friendships among the numerous youths of my own age who are always to be found studying at Geneva. Yet I made *one* such friendship; and, singularly enough, it was with a youth whose intellectual tendencies were the very reverse of my own. I shall call him

Charles Meunier; his real surname—an English one, for he was of English extraction—having since become celebrated. He was an orphan, who lived on a miserable pittance while he pursued the medical studies for which he had a special genius. Strange! that with my vague mind, susceptible and unobservant, hating inquiry and given up to contemplation, I should have been drawn towards a youth whose strongest passion was science. But the bond was not an intellectual one; it came from a source that can happily blend the stupid with the brilliant, the dreamy with the practical: it came from community of feeling. Charles was poor and ugly, derided by Genevese gamins, and not acceptable in drawing-rooms. I saw that he was isolated, as I was, though from a different cause, and, stimulated by a sympathetic resentment, I made timid advances towards him. It is enough to say that there sprang up as much comradeship between us as our different habits would allow; and in Charles's rare holidays we went up the Salève together, or took the boat to Vevey, while I listened dreamily to the monologues in which he unfolded his bold conceptions of future experiment and discovery. I mingled them confusedly in my thought with glimpses of blue water and delicate floating cloud, with the notes of birds and the distant glitter of the glacier. He knew quite well that my mind was half absent, yet he liked to talk to me in this way; for don't we talk of our hopes and our projects even to dogs and birds, when they love us? I have mentioned this one friendship because of its connection with a strange and terrible scene which I shall have to narrate in my subsequent life.

This happier life at Geneva was put an end to by a severe illness, which is partly a blank to me, partly a time of dimly-remembered suffering, with the presence of my father by my bed from time to time. Then came the languid monotony of convalescence, the days gradually breaking into variety and distinctness as my strength enabled me to take longer and longer drives. On one of these more vividly remembered days, my father said to me, as he sat beside my sofa—

"When you are quite well enough to travel, Latimer, I shall take you home with me. The journey will amuse you and do you good, for I shall go through the Tirol and Austria, and you will see many new places. Our neighbours, the Filmores, are come; Alfred will join us at Basel, and we shall all go together to Vienna, and back by Prague. . . ."

My father was called away before he had finished his sentence, and he left my mind resting on the word *Prague*, with a strange sense that a new and wondrous scene was breaking upon me: a city under the broad sunshine, that seemed to me as if it were the summer sunshine of a long-

past century arrested in its course—unrefreshed for ages by dews of night, or the rushing rain-cloud; scorching the dusty, weary, time-eaten grandeur of a people doomed to live on in the stale repetition of memories, like deposed and superannuated kings in their regal gold-inwoven tatters. The city looked so thirsty that the broad river seemed to me a sheet of metal; and the blaekened statues, as I passed under their blank gaze, along the unending bridge, with their ancient garments and their saintly crowns, seemed to me the real inhabitants and owners of this place, while the busy, trivial men and women, hurrying to and fro, were a swarm of ephemeral visitants infesting it for a day. It is such grim, stony beings as these, I thought, who are the fathers of ancient faded children, in those tanned time-fretted dwellings that crowd the steep before me; who pay their court in the worn and crumbling pomp of the palace which stretches its monotonous length on the height; who worship wearily in the stifling air of the churches, urged by no fear or hope, but compelled by their doom to be ever old and undying, to live on in the rigidity of habit, as they live on in perpetual midday, without the repose of night or the new birth of morning.

A stunning clang of metal suddenly thrilled through me, and I became conscious of the objects in my room again: one of the fire-irons had fallen as Pierre opened the door to bring me my draught. My heart was palpitating violently, and I begged Pierre to leave my draught beside me; I would take it presently.

As soon as I was alone again, I began to ask myself whether I had been sleeping. Was this a dream—this wonderfully distinct vision—minute in its distinctness down to a patch of rainbow light on the pavement, transmitted through a coloured lamp in the shape of a star—of a strange city, quite unfamiliar to my imagination? I had seen no picture of Prague: it lay in my mind as a mere name, with vaguely-remembered historical associations—ill-defined memories of imperial grandeur and religious wars.

Nothing of this sort had ever occurred in my dreaming experience before, for I had often been humiliated because my dreams were only saved from being utterly disjointed and commonplace by the frequent terrors of nightmare. But I could not believe that I had been asleep, for I remembered distinctly the gradual breaking in of the vision upon me, like the new images in a dissolving view, or the growing distinctness of the landscape as the sun lifts up the veil of the morning mist. And while I was conscious of this incipient vision, I was also conscious that Pierre came to tell my father Mr. Filmore was waiting for him, and that my

father hurried out of the room. No, it was not a dream; was it–the thought was full of tremulous exultation–was it the poet's nature in me, hitherto only a troubled yearning sensibility, now manifesting itself suddenly as spontaneous creation? Surely it was in this way that Homer saw the plain of Troy, that Dante saw the abodes of the departed, that Milton saw the earthward flight of the Tempter. Was it that my illness had wrought some happy change in my organization–given a firmer tension to my nerves–carried off some dull obstruction? I had often read of such effects–in works of fiction at least. Nay; in genuine biographies I had read of the subtilizing or exalting influence of some diseases on the mental powers. Did not Novalis feel his inspiration intensified under the progress of consumption?

When my mind had dwelt for some time on this blissful idea, it seemed to me that I might perhaps test it by an exertion of my will. The vision had begun when my father was speaking of our going to Prague. I did not for a moment believe it was really a representation of that city; I believed–I hoped it was a picture that my newly liberated genius had painted in fiery haste, with the colours snatched from lazy memory. Suppose I were to fix my mind on some other place–Venice, for example, which was far more familiar to my imagination than Prague: perhaps the same sort of result would follow. I concentrated my thoughts on Venice; I stimulated my imagination with poetic memories, and strove to feel myself present in Venice, as I had felt myself present in Prague. But in vain. I was only colouring the Canaletto engravings that hung in my old bedroom at home; the picture was a shifting one, my mind wandering uncertainly in search of more vivid images; I could see no accident of form or shadow without conscious labour after the necessary conditions. It was all prosaic effort, not rapt passivity, such as I had experienced half an hour before. I was discouraged; but I remembered that inspiration was fitful.

For several days I was in a state of excited expectation, watching for a recurrence of my new gift. I sent my thoughts ranging over my world of knowledge, in the hope that they would find some object which would send a reawakening vibration through my slumbering genius. But no; my world remained as dim as ever, and that flash of strange light refused to come again, though I watched for it with palpitating eagerness.

My father accompanied me every day in a drive, and a gradually lengthening walk as my powers of walking increased; and one evening he had agreed to come and fetch me at twelve the next day, that we might go together to select a musical box, and other purchases rigorously

demanded of a rich Englishman visiting Geneva. He was one of the most punctual of men and bankers, and I was always nervously anxious to be quite ready for him at the appointed time. But, to my surprise, at a quarter past twelve he had not appeared. I felt all the impatience of a convalescent who has nothing particular to do, and who has just taken a tonic in the prospect of immediate exercise that would carry off the stimulus.

Unable to sit still and reserve my strength, I walked up and down the room, looking out on the current of the Rhône, just where it leaves the dark-blue lake; but thinking all the while of the possible causes that could detain my father.

Suddenly I was conscious that my father was in the room, but not alone: there were two persons with him. Strange! I had heard no footstep, I had not seen the door open; but I saw my father, and at his right hand our neighbour Mrs. Filmore, whom I remembered very well, though I had not seen her for five years. She was a commonplace middle-aged woman, in silk and cashmere; but the lady on the left of my father was not more than twenty, a tall, slim, willowy figure, with luxuriant blond hair, arranged in cunning braids and folds that looked almost too massive for the slight figure and the small-featured, thin-lipped face they crowned. But the face had not a girlish expression: the features were sharp, the pale grey eyes at once acute, restless, and sarcastic. They were fixed on me in half-smiling curiosity, and I felt a painful sensation as if a sharp wind were cutting me. The pale-green dress, and the green leaves that seemed to form a border about her pale blond hair, made me think of a Water-Nixie—for my mind was full of German lyrics, and this pale, fatal-eyed woman, with the green weeds, looked like a birth from some cold sedgy stream, the daughter of an aged river.

"Well Latimer, you thought me long," my father said. . . .

But while the last word was in my ears, the whole group vanished, and there was nothing between me and the Chinese painted folding-screen that stood before the door. I was cold and trembling; I could only totter forward and throw myself on the sofa. This strange new power had manifested itself again. . . . But *was* it a power? Might it not rather be a disease—a sort of intermittent delirium, concentrating my energy of brain into moments of unhealthy activity, and leaving my saner hours all the more barren? I felt a dizzy sense of unreality in what my eye rested on; I grasped the bell convulsively, like one trying to free himself from nightmare, and rang it twice. Pierre came with a look of alarm in his face.

"*Monsieur ne se trouve pas bien?*" he said anxiously.

"I'm tired of waiting, Pierre," I said, as distinctly and emphatically as I could, like a man determined to be sober in spite of wine; "I'm afraid something has happened to my father—he's usually so punctual. Run to the Hôtel des Bergues and see if he is there."

Pierre left the room at once, with a soothing "Bien, Monsieur"; and I felt the better for this scene of simple, waking prose. Seeking to calm myself still further, I went into my bedroom, adjoining the *salon*, and opened a case of eau-de-Cologne; took out a bottle; went through the process of taking out the cork very neatly, and then rubbed the reviving spirit over my hands and forehead, and under my nostrils, drawing a new delight from the scent because I had procured it by slow details of labour, and by no strange sudden madness. Already I had begun to taste something of the horror that belongs to the lot of a human being whose nature is not adjusted to simple human conditions.

Still enjoying the scent, I returned to the *salon*, but it was not unoccupied, as it had been before I left it. In front of the Chinese folding-screen there was my father, with Mrs. Filmore on his right hand, and on his left—the slim, blond-haired girl, with the keen face and the keen eyes fixed on me in half-smiling curiosity.

"Well, Latimer, you thought me long," my father said. . . .

I heard no more, felt no more, till I became conscious that I was lying with my head low on the sofa, Pierre, and my father by my side. As soon as I was thoroughly revived, my father left the room, and presently returned, saying—

"I've been to tell the ladies how you are, Latimer. They were waiting in the next room. We shall put off our shopping expedition to-day."

Presently he said, "That young lady is Bertha Grant, Mrs. Filmore's orphan niece. Filmore has adopted her, and she lives with them, so you will have her for a neighbour when we go home—perhaps for a near relation; for there is a tenderness between her and Alfred, I suspect, and I should be gratified by the match, since Filmore means to provide for her in every way as if she were his daughter. It had not occurred to me that you knew nothing about her living with the Filmores."

He made no further allusion to the fact of my having fainted at the moment of seeing her, and I would not for the world have told him the reason: I shrank from the idea of disclosing to any one what might be regarded as a pitiable peculiarity, most of all from betraying it to my father, who would have suspected my sanity ever after.

I do not mean to dwell with particularity on the details of my experi-

ence. I have described these two cases at length, because they had definite, clearly traceable results in my afterlot.

Shortly after this last occurrence—I think the very next day—I began to be aware of a phase in my abnormal sensibility, to which, from the languid and slight nature of my intercourse with others since my illness, I had not been alive before. This was the obtrusion on my mind of the mental process going forward in first one person, and then another, with whom I happened to be in contact: the vagrant, frivolous ideas and emotions of some uninteresting acquaintance—Mrs. Filmore, for example—would force themselves on my consciousness like an importunate, ill-played musical instrument, or the loud activity of an imprisoned insect. But this unpleasant sensibility was fitful, and left me moments of rest, when the souls of my companions were once more shut out from me, and I felt a relief such as silence brings to wearied nerves. I might have believed this importunate insight to be merely a diseased activity of the imagination, but that my prevision of incalculable words and actions proved it to have a fixed relation to the mental process in other minds. But this superadded consciousness, wearying and annoying enough when it urged on me the trivial experience of indifferent people, became an intense pain and grief when it seemed to be opening to me the souls of those who were in a close relation to me—when the rational talk, the graceful attentions, the wittily-turned phrases, and the kindly deeds, which used to make the web of their characters, were seen as if thrust asunder by a microscopic vision, that showed all the intermediate frivolities, all the suppressed egoism, all the struggling chaos of puerilities, meanness, vague capricious memories, and indolent make-shift thoughts, from which human words and deeds emerge like leaflets covering a fermenting heap.

At Basel we were joined by my brother Alfred, now a handsome, self-confident man of six-and-twenty—a thorough contrast to my fragile, nervous, ineffectual self. I believe I was held to have a sort of half-womanish, half-ghostly beauty; for the portrait-painters, who are thick as weeds at Geneva, had often asked me to sit to them, and I had been the model of a dying minstrel in a fancy picture. But I thoroughly disliked my own physique and nothing but the belief that it was a condition of poetic genius would have reconciled me to it. That brief hope was quite fled, and I saw in my face now nothing but the stamp of a morbid organization, framed for passive suffering—too feeble for the sublime resistance of poetic production. Alfred, from whom I had been almost con-

stantly separated, and who, in his present stage of character and appearance, came before me as a perfect stranger, was bent on being extremely friendly and brotherlike to me. He had the superficial kindness of a good-humoured, self-satisfied nature, that fears no rivalry, and has encountered no contrarieties. I am not sure that my disposition was good enough for me to have been quite free from envy towards him, even if our desires had not clashed, and if I had been in the healthy human condition which admits of generous confidence and charitable construction. There must always have been an antipathy between our natures. As it was, he became in a few weeks an object of intense hatred to me; and when he entered the room, still more when he spoke, it was as if a sensation of grating metal had set my teeth on edge. My diseased consciousness was more intensely and continually occupied with his thoughts and emotions, than with those of any other person who came in my way. I was perpetually exasperated with the petty promptings of his conceit and his love of patronage, with his self-complacent belief in Bertha Grant's passion for him, with his half-pitying contempt for me—seen not in the ordinary indications of intonation and phrase and slight action, which an acute and suspicious mind is on the watch for, but in all their naked skinless complication.

For we were rivals, and our desires clashed, though he was not aware of it. I have said nothing yet of the effect Bertha Grant produced in me on a nearer acquaintance. That effect was chiefly determined by the fact that she made the only exception, among all the human beings about me, to my unhappy gift of insight. About Bertha I was always in a state of uncertainty: I could watch the expression of her face, and speculate on its meaning; I could ask for her opinion with the real interest of ignorance; I could listen for her words and watch for her smile with hope and fear: she had for me the fascination of an unravelled destiny. I say it was this fact that chiefly determined the strong effect she produced on me: for, in the abstract, no womanly character could seem to have less affinity for that of a shrinking, romantic, passionate youth than Bertha's. She was keen, sarcastic, unimaginative, prematurely cynical, remaining critical and unmoved in the most impressive scenes, inclined to dissect all my favourite poems, and especially contemptuous towards the German lyrics which were my pet literature at that time. To this moment I am unable to define my feeling towards her: it was not ordinary boyish admiration, for she was the very opposite, even to the colour of her hair, of the ideal woman who still remained to me the type of loveliness; and she was without that enthusiasm for the great and good, which, even at

the moment of her strongest dominion over me, I should have declared to be the highest element of character. But there is no tyranny more complete than that which a self-centred negative nature exercises over a morbidly sensitive nature perpetually craving sympathy and support. The most independent people feel the effect of a man's silence in heightening their value for his opinion—feel an additional triumph in conquering the reverence of a critic habitually captious and satirical: no wonder, then, that an enthusiastic self-distrusting youth should watch and wait before the closed secret of a sarcastic woman's face, as if it were the shrine of the doubtfully benignant deity who ruled his destiny. For a young enthusiast is unable to imagine the total negation in another mind of the emotions which are stirring his own: they may be feeble, latent, inactive, he thinks, but they are there—they may be called forth; sometimes, in moments of happy hallucination, he believes they may be there in all the greater strength because he sees no outward sign of them. And this effect, as I have intimated, was heightened to its utmost intensity in me, because Bertha was the only being who remained for me in the mysterious seclusion of soul that renders such youthful delusion possible. Doubtless there was another sort of fascination at work—that subtle physical attraction which delights in cheating our psychological predictions, and in compelling the men who paint sylphs, to fall in love with some *bonne et brave femme*, heavy-heeled and freckled.

Bertha's behaviour towards me was such as to encourage all my illusions, to heighten my boyish passion, and make me more and more dependent on her smiles. Looking back with my present wretched knowledge, I conclude that her vanity and love of power were intensely gratified by the belief that I had fainted on first seeing her purely from the strong impression her person had produced on me. The most prosaic woman likes to believe herself the object of a violent, a poetic passion; and without a grain of romance in her, Bertha had that spirit of intrigue which gave piquancy to the idea that the brother of the man she meant to marry was dying with love and jealousy for her sake. That she meant to marry my brother was what at that time I did not believe; for though he was assiduous in his attentions to her, and I knew well enough that both he and my father had made up their minds to this result, there was not yet an understood engagement—there had been no explicit declaration; and Bertha habitually, while she flirted with my brother, and accepted his homage in a way that implied to him a thorough recognition of its intention, made me believe, by the subtlest looks and phrases—feminine nothings which could never be quoted against her—that he

was really the object of her secret ridicule; that she thought him, as I did, a coxcomb, whom she would have pleasure in disappointing. Me she openly petted in my brother's presence, as if I were too young and sickly ever to be thought of as a lover; and that was the view he took of me. But I believe she must inwardly have delighted in the tremors into which she threw me by the coaxing way in which she patted my curls, while she laughed at my quotations. Such caresses were always given in the presence of our friends; for when we were alone together, she affected a much greater distance towards me, and now and then took the opportunity, by words or slight actions, to stimulate my foolish timid hope that she really preferred me. And why should she not follow her inclination? I was not in so advantageous a position as my brother, but I had fortune, I was not a year younger than she was, and she was an heiress, who would soon be of age to decide for herself.

The fluctuations of hope and fear, confined to this one channel, made each day in her presence a delicious torment. There was one deliberate act of hers which especially helped to intoxicate me. When we were at Vienna her twentieth birthday occurred, and as she was very fond of ornaments, we all took the opportunity of the splendid jewellers' shops in that Teutonic Paris to purchase her a birthday present of jewellery. Mine, naturally, was the least expensive; it was an opal ring—the opal was my favourite stone, because it seems to blush and turn pale as if it had a soul. I told Bertha so when I gave it her, and said that it was an emblem of the poetic nature, changing with the changing light of heaven and of woman's eyes. In the evening she appeared elegantly dressed, and wearing conspicuously all the birthday presents except mine. I looked eagerly at her fingers, but saw no opal. I had no opportunity of noticing this to her during the evening; but the next day, when I found her seated near the window alone, after breakfast, I said, "You scorn to wear my poor opal. I should have remembered that you despised poetic natures, and should have given you coral, or turquoise, or some other opaque unresponsive stone." "Do I despise it?" she answered, taking hold of a delicate gold chain which she always wore round her neck and drawing out the end from her bosom with my ring hanging to it; "it hurts me a little, I can tell you," she said, with her usual dubious smile, "to wear it in that secret place; and since your poetical nature is so stupid as to prefer a more public position, I shall not endure the pain any longer."

She took off the ring from the chain and put it on her finger, smiling still, while the blood rushed to my cheeks, and I could not trust myself

to say a word of entreaty that she would keep the ring where it was before.

I was completely fooled by this, and for two days shut myself up in my own room whenever Bertha was absent, that I might intoxicate myself afresh with the thought of this scene and all it implied.

I should mention that during these two months—which seemed a long life to me from the novelty and intensity of the pleasures and pains I underwent—my diseased participation in other people's consciousness continued to torment me; now it was my father, and now my brother, now Mrs. Filmore or her husband, and now our German courier, whose stream of thought rushed upon me like a ringing in the ears not to be got rid of, though it allowed my own impulses and ideas to continue their uninterrupted course. It was like a preternaturally heightened sense of hearing, making audible to one a roar of sound where others find perfect stillness, The weariness and disgust of this involuntary intrusion into other souls was counteracted only by my ignorance of Bertha, and my growing passion for her; a passion enormously stimulated, if not produced, by that ignorance. She was my oasis of mystery in the dreary desert of knowledge. I had never allowed my diseased condition to betray itself, or to drive me into any unusual speech or action, except once, when, in a moment of peculiar bitterness against my brother, I had forestalled some words which I knew he was going to utter—a clever observation, which he had prepared beforehand. He had occasionally a slightly-affected hesitation in his speech, and when he paused an instant after the second word, my impatience and jealousy impelled me to continue the speech for him, as if it were something we had both learned by rote. He coloured and looked astonished, as well as annoyed; and the words had no sooner escaped my lips than I felt a shock of alarm lest such an anticipation of words—very far from being words of course, easy to divine—should have betrayed me as an exceptional being, a sort of quiet energumen, whom every one, Bertha above all, would shudder at and avoid. But I magnified, as usual, the impression any word or deed of mine could produce on others; for no one gave any sign of having noticed my interruption as more than a rudeness, to be forgiven me on the score of my feeble nervous condition.

While this superadded consciousness of the actual was almost constant with me, I had never had a recurrence of that distinct prevision which I have described in relation to my first interview with Bertha; and I was waiting with eager curiosity to know whether or not my vision of Prague

would prove to have been an instance of the same kind. A few days after the incident of the opal ring, we were paying one of our frequent visits to the Lichtenberg Palace. I could never look at many pictures in succession; for pictures, when they are at all powerful, affect me so strongly that one or two exhaust all my capability of contemplation. This morning I had been looking at Giorgione's picture of the cruel-eyed woman, said to be a likeness of Lucrezia Borgia. I had stood long alone before it, fascinated by the terrible reality of that cunning, relentless face, till I felt a strange poisoned sensation, as if I had long been inhaling a fatal odour, and was just beginning to be conscious of its effects. Perhaps even then I should not have moved away, if the rest of the party had not returned to this room, and announced that they were going to the Belvedere Gallery to settle a bet which had arisen between my brother and Mr. Filmore about a portrait. I followed them dreamily, and was hardly alive to what occurred till they had all gone up to the gallery, leaving me below; for I refused to come within sight of another picture that day. I made my way to the Grand Terrace, since it was agreed that we should saunter in the gardens when the dispute had been decided. I had been sitting here a short space, vaguely conscious of trim gardens, with a city and green hills in the distance, when, wishing to avoid the proximity of the sentinel, I rose and walked down the broad stone steps, intending to seat myself farther on in the gardens. Just as I reached the gravel-walk, I felt an arm slipped within mine, and a light hand gently pressing my wrist. In the same instant a strange intoxicating numbness passed over me, like the continuance or climax of the sensation I was still feeling from the gaze of Lucrezia Borgia. The gardens, the summer sky, the consciousness of Bertha's arm being within mine, all vanished, and I seemed to be suddenly in darkness, out of which there gradually broke a dim firelight, and I felt myself sitting in my father's leather chair in the library at home. I knew the fireplace—the dogs for the wood-fire—the black marble chimneypiece with the white marble medallion of the dying Cleopatra in the centre. Intense and hopeless misery was pressing on my soul; the light became stronger, for Bertha was entering with a candle in her hand—Bertha, my wife—with cruel eyes, with green jewels and green leaves on her white ball-dress; every hateful thought within her present to me. . . . "Madman, idiot! Why don't you kill yourself, then?" It was a moment of hell. I saw into her pitiless soul—saw its barren worldliness, its scorching hate—and felt it clothe me round like an air I was obliged to breathe. She came with her candle and stood over me with a bitter smile of contempt; I saw the great emerald brooch on

her bosom, a studded serpent with diamond eyes. I shuddered–I despised this woman with the barren soul and mean thoughts; but I felt helpless before her, as if she clutched my bleeding heart, and would clutch it till the last drop of life-blood ebbed away. She was my wife, and we hated each other. Gradually the hearth, the dim library, the candlelight disappeared–seemed to melt away into a background of light, the green serpent with the diamond eyes remaining a dark image on the retina. Then I had a sense of my eyelids quivering, and the living daylight broke in upon me; I saw gardens, and heard voices; I was seated on the steps of the Belvedere Terrace, and my friends were round me.

The tumult of mind into which I was thrown by this hideous vision made me ill for several days, and prolonged our stay at Vienna. I shuddered with horror as the scene recurred to me; and it recurred constantly, with all its minutiae, as if they had been burnt into my memory; and yet, such is the madness of the human heart under the influence of its immediate desires, I felt a wild hell-braving joy that Bertha was to be mine; for the fulfilment of my former prevision concerning her first appearance before me, left me little hope that this last hideous glimpse of the future was the mere diseased play of my own mind, and had no relation to external realities. One thing alone I looked towards as a possible means of casting doubt on my terrible conviction–the discovery that my vision of Prague had been false–and Prague was the next city on our route.

Meanwhile, I was no sooner in Bertha's society again, than I was as completely under her sway as before. What if I saw into the heart of Bertha, the matured woman–Bertha, my wife? Bertha, the *girl,* was a fascinating secret to me still: I trembled under her touch; I felt the witchery of her presence; I yearned to be assured of her love. The fear of poison is feeble against the sense of thirst. Nay, I was just as jealous of my brother as before–just as much irritated by his small patronizing ways; for my pride, my diseased sensibility, were there as they had always been, and winced as inevitably under every offence as my eye winced from an intruding mote. The future, even when brought within the compass of feeling by a vision that made me shudder, had still no more than the force of an idea, compared with the force of present emotion–of my love for Bertha, of my dislike and jealousy towards my brother.

It is an old story, that men sell themselves to the tempter, and sign a bond with their blood, because it is only to take effect at a distant day; then rush on to snatch the cup their souls thirst after with an impulse not the less savage because there is a dark shadow beside them for evermore.

There is no short cut, no patent tram-road, to wisdom: after all the centuries of invention, the soul's path lies through the thorny wilderness which must be still trodden in solitude, with bleeding feet, with sobs for help, as it was trodden by them of old time.

My mind speculated eagerly on the means by which I should become my brother's successful rival, for I was still too timid, in my ignorance of Bertha's actual feeling, to venture on any step that would urge from her an avowal of it. I thought I should gain confidence even for this, if my vision of Prague proved to have been veracious; and yet, the horror of that certitude! Behind the slim girl Bertha, whose words and looks I watched for, whose touch was bliss, there stood continually that Bertha with the fuller form, the harder eyes, the more rigid mouth—with the barren, selfish soul laid bare; no longer a fascinating secret, but a measured fact, urging itself perpetually on my unwilling sight. Are you unable to give me your sympathy—you who read this? Are you unable to imagine this double consciousness at work within me, flowing on like two parallel streams which never mingle their waters and blend into a common hue? Yet you must have known something of the presentiments that spring from an insight at war with passion; and my visions were only like presentiments intensified to horror. You have known the powerlessness of ideas before the might of impulse; and my visions, when once they had passed into memory, were mere ideas—and pale shadows that beckoned in vain, while my hand was grasped by the living and the loved.

In after-days I thought with bitter regret that if I had foreseen something more or something different—if instead of that hideous vision which poisoned the passion it could not destroy, or if even along with it I could have had a foreshadowing of that moment when I looked on my brother's face for the last time, some softening influence would have been shed over my feeling towards him: pride and hatred would surely have been subdued into pity, and the record of those hidden sins would have been shortened. But this is one of the vain thoughts with which we men flatter ourselves. We try to believe that the egoism within us would have easily been melted, and that it was only the narrowness of our knowledge which hemmed in our generosity, our awe, our human piety, and hindered them from submerging our hard indifference to the sensations and emotions of our fellows. Our tenderness and self-renunciation seem strong when our egoism has had its day—when, after our mean striving for a triumph that is to be another's loss, the triumph comes suddenly, and we shudder at it, because it is held out by the chill hand of death.

Our arrival in Prague happened at night, and I was glad of this, for

it seemed like a deferring of a terribly decisive moment, to be in the city for hours without seeing it. As we were not to remain long in Prague, but to go on speedily to Dresden, it was proposed that we should drive out the next morning and take a general view of the place, as well as visit some of its specially interesting spots, before the heat became oppressive—for we were in August, and the season was hot and dry. But it happened that the ladies were rather late at their morning toilet, and to my father's politely-repressed but perceptible annoyance, we were not in the carriage till the morning was far advanced. I thought with a sense of relief, as we entered the Jews' quarter, where we were to visit the old synagogue, that we should be kept in this flat, shut-up part of the city, until we should all be too tired and too warm to go farther, and so we should return without seeing more than the streets through which we had already passed. That would give me another day's suspense—suspense, the only form in which a fearful spirit knows the solace of hope. But, as I stood under the blackened, groined arches of that old synagogue, made dimly visible by the seven thin candles in the sacred lamp, while our Jewish cicerone reached down the Book of the Law, and read to us in its ancient tongue—I felt a shuddering impression that this strange building, with its shrunken lights, this surviving withered remnant of medieval Judaism, was of a piece with my vision. Those darkened dusty Christian saints, with their loftier arches and their larger candles, needed the consolatory scorn with which they might point to a more shrivelled death-in-life than their own.

As I expected, when we left the Jews' quarter the elders of our party wished to return to the hotel. But now, instead of rejoicing in this, as I had done beforehand, I felt a sudden overpowering impulse to go on at once to the bridge, and put an end to the suspense I had been wishing to protract. I declared, with unusual decision, that I would get out of the carriage and walk on alone; they might return without me. My father, thinking this merely a sample of my usual "poetic nonsense," objected that I should only do myself harm by walking in the heat; but when I persisted, he said angrily that I might follow my own absurd devices, but that Schmidt (our courier) must go with me. I assented to this, and set off with Schmidt towards the bridge. I had no sooner passed from under the archway of the grand old gate leading on to the bridge than a trembling seized me, and I turned cold under the midday sun; yet I went on; I was in search of something—a small detail which I remembered with special intensity as part of my vision. There it was—the patch of rainbow light on the pavement transmitted through a lamp in the shape of a star.

CHAPTER II

Before the autumn was at an end, and while the brown leaves still stood thick on the beeches in our park, my brother and Bertha were engaged to each other, and it was understood that their marriage was to take place early in the next spring. In spite of the certainty I had felt from that moment on the bridge at Prague, that Bertha would one day be my wife, my constitutional timidity and distrust had continued to benumb me, and the words in which I had sometimes premeditated a confession of my love, had died away unuttered. The same conflict had gone on within me as before—the longing for an assurance of love from Bertha's lips, the dread lest a word of contempt and denial should fall upon me like a corrosive acid. What was the conviction of a distant necessity to me? I trembled under a present glance, I hungered after a present joy, I was clogged and chilled by a present fear. And so the days passed on: I witnessed Bertha's engagement and heard her marriage discussed as if I were under a conscious nightmare—knowing it was a dream that would vanish, but feeling stifled under the grasp of hard-clutching fingers.

When I was not in Bertha's presence—and I was with her very often, for she continued to treat me with a playful patronage that wakened no jealousy in my brother—I spent my time chiefly in wandering, in strolling, or taking long rides while the daylight lasted, and then shutting myself up with my unread books; for books had lost the power of chaining my attention. My self-consciousness was heightened to that pitch of intensity in which our own emotions take the form of a drama which urges itself imperatively on our contemplation, and we begin to weep, less under the sense of our suffering than at the thought of it. I felt a sort of pitying anguish over the pathos of my own lot: the lot of a being finely organized for pain, but with hardly any fibres that responded to pleasusre—to whom the idea of future evil robbed the present of its joy, and for whom the idea of future good did not still the uneasiness of a present yearning or a present dread. I went dumbly through that stage of the poet's suffering, in which he feels the delicious pang of utterance, and makes an image of his sorrows.

I was left entirely without remonstrance concerning this dreamy wayward life: I knew my father's thought about me: "That lad will never be good for anything in life: he may waste his years in an insignificant way on the income that falls to him: I shall not trouble myself about a career for him."

One mild morning in the beginning of November, it happened that I was standing outside the portico patting lazy old Caesar, a Newfoundland almost blind with age, the only dog that ever took any notice of me—for the very dogs shunned me, and fawned on the happier people about me—when the groom brought up my brother's horse which was to carry him to the hunt, and my brother himself appeared at the door, florid, broad-chested, and self-complacent, feeling what a good-natured fellow he was not to behave insolently to us all on the strength of his great advantages.

"Latimer, old boy," he said to me in a tone of compassionate cordiality, "what a pity it is you don't have a run with the hounds now and then! The finest thing in the world for low spirits!"

"Low spirits!" I thought bitterly, as he rode away; "that is the sort of phrase with which coarse, narrow natures like yours think to describe experience of which you can know no more than your horse knows. It is to such as you that the good of this world falls: ready dullness, healthy selfishness, good-tempered conceit—these are the keys to happiness."

The quick thought came, that my selfishness was even stronger than his—it was only a suffering selfishness instead of an enjoying one. But then, again, my exasperating insight into Alfred's self-complacent soul, his freedom from all the doubts and fears, the unsatisfied yearnings, the exquisite tortures of sensitiveness, that had made the web of my life, seemed to absolve me from all bonds towards him. This man needed no pity, no love; those fine influences would have been as little felt by him as the delicate white mist is felt by the rock it caresses. There was no evil in store for *him:* if he was not to marry Bertha, it would be because he had found a lot pleasanter to himself.

Mr. Filmore's house lay not more than half a mile beyond our own gates, and whenever I knew my brother was gone in another direction, I went there for the chance of finding Bertha at home. Later on in the day I walked thither. By a rare accident she was alone, and we walked out in the grounds together, for she seldom went on foot beyond the trimly-swept gravel-walks. I remember what a beautiful sylph she looked to me as the low November sun shone on her blond hair, and she tripped along teasing me with her usual light banter, to which I listened half fondly, half moodily; it was all the sign Bertha's mysterious inner self ever made to me. To-day perhaps the moodiness predominated, for I had not yet shaken off the access of jealous hate which my brother had raised in me by his parting patronage. Suddenly I interrupted and startled her by saying, almost fiercely, "Bertha, how can you love Alfred?"

She looked at me with surprise for a moment, but soon her light smile came again, and she answered sarcastically, "Why do you suppose I love him?"

"How can you ask that, Bertha?"

"What! Your wisdom thinks I must love the man I'm going to marry? The most unpleasant thing in the world. I should quarrel with him; I should be jealous of him; our ménage would be conducted in a very ill-bred manner. A little quiet contempt contributes greatly to the elegance of life."

"Bertha, that is not your real feeling. Why do you delight in trying to deceive me by inventing such cynical speeches?"

"I need never take the trouble of invention in order to deceive you, my small Tasso"—that was the mocking name she usually gave me. "The easiest way to deceive a poet is to tell him the truth."

She was testing the validity of her epigram in a daring way, and for a moment the shadow of my vision—the Bertha whose soul was no secret to me—passed between me and the radiant girl, the playful sylph whose feelings were a fascinating mystery. I suppose I must have shuddered, or betrayed in some other way my momentary chill of horror.

"Tasso!" she said, seizing my wrist, and peeping round into my face, "are you really beginning to discern what a heartless girl I am? Why, you are not half the poet I thought you were; you are actually capable of believing the truth about me."

The shadow passed from between us, and was no longer the object nearest to me. The girl whose light fingers grasped me, whose elfish charming face looked into mine—who, I thought, was betraying an interest in my feelings that she would not have directly avowed—this warm breathing presence again possessed my senses and imagination like a returning siren melody which had been overpowered for an instant by the roar of threatening waves. It was a moment as delicious to me as the waking up to a consciousness of youth after a dream of middle age. I forgot everything but my passion, and said with swimming eyes—

"Bertha, shall you love me when we are first married? I wouldn't mind if you really loved me only for a little while."

Her look of astonishment, as she loosed my hand and started away from me, recalled me to a sense of my strange, my criminal indiscretion.

"Forgive me," I said, hurriedly, as soon as I could speak again; "I did not know what I was saying."

"Ah, Tasso's mad fit has come on, I see," she answered quietly, for she

had recovered herself sooner than I had. "Let him go home and keep his head cool. I must go in, for the sun is setting."

I left her—full of indignation against myself. I had let slip words which, if she reflected on them, might rouse in her a suspicion of my abnormal mental condition—a suspicion which of all things I dreaded. And besides that, I was ashamed of the apparent baseness I had committed in uttering them to my brother's betrothed wife. I wandered home slowly, entering our park through a private gate instead of by the lodges. As I approached the house, I saw a man dashing off at full speed from the stable-yard across the park. Had any accident happened at home? No; perhaps it was only one of my father's peremptory business errands that required this headlong haste.

Nevertheless I quickened my pace without any distinct motive, and was soon at the house. I will not dwell on the scene I found there. My brother was dead—had been pitched from his horse, and killed on the spot by a concussion of the brain.

I went up to the room where he lay, and where my father was seated beside him with a look of rigid despair. I had shunned my father more than any one since our return home, for the radical antipathy between our natures made my insight into his inner self a constant affliction to me. But now, as I went up to him, and stood beside him in sad silence, I felt the presence of a new element that blended us as we had never been blent before. My father had been one of the most successful men in the money-getting world: he had had no sentimental sufferings, no illness. The heaviest trouble that had befallen him was the death of his first wife. But he married my mother soon after; and I remember he seemed exactly the same, to my keen childish observation, the week after her death as before. But now, at last, a sorrow had come—the sorrow of old age, which suffers the more from the crushing of its pride and its hopes, in proportion as the pride and hope are narrow and prosaic. His son was to have been married soon—would probably have stood for the borough at the next election. That son's existence was the best motive that could be alleged for making new purchases of land every year to round off the estate. It is a dreary thing to live on doing the same things year after year, without knowing why we do them. Perhaps the tragedy of disappointed youth and passion is less piteous than the tragedy of disappointed age and worldliness.

As I saw into the desolation of my father's heart, I felt a movement of deep pity towards him, which was the beginning of a new affection—an

affection that grew and strengthened in spite of the strange bitterness with which he regarded me in the first month or two after my brother's death. If it had not been for the softening influence of my compassion for him—the first deep compassion I had ever felt—I should have been stung by the perception that my father transferred the inheritance of an eldest son to me with a mortified sense that fate had compelled him to the unwelcome course of caring for me as an important being. It was only in spite of himself that he began to think of me with anxious regard. There is hardly any neglected child for whom death has made vacant a more favoured place, who will not understand what I mean.

Gradually, however, my new deference to his wishes, the effect of that patience which was born of my pity for him, won upon his affection, and he began to please himself with the endeavour to make me fill my brother's place as fully as my feebler personality would admit. I saw that the prospect which by and by presented itself of my becoming Bertha's husband was welcome to him, and he even contemplated in my case what he had not intended in my brother's—that his son and daughter-in-law should make one household with him. My softened feeling towards my father made this the happiest time I had known since childhood—these last months in which I retained the delicious illusion of loving Bertha, of longing and doubting and hoping that she might love me. She behaved with a certain new consciousness and distance towards me after my brother's death; and I too was under a double constraint—that of delicacy towards my brother's memory, and of anxiety as to the impression my abrupt words had left on her mind. But the additional screen this mutual reserve erected between us only brought me more completely under her power: no matter how empty the adytum, so that the veil be thick enough. So absolute is our soul's need of something hidden and uncertain for the maintenance of that doubt and hope and effort which are the breath of its life, that if the whole future were laid bare to us beyond to-day, the interest of all mankind would be bent on the hours that lie between; we should pant after the uncertainties of our one morning and our one afternoon; we should rush fiercely to the Exchange for our last possibility of speculation, of success, of disappointment: we should have a glut of political prophets foretelling a crisis or a no-crisis within the only twenty-four hours left open to prophecy. Conceive the condition of the human mind if all propositions whatsoever were self-evident except one, which was to become self-evident at the close of a summer's day, but in the meantime might be the subject of question, of hypothesis, of debate.

Art and philosophy, literature and science, would fasten like bees on that one proposition which had the honey of probability in it, and be the more eager because their enjoyment would end with sunset. Our impulses, our spiritual activities, no more adjust themselves to the idea of their future nullity, than the beating of our heart, or the irritability of our muscles.

Bertha, the slim, fair-haired girl, whose present thoughts and emotions were an enigma to me amidst the fatiguing obviousness of the other minds around me, was as absorbing to me as a single unknown to-day—as a single hypothetic proposition to remain problematic till sunset; and all the cramped, hemmed-in belief and disbelief, trust and distrust, of my nature, welled out in this one narrow channel.

And she made me believe that she loved me. Without ever quitting her tone of badinage and playful superiority, she intoxicated me with the sense that I was necessary to her, that she was never at ease unless I was near her, submitting to her playful tyranny. It costs a woman so little effort to besot us in this way! A half-repressed word, a moment's unexpected silence, even an easy fit of petulance on our account, will serve us as hashish for a long while. Out of the subtlest web of scarcely perceptible signs, she set me weaving the fancy that she had always unconsciously loved me better than Alfred, but that, with the ignorant fluttered sensibility of a young girl, she had been imposed on by the charm that lay for her in the distinction of being admired and chosen by a man who made so brilliant a figure in the world as my brother. She satirized herself in a very graceful way for her vanity and ambition. What was it to me that I had the light of my wretched provision on the fact that now it was I who possessed at least all but the personal part of my brother's advantages? Our sweet illusions are half of them conscious illusions, like effects of colour that we know to be made up of tinsel, broken glass, and rags.

We were married eighteen months after Alfred's death, one cold, clear morning in April, when there came hail and sunshine both together; and Bertha, in her white silk and pale-green leaves, and the pale hues of her hair and face, looked like the spirit of the morning. My father was happier than he had thought of being again: my marriage, he felt sure, would complete the desirable modification of my character, and make me practical and worldly enough to take my place in society among sane men. For he delighted in Bertha's tact and acuteness, and felt sure she would be mistress of me, and make me what she chose: I was only

twenty-one, and madly in love with her. Poor father! He kept that hope a little while after our first year of marriage, and it was not quite extinct when paralysis came and saved him from utter disappointment.

I shall hurry through the rest of my story, not dwelling so much as I have hitherto done on my inward experience. When people are well known to each other, they talk rather of what befalls them externally, leaving their feelings and sentiments to be inferred.

We lived in a round of visits for some time after our return home, giving splendid dinner-parties, and making a sensation in our neighbourhood by the new lustre of our equipage, for my father had reserved this display of his increased wealth for the period of his son's marriage; and we gave our acquaintances liberal opportunity for remarking that it was a pity I made so poor a figure as an heir and a bridegroom. The nervous fatigue of this existence, the insincerities and platitudes which I had to live through twice over–through my inner and outward sense–would have been maddening to me, if I had not had that sort of intoxicated callousness which came from the delights of a first passion. A bride and bridegroom, surrounded by all the appliances of wealth, hurried through the day by the whirl of society, filling their solitary moments with hastily snatched caresses, are prepared for their future life together as the novice is prepared for the cloister–by experiencing its utmost contrast.

Through all these crowded excited months, Bertha's inward self remained shrouded from me, and I still read her thoughts only through the language of her lips and demeanour: I had still the human interest of wondering whether what I did and said pleased her, of longing to hear a word of affection, of giving a delicious exaggeration of meaning to her smile. But I was conscious of a growing difference in her manner towards me; sometimes strong enough to be called haughty coldness, cutting and chilling me as the hail had done that came across the sunshine on our marriage morning; sometimes only perceptible in the dexterous avoidance of a tête-à-tête walk or dinner to which I had been looking forward. I had been deeply pained by this–had even felt a sort of crushing of the heart, from the sense that my brief day of happiness was near its setting; but still I remained dependent on Bertha, eager for the last rays of a bliss that would soon be gone for ever, hoping and watching for some afterglow more beautiful from the impending night.

I remember–how should I not remember?–the time when that dependence and hope utterly left me, when the sadness I had felt in Bertha's growing estrangement became a joy that I looked back upon with longing as a man might look back on the last pains in a paralysed

limb. It was just after the close of my father's last illness, which had necessarily withdrawn us from society and thrown us more upon each other. It was the evening of my father's death. On that evening the veil which had shrouded Bertha's soul from me—had made me find in her alone among my fellow-beings the blessed possibility of mystery, and doubt, and expectation—was first withdrawn. Perhaps it was the first day since the beginning of my passion for her, in which that passion was completely neutralized by the presence of an absorbing feeling of another kind. I had been watching by my father's deathbed: I had been witnessing the last fitful yearning glance his soul had cast back on the spent inheritance of life—the last faint consciousness of love he had gathered from the pressure of my hand. What are all our personal loves when we have been sharing in that supreme agony? In the first moments when we come away from the presence of death, every other relation to the living is merged, to our feeling, in the great relation of a common nature and a common destiny.

In that state of mind I joined Bertha in her private sitting-room. She was seated in a leaning posture on a settee, with her back towards the door; the great rich coils of her pale blond hair surmounting her small neck, visible above the back of the settee. I remember, as I closed the door behind me, a cold tremulousness seizing me, and a vague sense of being hated and lonely—vague and strong, like a presentiment. I know how I looked at that moment, for I saw myself in Bertha's thought as she lifted her cutting grey eyes, and looked at me: a miserable ghost-seer, surrounded by phantoms in the noonday, trembling under a breeze when the leaves were still, without appetite for the common objects of human desires, but pining after the moonbeams. We were front to front with each other, and judged each other. The terrible moment of complete illumination had come to me, and I saw that the darkness had hidden no landscape from me, but only a blank prosaic wall: from that evening forth, through the sickening years which followed, I saw all round the narrow room of this woman's soul—saw petty artifice and mere negation where I had delighted to believe in coy sensibilities and in wit at war with latent feeling—saw the light floating vanities of the girl defining themselves into the systematic coquetry, the scheming selfishness, of the woman—saw repulsion and antipathy harden into cruel hatred, giving pain only for the sake of wreaking itself.

For Bertha too, after her kind, felt the bitterness of disillusion. She had believed that my wild poet's passion for her would make me her slave; and that, being her slave, I should execute her will in all things. With the

essential shallowness of a negative, unimaginative nature, she was unable to conceive the fact that sensibilities were anything else than weaknesses. She had thought my weaknesses would put me in her power, and she found them unmanageable forces. Our positions were reversed. Before marriage she had completely mastered my imagination, for she was a secret to me; and I created the unknown thought before which I trembled as if it were hers. But now that her soul was laid open to me, now that I was compelled to share the privacy of her motives, to follow all the petty devices that preceded her words and acts, she found herself powerless with me, except to produce in me the chill shudder of repulsion—powerless, because I could be acted on by no lever within her reach. I was dead to worldly ambitions, to social vanities, to all the incentives within the compass of her narrow imagination, and I lived under influences utterly invisible to her.

She was really pitiable to have such a husband, and so all the world thought. A graceful, brilliant woman, like Bertha, who smiled on morning callers, made a figure in ball-rooms, and was capable of that light repartee which, from such a woman, is accepted as wit, was secure of carrying off all sympathy from a husband who was sickly, abstracted, and, as some suspected, crack-brained. Even the servants in our house gave her the balance of their regard and pity. For there were no audible quarrels between us; our alienation, our repulsion from each other, lay within the silence of our own hearts; and if the mistress went out a great deal, and seemed to dislike the master's society, was it not natural, poor thing? The master was odd. I was kind and just to my dependants, but I excited in them a shrinking, half-contemptuous pity; for this class of men and women are but slightly determined in their estimate of others by general considerations, or even experience, of character. They judge of persons as they judge of coins, and value those who pass current at a high rate.

After a time I interfered so little with Bertha's habits that it might seem wonderful how her hatred towards me could grow so intense and active as it did. But she had begun to suspect, by some involuntary betrayal of mine, that there was an abnormal power of penetration in me—that fitfully, at least, I was strangely cognizant of her thoughts and intentions, and she began to be haunted by a terror of me, which alternated every now and then with defiance. She meditated continually how the incubus could be shaken off her life—how she could be freed from this hateful bond to a being whom she at once despised as an imbecile, and dreaded as an inquisitor. For a long while she lived in the hope that my evident

wretchedness would drive me to the commission of suicide; but suicide was not in my nature. I was too completely swayed by the sense that I was in the grasp of unknown forces, to believe in my power of self-release. Towards my own destiny I had become entirely passive; for my one ardent desire had spent itself, and impulse no longer predominated over knowledge. For this reason I never thought of taking any steps towards a complete separation, which would have made our alienation evident to the world. Why should I rush for help to a new course, when I was only suffering from the consequences of a deed which had been the act of my intensest will? That would have been the logic of one who had desires to gratify, and I had no desires. But Bertha and I lived more and more aloof from each other. The rich find it easy to live married and apart.

That course of our life which I have indicated in a few sentences filled the space of years. So much misery—so slow and hideous a growth of hatred and sin, may be compressed into a sentence! And men judge of each other's lives through this summary medium. They epitomize the experience of their fellow-mortal, and pronounce judgment on him in neat syntax, and feel themselves wise and virtuous—conquerors over the temptations they define in well-selected predicates. Seven years of wretchedness glide glibly over the lips of the man who has never counted them out in moments of chill disappointment, of head and heart throbbings, of dread and vain wrestling, of remorse and despair. We learn *words* by rote, but not their meaning; *that* must be paid for with our life-blood, and printed in the subtle fibres of our nerves.

But I will hasten to finish my story. Brevity is justified at once to those who readily understand, and to those who will never understand.

Some years after my father's death, I was sitting by the dim firelight in my library one January evening—sitting in the leather chair that used to be my father's—when Bertha appeared at the door, with a candle in her hand, and advanced towards me. I knew the ball-dress she had on—the white ball-dress, with the green jewels, shone upon by the light of the wax candle which lit up the medallion of the dying Cleopatra on the mantelpiece. Why did she come to me before going out? I had not seen her in the library, which was my habitual place for months. Why did she stand before me with the candle in her hand, with her cruel contemptuous eyes fixed on me, and the glittering serpent, like a familiar demon, on her breast? For a moment I thought this fulfilment of my vision at Vienna marked some dreadful crisis in my fate, but I saw nothing in Bertha's mind, as she stood before me, except scorn for the look of over-

whelming misery with which I sat before her. . . . "Fool, idiot, why don't you kill yourself, then?" that was her thought. But at length her thoughts reverted to her errand, and she spoke aloud. The apparently indifferent nature of the errand seemed to make a ridiculous anticlimax to my prevision and my agitation.

"I have had to hire a new maid. Fletcher is going to be married, and she wants me to ask you to let her husband have the public house and farm at Molton. I wish him to have it. You must give the promise now, because Fletcher is going to-morrow morning—and quickly, because I'm in a hurry."

"Very well; you may promise her," I said, indifferently, and Bertha swept out of the library again.

I always shrank from the sight of a new person, and all the more when it was a person whose mental life was likely to weary my reluctant insight with worldly ignorant trivialities. But I shrank especially from the sight of this new maid, because her advent had been announced to me at a moment to which I could not cease to attach some fatality: I had a vague dread that I should find her mixed up with the dreary drama of my life—that some new sickening vision would reveal her to me as an evil genius. When at last I did unavoidably meet her, the vague dread was changed into definite disgust. She was a tall, wiry, dark-eyed woman, this Mrs. Archer, with a face handsome enough to give her coarse hard nature the odious finish of bold, self-confident coquetry. That was enough to make me avoid her, quite apart from the contemptuous feeling with which she contemplated me. I seldom saw her; but I perceived that she rapidly became a favourite with her mistress, and, after the lapse of eight or nine months, I began to be aware that there had arisen in Bertha's mind towards this woman a mingled feeling of fear and dependence, and that this feeling was associated with ill-defined images of candlelight scenes in her dressing-room, and the locking-up of something in Bertha's cabinet. My interviews with my wife had become so brief and so rarely solitary, that I had no opportunity of perceiving these images in her mind with more definiteness. The recollections of the past become contracted in the rapidity of thought till they sometimes bear hardly a more distinct resemblance to the external reality than the forms of an oriental alphabet to the objects that suggested them.

Besides, for the last year or more a modification had been going forward in my mental condition, and was growing more and more marked. My insight into the minds of those around me was becoming dimmer and more fitful, and the ideas that crowded my double consciousness became

less and less dependent on any personal contact. All that was personal in me seemed to be suffering a gradual death, so that I was losing the organ through which the personal agitations and projects of others could affect me. But along with this relief from wearisome insight, there was a new development of what I concluded—as I have since found rightly—to be a prevision of external scenes. It was as if the relation between me and my fellow-men was more and more deadened, and my relation to what we call the inanimate was quickened into new life. The more I lived apart from society, and in proportion as my wretchedness subsided from the violent throb of agonized passion into the dullness of habitual pain, the more frequent and vivid became such visions as that I had had of Prague—of strange cities, of sandy plains, of gigantic ruins, of midnight skies with strange bright constellations, of mountain passes, of grassy nooks flecked with the afternoon sunshine through the boughs: I was in the midst of such scenes, and in all of them one presence seemed to weigh on me in all these mighty shapes—the presence of something unknown and pitiless. For continual suffering had annihilated religious faith within me: to the utterly miserable—the unloving and the unloved—there is no religion possible, no worship but a worship of devils. And beyond all these, and continually recurring, was the vision of my death—the pangs, the suffocation, the last struggle, when life would be grasped at in vain.

Things were in this state near the end of the seventh year. I had become entirely free from insight, from my abnormal cognizance of any other consciousness than my own, and instead of intruding involuntarily into the world of other minds, was living continually in my own solitary future. Bertha was aware that I was greatly changed. To my surprise she had of late seemed to seek opportunities of remaining in my society, and had cultivated that kind of distant yet familiar talk which is customary between a husband and wife who live in polite and irrevocable alienation. I bore this with languid submission, and without feeling enough interest in her motives to be roused into keen observation; yet I could not help perceiving something triumphant and excited in her carriage and the expression of her face—something too subtle to express itself in words or tones, but giving one the idea that she lived in a state of expectation or hopeful suspense. My chief feeling was satisfaction that her inner self was once more shut out from me; and I almost revelled for the moment in the absent melancholy that made me answer her at cross purposes, and betray utter ignorance of what she had been saying. I remember well the look and the smile with which she one day said, after

a mistake of this kind on my part: "I used to think you were a clairvoyant, and that was the reason why you were so bitter against other clairvoyants, wanting to keep your monopoly; but I see now you have become rather duller than the rest of the world."

I said nothing in reply. It occurred to me that her recent obtrusion of herself upon me might have been prompted by the wish to test my power of detecting some of her secrets; but I let the thought drop again at once: her motives and her deeds had no interest for me, and whatever pleasures she might be seeking, I had no wish to baulk her. There was still pity in my soul for every living thing, and Bertha was living–was surrounded with possibilities of misery.

Just at this time there occurred an event which roused me somewhat from my inertia, and gave me an interest in the passing moment that I had thought impossible for me. It was a visit from Charles Meunier, who had written me word that he was coming to England for relaxation from too strenuous labour, and would like to see me. Meunier had now a European reputation; but his letter to me expressed that keen remembrance of an early regard, an early debt of sympathy, which is inseparable from nobility of character: and I too felt as if his presence would be to me like a transient resurrection into a happier pre-existence.

He came, and as far as possible, I renewed our old pleasure of making tête-à-tête excursions, though, instead of mountains and glaciers and the wide blue lake, we had to content ourselves with mere slopes and ponds and artificial plantations. The years had changed us both, but with what different result! Meunier was now a brilliant figure in society, to whom elegant women pretended to listen, and whose acquaintance was boasted of by noblemen ambitious of brains. He repressed with the utmost delicacy all betrayal of the shock which I am sure he must have received from our meeting, or of a desire to penetrate into my condition and circumstances, and sought by the utmost exertion of his charming social powers to make our reunion agreeable. Bertha was much struck by the unexpected fascinations of a visitor whom she had expected to find presentable only on the score of his celebrity, and put forth all her coquetries and accomplishments. Apparently she succeeded in attracting his admiration, for his manner towards her was attentive and flattering. The effect of his presence on me was so benignant, especially in those renewals of our old tête-à-tête wanderings, when he poured forth to me wonderful narratives of his professional experience, that more than once, when his talk turned on the psychological relations of disease, the thought crossed my mind that, if his stay with me were long enough, I might possibly

bring myself to tell this man the secrets of my lot. Might there not lie some remedy for *me*, too, in his science? Might there not at least lie some comprehension and sympathy ready for me in his large and susceptible mind? But the thought only flickered feebly now and then, and died out before it could become a wish. The horror I had of again breaking in on the privacy of another soul, made me, by an irrational instinct, draw the shroud of concealment more closely around my own, as we automatically perform the gesture we feel to be wanting in another.

When Meunier's visit was approaching its conclusion, there happened an event which caused some excitement in our household, owing to the surprisingly strong effect it appeared to produce on Bertha—on Bertha, the self-possessed, who usually seemed inaccessible to feminine agitations, and did even her hate in a self-restrained hygienic manner. This event was the sudden severe illness of her maid, Mrs. Archer. I have reserved to this moment the mention of a circumstance which had forced itself on my notice shortly before Meunier's arrival, namely, that there had been some quarrel between Bertha and this maid, apparently during a visit to a distant family, in which she had accompanied her mistress. I had overheard Archer speaking in a tone of bitter insolence, which I should have thought an adequate reason for immediate dismissal. No dismissal followed; on the contrary, Bertha seemed to be silently putting up with personal inconveniences from the exhibitions of this woman's temper. I was the more astonished to observe that her illness seemed a cause of strong solicitude to Bertha; that she was at the bedside night and day, and would allow no one else to officiate as head-nurse. It happened that our family doctor was out on a holiday, an accident which made Meunier's presence in the house doubly welcome, and he apparently entered into the case with an interest which seemed so much stronger than the ordinary professional feeling, that one day when he had fallen into a long fit of silence after visiting her, I said to him—

"Is this a very peculiar case of disease, Meunier?"

"No," he answered, "it is an attack of peritonitis, which will be fatal, but which does not differ physically from many other cases that have come under my observation. But I'll tell you what I have on my mind. I want to make an experiment on this woman, if you will give me permission. It can do her no harm—will give her no pain—for I shall not make it until life is extinct to all purposes of sensation. I want to try the effect of transfusing blood into her arteries after the heart has ceased to beat for some minutes. I have tried the experiment again and again with animals that have died of this disease, with astounding results, and I want to try it

on a human subject. I have the small tubes necessary, in a case I have with me, and the rest of the apparatus could be prepared readily. I should use my own blood–take it from my own arm. This woman won't live through the night, I'm convinced, and I want you to promise me your assistance in making the experiment. I can't do without another hand, but it would perhaps not be well to call in a medical assistant from among your provincial doctors. A disagreeable foolish version of the thing might get abroad."

"Have you spoken to my wife on the subject?" I said, "because she appears to be peculiarly sensitive about this woman: she has been a favourite maid."

"To tell you the truth," said Meunier, "I don't want her to know about it. There are always insuperable difficulties with women in these matters, and the effect on the supposed dead body may be startling. You and I will sit up together, and be in readiness. When certain symptoms appear I shall take you in, and at the right moment we must manage to get every one else out of the room."

I need not give our farther conversation on the subject. He entered very fully into the details, and overcame my repulsion from them, by exciting in me a mingled awe and curiosity concerning the possible results of his experiment.

We prepared everything, and he instructed me in my part as assistant. He had not told Bertha of his absolute conviction that Archer would not survive through the night, and endeavoured to persuade her to leave the patient and take a night's rest. But she was obstinate, suspecting the fact that death was at hand, and supposing that he wished merely to save her nerves. She refused to leave the sick-room. Meunier and I sat up together in the library, he making frequent visits to the sick-room, and returning with the information that the case was taking precisely the course he expected. Once he said to me, "Can you imagine any cause of ill-feeling this woman has against her mistress, who is so devoted to her?"

"I think there was some misunderstanding between them before her illness. Why do you ask?"

"Because I have observed for the last five or six hours–since, I fancy, she has lost all hope of recovery–there seems a strange prompting in her to say something which pain and failing strength forbid her to utter; and there is a look of hideous meaning in her eyes, which she turns continually towards her mistress. In this disease the mind often remains singularly clear to the last."

"I am not surprised at an indication of malevolent feeling in her," I said. "She is a woman who has always inspired me with distrust and dislike, but she managed to insinuate herself into her mistress's favour." H was silent after this, looking at the fire with an air of absorption, till he went upstairs again. He stayed away longer than usual, and on returning, said to me quietly, "Come now."

I followed him to the chamber where death was hovering. The dark hangings of the large bed made a background that gave a strong relief to Bertha's pale face as I entered. She started forward as she saw me enter, and then looked at Meunier with an expression of angry inquiry; but he lifted up his hand as if to impose silence, while he fixed his glance on the dying woman and felt her pulse. The face was pinched and ghastly, a cold perspiration was on the forehead, and the eyelids were lowered so as to conceal the large dark eyes. After a minute or two, Meunier walked round to the other side of the bed where Bertha stood, and with his usual air of gentle politeness towards her begged her to leave the patient under our care—everything should be done for her—she was no longer in a state to be conscious of an affectionate presence. Bertha was hesitating, apparently almost willing to believe his assurance and to comply. She looked round at the ghastly dying face, as if to read the confirmation of that assurance, when for a moment the lowered eyelids were raised again, and it seemed as if the eyes were looking towards Bertha, but blankly. A shudder passed through Bertha's frame, and she returned to her station near the pillow, tacitly implying that she would not leave the room.

The eyelids were lifted no more. Once I looked at Bertha as she watched the face of the dying one. She wore a rich peignoir, and her blond hair was half covered by a lace cap: in her attire she was, as always, an elegant woman, fit to figure in a picture of modern aristocratic life: but I asked myself how that face of hers could ever have seemed to me the face of a woman born of woman, with memories of childhood, capable of pain, needing to be fondled? The features at that moment seemed so preternaturally sharp, the eyes were so hard and eager—she looked like a cruel immortal, finding her spiritual feast in the agonies of a dying race. For across those hard features there came something like a flash when the last hour had been breathed out, and we all felt that the dark veil had completely fallen. What secret was there between Bertha and this woman? I turned my eyes from her with a horrible dread lest my insight should return, and I should be obliged to see what had been

breeding about two unloving women's hearts. I felt that Bertha had been watching for the moment of death as the sealing of her secret: I thanked Heaven it could remain sealed for me.

Meunier said quietly, "She is gone." He then gave his arm to Bertha, and she submitted to be led out of the room.

I suppose it was at her order that two female attendants came into the room, and dismissed the younger one who had been present before. When they entered, Meunier had already opened the artery in the long thin neck that lay rigid on the pillow, and I dismissed them, ordering them to remain at a distance till we rang: the doctor, I said, had an operation to perform–he was not sure about the death. For the next twenty minutes I forgot everything but Meunier and the experiment in which he was so absorbed, that I think his senses would have been closed against all sounds or sights which had no relation to it. It was my task at first to keep up the artificial respiration in the body after the transfusion had been effected, but presently Meunier relieved me, and I could see the wondrous slow return of life; the breast began to heave, the inspirations became stronger, the eyelids quivered, and the soul seemed to have returned beneath them. The artificial respiration was withdrawn: still the breathing continued, and there was a movement of the lips.

Just then I heard the handle of the door moving: I suppose Bertha had heard from the women that they had been dismissed: probably a vague fear had arisen in her mind, for she entered with a look of alarm. She came to the foot of the bed and gave a stifled cry.

The dead woman's eyes were wide open, and met hers in full recognition–the recognition of hate. With a sudden strong effort, the hand that Bertha had thought for ever still was pointed towards her, and the haggard face moved. The gasping eager voice said–

"You mean to poison your husband . . . the poison is in the black cabinet . . . I got it for you . . . you laughed at me, and told lies about me behind my back, to make me disgusting . . . because you were jealous . . . are you sorry . . . now?"

The lips continued to murmur, but the sounds were no longer distinct. Soon there was no sound–only a slight movement: the flame had leaped out, and was being extinguished the faster. The wretched woman's heart-strings had been set to hatred and vengeance; the spirit of life had swept the chords for an instant, and was gone again for ever. Great God! Is this what it is to live again . . . to wake up with our unstilled thirst upon us, with our unuttered curses rising to our lips, with our muscles ready to act out their half-committed sins?

Bertha stood pale at the foot of the bed, quivering and helpless, despairing of devices, like a cunning animal whose hiding-places are surrounded by swift-advancing flame. Even Meunier looked paralysed; life for that moment ceased to be a scientific problem to him. As for me, this scene seemed of one texture with the rest of my existence: horror was my familiar, and this new revelation was only like an old pain recurring with new circumstances.

Since then Bertha and I have lived apart—she in her own neighbourhood, the mistress of half our wealth, I as a wanderer in foreign countries, until I came to this Devonshire nest to die. Bertha lives pitied and admired; for what had I against that charming woman, whom every one but myself could have been happy with? There had been no witness of the scene in the dying room except Meunier, and while Meunier lived his lips were sealed by a promise to me.

Once or twice, weary of wandering, I rested in a favourite spot, and my heart went out towards the men and women and children whose faces were becoming familiar to me; but I was driven away again in terror at the approach of my old insight—driven away to live continually with the one Unknown Presence revealed and yet hidden by the moving curtain of the earth and sky. Till at last disease took hold of me and forced me to rest here—forced me to live in dependence on my servants. And then the curse of insight—of my double consciousness, came again, and has never left me. I know all their narrow thoughts, their feeble regard, their half-wearied pity.

It is the 20th of September, 1850. I know these figures I have just written, as if they were a long familiar inscription. I have seen them on this page in my desk unnumbered times, when the scene of my dying struggle has opened upon me. . . .

Lucius Apuleius

fl. 2nd century A.D.

"Let me," he wrote, "briefly introduce myself as Lucius Apuleius, a native of Madaura in North Africa, but of ancient Greek stock." Born early in the second century, he claimed Plutarch as one of his real or imaginary ancestors. On the death of his father, a provincial magistrate, he and his brother between them inherited two million sesterces (nearly $100,000). Lucius went to school at the university in Carthage and later studied Platonic philosophy in Athens. At Corinth he was admitted into the religious cult of Isis. After studying rhetoric in Rome, he practiced at the Roman bar.

On his travels in Egypt and Asia Minor, where he devoted himself to religion and philosophy, he fell sick near Alexandria and was nursed by Sicinius Pontianus, a schoolmate from Athens. Later he married Pontianus' mother. But when she made over her large fortune to him, and Pontianus died soon after, her family charged that he had poisoned his friend and worked magic on his wife. Apuleius' defense before the proconsul Claudius Maximus—it was called *Apologia* or *De Magia* (*Of Magic*)—remains our chief source for his life. He was found not guilty.

His most famous work, *The Metamorphoses of Lucius Apuleius of Madaura,* is also the earliest complete Latin novel that we have. This is the story of how Lucius was turned into an ass, his adventures in that state, and how he was brought back to manhood by the goddess Isis. It is traditionally known as *The Golden Ass*, evidently because Apuleius wrote it in a literary style adapted from the pitchman's lingo of the market-place storytellers. Thus "golden" is carnival talk for "wonderful" or "marvelous."

Robert Graves says that although Apuleius probably knew witchcraft, it was "the 'right-hand' or beneficent magic" pertaining to the

goddesses Isis and Demeter. He seems to have been a priest of Isis and Osiris, and of the god of medicine, Aesculapius. He wrote histories and poems now lost.

"Cupid and Psyche" is a story from *The Golden Ass*, and one of the great stories of the world. Though Graves writes that the plot "is still widely current as a primitive folk-tale in countries as far apart as Scotland and Hindustan," it is not found among the Greek myths. It has been a favorite in English, redone by William Morris in *The Earthly Paradise,* by Robert Bridges, and by Walter Pater in *Marius the Epicurean.* We read it here in Pater's lordly translation.

A love story? If we call it that we are almost guilty of punning. Its hero is Love himself, Cupid, the god of love, still "fairest among the deathless gods," as Hesiod described him. Psyche's name is a common Greek noun, used as early as Homer to mean "breath" or "life" or "spirit," and later by Plato in the sense of "soul." The story has been called "a neat philosophical allegory of the progress of the rational soul towards intellectual love." No doubt it can be read in that light. Apuleius, as we know, was a student of Plato and probably had some such double meaning in mind.

But we need to ask first what the story is about. Who is Psyche? She is a beautiful young girl in a fix. No storyteller could imagine a better opening than that. Moreover, she is a king's daughter, to whom the best things of this world are promised. Instead, she suffers the cruelest injustice. Because of her beauty, which is not her fault, no one will marry her; and for the same reason she incurs the anger of Venus. She is Cinderella in reverse, she is *too* beautiful; and like Cinderella she has two wicked older sisters who hate her.

What else do we see? Is Venus the cruel stepmother or mother-in-law of the fairy tales? Perhaps. Psyche is told that her lover is a dreadful serpent who will devour her and her child. We recognize that serpent. He comes out of the unconscious: a feminine or Freudian image of the terror of love. He was also, for the Greeks, a death image. Psyche has resolved to kill this monster who loves her, whose child she bears. But she must *see* him first. Her curiosity defies the forbidden, as Pandora and Bluebeard's wives defied it. Psyche does it a second time, in opening Persephone's box. This time she falls into "the sleep of the dead"—or dies, in one version of the story—from which she must be rescued by Cupid.

We notice that the viewpoint shifts between Venus, Psyche, and her sisters. We get no glimpse of the story through male eyes. Its logic, its way of feeling, are purely feminine. Psyche's father, Jupiter, and even Cupid are mere agents. Cupid, undependable male that he is, first ignores his mother's errand and then flies off in a huff when Psyche burns him. For a god of love, he shows little understanding of women. We see finally why all this might be so. "Cupid and Psyche" is a young girl's fantasy, beautifully done, and true in any country or time. This is how she daydreams about the delights and terrors of being beautiful and wronged; of a husband who is rich and a god; of a mother-in-law who is a powerful rival; of marrying, and bearing a child, and finding the immortality of happiness.

"Now read on," said Apuleius, "and enjoy yourself!"

Cupid and Psyche

from *The Golden Ass*

In a certain city lived a king and queen who had three daughters exceeding fair. But the beauty of the elder sisters, though pleasant to behold, yet passed not the measure of human praise, while such was the loveliness of the youngest that men's speech was too poor to commend it worthily and could express it not at all. Many of the citizens and of strangers, whom the fame of this excellent vision had gathered thither, confounded by that matchless beauty, could but kiss the finger-tips of their right hands at sight of her, as in adoration to the goddess Venus herself. And soon a rumour passed through the country that she whom the blue deep had borne, forbearing her divine dignity, was even then moving among men, or that by some fresh germination from the stars, not the sea now, but the earth, had put forth a new Venus, endued with the flower of virginity.

This belief, with the fame of the maiden's loveliness, went daily farther into distant lands, so that many people were drawn together to behold that glorious model of the age. Men sailed no longer to Paphos, to Cnidus or Cythera, to the presence of the goddess Venus: her sacred rites were neglected, her images stood uncrowned, the cold ashes were left to disfigure her forsaken altars. It was to a maiden that men's prayers were offered, to a human countenance they looked, in propitiating so great a godhead: when the girl went forth in the morning they strewed flowers on her way, and the victims proper to that unseen goddess were presented as she passed along. This conveyance of divine worship to a mortal kindled meantime the anger of the true Venus. "Lo! now, the ancient parent of nature," she cried, "the fountain of all elements! Behold me, Venus, benign mother of the world, sharing my honours with a mortal maiden, while my name, built up in heaven, is profaned by the mean things of earth! Shall a perishable woman bear my image about with her?

In vain did the shepherd of Ida prefer me! Yet shall she have little joy, whosoever she be, of her usurped and unlawful loveliness!" Thereupon she called to her that winged, bold boy, of evil ways, who wanders armed by night through men's houses, spoiling their marriages; and stirring yet more by her speech his inborn wantonness, she led him to the city, and showed him Psyche as she walked.

"I pray thee," she said, "give thy mother a full revenge. Let this maid become the slave of an unworthy love." Then, embracing him closely, she departed to the shore and took her throne upon the crest of the wave. And lo! at her unuttered will, her ocean servants are in waiting: the daughters of Nereus are there singing their song, and Portunus, and Salacia, and the tiny charioteer of the dolphin, with a host of Tritons leaping through the billows. And one blows softly through his sounding sea-shell, another spreads a silken web against the sun, a third presents the mirror to the eyes of his mistress, while the others swim side by side below, drawing her chariot. Such was the escort of Venus as she went upon the sea.

Psyche meantime, aware of her loveliness, had no fruit thereof. All people regarded and admired, but none sought her in marriage. It was but as on the finished work of the craftsman that they gazed upon that divine likeness. Her sisters, less fair than she, were happily wedded. She, even as a widow, sitting at home, wept over her desolation, hating in her heart the beauty in which all men were pleased.

And the king, supposing the gods were angry, inquired of the oracle of Apollo, and Apollo answered him thus: "Let the damsel be placed on the top of a certain mountain, adorned as for the bed of marriage and of death. Look not for a son-in-law of mortal birth; but for that evil serpent thing, by reason of whom even the gods tremble and the shadows of Styx are afraid."

So the king returned home and made known the oracle to his wife. For many days she lamented, but at last the fulfilment of the divine precept is urgent upon her, and the company make ready to conduct the maiden to her deadly bridal. And now the nuptial torch gathers dark smoke and ashes; the pleasant sound of the pipe is changed into a cry; the marriage hymn concludes in a sorrowful wailing; below her yellow wedding veil the bride shook away her tears; insomuch that the whole city was afflicted together at the ill luck of the stricken house.

But the mandate of the god impelled the hapless Psyche to her fate, and, these solemnities being ended, the funeral of the living soul goes forth, all the people following. Psyche, bitterly weeping, assists not at her

marriage but at her own obsequies, and while the parents hesitate to accomplish a thing so unholy the daughter cries to them: "Wherefore torment your luckless age by long weeping? This was the prize of my extraordinary beauty! When all people celebrated us with divine honours, and in one voice named the New Venus, it was then ye should have wept for me as one dead. Now at last I understand that that one name of Venus has been my ruin. Lead me and set me upon the appointed place. I am in haste to submit to that well-omened marriage, to behold that goodly spouse. Why delay the coming of him who was born for the destruction of the whole world?"

She was silent, and with firm step went on the way. And they proceeded to the appointed place on a steep mountain, and left there the maiden alone, and took their way homewards dejectedly. The wretched parents, in their close-shut house, yielded themselves to perpetual night; while to Psyche, fearful and trembling and weeping sore upon the mountain top, comes the gentle Zephyrus. He lifts her mildly, and, with vesture afloat on either side, bears her by his own soft breathing over the windings of the hills, and sets her lightly among the flowers in the bosom of a valley below.

Psyche, in those delicate grassy places, lying sweetly on her dewy bed, rested from the agitation of her soul and arose in peace. And lo! a grove of mighty trees, with a fount of water, clear as glass, in the midst; and hard by the water, a dwelling-place, built not by human hands but by some divine cunning. One recognized, even at the entering, the delightful hostelry of a god. Golden pillars sustained the roof, arched most curiously in cedar-wood and ivory. The walls were hidden under wrought silver: all tame and woodland creatures leaping forward to the visitor's gaze. Wonderful indeed was the craftsman, divine or half-divine, who by the subtlety of his art had breathed so wild a soul into the silver! The very pavement was distinct with pictures in goodly stones. In the glow of its precious metal the house is its own daylight, having no need of the sun. Well might it seem a place fashioned for the conversation of gods with men!

Psyche, drawn forward by the delight of it, came near, and, her courage growing, stood within the doorway. One by one, she admired the beautiful things she saw; and, most wonderful of all! no lock, no chain, nor living guardian protected that great treasure house. But as she gazed, there came a voice—a voice, as it were unclothed of bodily vesture—"Mistress!" it said, "all these things are thine. Lie down, and relieve thy weariness, and rise again for the bath when thou wilt. We thy servants,

whose voice thou hearest, will be beforehand with our service, and a royal feast shall be ready."

And Psyche understood that some divine care was providing, and, refreshed with sleep and the bath, sat down to the feast. Still she saw no one: only she heard words falling here and there, and had voices alone to serve her. And the feast being ended, one entered the chamber and sang to her unseen, while another struck the chords of a harp, invisible with him who played on it. Afterwards the sound of a company singing together came to her, but still so that none was present to sight; yet it appeared that a great multitude of singers was there.

And the hour of evening inviting her, she climbed into the bed; and as the night was far advanced, behold a sound of a certain clemency approaches her. Then, fearing for her maidenhood in so great solitude, she trembled, and more than any evil she knew dreaded that she knew not. And now the husband, that unknown husband, drew near, and ascended the couch, and made her his wife; and lo! before the rise of dawn he had departed hastily. And the attendant voices ministered to the needs of the newly married. And so it happened with her for a long season. And as nature has willed, this new thing, by continual use, became a delight to her: the sound of the voice grew to be her solace in that condition of loneliness and uncertainty.

One night the bridegroom spoke thus to his beloved: "O Psyche, most pleasant bride! Fortune is grown stern with us, and threatens thee with mortal peril. Thy sisters, troubled at the report of thy death and seeking some trace of thee, will come to the mountain's top. But if by chance their cries reach thee, answer not, neither look forth at all, lest thou bring sorrow upon me and destruction upon thyself." Then Psyche promised that she would do according to his will. But the bridegroom was fled away again with the night. And all that day she spent in tears, repeating that she was now dead indeed, shut up in that golden prison, powerless to console her sisters sorrowing after her, or to see their faces; and so went to rest weeping.

And after a while came the bridegroom again, and lay down beside her, and embracing her as she wept, complained: "Was this thy promise, my Psyche? What have I to hope from thee? Even in the arms of thy husband thou ceasest not from pain. Do now as thou wilt. Indulge thine own desire, though it seeks what will ruin thee. Yet wilt thou remember my warning, repentant too late." Then, protesting that she is like to die, she obtains from him that he suffer her to see her sisters, and present to them moreover what gifts she would of golden ornaments; but therewith he

oft-times advised her never at any time, yielding to pernicious counsel, to inquire concerning his bodily form, lest she fall, through unholy curiosity, from so great a height of fortune, nor feel ever his embrace again. "I would die a hundred times," she said, cheerful at last, "rather than be deprived of thy most sweet usage. I love thee as my own soul, beyond comparison even with Love himself. Only bid thy servant Zephyrus bring hither my sisters, as he brought me. My honeycomb! My husband! Thy Psyche's breath of life!" So he promised; and after the embraces of the night, ere the light appeared, vanished from the hands of his bride.

And the sisters, coming to the place where Psyche was abandoned, wept loudly among the rocks, and called upon her by name, so that the sound came down to her, and running out of the palace distraught, she cried: "Wherefore afflict your souls with lamentation? I whom you mourn am here." Then, summoning Zephyrus, she reminded him of her husband's bidding; and he bare them down with a gentle blast. "Enter now," she said, "into my house, and relieve your sorrow in the company of Psyche your sister."

And Psyche displayed to them all the treasures of the golden house, and its great family of ministering voices, nursing in them the malice which was already at their hearts. And at last one of them asks curiously who the lord of that celestial array may be, and what manner of man her husband. And Psyche answered dissemblingly: "A young man, handsome and mannerly, with a goodly beard. For the most part he hunts upon the mountains." And lest the secret should slip from her in the way of further speech, loading her sisters with gold and gems, she commanded Zephyrus to bear them away.

And they returned home, on fire with envy. "See now the injustice of fortune!" cried one. "We, the elder children, are given like servants to be the wives of strangers, while the youngest is possessed of so great riches, who scarcely knows how to use them. You saw, sister! what a hoard of wealth lies in the house; what glittering gowns; what splendour of precious gems, besides all that gold trodden under foot. If she indeed hath, as she said, a bridegroom so goodly, then no one in all the world is happier. And it may be that this husband, being of divine nature, will make her too a goddess. Nay! so in truth it is. It was even thus she bore herself. Already she looks aloft and breathes divinity, who, though but a woman, has voices for her handmaidens, and can command the winds." "Think," answered the other, "how arrogantly she dealt with us, grudging us these trifling gifts out of all that store, and when our company became a burden, causing us to be hissed and driven away from her through the

air! But I am no woman if she keep her hold on this great fortune; and if the insult done us has touched thee too, take we counsel together. Meanwhile let us hold our peace, and know naught of her, alive or dead. For they are not truly happy of whose happiness other folk are unaware."

And the bridegroom, whom still she knows not, warns her thus a second time, as he talks with her by night: "Seest thou what peril besets thee? Those cunning wolves have made ready for thee their snares, of which the sum is that they persuade thee to search into the fashion of my countenance, the seeing of which, as I have told thee often, will be the seeing of it no more for ever. But do thou neither listen nor make answer to aught regarding thy husband. Besides, we have sown also the seed of our race. Even now this bosom grows with a child to be born to us, a child, if thou but keep our secret, of divine quality; if thou profane it, subject to death." And Psyche was glad at the tidings, rejoicing in that solace of a divine seed, and in the glory of that pledge of love to be, and the dignity of the name of mother. Anxiously she notes the increase of the days, the waning months. And again, as he tarries briefly beside her, the bridegroom repeats his warning: "Even now the sword is drawn with which thy sisters seek thy life. Have pity on thyself, sweet wife, and upon our child, and see not those evil women again." But the sisters make their way into the palace once more, crying to her in wily tones: "O Psyche! and thou too wilt be a mother! How great will be the joy at home! Happy indeed shall we be to have the nursing of the golden child. Truly if he be answerable to the beauty of his parents, it will be a birth of Cupid himself."

So, little by little, they stole upon the heart of their sister. She, meanwhile, bids the lyre to sound for their delight, and the playing is heard: she bids the pipes to move, the choir to sing, and the music and the singing come invisibly, soothing the mind of the listener with sweetest modulation. Yet not even thereby was their malice put to sleep: once more they seek to know what manner of husband she has, and whence that seed. And Psyche, simple overmuch, forgetful of her first story, answers: "My husband comes from a far country, trading for great sums. He is already of middle age, with whitening locks." And therewith she dismisses them again.

And returning home upon the soft breath of Zephyrus, one cried to the other: "What shall be said of so ugly a lie? He who was a young man with goodly beard is now in middle life. It must be that she told a false tale: else is she in very truth ignorant what manner of man he is. Howsoever it be, let us destroy her quickly. For if she indeed knows not, be sure that

her bridegroom is one of the gods: it is a god she bears in her womb. And let that be far from us! If she be called mother of a god, then will life be more than I can bear."

So, full of rage against her, they returned to Psyche, and said to her craftily: "Thou livest in an ignorant bliss, all incurious of thy real danger. It is a deadly serpent, as we certainly know, that comes to sleep at thy side. Remember the words of the oracle, which declared thee destined to a cruel beast. There are those who have seen it at nightfall, coming back from its feeding. In no long time, they say, it will end its blandishments. It but waits for the babe to be formed in thee, that it may devour thee by so much the richer. If indeed the solitude of this musical place, or it may be the loathsome commerce of a hidden love, delight thee, we at least in sisterly piety have done our part." And at last the unhappy Psyche, simple and frail of soul, carried away by the terror of their words, losing memory of her husband's precepts and her own promise, brought upon herself a great calamity. Trembling and turning pale, she answers them: "And they who tell those things, it may be, speak the truth. For in very deed never have I seen the face of my husband, nor know I at all what manner of man he is. Always he frights me diligently from the sight of him, threatening some great evil should I too curiously look upon his face. Do ye, if ye can help your sister in her great peril, stand by her now."

Her sisters answered her: "The way of safety we have well considered, and will teach thee. Take a sharp knife, and hide it in that part of the couch where thou art wont to lie; take also a lamp filled with oil, and set it privily behind the curtain. And when he shall have drawn up his coils into the accustomed place, and thou hearest him breathe in sleep, slip then from his side and discover the lamp, and, knife in hand, put forth thy strength, and strike off the serpent's head." And so they departed in haste.

And Psyche left alone (alone but for the furies which beset her) is tossed up and down in her distress, like a wave of the sea; and though her will is firm, yet, in the moment of putting hand to the deed, she falters, and is torn asunder by various apprehensions of the great calamity upon her. She hastens and anon delays, now full of distrust, and now of angry courage: under one bodily form she loathes the monster and loves the bridegroom. But twilight ushers in the night; and at length in haste she makes ready for the terrible deed. Darkness came, and the bridegroom; and he first, after some faint essay of love, falls into a deep sleep.

And she, erewhile of no strength, the hard purpose of destiny assisting her, is confirmed in force. With lamp plucked forth, knife in hand, she put

by her sex; and lo! as the secrets of the bed became manifest, the sweetest and most gentle of all creatures, Love himself, reclined there, in his own proper loveliness! At sight of him the very flame of the lamp kindled more gladly! But Psyche was afraid at the vision, and, faint of soul, trembled back upon her knees, and would have hidden the steel in her own bosom. But the knife slipped from her hand; and now, undone, yet ofttimes looking upon the beauty of that divine countenance, she lives again. She sees the locks of that golden head, pleasant with the unction of the gods, shed down in graceful entanglement behind and before, about the ruddy cheeks and white throat. The pinions of the winged god, yet fresh with the dew, are spotless upon his shoulders, the delicate plumage wavering over them as they lie at rest. Smooth he was, and, touched with light, worthy of Venus his mother. At the foot of the couch lay his bow and arrows, the instruments of his power, propitious to men.

And Psyche, gazing hungrily thereon, draws an arrow from the quiver, and trying the point upon her thumb, tremulous still, drove in the barb, so that a drop of blood came forth. Thus fell she, by her own act, and unaware, into the love of Love. Falling upon the bridegroom, with indrawn breath, in a hurry of kisses from eager and open lips, she shuddered as she thought how brief that sleep might be. And it chanced that a drop of burning oil fell from the lamp upon the god's shoulder. Ah! maladroit minister of love, thus to wound him from whom all fire comes; though 'twas a lover, I trow, first devised thee, to have the fruit of his desire even in the darkness! At the touch of the fire the god started up, and beholding the overthrow of her faith, quietly took flight from her embraces.

And Psyche, as he rose upon the wing, laid hold on him with her two hands, hanging upon him in his passage through the air, till she sinks to the earth through weariness. And as she lay there, the divine lover, tarrying still, lighted upon a cypress tree which grew near, and, from the top of it, spake thus to her, in great emotion: "Foolish one! unmindful of the command of Venus, my mother, who had devoted thee to one of base degree, I fled to thee in his stead. Now know I that this was vainly done. Into mine own flesh pierced mine arrow, and I made thee my wife, only that I might seem a monster beside thee—that thou shouldst seek to wound the head wherein lay the eyes so full of love to thee! Again and again, I thought to put thee on thy guard concerning these things, and warned thee in lovingkindness. Now I would but punish thee by my flight hence." And therewith he winged his way into the deep sky.

Psyche, prostrate upon the earth, and following far as sight might reach the flight of the bridegroom, wept and lamented; and when the breadth

of space had parted him wholly from her, cast herself down from the bank of a river which was nigh. But the stream, turning gentle in honour of the god, put her forth again unhurt upon its margin. And as it happened, Pan, the rustic god, was sitting just then by the waterside, embracing, in the body of a reed, the goddess Canna, teaching her to respond to him in all varieties of slender sound. Hard by, his flock of goats browsed at will. And the shaggy god called her, wounded and outworn, kindly to him and said: "I am but a rustic herdsman, pretty maiden, yet wise, by favour of my great age and long experience; and if I guess truly by those faltering steps, by thy sorrowful eyes and continual sighing, thou labourest with excess of love. Listen then to me, and seek not death again, in the stream or otherwise. Put aside thy woe, and turn thy prayers to Cupid. He is in truth a delicate youth: win him by the delicacy of thy service."

So the shepherd god spoke, and Psyche, answering nothing, but with a reverence to his serviceable deity, went on her way. And while she, in her search after Cupid, wandered through many lands, he was lying in the chamber of his mother, heartsick. And the white bird which floats over the waves plunged in haste into the sea, and approaching Venus, as she bathed, made known to her that her son lies afflicted with some grievous hurt, doubtful of life. And Venus cried angrily: "My son, then, has a mistress! And it is Psyche, who witched away my beauty and was the rival of my godhead, whom he loves!"

Therewith she issued from the sea, and returning to her golden chamber, found there the lad, sick, as she had heard, and cried from the doorway: "Well done, truly! to trample thy mother's precepts under foot, to spare my enemy that cross of an unworthy love; nay, unite her to thyself, child as thou art, that I might have a daughter-in-law who hates me! I will make thee repent of thy sport, and the savour of thy marriage bitter. There is one who shall chasten this body of thine, put out thy torch, and unstring thy bow. Not till she has plucked forth that hair, into which so oft these hands have smoothed the golden light, and sheared away thy wings, shall I feel the injury done me avenged." And with this she hastened in anger from the doors.

And Ceres and Juno met her, and sought to know the meaning of her troubled countenance. "Ye come in season," she cried; "I pray you, find for me Psyche. It must needs be that ye have heard the disgrace of my house." And they, ignorant of what was done, would have soothed her anger, saying: "What fault, Mistress, hath thy son committed, that thou wouldst destroy the girl he loves? Knowest thou not that he is now of age? Because he wears his years so lightly must he seem to thee ever but a

child? Wilt thou for ever thus pry into the pastimes of thy son, always accusing his wantonness, and blaming in him those delicate wiles which are all thine own?" Thus, in secret fear of the boy's bow, did they seek to please him with their gracious patronage. But Venus, angry at their light taking of her wrongs, turned her back upon them, and with hasty steps made her way once more to the sea.

Meanwhile Psyche, tost in soul, wandering hither and thither, rested not night or day in the pursuit of her husband, desiring, if she might not soothe his anger by the endearments of a wife, at the least to propitiate him with the prayers of a handmaid. And seeing a certain temple on the top of a high mountain, she said: "Who knows whether yonder place be not the abode of my lord?" Thither, therefore, she turned her steps, hastening now the more because desire and hope pressed her on, weary as she was with the labours of the way, and so, painfully measuring out the highest ridges of the mountain, drew near to the sacred couches. She sees ears of wheat, in heaps or twisted into chaplets; ears of barley also, with sickles and all the instruments of harvest, lying there in disorder, thrown at random from the hands of the labourers in the great heat. These she curiously sets apart, one by one, duly ordering them; for she said within herself: "I may not neglect the shrines, nor the holy service, of any god there be, but must rather win by supplication the kindly mercy of them all."

And Ceres found her bending sadly upon her task, and cried aloud: "Alas, Psyche! Venus, in the furiousness of her anger, tracks thy footsteps through the world, seeking for thee to pay her the utmost penalty; and thou, thinking of anything rather than thine own safety, hast taken on thee the care of what belongs to me!" Then Psyche fell down at her feet, and sweeping the floor with her hair, washing the footsteps of the goddess in her tears, besought her mercy, with many prayers: "By the gladdening rites of harvest, by the lighted lamps and mystic marches of the marriage and mysterious invention of thy daughter Proserpine, and by all beside that the holy place of Attica veils in silence, minister, I pray thee, to the sorrowful heart of Psyche! Suffer me to hide myself but for a few days among the heaps of corn, till time has softened the anger of the goddess, and my strength, outworn in my long travail, is recovered by a little rest."

But Ceres answered her: "Truly thy tears move me, and I would fain help thee; only I dare not incur the ill will of my kinswoman. Depart hence as quickly as may be." And Psyche, repelled against hope, afflicted now with twofold sorrow, making her way back again, beheld among the

half-lighted woods of the valley below a sanctuary builded with cunning art. And that she might lose no way of hope, howsoever doubtful, she drew near to the sacred doors. She sees there gifts of price, and garments fixed upon the door-posts and to the branches of the trees, wrought with letters of gold which told the name of the goddess to whom they were dedicated, with thanksgiving for that she had done. So, with bent knee and hands laid about the glowing altar, she prayed, saying: "Sister and spouse of Jupiter! be thou to these my desperate fortunes, Juno the Auspicious! I know that thou dost willingly help those in travail with child; deliver me from the peril that is upon me." And as she prayed thus, Juno in the majesty of her godhead was straightway present, and answered: "Would that I might incline favourably to thee; but against the will of Venus, whom I have ever loved as a daughter, I may not, for very shame, grant thy prayer."

And Psyche, dismayed by this new shipwreck of her hope, communed thus with herself: "Whither, from the midst of the snares that beset me, shall I take my way once more? In what dark solitude shall I hide me from the all-seeing eye of Venus? What if I put on at length a man's courage, and yielding myself unto her as my mistress, soften by a humility not yet too late the fierceness of her purpose? Who knows but that I may find him also whom my soul seeketh after, in the abode of his mother?"

And Venus, renouncing all earthly aid in her search, prepared to return to heaven. She ordered the chariot to be made ready, wrought for her by Vulcan as a marriage gift, with a cunning of hand which had left his work so much the richer by the weight of gold it lost under his tool. From the multitude which housed about the bedchamber of their mistress, white doves came forth, and with joyful motions bent their painted necks beneath the yoke. Behind it, with playful riot, the sparrows sped onward, and other birds sweet of song, making known by their soft notes the approach of the goddess. Eagle and cruel hawk alarmed not the quireful family of Venus. And the clouds broke away, as the uttermost ether opened to receive her, daughter and goddess, with great joy.

And Venus passed straightway to the house of Jupiter to beg from him the service of Mercury, the god of speech. And Jupiter refused not her prayer. And Venus and Mercury descended from heaven together; and as they went, the former said to the latter: "Thou knowest, my brother of Arcady, that never at any time have I done anything without thy help; for how long time, moreover, I have sought a certain maiden in vain. And now naught remains but that, by thy heraldry, I proclaim a reward for

whomsoever shall find her. Do thou my bidding quickly." And therewith she conveyed to him a little scrip, in the which was written the name of Psyche, with other things; and so returned home.

And Mercury failed not in his office; but departing into all lands, proclaimed that whosoever delivered up to Venus the fugitive girl, should receive from herself seven kisses—one thereof full of the inmost honey of her throat. With that the doubt of Psyche was ended. And now, as she came near to the doors of Venus, one of the household, whose name was Use-and-Wont, ran out to her, crying: "Hast thou learned, Wicked Maid! now at last! that thou hast a mistress?" and seizing her roughly by the hair, drew her into the presence of Venus. And when Venus saw her, she cried out, saying: "Thou has deigned then to make thy salutations to thy mother-in-law. Now will I in turn treat thee as becometh a dutiful daughter-in-law!"

And she took barley and millet and poppy-seed, every kind of grain and seed, and mixed them together, and laughed, and said to her: "Methinks so plain a maiden can earn lovers only by industrious ministry: now will I also make trial of thy service. Sort me this heap of seed, the one kind from the others, grain by grain; and get thy task done before the evening." And Psyche, stunned by the cruelty of her bidding, was silent, and moved not her hand to the inextricable heap. And there came forth a little ant, which had understanding of the difficulty of her task, and took pity upon the consort of the god of Love; and he ran deftly hither and thither, and called together the whole army of his fellows. "Have pity," he cried, "nimble scholars of the Earth, Mother of all things!—have pity upon the wife of Love, and hasten to help her in her perilous effort." Then, one upon the other, the hosts of the insect people hurried together; and they sorted asunder the whole heap of seed, separating every grain after its kind, and so departed quickly out of sight.

And at nightfall Venus returned, and seeing that task finished with so wonderful diligence, she cried: "The work is not thine, thou naughty maid, but his in whose eyes thou hast found favour." And calling her again in the morning: "See now the grove," she said, "beyond yonder torrent. Certain sheep feed there, whose fleeces shine with gold. Fetch me straightway a lock of that precious stuff, having gotten it as thou mayst."

And Psyche went forth willingly, not to obey the command of Venus, but even to seek a rest from her labour in the depths of the river. But from the river, the green reed, lowly mother of music, spake to her: "O Psyche! pollute not these waters by self-destruction, nor approach that terrible flock; for, as the heat groweth, they wax fierce. Lie down under

yon plane-tree, till the quiet of the river's breath has soothed them. Thereafter thou mayst shake down the fleecy gold from the trees of the grove, for it holdeth by the leaves."

And Psyche, instructed thus by the simple reed, in the humanity of its heart, filled her bosom with the soft golden stuff, and returned to Venus. But the goddess smiled bitterly, and said to her: "Well know I who was the author of this thing also. I will make further trial of thy discretion, and the boldness of thy heart. Seest thou the utmost peak of yonder steep mountain? The dark stream which flows down thence waters the Stygian fields, and swells the flood of Cocytus. Bring me now, in this little urn, a draught from its innermost source." And therewith she put into her hands a vessel of wrought crystal.

And Psyche set forth in haste on her way to the mountain, looking there at last to find the end of her hapless life. But when she came to the region which borders on the cliff that was showed to her, she understood the deadly nature of her task. From a great rock, steep and slippery, a horrible river of water poured forth, falling straightway by a channel exceeding narrow into the unseen gulf below. And lo! creeping from the rocks on either hand, angry serpents, with their long necks and sleepless eyes. The very waters found a voice and bade her depart, in smothered cries of, "Depart hence!" and "What doest thou here?" "Look around thee!" and "Destruction is upon thee!" And then sense left her, in the immensity of her peril, as one changed to stone.

Yet not even then did the distress of this innocent soul escape the steady eye of a gentle providence. For the bird of Jupiter spread his wings and took flight to her, and asked her: "Didst thou think, simple one, even thou! that thou couldst steal one drop of that relentless stream, the holy river of Styx, terrible even to the gods? But give me thine urn." And the bird took the urn, and filled it at the source, and returned to her quickly from among the teeth of the serpents, bringing with him of the waters, all unwilling–nay! warning him to depart away and not molest them.

And she, receiving the urn with great joy, ran back quickly that she might deliver it to Venus, and yet again satisfied not the angry goddess. "My child!" she said, "in this one thing further must thou serve me. Take now this tiny casket, and get thee down even unto hell, and deliver it to Proserpine. Tell her that Venus would have of her beauty so much at least as may suffice for but one day's use, that beauty she possessed erewhile being foreworn and spoiled, through her tendance upon the sickbed of her son; and be not slow in returning."

And Psyche perceived there the last ebbing of her fortune–that she

was now thrust openly upon death, who must go down, of her own motion, to Hades and the Shades. And straightway she climbed to the top of an exceeding high tower, thinking within herself: "I will cast myself down thence: so shall I descend most quickly into the kingdom of the dead." And the tower, again, broke forth into speech: "Wretched Maid! Wretched Maid! Wilt thou destroy thyself? If the breath quit thy body, then wilt thou indeed go down into Hades, but by no means return hither. Listen to me. Among the pathless wilds not far from this place lies a certain mountain, and therein one of hell's vent-holes. Through the breach a rough way lies open, following which thou wilt come, by straight course, to the castle of Orcus. And thou must not go empty-handed. Take in each hand a morsel of barley-bread, soaked in hydromel; and in thy mouth two pieces of money. And when thou shalt be now well onward in the way of death, then wilt thou overtake a lame ass laden with wood, and a lame driver, who will pray thee reach him certain cords to fasten the burden which is falling from the ass: but be thou cautious to pass on in silence. And soon as thou comest to the river of the dead, Charon, in that crazy bark he hath, will put thee over upon the farther side. There is greed even among the dead: and thou shalt deliver to him, for the ferrying, one of those two pieces of money, in such wise that he take it with his hand from between thy lips. And as thou passest over the stream, a dead old man, rising on the water, will put up to thee his mouldering hands, and pray thee draw him into the ferry-boat. But beware thou yield not to unlawful pity.

"When thou shalt be come over, and art upon the causeway, certain aged women, spinning, will cry to thee to lend thy hand to their work; and beware again that thou take no part therein; for this also is the snare of Venus, whereby she would cause thee to cast away one at least of those cakes thou bearest in thy hands. And think not that a slight matter; for the loss of either one of them will be to thee the losing of the light of day. For a watch-dog exceeding fierce lies ever before the threshold of that lonely house of Proserpine. Close his mouth with one of thy cakes; so shalt thou pass by him, and enter straightway into the presence of Proserpine herself. Then do thou deliver thy message, and taking what she shall give thee, return back again; offering to the watch-dog the other cake, and to the ferryman that other piece of money thou hast in thy mouth. After this manner mayst thou return again beneath the stars. But withal, I charge thee, think not to look into, nor open, the casket thou bearest, with that treasure of the beauty of the divine countenance hidden therein."

So spake the stones of the tower; and Psyche delayed not, but proceed-

ing diligently after the manner enjoined, entered into the house of Proserpine, at whose feet she sat down humbly, and would neither the delicate couch nor that divine food the goddess offered her, but did straightway the business of Venus. And Proserpine filled the casket secretly, and shut the lid, and delivered it to Psyche, who fled therewith from Hades with new strength. But coming back into the light of day, even as she hasted now to the ending of her service, she was seized by a rash curiosity. "Lo! now," she said within herself, "my simpleness! who, bearing in my hands the divine loveliness, heed not to touch myself with a particle at least therefrom, that I may please the more, by the favour of it, my fair one, my beloved." Even as she spoke, she lifted the lid; and behold! within, neither beauty, nor anything beside, save sleep only, the sleep of the dead, which took hold upon her, filling all her members with its drowsy vapour, so that she lay down in the way and moved not, as in the slumber of death.

And Cupid being healed of his wound, because he would endure no longer the absence of her he loved, gliding through the narrow window of the chamber wherein he was holden, his pinions being now repaired by a little rest, fled forth swiftly upon them, and coming to the place where Psyche was, shook that sleep away from her, and set himself in his prison again, awaking her with the innocent point of his arrow. "Lo! thine old error again," he said, "which had like once more to have destroyed thee! But do thou now what is lacking of the command of my mother: the rest shall be my care." With these words, the lover rose upon the air; and being consumed inwardly with the greatness of his love, penetrated with vehement wing into the highest place of heaven, to lay his cause before the father of the gods. And the father of gods took his hand in his, and kissed his face, and said to him: "At no time, my son, hast thou regarded me with due honour. Often hast thou vexed my bosom, wherein lies the disposition of the stars, with those busy darts of thine. Nevertheless, because thou hast grown up between these mine hands, I will accomplish thy desire." And straightway he bade Mercury call the gods together; and, the council chamber being filled, sitting upon a high throne, "Ye gods," he said, "all ye whose names are in the white book of the Muses, ye know yonder lad. It seems good to me that his youthful heats should by some means be restrained. And that all occasion may be taken from him, I would even confine him in the bonds of marriage. He has chosen and embraced a mortal maiden. Let him have fruit of his love, and possess her forever."

Thereupon he bade Mercury produce Psyche in heaven; and holding out to her his ambrosial cup, "Take it," he said, "and live forever; nor shall

Cupid ever depart from thee." And the gods sat down together to the marriage feast. On the first couch lay the bridegroom, and Psyche in his bosom. His rustic serving-boy bare the wine to Jupiter; and Bacchus to the rest. The Seasons crimsoned all things with their roses. Apollo sang to the lyre, while a little Pan prattled on his reeds, and Venus danced very sweetly to the soft music. Thus, with due rites, did Psyche pass into the power of Cupid; and from them was born the daughter whom men call Voluptas.

Walter Pater's translation of "Cupid and Psyche"
is taken from his
MARIUS THE EPICUREAN.

Ivan Turgenev

1818–1883

Ivan Turgenev was born at Orel, Russia, October 28, 1818 (Old Style). He grew up under a tyrannical mother on the family estate at Spasskoye. He was graduated from the University of St. Petersburg, where he studied under Gogol. In 1843 he took a job in the Ministry of the Interior. That same year he published *Parasha*, a story in verse, and met the Spanish gypsy opera singer Pauline Garcia, wife of Louis Viardot, her manager, and sister of the equally famous Malibran. Turgenev began a lifelong attachment to her.

During the late 1840's, he spent his summers at the Viardots' estate at Courtavenel and wintered in Paris. He wrote *A Month in the Country* and other plays. After his mother's death in 1850 he inherited the Spasskoye estate but bad management largely diminished his income. In 1852 his obituary tribute to Gogol got him imprisoned for a month (visiting friends made it a triumph) and he was later confined to his estate. That same year *A Sportsman's Sketches* was published.

All his life he maintained hot-and-cold friendships with Tolstoy and Dostoevsky. Turgenev's *Rudin* and *A Nest of Gentlefolk* appeared in the late 1850's, followed by *On the Eve* in 1860 and *Fathers and Sons* in 1862. Two years later he was called before a Russian Senatorial committee to answer the charge that he had conspired with Herzen's revolutionary group in London. He was exonerated.

About this time he became a member of the Paris coterie composed of Flaubert, Edmond de Goncourt, Zola, and Daudet. He befriended young Henry James. In 1872 *A Month in the Country* was staged for the first time, in Moscow, and Turgenev published *Spring Freshets*. He and the Viardots built a joint villa at Bougival, near Paris.

Virgin Soil appeared in 1877. By 1882 he was gravely ill, but continued work on *Clara Milich* and *Poems in Prose*. He is regarded as the most Western of the great Russian writers, the most poetic of realists and one of the fathers of the modern objective novel. He died at Bougival on September 3, 1883.

Like Dostoevsky's *White Nights*[1] and Galsworthy's *The Apple-Tree*,[2] *First Love* is a commemoration of that early "happiness verging on imbecility." It was published in March, 1860. In his biography of the author, Avrahm Yarmolinsky mentions that Turgenev said he "drew upon his reminiscences of the family life of his parents. The self-contained, elegantly groomed gentleman of the tale, with his spasmodically affectionate manner toward his family, his excellent horsemanship, and his epicurean tastes, was modeled upon the author's father. . . ." But such reminiscences have been freely transformed into a work of art. The mother of the story, for example, shows little likeness to the author's mother. Even in his old age, Turgenev recalled that when he was young she saw to it that he was "flogged nearly every day."

He spoke of *First Love* as one of his "fairy tales." Why? Partly, perhaps, because the incidents of the story might have happened in any time or place; but partly because it had little to do with the social struggle that nearly all nineteenth-century Russian writers felt themselves obliged to treat. But it is much more than a "fairy tale." It is, quite clearly, a little masterpiece. It is put together with such extraordinary grace that we are hardly conscious of reading a story at all. We simply live it. We take part in young Vladimir's feelings and act them out with him, because they are also ours. They are the feelings of every man who was ever in love in his first youth. And by that sign, in the perfect candor of art, they remind us

[1] See Vol. 3, pp. 276–319, in this set.
[2] See Vol. 3, pp. 323–367, in this set.

Notes from the artist: ". . . *a fantasy of scenes from* Fathers and Sons *surrounds the profile of Turgenev, an interpretation of an amusing, Cyrano-like self-caricature drawn by Turgenev in 1881.*"

Tungsram

how much we have forgotten, or sentimentalized, or left out; how much we felt and did not know we felt; how ignorant and violent we were, how callous and how touching.

Even in a writer famous for his portraits of young girls, the Princess Zinaida is a superlative creation. This "tall, slender girl in a striped pink dress"—mischievous, quick-witted, beautiful, tender-cruel, a demanding ringmaster to her little circus of admirers—delights us at first with the freedom of her charm and then touches us with the despairing pathos of the trap in which she feels herself caught. Nor are we likely to forget the peasant grossness of old Princess Zasyekin or the draggletail poverty of her house. It becomes, nevertheless, a magic place for young Vladimir.

We see finally that *First Love* is an astonishing example of Turgenev's psychological perception. This basic drama, father and son in love with the same young woman—does it not reproduce and repeat Freud's Oedipus situation in infancy,[3] in which father and son compete for the mother's love? Moreover, the incidents that convey Vladimir's step-by-step understanding of the love between Zinaida and his father exactly parallel the small boy's gradual discovery of the relation between his parents. And does not Zinaida treat Vladimir "like a child"—that is, as if she were his mother? But we observe one striking difference. Vladimir is at an age to identify himself with his father. So, in their love, it is as if he had both won and lost.

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[3] See *Great Books of the Western World*.

First Love

The visitors had left long ago. The clock struck half past twelve. Only the host, Sergey Nikolayevich, and Vladimir Petrovich were left in the room.

The host rang and ordered the remains of the supper to be cleared away. "So that's agreed, then," he said, settling himself more deeply in his arm-chair and lighting a cigar. "Each of us is to tell the story of his first love. It's your turn, Sergey Nikolayevich."

Sergey Nikolayevich, a rotund little man with a chubby face and fair hair, glanced first at his host, then raised his eyes to the ceiling. "I had no first love," he said at last. "I started straight with the second."

"How was that?"

"Quite simple. I was eighteen when I first took an interest in a very charming young girl, but I did this as if it were nothing new to me; and it was just like that that I afterwards flirted with others. Strictly speaking, I fell in love for the first and last time with my nurse when I was six years old. But that was a very long time ago. The details of our relationship have been blotted out from my memory, and even if I remembered them, how could they possibly interest anyone?"

"So what are we to do?" began the host. "There's nothing interesting in my first love, either. I did not fall in love with anyone before I met my wife–and everything went swimmingly with us: our parents arranged the match, we very soon fell in love with each other and got married without wasting much time. My tale is soon told. I don't mind admitting, gentlemen, that when I raised the question of first love, I was relying on you–I won't say old, but not such young bachelors, either. Won't *you*, Valdimir Petrovich, entertain us with some story?"

"My first love certainly cannot be said to be quite ordinary," Vladimir Petrovich, a man of about forty, with greying black hair, replied a little hesitantly.

"Oh," the host and Sergey Nikolayevich cried in one voice, "so much the better! Tell us about it."

"By all means. Or—no! I won't tell it to you; I'm not very good at telling stories. I'm afraid my stories are either too short and dry or too long and unconvincing. If you don't mind, I'd much rather write down all I can remember and read it to you."

At first his friends would not agree, but Vladimir Petrovich insisted on having it his own way. Two weeks later they met again, and Vladimir Petrovich kept his word.

This was what he had written down.

I was sixteen at the time. It happened in the summer of 1833.

I was living in Moscow with my parents. They used to take a country house for the summer near the Kaluga Toll Gate, opposite the Neskoochny Park. I was preparing for the university, but I did very little work and was in no particular hurry.

No one interfered with my freedom. I did what I liked, especially after parting with my last tutor, a Frenchman, who could never get used to the idea that he had dropped like a bomb (*comme une bombe*) into Russia, and he used to lie about in bed for days on end with a resentful expression on his face. My father treated me with good-humoured indifference; my mother scarcely paid any attention to me, although she had no other children: other worries occupied her completely. My father, who was still young and very handsome, had married her for money; she was ten years older than he. My mother's life was far from happy: she was in a state of constant irritation and was always jealous and bad-tempered, though never in my father's presence—she was terrified of him—while his attitude to her was severe, cold, and aloof. I have never seen a man more exquisitely calm, more self-possessed, or more despotic.

I shall never forget the first weeks I spent in the country. The weather was lovely; we left Moscow on the ninth of May, St. Nicholas's Day. I used to go for walks either in the garden of our country house or in the Neskoochny Park or on the other side of the toll gate; I used to take some book with me—Kaydanov's *Primer*, for instance—but I did not open it very often; I preferred much more to recite poetry, and I knew a great many poems by heart; my blood was in a ferment, and my heart ached—so sweetly and so foolishly; I was always expecting something to happen; I was in a state of constant dread of something; and I was full of wonder and seemed always to be seeking something; my imagination fluttered, and the same ideas winged their way swiftly like

martins round a bell tower at dawn; I would fall into a reverie, I would be sad, and I would even cry; but through the tears and through the sadness, inspired by some melodious verse or the beauty of the evening, there always shot up, like the grass in springtime, a joyous feeling of young, surging life.

I had a horse; I used to saddle it myself and go for long rides into the country, breaking into a gallop and imagining myself a knight at a tournament (how gaily the wind whistled in my ears!)—or, turning my face towards the sky, received its shining azure light into my wide-open soul.

I remember that at that time the image of woman, the vision of a woman's love, hardly ever took any definite shape in my mind; but in everything I thought, in everything I felt, there was hidden a half-conscious, shy presentiment of something new, unutterably sweet, feminine.

This presentiment, this expectation, pervaded my whole being: I breathed it; it ran through my veins with every drop of blood. . . . It was soon to be fulfilled.

Our country place consisted of a wooden manor house with columns and two one-storied cottages; in the cottage on the left was a very small factory for the manufacture of cheap wall-paper; I used to go over there quite frequently to watch about a dozen thin and dishevelled boys with pinched faces, in long greasy smocks, who kept jumping onto wooden levers and pressing them down onto the square blocks of the presses and in this way, by the weight of their feeble bodies, stamp the brightly coloured patterns on the wall-paper. The cottage on the right stood empty and was to let. One day, three weeks after the ninth of May, the shutters of this cottage were opened and women's faces appeared in the windows. Some family must have moved in. I remember that that same day at dinner my mother asked the butler who our new neighbours were, and hearing the name of Princess Zasyekin first remarked, not without a certain note of respect, "Oh, a princess," and then added, "A poor one, I expect."

"They arrived in three cabs, ma'am," observed the butler, handing her a dish deferentially. "I don't think they have a carriage of their own, ma'am. Their furniture is of the cheapest kind."

"I see," said my mother. "So much the better."

My father gave her a cold look, and she fell silent.

And indeed Princess Zasyekin could not have been a rich woman; the cottage she had rented was so dilapidated, so small, and so low that people who were even moderately well off would not have consented to live

in it. However, at the time I paid no attention to it. The princely title had little effect on me; I had just been reading Schiller's *The Robbers.*

I was in the habit of wandering about our garden every evening with a gun, looking for crows. I had for a long time felt a detestation for these wary, predatory, and cunning birds. On the day I am speaking of I also went into the garden, and, having walked through all the avenues without result (the crows knew me and only cawed harshly from afar), I chanced to come near the low fence which separated *our* property from the narrow strip of garden which ran to the right behind the cottage and which belonged to it. I was walking along with my eyes fixed on the ground. Suddenly I heard voices. I looked across the fence and stood rooted to the spot. A curious sight met my eyes.

A few paces from me, in a clearing among the green raspberry bushes, stood a tall, slender girl in a striped pink dress with a white kerchief on her head; she was surrounded by four young men and she was tapping them in turn on the forehead with those small grey flowers whose name I do not know, though they are very well known to children: these flowers form little bags and burst with a pop when struck against anything hard. The young men presented their foreheads so eagerly, and there was in the movements of the young girl (I saw her in profile) something so fascinating, imperious, caressing, mocking, and charming, that I nearly cried out with wonder and delight and would, I believe, have given everything in the world at that moment to have those lovely fingers tap me on the forehead too. My gun slipped to the grass; I forgot everything; my eyes devoured this graceful figure, the slender neck, the beautiful arms, the slightly untidy fair hair under the white kerchief, and the half-closed, intelligent eye, the eyelashes, the delicate cheek beneath them.

"I say, young man," said a voice suddenly near me, "is it proper to stare like that at young ladies you do not know?"

I started, thunderstruck. Near me, on the other side of the fence, stood a man with close-cropped black hair, looking ironically at me. At that very moment the young girl too turned towards me. I saw a pair of enormous grey eyes in a vivacious, lively face, and this face suddenly quivered and laughed; her white teeth flashed and her eyebrows lifted in a rather amusing fashion. I flushed, snatched up my gun from the ground, and, pursued by ringing though not unkind laughter, fled to my room, flung myself on the bed, and covered my face with my hands. My

heart leapt inside me; I was very ashamed and happy; I felt tremendously excited.

After a short rest I brushed my hair, tidied myself, and went downstairs to tea. The image of the young girl floated before me; my heart was no longer leaping but seemed to contract delightfully.

"What's the matter with you?" my father asked me suddenly. "Shot a crow?"

I was about to tell him everything, but stopped short and merely smiled to myself. As I was going to bed, without knowing myself why, I spun round three times on one foot, put pomade on my hair, got into bed, and slept soundly all night. Before morning I woke up for a moment, raised my head, looked round me in ecstasy, and—fell asleep again.

"How can I get to know them?" was my first thought when I woke in the morning.

Before breakfast I went for a walk in the garden, but did not go too near the fence and saw no one. After breakfast I walked several times up and down the street before the cottage and peered into the windows from a distance. I thought I could see *her* face behind the curtain, and I walked away quickly in a panic. "Still, I must get to know them," I thought, walking aimlessly about the sandy stretch before the Neskoochny Park. "But how? That is the question." I recalled the minutest details of yesterday's meeting: for some reason I had a most vivid recollection of the way she had laughed at me. But while I worried and made all sorts of plans, fate was already doing her best to gratify my desire.

While I was out, my mother had received from her new neighbour a letter on grey paper, sealed with the sort of brown wax that is used only in official post office notices and on the corks of bottles of cheap wine. In this letter, illiterate and written in a slovenly hand, the princess begged my mother to do her a great favour: my mother, the princess wrote, was on very intimate terms with people in high positions on whom depended the fortunes of herself and her children, for she was engaged in a number of very important lawsuits. "I rite to you," she wrote, "as one noblewoman to another, and becos of that I am pleesed to make use of this oportunity." In conclusion she asked my mother's permission to call on her. I found my mother in a disagreeable mood: my father was not at home, and she had no one to consult. Not to reply to a "noblewoman," and a princess into the bargain, was impossible. But my mother was at a loss as to how to reply. To write a note in French was, she thought, in-

appropriate, while she was not particularly good at Russian spelling herself. She knew this and did not want to compromise herself. She was therefore glad of my return and at once told me to go round to the princess and explain to her by word of mouth that she was always ready to be of service to Her Highness as far as was in her power and she asked the princess to do her the honour of calling on her at one o'clock. The unexpectedly rapid fulfilment of my secret desires both delighted and frightened me; however, I did not show any sign of the confusion that overcame me and went first to my room to put on my new cravat and frock-coat: at home I still went about in a tunic and a turned-down collar, although I was sick and tired of them.

In the narrow and untidy passage of the cottage, which I entered shaking nervously all over, I was met by a grey-headed old servant with a face the colour of dark copper, surly little pig's eyes and deep furrows on his forehead, and temples such as I had never seen in my life before. He was carrying a plate with a clean-picked herring bone on it, and, shutting the door leading into another room with his foot, said in an abrupt tone of voice, "What do you want?"

"Is Princess Zasyekin at home?" I asked.

"Vonifaty!" a woman's cracked voice screamed from behind the door.

The man-servant turned his back on me without a word, revealing the extremely threadbare back of his livery with a solitary, rusty crested button, and, putting the plate down on the floor, went away.

"Have you been to the police station?" the same woman's voice repeated. The man muttered something in reply. "What? Someone's come?" I heard her say again. "The young gentleman from next door? Well, ask him in."

"Will you step into the drawing room, sir?" said the servant, reappearing before me again and picking up the plate from the floor.

I put myself to rights and went into the "drawing room."

I found myself in a small and not particularly tidy room with rather shoddy furniture which seemed to have been arranged in a hurry. By the window, in an arm-chair with a broken arm, sat a woman of about fifty, bare-headed and rather plain, in an old green dress with a striped worsted kerchief round her neck. She glanced at me with her small black eyes.

I went up to her and bowed.

"Have I the honour to address Princess Zasyekin?"

"I am Princess Zasyekin. Are you the son of Mr. W.?"

"Yes, ma'am, I am. I have come to you with a message from my mother."

"Sit down, please. Vonifaty, where are my keys? You haven't seen them, have you?"

I told Princess Zasyekin my mother's reply to her note. She listened to me, drumming on the window-sill with her thick, red fingers, and when I had finished, she stared at me once more.

"Very good, I shall certainly call," she said at last. "But, gracious me, how young you are! How old are you, may I ask?"

"S-sixteen," I replied with an involuntary stammer.

The princess pulled out of her pocket some greasy papers covered with writing, raised them to her nose, and began looking through them. "An excellent age," she said suddenly, turning to me and fidgeting in her chair. "Please make yourself at home. We're ordinary people here."

"A bit too ordinary," I thought to myself, glancing with a feeling of involuntary disgust at her unprepossessing person.

At that moment another door was flung open and in the doorway there appeared the girl I had seen in the garden the previous evening. She raised her hand, and a mocking smile appeared for a moment on her face.

"And here's my daughter," said the princess, pointing to her with her elbow. "Zeena, darling, this is the son of our neighbour, Mr. W. What's your name, may I ask?"

"V-Vladimir," I replied, getting up and stuttering in my excitement.

"And your patronymic?"

"Petrovich."

"I see. I used to know a police commissioner once. He was also called Vladimir Petrovich. Vonifaty, don't look for the keys—they are in my pocket."

The young girl continued to look at me with the same mocking smile, screwing up her eyes slightly and putting her head a little on one side.

"I've already met M'sieu Woldemar," she began. (The silvery sound of her voice ran through me with a kind of delightful shiver.) "You don't mind me calling you that, do you?"

"Why, of course not," I murmured.

"Where was that?" asked the princess.

The young princess did not answer. "You haven't got anything special to do now, have you?" she asked, without taking her eyes off me.

"Why, no, ma'am."

"Would you like to help me wind some wool? Follow me, please. This

way–to my room." She nodded to me and left the drawing room. I followed her.

In the room we entered, the furniture was a little better and arranged with more taste. At that moment, though, I was quite unable to notice anything: I moved as though in a dream and was overwhelmed by an intense feeling of happiness verging on imbecility.

The young princess sat down, took a skein of red wool, and, motioning me to a chair opposite, carefully untied the skein and put it across my hands. All this she did in silence with a kind of amused deliberation and with the same bright, sly smile on her slightly parted lips. She began to wind the wool round a bent card and then suddenly dazzled me with so swift and radiant a glance that I could not help dropping my eyes. When her eyes, mostly half-closed, opened wide, her face was completely transformed, as though flooded with light.

"What did you think of me yesterday, M'sieu Woldemar?" she asked, after a short pause. "I expect you must have thought me dreadful."

"Why, I–er–Princess–I–I–didn't think anything–how–could–I?" I replied in confusion.

"Listen," she said. "You don't know me yet. I'm an awfully strange person. I want people to tell me the truth always. You are sixteen, I hear, and I am twenty-one. You see, I'm very much older than you, and that is why you must always tell me the truth–and," she added, "do what I tell you. Look at me! Why don't you look at me?"

I was more confused than ever, but I did raise my eyes and look at her. She smiled, not as before, but approvingly.

"Look at me," she said, dropping her voice caressingly. "I do not mind it at all. I like your face. I have a feeling we shall be friends. And do you like me?" she added slyly.

"Princess–" I began.

"First of all, you must call me Zinaida Alexandrovna, and, second, what a strange habit children"–she quickly corrected herself–"young men have of not saying frankly what they feel. That's all very well for grown ups. You do like me, don't you?"

Though I was very pleased that she should be talking so frankly to me, I was a little hurt. I wanted to show her that she was not dealing with a mere boy, and, assuming as serious and nonchalant an air as I could, I said, "Of course I like you very much, Zinaida Alexandrovna. I have no wish to conceal it."

She shook her head slowly. "Have you a tutor?" she asked suddenly.

"No, I haven't had one for ages." I was telling a lie: it was not a month since I had parted with my Frenchman.

"Oh, I see, you're quite grown up." She rapped me lightly over the fingers. "Hold your hands straight!"

And she busily began winding the ball of wool. I took advantage of the fact that she did not raise her eyes to examine her at first stealthily and then more and more boldly. I thought her face was even more lovely than on the previous day: everything in it was so delicate, intelligent, and charming. She was sitting with her back to the window, which was covered with a white blind: the sunshine streaming through the blind shed a soft light on her fine, golden hair, her virginal throat, her sloping shoulders, and her calm, tender bosom. I gazed at her—and how dear and near she was already to me! I couldn't help feeling that I had known her a long, long time and that before her I had known nothing and had not lived. She was wearing a dark, rather old and worn dress with an apron; I would gladly have caressed every fold of that dress and that apron. The tips of her shoes peeped from under her skirt: I could have knelt in adoration to those shoes! "And here I am, sitting in front of her," I thought. "I have made her acquaintance. God! What happiness!" I almost leapt from my chair in ecstasy, but, in fact, all I did was to swing my legs a little, like a child eating a sweet.

I was as happy as a fish in water. I could have stayed in that room forever. I could have never left it.

Her eyelids were slowly raised and once more her bright eyes shone caressingly upon me, and again she smiled. "How you do look at me!" she said slowly, and she shook a finger at me.

I blushed. "She understands everything; she sees everything," flashed across my mind. "And how could she fail to understand it all and see it all?"

Suddenly there was a clatter in the next room—a sabre clanked.

"Zeena," the old princess cried from the drawing room, "Belovzorov has brought you a kitten!"

"A kitten!" cried Zinaida, and, rising impetuously from her chair, she threw the ball of wool into my lap and ran out of the room.

I too got up and, leaving the skein and the ball of wool on the windowsill, went out into the drawing room and stopped dead in amazement: a tabby kitten was lying in the middle of the room with its paws in the air; Zinaida was on her knees before it, cautiously lifting up its tiny head. Near the old princess, almost filling the entire space between the two

windows, I saw a fair-haired and curly-headed, stalwart, young hussar officer, with a pink face and protruding eyes.

"What a funny little thing!" Zinaida was saying. "And its eyes aren't grey—they're green—and what enormous ears he's got! Thank you, Victor! How sweet of you."

The hussar, whom I recognized as one of the young men I had seen the previous evening, smiled and bowed, clicking his spurs and clinking the chain of his sabre.

"You were pleased to say yesterday that you'd like to have a tabby kitten with large ears, so I—I got one. Your word is law." And he bowed again.

The kitten miaowed feebly and began to sniff the floor.

"It's hungry!" cried Zinaida. "Vonifaty, Sonia, bring some milk."

The maid, in an old yellow dress and with a faded kerchief round her neck, came in with a saucer of milk in her hands and set it before the kitten. The kitten gave a start, screwed up its eyes, and began to lap.

"What a pink little tongue it's got!" observed Zinaida, bending her head almost to the floor and looking at the kitten sideways under its very nose.

The kitten drank its fill and began purring and moving its paws up and down finickingly. Zinaida got up and, turning to the maid, said in an indifferent voice, "Take it away."

"Allow me to kiss your hand in return for the kitten," said the hussar, flashing his teeth and flexing his whole powerful frame, tightly encased in a new uniform.

"Both of them," replied Zinaida, and she held out her hands to him.

While he kissed them, she looked at me over his shoulder.

I stood stock still and did not know whether to laugh, to say something, or to remain silent. Suddenly I caught sight of our footman, Fyodor, through the open passage door. He was making signs to me. Mechanically I went out to him.

"What are you doing here?" I asked.

"Your mother has sent for you," he said in a whisper. "She is angry because you haven't come back with the answer."

"Why, have I been here long?"

"Over an hour, sir."

"Over an hour!" I repeated involuntarily and, returning to the drawing room, I began to take my leave, bowing and scraping my feet.

"Where are you off to?" asked the young princess, glancing at me from behind the hussar.

"I'm afraid I have to go home. . . . So I am to say," I added, turning to the old woman, "that you will call on us about two o'clock?"

"Yes, do say that, dear boy." The old princess hurriedly reached for a snuff-box and took the snuff so noisily that it almost made me jump. "Yes, do say that," she repeated, blinking tearfully and groaning.

I bowed once more, turned, and walked out of the room with that uncomfortable sensation in my back which a very young man feels when he knows he is being watched from behind.

"Mind you come and see us again, M'sieu Woldemar!" cried Zinaida, and laughed again.

"Why is she always laughing?" I thought as I was returning home, accompanied by Fyodor, who said nothing to me, but walked behind me with a disapproving air. My mother scolded me and wondered what I could have been doing so long at the princess's. I made no answer and went off to my room. Suddenly I felt very sad. I tried hard not to cry. I was jealous of the hussar.

The old princess paid a visit to my mother as she had promised. My mother did not like her. I was not present at their interview, but at dinner my mother told my father that this Princess Zasyekin struck her as *une femme très vulgaire*, that she had wearied her out with her requests to intercede on her behalf with Prince Sergey, that she seemed to be involved in some lawsuits and shady business deals–*des vilaines affaires d'argent*–and that she must be a thoroughly unpleasant woman. My mother, however, added that she had asked her and her daughter to dinner the next day (hearing the words "and her daughter," I buried my nose in my plate), because she was, after all, a neighbour and a titled woman. Upon which my father informed my mother that he now remembered who this lady was; that when he was a young man he had known the late Prince Zasyekin, a highly cultured but frivolous and ridiculous man; that in society he was known as "*le Parisien*" because he had lived in Paris for a long time; that he had been very rich but had gambled away his entire fortune, and for some unknown reason, probably for money–"though he could have made a much better choice," my father added with a cold smile–married the daughter of some departmental clerk and after his marriage had begun speculating and completely ruined himself.

"I do hope she's not going to ask for a loan," observed my mother.

"I should not be in the least surprised," my father said calmly. "Does she speak French?"

"Very badly."

"I see. However, that doesn't matter. I think you said you'd also asked her daughter? Someone was telling me that she was a very charming and well-educated girl."

"Oh? Then she can't take after her mother."

"No, nor after her father," said my father. "He was cultured too, but a fool."

My mother sighed and sank into thought. My father was silent. I felt very uncomfortable during this conversation.

After dinner I went into the garden, but without my gun. I vowed not to go near the "Zasyekin garden," but an irresistible force drew me there, and I was not disappointed. For I had hardly reached the fence when I caught sight of Zinaida. This time she was alone. She had a book in her hand and was walking slowly along the path. She did not notice me.

I nearly let her pass by, but suddenly recollected myself and coughed. She turned round but did not stop. With her hand she pushed back the broad blue ribbon of her round straw hat, looked at me, smiled gently, and again dropped her eyes to the book.

I took off my cap and, after hesitating a little, walked away with a heavy heart. "*Que suis je pour elle* [What am I to her]?" I thought (goodness only knows why!) in French.

Familiar footsteps sounded behind me: I looked round—my father was coming towards me with his light, quick step. "Is that the young princess?" he asked me.

"Yes."

"Do you know her?"

"I saw her this morning at the old princess's."

My father stopped and, turning sharply on his heels, went back. Drawing level with Zinaida, he bowed to her courteously. She too bowed to him—not without some surprise, though—and lowered her book. I saw how she followed him with her eyes. My father always dressed very exquisitely and simply and in a style all his own; but never before had his figure struck me as more elegant, and never before had his grey hat sat more handsomely on his barely perceptibly thinning hair.

I walked towards Zinaida, but she did not even glance at me. She raised her book again and walked away.

I spent the whole of that evening and the following morning in a state of stunned misery. I remember I tried to work and opened Kaydanov, but the clearly printed lines and pages of the celebrated text-book flashed

before my eyes in vain. A dozen times over I read the words: "Julius Caesar was distinguished for martial valour," but did not understand a word and threw the book down. Before dinner I pomaded my hair again and again put on my new coat and cravat.

"What's this for?" asked my mother. "You're not a university student yet, and heaven knows whether you'll ever pass your examinations. Besides, how long is it since I bought you your tunic? You're not going to throw it away, are you?"

"We're going to have visitors," I whispered almost in despair.

"What nonsense! Visitors indeed!"

I had to give in. I changed the coat for my tunic, but I did not take off the cravat.

The princess and her daughter arrived half an hour before dinner. The old woman had thrown a yellow shawl over the green dress in which I had seen her before and put on an old-fashioned bonnet with flame-coloured ribbons. She began talking at once about her bills of exchange, sighing and complaining about her poverty, and went on and on about it without apparently feeling in the least humiliated: she took snuff as noisily as before and fidgeted and turned about on her chair as freely as ever. It never seemed to occur to her that she was a princess. Zinaida, on the other hand, carried herself very gravely, even haughtily, like a true princess. An expression of cold immobility and dignity appeared on her face, and she seemed quite a different person to me; I could discover no trace of the glances, the smiles I knew so well, though in this new guise, too, she seemed beautiful to me. She wore a light *barège* dress with a pale blue pattern; her hair fell in long curls down her cheeks, in the English fashion. This way of doing her hair went well with the cold expression on her face. My father sat beside her during dinner and entertained his neighbour with his usual exquisite and calm courtesy. From time to time he glanced at her, and she too looked at him now and again, but so strangely, almost with hostility. Their conversation was carried on in French; I remember I was surprised by the purity of Zinaida's pronunciation. The old princess was, as before, not in the least put out at dinner, eating a lot and praising the dishes. My mother was obviously bored by her and answered her with a sort of melancholy disdain. Now and then my father frowned a little.

My mother did not like Zinaida either. "Very proud, isn't she?" she said the next day. "And what has she to be so proud about, I wonder– *avec sa mine de grisette* [with her grisette expression]?"

"You've evidently never seen any grisettes," observed my father.

"No, I haven't, thank God!"

"Yes indeed, thank God–only how on earth can you form an opinion of them?"

Zinaida had paid no attention whatsoever to me. Soon after dinner the old princess began to take her leave.

"I shall count on your good offices, madam, and on yours too, sir," she said in a sing-song voice to my mother and father. "I'm afraid there's nothing we can do about it. We've had our good times, but they're gone, so here I am, a Highness," she added with an unpleasant laugh, "but what's the use of a title if you're starving?"

My father bowed to her respectfully and saw her off to the front door. There I stood, in my short tunic, staring at the floor as though under sentence of death. Zinaida's treatment of me had crushed me completely. Imagine my surprise when, as she passed by me, she said in a rapid whisper and with the former affectionate look in her eyes, "Come and see us at eight o'clock. Do you hear? Without fail!"

I did not know what to make of it, but she was already gone, throwing a white scarf over her head.

Punctually at eight o'clock, in my tail-coat, with a raised quiff of hair, I entered the passage of the cottage where the princess lived. The old servant scowled at me and got up unwillingly from the bench. I could hear gay voices in the drawing room. I opened the door and stepped back in astonishment. In the middle of the room, on a chair, stood the young princess, holding a man's hat in front of her; about half a dozen men crowded round the chair. They were trying to put their hands into the hat, while she kept raising it and shaking it violently.

On seeing me she cried, "Wait, wait, another visitor! I must give him a ticket too," and, jumping lightly off the chair, she took me by the cuff of my coat. "Come along," she said. "What are you standing there for? Gentlemen, let me introduce you: this is M'sieu Woldemar, our neighbour's son. And these," she added, turning to me and pointing to each one of her guests in turn, "are Count Malevsky, Dr. Lushin, the poet Maydanov, retired Captain Nirmatsky, and Belovzorov, the hussar, whom you have met already. I hope you will all be good friends."

I was so overcome with confusion that I did not even bow to anyone; in Dr. Lushin I recognized the same dark man who had put me to shame so mercilessly in the garden; the others I did not know.

"Count," Zinaida went on, "write out a ticket for M'sieu Woldemar."

"That's not fair," the count replied with a slight Polish accent. "He did not play forfeits with us."

The count was a very handsome and fashionably dressed, dark-haired young man with expressive brown eyes, a small, narrow white nose, and a thin moustache above a tiny mouth.

"It's not fair," repeated Belovzorov and the gentleman who had been introduced as a retired captain, a man in his forties, hideously pockmarked, with frizzy hair like a Negro's, bandy-legged, and dressed in a military coat without epaulettes, which he wore unbuttoned.

"Write out the ticket, I tell you," repeated the princess. "What is this? A mutiny? M'sieu Woldemar is here for the first time, and today the rules do not apply to him. Don't grumble, and write it out! That is my wish."

The count shrugged his shoulders, but, bowing his head obediently, picked up a pen in his white, beringed fingers, tore off a scrap of paper, and began writing on it.

"Let me at least explain to M'sieu Woldemar what this is all about," began Lushin in a sarcastic voice, "or else he'll be completely at a loss. You see, young man, we are playing a game of forfeits. The princess has to pay a forfeit, and he who draws the lucky ticket will have the right to kiss her hand. Do you understand what I have told you?"

I just glanced at him and continued to stand like one in a trance, while the young princess again jumped on a chair and once more began shaking the hat. They all moved up to her, and I with the rest.

"Maydanov," said the princess to the tall young man with a thin face, short-sighted little eyes, and extremely long black hair, "you, as a poet, ought to be magnanimous and give up your ticket to M'sieu Woldemar so that he may have two chances instead of one."

But Maydanov shook his head and tossed back his hair. I put my hand into the hat after all the others and unfolded my ticket. Good Lord, what did I feel when I saw on it the word *kiss!*

"Kiss!" I cried involuntarily.

"Bravo, he won!" the young princess cried. "I am so glad!" She got off the chair, looked into my eyes, and gave me such a bright and sweet look that my heart turned over within me. "Are you glad?" she asked me.

"Me?" I murmured.

"Sell me your ticket," Belovzorov suddenly blurted out in my ear. "I'll give you a hundred roubles."

I answered the hussar with so indignant a look that Zinaida clapped her hands, while Lushin cried, "Stout fellow! But," he added, "as master of ceremonies, I am obliged to see that all the rules are kept. M'sieu Woldemar, go down on one knee! That's our rule."

Zinaida stood in front of me with her head a little on one side, as though she wished to get a better look at me, and held out her hand to

me with an air of great solemnity. Everything went black before my eyes; I was about to go down on one knee, but sank on both and touched Zinaida's fingers so awkwardly with my lips that I scratched the tip of my nose on her nail.

"Splendid!" cried Lushin, and helped me to get up.

The game of forfeits went on. Zinaida made me sit down beside her. The forfeits she thought of! She had, among other things, to represent a statue, and she chose the hideous Nirmatsky as her pedestal, told him to lie down on the floor and to lower his head to his chest. The laughter never ceased for a moment. All this noise and uproar, all this unceremonious, almost riotous gaiety, all this strange relationship with unknown persons, simply went to my head, for I had been brought up soberly, in the seclusion of a staid country house. I was intoxicated, as though with wine. I began laughing at the top of my voice and talking a lot of nonsense more loudly than the others, so that even the old princess, who was sitting in the next room with some pettifogging lawyer's clerk from the Iversky Gate, who had been invited for a consultation, came out to have a look at me. But I felt so intensely happy that I did not care for anyone's sarcastic remarks or anyone's disapproving looks.

Zinaida continued to show a preference for me, and would not let me leave her side. For one forfeit I had to sit beside her, both of us covered with the same silk kerchief: I had to tell her *my secret*. I remember how both our heads were suddenly plunged in a close, semi-transparent, fragrant darkness and how near and how softly her eyes shone in this darkness, and I remember the burning breath of her parted lips and the glint of her teeth and how her hair tickled and scorched me. I was silent. She smiled mysteriously and slyly and at last whispered to me, "Well, what is it?" but I only blushed and laughed and turned away, hardly able to breathe. We got tired of forfeits and began playing a game with string. Heavens, how delighted I was when, in a moment of absentmindedness, I received a sharp and painful blow on my fingers and how I afterwards purposely tried to pretend that I was not paying attention and she teased me and refused to touch the hands that I held out to her!

The things we did that evening! We played the piano, we sang and danced, and we acted a gipsy encampment. Nirmatsky was dressed up as a bear and made to drink salt water. Count Malevsky showed us all sorts of card tricks and finished up by shuffling the cards and dealing himself all the trumps at whist, upon which Lushin "had the honour" to congratulate him. Maydanov recited passages from his poem "The Murderer" (all this took place at a time when the romantic movement was at its

height), which he intended to publish in a black cover with the title printed in blood-red letters; we stole the lawyer's clerk's cap off his knee and made him dance a Cossack dance by way of ransom; we dressed up old Vonifaty in a bonnet, and the young princess put on a man's hat . . . It is impossible to enumerate everything we did that evening. Belovzorov alone skulked in a corner, looking cross and frowning. Sometimes his eyes would become bloodshot, he flushed all over, and it seemed as though he would at any moment hurl himself upon us all and scatter us in all directions; but the young princess would glance at him, shake her finger, and he would once more slink back to his corner.

We were quite worn out at last. Even the old princess, who, as she expressed it, could "put up with anything"–no amount of noise seemed to trouble her–felt tired and declared that she would like to have a little rest. At midnight, supper was served. It consisted of a piece of stale, dry cheese and some cold ham patties which seemed more delicious to me than any pies; there was only one bottle of wine, and that too was a rather strange one: a dark-coloured bottle with a blown-out neck, and the wine in it smelt of pink paint: however, no one drank it. Tired and exhausted with happiness, I left the cottage: at parting, Zinaida pressed my hand warmly and again smiled enigmatically.

The night air was heavy and damp against my burning face. A storm seemed to be gathering. Black clouds grew and crept across the sky, changing their smoky outlines even while one looked at them. The breeze quivered restlessly in the dark trees, and somewhere far beyond the horizon thunder was growing angrily and hollowly, as though to itself.

I made my way to my room by the back door. The old man-servant who looked after me was asleep on the floor, and I had to step over him; he woke up, saw me, and told me that my mother had again been angry with me and had again wanted to send for me, but that my father would not let her. (I never went to bed without saying good night to my mother and asking her blessing.) However, there was nothing to be done about it now!

I told my man-servant that I would undress and get myself to bed, and put out the candle. But I did not undress and I did not go to bed.

I sat down on a chair and sat there a long time, like one enchanted. What I felt was so new and so sweet. I sat still, hardly looking around and without moving, breathing slowly, and only at times laughing silently at something I remembered or turning cold inwardly at the thought that I was in love and that that was *it*, that was love. Zinaida's face floated slowly before me in the darkness–floated, but did not float away; her

lips still wore the same enigmatic smile; her eyes still looked at me a little sideways, questioningly, dreamily, tenderly, as at the moment when I had parted from her. At last I got up, tiptoed to my bed, and without undressing, carefully laid my head on the pillow, as though afraid to disturb by an abrupt movement that which filled my whole being.

I lay down but did not even close my eyes. Soon I noticed faint glimmers of light continually lighting up my room. I sat up and looked at the window. The window bars showed up against the mysteriously and dimly lit panes. "A thunderstorm," I thought, and I was right. It was a storm, but it was very far away, so that the thunder could not be heard; only the faint, long, branching-out forks of lightning flashed uninterruptedly across the sky: they did not flash so much as quiver and twitch, like the wing of a dying bird. I got up, went to the window, and stood there till morning. The lightning did not cease for a moment; it was what is known among the peasants as a "sparrow night," or a night of uninterrupted storm with thunder and lightning. I looked at the silent stretch of sand and the dark mass of the Neskoochny Park, at the yellowish façades of distant buildings, which also seemed to quiver with each faint flash. I looked and could not tear myself away: this silent lightning, these restrained gleams of light, seemed to respond to the mute and secret fires which kept blazing up in me too. Morning began to break; the dawn came up in crimson patches. As the sun rose higher in the sky, the flashes of lightning grew fainter and less frequent: they quivered more and more seldom and at last vanished, drowned in the tempering and clear light of the rising day.

And the lightning within me vanished too. I felt a great weariness and silence. But Zinaida's image continued to hover triumphant over my soul. Only this image too seemed more at peace; like a swan rising from the reeds of a marsh into the air, it detached itself from the unseemly figures which surrounded it, and as I fell asleep I clung to it for a last time in a parting and trusting adoration.

Oh, gentle feelings, soft sounds, the goodness and the growing calm of a heart that is deeply moved, the melting gladness of the first tender raptures of love—where are you? Where are you?

Next morning when I came down to breakfast my mother scolded me—not as much as I had expected, however—and made me tell her how I had spent the previous evening. I answered her in a few words, leaving out many details and trying to make everything appear most innocent.

"All the same, they're not *comme il faut* [socially proper]," observed my mother, "and you have no business to be hanging about there instead of working for your examinations."

Knowing that my mother's concern for my studies would be confined to these few words, I did not consider it necessary to take exception to what she had said; but after breakfast my father put his arm through mine, and, going into the garden with me, made me give him a full account of all I had seen at the Zasyekins'.

My father had a strange influence on me—and strange indeed were our relations towards one another. He took practically no part in my education, but he never hurt my feelings; he respected my freedom; he even was, if I may put it this way, polite to me; but he never let me come near him. I loved him and I admired him. He seemed to me to be a paragon of a man—and, dear me, how passionately attached to him I should have grown if only I had not constantly felt his restraining hand! Yet he could, whenever he wanted to, arouse in me an absolute trust in him almost instantaneously, by one single movement, as it were. My heart opened up to him and I chatted to him as I would to an intelligent friend or an indulgent teacher; then he would desert me with the same suddenness, and his hand would push me away again—gently and tenderly, but push me away it did for all that.

Occasionally a gay mood would come upon him, and then he would be ready to play with me as though he were a little boy himself (he was fond of all strong physical exertions); once—only once!—he caressed me with such tenderness that I nearly burst into tears. But his gaiety and tenderness vanished without a trace, and what had passed between us gave me no hope for the future; it was as though it had all been happening in a dream. Sometimes as I gazed at his handsome, clever, bright face my heart would leap up and all my being would rush towards him. . . . He seemed to feel what was going on inside me, and he would give me a casual pat on the cheek and go away and do something, or he would suddenly turn cold as only he knew how to turn cold, and I would shrink back within myself at once and go cold too. His rare fits of friendliness towards me were never caused by my mute but unmistakable entreaties: they always came quite unexpectedly. Reflecting on my father's character afterwards, I came to the conclusion that he could not be bothered with me—or with his family; it was other things he cared for, and he derived full satisfaction from them. "Grab all you can, but never allow yourself to be caught; to belong to yourself alone is the whole trick of living," he

said to me once. Another time, like the young democrat I was, I began discussing freedom in his presence (that day he was, as I called it, "good," and it was possible to talk to him about everything).

"Freedom," he repeated, "but do you know what can give a man freedom?"

"What?"

"His will, his own will: that will give him power, which is better than freedom. Know how to want something, and you will be free and you will be able to command."

My father wanted to live above everything else and more than everything else, and he *did* live: perhaps he had a premonition that he was not going to enjoy the trick of living long: he died at forty-two.

I gave my father a detailed account of my visit to the Zasyekins'. He listened to me half-attentively and half-absently, sitting on a bench and drawing in the sand with the end of his riding crop. From time to time he would chuckle, look at me in a sort of bright and amused way, and he egged me on with short questions and rejoinders. At first I could not pluck up sufficient courage even to utter Zinaida's name, but I could not contain myself and began extolling her to the skies. My father continued to smile; then he sank into thought, stretched himself, and got up.

I remembered that as he was going out of the house he ordered his horse to be saddled. He was an excellent horseman and he could break in the wildest horse long before Rarey.[1]

"May I come with you, Father?" I asked him.

"No," he replied, and his face assumed its usual half-indifferent, half-affectionate expression. "Go alone, if you like, and tell the groom that I shall not be going."

He turned his back on me and walked rapidly away. I followed him with my eyes—and he disappeared behind the gates. I saw his hat moving along above the fence: he went into the Zasyekins' cottage. He did not stay there more than an hour and then left at once for the town and did not return home till evening.

After dinner I myself called on the Zasyekins. In the drawing room I found only the old princess. On seeing me, she scratched her head under her bonnet with the end of a knitting needle and suddenly asked me whether I would copy out a petition for her.

"With pleasure," I replied, sitting down on the edge of a chair.

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1. John S. Rarey (1828–1866) was an American horse trainer who introduced a system of throwing down vicious or unruly horses, so as to train them.–Translator.

"Only, mind, make your letters as big as you can," said the old princess, handing me a sheet of paper scribbled over with her writing. "You couldn't do it today, could you, my boy?"

"Yes, ma'am, I'll copy it out today."

The door to the adjoining room was slightly open, and Zinaida's face appeared in the opening–pale, pensive, with her hair carelessly tossed back: she looked at me with big, cold eyes and softly closed the door.

"Zeena! I say, Zeena!" said the old woman.

Zinaida made no answer. I carried away the old woman's petition and sat the whole evening over it.

My passion began from that day. What I felt at that time, I remember, was something similar to what a man must feel on entering government service: I had ceased to be simply a young boy: I was someone in love. I have said that my passion began from that day; I might have added that my suffering began on that day too. Away from Zinaida, I languished: I could not think of anything, I had not the heart to do anything, and for days on end all my thoughts revolved round her. I languished . . . but in her presence I did not feel any happier. I was jealous; I realized my own insignificance; I sulked stupidly and cringed stupidly; and yet an irresistible force drew me towards her, and every time I stepped over the threshold of her room I was seized by an uncontrollable tremor of happiness. Zinaida guessed at once that I had fallen in love with her, and indeed I never thought of concealing it; she amused herself with my passion; she made a fool of me, petted me, and tormented me. It is sweet to be the only source, the despotic and arbitrary cause, of the greatest joys, the greatest sorrows, in another human being, and I was like soft wax in Zinaida's hands.

However, I was not the only one to have fallen in love with her: all the men who visited the house were madly in love with her, and she kept them all on leading strings–at her feet. It amused her to arouse their hopes one moment and their fears another, to twist them round her little finger (she used to call it "knocking people's heads together"); and they never dreamt of offering any resistance and were only too glad to submit to her. Her whole being, so beautiful and so full of vitality, was a curiously fascinating mixture of cunning and carelessness, artificiality and simplicity, calmness and vivacity; there was a subtle, delicate charm about everything she did or said, about every movement of hers; in everything a peculiar, sparklingly vivacious force was at work. Her face too was vivacious and always changing: it expressed almost at one and

the same time irony, pensiveness, and passionateness. The most various emotions, light and swift like shadows of clouds on a windy, sunny day, chased each other continuously over her lips and eyes.

Every one of her admirers was necessary to her. Belovzorov, whom she sometimes called "my wild beast," and sometimes simply "mine," would gladly have flung himself into the fire for her; placing little confidence in his own intellectual abilities and other accomplishments, he kept proposing marriage to her, hinting darkly that the others only talked. Maydanov responded to the poetic chords of her soul: a rather cold man, like nearly all writers, he kept assuring her strenuously, and perhaps himself too, that he adored her; he extolled her in endless verses and read them to her with a kind of affected yet sincere enthusiasm. She sympathized with him and at the same time made fun of him a little; she had no great faith in him, and, after listening to his effusions, made him read Pushkin–in order, as she said, to "clear the air." Lushin, the sarcastic doctor, who was so cynical in speech, knew her better than any of them–and loved her more than any of them, though he scolded her to her face and behind her back. She respected him but paid him back in his own coin, and occasionally used to make him feel with particularly malicious pleasure that he was completely in her power. "I am a flirt, I'm heartless, I am an actress by nature," she said to him once in my presence. "Oh, all right, then! Give me your hand and I will stick a pin in it and you'll be ashamed before this young man. It will hurt you, but all the same you will be good enough to laugh, Mr. Truthful Man." Lushin flushed, turned away, bit his lips, but in the end held out his hand to her. She pricked him, and he did begin to laugh–and she laughed too, driving the pin in quite deep, and kept peering into his eyes, with which he tried in vain not to look at her.

Least of all did I understand the relations which existed between Zinaida and Count Malevsky. He was good-looking, adroit, and intelligent, but even I, at sixteen, felt that there was something equivocal, something false about him, and I was surprised that Zinaida did not notice it. But possibly she did notice this falseness and felt no aversion to it. Her irregular education, strange acquaintances and habits, the constant presence of her mother, poverty and disorder in the house–everything, beginning with the very freedom which the young girl enjoyed, and with the consciousness of her superiority over the people round her, had developed in her a sort of half-disdainful carelessness and a lack of fastidiousness. Whatever happened, whether Vonifaty came in to announce that there was no sugar left, or whether some unsavoury piece of scandal

came to light, or her guests began to quarrel, she would only shake her curls, say, "Nonsense," and take no notice of it.

On the other hand, my blood used to boil every time Malevsky went up to her, swaying cunningly like a fox, leaned elegantly against the back of her chair, and began whispering into her ear with a self-satisfied and ingratiating little smile, while she would fold her arms over her bosom, look attentively at him, and smile herself and nod her head.

"What do you want to receive Count Malevsky for?" I asked her one day.

"Oh, but he has such a lovely little moustache," she replied. "But I'm afraid that is something you don't understand. . . .

"You don't think I'm in love with him, do you?" she said to me another time. "Oh, no, I couldn't possibly be in love with people whom I have to look down on. I want someone who will master me. But, thank goodness, I shall never come across any man like that! I will never fall into any man's clutches–never!"

"You'll never be in love, then?"

"And what about you? Don't I love you?" she said and flicked me on the nose with the tips of her glove.

Yes, Zinaida amused herself a great deal at my expense. For three weeks I saw her every day, and what didn't she do to me! She visited us seldom, and I was not sorry for it: in our house she became transformed into a young lady, a princess, and I was shy of her. I was afraid of betraying myself in front of my mother; she was not at all kindly disposed towards Zinaida, and watched us with an unfriendly eye. I was not so much afraid of my father: he did not seem to notice me and spoke very little to her, but whatever he said to her seemed somehow particularly brilliant and significant.

I stopped working and reading; I even stopped going for walks in the neighbourhood and riding. Like a beetle tied by the leg, I circled constantly round my beloved little cottage: I would have stayed there forever if I could. But that was impossible. My mother grumbled at me, and sometimes Zinaida herself used to drive me away. Then I would shut myself up in my room, or go to the end of the garden, climb onto the very top of the ruin of a high brick green-house, and, with my legs dangling from the wall that looked onto the road, sit there for hours, staring and staring and seeing nothing. White butterflies fluttered lazily on the dusty nettles near me; a cheeky sparrow settled not far off on a half-broken red brick, twittering irritably, incessantly turning with its whole body and preening its little tail; now and then the still mistrustful crows

cawed, sitting very high up on the bare top of a birch; the sun and the wind played gently in its sparse branches; the sound of the bells of the Donskoy monastery came floating across at times, tranquil and melancholy, while I sat there, gazing and listening, filled to overflowing with a kind of nameless sensation which had everything in it: sadness and joy, a premonition of the future, and desire, and fear of life. But just then I understood nothing of it and could not have given a name to anything that was seething within me, or I should have called it all by one name–the name of Zinaida.

And Zinaida continued to play with me like a cat with a mouse. Sometimes she would flirt with me, and I was all agitated and melting with emotion; at other times she would suddenly push me away, and I dared not go near her, dared not look at her.

I remember she was very distant with me for several days. I was completely abashed and, dropping in timidly at the cottage, tried to keep close to the old princess, in spite of her being particularly loud-voiced and abusive just at that time: her financial affairs had been going badly and she had already had to give two statements to the police.

One day as I was walking in the garden past the familiar fence I caught sight of Zinaida: she was sitting on the grass, her head propped up on both her hands, and did not stir. I was about to retreat cautiously, but she suddenly raised her head and signalled to me imperiously to come up to her. I was rooted to the spot: I failed to understand what she meant at first. She signalled to me again. I jumped over the fence at once and rushed joyfully up to her, but she stopped me with a glance and pointed to a path two paces away from her. Overcome with confusion and not knowing what to do, I knelt at the edge of the path. She was so pale, and such bitter grief, such profound weariness were manifest in every feature of her face that my heart contracted and I murmured involuntarily, "What's the matter?"

Zinaida stretched out her hand, tore off a blade of grass, bit it, and flung it from her as far as she could. "Do you love me very much?" she asked at last. "Do you?"

I made no answer, and what need was there for me to answer?

"You do," she said, looking at me as before. "That is so. The same eyes," she added; then sank into thought and buried her face in her hands. "I'm sick and tired of it all," she whispered. "I wish I could go away somewhere, far, far away. I can't bear it; I can't do anything about it. And what sort of future can I hope for? Oh, I am so miserable! God, I am so miserable!"

"Why?" I asked timidly.

Zinaida did not reply, and only shrugged her shoulders. I remained on my knees, looking at her with blank despondency. Every word of hers cut me to the heart. At that moment I would, I believe, gladly have given up my life, if only she would have no more cause to grieve. I gazed at her, and, still not understanding why she was so unhappy, I vividly pictured to myself how, suddenly, in a fit of irrepressible sorrow, she had gone into the garden and collapsed on the ground as though felled by a blow. All round us everything was bright and green; the wind rustled in the leaves of the trees, now and again swinging a long raspberry cane over Zinaida's head. Somewhere doves were cooing and bees were buzzing, flying low over the sparse grass. Overhead the sky was blue and tender—but I felt terribly sad.

"Read me some poetry, please," said Zinaida softly, raising herself on an elbow. "I like the way you read poetry. You speak it in a sing-song way, but that doesn't matter; that is because you are so young. Read me 'On the Hills of Georgia,' only first sit down."

I sat down and recited "On the Hills of Georgia."

" 'Which it cannot choose but love,' " Zinaida repeated. "That's why poetry is so good: it speaks to us of what does not exist and which is not only better than what exists but even more like the truth. . . . 'Which it cannot choose but love'—it would like not to, but cannot!"

She fell silent again and suddenly started and got up. "Come along. Maydanov is in the house with Mother. He's brought me his poem, but I left him. His feelings too are hurt now, but it can't be helped. You'll find out someday—only don't be angry with me!" Zinaida pressed my hand hurriedly and ran on ahead.

We went back to the cottage. Maydanov began reading to us his "Murderer," which had just been published, but I did not listen to him. He shouted his four-foot iambics in a sing-song voice; the rhymes alternated, ringing like harness bells, loud and hollow, while I kept looking at Zinaida, trying to grasp the meaning of her last words.

> Or perchance some secret rival
> Hath without warning conquered thee?

Maydanov cried suddenly in a nasal tone—and my eyes and Zinaida's met. She dropped them and blushed slightly. I saw her blush, and froze with terror. I had been jealous of her before, but it was only at that moment that the thought that she was in love flashed through my mind. "Good Lord, she is in love!"

From that moment my real torments began. I racked my brain, thought it over again and again, and kept a relentless, though as far as possible secret, watch on Zinaida. It was quite clear that a change had come over her. She went for walks alone and was away for hours. Sometimes she refused to see her visitors; she sat for hours in her room. This had never happened to her before. I had suddenly become—or imagined that I had become—extremely perspicacious. "It isn't he, or is it?" I asked myself in alarm as I went over her different admirers in my mind. Count Malevsky (though for Zinaida's sake I was ashamed to admit it to myself) I secretly regarded as more dangerous than the others.

My powers of observation did not go farther than the end of my nose, and my secrecy most likely deceived no one; Dr. Lushin, at least, soon saw through me. He too, though, had changed of late. He had grown thinner; he laughed just as often, it is true, but his laughter somehow sounded more hollow, more spiteful, and much shorter, and in place of his former light irony and affected cynicism he now displayed a nervous irritability.

"Why are you always hanging about here, young man?" he said to me one day when we were left alone together in the Zasyekins' drawing room. (The young princess had not yet returned from her walk, and the shrill voice of the old princess could be heard on the first floor: she was having words with her maid.) "You ought to be studying, working, while you're young, and what on earth do you think you're doing?"

"You can't tell whether I work at home or not," I replied, not without haughtiness, though not without some embarrassment, either.

"Working indeed! You've something else on your mind. Well, I won't argue with you about it. At your age it's what one would expect. Except that you've been terribly unlucky in your choice. Don't you see what sort of house this is?"

"I don't know what you're talking about," I said.

"Don't you? So much the worse for you. I consider it my duty to warn you. It's all right for old bachelors like me to go on coming here: nothing much could happen to us, could it? We've been hardened in the battle of life. Nothing can hurt us now. But you've still got a tender skin. The atmosphere here is bad for you. Believe me, you might become infected."

"What do you mean?"

"You know what I mean. Are you well now? Are you in a normal condition? Is what you feel now healthy for you? Is it good for you?"

"Why, what am I feeling?" I said, while in my heart I realized full well that the doctor was right.

"Oh, young man, young man," the doctor went on, looking as though there was something highly insulting to me in those two words, "you can't deceive me! For, thank God, one can still read your face like an open book. However, what's the use of talking? I wouldn't be coming here myself if"–the doctor gritted his teeth–"if I hadn't been as big a fool as you. What I'm really surprised at, though, is how, with your intelligence, you can't see what is going on round you."

"Why, what *is* going on?" I said, all ears.

The doctor looked at me with a sort of mocking pity. "I'm a fine one too," he said, as though to himself. "Why should I be telling him this? In short," he added, raising his voice, "let me tell you again: the atmosphere here is no good for you. You like it here, but what does that matter? It smells sweet in a hot-house too, but you can't live in it, can you? Now you'd better listen to me and go back to Kaydanov again."

The old princess came in and began to complain to the doctor about her toothache. Then Zinaida appeared.

"Please, Doctor," added the old princess, "you'd better tell her off properly. She's been drinking iced water all day long. Is that good for her with her weak chest?"

"Why do you do that?" asked Lushin.

"Why, what effect can it have on me?"

"What effect? You might catch cold and die."

"Could I really? Are you sure? Well, so much the better!"

"I see," muttered the doctor.

The old princess went out.

"I see," repeated Zinaida. "Do you think life is so gay? Just look round you! Well, is it so nice, or do you think that I don't understand it, that I don't feel it? I get pleasure from drinking water with ice, and do you seriously tell me that such a life as mine is not worth risking for a moment's pleasure? I don't speak of happiness."

"Oh, well," observed Lushin, "caprice and independence–those two words sum you up: your whole nature is contained in those two words."

Zinaida laughed nervously. "You're too late, my dear doctor. You're not a good observer. You're not abreast of the times. Put on your glasses. This is no time for caprices. To make a fool of you, to make a fool of myself–there's not much fun in that any more. And as for independence–M'sieu Woldemar," Zinaida added suddenly, stamping her foot, "don't pull such a melancholy face. I can't stand it when people pity me." She went quickly out of the room.

"This atmosphere is very bad for you, young man, very bad," Lushin said again.

That same evening the usual visitors gathered at the Zasyekins'; I was among them.

The conversation turned on Maydanov's poem; Zinaida expressed genuine admiration for it.

"But," she said to him, "let me tell you this. If I were a poet, I would choose different subjects. Perhaps it's all nonsense, but all sorts of strange thoughts sometimes come into my head, especially when I can't sleep, at daybreak when the sky begins to turn pink and grey. I would, for instance—You won't laugh at me, will you?"

"No! No!" we all cried in one voice.

"I would describe," she went on, crossing her arms and looking away, "a whole company of young girls in a large boat on a quiet river at night. The moon is shining and they are all in white, with garlands of white flowers, and they are singing, you know, something like a hymn."

"I understand, I understand, go on," Maydanov said dreamily and meaningfully.

"All of a sudden there's an uproar—loud laughter, torches, tambourines on the bank. . . . It's a troupe of bacchantes running, with songs and cries. It's your business, Mr. Poet, to paint this picture, only I'd like the torches to be red and smoking a lot and the eyes of the bacchantes to gleam under their wreaths, and the wreaths to be dark. Don't forget the tiger skins and the goblets and the gold, lots and lots of gold."

"Where should the gold be?" asked Maydanov, tossing back his lank hair and dilating his nostrils.

"Where? On their shoulders, arms, legs, everywhere! In ancient times, they say, women wore gold bracelets on their ankles. The bacchantes call to the girls in the boat. The girls have stopped singing their hymn. They cannot continue it, but they do not stir: the river is carrying them to the bank. Suddenly one of them gently rises. . . . This has to be beautifully described—how she gently rises in the moonlight, and how her companions are frightened. She steps over the edge of the boat; the bacchantes surround her; they whirl her off into the night, into the dark. Here you must describe the smoke rising in clouds and everything becoming confused. All one can hear is their shrill cries, and her wreath is left lying on the bank."

Zinaida fell silent. ("Oh, she is in love!" I thought again.)

"And is that all?" asked Maydanov.

"That's all," she replied.

"That can't be the subject of a whole epic poem," he remarked pompously, "but I shall make use of your idea for a lyric poem."

"In the romantic style?" asked Malevsky.

"Of course, in the romantic style. The Byronic."

"Well, in my opinion Hugo is better than Byron," the young count declared nonchalantly. "More interesting."

"Hugo is a first-rate writer," replied Maydanov, "and my friend Tonkosheyev, in his Spanish novel *El Trovador*–"

"Oh," interrupted Zinaida, "is that the book with the question marks upside down?"

"Yes. That is the rule with the Spaniards. What I wanted to say was that Tonkosheyev–"

"Oh, dear, you'll be arguing again about classicism and romanticism," Zinaida interrupted him a second time. "Come, we'd better play a game."

"Forfeits?" Lushin asked.

"No. Forfeits is boring. Let's play comparisons." (Zinaida had invented this game herself. Some object was mentioned, and everyone tried to compare it with something else, and the one who chose the best comparison got the prize.)

She went up to the window. The sun had just set; long red clouds stood high in the sky.

"What are those clouds like?" asked Zinaida, and, without waiting for an answer, said, "I think they are like the purple sails on the golden ship in which Cleopatra sailed to meet Antony. Remember, Maydanov, you were telling me about it not long ago?"

All of us, like Polonius in *Hamlet*, declared that the clouds were exactly like those sails and that not one of us could find a better comparison.

"And how old was Antony then?" asked Zinaida.

"He was certainly a young man," observed Malevsky.

"Yes, a young man," Maydanov affirmed emphatically.

"I'm sorry," cried Lushin, "but he was over forty!"

"Over forty," repeated Zinaida, giving him a quick glance.

I went home soon. "She's in love," my lips whispered involuntarily. "But with whom?"

Days passed. Zinaida became stranger and stranger and more and more incomprehensible. One day I went into her room and saw her sitting

on a wicker chair with her head pressed against the sharp edge of the table. She sat up–her face was wet with tears. "Oh, it's you!" she said with a cruel smile. "Come here."

I went up to her. She put her hand on my head and, seizing me by the hair suddenly began to twist it.

"It hurts!" I said at last.

"Oh, it hurts, does it? And do you think it doesn't hurt me? Me?" she repeated. "Oh, dear!" she cried suddenly, seeing she had pulled a little tuft of hair out of my head. "What have I done? Poor M'sieu Woldemar!" She carefully smoothed the hair she had torn out, wrapped it round her finger, and twisted it into a ring. "I'll put your hair in a locket and wear it round my neck," she said, tears still glistening in her eyes. "This will perhaps comfort you a little, and now good-bye."

I returned home to discover a disagreeable state of affairs. My mother was having words with my father, she was reproaching him for something; and he, as was his habit, responded with a polite and frigid silence, and soon left the house. I could not hear what my mother was saying, and, anyway, I had other things on my mind; I remember only that after her talk with my father, she sent for me to the study and told me that she was very displeased with my frequent visits to the old princess, who, in her words, was *"une femme capable de tout."* I kissed her hand (this was what I always did when I wanted to cut short a conversation) and went up to my room. Zinaida's tears had completely bewildered me. I simply did not know what to think and was about to burst into tears myself: I was a child, after all, in spite of my sixteen years.

I was no longer thinking of Malevsky, though Belovzorov was assuming more and more menacing attitudes every day and kept looking at the shifty count like a wolf at a sheep. As for me, I had no longer any thought of anyone or anything. I was lost in all sorts of speculations and was always trying to find some secluded spots. I became particularly fond of the ruins of the hot-house. I used to climb onto the high wall, sit on top of it, and remain sitting there, an unhappy, solitary, and melancholy youth, so that in the end I felt sorry for myself. And how sweet were those mournful sensations! How I revelled in them!

One day I was sitting on the wall, looking into the distance and listening to the ringing of the church bells; suddenly something passed over me–it wasn't a wind, it wasn't a shiver, but something like a hardly perceptible breath, like a sensation of someone's presence. I looked down. Below, on the road, in a light grey dress with a pink parasol on her shoulder, Zinaida was walking rapidly. She saw me, stopped, and turn-

ing back the brim of her straw hat, raised her velvety eyes to me.

"What are you doing up there at such a height?" she asked me with a strange sort of smile. "Now," she went on, "you keep telling me that you love me. Jump down into the road to me, if you really love me."

Zinaida had scarcely uttered those words when I was falling headlong towards her just as though someone had pushed me from behind. The wall was about fifteen feet high. I reached the ground on my feet, but the impact was so strong that I could not keep my balance. I fell down and for a moment lost consciousness. When I came to, I felt, without opening my eyes, Zinaida beside me.

"My sweet boy," she was saying, bending over me, and there was a note of alarmed tenderness in her voice, "how could you do it? How could you listen to me—you know I love you. Please get up."

Her bosom rose and fell close to me; her hands were touching my head; and suddenly—oh, what became of me then?—her soft fresh lips began to cover my face with kisses—they touched my lips—but at that moment, Zinaida probably guessed from the expression on my face that I had regained consciousness, though I still did not open my eyes, and, rising quickly, she said, "Well, get up, you naughty boy, you crazy young lunatic. Why are you lying in the dust?"

I got up.

"Give me my parasol," said Zinaida. "See where I have thrown it! And don't stare at me like that! Really! You're not hurt, are you? Stung by the nettles, I expect. I tell you, don't keep staring at me. . . . Why, he doesn't understand a word, he doesn't answer," she added, as though to herself. "Go home, M'sieu Woldemar, and brush yourself, and don't you dare follow me, or I shall be angry and will never again—"

She did not finish the sentence and walked rapidly away, while I sat down by the side of the road. My legs would not support me. My arms throbbed from the stings of the nettles, my back ached, my head swam, but the feeling of bliss I experienced at that moment I never again felt in my life. It spread like a sweet pain through all my limbs and resolved itself at last in rapturous leaps and shouts. Yes, indeed, I was still a child.

I was so gay and proud all that day, I retained so vividly the sensation of Zinaida's kisses on my face, I recalled her every word with such a shudder of delight, I cherished my unexpected happiness so much, that I felt absolutely terrified, and did not even want to see her who was the cause of all these new sensations. It seemed to me that I had no right to demand anything more of fate, that all I had to do now was "go, take a

deep breath for the last time, and die." Yet the next day, on my way to the cottage, I felt greatly embarrassed and I tried in vain to conceal my embarrassment by assuming a modestly nonchalant air, such as is proper for a man who wishes to convey that he knows how to keep a secret.

Zinaida received me very simply, without betraying any emotion. She merely shook a finger at me and asked whether I had any bruises on my body. All my modest nonchalance and air of mystery vanished instantly, and with them my embarrassment. Of course I had never expected anything in particular, but Zinaida's composure made me feel as though someone had poured cold water over me: I realized that I was a child in her eyes—and I felt very unhappy! Zinaida walked up and down the room, giving me a quick smile every time she glanced at me; but her thoughts were far away—I saw that clearly enough. "Shall I speak to her about what happened yesterday," I thought, "and ask her where she was going in such a hurry and find out once and for all?" But I just dismissed it all as hopeless and sat down quietly in a corner.

Belovzorov came in; I was glad to see him.

"I couldn't find you a quiet horse," he said in a hard voice. "Freitag says he can answer for one, but I'm not so sure. I am afraid."

"What are you afraid of, may I ask?" asked Zinaida.

"What am I afraid of? Why, you don't know how to ride. Goodness knows what might happen! And what a fantastic idea has come into your head suddenly!"

"Well, that's my affair, my dear wild beast. In that case, I'll ask Peter." (My father's name was Peter, and I was surprised that she mentioned his name in so free and easy a manner, just as though she were sure of his readiness to do her a service.)

"I see," replied Belovzorov, "so it's with him you mean to go out riding."

"With him or someone else—what difference does it make to you? Not with you, at any rate."

"Not with me," repeated Belovzorov. "As you wish. Oh, all right. I'll get you a horse."

"Only mind it isn't some old cow. I warn you, I want to gallop."

"Gallop, by all means. But with whom? You won't go riding with Malevsky, will you?"

"And why not with him, O Great Warrior? Now please calm down and don't glare at me like that. I'll take you too. You know that for me Malevsky is now—ugh!" She tossed her head.

"You say that to console me," growled Belovzorov.

Zinaida narrowed her eyes. "Does that console you? Oh, oh, oh,

Great Warrior!" she said at last, as though unable to find another word. "And you, M'sieu Woldemar, would you come with us?"

"I shouldn't like to—not in—in a crowd," I murmured without raising my eyes.

"You prefer tête-à-tête? Well," she added with a sigh, "freedom to the free; heaven—to the saints! Go along, Belovzorov, and do your best. I must have a horse for tomorrow."

"Yes, but where are you going to get the money?" the old princess put in.

Zinaida wrinkled her brow. "I'm not asking you for it: Belovzorov will trust me."

"Trust you, trust you," growled the old princess and suddenly shouted at the top of her voice, "Dunyashka!"

"Mother, I've given you a bell," the young princess observed.

"Dunyashka!" the old woman shrieked again.

Belovzorov took his leave; I left with him. Zinaida made no attempt to detain me.

Next day I got up early, cut myself a stick, and went out for a walk beyond the toll gate. "I'll go for a walk," I thought to myself, "and get rid of my grief." It was a beautiful day, sunny and not too hot; a gay, fresh wind roamed the earth, playing and murmuring away gently, setting everything astir but disturbing nothing. I wandered a long time, over hills and through woods; I did not feel happy; I had left home with the intention of giving myself up to melancholy thoughts; but youth, the glorious weather, the fresh air, the fun of rapid walking, the delight of lying on thick grass away from everyone, got the better of me: the recollection of those unforgettable words, of those kisses, again invaded my soul. I was glad to think that Zinaida could not but recognize my resolution, my heroism. "Others may please her better than I," I thought, "let them! They will only tell her what they will do, while I have done it. . . . And that is not the only thing I could do for her!" I gave full rein to my imagination. I imagined how I would save her from the hands of enemies; how, covered with blood, I would drag her out of a dark dungeon; how I would die at her feet. I remembered a picture which hung in our drawing room: Malek-Adel carrying off Matilda—and at that very moment became absorbed in the appearance of a large, brightly coloured woodpecker, busily climbing up the slender trunk of a birch tree and peeping nervously from behind it, first to the right and then to the left, just like a double-bass player behind the neck of his instrument.

Then I began singing, "Not white the snows," and finished up with the at-the-time-popular song, "For you I wait when Zephyr wanton," and so on. Then I began reciting aloud Yermak's invocation to the stars from Khomyakov's tragedy, attempted to compose something myself in a sentimental vein, and even thought of a line with which the whole of my poem was to conclude: "Oh, Zinaida, oh, Zinaida!" but nothing came of it.

Meanwhile it was getting near dinnertime. I went down into the valley; a narrow, sandy path wound its way through it towards the town. I walked along that path. The dull thud of horses' hooves sounded behind me. I looked round, stopped involuntarily, and took off my cap: I saw my father and Zinaida. They were riding side by side. My father was saying something to her, bending right over her and leaning with his hand on the neck of his horse. He was smiling; Zinaida listened to him in silence, her eyes severely cast down and her lips tightly pressed together. At first I saw only them; a few moments later I caught sight of Belovzorov round a bend in the valley in his hussar's uniform with a short cloak, on a foaming black horse. The gallant steed tossed its head, snorted, and pranced. The rider was holding him back and at the same time spurring him on. I stepped aside. My father gathered up the reins, moved away from Zinaida; she raised her eyes to him slowly and they galloped off. Belovzorov raced after them, his sabre rattling. "He's as red as a lobster," I thought, "while she . . . why is she so pale? Out riding the whole morning and–pale?"

I redoubled my steps and got home just before dinner. My father was already sitting, washed and fresh and dressed for dinner, beside my mother's chair, and was reading to her in his even and rich voice an article from *Journal de Débats;* but my mother listened to him without attention and when she saw me asked where I had been all day long, adding that she didn't like it when people ran about goodness knows where and with whom. "But I have been taking a walk by myself," I was about to reply, but I looked at my father and for some reason said nothing.

During the next five or six days I scarcely saw Zinaida: she appeared to be unwell, which, however, did not prevent the usual visitors of the cottage from calling–in order, as they put it, to "keep watch by the patient's bedside"–all except Maydanov, who immediately lost heart and looked bored whenever there was no chance for going into ecstasies. Belovzorov sat dejectedly in a corner, all buttoned up and red in the face; a kind of evil smile constantly hovered over Count Malevsky's refined face. He really had fallen out of favour with Zinaida and was waiting with special zeal on the old princess, drove with her in a hired carriage to call on the

Governor-General; this visit, however, turned out to be a failure, and Malevsky was even involved in some unpleasantness, for he was reminded of an unsavoury incident with some officers of a sapper regiment and in explaining it away he had to plead his inexperience at the time. Lushin used to come twice a day, but he did not stay long; I was a little frightened of him after our last talk, and yet at the same time I felt genuinely attracted to him. One day he went for a walk with me in the Neskoochny Park, was very amiable and friendly, told me the names and the properties of various herbs and flowers, and suddenly, as they say, "out of the blue," cried, striking himself on the forehead, "And I, fool that I am, thought that she was a flirt. It seems some people find it sweet to sacrifice themselves."

"What do you mean by that?" I asked.

"I don't want to say anything to you," Lushin replied brusquely.

Zinaida avoided me: my presence–I could not help noticing it–made an unpleasant impression on her. She turned away from me involuntarily–involuntarily. It was that that was so bitter, so crushing, but I could do nothing about it. I did my best to keep out of her sight and merely watched her from a distance, which I did not always succeed in doing. As before, something I could not understand was happening to her: her face had changed; she was quite a different person.

The change that had taken place in her struck me particularly one warm, quiet evening. I was sitting on a low seat under a spreading elder bush; I was very fond of that place, for from it I could see the window of Zinaida's room. I sat there; in the dark foliage over my head a little bird was busily moving about; a grey cat, its back arched, was creeping stealthily into the garden, and the early beetles were droning heavily in the air which was still clear, though no longer bright. I sat there looking at her window and waiting to see whether it would open: it did open, and Zinaida appeared in it. She was wearing a white dress, and she was pale: her face, shoulders, and arms were pale, almost white. She stayed there a long time without moving and for a long time gazed straight before her from under her knitted brows. I had never seen her look like that. Then she clasped her hands tight, very tight, raised them to her lips, her forehead, and suddenly pulled her fingers apart and thrust her hair back from her ears, tossed it and nodded her head with an air of determination, and slammed the window to.

Three days later she met me in the garden. I was about to turn away, but she stopped me herself. "Give me your hand," she said to me in her old affectionate tone of voice. "It's a long time since I've had a talk with you."

I looked at her: her eyes shone softly and her face was smiling as though through a haze. "Are you still not well?" I asked her.

"No, that's all over now," she replied and picked a small red rose. "I'm a little tired, but that too will pass."

"And you'll be the same as before?" I asked.

Zinaida held the rose up to her face, and it seemed to me as if her cheeks had caught the reflection of its bright petals. "Why, have I changed?" she asked me.

"Yes, you have," I answered in a low voice.

"I've been cold to you, I know," began Zinaida, "but you shouldn't have paid any attention to it. I'm afraid I couldn't help it—but why talk about it?"

"You don't want me to love you, that's what it is!" I exclaimed darkly, in an uncontrollable outburst.

"No, do love me, but not as before."

"How then?"

"Let us be friends—that's how!" Zinaida said, giving me the rose to smell. "Listen," she said, "you know I am much older than you, don't you? I might be your aunt, mightn't I? Well, perhaps not your aunt, but your elder sister. And you—"

"And I am a child so far as you're concerned," I interrupted.

"Well, yes, a child, but a sweet, good, clever child whom I love very much. Do you know what? I'm going to make you my page from today, and please don't forget that pages should never be very far from their ladies. And here's the token of your new dignity," she added, sticking the rose in the buttonhole of my tunic, "a sign of our gracious favour."

"I used to get other favours from you before," I murmured.

"Oh!" Zinaida said, giving me a sidelong look. "What a memory he has. Oh, well, I'm just as ready now." And bending over me, she imprinted a chaste, calm kiss on my forehead.

I just looked at her, but she turned away and saying, "Follow me, my page," went towards the cottage. I followed her, but still in a state of bewilderment. "Can this gentle sensible girl," I could not help thinking, "be the Zinaida I used to know?" I thought that she walked more quietly now and that her whole figure was more stately and more graceful.

And, good Lord, with what fresh force my love flared up in me!

After dinner the visitors gathered again at the cottage—and the young princess came out to them. The entire company was there in full force, as on that first unforgettable evening. Even Nirmatsky dragged himself to the party to see her; this time Maydanov arrived before anyone else and brought a new poem with him. The game of forfeits began again, but this time without the strange pranks, without the horseplay and noise—the gipsy element had gone. Zinaida gave a new tone to our gathering. I sat beside her, as her page. Among other things, she proposed that anyone who had to pay a forfeit should tell his dream; but this was not a success. The dreams were either uninteresting (Belovzorov had dreamt that he fed carp to his mare and that she had a wooden head), or unnatural and made-up. Maydanov regaled us with a long, long story; there were sepulchres in it, angels with lyres, talking flowers, and mysterious sounds coming from afar.

Zinaida did not let him finish. "If we have to have fiction," she said, "then let everyone tell something he has made up."

It was Belovzorov again who had to begin. The young hussar looked embarrassed. "I can't think of anything!" he exclaimed.

"What nonsense!" Zinaida cried. "Well, imagine, for instance, that you are married and tell us how you would spend your time with your wife. Would you lock her up?"

"Yes, I should."

"And would you stay with her yourself?"

"Yes, I should most certainly stay with her myself."

"Excellent. But what if she got tired of it and was unfaithful to you?"

"I'd kill her."

"And if she ran away?"

"I'd catch up with her and kill her all the same."

"I see. Well, and suppose I were your wife, what would you do then?"

Belovzorov was silent for a minute. "I'd kill myself."

Zinaida laughed. "I can see that your tale is quickly told."

The next forfeit was Zinaida's. She lifted her eyes to the ceiling and sank into thought. "Now listen," she began at last, "this is what I have thought of. Imagine a magnificent palace, a summer night, and a wonderful ball. The ball is being given by a young queen. Everywhere is gold, marble, crystal, silk, lights, diamonds, flowers, burning joss-sticks, all the wild extravagances of luxury."

"You like luxury?" Lushin interrupted her.

"Luxury is beautiful," she replied, "and I love everything beautiful."

"More than the beautiful?" he asked.

"That sounds a little too clever," she replied. "I don't understand it. Please don't interrupt. And so, the ball is magnificent. Lots and lots of guests, and all of them are young, handsome, and brave, and all are head over heels in love with the queen."

"Are there no women among the guests?" Malevsky asked.

"No, or wait—there are."

"Are they all unattractive?"

"No, they're lovely. But the men are all in love with the queen. She is tall and graceful, and she has a little gold diadem on her black hair."

I looked at Zinaida, and at that moment she seemed to me so much above us all, there was such bright intelligence and such power about her white forehead and her motionless eyebrows, that I could not help thinking, "You are that queen yourself!"

"They all crowd round her," Zinaida went on, "they all lavish the most flattering speeches upon her."

"Why, does she like flattery?" asked Lushin.

"What an insufferable creature you are! You *will* interrupt. Who doesn't like flattery?"

"Just one last question," Malevsky observed. "Has the queen a husband?"

"I hadn't thought of that. No, why a husband?"

"Naturally," Malevsky put in. "Why should she?"

"Silence!" cried Maydanov in French, which he spoke badly.

"Merci," Zinaida said to him. "And so," she went on, "the queen listens to these speeches, listens to the music, but does not look at any of the guests. Six windows are open from top to bottom, from floor to ceiling, and beyond them is a dark sky with big stars and a dark garden with big trees. The queen looks out into the garden. There, near the trees, is a fountain: it is white in the darkness, and it is tall, tall like a ghost. The queen hears through the talk and the music the soft plashing of its waters. She looks and thinks, 'You, gentlemen, are all noble, intelligent, rich, you crowd round me, you treasure every word I utter, you are all ready to die at my feet, I have you all in my power. But there, near the fountain, near that plashing water, he whom *I* love and who holds me in his power awaits me. He wears neither costly garments nor precious stones, no one knows him, but he waits for me, certain that I will come—and I will come, and there is no power on earth which can stop me when I want to go to him, stay with him, and lose myself with him there in the darkness of the garden, with the whispering trees and the plashing of the fountain. . . .' "

Zinaida fell silent.

"Is this–fiction?" Malevsky inquired cunningly.

Zinaida did not even look at him.

"And what should we have done, gentlemen," Lushin suddenly said, "if we had been among the guests and had known of the lucky fellow at the fountain?"

"Wait, wait," Zinaida interrupted. "I will myself tell you what each of you would have done. You, Belovzorov, would have challenged him to a duel; you, Maydanov, would have written an epigram on him–though, no, you don't know how to write epigrams: you would have written a long poem on him in iambics, something in the style of Barbier, and would have published it in the *Telegraph*. You, Nirmatsky, would have borrowed–no, you would have loaned him money at high interest. You, Doctor . . ." She stopped. "I'm sorry, but I really don't know what you would have done."

"As her court physician," replied Lushin, "I should have advised the queen not to give balls when she was not in the mood for entertaining guests."

"Perhaps you'd have been right. And you, Count?"

"And I?" Malevsky repeated with his evil smile.

"You would have offered him a poisoned sweet."

Malevsky's face became slightly twisted and for a moment assumed a villainous look, but he burst out laughing immediately.

"As for you, Woldemar . . ." Zinaida went on. "But I suppose that's enough. Let's play another game."

"M'sieu Woldemar, as the queen's page, would have carried her train as she ran into the garden," Malevsky remarked venomously.

I flushed, but Zinaida quickly laid a hand on my shoulder and, getting up, said in a slightly trembling voice, "I never gave your lordship the right to be insolent, and I must ask you to leave." She pointed to the door.

"Good Lord, Princess," murmured Malevsky, turning very pale.

"The princess is right," cried Belovzorov and he too rose.

"Good Lord, I never expected–" Malevsky went on. "I–I believe there was nothing in my words–I had never intended to insult you. . . . Forgive me."

Zinaida looked him up and down very coldly and smiled coldly. "You may stay, if you like," she said, with a careless gesture of the hand. "M'sieu Woldemar and I have no real cause to be angry. You seem to enjoy stinging people–much good may it do you."

"Forgive me," Malevsky repeated.

But I, recalling Zinaida's gesture, could not help reflecting once more that no real queen could have shown an impertinent man the door with greater dignity.

After this little scene the game of forfeits went on for only a short time; everyone felt rather ill at ease, not so much because of the scene itself as because of another vague but oppressive feeling. No one spoke of it, but everyone was conscious of it in himself and in his neighbour. Maydanov read us his poem, and Malevsky praised it with exaggerated warmth.

"How keen he is to show us now what a good fellow he is," Lushin whispered to me.

We soon left. Zinaida suddenly became thoughtful; the old princess sent word that she had a headache; Nirmatsky started complaining of his rheumatism.

I could not sleep for a long time. I was very much struck by Zinaida's story. "Can there have been a hint in it?" I asked myself. "And at whom and at what could she have been hinting? And if there really is something to hint at, what am I going to do about it?

"No, no, it can't be," I whispered, turning from one hot cheek to the other; but I recalled the expression on Zinaida's face as she told her story; I remembered the exclamation that had escaped Lushin in the Neskoochny Park, the sudden changes in her behaviour to me, and I was lost in conjectures. "Who is he?" These three words seemed to stand before my eyes, traced clearly in the darkness; it was as though a low, omnious cloud hung over me and I felt its pressure and was waiting for it to burst at any moment. I had got used to many things during the last few weeks, and I had seen as much as I wanted at the Zasyekins': their disorderly life, the tallow candle-ends, the broken knives and forks, the gloomy Vonifaty, the slatternly maids, the manners of the old princess herself–all this strange mode of life no longer surprised me. But what I seemed to be dimly discerning now in Zinaida I could never become used to. . . . "An adventuress," my mother had once described her. An adventuress–she, my idol, my goddess! That word stung me. I tried to escape from it into my pillow. I was indignant and, at the same time, what would I not have agreed to do, what would I not have given, to be that lucky fellow at the fountain!

My blood was on fire and coursing through my veins. "The garden–the fountain," I thought. "I'll go to the garden." I dressed quickly and slipped out of the house. The night was dark. The trees scarcely whispered; a gentle chill fell from the sky; the scent of fennel came from the

kitchen-garden. I walked through all the avenues; the light sound of my own footsteps disturbed and at the same time emboldened me; every now and then I stopped dead, waited, and listened to my heart beating fast and heavily. At last I went up to the fence and leaned against a stake. Suddenly—or did I imagine it?—a woman's figure flashed by a few paces from me. I stared intently into the darkness; I held my breath. . . . What was that? Did I hear steps, or was it again the beating of my heart? "Who is there?" I murmured, almost inaudibly. What was that again? A smothered laugh? Or the rustling of leaves? Or a sigh close to my ear? I felt frightened. "Who is it?" I repeated, still more softly.

A slight breeze came and went in a moment; a streak of fire flashed across the sky—a falling star. "Zinaida?" I was about to ask, but the sound died on my lips. And suddenly everything became profoundly still all round me, as often happens in the middle of the night. Even the cicadas ceased whirring in the trees—only a window was slammed to somewhere. I stood and stood and then went back to my room, to my bed, which had grown quite cold by then. I felt a strange excitement, as though I had gone to a rendezvous and had been left out in the cold, passing by another man's happiness.

The next day I only caught a glimpse of Zinaida: she was driving somewhere with the old princess in a cab. I did see Lushin, though, who barely acknowledged my greeting, and Malevsky. The young count grinned and began talking to me very amiably. Of all the visitors to the cottage, he alone had managed to worm himself into our house. My mother took a liking to him. My father was not particularly friendly with him and treated him with almost offensive politeness.

"Ah, Monsieur le page," began Malevsky. "Very glad to meet you. What is your beautiful queen doing?"

His fresh, handsome face was so detestable to me at that moment and he was looking at me with such a playfully contemptuous expression at that moment that I did not answer him at all. "Are you still angry with me?" he went on. "You shouldn't be, you know. It wasn't I who called you a page. Besides, queens usually have pages. But I hope you won't mind my telling you that you are performing your duties very badly."

"Oh?"

"Pages should never be far away from their mistresses. Pages should know everything their mistresses do; they should even watch them," he added, lowering his voice, "day and night."

"What do you mean by that?"

"What do I mean? I believe I've made myself perfectly clear. Day– and night. In the daytime it doesn't matter very much. It is light by day, and there are lots of people about. But by night–ah, that's when you should expect trouble. I advise you not to sleep at night and watch, watch with all your might. Remember? At night, in the garden, by the fountain–that's where you must keep watch. You'll thank me for it."

Malevsky laughed and turned his back on me. I don't suppose he attached any great importance to what he had said to me. He had the reputation of a man who was very good at mystifying people, and he was famed for his ability to make fools of people at fancy-dress balls, greatly enhanced by his almost unconscious mendacity, which permeated his whole being. . . . He just wanted to tease me, but every word he uttered ran like poison through my veins. The blood rushed to my head. "Oh, so that's what it is," I said to myself. "Very well, it was not for nothing that I felt drawn into the garden! Well, then, it shall not be!" I exclaimed loudly, striking myself on the chest with my fist, though I had no clear idea what exactly it was that was not to be. "Whether it is Malevsky himself who goes into the garden," I thought (he might have let the cat out of the bag; he certainly was impudent enough for that), "or whether it was someone else" (the fence of our garden was very low, and there was no difficulty in climbing over it), "whoever I happen to come across will be sorry for it! I should not advise anyone to cross my path! I'll prove to all the world and to her, the traitress"–I actually called her a traitress–"that I know how to be revenged!"

I went back to my room, took out of the writing desk an English penknife I had recently bought, felt the sharp edge, and knitting my brows, thrust it into my pocket with a look of cold and concentrated determination, just as though I was quite used to such things and had done them many times before. My heart was full of malice and turned to stone; I kept frowning all day and from time to time would walk up and down with compressed lips, my hand in my pocket clutching the knife, grown warm in my grasp, while I was preparing myself beforehand for something terrible. These new and never-before-experienced sensations absorbed me and even delighted me so much that I scarcely thought of Zinaida herself. All the time I imagined I could see Pushkin's Aleko, the young gipsy– "Where are you going, my handsome youth–lie still . . ." And then: "You're all bespattered with blood! Oh, what have you done? . . . Nothing!" With what a cruel smile I kept repeating this "Nothing!"

My father was not at home; but my mother, who had for some time

past been in a state of almost continual wild exasperation, noticed my look of desperate determination and said to me at supper, "What are you sulking for, like a bear with a sore head?"

I just smiled condescendingly to her in reply and thought, "If they only knew!" It struck eleven; I went to my room but did not undress; I was waiting for midnight; at last it struck. "Time I went!" I muttered through my teeth, and buttoned my coat up to the top, and even rolled up my sleeves. I went into the garden. I had already selected the spot from which to keep watch: at the end of the garden, where the fence separating our part of the grounds from the Zasyekins' joined the common wall, grew a solitary pine tree. Standing under its low, thick branches, I could see quite well, as far as the darkness of the night permitted, everything that went on round me; nearby ran a path which always seemed full of mystery to me; like a snake, it crept under the fence which, at that spot, bore the marks of climbing feet and led up to a round summer-house of thickly growing acacias. I made my way to the pine tree, leaned against its trunk, and began my watch.

The night was still and quiet, like the night before; but there were fewer clouds in the sky, and the outlines of the bushes and even of tall flowers could be seen more clearly. The first moments of waiting were full of agonizing suspense and almost of terror. I was determined to stop at nothing; all I was uncertain of was what I had to do. Was I to thunder out, "Where are you going? Stop! Confess, or die!" Or should I simply strike? Every sound, every rustle and whisper, seemed extraordinarily significant. . . . I was getting ready. . . . I leaned forward. . . . But half an hour passed, an hour passed: my blood grew calmer, colder; the realization that I was doing it all for no reason, that I was even a little ridiculous, that Malevsky had pulled my leg began to dawn on me. I left my hiding place and walked all round the garden. As though on purpose, not the slightest noise could be heard; everything was at rest; even our dog was asleep, curled up by the gate. I climbed up on the ruins of the hot-house, saw the open countryside stretching far into the distance, recalled my meeting with Zinaida, and sank into a reverie. . . .

I gave a start; I thought I heard the creak of an opening door, then the faint crack of a snapping twig. In two bounds I got down from the ruin and–stood rooted to the spot. I could clearly hear the sound of rapid, light, but cautious footsteps in the garden. They were coming towards me. "Here he is–here he is at last!" raced through my heart. I pulled the knife out of my pocket convulsively, opened it convulsively–red sparks whirled round before my eyes, my hair stood on end from terror and fury.

The footsteps were coming straight towards me. I stooped and crouched forward to meet them. A man came into view–Good heavens, it was my father!

I recognized him at once, although he was all muffled in a dark cloak and his hat was pulled down over his face. He walked past me on tiptoe. He did not notice me, though nothing concealed me, shrunk into myself and huddled up so that I seemed to be almost level with the ground. Jealous Othello, ready for murder, was suddenly transformed into a schoolboy. I became so terrified by my father's unexpected appearance that for the first few moments I did not notice where he had come from or in what direction he had disappeared. It was only when everything was quiet again that I got up from the ground and thought to myself, "Why is my father walking about in the garden at night?" In my panic I dropped my knife in the grass, but I did not even try to look for it: I was so terribly ashamed of myself. I became quite sober all at once. On my way back, however, I went up to my seat under the elder bush and looked up at the window of Zinaida's bedroom. The small, slightly curved window-panes showed dimly blue in the faint light that fell from the night sky. Suddenly their colour began to change. Behind them I saw–saw quite clearly–a whitish blind pulled down cautiously and gently to the window-sill–and it remained like that, absolutely still.

"What does this mean?" I said aloud, almost involuntarily, when I found myself once more in my room. "A dream, a mere coincidence, or–" The suppositions which suddenly came into my head were so new and disturbing that I did not dare even consider them.

I got up in the morning with a headache. The excitement of the previous day had gone. It was replaced by an oppressive feeling of bewilderment and a strange sadness I had never experienced before. It was as though something were dying inside me. "Why are you looking like a rabbit who has had half its brain removed?" said Lushin as he met me. At lunch I kept glancing stealthily first at my father and then at my mother. My father was, as usual, composed; my mother, also as usual, secretly irritated. I waited to see whether my father would say something friendly to me, as he sometimes did, but he showed not even a sign of his ordinary cold affection. "Shall I tell Zinaida everything?" I thought. "It really can't make any difference–it is all over between us, anyway." I went to see her, but not only told her nothing; I did not even succeed in talking to her, much as I wanted to. The old princess's son, a twelve-year-old cadet, had arrived from Petersburg for his holidays and Zinaida at once asked me to take him under my wing.

"Here," she said, "my dear Vladimir (she called me that for the first time), is a companion for you. His name is Vladimir too. Please be friends. He is still very shy, but he has a kind heart. Show him the Neskoochny Park, take him for walks, take him under your protection. You will do so, won't you? You're so kind too!" She laid both her hands affectionately on my shoulders, and I was completely lost. The arrival of this boy turned me into a boy too. I looked in silence at the cadet, who stared silently back at me.

Zinaida burst out laughing and pushed us towards each other. "Come on, children," she said, "embrace."

We embraced.

"Want me to take you round the garden?" I asked the cadet.

"If you like," he replied in a hoarse, regular cadet-like voice.

Zinaida laughed again. I had time to notice that never before had the colour in her face been so lovely. The cadet and I set off for our walk. There was an old swing in our garden. I sat him down on the thin plank and began swinging him. He sat motionless in his small new uniform of thick cloth with wide gold braiding, and held on tightly to the ropes.

"Why don't you unbutton your collar?" I said to him.

"It's all right, I'm used to it," he said, and cleared his throat. He was like his sister. His eyes especially recalled her. I was glad to be of some use to him, and at the same time an aching sadness was gnawing at my heart. "Now," I thought, "I really am a little boy, whereas yesterday . . ." I remembered where I had dropped my knife the night before, and found it. The cadet asked me for it, broke off a thick stalk of wild parsley, cut himself a whistle out of it, and began whistling. Othello whistled a little too.

But, that very evening, how he wept, this same Othello, in Zinaida's arms, when, finding him in a corner of the garden, she asked him why he was so sad? My tears gushed out of my eyes with such force that she was frightened.

"What's the matter? What's wrong with you, Vladimir?" she kept repeating, and seeing that I neither replied to her nor stopped weeping, she bent down to kiss my wet cheek. But I turned away from her and whispered through my sobs, "I know everything. Why did you play with me? What did you want my love for?"

"I'm sorry, dear, dear Vladimir," said Zinaida. "Oh, I am very much to blame," she said, clasping her hands tightly. "There's so much in me that is evil, dark and wicked. . . . But now I am not playing with you. I do love you. I don't think you even suspect why and how much I love you. . . . But–what is it you know?"

What could I tell her? She stood before me and looked at me, and I belonged to her entirely from head to foot the moment she looked at me. . . . A quarter of an hour later I was running races with the cadet and Zinaida: I was no longer crying, I was laughing, though, as I laughed, my swollen eyelids dropped tears; Zinaida's ribbon was tied round my neck instead of a cravat, and I screamed with joy every time I succeeded in catching her by the waist. She did what she liked with me.

I should have found it very difficult if someone had asked me to describe in detail what was going on within me during the week after my unsuccessful midnight expedition. It was a strange, feverish time, a kind of chaos, in which the most conflicting feelings, thoughts, suspicions, hopes, joys, and pains whirled about madly within me. I was afraid of looking into myself, if a boy of sixteen can ever look into himself. I was afraid of giving an account to myself of anything; I simply tried to live through the day as fast as I could, but at night I slept—the lightheartedness of childhood came to my aid. I did not want to know whether I was loved, and I did not want to admit to myself that I was not loved. I avoided my father, but avoid Zinaida I could not. In her presence I burnt as in a fire, but what did I care what kind of fire it was in which I burnt and melted, so long as I felt happy to burn and melt? I gave myself up to all my sensations and tried to cheat myself by turning away from my memories and shutting my eyes to what I felt was going to happen. . . . This state of sweet anguish would probably not have lasted long in any case. A thunderbolt cut it all short at one blow and flung me onto an altogether new path.

One day when I came back to dinner after a rather long walk I learnt with astonishment that I was to dine alone, that my father had gone away and my mother was not well and did not want any dinner and had shut herself up in her bedroom. I could see by the faces of the footmen that something unusual had happened. I did not dare to question them, but I had a friend among them, a young pantry-boy, Phillip by name, who was passionately fond of poetry and an excellent performer on the guitar, and it was to him that I turned. From him I learnt that a terrible scene had taken place between my father and my mother (every word of it had been overheard in the maids' room; much of it had been spoken in French, but Masha, our parlourmaid, had lived for five years with a dress-maker in Paris and understood every word); that my mother had accused my father of infidelity, of being on intimate terms with the young lady next door; that my father had at first tried to justify himself,

but afterwards had lost his temper and, in his turn, said something brutal, "something about Madam's age," which had made my mother cry; that my mother too had alluded to some loan given to the old princess, and spoken very unfavourably of her and of the young lady also, and that then my father had threatened her.

"And the whole trouble arose," continued Phillip, "from an anonymous letter, and no one knows who wrote it. Otherwise there's no reason why anything should have come out at all."

"Why, was there anything?" I managed to bring out with difficulty, while my hands and feet went cold, and something began to tremble deep inside me.

Phillip winked significantly. "There was. There's no hiding these things. However careful your father was this time, he had, you see, to hire a carriage. Besides, you can't do nothing without servants' knowing, neither."

I dismissed Phillip and flung myself on my bed. I did not sob; I did not give myself up to despair; I did not ask myself when and how all this had happened; I did not wonder how it was I had not guessed it all before, long ago; I did not even harbour any ill will against my father. What I had learnt was more than I could cope with: this sudden revelation crushed me utterly. All was at an end. All my flowers were torn out by the roots at one fell swoop and they lay about me, strewn all over the place and trampled underfoot.

Next day my mother announced that she was moving back to town. In the morning my father went into her bedroom and remained with her a long time alone. No one heard what he said to her, but my mother cried no more. She grew calm and asked for food but did not show herself, nor did she change her decision. I remember I wandered about all day, but did not go into the garden and did not once glance at the cottage. In the evening I was the witness of a most extraordinary scene: my father led Count Malevsky by the arm through the drawing room into the hall and, in the presence of the footman, said to him coldly, "A few days ago your lordship was shown the door in a certain house. I shall not enter into any kind of explanation with you, but I should like to make it quite clear to you that if you ever do me the honour of calling on me again I shall throw you out of the window. I don't like your handwriting."

The count bowed, gritted his teeth, shrank into himself, and disappeared.

Preparations began for our removal to town, to the Arbat, where we

had a house. I expect my father himself did not want to stay in the country any longer, but he had evidently succeeded in persuading my mother not to make any more scenes; everything was done quietly, without haste; my mother even sent her compliments to the old princess and expressed regret that she was not able to see her before she left because of ill health.

I wandered about the place like one distraught and longed for it all to be over as quickly as possible. One thought kept running through my head: How could she, a young girl and a princess, have made up her mind to do such a thing when she knew that my father was not free and when she had the opportunity of marrying Belovzorov, for instance? What did she hope for? How was it that she was not afraid of ruining her whole future? "Yes," I thought, "this is love, this is passion, this is devotion." And I remembered Lushin's words: *Some people find it sweet to sacrifice themselves.* . . . One day I managed to catch sight of something white in one of the windows of the cottage. "Can it be Zinaida's face?" I thought. Indeed, it was her face. I could bear it no longer. I could not part with her without a final good-bye. I took advantage of a favourable moment and went over to the cottage.

In the drawing room the old princess met me with her usual slovenly and careless greeting. "Why are your people so anxious to leave the country so soon, my boy?" she said, stuffing snuff into both her nostrils.

I looked at her, and a load was lifted from my heart. The word *loan* which Phillip had used had been torturing me. But she did not seem to suspect anything, at least I thought so at the time. Zinaida came in from the next room, pale, in a black dress, and her hair hanging loose. She took me by the hand in silence and led me away with her.

"I heard your voice," she began, "and came out at once. And do you find it so easy to leave us, you bad boy?"

"I've come to say good-bye to you, Princess," I said, "probably forever. I expect you must have heard we are going away."

Zinaida looked intently at me. "Yes, I have heard. Thank you for coming. I had thought that I would not see you again. Don't think badly of me. I've tortured you sometimes, but all the same I'm not the sort of person you imagine me to be." She turned away and leaned against the window. "No, I really am not like that. I know that you have a bad opinion of me."

"Me?"

"Yes—you."

"Me?" I repeated mournfully, and my heart trembled as it always did under the influence of her irresistible, inexpressible fascination. "Me? Believe me, Princess, that I would love and adore you to the end of my life, whatever you did and however much you tortured me."

She turned to me quickly and, flinging her arms wide, put them round my head and kissed me warmly and passionately. God knows for whom that long farewell kiss was meant, but I eagerly tasted its sweetness–I knew that it would never be repeated.

"Good-bye, good-bye," I kept repeating.

She tore herself away and went out of the room. I too went away. I am not able to describe the feelings with which I left. I would not wish them ever to be repeated; but I would have considered myself unfortunate had I never experienced them at all.

We moved back to town. It was some time before I could shake off the past and it was some time before I could sit down to work again. My wound healed slowly; but I bore no ill will against my father. On the contrary, he seemed to have risen in my estimation. Let psychologists explain this contradiction as best they can.

One day I was walking along a boulevard and, to my indescribable joy, ran into Lushin. I liked him for his straight-forward and unhypocritical character, and, besides, he was dear to me because of the memories he awoke in me. I rushed up to him.

"Aha," he said, frowning, "so it's you, young man. Come, let's have a look at you. You're still as sallow as ever, but there's no longer any silly nonsense in your eyes. You look like a man and not like a lap-dog. That's good. Well, what are you doing? Working?"

I heaved a sigh. I did not want to tell a lie, but I was ashamed to tell the truth.

"Well, never mind, don't lose heart. The main thing is to lead a normal life and not to give in to every passing fancy. For what's the use of it? Wherever the tide may carry you, it will all be no good. A man must stand on his feet, even if he has to stand on a rock. As you see, I've got a bad cough. . . . And Belovzorov–have you heard?"

"No. What is it?"

"Vanished without a trace. They say he's gone off to the Caucasus. Let it be a lesson to you, young man, and it's all because people don't know how to part in time, how to break out of the net. You seem to have got out of it unscathed. Mind you don't get caught again. Good-bye."

"I shan't be caught," I thought. "I shall never see her again."

But I was destined to see Zinaida once more.

My father used to go riding every day. He had an excellent roan English mare, with a long slender neck and long legs, an indefatigable and vicious animal. She was called Electric. No one could ride her except my father. One day he came into my room in a good humour, something which had not happened to him for a long time: he was about to go for his ride and had already put on his spurs. I began to beg him to take me with him.

"I'd rather have a game of leap-frog with you," my father replied, "for you'll never keep up with me on your pony."

"I will. I'll wear spurs too."

"Oh, all right."

We set off. I had a black, shaggy pony, sturdy and very spirited; it is true he had to gallop at full speed when Electric was in full trot, but all the same I did not lag behind. I have never seen a horseman who could ride as well as my father; he sat on his horse so beautifully and with such effortless ease that it seemed that the horse herself felt it and took pride in him. We rode through all the boulevards, rode across Devichy Square, took several fences (at first I used to be afraid of the jumps, but my father despised timid people, and I stopped being afraid), crossed the Moskva River twice, and I was beginning to think that we were returning home, particularly as my father himself remarked that my horse was getting tired, when suddenly he turned away from me at the Crimean Ford and galloped off along the bank. I rode after him. On reaching a high pile of stacked-up old timber, he jumped nimbly off Electric, told me to dismount, and, giving me his bridle to hold, asked me to wait for him there at the stack, while he himself turned into a small back street and disappeared.

I began to walk up and down along the bank of the river, leading the horses and scolding Electric, who kept tossing her reins, shaking herself, snorting, and neighing; whenever I stopped, she kept pawing the ground and biting my pony in the neck, whinnying–in short, she behaved like the spoilt thoroughbred she was. My father did not come back. An unpleasant dampness came drifting from the river; a fine rain began to fall softly, covering with tiny dark spots the stupid grey timber logs which I kept walking past backwards and forwards and which, by that time, I was heartily sick of. I was beginning to feel depressed, but still my father did not come. A Finnish policeman, who was also grey all over, with a huge, old-fashioned shako like a pot on his head and with a halberd

(why on earth a policeman in such an old-fashioned attire should be patrolling the bank of the river Moskva is quite beyond me!) approached me, and turning his face, wrinkled like an old woman's, towards me, said, "What are you doing here with them horses, sir? Come, let me hold them for you."

I made no answer; he asked me for some tobacco. To get rid of him (besides, I was getting very impatient), I took a few steps in the direction in which my father had disappeared, walked down to the end of the lane, turned the corner, and stopped dead. In the street, about forty paces from me, stood my father in front of the open window of a small wooden house; he had his back to me and was leaning with his chest over the window-sill; inside the house, half-hidden by a curtain, sat a woman in a dark dress, talking to my father; the woman was Zinaida.

I was thunderstruck. That, I confess, I had not expected. My first impulse was to run away. "Father will look round," I thought, "and I shall be done for." But a strange feeling, a feeling stronger than curiosity, stronger even than jealousy, stronger than fear, stopped me. I began to watch. I did my best to hear what they were saying. My father seemed to be insisting on something. Zinaida would not agree. I can see her face just as if it were all happening now—sad, serious, beautiful, and with an indescribable imprint of devotion, sadness, love, and a kind of despair—I can find no other word for it. She uttered words of one syllable; she did not raise her eyes but just smiled—submissively and obstinately. It was by this smile alone that I recognized my Zinaida as I used to know her. My father shrugged and set his hat straight on his head, which was always a sign of impatience with him. Then I heard the words: "*Vous devez vous séparer de cette . . .*" Zinaida drew herself up and stretched out her hand. . . . Suddenly something quite unbelievable took place before my very eyes: my father all of a sudden raised his riding crop, with which he had been flicking the dust from the skirts of his coat, and I heard the sound of a sharp blow across her arm, which was bared to the elbow. I just managed to restrain myself from crying out, while Zinaida gave a start, looked at my father without uttering a word, and, raising her arm to her lips, kissed the scar that showed crimson on it. My father flung away the crop and, running up the steps rapidly, rushed into the house. Zinaida turned round, tossed back her head, and, with arms outstretched, also moved away from the window.

Faint with fright, and my heart gripped with a kind of bewildered horror, I rushed back, and running down the lane, nearly letting go of Electric, returned to the bank of the river. I simply did not know what to

make of it. I knew that my cold and reserved father was sometimes given to fits of fury, but for all that I could not possibly make any sense of what I had just seen. But at the same time I felt sure that however long I lived, I could never forget Zinaida's gesture, her look, her smile; and that image of her, this new image which had so suddenly arisen before me, was forever imprinted on my memory. I gazed vacantly at the river and did not notice that tears were streaming down my cheeks. "They are beating her," I thought, "beating, beating. . ."

"Hello there, what are you doing? Give me the horse!" I heard my father's voice behind me.

Mechanically I gave him the bridle. He leapt on Electric's back. The horse, chilled with standing, reared on its hind legs and leapt forward about six feet, but my father soon curbed her; he drove the spurs into her sides and hit her on the neck with his fist.

"Damn, no crop," he murmured.

I recalled the swish and the blow from the same crop a short while before, and shuddered.

"Where have you put it?" I asked my father after a short pause.

My father made no answer and galloped on. I overtook him. I simply had to see his face.

"You weren't bored waiting for me, were you?" he muttered through his teeth.

"A little. Where did you drop your crop?" I asked him again.

My father glanced quickly at me. "I did not drop it," he said. "I threw it away."

He sank into thought and lowered his head, and it was then that I saw for the first and almost for the last time how much tenderness and pity his stern features could express.

He galloped on again, and this time I could not overtake him; I arrived home a quarter of an hour after him.

"This is love," I again said to myself, sitting at night at my writing desk on which my books and exercise books had begun to make their appearance. "This is passion. How was it possible not to feel resentment, to suffer a blow from any hand—even the dearest! But it seems one can if one is in love . . . and I—I imagined . . ."

I had grown much older during the last month—and my love, with all its excitements and sufferings, struck me as something very small and childish and trivial beside that other, unknown something which I could scarcely grasp and which frightened me like an unfamiliar, beautiful, but menacing face one tries in vain to make out in the gathering darkness.

That night I had a strange and terrible dream. I dreamt that I went into a low, dark room. My father, whip in hand, was standing there and stamping angrily with his feet; Zinaida was crouching in a corner, and there was a red scar, not on her arm, but on her forehead, and behind them both rose Belovzorov, covered with blood, and he opened his pale lips and shook his fist angrily at my father.

Two months later I entered the university, and six months after that my father died (of a stroke) in Petersburg, where he had just moved with my mother and me. A few days before his death he received a letter from Moscow which upset him greatly. He went to beg some favour from my mother and, I was told, he even wept, he—my father! On the morning of the day he had his stroke, he had begun a letter to me in French. "My son," he wrote, "fear the love of woman, fear that ecstasy, that poison . . ." My mother, after his death, sent a considerable sum of money to Moscow.

Four years passed. I had just left the university and had not quite made up my mind what to do with myself, at what door to knock; for the time being, I just did nothing. One fine evening I met Maydanov at the theatre. By that time he had got married and joined the civil service, but I found him quite unchanged. He still went into raptures for no obvious reason and grew depressed just as suddenly.

"You know," he said to me, "Mrs. Dolsky is here."

"What Mrs. Dolsky?"

"Why, you've not forgotten, have you? The former Princess Zasyekin. The girl we were all in love with—and you, too. Remember, in the country near the Neskoochny Park?"

"Is she married to a Dolsky?"

"Yes."

"And is she here, in the theatre?"

"No, she's in Petersburg. She arrived a few days ago. She's going abroad."

"What sort of man is her husband?"

"Oh, a splendid fellow. A man of property. He's a colleague of mine in Moscow. You understand, after that affair—I expect you must know all about it"—Maydanov smiled significantly—"it was not so easy for her to make a match. There were consequences—but with her brains, nothing is impossible. Go and see her. I am sure that she'll be very pleased to see you. She is prettier than ever."

Maydanov gave me Zinaida's address. She was staying in the Hotel

Demuth. Old memories stirred in me. . . . I made up my mind to call on my former flame. But all sorts of things prevented me from calling on her. A week passed, then another; and when at last I went to the Hotel Demuth and asked for Mrs. Dolsky I was told that she had died four days before, quite suddenly, in childbirth.

I felt a sudden stab in my heart. The thought that I could have seen her and did not, and would never see her again–that bitter thought drove its sting into me with all the force of an irrepressible reproach. "She is dead," I repeated, staring vacantly at the hotel porter, and, going out into the street quietly, I walked on without knowing myself where I was going. All my past suddenly rose up and stood before me. So that was the end of this young, passionate, and brilliant life! That was the goal to which, in its haste and agitation, it aspired. When I thought of this, I conjured up those dear features, those eyes, those curls–in the narrow box, in the dank underground darkness, quite near, not far from me who was still living, and perhaps only a few paces from my father. I thought of all this; I exerted my imagination; and meanwhile–

> From lips indifferent, the tidings
> Of death I heard, and, indifferent
> To it. I listened–

sounded in my heart. Oh, youth, youth! You don't care for anything, you seem to own all the treasures of the world; even sorrow amuses you, even grief becomes you; you are self-confident and insolent; you say, "I alone am alive–look at me!"–even while your days pass away and vanish without trace and without number, and everything in you melts away like wax in the sun, like snow. . . . And perhaps the whole secret of your charm lies not in your ability to do everything, but in your ability to think that you will do everything–lies just in the way you are scattering to the winds the powers which you could never have used for anything else–in the fact that each of us seriously considers himself to have been a spendthrift, seriously believes that he has a right to say, "Oh, what could I not have done if I had not wasted my time!"

So I too–what did I hope for? What did I expect? What rich promise did the future hold out to me when–with scarcely a sigh, with no more than a feeling of bleak despondency–I bade farewell to the phantom of my first love, risen for a fleeting moment?"

And what came of it all–of all I had hoped for? Now, when evening shadows are beginning to fall on my life, what have I left that is fresher,

that is dearer to me than the memories of the storm that came and passed over so swiftly one spring morning?

But I am not quite fair to myself. Even then, in those thoughtless days of my youth, I did not remain deaf to the mournful voice which called to me, to the solemn sound which came to me from beyond the grave. I remember how a few days after I had learnt of Zinaida's death, I myself, in response to an irresistible impulse, was present at the death of a poor old woman who lived in the same house with us. Covered with rags, lying on hard boards, with a sack for a pillow under her head, she was dying a hard and painful death. All her life had been spent in a bitter struggle with daily want. She had known no joy; she had not tasted the honey of happiness; and one would have thought that she of all people would have been glad to die, and thus to gain freedom and rest. And yet, so long as her frail body held out, so long as her breast was still rising and falling in agony under the icy hand that weighed upon her, so long as there was still strength left in her body, the old woman kept crossing herself and kept whispering, "Lord, forgive me my sins," and only after the last spark of consciousness had gone did the look of fear and terror of death disappear from her eyes. . . . And I remember that there, by the deathbed of that poor old woman, I felt terrified for Zinaida, and I longed to say a prayer for her, for my father—and for myself.

Translated by David Magarshack.

Fyodor Dostoevsky

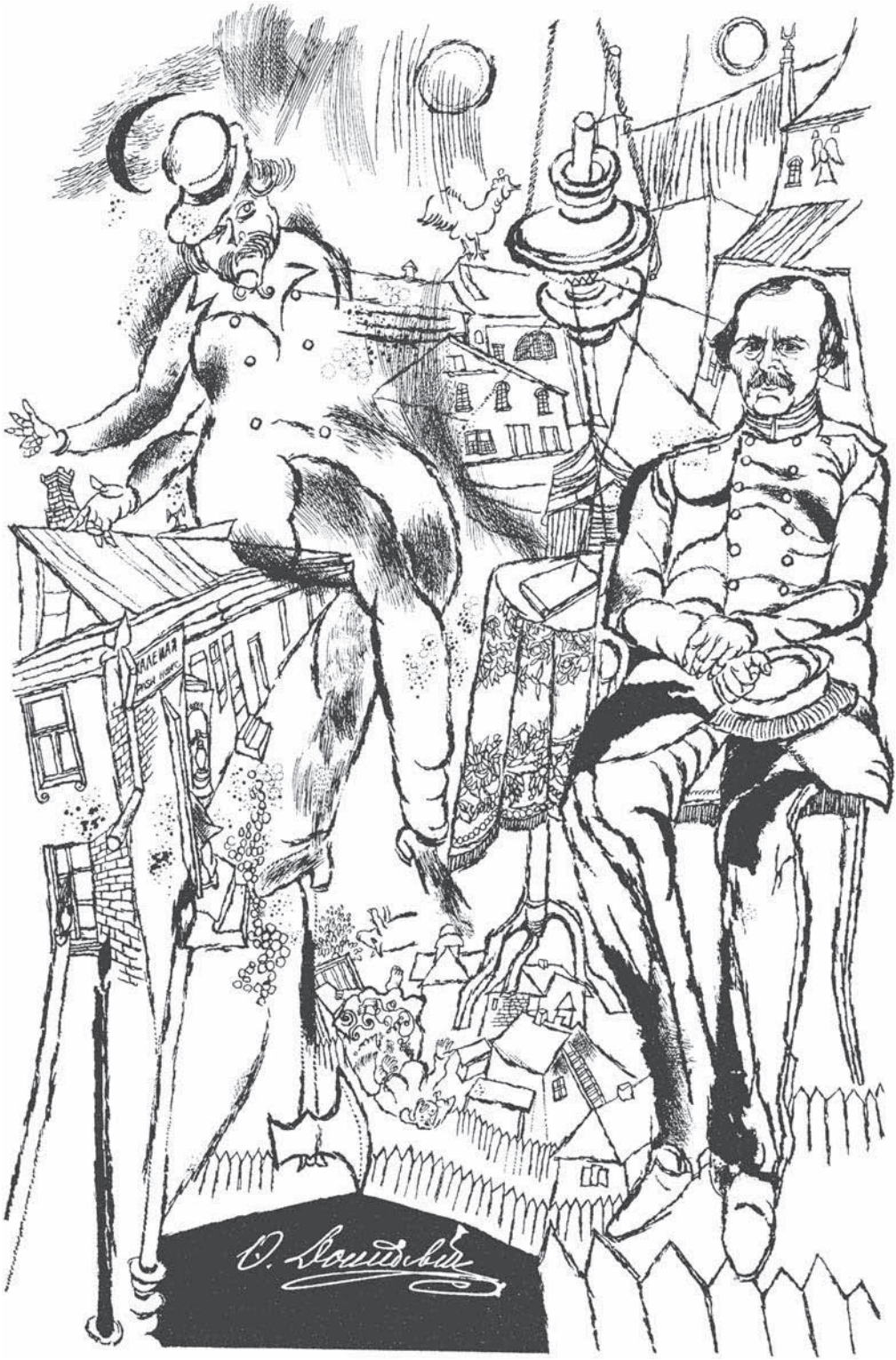
1821–1881

Fyodor Dostoevsky was born in Moscow on October 30, 1821 (Old Style). He studied in Moscow and at the School of Military Engineers in St. Petersburg. After three years he resigned a commission in the army and began to write. A first novel, *Poor Folk,* published in 1845, made his name at once. *The Double*, a brilliant Dickensian study of paranoia, was less well liked and caused a quarrel with the liberal writers, including Turgenev.

Dostoevsky allied himself with a group of theoretical socialists, the Petrashevsky circle. In 1849 they were all arrested and ordered deported. A false sentence of death was read to them. At the last moment, with rifles leveled at their breasts, they were ordered away to the penal settlement at Omsk. Five years later, his epilepsy aggravated by these experiences, Dostoevsky was transferred to the army. In 1859 he was allowed to go back to St. Petersburg. *The Friend of the Family*, his first novel after a long silence, was published in that year.

In Siberia he had married Marya Isaeva. *The House of the Dead* and *The Insulted and the Injured* appeared in the early 1860's. Dostoevsky and his brother started a successful review. It was suppressed and never recovered. He traveled abroad with Pauline Suslova, haunted by his compulsion to gamble. *Letters from the*

Notes from the artist: ". . . an atmosphere of fantasy and dreams in a Russian urban scene surrounds the portrait of Dostoevsky in his uniform. The other figure is that of Raskolnikov the murderer in Crime and Punishment."



Underworld, in 1864, was the first of his important later works. His first wife having died, he married Anna Snitkina and went abroad again to evade his creditors.

Between 1866 and 1871, he produced *Crime and Punishment*, *The Gambler*, *The Idiot*, *The Eternal Husband*, and *The Possessed*. In the latter year he went back to Russia and edited a conservative weekly. Later he conducted a prosperous journal of his own, *An Author's Diary*. *A Raw Youth* was published in 1875, and in 1880 came the last great work of his maturity, *The Brothers Karamazov*. He died on January 28, 1881.

We can begin *White Nights* with the perfect assurance that we are in the hands of a great storyteller. True, Dostoevsky has many other facets as a writer. Politically, from first to last, he has been called everything from a radical to a reactionary. As a psychologist, normal or more often than not clinical, he ranks among the first in literature. This talent is vivid enough in all his work and amazing in the best of it. He was an important journalist in his time, though much of his occasional writing is all but unreadable now except to students of Russian history. In his early works at least—the later ones were often written in great haste—he showed a decided sense of literary structure. He emerged from prison an intense Christian. Christianity became fused for him with his mystical sense of Russian nationalism. As leader of the nativist school, he could be the most provincial of Russians. At the same time, his vision was broad enough to contain the whole of humanity. He was a "profound Jobean and Promethean questioner." But from beginning to end, in all his fiction, the story—and it is usually a powerful one—comes first.

This is true of *White Nights* (an idiom meaning "sleepless nights"). The scene is St. Petersburg in summer. The story moves across four nights and the morning of the following day. It is—on the face of it, at least—the simplest of love conflicts. The girl Nastenka and two nameless young men make the three points of the triangle. Behind this simplicity we glimpse the moving shadows of human impulse, of needing and giving, of sincerity and delusion, of love and self-love.

When we first meet the narrator, he is, characteristically, alone. He tells us that he has no friends. Instead, his imagination is peo-

pled with the whole outdoor life of his city. Certain faces have become old acquaintances. He knows the route of every inhabitant. Even the houses are personified for him. He shares in their changes of paint and weather. But now he discovers why so many people seem to be missing, why he has felt deserted. St. Petersburg is moving out to the country for the summer.

At this point of extreme loneliness he meets Nastenka. Though he does not know it at first, she too is lonely, she too has come to a crisis in her life. So their mutual need is intense. They tell each other their life stories—and his, at least, seems to us a little too long. But out of it we get the sense of powerful fantasy, of a poet without poems. He and Nastenka laugh and cry. They seem utterly natural. We believe in their wish to be completely sincere with each other.

But are they? Sincerity is no guarantee of self-knowledge. Skeptics that we are, at first we may even refuse to believe Nastenka's story about the other young man. She is a lonely girl. Is it not possible, we think, that she may have invented this story to make the narrator jealous, to make herself more desirable in his eyes? But we see that we have misjudged her. She really tries to be kind. She warns him not to fall in love with her. But it is useless. He loves her and tries generously to help her. She too is generous. They make plans. He will move into her house and take the room and place of her former lover. So we are touched by the sense of bad faith, of guilt, in her letter on the last morning. Do we feel that she is guilty of betraying him? Or is it only that the unknown and unknowable chances of life have been too much for them?

White Nights

A TALE OF LOVE FROM THE REMINISCENCES OF A DREAMER

Could he be born from the start,
If only for a fleeting moment,
To be so dear to your heart?
IVAN TURGENEV

THE FIRST NIGHT

It was a marvelous night, the sort of night one only experiences when one is young. The sky was so bright, and there were so many stars that, gazing upward, one couldn't help wondering how so many whimsical, wicked people could live under such a sky. This too is a question that would only occur to the young, to the very young; but may God make *you* wonder like that as often as possible!

Now, mentioning whimsical, angry people makes me think how well I behaved that day. A strange anguish had tormented me since early morning. I suddenly had the impression that I had been left all alone, that everyone was shrinking away from me, avoiding me. You are, of course, right to ask who that "everyone" is, for although I've lived in Petersburg for eight years now, I haven't managed to make a single friend. But what do I need friends or acquaintances for? As it is, I'm acquainted with all of Petersburg. And that's why I had the impression of being abandoned by everyone when the whole city rose and left for the summer. I was afraid to be left alone, and for three days I roamed dejectedly through the city, unable to understand what was happening to me. Whether I went to Nevsky Avenue, to the park, or wandered along the embankments, I never came across the people I was accustomed to meet in certain spots at

certain hours all year round. They, of course, didn't know me; but I knew them, all right. I knew them intimately, and having studied their faces, I rejoiced with them when they were cheerful and grieved with them when they were downcast. I almost became friends with a little old man whom I met every day at a certain time on the Fontanka Embankment. His face was so dignified and thoughtful; he carried a knotty walking cane with a gold top in his right hand, swinging his left arm, and was constantly mumbling something inaudible. He even noticed me and took a keen interest in *my* existence. I'm sure he must've been quite upset when I did not appear at a given hour on the embankment. That's why sometimes we almost exchanged greetings, especially when we both happened to be in a good mood. Recently, two days went by without our seeing each other, and on the third day, our hands almost shot up to our hats, but thank God, we came to our senses, dropped our hands, and passed by with mutual sympathy.

I'm acquainted with houses too. As I walk up a street, each house seems to have darted ahead and to be waiting for me, looking at me out of all its windows, almost saying: "Hello! How are you getting on? I'm fine myself. And do you know what? They're going to add another story to me in May!" Or: "How are you? Well, me, I'll have to undergo some repairs tomorrow." Or: "You know, I almost burned down last night. It gave me such a fright!" And other things of that sort. Among houses, I have my favorites. Some are intimate friends. One had decided to undergo a course of treatment with an architect during the summer. I'll make a point of visiting him every day, in case the treatment turns out to be fatal, God forbid! I'll never forget what happened to one very pretty, rosy little house. Although he was rather haughtily distant with his clumsy neighbors, that little stone house used to look at me so nicely that I always felt glad as I passed by. But last week, as I was walking along that street, my friend looked at me dejectedly, and I heard his plaintive cry: "They're painting me yellow!" Ah, the criminals! The barbarians! They spared nothing; neither the columns nor the cornices, and my friend became yellow as a canary. I nearly had an attack of jaundice myself, and I still haven't been able to go back and visit my poor disfigured friend painted in the color of the Celestial Empire.

So you see, that's what I meant by being acquainted with all Petersburg.

As I said, I'd been uneasy for three days and now I'd discovered why. Things didn't feel right in the street—this one was missing, that one was missing, and where on earth was such-and-such? And at home, too, I

wasn't quite myself. For two whole evenings I'd tried to determine what I was missing in my corner, why I was so ill at ease there. Puzzled, I kept examining my green walls with their black soot stains, the ceiling covered with cobwebs that Matryona cultivates with such eminent success. I examined every piece of furniture, every single chair, to see whether the trouble wasn't hidden just there. For I know that I can be badly upset if a chair is not in exactly the same place as it was the day before. I also looked at the window. But all in vain. I even decided to call in Matryona and give her a fatherly scolding about the cobwebs and about her slovenliness in general. But she only looked at me, surprised, and left without answering a word; the cobwebs remained unmolested.

It was only this morning that I realized what was happening. Why, they were deserting me for their summer places. I must apologize for this trivial way of putting it, but I can't be bothered with style just now, because everyone is either leaving Petersburg or has already left it; because every respectable-looking man hailing a cab in the street is thereby, before my very eyes, turning himself into a venerable *pater familias*, who, having taken care of his usual duties, departs, just as he is, to join his family in their country house; because every passer-by in the street has a special look about him that almost audibly announces to the world at large: "I'm only passing through town–in a couple of hours or so, I'll be back in the country." If slender, sugar-white fingers drum on the inside of a window pane, if that window then opens, and a pretty face peeps out to buy some potted plants from a street flower vendor–I immediately imagine that she's just buying them to pass the time and not at all to enjoy spring and flowers in a stuffy city apartment, and that anyway the people in that apartment will leave for the country and take the flowers along. I've become so perspicacious that I can tell with certitude from people's faces what kind of summer houses they live in. Those from the Rocky and Apothecary Isles, or from the places along Peterhof Road, are recognizable by the studied exquisiteness of their manners, the elegance of their summer suits, and the magnificence of the carriages in which they drive into the city. Those from Pargolov and places beyond always impress me with their solidity and their down-to-earth air. A visitor from Krestovsky Island is distinguishable by his imperturbable cheerfulness. Whether I happen to meet a long caravan of movers' wagons loaded with mountains of furniture–tables, chairs, sofas (Turkish or otherwise), and all sorts of household junk, on top of which, moreover, a thin female cook is enthroned, looking after her master's belongings like a nesting bird after

her eggs—or watch the boats and barges, heavily loaded with household goods, sliding down the Neva or the Fontanka toward the Black Stream or the Islands—in my eyes, the wagons and barges multiply by tens and hundreds, and I have the impression that everything has risen up and started moving in long files out of the city to the countryside, that Petersburg will soon be a desert. So, in the end, I feel offended, ashamed, and sad. I have absolutely nowhere to go and no reason to go out of town. I long to leave on any wagon, to drive off with any gentleman hailing a cabbie. But no one has invited me. They seem to have completely forgotten me, as if I really were a stranger to them!

I'd been walking for hours and, as usual, I'd lost track of where I was, when I suddenly realized I'd reached the city limits. I immediately felt happy and, without hesitation, passed beyond the barrier and found myself walking between cultivated fields and meadows. I didn't feel tired at all. On the contrary, every joint in me was as relaxed as if a load had been lifted from my shoulders. All who drove by smiled at me engagingly, almost bowing to me. They looked pleased about something and the whole lot of them were smoking cigars. And I too was happier than I'd ever been before. Such was the impact of nature upon me, a semi-invalid city dweller who'd almost suffocated within the city walls, that I felt almost as if I'd found myself in Italy.

There's something inexpressibly moving in our Petersburg countryside when, with the arrival of spring, it suddenly reveals itself in all its might and with all its God-given gifts; when it dresses up, adorns itself with bright, multicolored flowers. . . . It makes me think of a weak, frail, sickly young girl, usually regarded with pity, sometimes with compassionate love, and sometimes not even noticed, who for one moment, as if by accident, suddenly becomes immensely beautiful; and, struck and charmed, you can't help wondering what force could have lighted the flame in those sad, dreamy eyes. What has caused the blood to rush to those pale, sunken cheeks? What has brought this passion to her delicate features? Why does her bosom heave like that? What has so suddenly communicated vigor, life, and beauty to the poor girl's face; given it that radiant smile; produced that glittering, sparkling laughter? You look around, you try to guess. But then it's all gone, and the next day perhaps, you'll meet her usual pensive, abstract gaze again, recognize her pale face and the timid humility of her movements; you'll even detect remorse and signs of some deadening anguish and shame over that momentary exaltation. . . . And you're sorry that the ephemeral beauty has faded so

rapidly, so irretrievably, that it flashed so deceptively and pointlessly before your eyes–you're sorry, for you didn't even have time to fall in love with her. . . .

But, even so, the night was better than the day! This is what happened.

It was very late when I got back into the city. As I approached the house I live in, it struck ten. I was walking along the embankment; at that hour there was no one around, for I live in a remote part of town. I sang as I walked, for when I'm happy, I always hum something–as does every happy, friendless man who has no one with whom to share his happiness. Then suddenly the most unexpected thing happened to me.

I saw a woman leaning against the railing along the embankment. She appeared to be gazing attentively at the murky water. She wore a ravishing little yellow hat and an elegant black cape. "She must be young and dark-haired," I decided. I don't think she heard my footsteps, and she didn't even stir when I passed her, holding my breath, my heart beating wildly. "Strange," I thought, "she must be quite lost in thought–" Suddenly I stopped dead. Stifled sobs reached my ears. Yes, that was it–she was crying. Again I heard the girl trying to catch her breath. Ah, God! My heart contracted with pity, and shy though I am with women, I retraced my steps and walked up to her. I'm sure I'd have exclaimed "Madame!" had I not been so acutely aware that this form of address has already been used so often in Russian novels with a high-society background. That was all that stopped me. But while I was searching for an alternative approach, the girl recovered, turned her head, glanced at me, looked away, and darted off along the embankment. I followed her. She must have realized, for she turned her back to the water, crossed the street, and went along the opposite sidewalk. I didn't dare follow her across the street. My heart was quivering like that of a bird held in a man's hand. Then something came to my assistance.

I saw a man walking on the other side of the street, not far from the girl. He wore a frock coat, and seemed to have reached an age of respectability, although there was nothing respectable about his gait. He was staggering and stumbling along, guiding himself by leaning against the walls. Now the girl was moving lightly and apprehensively, as girls do at night when they don't wish strange men to offer to see them home; the staggering gentleman never would have caught up with her if he hadn't changed his tactics (for which I thank my lucky stars).

But suddenly, without uttering a word, the man set off at a gallop. She

darted ahead with quickened, fearful steps, but the swaying figure kept gaining on her. He came closer and closer, then he caught up with her. The girl let out a cry, and–I thank my lucky stars again for placing my excellent knobby walking stick in my right hand. In no time, I was on the opposite sidewalk; in no time, the uninvited gentleman made a practical appraisal of the situation, took into consideration the unanswerable argument in my hand, slowed down, and fell back. And only when he felt there was a safe distance between us did he voice his indignation in no uncertain terms. But his words hardly reached us.

"If," I said to the girl, "you will allow me to take your arm, that man won't dare annoy you again."

Silently she allowed me. Her hand was still trembling from fear and her earlier emotions. Ah, what blessings I wished at that moment upon the unwelcome gentleman! I squinted at her discreetly. She was terribly pretty. Her hair was dark, just as I'd guessed. Tears glistened on her black eyelashes, whether from her recent fright or from her sorrow, I didn't know, but a smile was already sparkling on her lips. She glanced at me out of the corner of her eye, blushed, and looked down.

"Now, you see, you shouldn't have spurned me like that. Nothing would've happened if I'd been at your side."

"But I didn't know you; I thought you too . . ."

"Do you feel you know me now?"

"A little. For instance, I know you're trembling. Tell me why."

"Ah, you've guessed right from the start!" I said, delighted that she should turn out to be so clever–never a drawback in a woman, as long as she's pretty. "Yes, you've seen through me straight away. I'm afraid of women, and it's that fear that makes me tremble, just as it made you tremble a few moments ago when that gentleman frightened you. I'm frightened now, all right. It's like a dream, although I've never actually dreamed that I'd be talking like this to a woman."

"Really?"

"Yes. And if you feel my arm tremble, it's because it has never yet been held by a pretty hand like yours. I'm quite unused to being with women. In fact, I've never got used to them. I live all alone. I don't even know how to talk to women. For instance, I don't know if I haven't said something stupid to you. Please, tell me frankly–I promise I won't be offended."

"No, no, on the contrary. And since you want me to be frank, let me tell you that women like your sort of shyness; I'll even tell you that I like

it too, and I won't ask you to leave me until we're at my doorstep."

"If you go on saying things like that," I said, out of breath with enthusiasm, "I'll lose my shyness and, along with it, my advantage. . . ."

"Advantage? Advantage to what end? Ah, now you've said something I don't like."

"I *am* sorry, it just slipped off my tongue. You can't really expect that, at such a moment, I shouldn't wish that . . ."

"What? Wish that I should like you?"

"Yes, that's it. But please, try to understand: I'm twenty-six already and I've never known anyone closely. So how can I be expected to be good at speaking to people? How can I say things well and to the point? Besides, isn't it better for you when everything is out in the open? For I don't know how to be silent when my heart is talking. Well, what's the difference? But believe me, I've never, never spoken to any woman. Never. I've never known one. I've only gone around dreaming that one day I might meet someone. If you only knew how many times I've fallen in love that way. . . ."

"But how's that, who did you fall in love with?"

"Why, no one in particular, just with the ideal woman, the one I'd dreamed of. I can dream up whole novels, you know. Oh, you really have no idea about me! Of course, as you can well imagine, I have come across two or three women in my time. But what sort of women were they? They were such housewives that– But now you'll laugh when I tell you that I planned for a long time to address some aristocratic lady in the street. When she was alone, of course. Talk to her shyly, respectfully, passionately; tell her that I was perishing in my loneliness; beseech her not to send me away; say that it was impossible for me to get to know any other woman; persuade her that it was even the *duty* of a woman not to spurn the timid approach of one so unhappy; convince her that, finally, all I wanted from her was a few understanding, sisterly words, and that she shouldn't just turn her back on me, but should believe what I told her–then she might laugh at me if she wished, so long as she said one or two words of hope, only two words, then, if she wished, we'd never meet again! . . . I see you're laughing. . . . Well, that's why I told you about it, after all."

"Don't be offended. I'm only laughing because you're your own worst enemy. If you'd tried you'd have succeeded, maybe even in the street. The simpler, the easier. . . . No decent woman, unless she was dismally stupid or happened to be very irritated about something at that particular moment, would have refused you the two words for which you begged

with such humility. . . . Although, after all, she might very well have taken you for a madman. I was thinking of how I would have reacted, but then I have quite a good idea of what life is all about."

"Oh, thank you, thank you!" I cried. "You have no idea what you're doing for me!"

"All right, all right. But tell me, what made you think I was the type of woman with whom . . . well, who would be worthy of . . . your attention, your friendship? How did you know that I was not just another housewife, as you put it? What made you decide to speak to me?"

"What made me—why, you were alone, and that man was most indiscreet, and it's nighttime. . . . I couldn't have done anything else."

"No, no, before that, on the other sidewalk. Weren't you thinking of speaking to me?"

"On the other sidewalk? I really don't know what to say. I was happy today. I was walking along and singing. I went beyond the city limits. I'd never before experienced such happy moments. And you—please excuse me, I may have imagined it, but I thought you were crying, and I couldn't bear it. . . . My heart shrank. . . . Ah, God, why shouldn't I be entitled to grieve with you? Why is it a sin for me to feel brotherly compassion for your sorrow? . . . Excuse me, I said compassion. . . . Well, I don't see why it should offend you if I couldn't resist my impulse to come over and talk to you."

"Enough, don't talk of it any more." She lowered her head, and her fingers pressed my arm. "It's my fault for bringing it up, and I'm so pleased that it wasn't a mistake. . . . But we're almost at my place. I must turn here, into that street. It's only a few steps from here. Good-by now, and thank you very much!"

"But is it possible that we'll never meet again? Can we leave it like this?"

"But you said you were only after two words," the girl said, laughing, "and now you . . . However, who can tell, perhaps we'll meet again some day."

"I'll be waiting here tomorrow. Forgive me, I seem to be demanding things already."

"Yes, you're quite impatient, and you *are* almost demanding things—"

"Listen, listen to me," I interrupted her, "and forgive me if I say something wrong. You see, I can't help coming here tomorrow. I'm simply a dreamer who has little real life, and moments like this are so rare in my existence that I must repeat them again and again in my thoughts. You'll stay in my thoughts throughout the night—throughout a whole

year. I'll be here without fail tomorrow, in this very spot, at this very time–and I'll be happy thinking of what happened today. Already this spot is dear to me. I have two or three spots like this in Petersburg. Once I even cried, like you. . . . Well, how can I know? Perhaps a few minutes ago you too were crying at the thought . . . Ah, forgive me, I'm forgetting myself again. . . . I simply meant, perhaps you were once especially happy here somehow. . . ."

"All right then," the girl said, "I suppose I'll be here tomorrow night too. At ten. I see I can't stop you, and I have to come here anyway. But don't think I've made a date with you. I warn you: I have to be here for my own reasons. So I may as well tell you now: I won't mind if you're here too, because that may save me an unpleasant incident like tonight's. But that's just incidental. To be brief, I'd be very pleased to see you . . . to say a couple of words to you. But I don't want you to think badly of me. You mustn't think that I make dates so easily. I would never have agreed to meet you again had it not been for . . . No, let it remain a secret! Only, from now on, let's reach an agreement."

"An agreement? Just name it! I agree to anything in advance!" I said with ardor. "I assure you, I'll be docile, respectful . . . you know me."

"It's because I know you that I want you to come tomorrow," the girl said, laughing. "And I know you fully. But if you come, it must be on my terms. First–and please do as I ask, for I'm being completely frank about it–don't fall in love with me. You mustn't, believe me. But I'd like us to be friends. Here, let's shake hands on it. But, remember, no falling in love!"

"I swear!" I shouted, taking her hand.

"Stop, don't swear so readily. I know very well that you can burst into flame in a second, like gunpowder–forgive me for saying so. Ah, if you knew . . . I, too–I have had no one with whom I could exchange a word, of whom to ask advice. Where could I look for advisors? Certainly not in the street. But you're an exception. I know you as if we'd been friends for twenty years. Am I right in thinking you won't let me down?"

"You'll see. Only I don't know how I'll keep myself alive, waiting for twenty-four hours."

"Sleep deeply. Good night, and remember I've put my trust in you. But you put it so well yourself: Does one really have to give an account of every feeling, even of brotherly compassion? You know, you put it so well that right away I decided to confide in you."

"For heaven's sake, what is it? What?"

"Tomorrow. Let it remain a secret for the moment. It's better for you that way; at least from a distance all this may resemble a romance. I may tell you tomorrow and I may not. I'll talk to you some more; well become better acquainted first."

"Well, I–I'll tell you everything about myself tomorrow! But it's as if a miracle were happening to me. Where am I? Oh, God! Tell me, are you glad you didn't get angry with me and chase me away at first, as another woman would have done? It took you two minutes to make me happy once and for all. Yes, happy. Who knows, perhaps you've made me accept myself, maybe you've resolved my doubts. Perhaps such moods come over me that . . . Well, I'll tell you everything tomorrow, you'll know all. . . ."

"Good, I accept; and you'll begin. . . ."

"Agreed."

"Good night."

"Good night."

We parted. I walked around all night. I couldn't make myself go home. I was so happy. . . . Tomorrow!

THE SECOND NIGHT

"So you survived after all," she said to me, laughing as she pressed my hands.

"I've been waiting for two hours. You can't imagine how I got through the day."

"I know, I know. . . . But let's talk business. Do you know why I really came? Certainly not to talk nonsense as we did last night. You know, from now on, we'll act more intelligently. I thought a lot about it last night."

"In what? More intelligently in what? I agree to whatever you say, but to be absolutely sincere, it seems to me I've never been cleverer than now in my whole life."

"Is that so? Well, in the first place, I'd like you to stop squeezing my hands like that, and in the second, I wish to inform you that today I've given quite a bit of thought to you."

"And what conclusions have you reached?"

"Conclusions? Well, I decided to start all over again because I concluded that I still knew nothing about you, that yesterday I acted like a child, a little girl–and I ended up blaming everything on my over-sensitive heart. In other words, I ended up praising myself–the way

we always end when we begin analyzing ourselves. Now, to correct that mistake, I've decided to find out every little thing about you. And since I have no other way of finding out, you'll just have to supply me with all the information. So, what manner of man are you? Quick, start telling me your story!"

"My story!" I said, becoming alarmed. "What makes you think I have a story to tell in the first place? In fact I don't have any–"

She laughed.

"But how could you live and have no story to tell?"

"So far I've lived without any stories at all. I've lived keeping to myself, as they say, which means that I've been completely alone. Alone, all alone–do you understand what that means?"

"What do you mean alone? You never saw anyone?"

"No, I saw people, of course. But still I was all alone."

"What then? You mean you never spoke to anyone?"

"Strictly speaking, I didn't."

"But who are you, anyway? Tell me! No, wait–I think I can guess. I'll bet you have a grandmother, as I do. Mine is blind, and she doesn't let me go anywhere–I almost forget how to talk. A couple of years ago, when I misbehaved, she felt she couldn't control me any longer, so she called me over to her and pinned my dress to hers with a safety pin. Sometimes we sit like that for days at a time, she knitting a sock despite her blindness and me, at her side, sewing or reading something aloud to her. So, I've been pinned to someone for two years, a rather strange situation, don't you think?"

"Ah, that's really awful! But I don't have a grandmother."

"You haven't? Then how can you sit home all the time?"

"Listen, shall I tell you who I am?"

"Yes, of course."

"Shall I tell you exactly?"

"Yes, exactly."

"All right then, I'm a queer fish."

"So, you're a queer fish, are you? What sort of queer fish?" the girl said, exploding with laughter, as if she had been holding it in for a whole year. "Ah, you're really great fun to be with! Let's sit down on that bench over there. Nobody every passes there, so you can tell me your story without being overheard. Go on now, I want to hear it! You can't make me believe you have nothing to tell; you're just being secretive. First of all, what's a queer fish?"

"A queer fish? A queer fish is a ridiculous man, a man unlike others," I

said, infected by her childish laughter. "He's a sort of freak. Listen, do you know what a dreamer is, for instance?"

"A dreamer? Well, how could I *not* know what a dreamer is? I suppose I'm one myself. You can't imagine what things go through my head sometimes as I sit next to my grandmother! I plunge into my dreams, and sometimes, when I really get going, I reach a point where I marry a Chinese prince. . . . Why, sometimes it's so nice to dream!" But then she added unsmilingly: "Well, not really! Especially when there are other things to think of."

"Wonderful! Since you've already been married to a Chinese potentate, you'll probably be able to understand me too. So listen . . . But wait, I don't even know your name."

"It's Nastenka."

"Nastenka. Is that all?"

"Is that all! Nothing satisfies you. You seem to be insatiable."

"Ah, no, it satisfies me all right, it thoroughly satisfies me! You're a very nice girl to become Nastenka for me right away!"

"That's better! But go on, tell me about yourself."

"All right, Nastenka, listen to this ridiculous story then."

I installed myself on the bench next to her, assumed a grave, theatrical pose, and began, as if I were reading the script of a monologue.

"There are, my dear Nastenka, in case you don't know, some rather strange corners in Petersburg. It's as if the sun that warms the rest of the city never shines on them, and instead another sun, especially designed for them, supplies them with a different light. In those corners, Nastenka, a life goes on quite unlike the one seething around us, a life that is possible in some faraway dreamland but certainly not here in our overserious time. That life is a mixture of something out of pure fantasy, ardently idealistic, with, alas, something bleak and dull and ordinary, not to say outright vulgar."

"Brrr! . . . What an introduction! What am I to hear next?"

"You'll hear, Nastenka–I think I'll never get tired of calling you Nastenka–that dreamers live in those corners. A dreamer, if you want me to define him, is not a real human being but a sort of intermediary creature. He usually installs himself in some remote corner, shrinking even from the daylight. And once he's installed in that corner of his, he grows into it like a snail or at least like that curious thing which is at the same time an animal and a house–the tortoise. And why do you think he so loves his four bleak walls that are sooty, reek unspeakably of tobacco smoke, and are always daubed over with green paint? Why do

you think this ridiculous creature, when some rare acquaintance comes to see him (ultimately he's bound to lose all his acquaintances anyway), looks so embarrassed and taken aback, as if he'd just committed a crime between those very walls, as if he'd been forging money or writing verses to be sent to a magazine with an anonymous letter explaining that the author of the piece is dead and that the sender considers it his sacred duty to see the poem published? Why do you think, Nastenka, that conversation between the two of them is so painful? Why can't the visitor laugh or say something amusing now? In other circumstances he is prone to laugh, say amusing things, and chat about the fair sex and other pleasant matters. Why does that acquaintance, probably a recent one, on his very first visit—for under such circumstances there cannot be more than one visit, as no friend returns for a second time—even assuming that he's exceptionally perceptive, why does he feel so awkward looking at the agonized face of his host, who, after desperate but futile efforts to comfort the hapless man who has blundered into his house on a friendly visit by making the conversation flow, giving it some sparkle, and showing that he too is fully aware of elegant ways and can talk about the fair sex, has become completely lost by then. And why, in the end, does the visitor suddenly remember that he has some terribly urgent matter to attend to, grab his hat and dart off, managing to free his hand from the warm pressure of his host's while the host tries by every means possible to show that he's sorry and is trying to redeem himself? Why does the departing visitor laugh as he closes the door behind him and promise himself never to return to the house of that queer fish, although deep down the queer fish really means well? Why, at the same time, is the visitor unable to refrain from comparing his host's face during his visit to a kitten perfidiously captured, manhandled, and scared by children—which kitten then, completely bewildered, hides under some chair in the darkness, and can't help bristling and spitting while he washes his offended little face with his front paws, and even after that, goes around for a long time looking with apprehension and hostility at the world and even at the tidbits from the master's table saved for him by a compassionate housekeeper?"

"Now look here," Nastenka interrupted me. She had been listening with her eyes and her small mouth wide open. "I have no idea why it all happened nor why you should ask me to answer all those ridiculous questions. I'm sure of one thing only: that all this happened to you exactly as you have told me."

"You're right," I said with a straight face.

"Well, why don't you go on? I'm anxious to find out how it all ends."

"You'd like to find out, Nastenka, why the hero of the story—that is, me—was so perturbed and bewildered by the unexpected visit of a friend? You'd like to know why I became so flustered and turned so red when the door of my room was opened, why I was incapable of receiving my visitor properly, and why I was crushed so ignominiously under the weight of my embarrassment?"

"Well, yes, yes, that's just it! And then—you speak beautifully, but couldn't you please speak less beautifully? You sound as though you were reading aloud from a book."

"Nastenka," I said with ponderous gravity, hardly able to control my laughter, "I know I say things too beautifully; I'm terribly sorry, but I don't know how to say them otherwise. At this moment, Nastenka, I feel like the spirit of King Solomon that has been kept imprisoned for a thousand years in a jar under seven seals—and now all the seals have been removed. Now, Nastenka, that we have come together again after our long separation—for the fact is, I've known you a long time. You see, I've been looking for someone, and that's a sure sign that it must have been you I was looking for and that we were destined to meet. Now, thousands of valves have been opened in my head, and I cannot hold back the torrent of words or I'll burst. So, I must ask you to be a good girl and listen to me without interrupting. Otherwise, I won't tell you any more!"

"No, no, please go on! Keep talking, I won't say another word."

"So, I'll go on, Nastenka. There's a certain hour of the day, my dear, of which I'm particularly fond. It is the hour when practically all business, office hours, and all that sort of thing come to an end and people rush off home to dine, to have a little rest; and on their way, they think up ways to spend the evening ahead, the night, or whatever free time is left to them that day. At that hour, the hero of this story—for I hope you'll allow me, Nastenka, to go on telling it in the third person, it's really too embarrassing to say certain things in the first person—at that hour, my hero walks along among the others. But there's a strange, pleased expression on his pale, somewhat crumpled face. He watches with a certain pleasure as the red sunset slowly fades in the cold Petersburg sky. When I say he watches, I am wrong; he takes it in distractedly, like someone too tired to look or preoccupied with some more absorbing matter, so that he has only a passing awareness of what is going on around him. He's pleased, for he's through until tomorrow with business that bores him. He's like a schoolboy let out of school hurrying to play his favorite games or pull his favorite pranks. Look at him from the side,

Nastenka, and you'll see right away that his happy feeling has already had a beneficial effect on his weak nerves and over-excitable imagination. Now he is plunged deep in thought. . . . Thinking of dinner? Of the approaching evening? What is he looking at like that? Isn't it at that dignified-looking gentleman who has just bowed so gracefully to the lady driving past in a glittering carriage drawn by fleet-footed steeds? Oh, no, Nastenka, he has no time for such trifles now! Now he's rich in his *inner* life. And he has struck it rich suddenly–the last rays of the setting sun restored warmth to his heart and stirred up a whole stream of impressions. Now he hardly notices the street where, before, the tiniest detail would have struck him. The Goddess of Fantasy has already spun a golden web with her divine hand and has started unfolding before his eyes patterns of an imaginary, marvelous life; who knows, perhaps she has picked him up with her divine hand and transported him from the granite sidewalk he is still following to paradise. Just stop him now and ask him which streets he took to get here and where he is now. I'm sure he won't know, so he'll blush and invent some lies just for appearances' sake. That's why he started so violently, almost let out a cry, and looked around apprehensively when a nice old lady stopped him in the middle of the sidewalk and asked him to help her find her way. Now frowning angrily, he resumes his way, hardly aware of the grins on the faces of the people he passes, some of whom even stop to give him a second look; oblivious of the little girl who jumps quickly out of his path, bursts into loud giggles, and gapes indiscreetly at his absent smile and gesticulating arms. And already the same Goddess of Fantasy has managed to catch in flight the old lady who'd lost her way, the curious passers-by, the giggling little girl, the bargemen on their barges tied up along the Fontanka, and everything around the Fontanka Embankment–assuming that our hero happens to be walking there at the time. The goddess then playfully weaves everyone and everything into her canvas like flies in a spider's web. Now the queer fish carries these new acquisitions off to his den. He sits down at his table, and after his dinner is long over, he is still sitting there, reviving only when the dreamy and ever-sad Matryona removes the remains of the meal and brings him his pipe. Then he suddenly realizes that he's already dined, although dinner had completely escaped his attention. The room has grown dark. His heart feels empty and sad. His world of fancy silently and without a crackle collapses around him and evaporates without his being able to remember what he was dreaming about. But some dark feeling presses on his breast, making it heave faster; a new desire tickles and excites his fancy; and, almost with-

out noticing it, he summons an array of new ghosts. The little room is dark. Loneliness and idleness excite the imagination. The gentle flame is lit, and fancies start perking like the water in the coffee pot around which Matryona is fussing in the kitchen. Then fancy becomes like a flame itself, flashing and flaring so that the book picked up at random drops out of the dreamer's hands before he has reached the third page. Now his imagination is again vibrating, and suddenly another world with a different life unrolls its enchanted horizons before his eyes. A new dream–new happiness! A new dose of refined, voluptuous poison! Ah, what's real life to him! To his perverted eye, your life, Nastenka, and mine are unbearably humdrum, slow, and sluggish. He feels we're discontented with our lot and tired of life. And indeed, at first glance, life is bound to appear cold, gloomy, and rather unfriendly. Ah, the poor creatures! the dreamer thinks–and no wonder. Just look at the magical phantoms who so charmingly, subtly, yet somehow casually fall into place in the panoramic, animated picture that shapes itself before him, a picture in which his own exalted person is always in the foreground. Look at all the different adventures he has there–the endless succession of blissful visions! Now perhaps you would like to ask what he's dreaming about. But why ask? He dreams of everything . . . of being a poet, at first unrecognized, later crowned; of friendship with Hoffmann the poet; of St. Bartholemew Night; of playing a heroic part in the storming of Kazan under Ivan the Terrible; of Diana Vernon, Clara Mowbray, Effie Deans, and other heroines of Sir Walter Scott; of Jan Hus facing the tribunal of prelates; of the rising of the dead in *Robert the Devil* (Remember the music? It has a smell of the churchyard about it, don't you think?); of the Battle of Berezina; of a poetry reading at the Countess Vorontsova-Dashkova's; of Danton; of Cleopatra *i suoi amanti;* of Pushkin's *Little House in Kolomna;* of having a little house of his own and being there on a wintry evening with his beloved listening to him with her eyes and mouth wide open, just as you're listening to me now, my dearest angel. . . .

"No, Nastenka, what can this voluptuous idler find in the life so dear to people like you and me? He thinks it a poor life, without realizing that for him too there may come a sad hour when, for a single day of that miserable life, he would give away all his years of fancy. And he would exchange his dreams neither for happiness, nor joy; at that grim hour of regret and unrelieved gloom he won't even care to choose. But until that perilous time comes, the dreamer can have no desires, for he has everything; he is above desire; he is surfeited; he is himself the

artist creating his life at every hour, guided only by his own inspiration.

"And how effortlessly, how naturally the dreamer's world of fantasy springs up! It looks so real and not at all like a mirage! In fact, sometimes he almost believes that his dream life is no figment of the imagination, no self-deception, no delusion, but something real, actual, existing.

"Now tell me, Nastenka, why does he so often feel out of breath at those moments? Tell me, by what magic, by what uncanny chance, does his pulse quicken, do tears gush from his eyes and his pale cheeks flush, as his whole being fills with inexpressible delight? Why do sleepless nights flash by in a second, in inexhaustible gaiety and happiness? Then, when the rosy rays of dawn appear in the window and the uncertain light of our Petersburg morning fills the gloomy room, our exhausted dreamer throws himself on his bed and falls asleep with an aching feeling of rapture.

"Yes, Nastenka, he deceives himself and winds up by believing that he is moved by true, live passion, that there is substance—flesh and blood—to his fancies! And it is quite a deception! Just look at him and see for yourself. Can you believe, looking at him, Nastenka, that he doesn't even know the woman he loved so passionately in his sultry flights of fancy? Can you believe that he has only seen her in irresistibly voluptuous mirages and that he simply dreamed that passion? Is it really possible that they have never walked hand in hand during so many years, spurning the rest of the universe, merging their own two worlds and lives? Is it possible that at the late hour when they had to part, she didn't really lay her head, sobbing and miserable, on his chest, not hearing the wind that snatched tears from her black eyelashes? Would you believe it was all nothing but a dream—the wild, neglected garden with its path overgrown with moss, so lonely and desolate, along which they used to walk together so often, hoping, suffering, loving so tenderly and for so long? And that there was no strange, ancestral home where she had lived for so many dull, lonely years with her stern old husband, always silent and irritable, who frightened them, timid children that they were, children sadly and shyly hiding their love from each other? Ah, how afraid they were, how they languished, how pure and innocent was their love, and how wicked—it goes without saying, Nastenka—were the people around them! And did he never meet her later, far away from their native shore, under an alien, southern sky, in a divine, eternal city, at a glamorous ball, to the thunder of music, the whole affair taking place in a *palazzo* (it must be a *palazzo*) drowned in a sea of lights? . . . They are on a terrace wreathed in myrtle and roses . . . she recognizes him, tears off her

mask and, whispering, "I am free now!" flings herself into his arms, trembling with rapture. . . . They hold each other tight, and in a moment they've forgotten their unhappiness, their separation, all their sufferings, the forbidding house, the old man, the bleak garden in their remote homeland, the bench where he kissed her for the last time, holding her in his desperate embrace from which she had to tear herself, leaving him with his suffering. . . .

"Ah, Nastenka, you must agree that anyone would feel awkward and embarrassed and would turn red like a boy who has just stuffed into his pocket an apple he's stolen from the next-door garden if some long-legged, healthy joker, an uninvited friend of his, opened his door and announced, as if nothing had happened: 'Hi, chum! What do you know, I've just arrived from Pavlovsk!'

"It's unbearable. In dreamland the old count is dead and an inconceivable happiness is mine, and then this fellow arrives from Pavlovsk!"

My dramatic exclamations over, I fell dramatically silent. I remember that I wanted to force myself to laugh, for I felt that some hostile imp had installed himself inside me and was squeezing my throat, making my chin tremble and my eyes grow damp. I expected Nastenka, who had been listening with her intelligent, wide-open eyes fixed on me, to burst out in uncontrollable, childish laughter at any second, and I was already regretting having gone too far and told her things which had been weighing on my heart for a long time, things about which I could talk as smoothly as a book because I had long ago pronounced judgment on myself and couldn't help reading it out now and confessing without expecting to be understood. But to my great surprise, she remained silent for a while, then, pressing my hand slightly, asked me with a sort of timid understanding:

"Is that really how you've lived all this time?"

"All the time, Nastenka, and it looks as if I'll go on like that to the end."

"No," she said, looking worried, "that won't happen. That would be like me spending my whole life at my grandmother's side. Listen, I tell you it's not right to live like that."

"Ah, don't I know it, Nastenka!" I exclaimed, unable to control my emotions any longer. "At this moment I see more clearly than ever before that I've wasted my best years. And the realization hurts me even more because it was God who sent you to me, my lovely angel, to make me see it. As I sit here next to you, it is already painful to think of the future, because there's nothing in it but a lonely, stale, useless existence. What

could I dream of, now that I've been so happy with you in real life? Oh, bless you, my dearest girl, for not spurning me at first sight, for enabling me to say that I've lived at least two evenings in the course of my existence!"

"Ah, no, no!" Nastenka said with emotion, tears sparkling in her eyes. "No, no more of that life! We shan't part like this! What's two evenings?"

"Ah, Nastenka, Nastenka! Do you realize that you have reconciled me with myself for a long time to come? Do you realize that now I'll never think quite as badly of myself as I sometimes have in the past? Do you know that perhaps I won't be unhappy any more over having committed a crime or a sin in my life, because now I realize that my whole life was nothing but a crime and a sin in itself? And don't imagine, please, that I'm exaggerating, Nastenka, for there are moments when I'm overcome by such anguish and despair that . . . In those moments, I feel that I'll never have a true life because I feel sure I've entirely lost touch with reality; because I feel damned; because, in the middle of my fancy-filled nights, I have moments of lucidity that are unbearable! In the meantime, I hear the din of the human crowd around me and see how people who are awake live, and I realize that their lives are not made to measure, that they don't shatter like dreams, like visions, that their lives are perpetually renewed, every hour in them different from the one before, whereas the timid daydream is horribly monotonous, a slave to the shadows, to ideas, to the first cloud that suddenly hides the sun and squeezes in anguish the heart of a true inhabitant of Petersburg who must have his sunshine—for what fancy is there that can do without sunshine? In the end, you feel that your much-vaunted, inexhaustible fantasy is growing tired, debilitated, exhausted, because you're bound to grow out of your old ideals; they're smashed to splinters and turn to dust, and if you have no other life, you have no choice but to keep rebuilding your dreams from the splinters and dust. But the heart longs for something different! And it is vain to dig in the ashes of your old fancies, trying to find even a tiny spark to fan into a new flame that will warm the chilled heart and bring back to life everything that can send the blood rushing wildly through the body, fill the eyes with tears—everything that can delude you so well!

"And shall I tell you, Nastenka, how far I've gone? Would you believe that I have taken to celebrating the anniversaries of my sensations, the anniversary of something that was delightful at one time, of something that actually never occurred. I am reduced to celebrating anniversaries because I no longer have anything with which to replace even those

silly, flimsy dreams. For dreams, Nastenka, have to be renewed too. I like revisiting, at certain times, spots where I was once happy; I like to shape the present in the image of the irretrievable past. So I often roam like a sad, gloomy shadow, without need or aim, along Petersburg's streets and alleys. And what memories come to me! I may remember, for instance, that exactly one year ago, at this very hour, in this very street, I was walking along this very sidewalk, just as gloomy and lonely as now. And I may remember that although my dreams were sad and life was painful, somehow it was not as agonizing as it has become now; the black forebodings that have since taken hold of me weren't there yet; nor was there the gnawing, dreary feeling of guilt that now torments me day and night, never leaving me a moment's peace. And so I ask myself: 'Where are your dreams?' And I shake my head and mutter: 'How the years go by!' And I ask myself again: 'What have you done with those years? Where have you buried your best moments? Have you really lived? Look,' I say to myself, 'how cold it is becoming all over the world!' And more years will pass and behind them will creep grim isolation. Tottering senility will come hobbling, leaning on a crutch, and behind these will come unrelieved boredom and despair. The world of fancies will fade, dreams will wilt and die and fall like autumn leaves from the trees. . . . Ah, Nastenka, won't it be sad to be left alone, all, all alone, without even having anything to regret–nothing, but nothing; for everything I've lost is nothing but a stupid, round zero, nothing but a flimsy fancy?"

"Stop it, stop it. . . ." Nastenka brushed away a little tear. "It's all over now. Now there'll be the two of us. Now, whatever happens, we'll never part again. Listen, I'm only an ordinary girl. I've studied very little, although my grandmother did hire a teacher for me. But, believe me, I understand everything you've said because I felt the same way when Grandma pinned me to her dress. Of course, I can't express it as well as you because of my lack of education," she remarked shyly, apparently feeling that she ought to pay tribute to my pathetic monologue and high-flown style. "But I'm very glad that you've told me everything so frankly. Now I know you completely. And now I want to tell you my story, without holding anything back, then perhaps you'll give me your advice. You are so intelligent–I want you to promise to give me advice."

"Ah, Nastenka, I've never been much of an advisor, especially an intelligent advisor, but since we're going to be together, I feel that my advice will be terribly clever and that each of us will have many, many intelligent suggestions to offer the other. Well, then, pretty Nastenka, let's see what advice I can give you. Come, tell me everything–I'm so

happy, cheerful, daring, and clever that I'm sure I won't have to search for words."

"No!" Nastenka laughed. "It isn't clever advice I'm after, it's brotherly understanding from someone who, as it were, has loved me all my life."

"That suits me, Nastenka, suits me fine! As to loving, had I loved you for twenty years, I'm sure I couldn't possibly love you more than I do now."

"Give me your hand," Nastenka said.

I gave it to her.

"Here goes," she said.

"You already know half my story. You know I have an old grandmother–"

"If the other half is as short as the one I know . . ." I interjected, laughing.

"No, just keep quiet and listen. Don't interrupt me; it puts me off. Just listen.

"I have an old grandmother. I've lived with her ever since I was a very little girl, because my parents are dead. Grandma apparently was much better off before, for she keeps remembering better days. It was she who taught me French and later hired a teacher for me. I stopped taking lessons when I was fifteen–I'm seventeen now. When I was fifteen, I did something naughty. I won't go into what I did exactly, except to say that it wasn't much. Still, Grandma called me over to her that morning and said that since she was blind she couldn't very well watch me. Then she took a safety pin and pinned my dress to hers, saying that we were going to stay sitting like that forever, unless, of course, my behavior improved. Well, to make it short, at first it was impossible for me to move away from her; I had to work, study, read–everything–sitting by my grandmother's side. Once I tried to trick her by persuading our maid Fyokla to sit in for me. Grandma had fallen asleep in her armchair. Fyokla is deaf, you see, and she took my place while I ran out to the house of a girl, a friend of mine who lived nearby. But it ended badly. Grandma woke up and asked something, assuming that it was me. Fyokla saw Grandma was trying to say something but, of course, she couldn't hear what it was. So, not knowing what else to do, she unfastened the pin and ran away."

This memory made Nastenka laugh so much that she had to interrupt herself. I laughed too, but as soon as she realized I was laughing, she stopped short and said:

"Now look here, you mustn't laugh at Grandma! I laugh because I

can't help it–she really is so funny. But then, you see, I'm fond of her at the same time. Anyway, I was in real trouble. She pinned me to her again, and I wasn't even allowed to move.

"Ah, I forgot to tell you that my grandma owns the house we live in. It's just a tiny wooden house with three windows, and almost as old as she is. It also has an attic room, and a new lodger came to live in the attic–"

"Therefore, I assume that there was a lodger before him," I remarked.

"Of course there was–and he could keep quiet much better than you can," Nastenka said. "True, he had difficulty moving his tongue at all, for he was a very, very old man, quite mute, blind, and lame; in the end, living became too much for him and he just died. So a new lodger took his place, for we can't afford not to have a lodger. That and Grandma's pension make up our entire income. Now, the new lodger happened to be a young man. He came from out of town. When Grandma told him what the rent was, he didn't bargain, so she took him and then asked me:

" 'Tell me, Nastenka, the new lodger is a young man, isn't he?'

"I couldn't lie to her, so I said that although he wasn't old, he wasn't so young either.

" 'Is he good-looking?' she asked me then.

"Again I didn't want to lie.

" 'Yes, Grandma, he's quite good-looking.'

" 'Ah, that's really too bad!' Grandma said, 'because I'm asking you all these questions so you won't keep staring at him. Ah, what times we live in,' she added. 'Think of it–just an insignificant lodger and he turns out to be handsome, too. Ah, what're we all coming to? You never saw such things happening in the good old days.'

"According to Grandma, everything was just wonderful in the good old days–she was younger in those days, and the sun shone brighter and was warmer, and milk didn't go bad as it does now! And while she goes on and on like that, I sit in silence and think to myself: 'It looks as if Grandma were trying to give me ideas, asking whether the lodger is handsome or not.' And then I got absorbed in counting the stitches in my knitting, and the lodger completely vanished from my mind.

"Then one morning the lodger came to inquire when they were going to paper his room as he'd been promised. And, Grandma being a great hand at chatting, they got into a conversation in no time, then she says to me: 'Nastenka, run and bring me the abacus from my bedroom.' I don't know why, but that made me turn red. I forgot all about the safety pin and jumped up to scamper into the other room. The movement yanked

the pin and Grandma's armchair came rolling along on its casters. I don't know how I could have forgotten about that safety pin and neglected to unfasten it discreetly! And now, realizing that the lodger had found out about it, I stopped dead where I was and burst into tears. I felt so hopelessly ashamed and humiliated at that moment that I thought I'd never be able to face the world again.

" 'What are you waiting for?' Grandma kept shouting at me, but that only made me cry worse. And the lodger, seeing how embarrassed I was, muttered some excuse and rushed off.

"After that day, I felt like dying whenever I heard the slightest noise in the passage. The lodger's coming, I said to myself each time, and I'd quietly unfasten the pin. But it was never him.

"A couple of weeks passed, and the lodger sent us a note by Fyokla saying he had a lot of books, some French ones among them, and perhaps Grandmother would like him to send us some so that I might read to her to pass the time? Grandmother accepted gratefully after first inquiring whether they were decent, proper books. 'Because if they aren't,' she told me, 'I won't allow you to read them, for I don't want you to learn any wicked things from them, Nastenka.'

" 'But what sort of wicked things,' I asked her, 'could I learn from them, Grandma?'

" 'Well,' she said, 'they may describe young men seducing well-brought-up young girls, abducting them from their parents' homes under the pretext of wishing to marry them, then abandoning them to their fate and perdition. I have read many books like that,' Grandma told me, 'and they describe that sort of thing so well and so vividly that sometimes I used to read them on the sly throughout the night and into the morning. So mind, Nastenka,' she added, 'you stay away from books like that. Now what are the books he's sent us called?'

" 'They're all novels, Grandma, novels by Sir Walter Scott.'

" 'Walter Scott, you say? You'd better make sure there's no trick. See that he hasn't tried to slip some note in along with them, some love letter.'

" 'No, Grandma, there's no note . . . nothing.'

" 'Yes, but we'd better watch out!'

"So we started reading Walter Scott, and within a month or so, we were through almost half of it. Later he sent us some more books, including Pushkin; finally, I couldn't imagine how I could live without books, and I stopped dreaming about marrying that Chinese prince. . . .

"That was the situation when one day I bumped into our lodger on the

stairs as I was going on some errand for Grandma. He stepped back, and I saw he'd turned red. But he laughed, said hello, inquired after Grandmother's health, and asked me:

" 'Have you read the books?'

" 'I have.'

" 'And which did you like best?'

" *'Ivanhoe,'* I said, 'and, of course, Pushkin.'

"And that was all that happened that time.

"A week later we again met on the stairs. This time Grandma hadn't sent me. I was going somewhere on an errand of my own. It was around two in the afternoon, and that happened to be the time at which the lodger usually came home.

" 'Hello,' he said.

" 'Hello,' I answered.

" 'Tell me,' he said, 'don't you get bored sitting all day with your grandmother like that?'

"Now when he asked that, I don't know why, but I became very embarrassed, and flushed. I felt humiliated because apparently even strangers were beginning to inquire about what was going on. I decided not to answer, just to turn away and leave, but I didn't have the strength.

" 'Please,' he said, 'forgive me for speaking to you like that. I have great respect for you, and believe me, your well-being means more to me even than it does to your grandmother. Don't you know any girls whom you could visit?'

"I explained to him that I had only one friend, called Mashenka, and that she'd moved to Pskov with her family, and I had no one left.

" 'Tell me,' he asked then, 'what would you say if I asked you to come to the theater with me?'

" 'The theater? But what about my grandmother?'

" 'Couldn't you manage it without her finding out?'

" 'No,' I said, 'I don't want to deceive my grandmother. Good-by.'

" 'Good-by then.'

"And that was all he said.

"But, after dinner, he came down to our rooms, sat down, and had a long talk with Grandma. He asked her whether she ever went out and whether she had any friends, then suddenly slipped in, as if in passing:

" 'I have tickets, a loge in fact, for tonight's performance of *The Barber of Seville*. Some friends of mine got them, but couldn't make it tonight, so I have the tickets–'

" *'The Barber of Seville!'* Grandmother exclaimed. Why, it must be the same *Barber* they used to put on in the good old days!'

" 'Yes, ma'am,' the lodger said, 'the very same!'

"And as he said that he gave a look that made me go crimson and set my heart skipping in expectation.

" 'That's one opera that I really know,' Grandmother said. 'In fact, in my younger days, I myself sang Rosina in an amateur dramatic group.'

" 'Wouldn't you like to come with me tonight? I think it'd be a shame to waste the tickets.'

" 'Well, I don't see why we shouldn't go,' Grandma decided, 'especially as my Nastenka here has never been to the theater.'

"Ah, what a joy it was! We immediately started preparing, got dressed, and drove over to the Opera. Grandma, although she couldn't see a thing, still wanted to listen to the music. And, deep down, she was a kind old thing and very pleased that I should have such fun—we would never have gone anywhere without this opportunity.

"I won't describe my impressions of *The Barber of Seville*, but I'll tell you that all that evening the lodger kept looking at me so nicely and talking to me so eloquently that I realized that, by asking me earlier whether I'd come to the theater with him in secret, he'd only wanted to test me. Ah, it was such joy! So I went to bed incredibly proud and happy, and my heart beat so hard that I worked up a slight fever and raved about *The Barber of Seville* the rest of the night.

"I imagined, after that, that he'd come to see us often. But, on the contrary, he hardly ever came. He might come in once or twice a month, and only to invite us to the theater. In fact, we went twice more with him, I believe. But I was no longer happy on those occasions. I thought he was just sorry for me, leading that sad life with my grandmother, and that there was nothing else to it on his part. And, as time went by, strange moods started coming over me. I was unable to stay quiet, unable to take in what I was reading, unable to concentrate on my work; sometimes I burst out laughing just to irritate grandmother, and sometimes I suddenly dissolved into tears. I grew very thin and was almost seriously ill. The opera season was over, and the lodger stopped coming at all. And when he did meet me—always on the stairs, of course—he bowed so unsmilingly that I felt sure he didn't even wish to talk to me; and after he had already left the house, I would still be standing in the middle of the stairs, red as a cherry, for when I saw him, the blood never failed to rush to my head.

"Now, let me tell the end of my story. Just a year ago, in May, the

lodger came to tell my grandmother that his business in Petersburg was over and that he must now move to Moscow. When I heard that, I turned as pale as the tablecloth and went all limp in my chair. Grandma never noticed anything; the lodger just said good night and left.

"What was I to do? I racked my brains in despair, and finally, I decided. The day before he was to leave I decided to take a desperate step in the evening, after Grandma had gone to bed. And I did. I picked out some dresses and the necessary underwear, made a bundle out of them and, carrying it, went, half-alive, half-dead, upstairs to the lodger's room. Walking up that flight of stairs seemed to take a whole hour.

"When I opened his door, he turned his head and, seeing me, let out a cry. He must have taken me for a ghost, for I had turned white, and my legs were hardly able to carry me. He hurried to get me some water. My heart was beating so hard it hurt, and my head ached, and everything inside it went all blurry.

"When I came to, the first thing I did was put my bundle on his bed, sit down next to it myself, and let my tears pour in two rivers. I believe he understood everything right away. He stood there looking at me, and his expression was so wretched that my heart was torn by a terrible anguish.

" 'Nastenka,' he said at last, 'I want you to understand. I can do nothing. I'm poor; I haven't a thing to my name. I don't even have a decent job. So what would we live on if I married you?'

"We discussed it for a long time, in the end, I lost all control over myself and declared that I could no longer live with my grandmother, that I'd run away, that I'd had enough of being fastened to her with a safety pin, and that, whatever he might say, I was going to Moscow with him because I couldn't live without him. Shame, love, pride—everything—was seething within me at the same time, and fearing that he might refuse me, I collapsed on the bed almost in convulsions.

"He sat in complete silence for a few moments, then he got up and took my hand.

" 'Listen, my nice little Nastenka,' he said, and I saw that there were tears in his eyes, too. 'I swear to you that I'm certain I'd be happy with you if I were ever in a position to marry you. Listen: I have to go to Moscow, and I'll be staying there for exactly a year. I must go there to take care of my business. When I come back, if you still love me, I swear we'll be happy. But now I have no right to promise you anything. I'll say too, however, that if I can't make it in one year, I'll still come and find

you later–that is, if you don't prefer someone else by then, because I cannot, I have no right to bind you to me by promises.'

"The next day he was gone. We'd agreed not to say a word to Grandma. He'd insisted upon that. Well, that's about all there is to my story. The year has gone by, and he's come back. Indeed, he's been here for three days already, and–and–"

"And what?" I cried, unable to stand it any longer.

"He hasn't come to see me," Nastenka said, and I felt that she was making a great effort, "he hasn't given a sign of life–"

She cut herself short, remained silent for a few seconds, then covering her face with her hands, burst into sobs that tore at my heart.

I hadn't expected such an ending.

"Nastenka," I ventured imploringly, "please, please don't cry. Maybe he simply hasn't come yet. . . ."

"No, no, he's here, he's here!" Nastenka cried. "I know it! We agreed that evening before he left. . . . After we'd said all the things I've already told you, we came out to take a walk on this embankment. It was ten o'clock. We sat down on the bench; I'd stopped crying. I loved the things he was saying to me. . . . He told me that as soon as he was back in town, if I still wanted him, we'd tell everything to Grandma. And now he's back in town–I know it for sure–but he still hasn't come to see me. . . ."

And she burst into tears again.

"But, my God, is there really nothing I can do for you?" I leaped up from the bench in complete despair. "Tell me, Nastenka, couldn't I go and see him or something?"

"Do you think that's possible?" she said, suddenly raising her head.

"No, of course not," I said, coming back to my senses. "You know what you should do? Write him a letter."

"No, I can't; that's impossible too," she said firmly, but this time she lowered her eyes.

"Why is it impossible? Why?" I insisted. "Do you know what letter you ought to write, Nastenka? There are letters and letters, you know. So please trust my judgment; I won't give you bad advice. Everything will turn out fine, I'm sure. You took the initiative in the first place, so why not now?"

"Impossible, impossible, it would look as if I were throwing myself at him–"

"But no, you're wrong, dear little Nastenka!" I interrupted her without trying to hide my smile. "You have the right to demand. He promised, after all, didn't he? And, from what I understand, he's an honest, con-

siderate man, and I'm sure there's nothing dishonorable in his behavior." I continued, admiring the logic of my own reasoning and arguments more and more: "What did he do? He tied himself down by a promise. He declared that if he married anyone it would be you, while leaving you completely free to refuse him if your feelings changed. So it is quite natural that you make the first move. It's your right, your advantage over him, and you should do it even if, for instance, you decide to release him from his word."

"Tell me, how would you write to him?"

"What?"

"The letter, of course."

"Well, I'd start like this: 'Dear Sir–' "

"Must I really address him 'dear sir'?"

"Yes, it's indispensable. But after all, I think–"

"Well, go on!"

"I'd write like this:

" 'Dear Sir, Forgive me–' No, no apologies are necessary. The letter justifies itself. Write simply:

" 'I thought I would write to you first. Please forgive my impatience, but for a whole year I have lived on hope. Am I to blame, then, if I cannot stand even one day of doubt? Now that you are back in town, and may have had a change of heart, let me assure you by this letter that I have nothing to reproach you for, for I cannot command your love. So I will consider it simply as my fate.

" 'You are a decent and honorable man, and I am sure you will not laugh or be angry reading these impatient lines. You will keep in mind that they are written by a poor, lonely girl who has no one to advise her and who never could control her own heart. But forgive me for entertaining even a fleeting suspicion that you could hurt, even in thought, the girl who has loved you so much and who still loves you.' "

"Yes, yes, that's exactly what I had in mind!"

Nastenka was very enthusiastic and her eyes sparkled with joy.

"Ah, you have resolved my doubts! I think God Himself sent you to me! Thank you, thank you, thank you!"

"Thank me for what? For being sent by God?"

It was a delight to look at her pretty face, so happy now.

"Yes, thank you for being sent to me to begin with."

"Ah, Nastenka, since we feel grateful sometimes to people just for living with us, let me thank you for having met you, for making it possible for me to remember you as long as I live."

"Well, that will do for now. Listen, we agreed that when he came back, he'd let me know by leaving a letter for me with some friends of mine, nice, simple people who know nothing about this. Or, if he couldn't leave the letter, he'd come here to this bench, at ten in the evening, on the very day he returned to Petersburg. Now I know he's in town, but he hasn't kept our date or written the letter. I cannot possibly leave my grandmother in the morning, so couldn't you, please, take my letter to those friends I mentioned? They'll see that he gets it. And if there's an answer, bring it to me here tomorrow evening at ten."

"But what about the letter? You have to write it first; at best, you might get a reply the day after tomorrow."

"The letter . . ." Nastenka said, somewhat at a loss, "the letter . . . but . . ."

She didn't finish. She suddenly turned her face away from me, growing red as a red rose, and I felt her slipping a letter into my hand that, it turned out, had already been written and sealed. Something light, graceful, and familiar flashed through my mind.

"R-r-o-si-i-na . . ." I intoned.

"Rosina!" we sang together, and I was so moved and delighted that I felt terribly like putting my arms around her. She was blushing deeply and laughing, and tiny glistening tears hung on her black eyelashes.

"Enough, enough. Good-by now, good night!" she rattled. "You have the letter and the address. Good night, see you tomorrow!"

She pressed both my hands hard, nodded, and darted off. I remained standing there for a long time, following her with my eyes.

"See you tomorrow . . . tomorrow . . ." flashed in my head as she disappeared around a corner.

THE THIRD NIGHT

It had been a sad, drizzly day, without relief–just like my future senility. I am oppressed by strange thoughts and dark sensations; throngs of vague questions obsess me, but I have neither the strength nor the desire to cope with them. No, I cannot cope with it all!

We won't meet tonight. Last night, as we parted, clouds overcast the sky and a mist was rising. "Tomorrow will be a miserable day," I said. She didn't answer. She didn't want to shed doubt on a day that shone before her bright and sunny. She didn't want to cast a single cloud over it.

"If it rains tomorrow," she said, "I won't come."

I didn't think she'd notice that it was raining, but she must have, for she didn't come.

Last night was our third meeting, our third white night. . . .

Yes, joy and happiness do make a person beautiful. His heart overflows with love, and he seems to try to pour that love into the heart of a fellow creature. He wants everything to laugh and to sparkle. And his joy is so contagious! There was so much tenderness, so much friendliness, for me in her heart last night. She was so full of solicitude for me and tried so hard to make me feel happy. Ah, a happy woman is always so full of seductive charm, but I . . . I took it at its face value; I imagined that . . .

But how could I imagine anything of the sort. How could I be so blind, since I knew that all that had already been taken by someone else, that none of it could be for me; that even her niceness, her solicitude, her love–yes, her love for me–was nothing but happiness caused by a forthcoming meeting with another man, a wish on her part to impart a bit of that happiness to me. And when he didn't turn up, when we'd waited in vain, she frowned, lost her composure, looked afraid. Her movements and her words were no longer light or playful or gay. And, strangely, she doubled the attentions she showered on me, as if she wanted instinctively to give me something she was longing for herself, something she feared she wouldn't get. Nastenka had become so timid and fearful that I believe she grasped finally that I was in love with her and took pity on my poor love, for our own unhappiness makes us more sensitive to the unhappiness of others. When someone is unhappy, his sensitivity is not scattered; it becomes tense and concentrated.

I had come to meet her tense with emotion, hardly able to wait for the moment of meeting. I never expected to feel what I felt, nor that it would end the way it did. She was beaming. She expected an answer from him. The answer was to be himself; he would come running in answer to her call. She'd come a whole hour before me. At first, every word made her burst into happy laughter.

"Do you know why I'm so happy tonight?" she said. "Why I'm so pleased to see you? Why I like you so much?"

"Yes?" I said, beginning to shiver.

"I like you so much because you haven't fallen in love with me. Someone else in your position might have started pestering me, become full of self-pity, moaned–but not you, you're so nice!"

She suddenly pressed my hand so hard that I started and almost cried out. She laughed.

"Ah, you're such a wonderful friend," she said a moment later, seriously this time. "Yes, God sent you to me, really, I mean it. I can't imagine what would have become of me without you. You're so selfless, you've been so nice to me! When I'm married, we'll see a lot of each other, we'll be closer than brother and sister. I'll love you almost as much as I love him. . . ."

Somehow I felt awfully sad, yet something resembling laughter stirred somewhere deep down inside me.

"You're overwrought," I said. "You're afraid he won't come."

"Whatever are you talking about? If I weren't so happy, your remarks and your lack of trust in me would make me cry. But it makes me think, after all . . . But I'll think later; in the meantime, I admit you're right. Yes, I'm not myself now, I'm all expectation, I feel a little too light. . . . But let's leave this conversation about feelings–"

At that second we heard steps and we saw a figure moving through the darkness. It was coming toward us. We both began to tremble. She just managed to suppress a cry. I let go of her hand and moved away discreetly. But it wasn't him.

"What are you afraid of? Why did you let go my hand?" She thrust her hand back into mine. "Well, what do you say, shall we meet him together? I want him to see how much we love each other."

"How much we love each other?" I repeated.

"Ah, Nastenka," I thought, "those words mean so many things! That sort of love sometimes freezes a heart and makes life seem unbearable. Your hand is cold–mine is burning. You're blind. There certainly are times when happy people are unbearable–but I could never be angry with you!"

But finally I couldn't stand it.

"Listen, Nastenka," I said tensely, "to how I got through this day."

"What? Tell me! Why haven't you said anything about it till now?"

"First I went to carry out all your errands. I went to see your friends, left your letter there, then . . . then I went back home and turned in."

"And that's all?" she laughed.

"Almost all . . ."

I made a great effort to control the idiotic tears that otherwise would have spurted from my eyes.

"Then I woke up. About an hour before I was to meet you. But I felt

I hadn't slept at all. I didn't know what was happening to me. It was as if time had stopped and one sensation, one feeling would remain in me from then on; as if one minute was going to stretch out into eternity; as if life would stop and stand still for me. I was going to tell you all this as soon as we met. When I woke up, I was under the impression that some sweet melody, heard somewhere long ago and since forgotten, had come back to me now, that for all these years, I'd been searching for it, longing for it, but only now–"

"My God, what's this all about?" Nastenka interrupted me. "I don't understand a thing you're saying."

"I was trying, Nastenka, to make you understand the strange feeling–" I started in a pitiful voice in which there was still a note of hope, even if a very faint one.

"Stop it! That's enough, stop it," she repeated quickly.

It hadn't taken her long to guess, the sly girl! She suddenly became very talkative, gay, and full of jokes. Laughing, she took my arm, trying to make me laugh, too. Every awkward, embarrassed word of mine set off such long peals of silvery laughter that I was on the point of losing my temper. Then she became flirtatious.

"You see," she began, "I'm a bit offended with you for not falling in love with me. People don't always make sense, remember! But still, Mr. Unmovable, you can't avoid complimenting me for being so straightforward. Why, I tell you everything, however inane, that crosses my mind."

"Wait, I believe that's eleven striking," I said. The even booming had started in a distant clock tower. She stopped laughing and counted.

"Yes, eleven," she said in a weak, hesitant voice.

I was sorry that I had alarmed her and had made her count the strokes. I cursed myself for my spitefulness. I felt miserable for her, and didn't know how to make up for my nastiness. I tried to cheer her up, to find good reasons for his failure to turn up, to argue, prove, plead. She was, of course, very easy to convince on that subject, only too delighted to clutch at any excuse for him that I could think up.

"It's really funny," I was saying heatedly, admiring the persuasive power of my own arguments, "your assurance that he'd be here led me to accept it as a fact and even lose my sense of time. Actually, he couldn't possibly have made it. Just think, he's hardly had time to receive the letter. Now suppose he couldn't come tonight and wrote a note to that effect. It couldn't get to your friends' before tomorrow, could it? I'll go and see first thing tomorrow morning and let you know right away. Now

there are hundreds of other possibilities; for instance, he may not have been at home when the letter arrived, and maybe he hasn't read it to this very moment. . . . Anything could've happened."

"Yes, of course," Nastenka said, "that hadn't even occurred to me. Of course–anything could have happened."

Her tone was extremely co-operative, but I detected a jarring, discordant note in it, an echo of thoughts of a different kind.

"Here's what we'll do," she said. "You'll go there tomorrow as early as you can, and if there's something, you'll let me know immediately. You know where I live, of course." And she repeated her address.

Then she became breathtakingly tender and at the same time shy. . . . I thought she was attentively following what I was saying, but when I asked her some question, she said nothing, became embarrassed, and turned her head away from me. I looked into her eyes. That was it–she was crying.

"You mustn't, you mustn't! Ah, you're behaving like a child. You're just a baby!"

She tried to smile to control herself, but her chin was trembling and her bosom heaving.

"I've been thinking of you," she said after a moment's silence. "You've been so kind that I'd have to be made of stone not to be touched. And, you know, I compared the two of you and decided that you are the better of the two, although I love him more."

I didn't answer. She seemed to expect me to say something.

"Of course, I may still not understand him or know him perfectly," she said. "Come to think of it, I've always been afraid of him. He's always been so grave, so proud in a way. Of course, I know that it's only the way he looks, that there's more tenderness in his heart than in my own. . . . I remember how he looked at me when–remember?–I came to his room with that bundle. Still, I look up to him with respect, which may mean we aren't equals, don't you think?"

"No, Nastenka, no, it simply means that you love him more than anything in the world, and much more than yourself."

"All right, let's assume you're right," naïve Nastenka replied. "But shall I tell you what has just occurred to me? All right. Only I won't talk about myself now but speak in general, for this thought has recurred to me several times. Tell me, why aren't we all like brothers? Why does even the best person hold back something from another? Why not say directly what we feel if we know that what we entrust won't be scattered to the winds?

As it is, everyone looks much tougher than he really is, as if he felt it'd be an insult to his feelings if he expressed them too readily–"

"Ah, that's it exactly, Nastenka," I interrupted her, doing more violence than ever to my own feelings, "and it's due to many causes–"

"No, no!" she said heatedly. "Take you, for instance–you're not like the rest. I don't quite know how to explain it . . . but I feel . . . yes, even now, you are sacrificing something for my sake." She shyly cast a sidelong glance at me. "Forgive me for speaking to you like this, but I'm a simple girl who hasn't seen much in this world yet, and there are times when I can't talk." Her voice trembled with some hidden emotion and, at the same time, she tried to smile. "All I wanted to tell you was that I'm grateful, that I too–I feel all that–Ah, may God reward you with happiness! But what you told me before about that dreamer of yours, that's untrue. I mean, it has absolutely nothing to do with you. You're recovering now; you're really a completely different person from the one you tried to pass yourself off as. If you ever fall in love, may you be happy with her! And I don't have to wish her anything, for I know shell be happy with you. I know it, for I'm a woman myself, and you must believe me. . . ."

She fell silent and squeezed my hand. I couldn't utter a word. Several minutes went by.

"We'll, it doesn't look as though he's coming tonight," she said at last, lifting her head. "It's getting quite late."

"He'll be here tomorrow," I said in a firm, convincing voice.

"Yes," she said, growing suddenly cheerful, "I can see now that he'll come tomorrow. So good night, see you tomorrow. If it rains, I may not come. But the night after that I'll be here, without fail, whatever happens. You must be here too; I want to see you and tell you everything."

When we were saying good-by, she gave me her hand, looked at me brightly, and said:

"Well always be together now, won't we?"

Oh, Nastenka, Nastenka! if you had any idea how lonely I feel!

When it struck nine I couldn't stand it in my room. I dressed and went out. I walked over to our spot and sat on our bench. Then I walked along her street, but I felt ashamed and, before I'd quite reached her house, turned back without even glancing at the windows. I returned home in a state of dejection such as I'd never known before. What gloomy, damp, depressing weather! If only it had been fine I'd have walked around her neighborhood all night.

But she'll tell me everything tomorrow.

Of course, there wasn't any letter today, but then, that's quite natural. They're together already.

THE FOURTH NIGHT

My God, what a way for it all to finish! Ah, what an ending!

I got there by nine. She was already there, waiting. I caught sight of her when I was still at a distance. She was standing as she was the first time, leaning on the guardrail of the embankment, and didn't hear me approach.

"Nastenka!" I called out to her, managing to overcome my anguish.

"Come here," she said. "Hurry!"

I looked at her without understanding.

"Well, let me have the letter! You have it, haven't you?" She clenched the railing with her hand.

"No, I have no letter," I said finally, "but haven't you seen him yet?"

She went terribly pale and stared at me. I had shattered her last hope.

"Well, good luck to him," she said in a gasping tone. "Good luck to him, if that's the way he feels about me."

She lowered her eyes, then tried to look up at me, but couldn't. For several moments more, she tried to get hold of herself, but she couldn't. She turned her head away, leaned on the rail, and dissolved into tears.

"Stop, stop . . ." was all I said. Looking at her, I hadn't the strength to say more—and anyway, what else was there to say?

"Don't try to make me feel better," she said, crying. "Don't mention him, don't tell me he'll come, don't persuade me he hasn't thrown me over so cruelly, so callously as he has. What did I do wrong? Could it be something I wrote in that ill-fated letter?"

At this point, sobs overwhelmed her. I couldn't bear to see her this way.

"Ah, how cruel and callous!" she said again. "And he never even bothered to write me a single line! If only he had answered that he didn't need me, that he rejected me. But no, he hasn't written a word during these three days! How easy it is for him to hurt and humiliate a poor girl whose only sin is to love him! Ah, how much I've been through in these three days! Ah, my God! My God! When I think that it was I who came to him in the first place, that I humbled myself before him, cried, begged him for a crumb of his love. . . . And after all that! . . . Listen," she said, turning her flashing dark eyes to me, "it can't be—it's not natural—one of us, you or I, has made a mistake! Maybe he never got my letter! Maybe he

doesn't know a thing to this minute! How is it possible–please explain to me, for God's sake–for him to be so unspeakably rude to me? Not a single word! People show more pity than that for the lowest of creatures! Maybe he's heard something; maybe someone has told him some slander about me? What do you think?"

She shouted the last question at me.

"I'll go, Nastenka, and see him on your behalf tomorrow."

"Yes?"

"I'll tell him everything and ask him to explain."

"Yes? Yes?"

"Write him a letter. Don't say no. Wait! I'll force him to respect what you did. He'll be told everything, and if–"

"No, my dear, no, that's enough! No more about it; not one line, not one word, enough's enough! I don't know him. I don't love him any more. I'll forget him . . ."

She couldn't complete her sentence.

"Calm yourself, calm yourself, Nastenka! Here, sit down," I said, indicating the bench.

"But I *am* calm! Stop fussing! It's true. My tears will dry. You don't really think that I'd go and drown myself or something, do you?"

My heart was overflowing. 1 tried to speak but words wouldn't come.

"Tell me!" she said, catching hold of my hand, "you wouldn't have acted that way, would you? You wouldn't have hurled a shameful sneer at a girl who'd come to you herself; you wouldn't have made fun of her weak, tender heart. You'd have spared her. You'd have realized that she was lonely, unable to take care of herself, unable to prevent herself from falling in love with you, that she hadn't done anything wrong . . . that she hadn't done anything . . . Ah, my God, my God!"

"Nastenka!" I cried, completely overcome, "you're torturing me, Nastenka! You're tearing at my heart, you're killing me! I can't remain silent! I must tell you, at last, all that has accumulated inside me."

I got up from the bench as I said that. She took my hand, looking at me surprised.

"What's come over you?" she said.

"Nastenka, everything I'm going to tell you now is absurd, impossible, idiotic! I know that it can never happen, but I can't remain silent. So, in the name of your present suffering, I beg you to forgive me in advance!"

"Well, what is it?" She stopped crying and looked at me closely. There was a strange curiosity in her eyes.

"I know it cannot be, but I love you, Nastenka. That's what it is. Now

you know everything." I shrugged hopelessly. "Now see if you can still talk to me the way you did before, if you can listen to what I'm going to say–"

"But what of it?" Nastenka interrupted me. "I've known all along that you loved me, but I thought that you just loved me simply–you know . . . Oh, good gracious!"

"It was simply at first, Nastenka, but now–now–I'm exactly in the position you were in, Nastenka, when you came to him with that bundle of yours. In fact, my plight is even more hopeless than yours was then, for he wasn't in love with anyone, but you are."

"What are you saying? You puzzle me altogether. But listen, why do you . . . I mean, how is that . . . Ah, God, I don't know what I'm saying. But you . . ."

She became completely confused. Her cheeks were on fire; she lowered her eyes.

"Well, what am I to do, Nastenka, what? I'm to blame for having abused . . . but no, no, it's not my fault, really–I know it, I feel it–for my heart tells me I'm right. There's no way I can harm you or offend you! I was your friend before, and I'm your friend now. I haven't betrayed a thing. And now, Nastenka, the tears are running down my cheeks; let 'em run, they aren't hurting anyone. They'll dry, Nastenka. . . ."

"Oh come, sit down, sit down," she said, pulling me down on the bench. "Ah, dear God!"

"No, Nastenka, I won't sit down; I can't stay here. You shouldn't see me any more. I'll tell you all I have in my heart, then leave. I want only to tell you that you'd never have found out I love you. I'd have kept my secret. I wouldn't have inflicted my selfishness upon you at such a moment. No! But I couldn't keep it to myself. It was you who brought it up; it's your fault, it's all your fault. You can't send me away."

"But no, of course not. I don't intend to send you away," Nastenka rattled off quickly, trying, the poor dear, to conceal her embarrassment.

"So you won't send me away? But I was going to run away from you anyway. I'll leave too, but first I must tell you everything because I could hardly bear it when you were talking and crying and so full of despair, because . . . well, because–let me say it, Nastenka–because you have been rejected, because your love has been spurned. I–I felt so much love for you, Nastenka, so much love . . . and I felt terribly bitter because I couldn't do anything for you, despite all that love . . . I felt I was being torn to pieces. I couldn't keep silent, I had to talk. I had to, Nastenka."

"Yes, yes, tell me, talk to me!" Nastenka said with an inexpressible ges-

ture. "It must seem strange to you that I should say that, but go on, speak! I'll explain later; I'll explain everything!"

"You're sorry for me, Nastenka, you're simply sorry for me. Well, the way I look at it–what is lost is lost, what has been done cannot be undone. Isn't that so? Now you know everything, and that's the point of departure. All right then, that's fine, but listen to this: while you were sitting here crying, I thought–oh, please let me tell you what I thought–I thought–of course I'm well aware it cannot be, Nastenka–I thought that somehow or other, without it having anything to do with me . . . you didn't love him any more. . . . In that case, Nastenka–I thought of that yesterday and the day before–I would've behaved in such a way that you'd have come to love me. . . . For you said yourself that you'd almost fallen in love with me, Nastenka, you said so yourself! And what then? Nothing much. That's just about all I had to say! All I have left to describe is what it would have been like had you fallen in love with me. But there's not much I can say about that. So listen, my friend Nastenka, for you're still my friend–I am, of course, a simple man, poor and unimportant, but that's not what matters (I keep straying from the subject out of shyness, Nastenka); only–I'd have loved you so much that even if you'd still gone on loving that man, you'd still never have felt my love as an imposition upon you. You'd only have heard a grateful, warm heart beating by your side and felt its proximity every second. . . . Ah, Nastenka, Nastenka, what have you done to me?"

"Stop, I don't want you to cry!" She got up quickly from the bench. "Come, get up, come with me, and stop crying! Stop it!" She dried my eyes with her handkerchief. "Come, perhaps I'll tell you something. After all, he's abandoned me, forgotten me, even though I still love him, for I don't want to lie to you. . . . But tell me truly: if, for instance, I did come to love you–that is, if I only–oh, my dear, dear friend, when I think how I hurt you, when I laughed at your love, pretending to congratulate you for not falling in love with me–Ah, God, how could I have failed to foresee . . . How stupid I was! But now I've made up my mind–I'll tell you everything."

"You know what, Nastenka, I'll go away! I simply torment you when I'm near you. Now, because of me, you're feeling guilty about making fun of me. But I don't want to add to your sorrow. I am the guilty one, Nastenka, but forgive me and farewell!"

"Wait, listen to me! Can't you wait?"

"Wait? Wait for what?"

"I do love him but I'll get over it. I'm bound to. In fact, I'm already get-

ting over it. I feel it. . . . One can never tell, I might even overcome it today. Because I hate him–he was making fun of me while you and I were crying here together. Because you haven't pushed me away as he has; because you love me, and he never loved me; because, finally I myself–I love you. . . . Yes–I love you–I love you the way you love me. Remember, I told you that before; you heard me! Because you're a better man than he is; you're more honorable; because he . . ."

Nastenka was so moved that she couldn't finish. She let her head rest on my shoulder; from there it slipped onto my chest as she shed bitter tears. I tried to cheer her up, but she couldn't stop crying. She just kept pressing my hand and repeating between sobs:

"Wait, wait, I'll get over it in a moment. . . . Don't think these tears mean that . . . I just feel weak. . . ."

Finally she stopped crying and wiped away her tears. We resumed our walk. I would have spoken, but she wanted me to wait a bit longer. So we walked in silence. At last she mustered up her courage and spoke.

"You know," she began in a weak, quivering voice that nevertheless had something in it that immediately clutched at my heart, making it throb with a sweet pain, "you mustn't think I'm so fickle and irresponsible, that I'm so quick to forget and to betray. I've loved him for a whole year, and I swear to God that I've never, not once, been unfaithful to him. Not even in thought. But he's scorned that; he's made light of my feelings. Well, good luck to him! But he has also wounded me and slighted my love. No, I don't love him, for I can only love one who is generous, understanding, and kind, because I myself am like that–so he's unworthy of me. All right, I wish him all the best! It's better like this than finding out later that I had deluded myself, than discovering too late what sort of man he is. . . . Anyway, it's over! But come to think of it, my dear, maybe all my love for him was nothing but a delusion; maybe it began as a childish adventure; maybe it was caused by the wish to escape from under my grandmother's thumb; maybe I was destined to love a man other than him, a man who could feel for me, understand me, and . . . But let's leave that!" Nastenka was short of breath in her excitement. "All I want to say is that if, although I love–no, rather *loved*–him–although, you might say . . . If you think your love is great enough to displace my former love . . . If you will take pity on me and not leave me to face my destiny all alone without offering me consolation, support, and hope–if you're willing to love me always as you love me now, then I swear to you that my gratitude–I mean my love–will, in the end, be worthy of your love. . . . Here, will you take my hand now?"

"Nastenka!" I cried, choked with sobs, "Nastenka! Oh, Nastenka!"

"Enough, enough for now, that's definitely enough," she said, getting hold of herself. "Everything has been said now, hasn't it? Right? And you're happy and so am I. Not another word about it. Wait. Spare me. For heaven's sake talk of something else!"

"Right, Nastenka, enough! I'm happy now, I . . . So, Nastenka, let's talk of something else. Quickly. Yes, I'm ready. . . ."

We didn't know what to say. We laughed. We cried. We exchanged thousands of disconnected, meaningless words. We walked along a street, then suddenly turned and retraced our steps. Without any apparent reason, we crossed the street to the opposite sidewalk; we went to the embankment. . . . We were like a couple of children.

"I live all by myself now, Nastenka. But tomorrow . . . Of course, you know, I'm poor. I've only twelve hundred rubles, but it doesn't matter, for–"

"Of course not. And then my grandmother has a pension. So she won't be a liability. She must, of course, come and live with us."

"Certainly, of course she must live with us. The only snag is that Matryona–"

"Ah! And we have our Fyokla!"

"Matryona's kind. The only thing wrong with her is that she has absolutely no imagination. But it doesn't matter!"

"Never mind, they can live together. Anyway you're coming over to live with us tomorrow."

"What did you say? Come to your place? That's fine by me!"

"Yes, you must rent our top-floor room. It's empty now. There was an old woman living there, but she's left, and I know Grandma wants to let it to a young man. I asked her, 'Why a young man?' and she said: 'I'm getting old, see, but don't you get it into your head, Nastenka, that I'm trying to marry you off.' So I guessed that that was the reason."

"Ah, Nastenka!"

We both laughed.

"All right, that's enough now," she said. "And, by the way, where do you live? I've forgotten."

"Over there, by that bridge, in the Barashnikov House."

"The large house?"

"Yes, it's quite large."

"I know it. It's a nice house, but forget it anyway and come and live with us. Quickly."

"I'll come tomorrow, Nastenka, no later than tomorrow. I'm somewhat

late with my rent, but that'll be all right. I'll be getting my pay soon."

"You know what? Perhaps I'll give private lessons. First I'll learn something myself, then I'll teach it."

"It's all turned out wonderfully . . . and soon I'm due for a bonus, Nastenka."

"Then, starting tomorrow, you'll be my lodger."

"Yes, and well go to see *The Barber of Seville,* for they'll be putting it on again soon."

"Yes, yes, let's," Nastenka said, laughing, "and if not *The Barber,* well go and see something else."

"All right, something else then. That would be better, of course. I should have thought of it myself. . . ."

Talking that way, we walked as if in a drunken haze, like walking through clouds, with no idea of what was going on around us. We stopped, chatted without moving from the spot, then set off walking again. God knows where, as we laughed, cried, and laughed again. . . . Nastenka decided to return home, and I didn't dare detain her; I accompanied her to her very door, but a quarter of an hour later, we found ourselves back at our favorite bench. She sighed and a tear glistened in her eye again; I became frightened, turned cold . . . But she immediately pressed my hand and pulled me along behind her, and we again walked and chatted and talked. . . .

"It's time for me to go back home now," Nastenka declared finally. "Enough of this childish stuff!"

"All right, Nastenka, but I–I won't be able to go to sleep tonight, so I don't think I'll go home."

"I don't expect to sleep either. Nevertheless, I want you to see me to my door."

"Most certainly."

"But this time it must be for good."

"Yes, yes, of course."

"Do I have your promise? For I must get home in the end."

"I promise," I said, laughing.

"Then let's go."

"Let's go, Nastenka," I said. "And look at the sky: it will be a wonderful day tomorrow. What a blue sky! What a moon! Look at that yellow cloud about to veil the moon. Look at it! look at it–no, it has just missed the moon. Look at it–look!"

But Nastenka wasn't looking at the cloud. She stood still as a tree. Then, after a while, she pressed herself against me in a strange way. Her hand

was trembling in mine. I looked at her. She pressed herself even closer to me.

At that moment, a young man was passing nearby. Suddenly he stopped and gave us a close, scrutinizing look. Then he walked a few more steps. My heart throbbed.

"Nastenka," I said very softly, "who is it, Nastenka?"

"It's him!" she whispered, pressing herself even more closely to me. I could hardly keep my feet.

"Nastenka, Nastenka, is that you?" I heard a voice behind us, and the young man came toward us.

My God, that cry! The shiver that passed through her! She tore herself from my arm and rushed toward him. I stood staring at them. I was dead. But she hardly had time to seize his hand and fling herself into his arms before she turned her head and looked at me. Then, with the speed of lightning, she was by me, her arms were around my neck, and before I knew what had happened, I felt her passionate kiss. Still without uttering a word, she again rushed toward him, caught his hand, and hurried away with him.

For a long time I kept following them with my eyes . . . Finally they vanished from sight.

THE MORNING

My nights were over. It was the morning after. The weather was bad. It was raining. The rain beat a gloomy tattoo on my window. It was dark inside my room and bleak outside the windows. My head ached. Objects swam before my eyes. Fever was sneaking along my limbs.

"There's a letter for you." Matryona's voice hovered somewhere over me. "It has just come."

I jumped up.

"What letter? From whom?"

"How do I know who it's from? Look; maybe it says inside who wrote it."

I opened it. It was from her. It said:

> Please, please forgive me! I beg you on my knees. Forgive me! I deceived both you and myself. It was a dream, a mirage. I feel terrible about you now. Forgive me, forgive me!
>
> Don't be too hard on me, for what I feel for you hasn't changed. I told you I loved you–well, I do love you, and it's even more than love. Oh, God, if only it were possible to love both of you at the same time! Ah, if only you could be him!

"Oh, if only he could be you." The thought flashed through my head. I remembered your very words, Nastenka. The letter continued:

> God only knows what I wouldn't do for you! I know that you feel sad and depressed. I have hurt you. But, as you know, we won't resent for long a wound inflicted by those we love, and you do love me!
>
> Thank you! Yes, thank you for that love! It lingers now in my memory like a sweet dream that remains long after awakening. I will always remember the moment when you opened your heart to me so fraternally and when you so nobly accepted the gift of my heart–wounded as it was–to love and cherish it, and heal its wounds. . . . If you forgive me, my memory of you will be ennobled by gratitude that will never fade. I shall cherish that memory, be faithful to it always, never betray it, never betray my heart–it is too constant for that. Only yesterday it went back to the one to whom it belongs forever.
>
> We'll meet again. You'll come to see us. You won't abandon us. You'll always be my friend and my brother. And when we meet, you'll give me your hand, won't you? You'll give it to me because you love me as much as ever.
>
> Please love me, and don't abandon me, because I love you so much at this moment, because I'm worthy of your love, because I'll earn it. . . . oh, my dear, dear friend!
>
> I'm marrying him next week. He came back to me full of love. He hadn't forgotten me. . . . You won't be angry with me for writing this about him, will you? I want to come and see you with him. You'll like him, won't you?
>
> So forgive, remember, and go on loving
>
> your Nastenka

I read and reread that letter. I was on the verge of tears. At last it fell from my hands, and I covered my face.

"Here, look at that!" Matryona said.

"What is it, old woman?"

"Why, I've swept all them cobwebs from the ceiling so now you can marry any time and, while you're at it, invite a houseful of guests."

I looked at Matryona. She was still vigorous. She was a very young *old woman,* but I suddenly visualized her all wrinkled and shrunk, an invalid. And I don't know why, but my whole room suddenly aged the way an old woman ages. The walls and the ceilings peeled, everything faded, cobwebs multiplied. . . . And when I looked out of the window, I don't know why, but the house opposite turned dimmer too, the plaster on its columns fell off, the cornices became all grimy and full of cracks, and the walls, which used to be dark yellow, turned grayish.

A ray of sun that for a second had broken through a rain cloud disappeared behind it again, and everything darkened once more. Or was it just my sad and barren future that flashed before me? Did I see myself exactly the way I am now, fifteen years later, having aged in this very room, just as lonely, still living with Matryona, who hasn't grown any more intelligent in all these years.

I remember the hurt inflicted upon me, Nastenka! But I never sent a dark cloud to sail over your clear, serene sky. I never reproached you, never made you sad or gave you a secret guilty feeling. I never trampled any of the tender flowers that you entwined in your black curls when you walked to the altar with him. Oh, never, never! So may the sky lie cloudless over you, and your smile be bright and carefree; be blessed for the moment of bliss and happiness you gave to another heart, a lonely and a grateful one.

My God, a moment of bliss. Why, isn't that enough for a whole lifetime?

Translated by Andrew R. MacAndrew.

John Galsworthy

1867–1933

John Galsworthy was born at Coombe, Surrey, on August 14, 1867. He attended Harrow and New College, Oxford. He was enrolled as a barrister but turned to literature. In 1892–93, he was a passenger aboard the ship *Torrens,* whose ports included London and Adelaide in Australia. Joseph Conrad was her chief mate. They became close friends. Years later, Conrad's second son was born in Galsworthy's house in London.

His first two novels were not much noticed, but *The Man of Property,* published in 1906, established his reputation. It was the first novel in a series to be called *The Forsyte Saga,* his major work. This embraced *The Indian Summer of a Forsyte* in 1918, *In Chancery, Awakening,* and the final *To Let* in 1921. *The Forsyte Saga* made Galsworthy the chief historian of manners for the British upper middle class during Victoria's last years and the reign of Edward VII.

Almost from the beginning, he had another string to his bow. He wrote for the stage. His plays became a staple of the English theater in his lifetime. Beginning with *The Silver Box* in 1906, he touched on social problems in such dramas as *Strife* in 1909 and *Justice* in the following year. These were followed by *The Pigeon, The Eldest Son, The Fugitive, The Skin Game,* and in 1922 his best-known later work for the theater, *Loyalties.*

But he did not neglect the novel. In 1924 *The White Monkey,* a famous best seller of that year, became the first work in a new trilogy, *A Modern Comedy*. It was rounded out with *The Silver Spoon* in 1926 and *Swan Song* in 1928. His later works included *On Forsyte 'Change, Maid in Waiting,* and *Flowering Wilderness.* In 1925 his short stories were collected in *Caravan.* He was awarded

the Order of Merit in 1929 and the Nobel Prize for literature in 1932. He died on January 31, 1933.

The Apple-Tree is a story of first love, an idyl of the English countryside at that moment in spring when all the orchard trees turn white under the moon. It is the story of a young man hesitating between two girls. Is there an older and simpler story? We can imagine it happening under the first Pharaoh.

Yet *The Apple-Tree* is more than a simple tale of love. It is also the story of a man in a moral dilemma. Frank Ashurst, the central character, and a member of the English upper class, must choose between Stella—a young girl whose background is very similar to his own and with whom he feels very much at ease, and Megan—a simple, passionate country girl with whom, for the moment, he is deeply in love. He has been stirred to the very depths of his soul—as the phrase goes—by his love for Megan, and he knows that she, too, feels an intense passion for him. The choice would appear to be an easy one: Megan. But Ashurst fears—rather, he knows—that his love for Megan cannot last. Eventually he must return to the city, and her charm would be lost there.

Thus he is faced with one of those terrible dilemmas that we have all encountered and will encounter again: he must choose between two evils. If he returns to Megan, he will be encouraging a love which can endure only for a moment; if he does not return to her, he will be abandoning her at the moment when her hopes are highest.

Is Ashurst's dilemma a genuine one? Is he really concerned about Megan, or is he a snob who has suddenly realized that he has come close to marrying a girl beneath his class? If he is a snob, is he consciously so, or is he an unwitting victim of the class system? Each reader of *The Apple-Tree* will probably answer these questions in a different way.

Was an enduring love between Ashurst and Megan really impossible? Freud thought so, but he did not find fault with either of the lovers. He placed the blame on civilization itself. In commenting on the story, he said, "It shows in a very moving and forcible way how there is no longer any place in present-day civilized life for a simple natural love between two human beings."[1]

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1 See *Civilization and Its Discontents* in *Great Books of the Western World.*

Was Freud right? If he was, why does civilization make such love impossible? Perhaps because it endangers civilization. Such love overturns all barriers, it breaks down all walls, it upsets all arrangements. Civilization cannot exist without barriers, walls, and arrangements. And civilization is a valuable thing–more valuable than love.

The Apple-Tree

The Apple-tree, the singing, and the gold.
Murray's *Hippolytus of Euripides.*

On their silver-wedding day Ashurst and his wife were motoring along the outskirts of the moor, intending to crown the festival by stopping the night at Torquay, where they had first met. This was the idea of Stella Ashurst, whose character contained a streak of sentiment. If she had long lost the blue-eyed, flowerlike charm, the cool slim purity of face and form, the apple-blossom colouring, which had so swiftly and so oddly affected Ashurst twenty-six years ago, she was still at forty-three a comely and faithful companion, whose cheeks were faintly mottled, and whose grey-blue eyes had acquired a certain fullness.

It was she who had stopped the car where the common rose steeply to the left, and a narrow strip of larch and beech, with here and there a pine, stretched out towards the valley between the road and the first long high hill of the full moor. She was looking for a place where they might lunch, for Ashurst never looked for anything; and this, between the golden furze and the feathery green larches smelling of lemons in the last sun of April—this, with a view into the deep valley and up to the long moor heights, seemed fitting to the decisive nature of one who sketched in water-colours, and loved romantic spots. Grasping her paintbox, she got out.

"Won't this do, Frank?"

Ashurst, rather like a bearded Schiller, grey in the wings, tall, long-legged, with large remote grey eyes, which sometimes filled with meaning and became almost beautiful, with nose a little to one side, and bearded lips just open—Ashurst, forty-eight, and silent, grasped the luncheon basket, and got out too.

"Oh! Look, Frank! A grave!"

By the side of the road, where the track from the top of the common

crossed it at right angles and ran through a gate past the narrow wood, was a thin mound of turf, six feet by one, with a moorstone to the west, and on it some one had thrown a black-thorn spray and a handful of blue bells. Ashurst looked, and the poet in him moved. At cross-roads—a suicide's grave! Poor mortals with their superstitions! Whoever lay there, though, had the best of it, no clammy sepulchre among other hideous graves carved with futilities—just a rough stone, the wide sky, and wayside blessings! And, without comment, for he had learned not to be a philosopher in the bosom of his family, he strode away up on to the common, dropped the luncheon basket under a wall, spread a rug for his wife to sit on—she would turn up from her sketching when she was hungry—and took from his pocket Murray's translation of the "Hippolytus." He had soon finished reading of "The Cyprian" and her revenge, and looked at the sky instead. And watching the white clouds so bright against the intense blue, Ashurst, on his silver-wedding day, longed for—he knew not what. Maladjusted to life—man's organism! One's mode of life might be high and scrupulous, but there was always an undercurrent of greediness, a hankering, and sense of waste. Did women have it too? Who could tell? And yet, men who gave vent to their appetites for novelty, their riotous longings for new adventures, new risks, new pleasures, these suffered, no doubt, from the reverse side of starvation, from surfeit. No getting out of it—a maladjusted animal, civilized man! There could be no garden of his choosing, of "the Apple-tree, the singing, and the gold," in the words of that lovely Greek chorus, no achievable elysium in life, or lasting haven of happiness for any man with a sense of beauty—nothing which could compare with the captured loveliness in a work of art, set down forever, so that to look on it or read was always to have the same precious sense of exaltation and restful inebriety. Life no doubt had moments with that quality of beauty, of unbidden flying rapture, but the trouble was, they lasted no longer than the span of a cloud's flight over the sun; impossible to keep them with you, as Art caught beauty and held it fast. They were fleeting as one of the glimmering or golden visions one had of the soul in nature, glimpses of its remote and brooding spirit. Here, with the sun hot on his face, a cuckoo calling from a thorn-tree, and in the air the honey savour of gorse—here among the little fronds of the young fern, the starry black-thorn, while the bright clouds drifted by high above the hills and dreamy valleys—here and now was such a glimpse. But in a moment it would pass—as the face of Pan, which looks round the corner of a rock, vanishes at your stare. And suddenly he sat up. Surely there was something familiar about this view, this bit of common, that ribbon

of road, the old wall behind him. While they were driving he had not been taking notice—never did; thinking of far things or of nothing—but now he saw! Twenty-six years ago, just at this time of year, from the farmhouse within half a mile of this very spot he had started for that day in Torquay whence it might be said he had never returned. And a sudden ache beset his heart; he had stumbled on just one of those past moments in his life whose beauty and rapture he had failed to arrest, whose wings had fluttered away into the unknown; he had stumbled on a buried memory, a wild sweet time, swiftly choked and ended. And, turning on his face, he rested his chin on his hands, and stared at the short grass where the little blue milkwort was growing. . . .

And this is what he remembered.

On the first of May, after their last year together at college, Frank Ashurst and his friend Robert Garton were on a tramp. They had walked that day from Brent, intending to make Chagford, but Ashurst's football knee had given out, and according to their map they had still some seven miles to go. They were sitting on a bank beside the road, where a track crossed alongside a wood, resting the knee and talking of the universe, as young men will. Both were over six feet, and thin as rails; Ashurst pale, idealistic, full of absence; Garton queer, round-the-corner, knotted, curly, like some primeval beast. Both had a literary bent; neither wore a hat. Ashurst's hair was smooth, pale, wavy, and had a way of rising on either side of his brow, as if always being flung back; Garton's was a kind of dark unfathomed mop. They had not met a soul for miles.

"My dear fellow," Garton was saying, "pity's only an effect of self-consciousness; it's a disease of the last five thousand years. The world was happier without."

Ashurst, following the clouds with his eyes, answered: "It's the pearl in the oyster, anyway."

"My dear chap, all our modern unhappiness comes from pity. Look at animals, and Red Indians, limited to feeling their own occasional misfortunes; then look at ourselves—never free from feeling the toothaches of others. Let's get back to feeling for nobody, and have a better time."

"You'll never practise that."

Garton pensively stirred the hotchpotch of his hair.

"To attain full growth, one mustn't be squeamish. To starve oneself emotionally's a mistake. All emotion is to the good—enriches life."

"Yes, and when it runs up against chivalry?"

"Ah! That's so English! If you speak of emotion the English always

think you want something physical, and are shocked. They're afraid of passion, but not of lust—oh, no!—so long as they can keep it secret."

Ashurst did not answer; he had plucked a blue floweret, and was twiddling it against the sky. A cuckoo began calling from a thorn-tree. The sky, the flowers, the songs of birds! Robert was talking through his hat! And he said:

"Well, let's go on, and find some farm where we can put up." In uttering those words, he was conscious of a girl coming down from the common just above them. She was outlined against the sky, carrying a basket, and you could see that sky through the crook of her arm. And Ashurst, who saw beauty without wondering how it could advantage him, thought: "How pretty!" The wind, blowing her dark frieze skirt against her legs, lifted her battered peacock Tam o' Shanter; her greyish blouse was worn and old, her shoes were split, her little hands rough and red, her neck browned. Her dark hair waved untidy across her broad forehead, her face was short, her upper lip short, showing a glint of teeth, her brows were straight and dark, her lashes long and dark, her nose straight; but her grey eyes were the wonder—dewy as if opened for the first time that day. She looked at Ashurst—perhaps he struck her as strange, limping along without a hat, with his large eyes on her, and his hair flung back. He could not take off what was not on his head, but put up his hand in a salute, and said: "Can you tell us if there's a farm near here where we could stay the night? I've gone lame."

"There's only our farm near, Sir." She spoke without shyness, in a pretty, soft, crisp voice.

"And where is that?"

"Down here, Sir."

"Would you put us up?"

"Oh! I think we would."

"Will you show us the way?"

"Yes, Sir."

He limped on, silent, and Garton took up the catechism.

"Are you a Devonshire girl?"

"No, Sir."

"What then?"

"From Wales."

"Ah! I *thought* you were a Celt; so it's not your farm?"

"My aunt's, Sir."

"And your uncle's?"

"He is dead."

"Who farms it, then?"

"My aunt, and my three cousins."

"But your uncle was a Devonshire man?"

"Yes, Sir."

"Have you lived here long?"

"Seven years."

"And how d'you like it after Wales?"

"I don't know, Sir."

"I suppose you don't remember?"

"Oh, yes! But it is different."

"I believe you!"

Ashurst broke in suddenly: "How old are you?"

"Seventeen, Sir."

"And what's your name?"

"Megan David."

"This is Robert Garton, and I am Frank Ashurst. We wanted to get on to Chagford."

"It is a pity your leg is hurting you."

Ashurst smiled, and when he smiled his face was rather beautiful.

Descending past the narrow wood, they came on the farm suddenly—a long, low, stone-built dwelling with casement windows, in a farmyard where pigs and fowls and an old mare were straying. A short steep-up grass hill behind was crowned with a few Scotch firs, and in front, an old orchard of apple-trees, just breaking into flower, stretched down to a stream and a long wild meadow. A little boy with oblique dark eyes was shepherding a pig, and by the house door stood a woman, who came towards them. The girl said: "It is Mrs. Narracombe, my aunt."

"Mrs. Narracombe, my aunt," had a quick, dark eye like a mother wild duck's, and something of the same snaky turn about her neck.

"We met your niece on the road," said Ashurst; "she thought you might perhaps put us up for the night."

Mrs. Narracombe, taking them in from head to heel, answered: "Well, I can, if you don't mind one room. Megan, get the spare room ready, and a bowl of cream. You'll be wanting tea, I suppose."

Passing through a sort of porch made by two yew-trees and some flowering-currant bushes, the girl disappeared into the house, her peacock Tam o' Shanter bright athwart that rosy-pink and the dark green of the yews.

"Will you come into the parlour and rest your leg? You'll be from college, perhaps?"

"We were, but we've gone down now."

Mrs. Narracombe nodded sagely.

The parlour, brick-floored, with bare table and shiny chairs and sofa stuffed with horsehair, seemed never to have been used, it was so terribly clean. Ashurst sat down at once on the sofa, holding his lame knee between his hands, and Mrs. Narracombe gazed at him. He was the only son of a late professor of chemistry, but people found a certain lordliness in one who was often so sublimely unconscious of them.

"Is there a stream where we could bathe?"

"There's the strame at the bottom of the orchard, but sittin' down you'll not be covered!"

"How deep?"

"Well, 'tis about a foot and a half, maybe."

"Oh! That'll do fine. Which way?"

"Down the lane, through the second gate on the right, an' the pool's by the big apple-tree that stands by itself. There's trout there, if you can tickle them."

"They're more likely to tickle us!"

Mrs. Narracombe smiled. "There'll be the tea ready when you come back."

The pool, formed by the damming of a rock, had a sandy bottom; and the big apple-tree, lowest in the orchard, grew so close that its boughs almost overhung the water; it was in leaf, and all but in flower—its crimson buds just bursting. There was not room for more than one at a time in that narrow bath, and Ashurst waited his turn, rubbing his knee and gazing at the wild meadow, all rocks and thorn-trees and field-flowers, with a grove of beeches beyond, raised up on a flat mound. Every bough was swinging in the wind, every spring bird calling, and a slanting sunlight dappled the grass. He thought of Theocritus, and the river Cherwell, of the moon, and the maiden with the dewy eyes; of so many things that he seemed to think of nothing; and he felt absurdly happy.

During a late and sumptuous tea with eggs to it, cream and jam, and thin, fresh cakes touched with saffron, Garton descanted on the Celts. It was about the period of the Celtic awakening, and the discovery that there was Celtic blood about this family had excited one who believed that he was a Celt himself. Sprawling on a horsehair chair, with a handmade cigarette dribbling from the corner of his curly lips, he had been plunging his cold pin-points of eyes into Ashurst's and praising the refinement of the Welsh. To come out of Wales into England was like the change from china to earthenware! Frank, as a d––d Englishman, had

not of course perceived the exquisite refinement and emotional capacity of that Welsh girl! And, delicately stirring in the dark mat of his still wet hair, he explained how exactly she illustrated the writings of the Welsh bard Morgan-ap-Something in the twelfth century.

Ashurst, full length on the horsehair sofa, and jutting far beyond its end, smoked a deeply coloured pipe, and did not listen, thinking of the girl's face when she brought in a relay of cakes. It had been exactly like looking at a flower, or some other pretty sight in Nature—till, with a funny little shiver, she had lowered her glance and gone out, quiet as a mouse.

"Let's go to the kitchen," said Garton, "and see some more of her."

The kitchen was a whitewashed room with rafters, to which were attached smoked hams; there were flower-pots on the window-sill, and guns hanging on nails, queer mugs, china and pewter, and portraits of Queen Victoria. A long, narrow table of plain wood was set with bowls and spoons, under a string of high-hung onions; two sheep-dogs and three cats lay here and there. On one side of the recessed fire-place sat two small boys, idle, and good as gold; on the other sat a stout, light-eyed, red-faced youth with hair and lashes the colour of the tow he was running through the barrel of a gun; between them Mrs. Narracombe dreamily stirred some savoury-scented stew in a large pot. Two other youths, oblique-eyed, dark-haired, rather sly-faced, like the two little boys, were talking together and lolling against the wall; and a short, elderly, clean-shaven man in corduroys, seated in the window, was conning a battered journal. The girl Megan seemed the only active creature—drawing cider and passing with the jugs from cask to table. Seeing them thus about to eat, Garton said:

"Ah! If you'll let us, we'll come back when supper's over," and without waiting for an answer they withdrew again to the parlour. But the colour in the kitchen, the warmth, the scents, and all those faces heightened the bleakness of their shiny room, and they resumed their seats moodily.

"Regular gypsy type, those boys. There was only one Saxon—the fellow cleaning the gun. That girl is a very subtle study psychologically."

Ashurst's lips twitched. Garton seemed to him an ass just then. Subtle study! She was a wild flower. A creature it did you good to look at. Study!

Garton went on: "Emotionally she would be wonderful. She wants awakening."

"Are you going to awaken her?"

Garton looked at him and smiled. "How coarse and English you are!" that curly smile seemed saying.

And Ashurst puffed his pipe. Awaken her! This fool had the best opinion of himself! He threw up the window and leaned out. Dusk had gathered thick. The farm buildings and the wheel-house were all dim and bluish, the apple-trees but a blurred wilderness; the air smelled of wood smoke from the kitchen fire. One bird going to bed later than the others was uttering a half-hearted twitter, as though surprised at the darkness. From the stable came the snuffle and stamp of a feeding horse. And away over there was the loom of the moor, and away and away the shy stars which had not as yet full light, pricking white through the deep blue heavens. A quavering owl hooted. Ashurst drew a deep breath. What a night to wander out in! A padding of unshod hoofs came up the lane, and three dim, dark shapes passed—ponies on an evening march. Their heads, black and fuzzy, showed above the gate. At the tap of his pipe, and a shower of little sparks, they shied round and scampered. A bat went fluttering past, uttering its almost inaudible "chip, chip." Ashurst held out his hand; on the upturned palm he could feel the dew. Suddenly from overhead he heard little burring boys' voices, little thumps of boots thrown down, and another voice, crisp and soft—the girl's putting them to bed, no doubt; and nine clear words: "No, Rick, you can't have the cat in bed"; then came a skirmish of giggles and gurgles, a soft slap, a laugh so low and pretty that it made him shiver a little. A blowing sound, and the glim of the candle which was fingering the dusk above went out; silence reigned. Ashurst withdrew into the room and sat down; his knee pained him, and his soul felt gloomy.

"You go to the kitchen," he said; "I'm going to bed."

For Ashurst the wheel of slumber was wont to turn noiseless and slick and swift, but though he seemed sunk in sleep when his companion came up, he was really wide awake; and long after Garton, smothered in the other bed of that low-roofed room, was worshiping darkness with his upturned nose, he heard the owls. Barring the discomfort of his knee, it was not unpleasant—the cares of life did not loom large in night watches for this young man. In fact he had none; just enrolled a barrister, with literary aspirations, the world before him, no father or mother, and four hundred a year of his own. Did it matter where he went, what he did, or when he did it? His bed, too, was hard, and this preserved him from fever. He lay, sniffing the scent of the night which drifted into the low room through the open casement close to his head. Except for a definite irritation with his friend, natural when you have tramped with a man for three days, Ashurst's memories and visions that sleepless night were

kindly and wistful and exciting. One vision, specially clear and unreasonable, for he had not even been conscious of noting it, was the face of the youth cleaning the gun; its intent, stolid, yet startled uplook at the kitchen doorway quickly shifted to the girl carrying the cider jug. This red, blue-eyed, light-lashed, tow-haired face stuck as firmly in his memory as the girl's own face, so dewy and simple. But at last, in the square of darkness through the uncurtained casement, he saw day coming, and heard one hoarse and sleepy caw. Then followed silence, dead as ever, till the song of a blackbird, not properly awake, adventured into the hush. And, from staring at the framed brightening light, Ashurst fell asleep.

Next day his knee was badly swollen; the walking tour was obviously over. Garton, due back in London on the morrow, departed at midday with an ironical smile which left a scar of irritation–healed the moment his loping figure vanished round the corner of the steep lane. All day Ashurst rested his knee, in a green-painted wooden chair on the patch of grass by the yew-tree porch, where the sunlight distilled the scent of stocks and gillyflowers, and a ghost of scent from the flowering-currant bushes. Beatifically he smoked, dreamed, watched.

A farm in spring is all birth–young things coming out of bud and shell, and human beings watching over the process with faint excitement feeding and tending what has been born. So still the young man sat that a mother goose, with stately cross-footed waddle, brought her six yellow-necked grey-backed goslings to strop their little beaks against the grass blades at his feet. Now and again Mrs. Narracombe or the girl Megan would come and ask if he wanted anything, and he would smile and say: "Nothing, thanks. It's splendid here." Towards tea-time they came out together, bearing a long poultice of some dark stuff in a bowl, and after a long and solemn scrutiny of his swollen knee, bound it on. When they were gone, he thought of the girl's soft "Oh!"–of her pitying eyes, and the little wrinkle in her brow. And again he felt that unreasoning irritation against his departed friend, who had talked such rot about her. When she brought out his tea, he said: "How did you like my friend, Megan?"

She forced down her upper lip, as if afraid that to smile was not polite. "He was a funny gentleman; he made us laugh. I think he is very clever."

"What did he say to make you laugh?"

"He said I was a daughter of the bards. What are they?"

"Welsh poets, who lived hundreds of years ago."

"Why am I their daughter, please?"

"He meant that you were the sort of girl they sang about."

She wrinkled her brows. "I think he likes to joke. Am I?"

"Would you believe me, if I told you?"

"Oh, yes."

"Well, I think he was right."

She smiled.

And Ashurst thought: "You *are* a pretty thing!"

"He said, too, that Joe was a Saxon type. What would that be?"

"Which is Joe? With the blue eyes and red face?"

"Yes. My uncle's nephew."

"Not your cousin, then?"

"No."

"Well, he meant that Joe was like the men who came over to England about fourteen hundred years ago, and conquered it."

"Oh! I know about them; but is he?"

"Garton's crazy about that sort of thing; but I must say Joe does look a bit Early Saxon."

"Yes."

That "yes" tickled Ashurst. It was so crisp and graceful, so conclusive, and politely acquiescent in what was evidently Greek to her.

"He said that all the other boys were regular gypsies. He should not have said that. My aunt laughed, but she didn't like it, of course, and my cousins were angry. Uncle was a farmer–farmers are not gypsies. It is wrong to hurt people."

Ashurst wanted to take her hand and give it a squeeze, but he only answered: "Quite right, Megan. By the way, I heard you putting the little ones to bed last night."

She flushed a little. "Please to drink your tea–it is getting cold. Shall I get you some fresh?"

"Do you ever have time to do anything for yourself?"

"Oh, yes."

"I've been watching, but I haven't seen it yet."

She wrinkled her brows in a puzzled frown, and her colour deepened.

When she was gone, Ashurst thought: "Did she think I was chaffing her? I wouldn't for the world!" He was at that age when to some men "Beauty's a flower," as the poet says, and inspires in them the thoughts of chivalry. Never very conscious of his surroundings, it was some time before he was aware that the youth whom Garton had called "a Saxon type" was standing outside the stable door; and a fine bit of colour he made in his soiled brown velvet cords, muddy gaiters, and blue shirt; red-armed, red-faced, the sun turning his hair from tow to flax; immovably stolid,

persistent, unsmiling he stood. Then, seeing Ashurst looking at him, he crossed the yard at that gait of the young countryman always ashamed not to be slow and heavy-dwelling on each leg, and disappeared round the end of the house towards the kitchen entrance. A chill came over Ashurst's mood. Clods! With all the good will in the world, how impossible to get on terms with them! And yet–see that girl! Her shoes were split, her hands rough; but–what was it? Was it really her Celtic blood, as Garton had said?–she was a lady born, a jewel, though probably she could do no more than just read and write!

The elderly, clean-shaven man he had seen last night in the kitchen had come into the yard with a dog, driving the cows to their milking. Ashurst saw that he was lame.

"You've got some good ones there!"

The lame man's face brightened. He had the upward look in his eyes which prolonged suffering often brings.

"Yeas; they'm praaper buties; gude milkers tu."

"I bet they are."

" 'Ope as yure leg's better, zurr."

"Thank you, it's getting on."

The lame man touched his own: "I know what 'tes, meself; 'tes a main worritin' thing, the knee. I've a 'ad mine bad this ten year."

Ashurst made the sound of sympathy which comes so readily from those who have an independent income, and the lame man smiled again.

"Mustn't complain, though–they mighty near 'ad it off."

"Ho!"

"Yeas; an' compared with what 'twas, 'tis almost so gude as nu."

"They've put a bandage of splendid stuff on mine."

"The maid she picks et. She'm a gude maid wi' the flowers. There's folks zeem to know the healin' in things. My mother was a rare one for that. 'Ope as yu'll zune be better, zurr. Goo ahn, therr!"

Ashurst smiled. "Wi' the flowers!" A flower herself.

That evening, after his supper of cold duck, junket, and cider, the girl came in.

"Please, Auntie says–will you try a piece of our May-day cake?"

"If I may come to the kitchen for it."

"Oh, yes! You'll be missing your friend."

"Not I. But are you sure no one minds?"

"Who would mind? We shall be very pleased."

Ashurst rose too suddenly for his stiff knee, staggered and subsided. The girl gave a little gasp, and held out her hands. Ashurst took them,

small, rough, brown; checked his impulse to put them to his lips, and let her pull him up. She came close beside him, offering her shoulder. And leaning on her he walked across the room. That shoulder seemed quite the pleasantest thing he had ever touched. But he had presence of mind enough to catch his stick out of the rack, and withdraw his hand before arriving at the kitchen.

That night he slept like a top, and woke with his knee of almost normal size. He again spent the morning in his chair on the grass patch, scribbling down verses; but in the afternoon he wandered about with the two little boys Nick and Rick. It was Saturday, so they were early home from school; quick, shy, dark little rascals of seven and six, soon talkative, for Ashurst had a way with children. By four o'clock they had shown him all their methods of destroying life, except the tickling of trout; and with breeches tucked up, lay on their stomachs over the trout stream, pretending they had this accomplishment also. They tickled nothing, of course, for their giggling and shouting scared every spotted thing away. Ashurst, on a rock at the edge of the beech clump, watched them, and listened to the cuckoos, till Nick, the elder and less persevering, came up and stood beside him.

"The gypsy bogle zets on that stone," he said.

"What gypsy bogle?"

"Dunno; never zeen 'e. Megan zays 'e zets there; an' old Jim zeed 'e once. 'E was zettin' there naight afore our pony kicked-in father's 'ead. 'E plays the viddle."

"What tune does he play?"

"Dunno."

"What's he like?"

" 'E's black. Old Jim zays 'e's all over 'air. 'E's a praaper bogle. 'E don' come only at naight." The little boy's oblique dark eyes slid round. "D'yu think 'e might want to take me away? Megan's feared of 'e."

"Has she seen him?"

"No. She's not afeared o' yu."

"I should think not. Why should she be?"

"She zays a prayer for yu."

"How do you know that, you little rascal?"

"When I was asleep, she said: 'God bless us all, an' Mr. Ashes.' I 'eard 'er whisperin'."

"You're a little ruffian to tell what you hear when you're not meant to hear it!"

The little boy was silent. Then he said aggressively: "I can skin rabbets. Megan, she can't bear skinnin' 'em. I like blood."

"Oh! you do; you little monster!"

"What's that?"

"A creature that likes hurting others."

The little boy scowled. "They'm only dead rabbets, what us eats."

"Quite right, Nick. I beg your pardon."

"I can skin frogs, tu."

But Ashurst had become absent. "God bless us all, and Mr. Ashes!" And puzzled by that sudden inaccessibility, Nick ran back to the stream where the giggling and shouts again uprose at once.

When Megan brought his tea, he said: "What's the gypsy bogle, Megan?"

She looked up, startled.

"He brings bad things."

"Surely you don't believe in ghosts?"

"I hope I will never see him."

"Of course you won't. There aren't such things. What old Jim saw was a pony."

"No! There are bogles in the rocks; they are the men who lived long ago."

"They aren't gypsies, anyway; those old men were dead long before gypsies came."

She said simply: "They are all bad."

"Why? If there are any, they're only wild, like the rabbits. The flowers aren't bad for being wild; the thorn-trees were never planted–and you don't mind them. I shall go down at night and look for your bogle, and have a talk with him."

"Oh, no! Oh, no!"

"Oh, yes! I shall go and sit on his rock."

She clasped her hands together: "Oh, please!"

"Why! What does it matter if anything happens to me?"

She did not answer; and in a sort of pet he added: "Well, I daresay I shan't see him, because I suppose I must be off soon."

"Soon?"

"Your aunt won't want to keep me here."

"Oh, yes! We always let lodgings in summer."

Fixing his eyes on her face, he asked: "Would you like me to stay?"

"Yes."

"I'm going to say a prayer for *you* to-night!"

She flushed crimson, frowned, and went out of the room. He sat cursing himself, till his tea was stewed. It was as if he had hacked with his thick boots at a clump of blue-bells. Why had he said such a silly thing? Was he just a towny college ass like Robert Garton, as far from understanding this girl?

Ashurst spent the next week confirming the restoration of his leg, by exploration of the country within easy reach. Spring was a revelation to him this year. In a kind of intoxication he would watch the pink-white buds of some backward beech-tree sprayed up in the sunlight against the deep blue sky, or the trunks and limbs of the few Scotch firs, tawny in violent light, or again on the moor, the gale-bent larches which had such a look of life when the wind streamed in their young green, above the rusty black under-boughs. Or he would lie on the banks, gazing at the clusters of dog-violets, or up in the dead bracken, fingering the pink, transparent buds of the dew-berry, while the cuckoos called and yaffles laughed, or a lark, from very high, dripped its beads of song. It was certainly different from any spring he had ever known, for spring was within him, not without. In the daytime he hardly saw the family; and when Megan brought in his meals she always seemed too busy in the house or among the young things in the yard to stay talking long. But in the evenings he installed himself in the window seat in the kitchen, smoking and chatting with the lame man Jim, or Mrs. Narracombe, while the girl sewed, or moved about, clearing the supper things away. And sometimes with the sensation a cat must feel when it purrs, he would become conscious that Megan's eyes—those dew-grey eyes—were fixed on him with a sort of lingering soft look which was strangely flattering.

It was on Sunday week in the evening, when he was lying in the orchard listening to a blackbird and composing a love poem, that he heard the gate swing to, and saw the girl come running among the trees, with the red-cheeked, stolid Joe in swift pursuit. About twenty yards away the chase ended, and the two stood fronting each other, not noticing the stranger in the grass—the boy pressing on, the girl fending him off. Ashurst could see her face, angry, disturbed; and the youth's—who would have thought that red-faced yokel could look so distraught! And painfully affected by that sight, he jumped up. They saw him then. Megan dropped her hands, and shrank behind a tree-trunk; the boy gave an angry grunt, rushed at the bank, scrambled over and vanished. Ashurst went slowly up to her. She was standing quite still, biting her lip—very

pretty, with her fine, dark hair blown loose about her face, and her eyes cast down.

"I beg your pardon," he said.

She gave him one upward look, from eyes much dilated; then, catching her breath, turned away. Ashurst followed.

"Megan!"

But she went on; and taking hold of her arm, he turned her gently round to him.

"Stop and speak to me."

"Why do you beg my pardon? It is not to me you should do that."

"Well, then, to Joe."

"How dare he come after me?"

"In love with you, I suppose."

She stamped her foot.

Ashurst uttered a short laugh. "Would you like me to punch his head?"

She cried with sudden passion: "You laugh at me—you laugh at us!"

He caught hold of her hands, but she shrank back, till her passionate little face and loose dark hair were caught among the pink clusters of the apple-blossom. Ashurst raised one of her imprisoned hands and put his lips to it. He felt how chivalrous he was, and superior to that clod Joe—just brushing that small, rough hand with his mouth! Her shrinking ceased suddenly; she seemed to tremble towards him. A sweet warmth overtook Ashurst from top to toe. This slim maiden, so simple and fine and pretty, was pleased, then, at the touch of his lips. And, yielding to a swift impulse, he put his arms round her, pressed her to him, and kissed her forehead. Then he was frightened—she went so pale, closing her eyes, so that the long, dark lashes lay on her pale cheeks; her hands, too, lay inert at her sides. The touch of her breast sent a shiver through him. "Megan!" he sighed out, and let her go. In the utter silence a blackbird shouted. Then the girl seized his hand, put it to her cheek, her heart, her lips, kissed it passionately, and fled away among the mossy trunks of the apple-trees, till they hid her from him.

Ashurst sat down on a twisted old tree growing almost along the ground, and, all throbbing and bewildered, gazed vacantly at the blossom which had crowned her hair—those pink buds with one white open apple star. What had he done? How had he let himself be thus stampeded by beauty—or—just the spring! He felt curiously happy, all the same; happy and triumphant, with shivers running through his limbs, and a vague alarm. This was the beginning of—what? The midges bit him, the dancing gnats tried to fly into his mouth, and all the spring around him seemed to

grow more lovely and alive; the songs of the cuckoos and the blackbirds, the laughter of the yaffles, the level-slanting sunlight, the apple-blossom which had crowned her head–! He got up from the old trunk and strode out of the orchard, wanting space, an open sky, to get on terms with these new sensations. He made for the moor, and from an ash-tree in the hedge a magpie flew out to herald him.

Of man–at any age from five years on–who can say he has never been in love? Ashurst had loved his partners at his dancing class; loved his nursery governess; girls in school-holidays; perhaps never been quite out of love, cherishing always some more or less remote admiration. But this was different, not remote at all. Quite a new sensation; terribly delightful, bringing a sense of completed manhood. To be holding in his fingers such a wild flower, to be able to put it to his lips, and feel it tremble with delight against them! What intoxication, and–embarrassment! What to do with it–how meet her next time? His first caress had been cool, pitiful; but the next could not be, now that, by her burning little kiss on his hand, by her pressure of it to her heart, he knew that she loved him. Some natures are coarsened by love bestowed on them; others, like Ashurst's, are swayed and drawn, warmed and softened, almost exalted, by what they feel to be a sort of miracle.

And up there among the tors he was racked between the passionate desire to revel in this new sensation of spring fulfilled within him, and a vague but very real uneasiness. At one moment he gave himself up completely to his pride at having captured this pretty, trustful, dewy-eyed thing! At the next he thought with factitious solemnity: "Yes, my boy! But look out what you're doing! You know what comes of it!"

Dusk dropped down without his noticing–dusk on the carved, Assyrian-looking masses of the rocks. And the voice of Nature said: "This is a new world for you!" As when a man gets up at four o'clock and goes out into a summer morning, and beasts, birds, trees stare at him and he feels as if all had been made new.

He stayed up there for hours, till it grew cold, then groped his way down the stones and heather roots to the road, back into the lane, and came again past the wild meadow to the orchard. There he struck a match and looked at his watch. Nearly twelve! It was black and unstirring in there now, very different from the lingering, bird-befriended brightness of six hours ago! And suddenly he saw this idyll of his with the eyes of the outer world–had mental vision of Mrs. Narracombe's snakelike neck turned, her quick dark glance taking it all in, her shrewd face hardening; saw the gypsylike cousins coarsely mocking and distrustful; Joe

stolid and furious; only the lame man, Jim, with the suffering eyes, seemed tolerable to his mind. And the village pub!—the gossiping matrons he passed on his walks; and then—his own friends—Robert Garton's smile when he went off that morning ten days ago; so ironical and knowing! Disgusting! For a minute he literally hated this earthly, cynical world to which one belonged, willy-nilly. The gate where he was leaning grew grey, a sort of shimmer passed before him and spread into the bluish darkness. The moon! He could just see it over the bank behind; red, nearly round—a strange moon! And turning away, he went up the lane which smelled of the night and cow-dung and young leaves. In the straw yard he could see the dark shapes of cattle, broken by the pale sickles of their horns, like so many thin moons, fallen ends-up. He unlatched the farm gate stealthily. All was dark in the house. Muffling his footsteps, he gained the porch, and, blotted against one of the yew-trees, looked up at Megan's window. It was open. Was she sleeping, or lying awake perhaps disturbed—unhappy at his absence? An owl hooted while he stood there peering up, and the sound seemed to fill the whole night, so quiet was all else, save for the never-ending murmur of the stream running below the orchard. The cuckoos by day, and now the owls—how wonderful they voiced this troubled ecstasy within him! And suddenly he saw her at her window, looking out. He moved a little from the yew-tree, and whispered: "Megan!" She drew back, vanished, reappeared, leaning far down. He stole forward on the grass patch, hit his shin against the green-painted chair, and held his breath at the sound. The pale blur of her stretched-down arm and face did not stir; he moved the chair, and noiselessly mounted it. By stretching up his arm he could just reach. Her hand held the huge key of the front door, and he clasped that burning hand with the cold key in it. He could just see her face, the glint of teeth between her lips, her tumbled hair. She was still dressed—poor child, sitting up for him, no doubt! "Pretty Megan!" Her hot, roughened fingers clung to his; her face had a strange, lost look. To have been able to reach it—even with his hand! The owl hooted, a scent of sweet-brier crept into his nostrils. Then one of the farm dogs barked; her grasp relaxed, she shrank back.

"Good night, Megan!"

"Good night, Sir!" She was gone! With a sigh he dropped back to earth, and, sitting on that chair, took off his boots. Nothing for it but to creep in and go to bed; yet for a long while he sat unmoving, his feet chilly in the dew, drunk on the memory of her lost, half-smiling face, and the clinging grip of her burning fingers, pressing the cold key into his hand.

He awoke feeling as if he had eaten heavily overnight, instead of having eaten nothing. And far off, unreal, seemed yesterday's romance! Yet it was a golden morning. Full spring had burst at last–in one night the "goldie-cups," as the little boys called them, seemed to have made the field their own, and from his window he could see apple-blossoms covering the orchard as with a rose and white quilt. He went down almost dreading to see Megan; and yet when not she but Mrs. Narracombe brought in his breakfast he felt vexed and disappointed. The woman's quick eye and snaky neck seemed to have a new alacrity this morning. Had she noticed?

"So you an' the moon went walkin' last night, Mr. Ashurst! Did ye have your supper anywheres?"

Ashurst shook his head.

"We kept it for you, but I suppose you was too busy in your brain to think o' such a thing as that?"

Was she mocking him, in that voice of hers, which still kept some Welsh crispness against the invading burr of the West Country? If she knew! And at that moment he thought: "No, no; I'll clear out. I won't put myself in such a beastly false position."

But, after breakfast, the longing to see Megan began and increased with every minute, together with fear lest something should have been said to her which had spoiled everything. Sinister that she had not appeared, not given him even a glimpse of her! And the love poem, whose manufacture had been so important and absorbing yesterday afternoon under the apple-trees, now seemed so paltry that he tore it up and rolled it into pipe spills. What had he known of love till she seized his hand and kissed it! And now–what did he not know? But to write of it seemed mere insipidity! He went up to his bedroom to get a book, and his heart began to beat violently, for she was in there making the bed. He stood in the doorway watching; and suddenly, with turbulent joy, he saw her stoop and kiss his pillow, just at the hollow made by his head last night. How let her know he had seen that pretty act of devotion? And yet if she heard him stealing away, it would be even worse. She took the pillow up, holding it as if reluctant to shake out the impress of his cheek, dropped it, and turned round.

"Megan!"

She put her hands up to her cheeks, but her eyes seemed to look right into him. He had never before realized the depth and purity and touching faithfulness in those dew-bright eyes, and he stammered: "It was sweet of you to wait up for me last night."

She still said nothing, and he stammered on: "I was wandering about on the moor; it was such a jolly night. I–I've just come up for a book."

Then, the kiss he had seen her give the pillow afflicted him with sudden headiness, and he went up to her. Touching her eyes with his lips, he thought with queer excitement: "I've done it! Yesterday all was sudden–anyhow; but now–I've done it!" The girl let her forehead rest against his lips, which moved downwards till they reached hers. That first real lover's kiss–strange, wonderful, still almost innocent–in which heart did it make the most disturbance?

"Come to the big apple-tree to-night, after they've gone to bed. Megan–promise!"

She whispered back: "I promise!"

Then, scared at her white face, scared at everything, he let her go, and went downstairs again. Yes! he had done it now! Accepted her love, declared his own! He went out to the green chair as devoid of a book as ever; and there he sat staring vacantly before him, triumphant and remorseful, while under his nose and behind his back the work of the farm went on. How long he had been sitting in that curious state of vacancy he had no notion when he saw Joe standing a little behind him to the right. The youth had evidently come from hard work in the fields, and stood shifting his feet, breathing loudly, his face coloured like a setting sun, and his arms, below the rolled-up sleeves of his blue shirt, showing the hue and furry sheen of ripe peaches. His red lips were open, his blue eyes with their flaxen lashes stared fixedly at Ashurst, who said ironically:

"Well, Joe, anything I can do for you?"

"Yeas."

"What, then?"

"Yu can goo away from yere. Us don' want yu."

Ashurst's face, never too humble, assumed its most lordly look.

"Very good of you, but, do you know, I prefer the others should speak for themselves."

The youth moved a pace or two nearer, and the scent of his honest heat afflicted Ashurst's nostrils.

"What d'yu stay yere for?"

"Because it pleases me."

" 'Twon't please yu when I've bashed yure head in!"

"Indeed! When would you like to begin that?"

Joe answered only with the loudness of his breathing, but his eyes looked like those of a young and angry bull. Then a sort of spasm seemed to convulse his face.

"Megan don' want yu."

A rush of jealousy, of contempt, and anger with this thick, loud-breathing rustic got the better of Ashurst's self-possession; he jumped up and pushed back his chair.

"You can go to the devil!"

And as he said those simple words, he saw Megan in the doorway with a tiny brown spaniel puppy in her arms. She came up to him quickly: "It's eyes are blue!" she said.

Joe turned away; the back of his neck was literally crimson.

Ashurst put his finger to the mouth of the little brown bull-frog of a creature in her arms. How cozy it looked against her!

"It's fond of you already. Ah! Megan, everything is fond of *you*."

"What was Joe saying to you, please?"

"Telling me to go away, because you didn't want me here."

She stamped her foot; then looked up at Ashurst. At that adoring look he felt his nerves quiver, just as if he had seen a moth scorching its wings.

"To-night!" he said. "Don't forget!"

"No." And smothering her face against the puppy's little fat, brown body, she slipped back into the house.

Ashurst wandered down the lane. At the gate of the wild meadow he came on the lame man and his cows.

"Beautiful day, Jim!"

"Ah! 'Tes brave weather for the grass. The ashes be later than th' oaks this year. 'When th' oak before th' ash–' "

Ashurst said idly: "Where were you standing when you saw the gypsy bogle, Jim?"

"It might be under that big apple-tree, as you might say."

"And you really do think it was there?"

The lame man answered cautiously: "I shouldn't like to say rightly that *'twas* there. 'Twas in my mind as 'twas there."

"What do you make of it?"

The lame man lowered his voice. "They du zay old master, Mist' Narracombe, come o' gypsy stock. But that's tellin'. They'm a wonderful people, yu know, for claimin' their own. Maybe they knu 'e was goin', and sent this feller along for company. That's what I've a-thought about it."

"What was he like?"

" 'E 'ad 'air all over 'is face, an' goin' like this, he was, zame as if 'e 'ad a viddle. They zay there's no such thing as bogles, but I've a-zeen the 'air on this dog standin' up of a dark naight, when I couldn' zee nothin', meself."

"Was there a moon?"

"Yeas, very near full, but 'twas on'y just risen, goldlike be'ind them trees."

"And you think a ghost means trouble, do you?"

The lame man pushed his hat up; his aspiring eyes looked at Ashurst more earnestly than ever.

" 'Tes not for me to zay that—but 'tes they bein' so unrestin'-like. There's things us don' understand, that's zartin, for zure. There's people that zee things, tu, an' others that don't never zee nothin'. Now, our Joe—yu might putt anything under 'is eyes an' 'e'd never see it; and them other boys, tu, they'm rattlin' fellers. But yu take an' putt our Megan where there's suthin', she'll zee it, an' more tu, or I'm mistaken."

"She's sensitive, that's why."

"What's that?"

"I mean, she feels everything."

"Ah! She'm very lovin'-'earted."

Ashu rst, who felt colour coming into his cheeks, held out his tobacco-pouch.

"Have a fill, Jim?"

"Thank 'ee, Sir. She'm one in an 'underd, I think."

"I expect so," said Ashurst shortly, and folding up his pouch, walked on.

"Lovin'-'earted!" Yes! And what was he doing? What were his intentions—as they say—towards this loving-hearted girl? The thought dogged him, wandering through fields bright with buttercups, where the little red calves were feeding, and the swallows flying high. Yes, the oaks were before the ashes, brown-gold already; every tree in different stage and hue. The cuckoos and a thousand birds were singing; the little streams were very bright. The ancients believed in a golden age, in the garden of the Hesperides! . . . A queen wasp settled on his sleeve. Each queen wasp killed meant two thousand fewer wasps to thieve the apples which would grow from that blossom in the orchard; but who, with love in his heart, could kill anything on a day like this? He entered a fleld where a young red bull was feeding. It seemed to Ashurst that he looked like Joe. But the young bull took no notice of this visitor, a little drunk himself, perhaps, on the singing and the glamour of the golden pasture, under his short legs. Ashurst crossed out unchallenged to the hillside above the stream. From that slope a tor mounted to its crown of rocks. The ground there was covered with a mist of blue bells, and nearly a score of crab-apple trees were in full bloom. He threw himself down on the grass. The change from the buttercup glory and oak-goldened glamour of the fields to this ethereal beauty under the grey tor filled him with

a sort of wonder; nothing the same, save the sound of running water and the songs of the cuckoos. He lay there a long time, watching the sunlight wheel till the crab-trees threw shadows over the blue bells, his only companions a few wild bees. He was not quite sane, thinking of that morning's kiss, and of to-night under the apple-tree. In such a spot as this, fauns and dryads surely lived; nymphs, white as the crab-apple blossom, retired within those trees; fauns, brown as the dead bracken, with pointed ears, lay in wait for them. The cuckoos were still calling when he woke, there was the sound of running water; but the sun had couched behind the tor, the hill-side was cool, and some rabbits had come out. "To-night!" he thought. Just as from the earth everything was pushing up, unfolding under the soft insistent fingers of an unseen hand, so were his heart and senses being pushed, unfolded. He got up and broke off a spray from a crab-apple tree. The buds were like Megan—shell-like, rose-pink, wild, and fresh; and so, too, the opening flowers, white, and wild, and touching. He put the spray into his coat. And all the rush of the spring within him escaped in a triumphant sigh. But the rabbits scurried away.

It was nearly eleven that night when Ashurst put down the pocket "Odyssey" which for half an hour he had held in his hands without reading, and slipped through the yard down to the orchard. The moon had just risen, very golden, over the hill, and like a bright, powerful, watching spirit peered through the bars of an ash-tree's half-naked boughs. In among the apple-trees it was still dark, and he stood making sure of his direction, feeling the rough grass with his feet. A black mass close behind him stirred with a heavy grunting sound, and three large pigs settled down again close to each other, under the wall. He listened. There was no wind, but the stream's burbling whispering chuckle had gained twice its daytime strength. One bird, he could not tell what, cried "Pip—pip," "Pip—pip," with perfect monotony; he could hear a nightjar spinning very far off; an owl hooting. Ashurst moved a step or two, and again halted, aware of a dim living whiteness all round his head. On the dark unstirring trees innumerable flowers and buds all soft and blurred were being bewitched to life by the creeping moonlight. He had the oddest feeling of actual companionship, as if a million white moths or spirits had floated in and settled between dark sky and darker ground, and were opening and shutting their wings on a level with his eyes. In the bewildering, still, scentless beauty of that moment he almost lost memory of why he had come to the orchard. The flying glamour which had clothed the earth all day had not gone now that night had fallen, but only changed

into this new form. He moved on through the thicket of stems and boughs covered with that live powdering whiteness, till he reached the big apple-tree. No mistaking that, even in the dark, nearly twice the height and size of any other, and leaning out towards the open meadows and the stream. Under the thick branches he stood still again, to listen. The same sounds exactly, and a faint grunting from the sleepy pigs. He put his hands on the dry, almost warm tree trunk, whose rough mossy surface gave forth a peaty scent at his touch. Would she come—would she? And among these quivering, haunted, moon-witched trees he was seized with doubts of everything! All was unearthly here, fit for no earthly lovers; fit only for god and goddess, faun and nymph—not for him and this little country girl. Would it not be almost a relief if she did not come? But all the time he was listening. And still that unknown bird went "Pip—pip," "Pip—pip," and there rose the busy chatter of the little trout stream, whereon the moon was flinging glances through the bars of her tree-prison. The blossom on a level with his eyes seemed to grow more living every moment, seemed with its mysterious white beauty more and more a part of his suspense. He plucked a fragment and held it close—three blossoms. Sacrilege to pluck fruit-tree blossom—soft, sacred, young blossom—and throw it away! Then suddenly he heard the gate close, the pigs stirring again and grunting; and leaning against the trunk, he pressed his hands to its mossy sides behind him, and held his breath. She might have been a spirit threading the trees, for all the noise she made! Then he saw her quite close—her dark form part of a little tree, her white face part of its blossom; so still, and peering towards him. He whispered: "Megan!" and held out his hands. She ran forward, straight to his breast. When he felt her heart beating against him, Ashurst knew to the full the sensations of chivalry and passion. Because she was not of his world, because she was so simple and young and headlong, adoring and defenceless, how could he be other than her protector in the dark! Because she was all simple Nature and beauty, as much a part of this spring night as was the living blossom, how should he not take all that she would give him—how not fulfill the spring in her heart and his! And torn between these two emotions he clasped her close, and kissed her hair. How long they stood there without speaking he knew not. The stream went on chattering, the owls hooting, the moon kept stealing up and growing whiter; the blossom all round them and above brightened in suspense of living beauty. Their lips had sought each other's, and they did not speak. The moment speech began all would be unreal! Spring has no speech, nothing but rustling and whispering. Spring has so much more than

speech in its unfolding flowers and leaves, and the coursing of its streams, and in its sweet restless seeking! And sometimes spring will come alive, and, like a mysterious Presence, stand, encircling lovers with its arms, laying on them the fingers of enchantment, so that, standing lips to lips, they forget everything but just a kiss. While her heart beat against him, and her lips quivered on his, Ashurst felt nothing but simple rapture–Destiny meant her for his arms, Love could not be flouted! But when their lips parted for breath, division began again at once. Only, passion now was so much the stronger, and he sighed: "Oh! Megan! Why did you come?"

She looked up, hurt, amazed.

"Sir, you asked me to."

"Don't call me 'Sir,' my pretty sweet."

"What should I be callin' you."

"Frank."

"I could not. Oh, no!"

"But you love me–don't you?"

"I could not help lovin' you. I want to be with you–that's all."

"All!"

So faint that he hardly heard, she whispered: "I shall die if I can't be with you."

Ashurst took a mighty breath.

"Come and be with me, then!"

"Oh!"

Intoxicated by the awe and rapture in that "Oh!" he went on, whispering: "Well go to London. I'll show you the world. And I *will* take care of you, I promise, Megan. I'll never be a brute to you!"

"If I can be with you–that is all."

He stroked her hair, and whispered on: "To-morrow I'll go to Torquay and get some money, and get you some clothes that won't be noticed, and then well steal away. And when we get to London, soon perhaps, if you love me well enough, we'll be married."

He could feel her hair shiver with the shake of her head.

"Oh, no! I could not. I only want to be with you!"

Drunk on his own chivalry, Ashurst went on murmuring: "It's I who am not good enough for you. Oh! Megan, when did you begin to love me?"

"When I saw you in the road, and you looked at me. The first night I loved you; but I never thought you would want me."

She slipped down suddenly to her knees, trying to kiss his feet.

A shiver of horror went through Ashurst; he lifted her up bodily and held her fast–too upset to speak.

She whispered: "Why won't you let me?"

"It's I who will kiss your feet!"

Her smile brought tears into his eyes. The whiteness of her moonlit face so close to his, the faint pink of her opened lips, had the living, unearthly beauty of the apple-blossom.

And then, suddenly, her eyes widened and stared past him painfully; she writhed out of his arms, and whispered: "Look!"

Ashurst saw nothing but the brightened stream, the furze faintly gilded, the beech-trees glistening, and behind them all the wide loom of the moonlit hill. Behind him came her frozen whisper: "The gypsy bogle!"

"Where?"

"There—by the stone—under the trees!"

Exasperated, he leapt the stream, and strode towards the beech clump. Prank of the moonlight! Nothing! In and out of the boulders and thorntrees, muttering and cursing, yet with a kind of terror, he rushed and stumbled. Absurd! Silly! Then he went back to the apple-tree. But she was gone; he could hear a rustle, the grunting of the pigs, the sound of a gate closing. Instead of her, only this old apple-tree! He flung his arms round the trunk. What a substitute for her soft body; the rough moss against his face—what a substitute for her soft cheek; only the scent, as of the woods, a little the same! And above him, and around, the blossoms, more living, more moonlit than ever, seemed to glow and breathe.

Descending from the train at Torquay station, Ashurst wandered uncertainly along the front, for he did not know this particular queen of English watering-places. Having little sense of what he had on, he was quite unconscious of being remarkable among its inhabitants, and strode along in his rough Norfolk jacket, dusty boots, and battered hat, without observing that people gazed at him rather blankly. He was seeking a branch of his London bank, and having found one, found also the first obstacle to his mood. Did he know any one in Torquay? No. In that case, if he would wire to his bank in London, they would be happy to oblige him on receipt of the reply. That suspicious breath from the matter-of-fact world somewhat tarnished the brightness of his visions. But he sent the telegram.

Nearly opposite to the post office he saw a shop full of ladies' garments, and examined the window with strange sensations. To have to undertake the clothing of his rustic love was more than a little disturbing. He went in. A young woman came forward; she had blue eyes and a faintly puzzled forehead. Ashurst stared at her in silence.

"Yes, Sir?"

"I want a dress for a young lady."

The young woman smiled. Ashurst frowned–the peculiarity of his request struck him with sudden force.

The young woman added hastily: "What style would you like–something modish?"

"No. Simple."

"What figure would the young lady be?"

"I don't know; about two inches shorter than you, I should say."

"Could you give me her waist measurement?"

Megan's waist!

"Oh! anything usual!"

"Quite!"

While she was gone he stood disconsolately eyeing the models in the window, and suddenly it seemed to him incredible that Megan–his Megan–could ever be dressed save in the rough tweed skirt, coarse blouse, and Tam o' Shanter cap he was wont to see her in. The young woman had come back with several dresses in her arms, and Ashurst eyed her laying them against her own modish figure. There was one whose colour he liked, a dove-grey, but to imagine Megan clothed in it was beyond him. The young woman went away, and brought some more. But on Ashurst there had now come a feeling of paralysis. How choose? She would want a hat too, and shoes, and gloves; and, suppose, when he had got them all, they commonized her, as Sunday clothes always commonized village folk! Why should she not travel as she was? Ah? But conspicuousness would matter; this was a serious elopement. And, staring at the young woman, he thought: "I wonder if she guesses, and thinks me a blackguard?"

"Do you mind putting aside that grey one for me?" he said desperately at last. "I can't decide now; I'll come in again this afternoon."

The young woman sighed.

"Oh! certainly. It's a very tasteful costume. I don't think you'll get anything that will suit your purpose better."

"I expect not," Ashurst murmured, and went out.

Freed again from the suspicious matter of factness of the world, he took a long breath, and went back to visions. In fancy he saw the trustful, pretty creature who was going to join her life to his; saw himself and her stealing forth at night, walking over the moor under the moon, he with his arm around her, and carrying her new garments, till, in some far-off wood, when dawn was coming, she would slip off her old things and put

on these, and an early train at a distant station would bear them away on their honeymoon journey, till London swallowed them up, and the dreams of love came true.

"Frank Ashurst! Haven't seen you since Rugby, old chap!"

Ashurst's frown dissolved; the face, close to his own, was blue-eyed, suffused with sun—one of those faces where sun from within and without join in a sort of lustre. And he answered: "Phil Halliday, by Jove!"

"What are you doing here?"

"Oh! nothing. Just looking round, and getting some money. I'm staying on the moor."

"Are you lunching anywhere? Come and lunch with us; I'm here with my young sisters. They've had measles."

Hooked in by that friendly arm Ashurst went along, up a hill, down a hill, away out of the town, while the voice of Halliday, redolent of optimism as his face was of sun, explained how "in this mouldy place the only decent things were the bathing and boating," and so on, till presently they came to a crescent of houses a little above and back from the sea, and into the centre one—a hotel—made their way.

"Come up to my room and have a wash. Lunch'll be ready in a jiffy."

Ashurst contemplated his visage in a looking-glass. After his farmhouse bedroom, the comb and one spare shirt *régime* of the last forenight, this room littered with clothes and brushes was a sort of Capua; and he thought: "Queer—one doesn't realize—" But what—he did not quite know.

When he followed Halliday into the sitting-room for lunch, three faces, very fair and blue-eyed, were turned suddenly at the words: "This is Frank Ashurst—my young sisters."

Two were indeed young, about eleven and ten. The third was perhaps seventeen, tall and fair-haired too, with pink-and-white cheeks just touched by the sun, and eyebrows, rather darker than the hair, running a little upwards from her nose to their outer points. The voices of all three were like Halliday's, high and cheerful; they stood up straight, shook hands with a quick movement, looked at Ashurst critically, away again at once, and began to talk of what they were going to do in the afternoon. A regular Diana and attendant nymphs! After the farm this crisp, slangy, eager talk, this cool, clean, off-hand refinement, was queer at first, and then so natural that what he had come from became suddenly remote. The names of the two little ones seemed to be Sabina and Freda; of the eldest, Stella.

Presently the one called Sabina turned to him and said: "I say, will you come shrimping with us?—it's awful fun!"

Surprised by this unexpected friendliness, Ashurst murmured: "I'm afraid I've got to get back this afternoon."

"Oh!"

"Can't you put it off?"

Ashurst turned to the new speaker, Stella, shook his head, and smiled. She was very pretty! Sabina said regretfully: "You might!" Then the talk switched off to caves and swimming.

"Can you swim far?"

"About two miles."

"Oh!"

"I say!"

"How jolly!"

The three pairs of blue eyes, fixed on him, made him conscious of his new importance. The sensation was agreeable. Halliday said: "I say, you simply must stop and have a bathe. You'd better stay the night."

"Yes, do!"

But again Ashurst smiled and shook his head. Then suddenly he found himself being catechized about his physical achievements. He had rowed—it seemed—in his college boat, played in his college football team, won his college mile, and he rose from table a sort of hero. The two little girls insisted that he must see "their" cave, and they set forth chattering like magpies, Ashurst between them, Stella and her brother a little behind. In the cave, damp and darkish like any other cave, the great feature was a pool with possibility of creatures which might be caught and put into bottles. Sabina and Freda who wore no stockings on their shapely brown legs, exhorted Ashurst to join them in the middle of it, and help sieve the water. He too was soon bootless and sockless. Time goes fast for one who has a sense of beauty, when there are pretty children in a pool and a young Diana on the edge to receive with wonder anything you can catch! Ashurst never had much sense of time. It was a shock when, pulling out his watch, he saw it was well past three. No cashing his check to-day—the bank would be closed before he could get there. Watching his expression, the little girls cried out at once: "Hurrah! Now you'll have to stay!"

Ashurst did not answer. He was seeing again Megan's face, when at breakfast he had whispered: "I'm going to Torquay, darling, to get everything; I shall be back this evening. If it's fine we can go to-night. Be ready." He was seeing again how she quivered and hung on his words.

What would she think? Then he pulled himself together, conscious suddenly of the calm scrutiny of this other young girl, so tall and fair and Diana-like, at the edge of the pool, of her wondering blue eyes under those brows which slanted up a little. If they knew what was in his mind–if they knew that this very night he had meant–! Well, there would be a little sound of disgust, and he would be alone in the cave. And with a curious mixture of anger, chagrin, and shame, he put his watch back into his pocket and said abruptly: "Yes; I'm dished for to-day."

"Hurrah! Now you can bathe with us."

It was impossible not to succumb a little to the contentment of these pretty children, to the smile on Stella's lips, to Halliday's "Ripping, old chap! I can lend you things for the night!" But again a spasm of longing and remorse throbbed through Ashurst, and he said moodily: "I must send a wire!"

The attractions of the pool palling, they went back to the hotel. Ashurst sent his wire, addressing it to Mrs. Narracombe: "Sorry, detained for the night, back tomorrow." Surely Megan would understand that he had too much to do; and his heart grew lighter. It was a lovely afternoon, warm, the sea calm and blue, and swimming his great passion; the favor of these pretty children flattered him, the pleasure of looking at them, at Stella, at Halliday's sunny face; the slight unreality, yet extreme naturalness of it all–as of a last peep at normality before he took this plunge with Megan! He got his borrowed bathing dress, and they all set forth. Halliday and he undressed behind one rock, the three girls behind another. He was first into the sea, and at once swam out with the bravado of justifying his self-given reputation. When he turned he could see Halliday swimming along shore, and the girls flopping and dipping, and riding the little waves, in the way he was accustomed to despise, but now thought pretty and sensible, since it gave him the distinction of the only deep-water fish. But drawing near, he wondered if they would like him, a stranger, to come into their splashing group; he felt shy, approaching that slim nymph. Then Sabina summoned him to teach her to float, and between them the little girls kept him so busy that he had no time even to notice whether Stella was accustomed to his presence, till suddenly he heard a startled sound from her. She was standing submerged to the waist, leaning a little forward, her slim white arms stretched out and pointing, her wet face puckered by the sun and an expression of fear.

"Look at Phil! Is he all right? Oh, look!"

Ashurst saw at once that Phil was not all right. He was splashing and struggling out of his depth, perhaps a hundred yards away; suddenly he

gave a cry, threw up his arms, and went down. Ashurst saw the girl launch herself towards him, and crying out: "Go back, Stella! Go back!" he dashed out. He had never swum so fast, and reached Halliday just as he was coming up a second time. It was a case of cramp, but to get him in was not difficult, for he did not struggle. The girl, who had stopped where Ashurst told her to, helped as soon as he was in his depth, and once on the beach they sat down one on each side of him to rub his limbs, while the little ones stood by with scared faces. Halliday was soon smiling. It was—he said—rotten of him, absolutely rotten! If Frank would give him an arm, he could get to his clothes all right now. Ashurst gave him the arm, and as he did so caught sight of Stella's face, wet and flushed and tearful, all broken up out of its calm; and he thought: "I called her Stella! Wonder if she minded?"

While they were dressing, Halliday said quietly: "You saved my life, old chap!"

"Rot!"

Clothed, but not quite in their right minds, they went up all together to the hotel and sat down to tea, except Halliday, who was lying down in his room. After some slices of bread and jam, Sabina said: "I say, you know, you *are* a brick!"

And Freda chimed in: "Rather!"

Ashurst saw Stella looking down; he got up in confusion, and went to the window. From there he heard Sabina mutter: "I say, let's swear blood bond. Where's your knife, Freda?" and out of the corner of his eye he could see each of them solemnly prick herself, squeeze out a drop of blood and dabble on a bit of paper. He turned and made for the door.

"Don't be a stoat! Come back!" His arms were seized; imprisoned between the little girls he was brought back to the table. On it lay a piece of paper with an effigy drawn in blood, and the three names Stella Halliday, Sabina Halliday, Freda Halliday—also in blood, running towards it like the rays of a star. Sabina said: "That's you. We shall have to kiss you, you know."

And Freda echoed: "Oh! Blow—Yes!"

Before Ashurst could escape, some wettish hair dangled against his face, something like a bite descended on his nose, he felt his left arm pinched, and other teeth softly searching his cheek. Then he was released, and Freda said: "Now, Stella."

Ashurst, red and rigid, looked across the table at a red and rigid Stella. Sabina giggled; Freda cried: "Buck up—it spoils everything!"

A queer, ashamed eagerness shot through Ashurst; then he said quietly: "Shut up, you little demons!"

Again Sabina giggled.

"Well, then, she can kiss her hand, and you can put it against your nose. It *is* on one side!"

To his amazement the girl did kiss her hand and stretch it out. Solemnly he took that cool, slim hand and laid it to his cheek. The two little girls broke into clapping, and Freda said: "Now, then, we shall have to save your life at any time; that's settled. Can I have another cup, Stella, not so beastly weak?"

Tea was resumed, and Ashurst, folding up the paper, put it in his pocket. The talk turned on the advantages of measles, tangerine oranges, honey in a spoon, no lessons, and so forth. Ashurst listened, silent, exchanging friendly looks with Stella, whose face was again of its normal sun-touched pink and white. It was soothing to be so taken to the heart of this jolly family, fascinating to watch their faces. And after tea, while the two little girls pressed seaweed, he talked to Stella in the window-seat and looked at her water-colour sketches. The whole thing was like a pleasurable dream; time and incident hung up, importance and reality suspended. To-morrow he would go back to Megan, with nothing of all this left save the paper with the blood of these children, in his pocket. Children! Stella was not quite that–as old as Megan! Her talk–quick, rather hard and shy, yet friendly–seemed to flourish on his silences, and about her there was something cool and virginal–a maiden in a bower. At dinner, to which Halliday, who had swallowed too much sea-water, did not come, Sabina said: "I'm going to call you Frank."

Freda echoed: "Frank, Frank, Franky."

Ashurst grinned and bowed.

"Every time Stella calls you Mr. Ashurst, she's got to pay a forfeit. It's ridiculous."

Ashurst looked at Stella, who grew slowly red. Sabina giggled; Freda cried: "She's 'smoking'–'smoking!'–Yah!"

Ashurst reached out to right and left, and grasped some fair hair in each hand.

"Look here," he said, "you two! Leave Stella alone, or I'll tie you together!"

Freda gurgled: "Ouch! You *are* a beast!"

Sabina murmured cautiously: "*You* call *her* Stella, you see!"

"Why shouldn't I? It's a jolly name!"

"All right; we give you leave to!"

Ashurst released the hair. Stella! What would she call him–after this? But she called him nothing; till at bedtime he said, deliberately: "Good night, Stella!"

"Good night, Mr.–Good night, Frank! It *was* jolly of you, you know!"

"Oh–that! Bosh!"

Her quick, straight handshake tightened suddenly, and as suddenly, became slack.

Ashurst stood motionless in the empty sitting-room. Only last night, under the apple-tree and the living blossoms, he had held Megan to him, kissing her eyes and lips. And he gasped, swept by that rush of remembrance. To-night it should have begun–his life with her who only wanted to be with him! And now, twenty-four hours and more must pass, because–of not looking at his watch! Why had he made friends with this family of innocents just when he was saying good-bye to innocence, and all the rest of it? "But I mean to marry her," he thought; "I told her so!"

He took a candle, lighted it, and went to his bedroom, which was next to Halliday's. His friend's voice called as he was passing: "Is that you, old chap? I say, come in."

He was sitting up in bed, smoking a pipe and reading.

"Sit down a bit."

Ashurst sat down by the open window.

"I've been thinking about this afternoon, you know," said Halliday rather suddenly. "They say you go through all your past. I didn't. I suppose I wasn't far enough gone."

"What did you think of?"

Halliday was silent for a little, then said quietly: "Well, I did think of one thing–rather odd–of a girl at Cambridge that I might have–you know; I was glad I hadn't got her on my mind. Anyhow, old chap, I owe it to you that I'm here; I should have been in the big dark by now. No more bed, or baccy; no more anything. I say, what d'you suppose happens to us?"

Ashurst murmured: "Go out like flames, I expect."

"Phew!"

"We may flicker, and cling about a bit, perhaps."

"H'm! I think that's rather gloomy. I say, I hope my young sisters have been decent to you?"

"Awfully decent."

Halliday put his pipe down, crossed his hands behind his neck, and turned his face towards the window.

"They're not bad kids!" he said.

Watching his friend, lying there, with that smile, and the candlelight on his face, Ashurst shuddered. Quite true! He might have been lying there with no smile, with all that sunny look gone out forever! He might not

have been lying there at all, but "sanded" at the bottom of the sea, waiting for resurrection on the–ninth day, was it? And that smile of Halliday's seemed to him suddenly something wonderful, as if in it were all the difference between life and death–the little flame–the all! He got up, and said softly: "Well, you ought to sleep, I expect. Shall I blow out?"

Halliday caught his hand.

"I can't say it, you know; but it must be rotten to be dead. Good night, old boy!"

Stirred and moved, Ashurst squeezed the hand, and went downstairs. The hall-door was still open, and he passed out on to the lawn before the Crescent. The stars were bright in a very dark blue sky, and by their light some lilacs had that mysterious colour of flowers by night which no one can describe. Ashurst pressed his face against a spray; and before his closed eyes Megan started up, with the tiny brown spaniel pup against her breast. "I thought of a girl that I might have–you know. I was glad I hadn't got her on my mind!" He jerked his head away from the lilac, and began pacing up and down over the grass, a grey phantom coming to substance for a moment in the light from the lamp at either end. He was with her again under the living, breathing whiteness of the blossom, the stream chattering by, the moon glinting steel-blue on the bathing-pool; back in the rapture of his kisses on her upturned face of innocence and humble passion, back in the suspense and beauty of that pagan night. He stood still once more in the shadow of the lilacs. Here the sea, not the stream, was Night's voice; the sea with its sigh and rustle; no little bird, no owl, no nightjar called or spun; but a piano tinkled, and the white houses cut the sky with solid curve, and the scent from the lilacs filled the air. A window of the hotel, high up, was lighted; he saw a shadow move across the blind. And most queer sensations stirred within him, a sort of churning, and twining, and turning of a single emotion on itself, as though spring and love, bewildered and confused, seeking the way, were baffled. This girl, who had called him Frank, whose hand had given his that sudden little clutch, this girl so cool and pure–what would *she* think of such wild, unlawful loving? He sank down on the grass, sitting there cross-legged, with his back to the house, motionless as some carved Buddha. Was he really going to break through innocence, and steal? Sniff the scent out of a wild flower, and–perhaps–throw it away? "Of a girl at Cambridge that I might have–you know!" He put his hands to the grass, one on each side, palms downwards, and pressed; it was just warm still–the grass, barely moist, soft and firm and friendly. "What am I going to do?" he thought. Perhaps Megan was at her window, looking out at the blos-

som, thinking of him! Poor little Megan! "Why not?" he thought. "I love her! But do I–really love her? or do I only want her because she is so pretty, and loves me? What am I going to do?" The piano tinkled on, the stars winked; and Ashurst gazed out before him at the dark sea, as if spellbound. He got up at last, cramped and rather chilly. There was no longer light in any window. And he went in to bed.

Out of a deep and dreamless sleep he was awakened by the sound of thumping on the door. A shrill voice called: "Hi! Breakfast's ready."

He jumped up. Where was he–? Ah!

He found them already eating marmalade, and sat down in the empty place between Stella and Sabina, who, after watching him a little, said: "I say, do buck up; we're going to start at half past nine."

"We're going to Berry Head, old chap; you *must* come!"

Ashurst thought: "Come! Impossible. I shall be getting things and going back." He looked at Stella. She said quickly: "Do come!"

Sabina chimed in: "It'll be no fun without you."

Freda got up and stood behind his chair.

"You've got to come, or else I'll pull your hair!"

Ashurst thought: "Well–one day more–to think it over! One day more!" And he said: "All right! You needn't tweak my mane!"

"Hurrah!"

At the station he wrote a second telegram to the farm and then–tore it up; he could not have explained why. From Brixham they drove in a very little wagonette. There, squeezed between Sabina and Freda, with his knees touching Stella's, they played "Up Jenkins"; and the gloom he was feeling gave way to frolic. In this one day more to think it over, he did not want to think! They ran races, wrestled, paddled–for to-day nobody wanted to bathe–they sang catches, played games, and ate all they had brought. The little girls fell asleep against him on the way back, and his knees still touched Stella's in the wagonette. It seemed incredible that thirty hours ago he had never set eyes on any of those three flaxen heads. In the train he talked to Stella of poetry, discovering her favourites, and telling her his own with a pleasing sense of superiority; till suddenly she said, rather low: "Phil says you don't believe in a future life, Frank. I think that's dreadful."

Disconcerted, Ashurst muttered: "I don't either believe or not believe–I simply don't know."

She said quickly: "I couldn't bear that. What would be the use of living?"

Watching the frown of those pretty oblique brows, Ashurst answered: "I don't believe in believing things because one wants to."

"But why should one *wish* to live again, if one isn't going to?"

And she looked full at him.

He did not want to hurt her, but an itch to dominate pushed him on to say: "While one's alive one naturally wants to go on living forever; that's part of being alive. But it probably isn't anything more."

"Don't you believe in the Bible at all, then?"

Ashurst thought: "Now I shall really hurt her!"

"I believe in the Sermon on the Mount, because it's beautiful and good for all time."

"But don't you believe Christ was divine?"

He shook his head.

She turned her face quickly to the window, and there sprang into his mind Megan's prayer, repeated by little Nick: "God bless us all, and Mr. Ashes!" Who else would ever say a prayer for him, like her who at this moment must be waiting–waiting to see him come down the lane? And he thought suddenly: "What a scoundrel I am!"

All that evening this thought kept coming back; but, as is not unusual, each time with less poignancy, till it seemed almost a matter of course to be a scoundrel. And–strange!–he did not know whether he was a scoundrel if he meant to go back to Megan, or if he did not mean to go back to her.

They played cards till the children were sent off to bed; then Stella went to the piano. From over on the window seat, where it was nearly dark, Ashurst watched her between the candles–that fair head on the long, white neck bending to the movement of her hands. She played fluently, without much expression; but what a picture she made, the faint golden radiance, a sort of angelic atmosphere–hovering about her! Who could have passionate thoughts or wild desires in the presence of that swaying, white-clothed girl with the seraphic head? She played a thing of Schumann's called "*Warum*?" Then Halliday brought out a flute, and the spell was broken. After this they made Ashurst sing, Stella playing him accompaniments from a book of Schumann songs, till, in the middle of *"Ich grolle nicht"* two small figures clad in blue dressing-gowns crept in and tried to conceal themselves beneath the piano. The evening broke up in confusion, and what Sabina called "a splendid rag."

That night Ashurst hardly slept at all. He was thinking, tossing and turning. The intense domestic intimacy of these last two days, the strength of this Halliday atmosphere, seemed to ring him round, and make the

farm and Megan—even Megan—seem unreal. Had he really made love to her—really promised to take her away to live with him? He must have been bewitched by the spring, the night, the apple-blossom! The notion that he was going to make her his mistress—that simple child not yet eighteen—now filled him with a sort of horror, even while it still stung and whipped his blood. He muttered to himself: "It's awful, what I've done—awful!" And the sound of Schumann's music throbbed and mingled with his fevered thoughts, and he saw again Stella's cool, white, fair-haired figure and bending neck, the queer, angelic radiance about her. "I must have been—I must be—mad!" he thought. "What came into me? Poor little Megan!" "God bless us all, and Mr. Ashes!" "I want to be with you—only to be with you!" And burying his face in his pillow, he smothered down a fit of sobbing. Not to go back was awful! To go back—more awful still!

Emotion, when you are young, and give real vent to it, loses its power of torture. And he fell asleep, thinking: "What was it—a few kisses—all forgotten in a month!"

Next morning he got his check cashed, but avoided the shop of the dove-grey dress like the plague; and, instead, bought himself some necessaries. He spent the whole day in a queer mood, cherishing a kind of sullenness against himself. Instead of the hankering of the last two days, he felt nothing but a blank—all passionate longing gone, as if quenched in that outburst of tears. After tea Stella put a book down beside him, and said shyly: "Have you read that, Frank?"

It was Farrar's "Life of Christ." Ashurst smiled. Her anxiety about his beliefs seemed to him comic, but touching. Infectious, too, perhaps, for he began to have an itch to justify himself, if not to convert her. And in the evening, when the children and Halliday were mending their shrimping nets, he said: "At the back of orthodox religion, so far as I can see, there's always the idea of reward—what you can get for being good; a kind of begging for favours. I think it all starts in fear."

She was sitting on the sofa making reefer knots with a bit of string. She looked up quickly: "I think it's much deeper than that."

Ashurst felt again that wish to dominate.

"You think so," he said; "but wanting the *quid pro quo* is about the deepest thing in all of us! It's jolly hard to get to the bottom of it!"

She wrinkled her brows in a puzzled frown.

"I don't think I understand."

He went on obstinately: "Well, think, and see if the most religious peo-

ple aren't those who feel that this life doesn't give them all they want. I believe in being good because to be good is good in itself."

"Then you do believe in being good?"

How pretty she looked now—it was easy to be good with her! And he nodded and said: "I say, show me how to make that knot!"

With her fingers touching his, in manoeuvring the bit of string he felt soothed and happy. And when he went to bed he willfully kept his thoughts on her, wrapping himself in her fair, cool sisterly radiance, as in some garment of protection.

Next day he found they had arranged to go by train to Totness, and picnic at Berry Pomeroy Castle. Still in that resolute oblivion of the past, he took his place with them in the landau beside Halliday, back to the horses. And, then, along the sea-front, nearly at the turning to the railway station, his heart almost leaped into his mouth. Megan—Megan herself!—was walking on the far pathway, in her old skirt and jacket and her Tam o' Shanter, looking up into the faces of the passers-by. Instinctively he threw his hand up for cover, then made a feint of clearing dust out of his eyes; but between his fingers he could see her still, moving, not with her free country step, but wavering, lost-looking, pitiful—like some little dog which has missed its master and does not know whether to run on, to run back—where to run. How had she come like this?—what excuse had she found to get away?—what did she hope for? But with every turn of the wheels bearing him away from her, his heart revolted and cried to him to stop them, to get out, and go to her! When the landau turned the corner to the station he could stand it no more, and opening the carriage door, muttered: "I've forgotten something! Go on—don't wait for me! I'll join you at the castle by the next train!" He jumped, stumbled, spun round, recovered his balance, and walked forward, while the carriage with the astonished Hallidays rolled on.

From the corner he could only just see Megan, a long way ahead now. He ran a few steps, checked himself, and dropped into a walk. With each step nearer to her, further from the Hallidays, he walked more and more slowly. How did it alter anything—this sight of her? How make the going to her, and that which must come of it, less ugly? For there was no hiding it—since he had met the Hallidays he had become gradually sure that he would not marry Megan. It would only be a wild love-time, a troubled, remorseful, difficult time—and then—well, then he would get tired, just because she gave him everything, was so simple, and so trustful, so dewy. And dew—wears off! The little spot of faded colour, her Tam o'

Shanter cap, wavered on far in front of him; she was looking up into every face, and at the house windows. Had any man ever such a cruel moment to go through? Whatever he did, he felt he would be a beast. And he uttered a groan which made a nursemaid turn and stare. He saw Megan stop and lean against the sea-wall, looking at the sea; and he too stopped. Quite likely she had never seen the sea before, and even in her distress could not resist that sight. "Yes—she's seen nothing," he thought; "everything's before her. And just for a few weeks' passion, I shall be cutting her life to ribbons. I'd better go and hang myself rather than do it!" And suddenly he seemed to see Stella's calm eyes looking into his, the wave of fluffy hair on her forehead stirred by the wind. Ah! it would be madness, would mean giving up all that he respected, and his own self-respect. He turned and walked quickly back towards the station. But memory of that poor, bewildered little figure, those anxious eyes searching the passers-by, smote him too hard again, and once more he turned towards the sea. The cap was no longer visible; that little spot of colour had vanished in the stream of the noon promenaders. And impelled by the passion of longing, the dearth which comes on one when life seems to be whiling something out of reach, he hurried forward. She was nowhere to be seen; for half an hour he looked for her; then on the beach flung himself face downward in the sand. To find her again he knew he had only to go to the station and wait till she returned from her fruitless quest, to take her train home; or to take train himself and go back to the farm, so that she found him there when she returned. But he lay inert in the sand, among the indifferent groups of children with their spades and buckets. Pity at her little figure wandering, seeking, was well nigh merged in the spring-running of his blood; for it was all wild feeling now—the chivalrous part, what there had been of it, was gone. He wanted her again, wanted her kisses, her soft, little body, her abandonment, all her quick, warm, pagan emotion; wanted the wonderful feeling of that night under the moonlit apple boughs; wanted it all with a horrible intensity, as the faun wants the nymph. The quick chatter of the little bright trout-stream, the dazzle of the buttercups, the rocks of the old "wild men"; the calling of the cuckoos and yaffles, the hooting of the owls; and the red moon peeping out of the velvet dark at the living whiteness of the blossom; and her face just out of reach at the window, lost in its love-look; and her heart against his, her lips answering his, under the apple-tree—all this besieged him. Yet he lay inert. What was it which struggled against pity and this feverish longing, and kept him there paralyzed in the warm sand? Three flaxen heads—a fair face with friendly blue-grey eyes, a slim hand press-

ing his, a quick voice speaking his name–"So you do believe in being good?" Yes, and a sort of atmosphere as of some old walled-in English garden, with pinks, and cornflowers, and roses, and scents of lavender and lilac–cool and fair, untouched, almost holy–all that he had been brought up to feel was clean and good. And suddenly he thought: "She might come along the front again and see me!" and he got up and made his way to the rock at the far end of the beach. There, with the spray biting into his face, he could think more coolly. To go back to the farm and love Megan out in the woods, among the rocks, with everything around wild and fitting–that, he knew, was impossible, utterly. To transplant her to a great town, to keep, in some little flat or rooms, one who belonged so wholly to Nature–the poet in him shrank from it. His passion would be a mere sensuous revel, soon gone; in London, her very simplicity, her lack of all intellectual quality, would make her his secret plaything–nothing else. The longer he sat on the rock, with his feet dangling over a greenish pool from which the sea was ebbing, the more clearly he saw this; but it was as if her arms and all of her were slipping slowly, slowly down from him, into the pool, to be carried away out to sea; and her face looking up, her lost face with beseeching eyes, and dark, wet hair–possessed, haunted, tortured him! He got up at last, scaled the low rock-cliff, and made his way down into a sheltered cove. Perhaps in the sea he could get back his control–lose this fever! And stripping off his clothes, he swam out. He wanted to tire himself so that nothing mattered, and swam recklessly, fast and far; then suddenly, for no reason, felt afraid. Suppose he could not reach shore again–suppose the current set him out–or he got cramps, like Halliday! He turned to swim in. The red cliffs looked a long way off. If he were drowned they would find his clothes. The Hallidays would know; but Megan perhaps never–they took no newspaper at the farm. And Phil Halliday's words came back to him again: "A girl at Cambridge I might have–Glad I haven't got her on my mind!" And in that moment of unreasoning fear he vowed he would not have her on his mind. Then his fear left him; he swam in easily enough, dried himself in the sun, and put on his clothes. His heart felt sore, but no longer ached; his body cool and refreshed.

When one is as young as Ashurst, pity is not a violent emotion. And, back in the Hallidays' sitting-room, eating a ravenous tea, he felt much like a man recovered from fever. Everything seemed new and clear; the tea, the buttered toast, and jam tasted absurdly good; tobacco had never smelt so nice. And walking up and down the empty room, he stopped here and there to touch or look. He took up Stella's work-basket, fingered

the cotton reels and a gayly coloured plait of sewing silks, smelt at the little bag filled with woodruff she kept among them. He sat down at the piano, playing tunes with one finger, thinking: "To-night she'll play; I shall watch her while she's playing; it does me good to watch her." He took up the book, which still lay where she had placed it beside him, and tried to read. But Megan's little, sad figure began to come back at once, and he got up and leaned in the window, listening to the thrushes in the Crescent gardens, gazing at the sea, dreamy and blue below the trees. A servant came in and cleared the tea away, and he still stood, inhaling the evening air, trying not to think. Then he saw the Hallidays coming through the gate of the Crescent, Stella a little in front of Phil and the children, with their baskets, and instinctively he drew back. His heart, too sore and discomfited, shrank from this encounter, yet wanted its friendly solace—bore a grudge against this influence, yet craved its cool innocence, and the pleasure of watching Stella's face. From against the wall behind the piano he saw her come in and stand looking a little blank as though disappointed; then she saw him and smiled, a swift, brilliant smile which warmed yet irritated Ashurst.

"You never came after us, Frank."

"No; I found I couldn't."

"Look! We picked such lovely late violets!" She held out a bunch. Ashurst put his nose to them, and there stirred within him vague longings, chilled instantly by a vision of Megan's anxious face lifted to the faces of the passers-by.

He said shortly: "How jolly!" and turned away. He went up to his room, and, avoiding the children, who were coming up the stairs, threw himself on his bed, and lay there with his arms crossed over his face. Now that he felt the die really cast, and Megan given up, he hated himself, and almost hated the Hallidays and their atmosphere of healthy, happy English homes. Why should they have chanced here, to drive away first love—to show him that he was going to be no better than a common seducer? What right had Stella, with her fair, shy beauty, to make him know for certain that he would never marry Megan; and, tarnishing it all, bring him such bitterness of regretful longing and such pity? Megan would be back by now, worn out by her miserable seeking—poor little thing!—expecting, perhaps, to find him there when she reached home. Ashurst bit at his sleeve, to stifle a groan of remorseful longing. He went to dinner glum and silent, and his mood threw a dinge even over the children. It was a melancholy, rather ill-tempered evening, for they were all tired; several times he caught Stella looking at him with a hurt,

puzzled expression, and this pleased his evil mood. He slept miserably; got up quite early, and wandered out. He went down to the beach. Alone there with the serene, the blue, the sunlit sea, his heart relaxed a little. Conceited fool—to think that Megan would take it so hard! In a week or two she would almost have forgotten! And he—well, he would have the reward of virtue! A good young man! If Stella knew, she would give him her blessing for resisting that devil she believed in; and he uttered a hard laugh. But slowly the peace and beauty of sea and sky, the flight of the lonely sea-gulls, made him feel ashamed. He bathed, and turned homewards.

In the Crescent gardens Stella herself was sitting on a camp-stool, sketching. He stole up close behind. How fair and pretty she was, bent diligently, holding up her brush, measuring, wrinkling her brows.

He said gently: "Sorry I was such a beast last night, Stella."

She turned round, startled, flushed very pink, and said in her quick way: "It's all right. I knew there was something. Between friends it doesn't matter, does it?"

Ashurst answered: "Between friends—and we are, aren't we?"

She looked up at him, nodded vehemently, and her upper teeth gleamed again in that swift, brilliant smile.

Three days later he went back to London, traveling with the Hallidays. He had not written to the farm. What was there he could say?

On the last day of April in the following year he and Stella were married. . . .

Such were Ashurst's memories, sitting against the wall among the gorse, on his silver-wedding day. At this very spot, where he had laid out the lunch, Megan must have stood outlined against the sky when he had first caught sight of her. Of all queer coincidences! And there moved in him a longing to go down and see again the farm and the orchard, and the meadow of the gypsy bogle. It would not take long; Stella would be an hour yet, perhaps.

How well he remembered it all—the little crowning group of pinetrees, the steep-up grass hill behind! He paused at the farm gate. The low stone house, the yew-tree porch, the flowering currants—not changed a bit; even the old green chair was out there on the grass under the window, where he had reached up to her that night to take the key. Then he turned down the lane, and stood leaning on the orchard gate—grey skeleton of a gate, as then. A black pig even was wandering in there among the trees. Was it true that twenty-six years had passed, or had he

dreamed and awakened to find Megan waiting for him by the big apple-tree? Unconsciously he put up his hand to his grizzled beard and brought himself back to reality. Opening the gate, he made his way down through the docks and nettles till he came to the edge, and the old apple-tree itself. Unchanged! A little more of the grey-green lichen, a dead branch or two, and for the rest it might have been only last night that he had embraced that mossy trunk after Megan's flight and inhaled its woody savour, while above his head the moonlit blossom had seemed to breathe and live. In that early spring a few buds were showing already; the blackbirds shouting their songs, a cuckoo calling, the sunlight bright and warm. Incredibly the same—the chattering trout-stream, the narrow pool he had lain in every morning, splashing the water over his flanks and chest; and out there in the wild meadow the beech clump and the stone where the gypsy bogle was supposed to sit. And an ache for lost youth, a hankering, a sense of wasted love and sweetness, gripped Ashurst by the throat. Surely, on this earth of such wild beauty, one was meant to hold rapture to one's heart, as this earth and sky held it! And yet, one could not!

He went to the edge of the stream, and, looking down at the little pool, thought: "Youth and spring! What has become of them all, I wonder?" And then, in sudden fear of having this memory jarred by human encounter, he went back to the lane, and pensively retraced his steps to the cross-roads.

Beside the car an old, grey-bearded labourer was leaning on a stick, talking to the chauffeur. He broke off at once, as though guilty of disrespect, and, touching his hat, prepared to limp on down the lane.

Ashurst pointed to the narrow green mound. "Can you tell me what this is?"

The old fellow stopped; on his face had come a look as though he were thinking: "You've come to the right shop, Mister!"

" 'Tes a grave," he said.

"But why out here?"

The old man smiled. "That's a tale, as yu may say. An' not the first time as I've a-told et—there's plenty folks asks 'bout that bit o' turf. 'Maid's Grave' us calls et, 'ereabouts."

Ashurst held out his pouch. "Have a fill?"

The old man touched his hat again, and slowly filled an old clay pipe. His eyes, looking upward out of a mass of wrinkles and hair, were still quite bright.

"If yu don' mind, zurr, I'll zet down—my leg's 'urtin' a bit to-day." And he sat down on the mound of turf.

"There's always a vlower on this grave. An' 'tain't so very lonesome, neither; brave lot o' folks goes by now, in they new motor cars an' things—not as 'twas in th' old days. She've a-got company up 'ere. 'Twas a poor soul killed 'erself."

"I see!" said Ashurst. "Cross-roads burial. I didn't know that custom was kept up."

"Ah! but 'twas a main long time ago. Us 'ad a parson as was very God-fearin' then. Let me see, I've 'ad my pension six year come Michaelmas, an' I were just on fifty when 't 'appened. There's none livin' knows more about et than what I du. She belonged close 'ere; same farm as where I used to work along o' Mrs. Narracombe—'tes Nick Narracombe's now; I dus a bit for 'im still, odd times."

Ashurst, who was leaning against the gate, lighting his pipe, left his curved hands before his face for long after the flame of the match had gone out.

"Yes?" he said, and to himself his voice sounded hoarse and queer.

"She was one in an 'underd, poor maid! I putts a vlower 'ere every time I passes. Pretty maid an' gude maid she was, though they wouldn't burry 'er up tu th' church, nor where she wanted to be burried neither." The old labourer paused, and put his hairy, twisted hand flat down on the turf beside the blue bells.

"Yes?" said Ashurst.

"In a manner of speakin'," the old man went on, "I think as 'twas a love-story—though there's no one never knu for zartin. Yu can't tell what's in a maid's 'ead—but that's wot I think about it." He drew his hand along the turf. "I was fond o' that maid—don' know as there was any one as wasn' fond of 'er. But she was tu lovin'-'earted—that's where 'twas, I think." He looked up. And Ashurst, whose lips were trembling in the cover of his beard, murmured again: "Yes?"

" 'Twas in the spring, 'bout now as't might be, or a little later—blossom time—an' we 'ad one o' they young college gentlemen stayin' at the farm—nice feller tu, with 'is 'ead in the air. I liked 'e very well, an' I never see nothin' between 'em, but to my thinkin' 'e turned the maid's fancy." The old man took the pipe out of his mouth, spat, and went on:

"Yu see, 'e went away sudden one day, an' never come back. They got 'is knapsack and bits o' things down there still. That's what stuck in my mind—'is never sendin' for 'em. 'Is name was Ashes, or somethin' like that."

"Yes?" said Ashurst once more.

The old man licked his lips.

" 'Er never said nothin', but from that day 'er went kind of dazed lukin';

didn' seem rightly therr at all. I never knu a 'uman creature so changed in me life—never. There was another young feller at the farm—Joe Biddaford 'is name wer'—that was praaperly sweet on 'er, tu; I guess 'e used to plague 'er wi' 'is attentions. She got to luke quite wild. I'd zee her sometimes of an avenin' when I was bringin' up the calves; ther' she'd stand in th' orchard, under the big apple-tree, lukin' straight before 'er. 'Well,' I used t' think, 'I dunno what 'tes that's the matter wi' yu, but yu'm lukin' pittiful, that yu be!' "

The old man relit his pipe, and sucked at it reflectively.

"Yes?" said Ashurst.

"I remembers one day I said to 'er: 'What's the matter, Megan?'—'er name was Megan David, she come from Wales same as 'er aunt, ol' Missis Narracombe. 'Yu'm frettin' about something,' I says. 'No, Jim,' she says, 'I'm not frettin'.' 'Yes, yu be!' I says. 'No,' she says, and tu tears cam' rollin' out. 'Yu'm cryin'—what's that, then?' I says. She putts 'er 'and over 'er 'eart: 'It 'urts me,' she says; 'but 'twill sune be better,' she says. 'But if anything shude 'appen to me, Jim, I wants to be buried under this 'ere apple-tree.' I laughed. 'What's goin' to 'appen to yu?' I says: 'don't 'ee be fulish.' 'No,' she says, 'I won't be fulish.' Well, I know what maids are, an' I never thought no more about et, till tu days arter that, 'bout six in the avenin' I was comin' up wi' the calves, when I see somethin' dark lyin' in the strame, close to that big apple-tree. I says to meself: 'Is that a pig—funny place for a pig to get to!' an' I goes up to et, an' I see what 'twas."

The old man stopped: his eyes, turned upward, had a bright, suffering look.

" 'Twas the maid, in a little narrer pool ther' that's made by the stoppin' of a rock—where I see the young gentleman bathin' once or twice. 'Er was lyin' on 'er face in the watter. There was a plant o' goldie-cups growin' out o' the stone just above 'er 'ead. An' when I come to luke at 'er face, 'twas luvly, butiful, so calm's a baby's—wonderful butiful et was. When the doctor saw 'er, 'e said: ' 'Er culdn' never a-done it in that little bit o' watter if 'er 'adn't a-been in an extarsy.' Ah! an' judgin' from 'er face, that was just 'ow she was. Et made me cry praaper—butiful et was! 'Twas June then, but she'd a-found a little bit of apple-blossom left over somewheres, and stuck et in 'er 'air. That's why I thinks 'er must a-been in an extarsy, to go to et gay, like that. Why! there wasn't more than a fute and 'arf o' watter. But I tell 'ee one thing—that meadder's 'arnted; I knu et, an' she knu et; an' no one'll persuade me as 'tesn't. I told 'em what she said to me 'bout bein' burried under th' apple-tree. But I think that turned 'em—made et luke tu much 's ef she'd 'ad it in 'er mind

deliberate; an' so they burried 'er up 'ere. Parson we 'ad then was very particular, 'e was."

Again the old man drew his hand over the turf.

" 'Tes wonderful, et seems," he added slowly, "what maids 'll du for love. She 'ad a lovin' 'eart; I guess 'twas broken. But us never *knu* nothin'!"

He looked up as if for approval of his story, but Ashurst had walked past him as if he were not there.

Up on the top of the hill, beyond where he had spread the lunch, over, out of sight, he lay down on his face. So had his virtue been rewarded, and "the Cyprian," goddess of love, taken her revenge! And before his eyes, dim with tears, came Megan's face with the sprig of apple-blossoms in her dark, wet hair. "What did I do that was wrong?" he thought. "What did I do?" But he could not answer. Spring, with its rush of passion, its flowers and song—the spring in his heart and Megan's! Was it just Love seeking a victim! The Greek was right, then—the words of the "Hippolytus" as true to-day!

> For mad is the heart of Love,
> And gold the gleam of his wing;
> And all to the spell thereof
> Bend when he makes his spring.
> All life that is wild and young
> In mountain and wave and stream,
> All that of earth is sprung,
> Or breathes in the red sunbeam;
> Yea, and Mankind. O'er all a royal throne
> Cyprian, Cyprian, is thine alone!

The Greek was right! Megan! Poor little Megan—coming over the hill! Megan under the old apple-tree waiting and looking! Megan dead, with beauty printed on her! . . .

A voice said: "Oh, there you are! Look."

Ashurst rose, took his wife's sketch, and stared at it in silence.

"Is the foreground right, Frank?"

"Yes."

"But there's something wanting, isn't there?"

Ashurst nodded. Wanting? The apple-tree, the singing, and the gold!

Gustave Flaubert

1821–1880

Gustave Flaubert was born in Rouen, France, on December 12, 1821. He grew up in the city hospital, where his father was chief surgeon. In 1837, while he was still in school, his work was first published in a review, *Le Colibri*. He visited the Pyrénées, Marseilles, and Corsica with the anatomist Jules Cloquet and studied law at the University of Paris. Nervous troubles and lack of interest caused him to drop out. After the death of his father and sister in 1846, he retired with his mother to the family estate at Croisset on the Seine, where he would spend most of his life.

In the summer of that year he met the poet Louise Colet and began a nine-year association with her. A walking tour in Brittany with the writer Maxime du Camp produced *By Fields and by Strands*, published after his death. During this period he was engaged on manuscripts that would later be reworked into his famous books. In 1849–51 he and du Camp traveled in Egypt, Palestine, Syria, Turkey, Greece, and Italy.

Five years of steady labor created *Madame Bovary*, perhaps the first modern novel. In 1856 it was brought out in the *Revue de Paris* and appeared as a book the next year. At once the French government indicted Flaubert on charges of immorality. He was acquitted. Six months later the same court convicted the poet Baudelaire for certain poems in *Les Fleurs du mal*.

Flaubert traveled in North Africa and devoured whole libraries to produce *Salammbô*, a novel about Hamilcar's daughter and the war between Carthaginians and mercenaries. The book, published in 1862 (dated 1863), was given a triumphant welcome. Like Henry James, Flaubert wrote plays and had little luck with them. The novel *Sentimental Education*, his great picture of Paris in mid-century,

went largely unnoticed in the excitement that preceded the War of 1870.

Then there were Prussians in Flaubert's garden at Croisset. After the war, his niece's husband was threatened with bankruptcy. Flaubert signed over his fortune to them. *The Temptation of Saint Anthony* appeared in 1874. *Three Tales*, which included *A Simple Heart*, *The Legend of St. Julian the Hospitaller* (see below), and *Hérodias,* was published three years later. At his death, he had all but finished *Bouvard and Pécuchet.* He was the prime inventor of the modern novel, the first writer to treat the novel as an art and make it one. He died at Croisset on May 8, 1880.

In 1846 Flaubert had seen and remembered a small statue of St. Julian at Caudebec. A stained-glass window in Rouen Cathedral, familiar to him since childhood, depicted episodes from St. Julian's life. Out of such hints he began to weave the superb tapestry of *The Legend of St. Julian the Hospitaller*. Aside from his extreme Christian charity, Flaubert's Julian bears little likeness to the saint. The canonized Julian was said to be an Egyptian who lived with his wife, Basilissa, "in perpetual chastity" and kept "a kind of hospital." It is reported that his skull was brought into France and presented to Queen Brunehault in the time of St. Gregory the Great.

Flaubert made a fresh beginning and created a medieval legend of great richness and power. Though it is written in sharp and compact modern French, it catches the tone and bare movement of the true medieval romance. It is graver and more realistic than such *romans d'aventure* as *Aucassin and Nicolette.*[1] Its magic and supernatural touches remind us of the Breton romances. But when we have said these things, we cannot help but acknowledge the quite "modern" starkness of Julian's mad hunting, the "modern" rightness of choice in each detail. Nor should we forget that Oedipus and Orestes too were condemned to the same fate as Julian, or what self-punishment they too found for themselves.

Out of his sense of guilt, his need for self-punishment—to do penance, in the religious phrase—comes Julian's humble and practical service to others. He does not call it love. But it is unlimited, as perfect love may be. He has risked his life many times,

[1] See Vol. 2, pp. 523–551, in this set.

boldly, in hunting and war. Now he is willing to risk it again to save a loathsome fellow creature from freezing to death. So the Leper and Julian are both transformed. A miracle happens—the kind of miracle we encounter in the literature of every compassionate religion, because the need to help others, even at the risk of our lives, is a basic human trait of feeling. We are not surprised that Turgenev translated his friend's tale into Russian. Readers of Dostoevsky and the later Tolstoy would understand it very well.

But unlike Tolstoy, Flaubert allows no moralizing shadow to fall on his page. "Devotion to art was a law of his nature," says the biographer Philip Spencer. From first to last the tale must be held to its own true shape and feeling. And what a triumph of selection and placement it is! What a living stir and color it has! *St. Julian* contains enough movement for a dozen historical novels, yet it remains perfectly in scale. We follow it as eagerly as if it were some trivial adventure story, convinced that even its phantoms and speaking animals are "true," happy or grieved or horrified at Julian's progress through a world of coarse sense and spirit. Does it tell us something about the mixture of masculine and feminine in our nature? Is it a parable of moral death and redemption? Or of perfect mystical union with Christ? Or do we find in Julian a symbol of man at war, who can be brought to love again only by overwhelming guilt and grief?

The Legend of St. Julian the Hospitaller

Julian's father and mother lived in a castle with a forest round it, on the slope of a hill.

The four towers at its corners had pointed roofs covered with scales of lead, and the walls were planted upon shafts of rock which fell steeply to the bottom of the moat. The pavement of the court-yard was as clean as the flag-stones of a church. Long gutter spouts in the form of leaning dragons spat the rain-water down into the cistern; and on the window-ledges of each story, in pots of painted earthenware, a heliotrope or basil flowered.

A second enclosure made with stakes held a fruit-orchard to begin with, and then a flower garden patterned into figures; then a trellis with arbours where you took the air, and an alley for the pages to play mall. On the other side were the kennels, the stables, the bake-house, the presses, and the barns. A green and turfy pasture spread all round this, enclosed in turn by a stout thorn-hedge.

They had lived at peace so long that the portcullis was never lowered now. The moats were full of grass; swallows nested in the cracks of the battlements; and when the sun blazed too strongly the archer who paced all day long the rampart took refuge in his turret and slept like a monk.

Inside there was a sheen of ironwork everywhere; the rooms were hung with tapestries against the cold; the cupboards overflowed with linen; casks of wine were piled up in the cellars, and the oaken coffers creaked with the weight of bags of money. In the armoury, between standards and wild beasts' heads, could be seen weapons of every age and every nation, from the slings of the Amalekites and the javelins of the Garamantes to the short swords of the Saracens and Norman coats of mail. The chief spit in the kitchen could roast an ox; the chapel was as splendid as

a king's oratory. There was even, in a secluded corner, a Roman vapour-bath; but the good lord abstained from using it, considering it a practice of the heathen.

Wrapped always in a mantle of fox skins, he walked about his castle, administering justice to his vassals and setting the disputes of his neighbours at rest. In winter he watched the snowflakes falling or had stories read to him. With the first fine days he rode out on his mule along the by-ways, beside the greening corn, and chatted with the peasants, to whom he gave advice. After many adventures he had taken a lady of high lineage as his wife.

Very white of skin she was, a little proud and serious. The horns of her coif brushed against the door lintel, and the train of her dress trailed three paces behind her. Her household was ordered like the inside of a monastery; every morning she gave out the tasks to the servants, inspected the preserves and unguents, span at her distaff or embroidered altar-cloths. By dint of prayer to God a son was born to her.

Then there were great rejoicings and a banquet which lasted three days and four nights, with the illumination of torches, the sound of harps, and strewing of green branches. They ate of the rarest spices, and fowls as large as sheep; a dwarf came out of a pasty, to amuse the guests; and as the throng was always increasing and the bowls would go round no longer, they were obliged to drink out of horns and helmets.

The lady who had just been made a mother was not present at this cheer. She stayed quietly in her bed. Waking one evening, she saw as it were a shadow moving under a ray of the moon which came through the window. It was an old man in a frieze gown, with a chaplet at his side, a wallet on his shoulder, and all the semblance of a hermit. He came towards her pillow and said to her, without opening his lips: "Rejoice, O mother, thy son shall be a saint!"

She was just going to cry out, but he glided over the streak of moonlight, rose gently into the air and vanished. The songs of the banqueters broke out louder. She heard angels' voices; and her head fell back on the pillow, over which, framed with garnets, hung a martyr's bone.

Next morning all the servants were questioned and said they had seen no hermit. Whether it were a dream or reality, it must have been a communication from Heaven; but she was careful not to speak of it, fearing she might be taxed with pride.

The guests went off at morning twilight, and Julian's father was outside the postern gate, to which he had just escorted the last to go, when

suddenly a beggar rose before him in the mist. He was a gipsy, with a plaited beard and silver rings on his arms, and fiery eyes. With an air of inspiration he stammered these disjointed words:

"Ah, ah! thy son! Blood in plenty! . . . Fame in plenty! . . . Blest always—the family of an emperor!"

And stooping to pick up his alms he was lost in the grass and disappeared.

The good castellan looked right and left, and called with all his might. No one! The wind blew shrill; the mists of morning flew away.

He put down this vision to a weary head, from having slept too little. "If I speak of it they will make a jest of me," he said to himself. Yet the glories destined to his son dazzled him, although the promise was not clear and he doubted even whether he had heard it.

The husband and wife each kept their secret. But they cherished their child, both of them, with an equal love; and, reverencing him as marked out by God, had an infinite care for his person. His cot was stuffed with the finest down; a lamp shaped like a dove burned continually above it, three nurses rocked him; and well swaddled in his clothes, with his rosy looks and blue eyes, a brocade cloak and a cap set with pearls, he looked a little Jesus. He teethed without crying at any time.

When he was seven his mother taught him to sing. To make him brave his father lifted him on to a big horse. The child smiled with pleasure and before long knew all about chargers.

A learned old monk taught him Holy Writ, the Arabic way of counting, the Latin letters, and how to make dainty pictures on vellum. They worked together high up in a turret away from all noise. The lesson over, they came down into the garden and studied the flowers, pausing at every step.

Sometimes a string of laden beasts was seen passing below in the valley, led by a man on foot dressed in the Eastern way. The castellan, recognizing him for a merchant, would send a servant out to him, and the stranger, taking heart, would turn out of his road. He would be brought into the parlour, where he drew out of his coffers strips of velvet and silk, jewels, perfumes, and curious things of unknown use; after which the worthy man went off, having taken a great profit and suffered no violence. At other times a band of pilgrims would come knocking at the gate. Their draggled garments steamed before the fire; and when they had been well fed they told the story of their travels: wanderings on shipboard over foamy seas, journeyings afoot in burning sands, the

furious rage of paynims, the caves of Syria, the Manger and the Sepulchre. Then they would give the young lord scallop-shells from their cloaks.

Often the castellan feasted his old companions-at-arms. While they drank they called to mind their wars and the storming of fortresses, with the crash of warlike engines and the prodigious wounds. Julian listened to them and uttered cries; and his father had no doubt, then, that he would be a conqueror one day. Yet at evening, coming from the Angelus, as he passed between the bending rows of poor, he dipped in his purse with such modesty and so noble a mien that his mother thought surely to see him an archbishop in his time.

His place in chapel was by the side of his parents, and however long the offices might be he stayed kneeling at his stool, with his cap on the floor and his hands clasped in prayer.

One day, while mass was being said, he raised his head and saw a little white mouse coming out of a hole in the wall. It trotted along the first pace of the altar, and after making two or three turns to right and left fled by the way it had come. Next Sunday he was troubled by the thought that he might see it again. It did come back; and then every Sunday he watched for it, was troubled, seized with hatred for it, and determined to get rid of the mouse.

So, having shut the door and sprinkled some cake crumbs along the altar steps, he took post in front of the hole with a little stick in his hand.

After a very long time a small pink nose appeared, and then the entire mouse. He struck a light blow, and stood lost in amazement at this tiny body which did not stir again. A drop of blood spotted the pavement. Julian wiped it off rapidly with his sleeve, threw the mouse away, and did not say a word to anyone.

There were all kinds of little birds which pecked at the seeds in the garden. Julian had the thought of putting peas into a hollow reed. When he heard the sound of chirruping in a tree he came up softly, lifted his pipe, and blew out his cheeks; and the little creatures rained down in such abundance on his shoulders that he could not help laughing in delight at his trick.

One morning, as he was going back along the curtain wall, he saw a fat pigeon on the top of the rampart, preening itself in the sun. Julian stopped to look at it, and as there was a breach in this part of the wall a fragment of stone lay ready to his hand. He swung his arm, and the stone brought down the bird, which fell like a lump into the moat.

He dashed down after it, tearing himself in the briars and scouring

everywhere, nimbler than a young dog. The pigeon, its wings broken, hung quivering in the boughs of a privet. The obstinate life in it annoyed the child. He began to throttle it, and the bird's convulsions made his heart beat, filled him with a savage, passionate delight. When it stiffened for the last time he felt that he would swoon.

At supper in the evening his father declared that it was time for him to learn the art of venery, and he went to look for an old manuscript which contained, in questions and answers, the whole pastime of the chase. A master explained in it to his pupil the craft of breaking in dogs, taming falcons, and setting snares; how to know the stag by his droppings, the fox by his foot-marks, the wolf by his scratchings of the ground; the right way to discern their tracks, the manner of starting them, the usual places of their lairs, the most favourable winds, and a list of all the calls and the rules for the quarry.

When Julian could repeat all this by heart his father gathered a pack of hounds for him.

The first to catch the eye were twenty-four greyhounds from Barbary, swifter than gazelles, but prone to get out of hand; and then seventeen couples of Breton hounds, with red coats and white spots, unshakeable in control, deep-chested, loud to bay. To face the wild boar and its dangerous redoublings there were forty boar-hounds, as shaggy as bears. Mastiffs from Tartary nearly as tall as asses and flame-coloured, with broad backs and straight legs, were assigned to hunt the aurochs. The black coats of the spaniels shone like satin, and the yapping of the talbots matched the chanting of the beagles. In a yard by themselves, tossing their chains and rolling their eyes, growled eight Alain dogs, fearsome animals that fly at the belly of a horseman and have no dread of lions.

All of them ate wheaten bread, drank out of stone troughs, and bore sonorous names.

The falconry, maybe, was choicer even than the pack; for by dint of money the good lord had secured tercelets of the Caucasus, sakers from Babylonia, gerfalcons of Germany, and peregrines taken on the cliffs at the edge of cold seas in far quarters of the world. They were housed in a big shed roofed with thatch, and fastened to the perching bar in a row according to their size, with a strip of turf before them where they were placed from time to time to unstiffen their limbs.

Purse-nets, hooks, wolf-traps, and engines of every kind were artfully made.

Often they took out setters into the country, who quickly came to a point. Then huntsmen, advancing step by step, cautiously spread a huge

net over their motionless bodies. At a word of command they barked; quails took wing; and the ladies of the neighbourhood who had been bidden with their husbands, the children, the handmaids, the whole company darted on the birds and easily caught them. At other times they would beat drums to start the hares; foxes fell into pits, or a trap would spring and take hold of a wolf's paw.

But Julian spurned these handy devices. He preferred to hunt far away from the rest with his horse and his falcon. It was almost always a great Scythian tartaret, white as snow. Its leathern hood was topped with a plume, bells of gold quivered on its blue feet; and it stood firmly in its master's arm while the horse galloped and the plains unrolled below. Julian, freeing the jesses, would suddenly let it go; the daring bird rose straight as an arrow into the sky; and you saw two specks, one larger and one smaller, circle, meet, and then vanish in the high blue spaces. The falcon soon came down, tearing a quarry, and returned to perch on the gauntlet with its wings a-quiver.

In that way Julian flew his falcons at the heron, the kite, the crow, and the vulture.

He loved to blow his horn and follow his hounds as they coursed along the sloping hills, jumped the streams, and climbed to the woods again; and when the stag began groaning under their bites he felled it cleverly, and was delighted by the fury of the mastiffs as they devoured it, hewn in pieces on its reeking hide.

On misty days he went down into a marsh to ambush the geese, otters, and wild duck.

Three squires waited for him from dawn at the foot of the steps, and though the old monk might lean out of his window and make signs to call him back Julian would not turn. He went out in the heat of the sun, under the rain, and amidst storms, drinking water from the springs out of his hand, munching wild apples as he trotted along, and resting under an oak if he were tired; and he came in at midnight covered in blood and mire, with thorns in his hair and the odour of the wild beasts hanging round him. He became as one of them. When his mother kissed him he took her embrace coldly, and seemed to be dreaming of deep things.

He slew bears with strokes of his knife. bulls with the axe, and wild boars with the pike; and once, even, defended himself with nothing but a stick against wolves that were gnawing corpses at the foot of a gibbet.

One winter morning he started in full trim before dawn, with a cross-bow on his shoulder and a quiver of arrows at his saddle-bow.

His Danish jennet [horse], followed by two bassets, made the earth

ring under its even tread. Drops of rime stuck to his cloak, and a fierce breeze blew. The sky lightened at one side, and in the pale twilight he saw rabbits hopping at the edge of their burrows. The two bassets dashed for them at once, jumping hither and thither as they broke their backs.

Soon after he entered a wood. At the end of a branch a grouse, numbed by the cold, slept with its head under its wing. With a back-stroke of his sword Julian cut off its two feet, and without stopping to pick it up went on his way.

Three hours later he found himself on the top of a mountain, which was so high that the sky seemed almost black. A rock like a long wall sloped away in front of him, cresting a precipice; and at the farther end of it two wild goats were looking down into the chasm. Not having his arrows at hand—he had left his horse behind—he thought he would go right down upon the goats; and stooping double, barefoot, he reached the first of them at last and plunged his dagger under its ribs. The other was seized with panic and jumped into the abyss. Julian leaped to strike it, and, his right foot slipping, fell across the body of the first, with his face hanging over the gulf and arms flung wide.

He came down into the plain again and followed a line of willows bordering a river. Cranes, flying very low, passed overhead from time to time. Julian brought them down with his whip, not missing one.

Meanwhile the air had grown warmer and melted the rime; there were broad wreaths of vapour floating, and the sun appeared. Far off he saw a still lake glistening like a sheet of lead. In the middle of it was an animal which Julian did not know, a black-headed beaver. In spite of the distance he killed it with an arrow, and was vexed not to be able to carry off its skin.

Then he went on down an avenue of great trees, whose tops made a kind of triumphal arch at the entrance of a forest. A roebuck bounded out of a thicket, a fallow deer showed itself at a crossing, a badger came out of a hole, a peacock spread its tail on the grass; and when he had slain them all more roebuck, deer, badgers, peacocks and blackbirds, jays, polecats, foxes, hedgehogs, lynxes—an endless company of beasts—appeared and grew more numerous at every step. Tremblingly they circled round him, with gentle supplicating looks. But Julian did not tire of killing, by turns bending his cross-bow, unsheathing his long sword, and thrusting with his short, thinking of nothing, with no memory of anything at all. Only the fact of his existence told him that for an indefinite time he had been hunting in some vague country, where all happened with the ease of dreams. An extraordinary sight brought him to a halt. A valley

shaped like an arena was filled with stags, who crowded close together warming each other with their breath, which could be seen steaming in the mist.

The prospect of a slaughter like this for a minute or two took Julian's breath away for pleasure. Then he dismounted, rolled up his sleeves, and began to shoot.

At the whistle of the first arrow all the stags turned their heads at once. Hollows opened in the mass, plaintive cries rose, and a great stir shook the herd.

The brim of the valley was too high to climb. They leaped about in this enclosure, trying to escape. Julian aimed and shot, and the arrows fell like rain shafts in a thunder-storm. The maddened stags fought, reared, and climbed on each other's backs; and the bodies and entangled antlers made a broad mound which crumbled and changed.

At last they died, stretched on the sand, their nostrils frothing, entrails bursting, and bellies slowly ceasing to heave. Then all was motionless. Night was close at hand; and behind the woods, in the interspaces of the boughs, the sky was red as a sheet of blood.

Julian leant back against a tree, and gazed with staring eyes at the enormous massacre; he could not think how it had been done.

Then across the valley, at the edge of the forest, he saw a stag with its hind and its fawn.

The stag was black and hugely tall; it carried sixteen points and a white beard. The hind, pale yellow like a dead leaf, was grazing; and the spotted fawn, without hindering her movements, pulled at her dugs.

Once more the cross-bow sang. The fawn was killed on the spot. Then its mother, looking skyward, bellowed with a deep, heart-breaking, human cry. In exasperation Julian stretched her on the ground with a shot full in the breast.

The great stag had seen it, and made a bound. Julian shot his last arrow at him. It hit the stag in the forehead and stuck fast there.

The great stag did not seem to feel it; striding over the dead bodies, he came on and on, in act to charge and disembowel him; and Julian retreated in unspeakable terror. The monstrous creature stopped, and with flaming eyes, as solemn as a patriarch or judge, said three times, while a bell tinkled in the distance:

"Accurst! accurst! accurst! one day, ferocious heart, thou shalt murder thy father and thy mother!"

The stag's knees bent, his eyes closed gently, and he died.

Julian was thunderstruck, and then suddenly felt crushed with fatigue;

disgust and boundless sadness came over him. He buried his face in his hands and wept for a long time.

His horse was lost, his dogs had left him; the solitude which folded round him seemed looming with vague dangers. Seized with alarm, he struck across country, and choosing a path at random found himself almost immediately at the castle-gate.

He could not sleep at night. By the flickering of the hanging lamps he always saw the great black stag. The creature's prophecy besieged him, and he fought against it. "No! no! no! it cannot be that I should kill them!" And then he mused: "Yet if I should wish to kill?" and he was afraid that the Devil might inspire him with the wish.

For three months his mother prayed in anguish by his pillow, and his father walked to and fro along the corridors with groans. He sent for the most famous master physicians, who prescribed quantities of drugs. Julian's malady, they said, was caused by a noxious wind, or by a love-desire. But the young man, in answer to all questions, shook his head.

His strength came back to him, and they took him out to walk in the court-yard, the old monk and the good lord each propping him with an arm.

When he had recovered altogether he obstinately refused to hunt. His father, hoping to cheer him, made him a present of a great Saracen sword. It was in a stand of arms, at the top of a pillar, and a ladder was needed to reach it. Julian went up. The sword was too heavy and slipped from his fingers, and in the fall grazed the worthy lord so close as to cut his mantle; Julian thought he had killed his father, and fainted away.

From that moment he dreaded weapons. The sight of a bare blade made him turn pale. This weakness was a sorrow to his family, and at last the old monk, in the name of God, of honour, and his ancestors, bade him take up the exercises of his gentle birth again.

The squires amused themselves daily at practising with the javelin. Julian very quickly excelled in this; he could throw his javelin into the neck of a bottle, break the teeth of a weather-vane, and hit the nails on a door a hundred paces off.

One summer evening, at the hour when things grow indistinct in the dusk, he was under the trellis in the garden and saw right at the end of it two white wings fluttering by the top of its supports. He made sure it was a stork, and threw his javelin. A piercing cry rang out.

It was his mother, whose bonnet with long flaps stayed pinned to the wall.

Julian fled from the castle and was seen there no more.

He took service with a passing troop of adventurers and knew hunger and thirst, fevers and vermin. He grew accustomed to the din of mellays and the sight of dying men. The wind tanned his skin. His limbs hardened under the clasp of armour; and as he was very strong, valiant, temperate, and wary he won the command of a company with ease.

When a battle opened he swept on his soldiers with a great flourish of his sword. He scaled the walls of citadels with a knotted rope at night, swinging in the blasts, while sparks of Greek fire stuck to his cuirass and boiling resin and molten lead hissed from the battlements. Often a stone crashed and shivered his buckler. Bridges overladen with men gave way under him. Swinging his battle-ax to and fro, he got rid of fourteen horsemen. In the lists he overcame all challengers. More than a score of times he was left for dead.

Thanks to the favour of Heaven he always came out safely, for he protected clerks, orphans, widows, and, most of all, old men. When he saw one of them walking in front of him he called out to see his face, as though he were afraid of killing him by mistake.

Runaway slaves, peasants in revolt, fortuneless bastards, and venturous men of all sorts flocked under his banner, and he made an army of his own.

It grew, and he became famous. The world sought him out. He succoured in turn the Dauphin of France and the King of England, the Templars of Jerusalem, the Surena of the Parthians, the Negus of Abyssinia, and the Emperor of Calicut. He fought against Scandinavians covered with fish-scales, Negroes with bucklers of hippopotamus hide, mounted on red asses, and gold-coloured Indians flourishing broadswords brighter than mirrors above their diadems. He subdued the Troglodytes and the Anthropophages. He went through such burning regions that the hair on the head caught fire of itself, like torches, in the sun's heat; through others so freezing that the arms snapped from the body and fell to the ground; and countries where there was so much mist that you walked surrounded by phantoms.

Republics in distress consulted him, and in colloquies with ambassadors he gained unhoped-for terms. If a monarch behaved too badly Julian was quickly on the spot and took him to task. He set free peoples and delivered queens immured in towers. He it was, no other, who slew the viper of Milan and the dragon of Oberbirbach.

Now the Emperor of Occitania, having triumphed over the Spanish

Moslems, had taken the sister of the Caliph of Cordova as his concubine, and by her he had a daughter whom he had brought up to be a Christian. But the Caliph, feigning a wish to be converted, came to return his visit with a numerous escort, put all his garrison to the sword, and threw him into an underground dungeon, where he used him cruelly to extort his treasure.

Julian hastened to his aid, destroyed the army of the infidels, besieged the town, killed the Caliph, cut off his head, and threw it over the ramparts like a ball. Then he drew the Emperor out of prison and set him on his throne again, in the presence of all his court.

To requite this great service the Emperor presented him with basketfuls of money; Julian would have none of it. Thinking that he wanted more, he offered him three-quarters of his wealth, and was refused again; then the half of his kingdom; Julian thanked him and declined. The Emperor was in tears of distress, seeing no way to show his gratitude, when he tapped his forehead and whispered in a courtier's ear; the curtains of a tapestry lifted and a maiden appeared.

Her large dark eyes gleamed like two gentle lamps; her lips were parted in a winning smile. The ringlets of her hair caught in the jewels of a half-opened robe, and under the transparent tunic the young lines of her body could be guessed. She was slim of figure, all daintiness and softness.

Julian was dazzled with love, the more because he had lived in great chastity till then.

So he took the Emperor's daughter in marriage, with a castle that she held from her mother; and when the wedding was over he and his host parted, after a long exchange of courtesies.

It was a palace of white marble, in the Moorish fashion, built on a promontory in a grove of orange-trees. Terraces of flowers sloped to the edge of a bay, where there were pink shells that crackled under foot. Behind the castle stretched a forest in the shape of a fan. The sky was blue unceasingly, and the trees waved by turns under the sea breeze and the wind from the mountains, which closed the horizon far away.

The rooms were full of shadow, but drew light from their incrusted walls. High columns, slender as reeds, supported their domed vaults, which were embossed in relief to imitate the stalactites in caves. There were fountains in the greater rooms, mosaics in the courts, festooned partitions, delicacies of architecture beyond number, and everywhere so deep a silence that one heard the rustle of a scarf or the echo of a sigh.

Julian made war no longer. He rested with a quiet people round him,

and every day a crowd passed before him, making obeisances and kissing hands in the Eastern style.

In his purple dress he would stay leaning in the embrasure of a window, recalling his hunts of former days; and he would have liked to scour the desert after gazelles and ostriches, hide among the bamboos to wait for leopards, traverse forests full of rhinoceroses, climb the most inaccessible mountain tops to take better aim at eagles, and fight with white bears on icebergs in the sea.

Sometimes, in dreams, he saw himself like our father Adam in the midst of Paradise, among all the beasts. He stretched out his arm against them, and they died; or else, again, they defiled before him, two by two according to their size, from the elephants and lions to the ermines and the ducks, as on the day when they entered Noah's ark. From the shadow of a cave he rained darts on them which never missed; other animals appeared; there was no end to them, and he woke with his eyes rolling wildly.

Among his friends there were princes who invited him to hunt. He always refused, thinking that by a penance of this kind he would turn aside his curse, for it seemed to him that the slaughter of animals would decide the fate of his father and mother. But it was a grief to him not to see his parents, and his other secret desire became impossible to bear.

His wife sent for jugglers and dancers to amuse him. She went out with him into the country in an open litter; and at other times they would lie in a boat and watch, over the side, the fish roaming in water as clear as the sky. Often she threw flowers in his face, or crouching at his feet drew music from a three-stringed mandolin; and then, laying her clasped hands on his shoulder, said timidly, "What ails thee then, dear Lord?"

He did not answer, or break into sobs. At last, one day, he confessed his horrible thought.

She fought against it, arguing very well. His father and mother, most likely, were already dead; but if he ever saw them again what chance or purpose could lead him to this abominable deed? His fear was causeless, then, and he should return to the hunt.

Julian smiled as he listened to her, but could not make up his mind to fulfil his desire.

One August evening they were in their chamber, she being just in bed and he kneeling down to pray, when he heard a fox barking, and then some light footfalls under the window. He caught a glimpse, in the dusk, of what seemed to be the shapes of animals. The temptation was too strong, and he took down his quiver.

She showed surprise.

"I do it to obey you," he said; "I shall be back at sunrise." Still, she was afraid of a disastrous venture.

He reassured her and went out, surprised at her inconsistent mood.

Soon afterwards a page came in to say that two strangers, as they could not see the absent lord, were asking instantly to see his lady.

And soon there entered the room an old man and an old woman, bowed and dusty, dressed in rough linen, each leaning on a staff.

Taking courage, they said that they were bringing Julian news of his parents. She leaned out of bed to listen.

But, having first exchanged a look, they asked her if he was still fond of them, and if he spoke of them at times.

"Ah, yes!" she said.

"Well, we are they!" they cried, and, being very weary and spent with fatigue, sat down.

The young wife felt no assurance that her husband was their son, but they proved it by describing some particular marks on his skin.

Then she leaped out of bed, called the page, and a repast was served to them.

They could scarcely eat, though they were very hungry; she observed, aside, how their bony hands trembled as they grasped the cups. They asked countless questions about Julian, and she answered all, but took care not to speak of the ghastly fancy in which they were concerned.

After waiting in vain for his return they had left their castle, and they had been travelling for several years after vague clues, without losing hope. So much money had been swallowed up by river tolls and inns, the dues of princes and demands of thieves that their purse was emptied to the bottom, and now they begged their way. But what of that, when they would soon embrace their son? They extolled his happiness to have so fair a wife, and could not have enough of watching her and kissing her.

They were much astonished by the richness of the room, and the old man, after examing its walls, asked why the Emperor of Occitania's coat of arms was there.

"He is my father," she replied.

At that he started, remembering the gipsy's prophecy, while the old woman thought of the hermit's words. Doubtless their son's glory was but the dawn of an eternal splendour; and they both sat open-mouthed under the light of the great candlestick upon the table.

They must have been very handsome in their youth. The mother had

kept all her hair, and its fine plaits hung to the bottom of her cheeks like drifts of snow. The father, with his height and his great beard, was like a statue in a church.

Julian's wife persuaded them not to wait for him. With her own hands she placed them in her bed, then shut the window, and they went to sleep. Daybreak was near, and little birds were beginning to sing outside.

Julian had crossed the park and walked through the forest with a springing step, enjoying the soft turf and mild night air. Shadows fell from the trees across the moss. From time to time the moonlight made white patches in the drives and he hesitated to go forward, thinking he saw a pool; or, again, the surface of the still ponds would itself be lost in the colour of the grass. There was a deep silence everywhere, and he found no trace of the animals which a few minutes earlier had been straying round his castle.

The wood thickened and grew profoundly dark. Puffs of warm air went by him, with relaxing scents. His feet sank among dead leaves, and he leaned against an oak to breathe a little.

Suddenly, from behind his back, a darker mass leaped out. It was a wild boar. Julian had no time to snatch his bow, and was as vexed as though it was a disaster.

Then, when he had left the wood, he saw a wolf stealing along a hedge. Julian sent an arrow after it. The wolf paused, turned round to look at him, and went on again. It trotted on, always at the same distance, stopping from time to time, and taking flight again as soon as Julian aimed.

In this way Julian went over an endless plain and a tract of sand-hills, and came out upon high ground which looked over a great breadth of country. Flat stones lay scattered on it from ruined vaults all round. His feet stumbled on dead bones, and in places there were worm-eaten crosses leaning mournfully askew. But forms stirred in the dim shadow of the tombs; and hyenas rose out of them, scared and panting. Their hoofs clattered on the pave-stones as they came up to Julian, sniffing at him and showing their gums with a yawn. When he drew his sword they went off at once in all directions, with a headlong, limping gallop which lasted till they vanished in the distance under a cloud of dust.

An hour later he met a savage bull in a ravine, lowering its horns and ploughing the sand up with its foot. Julian thrust with his lance at it under the dewlap. The lance was shivered, as though the animal were made of bronze; he closed his eyes, expecting to be killed. When he reopened them the bull had disappeared.

Then his heart sank for shame. A higher power was bringing his strength to nought, and he went back into the forest to regain his home.

The forest was tangled with creepers; and as he was cutting them with his sword a marten slipped sharply between his legs, a panther made a bound over his shoulder, and a snake wound its way up an ash tree. A huge jackdaw looked down at Julian out of its leaves, and on every side among the branches appeared a multitude of great sparks, as though the firmament had showered all its stars into the forest. They were eyes of animals—wild cats, squirrels, owls, parrots, monkeys.

Julian darted his arrows at them; the feathered shafts settled on the leaves like white butterflies. He threw stones at them, and the stones fell back without touching anything. He cursed, wanted to fight, shouted imprecations, and choked with rage.

And all the animals which he had been hunting appeared again and made a narrow circle round him. Some sat upon their haunches, others stood erect. He was rooted in the middle, frozen with terror, and impotent to move at all. With a supreme effort of will he took a step; the creatures on the branches spread their wings, those on the ground stretched their limbs, and all went on with him.

The hyenas walked in front, the wolf and the boar behind. The bull was on his right, swaying its head, while on his left the serpent wound through the grass and the panther arched its back and advanced with long, velvet-footed strides. He walked as slowly as he could to avoid irritating them; and as he went he saw porcupines, foxes, vipers, jackals, and bears come out of the dense undergrowth.

Julian began to run; they ran too. The serpent hissed, and the stinking creatures slavered. The wild boar's tusks prodded his heels, and the wolf rubbed the palms of his hands with his hairy muzzle. The monkeys pinched him and made faces, and the marten rolled over his feet. A bear swung its paw back and knocked his hat off, and the panther, which had been carrying an arrow in its mouth, let it fall in disdain.

Their sly movements gave peeps of irony. As they watched him out of the corner of their eyes they seemed to be meditating a plan of revenge; while he, deafened by the buzzing insects, lashed by the birds' tails, and smothered by the breath of the animals, walked with arms out-stretched and eyes shut like a blind man, without even having strength to cry for mercy.

A cock-crow rang in the air, and others answered. It was day, and he recognized his palace roof beyond the orange-trees.

Then at the edge of a field he saw, three paces off him, some red partridges fluttering in the stubble. He unfastened his cloak and threw

it over them as a net. When he uncovered them he found but one, long dead and rotten.

This deception infuriated him more than all the others. His thirst to kill swept over him again, and for want of beasts he would gladly have slain men.

He climbed the three terraces and burst open the door with a blow of his fist; but when he reached the staircase his heart unbent at the thought of his dear wife. She was asleep, doubtless, and he would take her by surprise.

He drew off his sandals, turned the lock gently, and went in.

The pale dawn came dimly through the leaded window-panes. Julian's feet caught in clothes lying on the floor; a little farther, and he knocked against a buffet still laden with plate. "Her supper, doubtless," he said to himself, and went on towards the bed, which he could not see in the darkness at the end of the room. He came close, and to kiss his wife bent down over the pillow where the two heads were lying side by side. Then he felt the touch of a beard against his mouth.

He drew back, thinking he was going mad, but came near the bed again, and as he felt about with his fingers they encountered long tresses of hair. To convince himself that he was wrong he passed his hand again slowly over the pillow. It was really a beard this time, and a man—a man lying with his wife!

In a fit of boundless fury he leaped on them, striking with his dagger; he stamped and foamed, roaring like a wild beast. Then he stopped. The dead folk, pierced to the heart, had not so much as stirred. He listened closely to their dying groans, which almost kept time together; and as they grew feebler another, in the far distance, took them up. Vague at first, this plaintive, long-drawn voice came nearer, swelled, rang cruelly; and he recognized in terror the belling of the great black stag.

And as he turned round he thought he saw his wife's ghost framed in the doorway, with a light in her hand.

The noise of the murder had drawn her there. In one wide glance she grasped it all, and fled in horror, dropping her torch. He picked it up.

His father and mother lay before him, stretched on their backs, with breasts pierced through; and their faces, in a gentle majesty, looked as though they were keeping a secret for ever. Splashes and pools of blood showed on their white skin, over the bed-clothes and the floor, and trickled down an ivory crucifix in the alcove. The scarlet reflection from the window, which the sun was striking, lit up these red patches and cast others, more numerous still, all round the room. Julian walked towards

the two dead figures, saying to himself, and struggling to believe, that this thing could not be and that he was deceived by an error–by one of those resemblances which nothing can explain. Finally he bent down a little to look close at the old man, and saw between the unshut eyelids a glazed eye which scorched him like fire. Then he went to the other side of the couch where the other body lay, its white hair hiding part of the face. Julian passed his fingers under the plaits and lifted the head; and holding it at arm's length with one hand, while in the other he held up the torch, he looked at it. Drops of blood were oozing from the mattress and falling one by one upon the floor.

At the end of the day he came into his wife's presence; and in a voice not his own bade her first of all not to answer him, come near him, or even look at him. Under pain of damnation she must follow all his orders, which would not be gainsaid.

The funerals must be carried out according to injunctions which he had left in writing, on a *prie-dieu* in the chamber of the dead. He ceded to her his palace, his vassals, and all his possessions, not excepting even his clothes or his sandals, which would be found at the head of the stairs.

She had obeyed God's will in making the occasion of his crime, and she must pray for his soul, since from that day he ceased to exist.

The dead were sumptuously buried in an abbey church at three days' journey from the castle. A monk in shrouded hood followed the procession at a distance from the others, and no one dared to speak to him. He remained while the mass lasted, lying flat in the middle of the porch, with his arms making the form of a cross and his forehead in the dust.

After the burial he was seen to take the road leading to the mountains. He turned to look round several times, and finally disappeared.

He went onwards, begging his way throughout the world.

He held out his hand to the riders on the high roads and bent his knee when he approached the reapers. Or he would stand motionless before the gates of court-yards, and his face was so sad that he was never refused alms.

In a spirit of humbleness he would tell his story; and then all fled from him, making the sign of the cross. In the villages which he had passed through before, the people, as soon as they recognized him, shut their doors, shouted abuse at him, threw stones at him. The most charitable of them placed a bowl on their window-sills and then closed the shutters so as not to see him.

Being repulsed everywhere, he shunned mankind, and fed on roots,

plants, wayside fruit, and shell-fish which he gathered along the beaches.

Sometimes, at the turn of a hill-side, he saw a jumble of crowded roofs under his eyes, with stone spires, bridges, towers, and a network of dark streets, from which a ceaseless hum rose up to him. A need to mingle with the life of others would draw him down into the town. But the brutal look in their faces, their noisy crafts and callous words made his heart freeze. On festal days, when the great cathedral bells tuned the whole populace to joy from daybreak, he watched the folk issuing from their houses, and the dancing in public spaces, the beer fountains at the crossways, the damask hung before the lodgings of princes; and then at evening, through the lower windows, the long family tables where grandparents dandled little children on their knees. Sobs choked him, and he turned away towards the country.

He had thrills of love as he gazed at young horses in the meadows, birds in their nests, and insects on the flowers; all, at his approach, ran farther off, hid in terror, or flew swiftly away.

He sought deserted places. But the wind grated on his ear like the rattle of a death-agony; the dewdrops falling to the ground brought other, heavier drops to mind. Every evening the sun tinged the clouds blood-red, and each night the murder of his parents began again in dreams.

He made himself a hair shirt with iron spikes, and climbed on his knees up every hill which had a chapel at the top. But his pitiless thought dimmed the radiance of the shrines, and stung him even in his acts of mortification. He did not rebel against God for having brought the deed upon him, and yet the idea that he could have done it made him despair.

His own person filled him with such horror that in the hope of release he risked it among dangers. He saved the paralysed from fires and children from the bottom of chasms. The abyss cast him up; the flames spared him.

Time brought no relief to his suffering. It became intolerable, and he resolved to die.

And one day when he was by a spring, leaning over it to judge the water's depth, he saw opposite him on a sudden an emaciated old man, with a white beard and a look so dolorous that Julian could not keep back his tears. The other wept also. Without recognizing him exactly, Julian had a confused memory of a face like his. He uttered a cry; it was his father; and he thought no more of killing himself.

So with the burden of his recollections he travelled many lands, and came one day to a river, which, owing to its violence and a great stretch of slime along its banks, was dangerous to cross. No one for a long time had dared to make the passage.

An old boat, whose stern had been embedded, lifted its prow among the reeds. Julian examined it and found a pair of oars; and the thought came to him that he might use his life in the service of others.

He began by making a sort of roadway on the bank to lead down to the channel of the river; and he broke his nails in moving enormous stones, propped them against his waist to carry them, slipped in the mud and sank there, and nearly perished several times. Then he repaired the boat with pieces of wreckage, and made a hut for himself out of clay and tree-trunks.

The ferry came to be heard of and travellers appeared. They waved flags and hailed him from the other side, and Julian at once jumped into his boat. It was very heavy, and they overweighted it with baggage and loads of all kinds, without counting the beasts of burden, who made the crowding worse by kicking in alarm. He asked nothing for his labour; some of the passengers gave him remnants of food out of their wallets or worn-out clothes which they had no more use for. The brutal ones shouted blasphemies. Julian reproved them gently, and they retorted with abuse. He was content to bless them.

A little table, a stool, a bed of dry leaves, and three clay cups—that was the whole of his furniture. Two holes in the wall served for windows. On one side barren plains stretched away out of view, dotted with pale meres here and there; and in front of him the great river rolled its greenish waters. In spring the damp soil breathed an odour of decay. Then came a riotous wind that lifted the dust and whirled it. It found its way in everywhere, muddying the water and grating in the mouth. A little later there were clouds of mosquitoes, which pinged and pricked without ceasing day and night. And then came on appalling frosts which turned everything to the hardness of stone and roused a wild craving to eat meat.

Months glided by when Julian did not see a soul. Often he closed his eyes and tried to revive his youth in memory. The court-yard of a castle would rise before him, with greyhounds on a flight of steps, grooms in the armoury, and a fair-haired boy under a vine trellis between an old man dressed in furs and a lady wearing a great coif. Suddenly, the two corpses were there. He threw himself face downwards on his bed and kept murmuring with tears: "Ah, poor father! Poor mother, poor mother!"—and fell into a drowsiness through which the mournful visions still went on.

When he was asleep one night he thought he heard someone calling him. He strained his ears and made out nothing except the roar of the water.

But the same voice cried again: "Julian!"

It came from the other bank, which amazed him, considering the breadth of the river.

A third time he was hailed: "Julian!"

And the loud voice had the tone of a church bell.

Julian lit his lantern and went out of the hovel. A wild hurricane was sweeping through the night. There was an intense darkness, pierced now and then by the whiteness of the leaping waves.

After a moment's hesitation Julian unfastened his moorings. The water instantly became calm, and the boat glided over it to the other bank, where a man stood waiting.

He was wrapped in a tattered cloth and his face was like a plaster mask, with eyes redder than coals. Holding the lantern to him, Julian saw that he was covered with a hideous leprosy; yet there was something of a royal majesty in his posture.

As soon as he entered the boat it sank prodigiously, overwhelmed by his weight. It rose again with a shake, and Julian began to row.

At every stroke the surf tossed the boat up by its bows. The water, blacker than ink, ran furiously against the planks on both sides. It hollowed into gulfs and rose into mountains, which the boat leaped over, only to fall back into the depths, where it spun round at the mercy of the wind.

Julian bent low, stretched his arms out, and propping himself against his feet swung back with a twist to get more power. The hail lashed his hands, the rain streamed down his back, he could not breathe in the fierce wind, and stopped. Then the boat drifted and was carried away. But feeling that there was a great matter at stake, an order which might not be disobeyed, he took up the oars again, and the clacking of the thole-pins cut through the stormy clamour.

The little lantern burned in front of him. Birds hid it from time to time as they fluttered by. But he always saw the eyes of the Leper, who stood, motionless as a pillar, at the stern.

It went on long, very long.

When at last they had entered the hovel Julian shut the door; and he saw the Leper sitting on the stool. The kind of shroud which covered him had fallen to his hips; and his shoulders, chest, and wizened arms were hardly to be seen for the scaly pustules which coated them. Immense wrinkles furrowed his brow. He had a hole in place of a nose, like a skeleton, and his bluish lips exhaled a breath as thick as fog, and nauseous.

"I am hungry!" he said.

Julian gave him what he had, an old piece of bacon and the crust of a black loaf. When he had devoured them, the table, the dish, and the handle of the knife bore the same spots that could be seen on his body.

Next he said, "I am thirsty!"

Julian went to get his pitcher, and it gave out an aroma, as he took it, which enlarged his heart and nostrils. It was wine—what happiness! But the Leper put out his arm and emptied the whole pitcher at a draught.

Then he said, "I am cold!"

And Julian, with his candle, set light to a pile of bracken in the middle of the hut.

The Leper came to warm himself, and as he crouched on his heels he trembled in every limb and weakened. His eyes ceased to gleam, his sores ran, and in an almost lifeless voice he murmured:

"Thy bed!"

Julian helped him gently to drag himself there, and even spread the canvas of his boat over him as a covering.

The Leper groaned. His teeth showed at the corners of his mouth, a faster rattle shook his chest, and as each breath was taken his body hollowed to the backbone.

Then he shut his eyes.

"It is like ice in my bones! Come close to me!"

And Julian, lifting the cloth, lay down on the dead leaves side by side with him.

The Leper turned his head. "Take off thy clothes, that I may have thy body's warmth!"

Julian took off his clothes and lay down on the bed again, naked as when he was born; and he felt the Leper's skin against his thigh, colder than a serpent and rough as a file.

He tried to hearten him, and the other answered in gasps: "Ah, I am dying! Come closer, warm me! Not with the hands; no, with thy whole body!"

Julian stretched himself completely over him, mouth to mouth and chest on chest.

Then the Leper clasped him, and his eyes suddenly became as bright as stars; his hair drew out like sunbeams; the breath of his nostrils was as sweet as roses; a cloud of incense rose from the hearth, and the waves began to sing. Meanwhile an abundance of delight, a superhuman joy flooded into Julian's soul as he lay swooning; and he who still clasped him in his arms grew taller, ever taller, until his head and feet touched the

two walls of the hut. The roof flew off, the firmament unrolled–and Julian rose towards the blue spaces, face to face with Our Lord Jesus, who carried him to heaven.

And that is the story of St. Julian the Hospitaller, more or less as you will find it on a church-window in the region where I live.

The foregoing story is
from Flaubert's THREE TALES,
translated by Arthur McDowall.

F. Scott Fitzgerald

1896–1940

Francis Scott Key Fitzgerald was born in St. Paul, Minnesota, on September 24, 1896. He attended the Newman School and entered Princeton University in the class of 1917. In 1917–19 he served as a lieutenant in the army but did not get to France. He wrote advertising copy in New York and went back to St. Paul to rewrite his first novel, *This Side of Paradise*, published in 1920. At one stroke it made him the prophet and golden boy of the beginning Jazz Age.

In April of the same year he married Zelda Sayre of Montgomery, Alabama. They lived in New York City and Westport, Connecticut, made a first foray to Europe, and returned to St. Paul. There Fitzgerald finished a second novel, *The Beautiful and the Damned*. This appeared in 1922, between two collections of stories: *Flappers and Philosophers* and *Tales of the Jazz Age*. During this period he was also working on a satiric play, *The Vegetable*. It was tried out on the road but never reached Broadway.

In 1922 he rented a house at Great Neck, Long Island. It became a weekend resort for New York party goers. Between November and April, Fitzgerald wrote himself out of debt with eleven short stories. In Great Neck and in St. Raphaël, France, he took up the short novel he had begun a year or two before. This was *The Great Gatsby*, finished in late 1924 and published in April of the next year.

A third book of stories, *All the Sad Young Men*, came out in 1926. While the 1920's moved to their disastrous close, Fitzgerald traveled back and forth between Paris, Hollywood, Wilmington, and Cap d'Antibes, France. In 1934, after several false starts, he produced his second important novel, *Tender Is the Night*. The stories in *Taps at Reveille* appeared the following year. He suffered from a drinking habit traceable, in part at least, to a condition diagnosed as

hyperinsulinism. He died in Hollywood on December 21, 1940. After Fitzgerald's death, his friend Edmund Wilson edited two supplements to his work: *The Last Tycoon*, an unfinished novel, and a miscellany called *The Crack-Up*.

The Diamond as Big as the Ritz belongs to Fitzgerald's first period. The setting appears to derive from a 1915 vacation visit to the opulent ranch of his friend Charles W. ("Sap") Donahoe at White Sulphur Springs, Montana. But the story of a secret and impossibly rich never-never land in the mountains is an old western American legend; and the detail of diamonds picked up from the ground recalls the Great Diamond Hoax that amused San Francisco in the late nineteenth century. Fitzgerald wrote the story in a downtown office in St. Paul. It came out in *Smart Set* magazine for June, 1922, and was reprinted that same year in *Tales of the Jazz Age*.

It is, first of all, a good story, told with verve and a kind of gleeful ingenuity. Beyond that, it suggests many things, and one thing in particular. What do we notice first? We say to ourselves that this is the burlesque satire of the 1920's, a satire based on wild exaggeration of the typical and familiar. H. L. Mencken set the tone in his magazines. We catch it in *Elmer Gantry*, and even in some of the dialogues in Hemingway's *The Sun Also Rises*.

What does Fitzgerald do with it? We observe that the name of John T. Unger's home town is Hades. (Every American small town was by definition "Hades" in the 1920's.) There are vaudeville jokes about it. A "Rolls-Pierce" automobile is mentioned (Rolls-Royce and the now extinct Pierce-Arrow). The word "Ritz" occurs in the title. (The Ritz-Carlton Hotel in New York, classic symbol of luxury in the 1920's, has long since fallen under the wrecker's ball.) But it does not escape us that "St. Midas' School" or its equivalent still exists, and that middle western boys are still sent to it; that the Ritz has been replaced by vaster and chillier luxury hotels, whose good

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Notes from the artist: ". . . characters of the 'Newport set' of the 1920's and a drawing technique popular in those years were used in the portrait of Fitzgerald. The author as a boy of eight is at the lower right."

F. Scott Fitzgerald

taste is far more in doubt; or that the suburban Hades has inherited most of the faults and few of the virtues of the small-town one.

So we move in toward the center of Fitzgerald's story. What does he mean by that symbol of his, that tyrannical utopia lost in the American mountains? What are we to make of this Arabian Nights domain where every luxury is blown up into something monstrously absurd, where the slaves have never been freed, where a young girl collects rhinestones because diamonds bore her?

And who is Braddock Washington? Is he only the last of the nineteenth-century robber barons, living beyond his time? Or is he a kind of Hitler before his time, preparing his own Götterdämmerung? For Fitzgerald, we may suspect, he was neither. Washington is the barbarous extreme of a figure that he would come back to time after time, in the Tom Buchanan of *The Great Gatsby*, in the Warren family of *Tender Is the Night*, and in a dozen other stories. He is the man of great wealth whose wealth may be turned into a kind of social privilege that makes possible the fullest kind of good life or the most arrogantly inhuman evil. In Washington it creates a monster who claims the right to murder his guests and bribe God.

The Diamond as Big as the Ritz

John T. Unger came from a family that had been well known in Hades—a small town on the Mississippi River—for several generations. John's father had held the amateur golf championship through many a heated contest; Mrs. Unger was known "from hot-box to hot-bed," as the local phrase went, for her political addresses; and young John T. Unger, who had just turned sixteen, had danced all the latest dances from New York before he put on long trousers. And now, for a certain time, he was to be away from home. That respect for a New England education which is the bane of all provincial places, which drains them yearly of their most promising young men, had seized upon his parents. Nothing would suit them but that he should go to St. Midas' School near Boston—Hades was too small to hold their darling and gifted son.

Now in Hades—as you know if you ever have been there—the names of the more fashionable preparatory schools and colleges mean very little. The inhabitants have been so long out of the world that, though they make a show of keeping up to date in dress and manners and literature, they depend to a great extent on hearsay, and a function that in Hades would be considered elaborate would doubtless be hailed by a Chicago beef princess as "perhaps a little tacky."

John T. Unger was on the eve of departure. Mrs. Unger, with maternal fatuity, packed his trunks full of linen suits and electric fans, and Mr. Unger presented his son with an asbestos pocketbook stuffed with money.

"Remember, you are always welcome here," he said. "You can be sure, boy, that we'll keep the home fires burning."

"I know," answered John huskily.

"Don't forget who you are and where you come from," continued his

father proudly, "and you can do nothing to harm you. You are an Unger–from Hades."

So the old man and the young shook hands and John walked away with tears streaming from his eyes. Ten minutes later he had passed outside the city limits, and he stopped to glance back for the last time. Over the gates the old-fashioned Victorian motto seemed strangely attractive to him. His father had tried time and time again to have it changed to something with a little more push and verve about it, such as "Hades–Your Opportunity," or else a plain "Welcome" sign set over a hearty handshake pricked out in electric lights. The old motto was a little depressing, Mr. Unger had thought–but now. . . .

So John took his look and then set his face resolutely toward his destination. And, as he turned away, the lights of Hades against the sky seemed full of a warm and passionate beauty.

St. Midas' School is half an hour from Boston in a Rolls-Pierce motorcar. The actual distance will never be known, for no one, except John T. Unger, had ever arrived there save in a Rolls-Pierce and probably no one ever will again. St. Midas' is the most expensive and the most exclusive boys' preparatory school in the world.

John's first two years there passed pleasantly. The fathers of all the boys were money-kings and John spent his summers visiting at fashionable resorts. While he was very fond of all the boys he visited, their fathers struck him as being much of a piece, and in his boyish way he often wondered at their exceeding sameness. When he told them where his home was they would ask jovially, "Pretty hot down there?" and John would muster a faint smile and answer, "It certainly is." His response would have been heartier had they not all made this joke–at best varying it with, "Is it hot enough for you down there?" which he hated just as much.

In the middle of his second year at school, a quiet, handsome boy named Percy Washington had been put in John's form. The newcomer was pleasant in his manner and exceedingly well dressed even for St. Midas', but for some reason he kept aloof from the other boys. The only person with whom he was intimate was John T. Unger, but even to John he was entirely uncommunicative concerning his home or his family. That he was wealthy went without saying, but beyond a few such deductions John knew little of his friend, so it promised rich confectionery for his curiosity when Percy invited him to spend the summer at his home "in the West." He accepted, without hesitation.

It was only when they were in the train that Percy became, for the first

time, rather communicative. One day while they were eating lunch in the dining car and discussing the imperfect characters of several of the boys at school, Percy suddenly changed his tone and made an abrupt remark.

"My father," he said, "is by far the richest man in the world."

"Oh," said John, politely. He could think of no answer to make to this confidence. He considered "That's very nice," but it sounded hollow and was on the point of saying, "Really?" but refrained since it would seem to question Percy's statement. And such an astounding statement could scarcely be questioned.

"By far the richest," repeated Percy.

"I was reading in the *World Almanac,*" began John, "that there was one man in America with an income of over five million a year and four men with incomes of over three million a year, and–"

"Oh, they're nothing," Percy's mouth was a half-moon of scorn. "Catch-penny capitalists, financial small fry, petty merchants and moneylenders. My father could buy them out and not know he'd done it."

"But how does he–"

"Why haven't they put down *his* income tax? Because he doesn't pay any. At least he pays a little one–but he doesn't pay any on his *real* income."

"He must be very rich," said John simply. "I'm glad. I like very rich people.

"The richer a fella is, the better I like him." There was a look of passionate frankness upon his dark face. "I visited the Schnlitzer-Murphys last Easter. Vivian Schnlitzer-Murphy had rubies as big as hen's eggs, and sapphires that were like globes with lights inside them–"

"I love jewels," agreed Percy enthusiastically. "Of course I wouldn't want anyone at school to know about it, but I've got quite a collection myself. I used to collect them instead of stamps."

"And diamonds," continued John eagerly. "The Schnlitzer-Murphys had diamonds as big as walnuts–"

"That's nothing." Percy had leaned forward and dropped his voice to a low whisper. "That's nothing at all. My father has a diamond bigger than the Ritz-Carlton Hotel."

The Montana sunset lay between two mountains like a gigantic bruise from which dark arteries spread themselves over a poisoned sky. An immense distance under the sky crouched the village of Fish, minute, dismal, and forgotten. There were twelve men, so it was said, in the village

of Fish, twelve sombre and inexplicable souls who sucked a lean milk from the almost literally bare rock upon which a mysterious populatory force had begotten them. They had become a race apart, these twelve men of Fish, like some species developed by an early whim of nature, which on second thought had abandoned them to struggle and extermination.

Out of the blue-black bruise in the distance crept a long line of moving lights upon the desolation of the land, and the twelve men of Fish gathered like ghosts at the shanty depot to watch the passing of the seven o'clock train, the Transcontinental Express from Chicago. Six times or so a year the Transcontinental Express, through some inconceivable jurisdiction, stopped at the village of Fish, and when this occurred a figure or so would disembark, mount into a buggy that always appeared from out of the dusk, and drive off toward the bruised sunset. The observation of this pointless and preposterous phenomenon had become a sort of cult among the men of Fish. To observe, that was all; there remained in them none of the vital quality of illusion which would make them wonder or speculate, else a religion might have grown up around these mysterious visitations. But the men of Fish were beyond all religion–the barest and most savage tenets of even Christianity could gain no foothold on that barren rock–so there was no altar, no priest, no sacrifice; only each night at seven the silent concourse by the shanty depot, a congregation who lifted up a prayer of dim, anaemic wonder.

On this June night, the Great Brakeman, whom, had they deified anyone, they might well have chosen as their celestial protagonist, had ordained that the seven o'clock train should leave its human (or inhuman) deposit at Fish. At two minutes after seven Percy Washington and John T. Unger disembarked, hurried past the spellbound, the agape, the fearsome eyes of the twelve men of Fish, mounted into a buggy which had obviously appeared from nowhere, and drove away.

After half an hour, when the twilight had coagulated into dark, the silent Negro who was driving the buggy hailed an opaque body somewhere ahead of them in the gloom. In response to his cry, it turned upon them a luminous disk which regarded them like a malignant eye out of the unfathomable night. As they came closer, John saw that it was the taillight of an immense automobile, larger and more magnificent than any he had ever seen. Its body was of gleaming metal richer than nickel and lighter than silver, and the hubs of the wheels were studded with iridescent geometric figures of green and yellow–John did not dare to guess whether they were glass or jewel.

Two Negroes, dressed in glittering livery such as one sees in pictures

of royal processions in London, were standing at attention beside the car and as the two young men dismounted from the buggy they were greeted in some language which the guest could not understand, but which seemed to be an extreme form of the Southern Negro's dialect.

"Get in," said Percy to his friend, as their trunks were tossed to the ebony roof of the limousine. "Sorry we had to bring you this far in that buggy, but of course it wouldn't do for the people on the train or those Godforsaken fellas in Fish to see this automobile."

"Gosh! What a car!" This ejaculation was provoked by its interior. John saw that the upholstery consisted of a thousand minute and exquisite tapestries of silk, woven with jewels and embroideries, and set upon a background of cloth of gold. The two armchair seats in which the boys luxuriated were covered with stuff that resembled duvetyn, but seemed woven in numberless colors of the ends of ostrich feathers.

"What a car!" cried John again, in amazement.

"This thing?" Percy laughed. "Why, it's just an old junk we use for a station wagon."

By this time they were gliding along through the darkness toward the break between the two mountains.

"We'll be there in an hour and a half," said Percy, looking at the clock. "I may as well tell you it's not going to be like anything you ever saw before."

If the car was any indication of what John would see, he was prepared to be astonished indeed. The simple piety prevalent in Hades has the earnest worship of and respect for riches as the first article of its creed—had John felt otherwise than radiantly humble before them, his parents would have turned away in horror at the blasphemy.

They had now reached and were entering the break between the two mountains and almost immediately the way became much rougher.

"If the moon shone down here, you'd see that we're in a big gulch," said Percy, trying to peer out of the window. He spoke a few words into the mouthpiece and immediately the footman turned on a searchlight and swept the hillsides with an immense beam.

"Rocky, you see. An ordinary car would be knocked to pieces in half an hour. In fact, it'd take a tank to navigate it unless you knew the way. You notice we're going uphill now."

They were obviously ascending, and within a few minutes the car was crossing a high rise, where they caught a glimpse of a pale moon newly risen in the distance. The car stopped suddenly and several figures took shape out of the dark beside it—these were Negroes also. Again the two

young men were saluted in the same dimly recognizable dialect; then the Negroes set to work and four immense cables dangling from overhead were attached with hooks to the hubs of the great jeweled wheels. At a resounding "Hey-yah!" John felt the car being lifted slowly from the ground–up and up–clear of the tallest rocks on both sides–then higher, until he could see a wavy, moonlit valley stretched out before him in sharp contrast to the quagmire of rocks that they had just left. Only on one side was there still rock–and then suddenly there was no rock beside them or anywhere around.

It was apparent that they had surmounted some immense knife-blade of stone, projecting perpendicularly into the air. In a moment they were going down again, and finally with a soft bump they were landed upon the smooth earth.

"The worst is over," said Percy, squinting out the window. "It's only five miles from here, and our own road–tapestry brick–all the way. This belongs to us. This is where the United States ends, father says."

"Are we in Canada?"

"We are not. We're in the middle of the Montana Rockies. But you are now on the only five square miles of land in the country that's never been surveyed."

"Why hasn't it? Did they forget it?"

"No," said Percy, grinning, "they tried to do it three times. The first time my grandfather corrupted a whole department of the State survey; the second time he had the official maps of the United States tinkered with–that held them for fifteen years. The last time was harder. My father fixed it so that their compasses were in the strongest magnetic field ever artificially set up. He had a whole set of surveying instruments made with a slight defection that would allow for this territory not to appear, and he substituted them for the ones that were to be used. Then he had a river deflected and he had what looked like a village built upon its banks–so that they'd see it, and think it was a town ten miles farther up the valley. There's only one thing my father's afraid of," he concluded, "only one thing in the world that could be used to find us out."

"What's that?"

Percy sank his voice to a whisper.

"Airplanes," he breathed. "We've got half a dozen antiaircraft guns and we've arranged it so far–but there've been a few deaths and a great many prisoners. Not that we mind *that*, you know, father and I, but it upsets mother and the girls, and there's always the chance that some time we won't be able to arrange it."

Shreds and tatters of chinchilla, courtesy clouds in the green moon's heaven, were passing the green moon like precious Eastern stuffs paraded for the inspection of some Tartar Khan. It seemed to John that it was day, and that he was looking at some lads sailing above him in the air, showering down tracts and patent medicine circulars, with their messages of hope for despairing, rockbound hamlets. It seemed to him that he could see them look down out of the clouds and stare—and stare at whatever there was to stare at in this place whither he was bound—What then? Were they induced to land by some insidious device there to be immured far from patent medicines and from tracts until the judgment day—or, should they fail to fall into the trap, did a quick puff of smoke and the sharp round of a splitting shell bring them dropping to earth—and "upset" Percy's mother and sisters? John shook his head and the wraith of a hollow laugh issued silently from his parted lips. What desperate transaction lay hidden here? What a moral expedient of a bizarre Croesus? What terrible and golden mystery? . . .

The chinchilla clouds had drifted past now and outside the Montana night was bright as day. The tapestry brick of the road was smooth to the tread of the great tires as they rounded a still, moonlit lake; they passed into darkness for a moment, a pine grove, pungent and cool, then they came out into a broad avenue of lawn and John's exclamation of pleasure was simultaneous with Percy's taciturn "We're home."

Full in the light of the stars, an exquisite château rose from the borders of the lake, climbed in marble radiance half the height of an adjoining mountain, then melted in grace, in perfect symmetry, in translucent feminine languor, into the massed darkness of a forest of pine. The many towers, the slender tracery of the sloping parapets, the chiseled wonder of a thousand yellow windows with their oblongs and hectagons and triangles of golden light, the shattered softness of the intersecting planes of starshine and blue shade, all trembled on John's spirit like a chord of music. On one of the towers, the tallest, the blackest at its base, an arrangement of exterior lights at the top made a sort of floating fairyland—and as John gazed up in warm enchantment the faint *acciaccatura* sound of violins drifted down in a rococo harmony that was like nothing he had ever heard before. Then in a moment the car stopped before wide, high marble steps around which the night air was fragrant with a host of flowers. At the top of the steps two great doors swung silently open and amber light flooded out upon the darkness, silhouetting the figure of an exquisite lady with black, high-piled hair, who held out her arms toward them.

"Mother," Percy was saying, "this is my friend, John Unger, from Hades."

Afterward John remembered that first night as a daze of many colors, of quick sensory impressions, of music soft as a voice in love, and of the beauty of things, lights and shadows, and motions and faces. There was a white-haired man who stood drinking a many-hued cordial from a crystal thimble set on a golden stem. There was a girl with a flowery face, dressed like Titania with braided sapphires in her hair. There was a room where the solid, soft gold of the walls yielded to the pressure of his hand, and a room that was like a platonic conception of the ultimate prison—ceiling, floor, and all, it was lined with an unbroken mass of diamonds, diamonds of every size and shape, until, lit with tall violet lamps in the corners, it dazzled the eyes with a whiteness that could be compared only with itself, beyond human wish or dream.

Through a maze of these rooms the two boys wandered. Sometimes the floor under their feet would flame in brilliant patterns from lighting below, patterns of barbaric clashing colors, of pastel delicacy, of sheer whiteness, or of subtle and intricate mosaic, surely from some mosque on the Adriatic Sea. Sometimes beneath layers of thick crystal he would see blue or green water swirling, inhabited by vivid fish and growths of rainbow foliage. Then they would be treading on furs of every texture and color or along corridors of palest ivory, unbroken as though carved complete from the gigantic tusks of dinosaurs extinct before the age of man. . . .

Then a hazily remembered transition, and they were at dinner—where each plate was of two almost imperceptible layers of solid diamond between which was curiously worked a filigree of emerald design, a shaving sliced from green air. Music, plangent and unobtrusive, drifted down through far corridors—his chair, feathered and curved insidiously to his back, seemed to engulf and overpower him as he drank his first glass of port. He tried drowsily to answer a question that had been asked him, but the honeyed luxury that clasped his body added to the illusion of sleep—jewels, fabrics, wines, and metals blurred before his eyes into a sweet mist. . . .

"Yes," he replied with a polite effort, "it certainly is hot enough for me down there."

He managed to add a ghostly laugh; then, without movement, without resistance, he seemed to float off and away, leaving an iced dessert that was pink as a dream. . . . He fell asleep.

When he awoke he knew that several hours had passed. He was in a

great quiet room with ebony walls and a dull illumination that was too faint, too subtle, to be called a light. His young host was standing over him.

"You fell asleep at dinner," Percy was saying. "I nearly did, too–it was such a treat to be comfortable again after this year of school. Servants undressed and bathed you while you were sleeping."

"Is this a bed or a cloud?" sighed John. "Percy, Percy–before you go, I want to apologize."

"For what?"

"For doubting you when you said you had a diamond as big as the Ritz-Carlton Hotel."

Percy smiled.

"I thought you didn't believe me. It's that mountain, you know."

"What mountain?"

"The mountain the château rests on. It's not very big for a mountain. But except about fifty feet of sod and gravel on top it's solid diamond. *One* diamond, one cubic mile without a flaw. Aren't you listening? Say–"

But John T. Unger had again fallen asleep.

Morning. As he awoke he perceived drowsily that the room had at the same moment become dense with sunlight. The ebony panels of one wall had slid aside on a sort of track, leaving his chamber half open to the day. A large Negro in a white uniform stood beside his bed.

"Good-evening," muttered John, summoning his brains from the wild places.

"Good-morning, sir. Are you ready for your bath, sir? Oh, don't get up–I'll put you in, if you'll just unbutton your pajamas–there. Thank you, sir."

John lay quietly as his pajamas were removed–he was amused and delighted; he expected to be lifted like a child by this black Gargantua who was tending him, but nothing of the sort happened; instead he felt the bed tilt up slowly on its side–he began to roll, startled at first, in the direction of the wall, but when he reached the wall its drapery gave way, and sliding two yards farther down a fleecy incline he plumped gently into water the same temperature as his body.

He looked about him. The runway or rollway on which he had arrived had folded gently back into place. He had been projected into another chamber and was sitting in a sunken bath with his head just above the level of the floor. All about him, lining the walls of the room and the sides and bottom of the bath itself, was a blue, aquarium, and gazing

through the crystal surface on which he sat, he could see fish swimming among amber lights and even gliding without curiosity past his outstretched toes, which were separated from them only by the thickness of the crystal. From overhead, sunlight came down through sea-green glass.

"I suppose, sir, that you'd like hot rose water and soapsuds this morning, sir—and perhaps cold salt water to finish."

The Negro was standing beside him.

"Yes," agreed John, smiling inanely, "as you please." Any idea of ordering this bath according to his own meagre standards of living would have been priggish and not a little wicked.

The Negro pressed a button and a warm rain began to fall, apparently from overhead, but really, so John discovered after a moment, from a fountain arrangement near by. The water turned to a pale rose color and jets of liquid soap spurted into it from four miniature walrus heads at the corners of the bath. In a moment a dozen little paddle wheels, fixed to the sides, had churned the mixture into a radiant rainbow of pink foam which enveloped him softly with its delicious lightness, and burst in shining, rosy bubbles here and there about him.

"Shall I turn on the moving-picture machine, sir?" suggested the Negro deferentially. "There's a good one-reel comedy in this machine today, or I can put in a serious piece in a moment, if you prefer it."

"No, thanks," answered John, politely but firmly. He was enjoying his bath too much to desire any distraction. But distraction came. In a moment he was listening intently to the sound of flutes from just outside, flutes dripping a melody that was like a waterfall, cool and green as the room itself, accompanying a frothy piccolo, in play more fragile than the lace of suds that covered and charmed him.

After a cold salt-water bracer and a cold fresh finish, he stepped out into a fleecy robe, and upon a couch covered with the same material he was rubbed with oil, alcohol, and spice. Later he sat in a voluptuous chair while he was shaved and his hair was trimmed.

"Mr. Percy is waiting in your sitting-room," said the Negro, when these operations were finished. "My name is Gygsum, Mr. Unger, sir. I am to see to Mr. Unger every morning."

John walked out into the brisk sunshine of his living room, where he found breakfast waiting for him and Percy, gorgeous in white kid knickerbockers, smoking in an easy chair.

This is a story of the Washington family as Percy sketched it for John during breakfast.

The father of the present Mr. Washington had been a Virginian, a direct descendant of George Washington, and Lord Baltimore. At the close of the Civil War he was a twenty-five-year-old Colonel with a played-out plantation and about a thousand dollars in gold.

Fitz-Norman Culpepper Washington, for that was the young Colonel's name, decided to present the Virginia estate to his younger brother and go West. He selected two dozen of the most faithful blacks, who, of course, worshipped him, and bought twenty-five tickets to the West, where he intended to take out land in their names and start a sheep and cattle ranch.

When he had been in Montana for less than a month and things were going very poorly indeed, he stumbled on his great discovery. He had lost his way when riding in the hills, and after a day without food he began to grow hungry. As he was without his rifle, he was forced to pursue a squirrel, and in the course of the pursuit he noticed that it was carrying something shiny in its mouth. Just before it vanished into its hole—for Providence did not intend that this squirrel should alleviate his hunger—it dropped its burden. Sitting down to consider the situation Fitz-Norman's eye was caught by a gleam in the grass beside him. In ten seconds he had completely lost his appetite and gained one hundred thousand dollars. The squirrel, which had refused with annoying persistence to become food, had made him a present of a large and perfect diamond.

Late that night he found his way to camp and twelve hours later all the males among his darkies were back by the squirrel hole digging furiously at the side of the mountain. He told them he had discovered a rhinestone mine, and, as only one or two of them had ever seen even a small diamond before, they believed him, without question. When the magnitude of his discovery became apparent to him, he found himself in a quandary. The mountain was *a* diamond—it was literally nothing else but solid diamond. He filled four saddle bags full of glittering samples and started on horseback for St. Paul. There he managed to dispose of half a dozen small stones—when he tried a larger one a storekeeper fainted and Fitz-Norman was arrested as a public disturber. He escaped from jail and caught the train for New York, where he sold a few medium-sized diamonds and received in exchange about two hundred thousand dollars in gold. But he did not dare to produce any exceptional gems—in fact, he left New York just in time. Tremendous excitement had been created in jewelry circles, not so much by the size of his diamonds as by their appearance in the city from mysterious sources. Wild rumors became current that a diamond mine had been discovered in the Cats-

kills, on the Jersey coast, on Long Island, beneath Washington Square. Excursion trains packed with men carrying picks and shovels began to leave New York hourly, bound for various neighboring El Dorados. But by that time young Fitz-Norman was on his way back to Montana.

By the end of a fortnight he had estimated that the diamond in the mountain was approximately equal in quantity to all the rest of the diamonds known to exist in the world. There was no valuing it by any regular computation, however, for it was *one solid diamond*—and if it were offered for sale not only would the bottom fall out of the market, but also, if the value should vary with its size in the usual arithmetical progression, there would not be enough gold in the world to buy a tenth part of it. And what could any one do with a diamond that size?

It was an amazing predicament. He was, in one sense, the richest man that ever lived—and yet was he worth anything at all? If his secret should transpire there was no telling to what measures the government might resort in order to prevent a panic, in gold as well as in jewels. They might take over the claim immediately and institute a monopoly.

There was no alternative—he must market his mountain in secret. He sent South for his younger brother and put him in charge of his colored following—darkies who had never realized that slavery was abolished. To make sure of this, he read them a proclamation that he had composed, which announced that General Forrest had reorganized the shattered Southern armies and defeated the North in one pitched battle. The Negroes believed him implicitly. They passed a vote declaring it a good thing and held revival services immediately.

Fitz-Norman himself set out for foreign parts with one hundred thousand dollars and two trunks filled with rough diamonds of all sizes. He sailed for Russia in a Chinese junk and six months after his departure from Montana he was in St. Petersburg. He took obscure lodgings and called immediately upon the court jeweler, announcing that he had a diamond for the Czar. He remained in St. Petersburg for two weeks, in constant danger of being murdered, living from lodging to lodging, and afraid to visit his trunks more than three or four times during the whole fortnight.

On his promise to return in a year with larger and finer stones, he was allowed to leave for India. Before he left, however, the Court Treasurers had deposited to his credit, in American banks, the sum of fifteen million dollars—under four different aliases.

He returned to America in 1868, having been gone a little over two years. He had visited the capitals of twenty-two countries and talked with

five emperors, eleven kings, three princes, a shah, a khan, and a sultan. At that time Fitz-Norman estimated his own wealth at one billion dollars. One fact worked consistently against the disclosure of his secret. No one of his larger diamonds remained in the public eye for a week before being invested with a history of enough fatalities, amours, revolutions, and wars to have occupied it from the days of the first Babylonian Empire.

From 1870 until his death in 1900, the history of Fitz-Norman Washington was a long epic in gold. There were side issues, of course—he evaded the surveys, he married a Virginia lady, by whom he had a single son, and he was compelled, due to a series of unfortunate complications, to murder his brother, whose unfortunate habit of drinking himself into an indiscreet stupor had several times endangered their safety. But very few other murders stained these happy years of progress and expansion.

Just before he died he changed his policy, and with all but a few million dollars of his outside wealth bought up rare minerals in bulk, which he deposited in the safety vaults of banks all over the world, marked as bric-a-brac. His son, Braddock Tarleton Washington, followed this policy on an even more extensive scale. The minerals were converted into the rarest of all elements—radium—so that the equivalent of a billion dollars in gold could be placed in a receptacle no bigger than a cigar box.

When Fitz-Norman had been dead three years his son, Braddock, decided that the business had gone far enough. The amount of wealth that he and his father had taken out of the mountain was beyond all exact computation. He kept a notebook in cipher in which he set down the approximate quantity of radium in each of the thousand banks he patronized, and recorded the alias under which it was held. Then he did a very simple thing—he sealed up the mine.

He sealed up the mine. What had been taken out of it would support all the Washingtons yet to be born in unparalleled luxury for generations. His one care must be the protection of his secret, lest in the possible panic attendant on its discovery he should be reduced with all the property-holders in the world to utter poverty.

This was the family among whom John T. Unger was staying. This was the story he heard in his silver-walled living room the morning after his arrival.

After breakfast, John found his way out the great marble entrance, and looked curiously at the scene before him. The whole valley, from the diamond mountain to the steep granite cliff five miles away, still gave off a breath of golden haze which hovered idly above the fine sweep of lawns

and lakes and gardens. Here and there clusters of elms made delicate groves of shade, contrasting strangely with the tough masses of pine forest that held the hills in a grip of dark-blue green. Even as John looked he saw three fawns in single file patter out from one clump about a half mile away and disappear with awkward gayety into the black-ribbed half-light of another. John would not have been surprised to see a goat foot piping his way among the trees or to catch a glimpse of pink nymph skin and flying yellow hair between the greenest of the green leaves.

In some such cool hope he descended the marble steps, disturbing faintly the sleep of two silky Russian wolfhounds at the bottom, and set off along a walk of white and blue brick that seemed to lead in no particular direction.

He was enjoying himself as much as he was able. It is youth's felicity as well as its insufficiency that it can never live in the present, but must always be measuring up the day against its own radiantly imagined future—flowers and gold, girls and stars, they are only prefigurations and prophecies of that incomparable, unattainable young dream.

John rounded a soft corner where the massed rosebushes filled the air with heavy scent, and struck off across a park toward a patch of moss under some trees. He had never lain upon moss, and he wanted to see whether it was really soft enough to justify the use of its name as an adjective. Then he saw a girl coming toward him over the grass. She was the most beautiful person he had ever seen.

She was dressed in a white little gown that came just below her knees, and a wreath of mignonettes clasped with blue slices of sapphire bound up her hair. Her pink bare feet scattered the dew before them as she came. She was younger than John—not more than sixteen.

"Hello," she cried softly, "I'm Kismine."

She was much more than that to John already. He advanced toward her, scarcely moving as he drew near lest he should tread on her bare toes.

"You haven't met me," said her soft voice. Her blue eyes added, "Oh, but you've missed a great deal!". . . "You met my sister, Jasmine, last night, I was sick with lettuce poisoning," went on her soft voice, and her eyes continued, "and when I'm sick I'm sweet—and when I'm well."

"You have made an enormous impression on me," said John's eyes, "and I'm not so slow myself"—"How do you do?" said his voice. "I hope you're better this morning."—"You darling," added his eyes tremulously.

John observed that they had been walking along the path. On her sug-

gestion they sat down together upon the moss, the softness of which he failed to determine.

He was critical about women. A single defect—a thick ankle, a hoarse voice, a glass eye—was enough to make him utterly indifferent. And here for the first time in his life he was beside a girl who seemed to him the incarnation of physical perfection.

"Are you from the East?" asked Kismine with charming interest.

"No," answered John simply. "I'm from Hades."

Either she had never heard of Hades, or she could think of no pleasant comment to make upon it, for she did not discuss it further.

"I'm going East to school this fall," she said. "D'you think I'll make it? I'm going to New York to Miss Bulge's. It's very strict, but you see over the weekends I'm going to live at home with the family in our New York house, because father heard that the girls had to go walking two by two."

"Your father wants you to be proud," observed John.

"We are," she answered, her eyes shining with dignity. "None of us has ever been punished. Father said we never should be. Once when my sister Jasmine was a little girl she pushed him down-stairs and he just got up and limped away.

"Mother was—well, a little startled," continued Kismine, "when she heard that you were from—from where you *are* from, you know. She said that when she was a young girl—but then, you see, she's a Spaniard and old-fashioned."

"Do you spend much time out here?" asked John, to conceal the fact that he was somewhat hurt by this remark. It seemed an unkind allusion to his provincialism.

"Percy and Jasmine and I are here every summer, but next summer Jasmine is going to Newport. She's coming out in London a year from this fall. She'll be presented at court."

"Do you know," began John hesitantly, "you're much more sophisticated than I thought you were when I first saw you?"

"Oh, no, I'm not," she exclaimed hurriedly. "Oh, I wouldn't think of being. I think that sophisticated young people are *terribly* common, don't you? I'm not at all, really. If you say I am, I'm going to cry."

She was so distressed that her lip was trembling. John was impelled to protest:

"I didn't mean that; I only said it to tease you."

"Because I wouldn't mind if I *were*," she persisted, "but I'm *not*. I'm very innocent and girlish. I never smoke, or drink, or read anything ex-

cept poetry. I know scarcely any mathematics or chemistry. I dress *very* simply–in fact, I scarcely dress at all. I think sophisticated is the last thing you can say about me. I believe that girls ought to enjoy their youths in a wholesome way."

"I do too," said John heartily.

Kismine was cheerful again. She smiled at him, and a stillborn tear dripped from the corner of one blue eye.

"I like you," she whispered, intimately. "Are you going to spend all your time with Percy while you're here, or will you be nice to me? Just think–I'm absolutely fresh ground. I've never had a boy in love with me in all my life. I've never been allowed even to *see* boys alone–except Percy. I came all the way out here into this grove hoping to run into you, where the family wouldn't be around."

Deeply flattered, John bowed from the hips as he had been taught at dancing school in Hades.

"We'd better go now," said Kismine sweetly. "I have to be with mother at eleven. You haven't asked me to kiss you once. I thought boys always did that nowadays."

John drew himself up proudly.

"Some of them do," he answered, "but not me. Girls don't do that sort of thing–in Hades."

Side by side they walked back toward the house.

John stood facing Mr. Braddock Washington in the full sunlight. The elder man was about forty with a proud, vacuous face, intelligent eyes, and a robust figure. In the mornings he smelt of horses–the best horses. He carried a plain walking stick of gray birch with a single large opal for a grip. He and Percy were showing John around.

"The slaves' quarters are there." His walking stick indicated a cloister of marble on their left that ran in graceful Gothic along the side of the mountain. "In my youth I was distracted for a while from the business of life by a period of absurd idealism. During that time they lived in luxury. For instance, I equipped every one of their rooms with a tile bath."

"I suppose," ventured John, with an ingratiating laugh, "that they used the bathtubs to keep coal in. Mr. Schnlitzer-Murphy told me that once he–"

"The opinions of Mr. Schnlitzer-Murphy are of little importance, I should imagine," interrupted Braddock Washington, coldly. "My slaves did not keep coal in their bathtubs. They had orders to bathe every day, and they did. If they hadn't I might have ordered a sulphuric acid sham-

poo. I discontinued the baths for quite another reason. Several of them caught cold and died. Water is not good for certain races—except as a beverage."

John laughed, and then decided to nod his head in sober agreement. Braddock Washington made him uncomfortable.

"All these Negroes are descendants of the ones my father brought North with him. There are about two hundred and fifty now. You notice that they've lived so long apart from the world that their original dialect has become an almost indistinguishable patois. We bring a few of them up to speak English—my secretary and two or three of the house servants.

"This is the golf course," he continued, as they strolled along the velvet winter grass. "It's all a green, you see—no fairway, no rough, no hazards."

He smiled pleasantly at John.

"Many men in the cage, father?" asked Percy suddenly.

Braddock Washington stumbled, and let forth an involuntary curse.

"One less than there should be," he ejaculated darkly—and then added after a moment, "We've had difficulties."

"Mother was telling me," exclaimed Percy, "that Italian teacher—"

"A ghastly error," said Braddock Washington angrily. "But of course there's a good chance that we may have got him. Perhaps he fell somewhere in the woods or stumbled over a cliff. And then there's always the probability that if he did get away his story wouldn't be believed. Nevertheless, I've had two dozen men looking for him in different towns around here."

"And no luck?"

"Some. Fourteen of them reported to my agent that they'd each killed a man answering to that description, but of course it was probably only the reward they were after—"

He broke off. They had come to a large cavity in the earth about the circumference of a merry-go-round and covered by a strong iron grating. Braddock Washington beckoned to John, and pointed his cane down through the grating. John stepped to the edge and gazed. Immediately his ears were assailed by a wild clamor from below.

"Come on down to Hell!"

"Hello, kiddo, how's the air up there?"

"Hey! Throw us a rope!"

"Got an old doughnut, Buddy, or a couple of secondhand sandwiches?"

"Say, fella, if you'll push down that guy you're with, we'll show you a quick disappearance scene."

"Paste him one for me, will you?"

It was too dark to see clearly into the pit below, but John could tell from the coarse optimism and rugged vitality of the remarks and voices that they proceeded from middle-class Americans of the more spirited type. Then Mr. Washington put out his cane and touched a button in the grass, and the scene below sprang into light.

"These are some adventurous mariners who had the misfortune to discover El Dorado," he remarked.

Below them there had appeared a large hollow in the earth shaped like the interior of a bowl. The sides were steep and apparently of polished glass, and on its slightly concave surface stood about two dozen men clad in the half costume, half uniform, of aviators. Their upturned faces, lit with wrath, with malice, with despair, with cynical humor, were covered by long growths of beard, but with the exception of a few who had pined perceptibly away, they seemed to be a well-fed, healthy lot.

Braddock Washington drew a garden chair to the edge of the pit and sat down.

"Well, how are you, boys?" he inquired genially.

A chorus of execration, in which all joined except a few too dispirited to cry out, rose up into the sunny air, but Braddock Washington heard it with unruffled composure. When its last echo had died away he spoke again.

"Have you thought up a way out of your difficulty?"

From here and there among them a remark floated up.

"We decided to stay here for love!"

"Bring us up there and we'll find us a way!"

Braddock Washington waited until they were again quiet. Then he said: "I've told you the situation. I don't want you here. I wish to heaven I'd never seen you. Your own curiosity got you here, and any time that you can think of a way out which protects me and my interests I'll be glad to consider it. But so long as you confine your efforts to digging tunnels—yes, I know about the new one you've started—you won't get very far. This isn't as hard on you as you make it out, with all your howling for the loved ones at home. If you were the type who worried much about the loved ones at home, you'd never have taken up aviation."

A tall man moved apart from the others, and held up his hand to call his captor's attention to what he was about to say.

"Let me ask you a few questions!" he cried. "You pretend to be a fair-minded man."

"How absurd. How could a man of *my* position be fair minded toward

you? You might as well speak of a Spaniard being fair minded toward a piece of steak."

At this harsh observation the faces of the two dozen steaks fell, but the tall man continued:

"All right!" he cried. "We've argued this out before. You're not a humanitarian and you're not fair minded, but you're human–at least you say you are–and you ought to be able to put yourself in our place for long enough to think how–how–how–"

"How what?" demanded Washington, coldly.

"–how unnecessary–"

"Not to me."

"Well–how cruel–"

"We've covered that. Cruelty doesn't exist where self-preservation is involved. You've been soldiers: you know that. Try another."

"Well, then, how stupid."

"There," admitted Washington, "I grant you that. But try to think of an alternative. I've offered to have all or any of you painlessly executed if you wish. I've offered to have your wives, sweethearts, children, and mothers kidnapped and brought out here. I'll enlarge your place down there and feed and clothe you the rest of your lives. If there was some method of producing permanent amnesia I'd have all of you operated on and released immediately, somewhere outside of my preserves. But that's as far as my ideas go."

"How about trusting us not to peach on you?" cried someone.

"You don't proffer that suggestion seriously," said Washington, with an expression of scorn. "I did take out one man to teach my daughter Italian. Last week he got away."

A wild yell of jubilation went up suddenly from two dozen throats and a pandemonium of joy ensued. The prisoners clog danced and cheered and yodled and wrestled with one another in a sudden uprush of animal spirits. They even ran up the glass sides of the bowl as far as they could, and slid back to the bottom upon the natural cushions of their bodies. The tall man started a song in which they all joined–

> Oh, we'll hang the kaiser
> On a sour apple tree–

Braddock Washington sat in inscrutable silence until the song was over.

"You see," he remarked, when he could gain a modicum of attention, "I bear you no ill will. I like to see you enjoying yourselves. That's why I didn't tell you the whole story at once. The man—what was his name? Critchtichiello?—was shot by some of my agents in fourteen different places."

Not guessing that the places referred to were cities, the tumult of rejoicing subsided immediately.

"Nevertheless," cried Washington with a touch of anger, "he tried to run away. Do you expect me to take chances with any of you after an experience like that?"

Again a series of ejaculations went up.

"Sure!"

"Would your daughter like to learn Chinese?"

"Hey, I can speak Italian! My mother was a wop."

"Maybe she'd like t'learna speak N'Yawk!"

"If she's the little one with the big blue eyes I can teach her a lot of things better than Italian."

"I know some Irish songs—and I could hammer brass once't."

Mr. Washington reached forward suddenly with his cane and pushed the button in the grass so that the picture below went out instantly, and there remained only that great dark mouth covered dismally with the black teeth of the grating.

"Hey!" called a single voice from below, "you ain't goin' away without givin' us your blessing?"

But Mr. Washington, followed by the two boys, was already strolling on toward the ninth hole of the golf course, as though the pit and its contents were no more than a hazard over which his facile iron had triumphed with ease.

July under the lee of the diamond mountain was a month of blanket nights and of warm, glowing days. John and Kismine were in love. He did not know that the little gold football (inscribed with the legend *Pro deo et patria et St. Mida*) which he had given her rested on a platinum chain next to her bosom. But it did. And she for her part was not aware that a large sapphire which had dropped one day from her simple coiffure was stowed away tenderly in John's jewel box.

Late one afternoon when the ruby and ermine music room was quiet, they spent an hour there together. He held her hand and she gave him such a look that he whispered her name aloud. She bent toward him—then hesitated.

"Did you say 'Kismine'?" she asked softly, "or–"

She had wanted to be sure. She thought she might have misunderstood.

Neither of them had ever kissed before, but in the course of an hour it seemed to make little difference.

The afternoon drifted away. That night when a last breath of music drifted down from the highest tower, they each lay awake, happily dreaming over the separate minutes of the day. They had decided to be married as soon as possible.

Every day Mr. Washington and the two young men went hunting or fishing in the deep forests or played golf around the somnolent course–games which John diplomatically allowed his host to win–or swam in the mountain coolness of the lake. John found Mr. Washington a somewhat exacting personality–utterly uninterested in any ideas or opinions except his own. Mrs. Washington was aloof and reserved at all times. She was apparently indifferent to her two daughters, and entirely absorbed in her son Percy, with whom she held interminable conversations in rapid Spanish at dinner.

Jasmine, the elder daughter, resembled Kismine in appearance–except that she was somewhat bow-legged, and terminated in large hands and feet–but was utterly unlike her in temperament. Her favorite books had to do with poor girls who kept house for widowed fathers. John learned from Kismine that Jasmine had never recovered from the shock and disappointment caused her by the termination of the World War, just as she was about to start for Europe as a canteen expert. She had even pined away for a time, and Braddock Washington had taken steps to promote a new war in the Balkans–but she had seen a photograph of some wounded Serbian soldiers and lost interest in the whole proceedings. But Percy and Kismine seemed to have inherited the arrogant attitude in all its harsh magnificence from their father. A chaste and consistent selfishness ran like a pattern through their every idea.

John was enchanted by the wonders of the château and the valley. Braddock Washington, so Percy told him, had caused to be kidnapped a landscape gardener, an architect, a designer of stage settings, and a French decadent poet left over from the last century. He had put his entire force of Negroes at their disposal, guaranteed to supply them with any materials that the world could offer, and left them to work out some ideas of their own. But one by one they had shown their uselessness. The decadent poet had at once begun bewailing his separation from the bou-

levards in spring—he made some vague remarks about spices, apes, and ivories, but said nothing that was of any practical value. The stage designer on his part wanted to make the whole valley a series of tricks and sensational effects—a state of things that the Washingtons would soon have grown tired of. And as for the architect and the landscape gardener, they thought only in terms of convention. They must make this like this and that like that.

But they had, at least, solved the problem of what was to be done with them—they all went mad early one morning after spending the night in a single room trying to agree upon the location of a fountain, and were now confined comfortably in an insane asylum at Westport, Connecticut.

"But," inquired John curiously, "who did plan all your wonderful reception rooms and halls, and approaches and bathrooms—?"

"Well," answered Percy, "I blush to tell you, but it was a moving-picture fella. He was the only man we found who was used to playing with an unlimited amount of money, though he did tuck his napkin in his collar and couldn't read or write."

As August drew to a close John began to regret that he must soon go back to school. He and Kismine had decided to elope the following June.

"It would be nicer to be married here," Kismine confessed, "but of course I could never get father's permission to marry you at all. Next to that I'd rather elope. It's terrible for wealthy people to be married in America at present—they always have to send out bulletins to the press saying that they're going to be married in remnants, when what they mean is just a peck of old secondhand pearls and some used lace worn once by the Empress Eugénie."

"I know," agreed John fervently. "When I was visiting the Schnlitzer-Murphys, the eldest daughter, Gwendolyn, married a man whose father owns half of West Virginia. She wrote home saying what a tough struggle she was carrying on on his salary as a bank clerk—and then she ended up by saying that 'Thank God, I have four good maids anyhow, and that helps a little.' "

"It's absurd," commented Kismine. "Think of the millions and millions of people in the world, laborers and all, who get along with only two maids."

One afternoon late in August a chance remark of Kismine's changed the face of the entire situation, and threw John into a state of terror.

They were in their favorite grove, and between kisses John was indulging in some romantic forebodings which he fancied added poignancy to their relations.

"Sometimes I think we'll never marry," he said sadly. "You're too wealthy, too magnificent. No one as rich as you are can be like other girls. I should marry the daughter of some well-to-do wholesale hardware man from Omaha or Sioux City, and be content with her half million."

"I knew the daughter of a wholesale hardware man once," remarked Kismine. "I don't think you'd have been contented with her. She was a friend of my sister's. She visited here."

"Oh, then you've had other guests?" exclaimed John in surprise.

Kismine seemed to regret her words.

"Oh, yes," she said hurriedly, "we've had a few."

"But aren't you—wasn't your father afraid they'd talk outside?"

"Oh, to some extent, to some extent," she answered. "Let's talk about something pleasanter."

But John's curiosity was aroused.

"Something pleasanter!" he demanded. "What's unpleasant about that? Weren't they nice girls?"

To his great surprise Kismine began to weep.

"Yes—th—that's the—the whole t-trouble. I grew qu-quite attached to some of them. So did Jasmine, but she kept inv-viting them anyway. I couldn't under*stand* it."

A dark suspicion was born in John's heart.

"Do you mean that they *told*, and your father had them—removed?"

"Worse than that," she muttered brokenly. "Father took no chances—and Jasmine kept writing them to come, and they had *such* a good time!"

She was overcome by a paroxysm of grief.

Stunned with the horror of this revelation, John sat there open-mouthed, feeling the nerves of his body twitter like so many sparrows perched upon his spinal column.

"Now, I've told you, and I shouldn't have," she said, calming suddenly and drying her dark blue eyes.

"Do you mean to say that your father had them *murdered* before they left?"

She nodded.

"In August usually—or early in September. It's only natural for us to get all the pleasure out of them that we can first."

"How abominable! How—why, I must be going crazy! Did you really admit that—"

"I did," interrupted Kismine, shrugging her shoulders. "We can't very well imprison them like those aviators, where they'd be a continual reproach to us every day. And it's always been made easier for Jasmine and

me, because father had it done sooner than we expected. In that way we avoided any farewell scene–"

"So you murdered them! Uh!" cried John.

"It was done very nicely. They were drugged while they were asleep–and their families were always told that they died of scarlet fever in Butte."

"But–I fail to understand why you kept on inviting them!"

"I didn't," burst out Kismine. "I never invited one. Jasmine did. And they always had a very good time. She'd give them the nicest presents toward the last. I shall probably have visitors too–I'll harden up to it. We can't let such an inevitable thing as death stand in the way of enjoying life while we have it. Think how lonesome it'd be out here if we never had *any* one. Why, father and mother have sacrificed some of their best friends just as we have."

"And so," cried John accusingly, "and so you were letting me make love to you and pretending to return it, and talking about marriage, all the time knowing perfectly well that I'd never get out of here alive–"

"No," she protested passionately. "Not any more. I did at first. You were here. I couldn't help that, and I thought your last days might as well be pleasant for both of us. But then I fell in love with you, and–and I'm honestly sorry you're going to–going to be put away–though I'd rather you'd be put away than ever kiss another girl."

"Oh, you would, would you?" cried John ferociously.

"Much rather. Besides, I've always heard that a girl can have more fun with a man whom she knows she can never marry. Oh, why did I tell you? I've probably spoiled your whole good time now, and we were really enjoying things when you didn't know it. I knew it would make things sort of depressing for you."

"Oh, you did, did you?" John's voice trembled with anger. "I've heard about enough of this. If you haven't any more pride and decency than to have an affair with a fellow that you know isn't much better than a corpse, I don't want to have any more to do with you."

"You're not a corpse!" she protested in horror. "You're not a corpse! I won't have you saying that I kissed a corpse!"

"I said nothing of the sort!"

"You did! You said I kissed a corpse!"

"I didn't!"

Their voices had risen, but upon a sudden interruption they both subsided into immediate silence. Footsteps were coming along the path in their direction, and a moment later the rose bushes were parted display-

ing Braddock Washington, whose intelligent eyes set in his good-looking vacuous face were peering in at them.

"Who kissed a corpse?" he demanded in obvious disapproval.

"Nobody," answered Kismine quickly. "We were just joking."

"What are you two doing here, anyhow?" he demanded gruffly. "Kismine, you ought to be—to be reading or playing golf with your sister. Go read! Go play golf! Don't let me find you here when I come back!"

Then he bowed at John and went up the path.

"See?" said Kismine crossly, when he was out of hearing. "You've spoiled it all. We can never meet any more. He won't let me meet you. He'd have you poisoned if he thought we were in love."

"We're not, any more!" cried John fiercely, "so he can set his mind at rest upon that. Moreover, don't fool yourself that I'm going to stay around here. Inside of six hours I'll be over those mountains, if I have to gnaw a passage through them, and on my way East."

They had both got to their feet, and at this remark Kismine came close and put her arm through his,

"I'm going, too."

"You must be crazy—"

"Of course I'm going," she interrupted impatiently.

"You most certainly are not. You—"

"Very well," she said quietly, "we'll catch up with father now and talk it over with him."

Defeated, John mustered a sickly smile.

"Very well, dearest," he agreed, with pale and unconvincing affection, "we'll go together."

His love for her returned and settled placidly on his heart. She was his—she would go with him to share his dangers. He put his arms about her and kissed her fervently. After all she loved him; she had saved him, in fact.

Discussing the matter they walked slowly back toward the château. They decided that since Braddock Washington had seen them together they had best depart the next night. Nevertheless, John's lips were unusually dry at dinner, and he nervously emptied a great spoonful of peacock soup into his left lung. He had to be carried into the tourquoise and sable cardroom and pounded on the back by one of the underbutlers, which Percy considered a great joke.

Long after midnight John's body gave a nervous jerk, and he sat suddenly upright, staring into the veils of somnolence that draped the room.

Through the squares of blue darkness that were his open windows, he had heard a faint faraway sound that died upon a bed of wind before identifying itself on his memory, clouded with uneasy dreams. But the sharp noise that had succeeded it was nearer, was just outside the room—the click of a turned knob, a footstep, a whisper, he could not tell; a hard lump gathered in the pit of his stomach, and his whole body ached in the moment that he strained agonizingly to hear. Then one of the veils seemed to dissolve, and he saw a vague figure standing by the door, a figure only faintly limned and blocked in upon the darkness, mingled so with the folds of the drapery as to seem distorted, like a reflection seen in a dirty pane of glass.

With a sudden movement of fright or resolution John pressed the button by his bedside, and the next moment he was sitting in the green sunken bath of the adjoining room, waked into alertness by the shock of the cold water which half filled it.

He sprang out, and, his wet pajamas scattering a heavy trickle of water behind him, ran for the aquamarine door which he knew led out onto the ivory landing of the second floor. The door opened noiselessly. A single crimson lamp burning in a great dome above lit the magnificent sweep of the carved stairways with a poignant beauty. For a moment John hesitated, appalled by the silent splendor massed about him, seeming to envelop in its gigantic folds and contours the solitary drenched little figure shivering upon the ivory landing. Then simultaneously two things happened. The door of his own sitting room swung open, precipitating three naked Negroes into the hall—and, as John swayed in wild terror toward the stairway, another door slid back in the wall on the other side of the corridor, and John saw Braddock Washington standing in the lighted lift, wearing a fur coat and a pair of riding boots which reached to his knees and displayed, above, the glow of his rose-colored pajamas.

On the instant the three Negroes—John had never seen any of them before, and it flashed through his mind that they must be the professional executioners—paused in their movement toward John, and turned expectantly to the man in the lift, who burst out with an imperious command:

"Get in here! All three of you! Quick as hell!"

Then, within the instant, the three Negroes darted into the cage, the oblong of light was blotted out as the lift door slid shut, and John was again alone in the hall. He slumped weakly down against an ivory stair.

It was apparent that something portentous had occurred, something

which, for the moment at least, had postponed his own petty disaster. What was it? Had the Negroes risen in revolt? Had the aviators forced aside the iron bars of the grating? Or had the men of Fish stumbled blindly through the hills and gazed with bleak, joyless eyes upon the gaudy valley? John did not know. He heard a faint whir of air as the lift whizzed up again, and then, a moment later, as it descended. It was probable that Percy was hurrying to his father's assistance, and it occurred to John that this was his opportunity to join Kismine and plan an immediate escape. He waited until the lift had been silent for several minutes; shivering a little with the night cool that whipped in through his wet pajamas, he returned to his room and dressed himself quickly. Then he mounted a long flight of stairs and turned down the corridor carpeted with Russian sable which led to Kismine's suite.

The door of her sitting room was open and the lamps were lighted. Kismine, in an angora kimono, stood near the window of the room in a listening attitude, and as John entered noiselessly, she turned toward him.

"Oh, it's you!" she whispered, crossing the room to him. "Did you hear them?"

"I heard your father's slaves in my–"

"No," she interrupted excitedly. "Airplanes!"

"Airplanes? Perhaps that was the sound that woke me."

"There're at least a dozen. I saw one a few moments ago dead against the moon. The guard back by the cliff fired his rifle and that's what roused father. We're going to open on them right away."

"Are they here on purpose?"

"Yes, it's that Italian who got away–"

Simultaneously with her last word, a succession of sharp cracks tumbled in through the open window. Kismine uttered a little cry, took a penny with fumbling fingers from a box on her dresser, and ran to one of the electric lights. In an instant the entire château was in darkness–she had blown out the fuse.

"Come on!" she cried to him. "We'll go up to the roof garden, and watch it from there!"

Drawing a cape about her, she took his hand, and they found their way out the door. It was only a step to the tower lift, and as she pressed the button that shot them upward he put his arms around her in the darkness and kissed her mouth. Romance had come to John Unger at last. A minute later they had stepped out upon the star-white platform. Above, under the misty moon, sliding in and out of the patches of cloud that eddied below it, floated a dozen dark-winged bodies in a constant

circling course. From here and there in the valley flashes of fire leaped toward them, followed by sharp detonations. Kismine clapped her hands with pleasure, which a moment later turned to dismay as the airplanes at some prearranged signal began to release their bombs and the whole of the valley became a panorama of deep reverberate sound and lurid light.

Before long the aim of the attackers became concentrated upon the points where the antiaircraft guns were situated, and one of them was almost immediately reduced to a giant cinder to lie smouldering in a park of rose bushes.

"Kismine," begged John, "you'll be glad when I tell you that this attack came on the eve of my murder. If I hadn't heard that guard shoot off his gun back by the pass I should now be stone dead–"

"I can't hear you!" cried Kismine, intent on the scene before her. "You'll have to talk louder!"

"I simply said," shouted John, "that we'd better get out before they begin to shell the château!"

Suddenly the whole portico of the Negro quarters cracked asunder, a geyser of flame shot up from under the colonnades, and great fragments of jagged marble were hurled as far as the borders of the lake.

"There go fifty thousand dollar's worth of slaves," cried Kismine, "at prewar prices. So few Americans have any respect for property."

John renewed his efforts to compel her to leave. The aim of the airplanes was becoming more precise minute by minute, and only two of the antiaircraft guns were still retaliating. It was obvious that the garrison, encircled with fire, could not hold out much longer.

"Come on!" cried John, pulling Kismine's arm, "we've got to go. Do you realize that those aviators will kill you without question if they find you?"

She consented reluctantly.

"We'll have to wake Jasmine!" she said, as they hurried toward the lift. Then she added in a sort of childish delight: "We'll be poor, won't we? Like people in books. And I'll be an orphan and utterly free. Free and poor! What fun!" She stopped and raised her lips to him in a delighted kiss.

"It's impossible to be both together," said John grimly. "People have found that out. And I should choose to be free as preferable of the two. As an extra caution you'd better dump the contents of your jewel box into your pockets."

Ten minutes later the two girls met John in the dark corridor and they

descended to the main floor of the château. Passing for the last time through the magnificence of the splendid halls, they stood for a moment out on the terrace, watching the burning Negro quarters and the flaming embers of two planes which had fallen on the other side of the lake. A solitary gun was still keeping up a sturdy popping, and the attackers seemed timorous about descending lower, but sent their thunderous fireworks in a circle around it, until any chance shot might annihilate its Ethiopian crew.

John and the two sisters passed down the marble steps, turned sharply to the left, and began to ascend a narrow path that wound like a garter about the diamond mountain. Kismine knew a heavily wooded spot halfway up where they could lie concealed and yet be able to observe the wild night in the valley–finally to make an escape, when it should be necessary, along a secret path laid in a rocky gully.

It was three o'clock when they attained their destination. The obliging and phlegmatic Jasmine fell off to sleep immediately, leaning against the trunk of a large tree, while John and Kismine sat, his arm around her, and watched the desperate ebb and flow of the dying battle among the ruins of a vista that had been a garden spot that morning. Shortly after four o'clock the last remaining gun gave out a clanging sound and went out of action in a swift tongue of red smoke. Though the moon was down, they saw that the flying bodies were circling closer to the earth. When the planes had made certain that the beleaguered possessed no further resources, they would land and the dark and glittering reign of the Washingtons would be over.

With the cessation of the firing the valley grew quiet. The embers of the two airplanes glowed like the eyes of some monster crouching in the grass. The château stood dark and silent, beautiful without light as it had been beautiful in the sun, while the woody rattles of Nemesis filled the air above with a growing and receding complaint. Then John perceived that Kismine, like her sister, had fallen sound asleep.

It was long after four when he became aware of footsteps along the path they had lately followed, and he waited in breathless silence until the persons to whom they belonged had passed the vantage point he occupied. There was a faint stir in the air now that was not of human origin, and the dew was cold; he knew that the dawn would break soon. John waited until the steps had gone a safe distance up the mountain and were inaudible. Then he followed. About half-way to the steep summit the trees fell away and a hard saddle of rock spread itself over the diamond

beneath. Just before he reached this point he slowed down his pace, warned by an animal sense that there was life just ahead of him. Coming to a high boulder, he lifted his head gradually above its edge. His curiosity was rewarded; this is what he saw:

Braddock Washington was standing there motionless, silhouetted against the gray sky without sound or sign of life. As the dawn came up out of the east, lending a cold green color to the earth, it brought the solitary figure into insignificant contrast with the new day.

While John watched, his host remained for a few moments absorbed in some inscrutable contemplation; then he signaled to the two Negroes who crouched at his feet to lift the burden which lay between them. As they struggled upright, the first yellow beam of the sun struck through the innumerable prisms of an immense and exquisitely chiseled diamond–and a white radiance was kindled that glowed upon the air like a fragment of the morning star. The bearers staggered beneath its weight for a moment–then their rippling muscles caught and hardened under the wet shine of the skins and the three figures were again motionless in their defiant impotency before the heavens.

After a while the white man lifted his head and slowly raised his arms in a gesture of attention, as one who would call a great crowd to hear–but there was no crowd, only the vast silence of the mountain and the sky, broken by faint bird voices down among the trees. The figure on the saddle of rock began to speak ponderously and with an inextinguishable pride.

"You out there–" he cried in a trembling voice. "You–there–!" He paused, his arms still uplifted, his head held attentively as though he were expecting an answer. John strained his eyes to see whether there might be men coming down the mountain, but the mountain was bare of human life. There was only sky and a mocking flute of wind along the treetops. Could Washington be praying? For a moment John wondered. Then the illusion passed–there was something in the man's whole attitude antithetical to prayer.

"Oh, you above there!"

The voice was become strong and confident. This was no forlorn supplication. If anything, there was in it a quality of monstrous condescension.

"You there–"

Words, too quickly uttered to be understood, flowing one into the other. . . . John listened breathlessly, catching a phrase here and there, while the voice broke off, resumed, broke off again–now strong and argu-

mentative, now colored with a slow, puzzled impatience. Then a conviction commenced to dawn on the single listener, and as realization crept over him a spray of quick blood rushed through his arteries. Braddock Washington was offering a bribe to God!

That was it—there was no doubt. The diamond in the arms of his slaves was some advance sample, a promise of more to follow.

That, John perceived after a time, was the thread running through his sentences. Prometheus Enriched was calling to witness forgotten sacrifices, forgotten rituals, prayers obsolete before the birth of Christ. For a while his discourse took the form of reminding God of this gift or that which Divinity had deigned to accept from men—great churches if he would rescue cities from the plague, gifts of myrrh and gold, of human lives and beautiful women and captive armies, of children and queens, of beasts of the forest and fleld, sheep and goats, harvests and cities, whole conquered lands that had been offered up in lust or blood for His appeasal, buying a meed's worth of alleviation from the Divine wrath—and now he, Braddock Washington, Emperor of Diamonds, king and priest of the age of gold, arbiter of splendor and luxury, would offer up a treasure such as princes before him had never dreamed of, offer it up not in suppliance, but in pride.

He would give to God, he continued, getting down to specifications, the greatest diamond in the world. This diamond would be cut with many more thousand facets than there were leaves on a tree, and yet the whole diamond would be shaped with the perfection of a stone no bigger than a fly. Many men would work upon it for many years. It would be set in a great dome of beaten gold, wonderfully carved and equipped with gates of opal and crusted sapphire. In the middle would be hollowed out a chapel presided over by an altar of iridescent, decomposing, ever-changing radium which would burn out the eyes of any worshipper who lifted up his head from prayer—and on this altar there would be slain for the amusement of the Divine Benefactor any victim He should choose, even though it should be the greatest and most powerful man alive.

In return he asked only a simple thing, a thing that for God would be absurdly easy—only that matters should be as they were yesterday at this hour and that they should so remain. So very simple! Let but the heavens open, swallowing these men and their airplanes—and then close again. Let him have his slaves once more, restored to life and well.

There was no one else with whom he had ever needed to treat or bargain.

He doubted only whether he had made his bribe big enough. God had His price, of course. God was made in man's image, so it had been said: He must have His price. And the price would be rare—no cathedral whose building consumed many years, no pyramid constructed by ten thousand workmen, would be like this cathedral, this pyramid.

He paused here. That was his proposition. Everything would be up to specifications and there was nothing vulgar in his assertion that it would be cheap at the price. He implied that Providence could take it or leave it.

As he approached the end his sentences became broken, became short and uncertain, and his body seemed tense, seemed strained to catch the slightest pressure or whisper of life in the spaces around him. His hair had turned gradually white as he talked, and now he lifted his head high to the heavens like a prophet of old—magnificently mad.

Then, as John stared in giddy fascination, it seemed to him that a curious phenomenon took place somewhere around him. It was as though the sky had darkened for an instant, as though there had been a sudden murmur in a gust of wind, a sound of faraway trumpets, a sighing like the rustle of a great silken robe—for a time the whole of nature round about partook of this darkness: the birds' song ceased; the trees were still and far over the mountain there was a mutter of dull, menacing thunder.

That was all. The wind died along the tall grasses of the valley. The dawn and the day resumed their place in a time, and the risen sun sent hot waves of yellow mist that made its path bright before it. The leaves laughed in the sun, and their laughter shook the trees until each bough was like a girl's school in fairyland. God had refused to accept the bribe.

For another moment John watched the triumph of the day. Then, turning, he saw a flutter of brown down by the lake, then another flutter, then another, like the dance of golden angels alighting from the clouds. The airplanes had come to earth.

John slid off the boulder and ran down the side of the mountain to the clump of trees, where the two girls were awake and waiting for him. Kismine sprang to her feet, the jewels in her pockets jingling, a question on her parted lips, but instinct told John that there was no time for words. They must get off the mountain without losing a moment. He seized a hand of each, and in silence they threaded the tree trunks, washed with light now and with the rising mist. Behind them from the valley came no sound at all, except the complaint of the peacocks far away and the pleasant undertone of morning.

When they had gone about half a mile, they avoided the park land and entered a narrow path that led over the next rise of ground. At the high-

est point of this they paused and turned around. Their eyes rested upon the mountainside they had just left—oppressed by some dark sense of tragic impendency.

Clear against the sky a broken, white-haired man was slowly descending the steep slope, followed by two gigantic and emotionless Negroes, who carried a burden between them which still flashed and glittered in the sun. Half-way down two other figures joined them—John could see that they were Mrs. Washington and her son, upon whose arm she leaned. The aviators had clambered from their machines to the sweeping lawn in front of the château, and with rifles in hand were starting up the diamond mountain in skirmishing formation.

But the little group of five which had formed farther up and was engrossing all the watchers' attention had stopped upon a ledge of rock. The Negroes stooped and pulled up what appeared to be a trap door in the side of the mountain. Into this they all disappeared, the white-haired man first, then his wife and son, finally the two Negroes, the glittering tips of whose jeweled headdress caught the sun for a moment before the trap door descended and engulfed them all.

Kismine clutched John's arm.

"Oh," she cried wildly, "where are they going? What are they going to do?"

"It must be some underground way of escape—"

A little scream from the two girls interrupted his sentence.

"Don't you see?" sobbed Kismine hysterically. "The mountain is wired!"

Even as she spoke John put up his hands to shield his sight. Before their eyes the whole surface of the mountain had changed suddenly to a dazzling burning yellow, which showed up through the jacket of turf as light shows through a human hand. For a moment the intolerable glow continued, and then like an extinguished filament it disappeared, revealing a black waste from which blue smoke arose slowly, carrying off with it what remained of vegetation and of human flesh. Of the aviators there was left neither blood nor bone—they were consumed as completely as the five souls who had gone inside.

Simultaneously, and with an immense concussion, the château literally threw itself into the air, bursting into flaming fragments as it rose, and then tumbling back upon itself in a smoking pile that lay projecting half into the water of the lake. There was no fire—what smoke there was drifted off mingling with the sunshine, and for a few minutes longer a powdery dust of marble drifted from the great featureless pile that had

once been the house of jewels. There was no more sound and the three people were alone in the valley.

At sunset John and his two companions reached the high cliff which had marked the boundaries of the Washingtons' dominion, and looking back found the valley tranquil and lovely in the dusk. They sat down to finish the food which Jasmine had brought with her in a basket.

"There!" she said, as she spread the tablecloth and put the sandwiches in a neat pile upon it. "Don't they look tempting? I always think that food tastes better outdoors."

"With that remark," remarked Kismine, "Jasmine enters the middle class."

"Now," said John eagerly, "turn out your pocket and let's see what jewels you brought along. If you made a good selection we three ought to live comfortably all the rest of our lives."

Obediently Kismine put her hand in her pocket and tossed two handfuls of glittering stones before him.

"Not so bad," cried John, enthusiastically. "They aren't very big, but—Hello!" His expression changed as he held one of them up to the declining sun. "Why, these aren't diamonds! There's something the matter!"

"By golly!" exclaimed Kismine, with a startled look. "What an idiot I am!"

"Why, these are rhinestones!" cried John.

"I know." She broke into a laugh. "I opened the wrong drawer. They belonged on the dress of a girl who visited Jasmine. I got her to give them to me in exchange for diamonds. I'd never seen anything but precious stones before."

"And this is what you brought?"

"I'm afraid so." She fingered the brilliants wistfully. "I think I like these better. I'm a little tired of diamonds."

"Very well," said John gloomily. "We'll have to live in Hades. And you will grow old telling incredulous women that you got the wrong drawer. Unfortunately your father's bankbooks were consumed with him."

"Well, what's the matter with Hades?"

"If I come home with a wife at my age my father is just as liable as not to cut me off with a hot coal, as they say down there."

Jasmine spoke up.

"I love washing," she said quietly. "I have always washed my own handkerchiefs. I'll take in laundry and support you both."

"Do they have washwomen in Hades?" asked Kismine innocently.

"Of course," answered John. "It's just like anywhere else."

"I thought–perhaps it was too hot to wear any clothes."

John laughed.

"Just try it!" he suggested. "They'll run you out before you're half started."

"Will father be there?" she asked.

John turned to her in astonishment.

"Your father is dead," he replied somberly. "Why should he go to Hades? You have it confused with another place that was abolished long ago."

After supper they folded up the tablecloth and spread their blankets for the night.

"What a dream it was," Kismine sighed, gazing up at the stars. "How strange it seems to be here with one dress and a penniless fiancé!

"Under the stars," she repeated. "I never noticed the stars before. I always thought of them as great big diamonds that belonged to someone. Now they frighten me. They make me feel that it was all a dream, all my youth."

"It *was* a dream," said John quietly. "Everybody's youth is a dream, a form of chemical madness."

"How pleasant then to be insane!"

"So I'm told," said John gloomily. "I don't know any longer. At any rate, let us love for a while, for a year or so, you and me. That's a form of divine drunkenness that we can all try. There are only diamonds in the whole world, diamonds and perhaps the shabby gift of disillusion. Well, I have that last and I will make the usual nothing of it." He shivered. "Turn up your coat collar, little girl, the night's full of chill and you'll get pneumonia. His was a great sin who first invented consciousness. Let us lose it for a few hours."

So wrapping himself in his blanket he fell off to sleep.

Honoré de Balzac

1799–1850

Honoré Balzac (he adopted the aristocratic *de* about 1831) was born in Tours, France, on May 20, 1799. He studied law at the University of Paris. In 1819 his family gave him a starvation allowance to try literature. He wrote a verse tragedy, *Cromwell*. For five or six years he worked as a journalist, fathered stillborn magazines, and turned out romantic thrillers by the yard. A speculation in publishing, printing, and type founding crashed in 1828, leaving him heavily in debt to his mother and his friend Madame de Berny.

A first novel under his own name, *The Last Chouan* (later *The Chouans*), was published in 1829. *The Physiology of Marriage*, in the following year, made him a celebrity. About this time his plan for *The Human Comedy*, a great structure of fiction that would embody the social life of his period, began to take shape. *The Shagreen Skin* in 1831 was followed, during the period of 1832 to 1836, by more than twenty works, including *Louis Lambert*, *The Country Doctor*, *Eugénie Grandet*, and *Père Goriot*–the latter two among his masterpieces.

An affair with the Marquise de Castries gave him access to the upper levels of French society. For the rest of the 1830's and into the 1840's, his tremendous production rolled on in such works as *Lost Illusions*, *César Birotteau*, *The Village Curé*, *Béatrix*, *Droll Stories*,

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Notes from the artist: "*. . . the sectioning of Balzac's head into pie-shaped pieces was suggested by the author's own intention to build up a complete conspectus of human society* (La Comédie humaine), *with each of his works contributing one piece of the whole.*"

Le Père Goriot
Une Passion dans le Désert
La Peau de chagrin
Melmoth Réconcilié
Jacques Cane
Adieu — Étude de femme
El Verdugo
Les Marrons
Gobseck
Le Message
Les Proscrits
La Comédie du Diable
L'Illustre Gaudissart
Balzac

and *Modeste Mignon*. He traveled in Italy and cultivated the society of the Countess Guidoboni-Visconti, an Englishwoman. As president of the Society of Men of Letters, he was active in promoting the rights of authors.

In 1833 he had first met the Polish Countess Éveline Hanska. He courted her for nearly twenty years. *Splendors and Miseries of the Courtesans, Cousin Bette,* and *Cousin Pons* belong among his later works. He wrote about a hundred books. It is estimated that what he had finished of *The Human Comedy* includes about three thousand characters. His health was declining, but he made several trips to Poland. He married Madame Hanska at Berdichev in March, 1850. They returned to Paris, where Balzac died on August 18th of the same year.

A *Passion in the Desert* was published in 1837, in the same year as *César Birotteau* and the first part of *Lost Illusions*. We observe first that it is a story within a story. Why did the author choose this form? One reason, we may guess, is that in the first scene at M. Martin's menagerie Balzac wishes to remind us that what are called "the big cats" in the circus can be gentled and trained. Thus the soldier's adventure in the desert will appear less unlikely. Another reason, and perhaps the chief one, is that Balzac evidently preferred not to limit himself to the old soldier's matter-of-fact expression. So he gives us a worldly narrator who is capable of suggesting all the emotional and "philosophic" niceties of the situation. Moreover, since this is a story about love, the narrator's woman friend becomes his expert and skeptical audience.

Like other stories of Balzac's, this one seems now and then to be poised on the margin between reality and fable. We feel this, for example, in the incident in which the leopard ("panther" is a more general term) drags the soldier out of the quicksand. It reminds us of Pliny the Elder's term for leopards—"spotted ladies"—and his remark that only the lion "shows mercy to suppliants." Clearly we are in the region of fable. But how often do we feel this in Balzac's story? Hardly at all. This is his first triumph: that he makes us believe the events in the story *could* happen.

He begins by giving us an example of the soldier's cool resolution in his escape from the Arab camp. The soldier will need all of it that first night in the cave when he wakes up in the dark and hears

"a respiration whose savage energy could not belong to a human creature." Already this Napoleonic soldier, this trooper (he wears spurs) from Provence, has endured the excitement of escape, the despair of finding himself alone in the desert, and the joy of discovering date palms loaded with fruit. Now he faces raw terror as the moon gradually reveals a panther sleeping in the mouth of his cave.

It is unlikely, again. She would have scented him, we think. Perhaps she would have waked him as she prowled back and forth in front of the cave. But again, we are willing to believe it. The trooper has a loaded rifle, a scimitar, a dagger. But he does not try to kill her. We believe in his prudence and his forbearance–so French, so intrepid in the Napoleonic style. He is cool enough to observe that she has blood on her muzzle. She will not be hungry again for a while.

So begins what is perhaps the strangest love story in all fiction. He is charmed by her feminine power, her suppleness and grace. He woos her. She responds with the languorous affection of a great house cat. He is reminded of his first sweetheart, Virginie, and of how he was always a little afraid of the knife she threatened him with. He too keeps his dagger in hand. But gradually, though he does not give up hope of rescue, he feels in himself a great change of heart. The desert becomes a magic dwelling place. He discovers "in the rising and setting of the sun sights unknown to the world." For a moment–but only for a moment–the Peaceable Kingdom is at hand.

A Passion in the Desert

"The whole show is dreadful," she cried, coming out of the menagerie of M. Martin. She had just been looking at that daring speculator "working with his hyena"—to speak in the style of the program.

"By what means," she continued, "can he have tamed these animals to such a point as to be certain of their affection for—."

"What seems to you a problem," said I, interrupting, "is really quite natural."

"Oh!" she cried, letting an incredulous smile wander over her lips.

"You think that beasts are wholly without passions?" I asked her. "Quite the reverse; we can communicate to them all the vices arising in our own state of civilization."

She looked at me with an air of astonishment.

"Nevertheless," I continued, "the first time I saw M. Martin, I admit, like you, I did give vent to an exclamation of surprise. I found myself next to an old soldier with the right leg amputated, who had come in with me. His face had struck me. He had one of those intrepid heads, stamped with the seal of warfare, and on which the battles of Napoleon are written. Besides, he had that frank good-humored expression which always impresses me favorably. He was without doubt one of those troopers who are surprised at nothing, who find matter for laughter in the contortions of a dying comrade, who bury or plunder him quite light-heartedly, who stand intrepidly in the way of bullets; in fact, one of those men who waste no time in deliberation, and would not hesitate to make friends with the devil himself. After looking very attentively at the proprietor of the menagerie getting out of his box, my companion pursed up his lips with an air of mockery and contempt, with that peculiar and expressive twist which superior people assume to show they are not

taken in. Then when I was expatiating on the courage of M. Martin, he smiled, shook his head knowingly, and said, 'Well known.'

"How 'well known'?" I said. "If you would only explain to me the mystery I should be vastly obliged."

"After a few minutes, during which we made acquaintance, we went to dine at the first *restaurateur's* whose shop caught our eye. At dessert a bottle of champagne completely refreshed and brightened up the memories of this odd old soldier. He told me his story, and I said he had every reason to exclaim, 'Well known.' "

When she got home, she teased me to that extent and made so many promises that I consented to communicate to her the old soldier's confidences. Next day she received the following episode of an epic which one might call "The Frenchman in Egypt."

During the expedition in Upper Egypt under General Desaix, a Provençal soldier fell into the hands of the Mangrabins, and was taken by these Arabs into the deserts beyond the falls of the Nile.

In order to place a sufficient distance between themselves and the French Army, the Mangrabins made forced marches, and only rested during the night. They camped round a well overshadowed by palm trees under which they had previously concealed a store of provisions. Not surmising that the notion of flight would occur to their prisoner, they contented themselves with binding his hands, and after eating a few dates, and giving provender to their horses, went to sleep.

When the brave Provençal saw that his enemies were no longer watching him, he made use of his teeth to steal a scimitar, fixed the blade between his knees, and cut the cords which prevented using his hands; in a moment he was free. He at once seized a rifle and dagger, then taking the precaution to provide himself with a sack of dried dates, oats, and powder and shot, and to fasten a scimitar to his waist, he leaped onto a horse, and spurred on vigorously in the direction where he thought to find the French Army. So impatient was he to see a bivouac again that he pressed on the already tired courser at such speed that its flanks were lacerated with his spurs, and at last the poor animal died, leaving the Frenchman alone in the desert. After walking some time in the sand with all the courage of an escaped convict, the soldier was obliged to stop, as the day had already ended. In spite of the beauty of an oriental sky at night, he felt he had not strength enough to go on. Fortunately he had been able to find a small hill, on the summit of which a few palm trees shot up into the air; it was their verdure seen from afar which had brought hope and consolation to his heart. His fatigue was so great that

he lay down upon a rock of granite, capriciously cut out like a camp bed; there he fell asleep without taking any precaution to defend himself while he slept. He had made the sacrifice of his life. His last thought was one of regret. He repented having left the Mangrabins, whose nomad life seemed to smile on him now that he was afar from them and without help. He was awakened by the sun, whose pitiless rays fell with all their force on the granite and produced an intolerable heat—for he had had the stupidity to place himself inversely to the shadow thrown by the verdant majestic heads of the palm trees. He looked at the solitary trees and shuddered—they reminded him of the graceful shafts crowned with foliage which characterize the Saracen columns in the cathedral of Aries.

But when, after counting the palm trees, he cast his eye around him, the most horrible despair was infused into his soul. Before him stretched an ocean without limit. The dark sand of the desert spread farther than sight could reach in every direction, and glittered like steel struck with a bright light. It might have been a sea of looking glass, or lakes melted together in a mirror. A fiery vapor carried up in streaks made a perpetual whirlwind over the quivering land. The sky was lit with an oriental splendor of insupportable purity, leaving naught for the imagination to desire. Heaven and earth were on fire.

The silence was awful in its wild and terrible majesty. Infinity, immensity, closed in upon the soul from every side. Not a cloud in the sky, not a breath in the air, not a flaw on the bosom of the sand, ever moving in diminutive waves; the horizon ended as at sea on a clear day, with one line of light, definite as the cut of a sword.

The Provençal threw his arms around the trunk of one of the palm trees, as though it were the body of a friend, and then in the shelter of the thin straight shadow that the palm cast upon the granite, he wept. Then sitting down he remained as he was, contemplating with profound sadness the implacable scene, which was all he had to look upon. He cried aloud, to measure the solitude. His voice, lost in the hollows of the hill, sounded faintly, and aroused no echo—the echo was in his own heart. The Provençal was twenty-two years old;—he loaded his carbine.

"There'll be time enough," he said to himself, laying on the ground the weapon which alone could bring him deliverance.

Looking by turns at the black expanse and the blue expanse, the soldier dreamed of France—he smelt with delight the gutters of Paris—he remembered the towns through which he had passed, the faces of his fellow soldiers, the most minute details of his life. His southern fancy soon

showed him the stones of his beloved Provence, in the play of the heat which waved over the spread sheet of the desert. Fearing the danger of this cruel mirage, he went down the opposite side of the hill to that by which he had come up the day before. The remains of a rug showed that this place of refuge had at one time been inhabited; at a short distance he saw some palm trees full of dates. Then the instinct which binds us to life awoke again in his heart. He hoped to live long enough to await the passing of some Arabs, or perhaps he might hear the sound of cannon; for at this time Bonaparte was traversing Egypt.

This thought gave him new life. The palm tree seemed to bend with the weight of the ripe fruit. He shook some of it down. When he tasted this unhoped-for manna, he felt sure that the palms had been cultivated by a former inhabitant—the savory, fresh meat of the dates was proof of the care of his predecessor. He passed suddenly from dark despair to an almost insane joy. He went up again to the top of the hill, and spent the rest of the day in cutting down one of the sterile palm trees, which the night before had served him for shelter. A vague memory made him think of the animals of the desert; and in case they might come to drink at the spring, visible from the base of the rocks but lost farther down, he resolved to guard himself from their visits by placing a barrier at the entrance of his hermitage.

In spite of his diligence, and the strength which the fear of being devoured asleep gave him, he was unable to cut the palm in pieces, though he succeeded in cutting it down. At eventide the king of the desert fell; the sound of its fall resounded far and wide, like a sign in the solitude; the soldier shuddered as though he had heard some voice predicting woe.

But like an heir who does not long bewail a deceased parent, he tore off from this beautiful tree the tall broad green leaves which are its poetic adornment, and used them to mend the mat on which he was to sleep.

Fatigued by the heat and his work, he fell asleep under the red curtains of his wet cave.

In the middle of the night his sleep was troubled by an extraordinary noise; he sat up, and the deep silence around him allowed him to distinguish the alternative accents of a respiration whose savage energy could not belong to a human creature.

A profound terror, increased still further by the darkness, the silence, and his waking images, froze his heart within him. He almost felt his hair stand on end, when by straining his eyes to their utmost he perceived

through the shadows two faint yellow lights. At first he attributed these lights to the reflection of his own pupils, but soon the vivid brilliance of the night aided him gradually to distinguish the objects around him in the cave, and he beheld a huge animal lying but two steps from him. Was it a lion, a tiger, or a crocodile?

The Provençal was not educated enough to know under what species his enemy ought to be classed; but his fright was all the greater, as his ignorance led him to imagine all terrors at once; he endured a cruel torture, noting every variation of the breathing close to him without daring to make the slightest movement. An odor, pungent like that of a fox, but more penetrating, profounder—so to speak—filled the cave, and when the Provençal became sensible of this, his terror reached its height, for he could not longer doubt the proximity of a terrible companion, whose royal dwelling served him for shelter.

Presently the reflection of the moon, descending on the horizon, lit up the den, rendering gradually visible and resplendent the spotted skin of a panther.

The lion of Egypt slept, curled up like a big dog, the peaceful possessor of a sumptuous niche at the gate of a hotel; its eyes opened for a moment and closed again; its face was turned toward the man. A thousand confused thoughts passed through the Frenchman's mind; first he thought of killing it with a bullet from his gun, but he saw there was not enough distance between them for him to take proper aim—the shot would miss the mark. And if it were to wake!—the thought made his limbs rigid. He listened to his own heart beating in the midst of the silence, and cursed the too violent pulsations which the flow of blood brought on, fearing to disturb that sleep which allowed him time to think of some means of escape.

Twice he placed his hand on his scimitar, intending to cut off the head of his enemy; but the difficulty of cutting the stiff, short hair compelled him to abandon this daring project. To miss would be to die for *certain,* he thought; he preferred the chances of fair fight, and made up his mind to wait till morning; the morning did not leave him long to wait.

He could now examine the panther at ease; its muzzle was smeared with blood.

"She's had a good dinner," he thought, without troubling himself as to whether her feast might have been on human flesh. "She won't be hungry when she gets up."

It was a female. The fur on her belly and flanks was glistening white; many small marks like velvet formed beautiful bracelets round her feet;

her sinuous tail was also white, ending with black rings; the overpart of her dress, yellow like unburnished gold, very lissome and soft, had the characteristic blotches in the form of rosettes, which distinguish the panther from every other feline species.

This tranquil and formidable hostess snored in an attitude as graceful as that of a cat lying on a cushion. Her bloodstained paws, nervous and well armed, were stretched out before her face, which rested upon them, and from which radiated her straight, slender whiskers, like threads of silver.

If she had been like that in a cage, the Provençal would doubtless have admired the grace of the animal, and the vigorous contrasts of vivid color which gave her robe an imperial splendor; but just then his sight was troubled by her sinister appearance.

The presence of the panther, even asleep, could not fail to produce the effect which the magnetic eyes of the serpent are said to have on the nightingale.

For a moment the courage of the soldier began to fail before this danger, though no doubt it would have risen at the mouth of a cannon charged with shell. Nevertheless, a bold thought brought daylight to his soul and sealed up the source of the cold sweat which sprang forth on his brow. Like men driven to bay who defy death and offer their body to the smiter, so he, seeing in this merely a tragic episode, resolved to play his part with honor to the last.

"The day before yesterday the Arabs would have killed me perhaps," he said; so considering himself as good as dead already, he waited bravely, with excited curiosity, his enemy's awakening.

When the sun appeared, the panther suddenly opened her eyes; then she put out her paws with energy, as if to stretch them and get rid of cramp. At last she yawned, showing the formidable apparatus of her teeth and pointed tongue, rough as a file.

"A regular *petite maîtresse*" thought the Frenchman, seeing her roll herself about so softly and coquettishly. She licked off the blood which stained her paws and muzzle, and scratched her head with reiterated gestures full of prettiness. "All right, make a little toilet," the Frenchman said to himself, beginning to recover his gaiety with his courage; "we'll say good morning to each other presently," and he seized the small, short dagger which he had taken from the Mangrabins. At this moment the panther turned her head toward the man and looked at him fixedly without moving.

The rigidity of her metallic eyes and their insupportable luster made

him shudder, especially when the animal walked toward him. But he looked at her caressingly, staring into her eyes in order to magnetize her, and let her come quite close to him; then with a movement both gentle and amorous, as though he were caressing the most beautiful of women, he passed his hand over her whole body, from the head to the tail, scratching the flexible vertebrae which divided the panther's yellow back. The animal waved her tail voluptuously, and her eyes grew gentle; and when for the third time the Frenchman accomplished this interesting flattery, she gave forth one of those purrings by which our cats express their pleasure; but this murmur issued from a throat so powerful and so deep, that it resounded through the cave like the last vibrations of an organ in a church. The man, understanding the importance of his caresses, redoubled them in such a way as to surprise and stupefy his imperious courtesan. When he felt sure of having extinguished the ferocity of his capricious companion, whose hunger had so fortunately been satisfied the day before, he got up to go out of the cave; the panther let him go out, but when he had reached the summit of the hill she sprang with the lightness of a sparrow hopping from twig to twig, and rubbed herself against his legs, putting up her back after the manner of all the race of cats. Then regarding her guest with eyes whose glare had softened a little, she gave vent to that wild cry which naturalists compare to the grating of a saw.

"She is exacting," said the Frenchman, smilingly.

He was bold enough to play with her ears; he caressed her belly and scratched her head as hard as he could.

When he saw that he was successful, he tickled her skull with the point of his dagger, watching for the right moment to kill her, but the hardness of her bones made him tremble for his success.

The sultana of the desert showed herself gracious to her slave; she lifted her head, stretched out her neck, and manifested her delight by the tranquillity of her attitude. It suddenly occurred to the soldier that to kill this savage princess with one blow he must poniard her in the throat.

He raised the blade, when the panther, satisfied no doubt, laid herself gracefully at his feet, and cast up at him glances in which, in spite of their natural fierceness, was mingled confusedly a kind of good will. The poor Provençal ate his dates, leaning against one of the palm trees, and casting his eyes alternately on the desert in quest of some liberator and on his terrible companion to watch her uncertain clemency.

The panther looked at the place where the date stones fell, and every time that he threw one down her eyes expressed an incredible mistrust.

She examined the man with an almost commercial prudence. However, this examination was favorable to him, for when he had finished his meager meal she licked his boots with her powerful rough tongue, brushing off with marvelous skill the dust gathered in the creases.

"Ah, but when she's really hungry!" thought the Frenchman. In spite of the shudder this thought caused him, the soldier began to measure curiously the proportions of the panther, certainly one of the most splendid specimens of its race. She was three feet high and four feet long without counting her tail; this powerful weapon, rounded like a cudgel, was nearly three feet long. The head, large as that of a lioness, was distinguished by a rare expression of refinement. The cold cruelty of a tiger was dominant, it was true, but there was also a vague resemblance to the face of a sensual woman. Indeed, the face of this solitary queen had something of the gaiety of a drunken Nero: she had satiated herself with blood, and she wanted to play.

The soldier tried if he might walk up and down, and the panther left him free, contenting herself with following him with her eyes, less like a faithful dog than a big Angora cat, observing everything, and every movement of her master.

When he looked around, he saw, by the spring, the remains of his horse; the panther had dragged the carcass all that way; about two-thirds of it had been devoured already. The sight reassured him.

It was easy to explain the panther's absence, and the respect she had had for him while he slept. The first piece of good luck emboldened him to tempt the future, and he conceived the wild hope of continuing on good terms with the panther during the entire day, neglecting no means of taming her, and remaining in her good graces.

He returned to her, and had the unspeakable joy of seeing her wag her tail with an almost imperceptible movement at his approach. He sat down then, without fear, by her side, and they began to play together; he took her paws and muzzle, pulled her ears, rolled her over on her back, stroked her warm, delicate flanks. She let him do whatever he liked, and when he began to stroke the hair on her feet she drew her claws in carefully.

The man, keeping the dagger in one hand, thought to plunge it into the belly of the too-confiding panther, but he was afraid that he would be immediately strangled in her last convulsive struggle; besides, he felt in his heart a sort of remorse which bid him respect a creature that had done him no harm. He seemed to have found a friend, in a boundless desert; half unconsciously he thought of his first sweetheart, whom he had

nicknamed "Mignonne" by way of contrast, because she was so atrociously jealous that all the time of their love he was in fear of the knife with which she had always threatened him.

This memory of his early days suggested to him the idea of making the young panther answer to this name, now that he began to admire with less terror her swiftness, suppleness, and softness. Toward the end of the day he had familiarized himself with his perilous position; he now almost liked the painfulness of it. At last his companion had got into the habit of looking up at him whenever he cried in a falsetto voice, "Mignonne."

At the setting of the sun Mignonne gave, several times running, a profound melancholy cry. "She's been well brought up," said the lighthearted soldier; "she says her prayers." But this mental joke only occurred to him when he noticed what a pacific attitude his companion remained in. "Come, *ma petite blonde*, I'll let you go to bed first," he said to her, counting on the activity of his own legs to run away as quickly as possible, directly she was asleep, and seek another shelter for the night.

The soldier waited with impatience the hour of his flight, and when it had arrived he walked vigorously in the direction of the Nile; but hardly had he made a quarter of a league in the sand when he heard the panther bounding after him, crying with that sawlike cry more dreadful even than the sound of her leaping.

"Ah!" he said, "then she's taken a fancy to me; she has never met any one before, and it is really quite flattering to have her first love." That instant the man fell into one of those movable quicksands so terrible to travelers and from which it is impossible to save oneself. Feeling himself caught, he gave a shriek of alarm; the panther seized him with her teeth by the collar, and, springing vigorously backward, drew him as if by magic out of the whirling sand.

"Ah, Mignonne!" cried the soldier, caressing her enthusiastically; "we're bound together for life and death—but no jokes, mind!" and he retraced his steps.

From that time the desert seemed inhabited. It contained a being to whom the man could talk, and whose ferocity was rendered gentle by him, though he could not explain to himself the reason for their strange friendship. Great as was the soldier's desire to stay upon guard, he slept.

On awakening he could not find Mignonne; he mounted the hill, and in the distance saw her springing toward him after the habit of these animals, who cannot run on account of the extreme flexibility of the vertebral column. Mignonne arrived, her jaws covered with blood; she received the wonted caress of her companion, showing with much purring

how happy it made her. Her eyes, full of languor, turned still more gently than the day before toward the Provençal, who talked to her as one would to a tame animal.

"Ah! Mademoiselle, you are a nice girl, aren't you? Just look at that! So we like to be made much of, don't we? Aren't you ashamed of yourself? So you have been eating some Arab or other, have you? That doesn't matter. They're animals just the same as you are; but don't you take to eating Frenchmen, or I shan't like you any longer."

She played like a dog with its master, letting herself be rolled over, knocked about, and stroked, alternately; sometimes she herself would provoke the soldier, putting up her paw with a soliciting gesture.

Some days passed in this manner. This companionship permitted the Provençal to appreciate the sublime beauty of the desert; now that he had a living thing to think about, alternations of fear and quiet, and plenty to eat, his mind became filled with contrast and his life began to be diversified.

Solitude revealed to him all her secrets, and enveloped him in her delights. He discovered in the rising and setting of the sun sights unknown to the world. He knew what it was to tremble when he heard over his head the hiss of a bird's wing, so rarely did they pass, or when he saw the clouds, changing and many-colored travelers, melt one into another. He studied in the nighttime the effect of the moon upon the ocean of sand, where the simoom made waves swift of movement and rapid in their change. He lived the life of the Eastern day, marveling at its wonderful pomp; then, after having reveled in the sight of a hurricane over the plain where the whirling sands made red, dry mists and death-bearing clouds, he would welcome the night with joy, for then fell the healthful freshness of the stars, and he listened to imaginary music in the skies. Then solitude taught him to unroll the treasures of dreams. He passed whole hours in remembering mere nothings, and comparing his present life with his past.

At last he grew passionately fond of the panther; for some sort of affection was a necessity.

Whether it was that his will powerfully projected had modified the character of his companion, or whether, because she found abundant food in her predatory excursions in the desert, she respected the man's life, he began to fear for it no longer, seeing her so well tamed.

He devoted the greater part of his time to sleep, but he was obliged to watch like a spider in its web that the moment of his deliverance might not escape him, if anyone should pass the line marked by the

horizon. He had sacrificed his shirt to make a flag, which he hung at the top of a palm tree, whose foliage he had torn off. Taught by necessity, he found the means of keeping it spread out, by fastening it with little sticks; for the wind might not be blowing at the moment when the passing traveler was looking through the desert.

It was during the long hours, when he had abandoned hope, that he amused himself with the panther. He had come to learn the different inflections of her voice, the expressions of her eyes; he had studied the capricious patterns of all the rosettes which marked the gold of her robe. Mignonne was not even angry when he took hold of the tuft at the end of her tail to count her rings, those graceful ornaments which glittered in the sun like jewelry. It gave him pleasure to contemplate the supple, fine outlines of her form, the whiteness of her belly, the graceful pose of her head. But it was especially when she was playing that he felt most pleasure in looking at her; the agility and youthful lightness of her movements were a continual surprise to him; he wondered at the supple way in which she jumped and climbed, washed herself and arranged her fur, crouched down and prepared to spring. However rapid her spring might be, however slippery the stone she was on, she would always stop short at the word "Mignonne."

One day, in a bright midday sun, an enormous bird coursed through the air. The man left his panther to look at this new guest; but after waiting a moment the deserted sultana growled deeply.

"My goodness! I do believe she's jealous," he cried, seeing her eyes become hard again; "the soul of Virginie has passed into her body; that's certain."

The eagle disappeared into the air, while the soldier admired the curved contour of the panther.

But there were such youth and grace in her form! She was beautiful as a woman! The blond fur of her robe mingled well with the delicate tints of faint white which marked her flanks.

The profuse light cast down by the sun made this living gold, these russet markings, to burn in a way to give them an indefinable attraction.

The man and the panther looked at one another with a look full of meaning; the coquette quivered when she felt her friend stroke her head; her eyes flashed like lightning–then she shut them tightly.

"She has a soul," he said, looking at the stillness of this queen of the sands, golden like them, white like them, solitary and burning like them.

"Well," she said, "I have read your plea in favor of beasts; but how did two so well adapted to understand each other end?"

"Ah, well! you see, they ended as all great passions do end–by a misunderstanding. For some reason *one* suspects the other of treason; they don't come to an explanation through pride, and quarrel and part from sheer obstinacy."

"Yet sometimes at the best moments a single word or a look is enough–but anyhow go on with your story."

"It's horribly difficult, but you will understand, after what the old villain told me over his champagne.

"He said, 'I don't know if I hurt her, but she turned round, as if enraged, and with her sharp teeth caught hold of my leg–gently, I daresay; but I, thinking she would devour me, plunged my dagger into her throat. She rolled over, giving a cry that froze my heart; and I saw her dying, still looking at me without anger. I would have given all the world–my cross even, which I had not got then–to have brought her to life again. It was as though I had murdered a real person; and the soldiers who had seen my flag, and had come to my assistance, found me in tears.

" 'Well sir,' he said, after a moment of silence, 'since then I have been in war in Germany, in Spain, in Russia, in France; I've certainly carried my carcass about a good deal, but never have I seen anything like the desert. Ah! yes, it is very beautiful!'

" 'What did you feel there?' I asked him.

" 'Oh! that can't be described, young man. Besides, I am not always regretting my palm trees and my panther. I should have to be very melancholy for that. In the desert, you see, there is everything, and nothing.'

" 'Yes, but explain–'

" 'Well,' he said, with an impatient gesture, 'it is God without mankind.' "

Anton Chekhov

1860–1904

Anton Chekhov was born in Taganrog, Russia, on January 17 (Old Style), 1860. His grandfather, a serf, saved 3,500 rubles and bought his family's freedom. Anton took a medical degree at the University of Moscow. During this period he helped support his family by writing for the Moscow comic papers. His first book went unnoticed, but a second, *Motley Stories*, published in 1886, became broadly popular. In the following year his first play, *Ivanov,* pleased audiences in Moscow and St. Petersburg. He was awarded the Pushkin Prize.

In 1890–91 he traveled across the great breadth of Russia to investigate the penal colony on Sakhalin Island, north of Japan. His exposé of conditions there helped to bring about prison reforms. He bought a small estate outside Moscow and lived there during most of the 1890's. He did medical work among the peasants, especially during the cholera epidemic of 1892–93, and served as a hospital administrator. These and other experiences gave him material for the short stories he continued to produce all his life.

In 1896 his second play, *The Seagull,* was a failure in the St. Petersburg production but a decided success in the Moscow Art Theater version two years later. The onset of tuberculosis forced him to spend most of his time in the Crimea or abroad. From the

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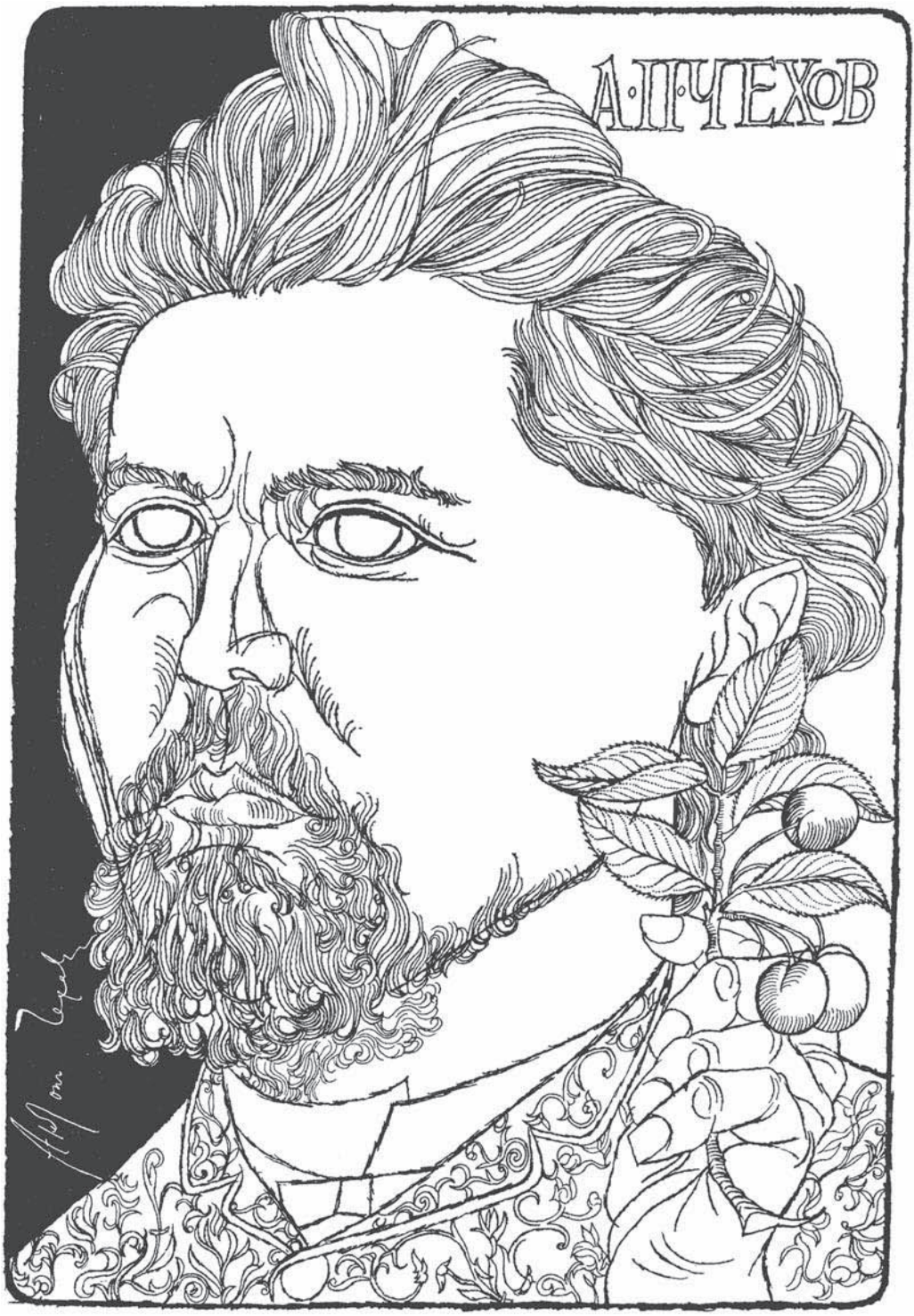
Notes from the artist: ". . . *the portrait of Chekhov was done in a contemporary interpretation of early Russian iconography. In the author's hand is a sprig of cherry leaves, symbolizing his famous play* The Cherry Orchard."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late 1890's most of his work was done for the theater—not, as he said, because he preferred it, but because it gave him a better income. The Moscow Art Theater under Stanislavsky produced *Uncle Vanya* (a rewriting of *The Wood Demon*) in 1899, *The Three Sisters* in 1901, and *The Cherry Orchard* in 1904.

Chekhov married the actress Olga Knipper in 1901. Some of his best stories—*The Darling* (see below), *The Bishop, My Life,* and *In the Ravine*—were written during this final period. He died at Badenweiler in the Black Forest on July 2 (O. S.), 1904.

The work of Chekhov, says the critic Arnold Hauser, gives the effect of "something overheard by chance, intimated by chance, something that has occurred by chance." Is this true? Insofar as it is, we note how it goes against what was perhaps the chief tendency in late-nineteenth-century literature. This was determinism, the idea that social conditions operate as a kind of fate predictable in advance. Taine became its literary prophet. It was worked out in fiction by such writers as Zola, the Goncourts, and even Maupassant. But in the free-will stories of Chekhov, chance itself often plays the part of a kind of sad fatality.

This is truer, we feel, of the early stories than of such a late one as *The Darling,* published in 1898. But what is chance? Tolstoy considered it a kind of ignorance or partial knowledge, "a certain stage of understanding of phenomena." Mathematicians have tried to frame it in formulas of probability. But we need to remember that here we are dealing, not with chance in the open, but with the *effect* of chance as the artist creates it.

The Romans had their goddess Fortuna. The Greek goddess of chance was Tyche, mistress of "whatever may happen," who was "stronger than the rule of Zeus." Chekhov's heroine, too, is a kind of goddess—Olenka Plemyannikova, "the darling," daughter of a retired assessor in a provincial Russian town, She is altogether a woman, and more than that. She is the goddess Woman—Woman who accomplishes her immemorial purposes in spite of every misfortune.

Olenka is, in fact, more Aphrodite, goddess of erotic love, than Tyche. She is philanthropic in the basic sense. She loves people, and—with the usual reaction—they love her. She has a gift—a sometimes embarrassing gift—for total intimacy. She identifies her-

self with anyone she loves. She is infinitely suggestible. Her life becomes almost a demonstration of the myth that man and woman are orphan halves of each other.[1]

But Olenka's gift as Tyche, goddess of fortune, is displayed in the misfortunes she survives and the dangers she avoids. Her temperament might easily have made her a victim–exploited by other people, starved by her inability to find love, or unable to get along with it when it came to her. The human chances are endless. Even so, we cannot help but believe in the pattern the author lays down for us. The power and warmth of her instinct carry her triumphantly over every misfortune.

A more imaginative, even a more restless, woman might have made more demands on life. Olenka plays according to the easy human rules. In each case, she finds it possible to love the most convenient object–her father, her teacher, the theater manager Kukin, the merchant Pustovalov, Smirnin the veterinary. And even when she has "aged and grown homely," straining against the lack of a child, luck does not abandon her. The veterinary's boy Sasha becomes the recipient of her final absorption in love.

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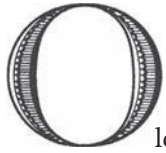
[1] See Plato's *Symposium, Great Books of the Western World.*

The Darling

 lenka Plemyannikova, the daughter of a retired collegiate assessor, was sitting on her porch, which gave on the courtyard, deep in thought. It was hot, the flies were persistent and annoying, and it was pleasant to think that it would soon be evening. Dark rainclouds were gathering in the east and there was a breath of moisture in the wind that occasionally blew from that direction.

Kukin, a theater manager who ran a summer garden known as The Tivoli and lodged in the wing of the house, was standing in the middle of the courtyard, staring at the sky.

"Again!" he was saying in despair. "It's going to rain again! Rain every day, every day, as if to spite me! It will be the death of me! It's ruin! Such a frightful loss every day!"

He struck his hands together and continued, turning to Olenka:

"There, Olga Semyonovna, that's our life. It's enough to make you weep! You work, you try your utmost, you wear yourself out, you lie awake nights, you rack your brains trying to make a better thing of it, and what's the upshot? In the first place, the public is ignorant, barbarous. I give them the very best operetta, an elaborate spectacle, first-rate vaudeville artists. But do you think they want that? It's all above their heads. All they want is slapstick! Give them trash! And then look at the weather! Rain almost every evening. It started raining on the tenth of May, and it has kept it up all May and June. It's simply terrible! The public doesn't come, but don't I have to pay the rent? Don't I have to pay the artists?"

The next day toward evening the sky would again be overcast and Kukin would say, laughing hysterically:

"Well, go on, rain! Flood the garden, drown me! Bad luck to me in this world and the next! Let the artists sue me! Let them send me to prison—to Siberia—to the scaffold! Ha, ha, ha!"

The next day it was the same thing all over again.

Olenka listened to Kukin silently, gravely, and sometimes tears would come to her eyes. In the end his misfortunes moved her and she fell in love with him. He was a short, thin man with a sallow face, and wore his hair combed down over his temples. He had a thin tenor voice and when he spoke, his mouth twisted, and his face perpetually wore an expression of despair. Nevertheless he aroused a genuine, deep feeling in her. She was always enamored of someone and could not live otherwise. At first it had been her papa, who was now ill and sat in an armchair in a darkened room, breathing with difficulty. Then she had devoted her affections to her aunt, who used to come from Bryansk every other year. Still earlier, when she went to school, she had been in love with her French teacher. She was a quiet, kind, softhearted girl, with meek, gentle eyes, and she enjoyed very good health. At the sight of her full pink cheeks, her soft white neck with a dark birthmark on it, and the kind artless smile that came into her face when she listened to anything pleasant, men said to themselves, "Yes, not half bad," and smiled too, while the ladies present could not refrain from suddenly seizing her hand in the middle of the conversation and exclaiming delightedly, "You darling!"

The house in which she lived all her life, and which was to be hers by her father's will, was situated on the outskirts of the city on what was known as Gypsy Road, not far from The Tivoli. In the evening and at night she could hear the band play and the skyrockets go off, and it seemed to her that it was Kukin fighting his fate and assaulting his chief enemy, the apathetic public. Her heart contracted sweetly, she had no desire to sleep, and when he returned home at dawn, she would tap softly at her bedroom window and, showing him only her face and one shoulder through the curtain, give him a friendly smile.

He proposed to her, and they were married. And when he had a good look at her neck and her plump firm shoulders, he struck his hands together, and exclaimed, "Darling!"

He was happy, but as it rained on their wedding day and the night that followed, the expression of despair did not leave his face.

As a married couple, they got on well together. She presided over the box office, looked after things in the summer garden, kept accounts and paid salaries; and her rosy cheeks, the radiance of her sweet artless smile showed now in the box-office window, now in the wings of the theater, now at the buffet. And she was already telling her friends that the thea-

ter was the most remarkable, the most important, and the most essential thing in the world, and that it was only the theater that could give true pleasure and make you a cultivated and humane person.

"But do you suppose the public understands that?" she would ask. "What it wants is slapstick! Yesterday we gave 'Faust Inside Out,' and almost all the boxes were empty, and if Vanichka and I had put on something vulgar, I assure you the theater would have been packed. Tomorrow Vanichka and I are giving 'Orpheus in Hell.' Do come."

And what Kukin said about artists and the theater she would repeat. Like him she despised the public for its ignorance and indifference to art; she took a hand in the rehearsals, correcting the actors, kept an eye on the musicians, and when there was an unfavorable notice in the local paper, she wept and went to see the editor about it.

The actors were fond of her and called her "the darling," and "Vanichka-and-I." She was sorry for them and would lend them small sums, and if they cheated her, she cried in private but did not complain to her husband.

The pair got on just as well together when winter came. They leased the municipal theater for the season and sublet it for short periods to a Ukrainian troupe, a magician, or a local dramatic club. Olenka was gaining weight and beamed with happiness, but Kukin was getting thinner and more sallow and complained of terrible losses, although business was fairly good during the winter. He coughed at night, and she would make him drink an infusion of raspberries and linden blossoms, rub him with Eau de Cologne and wrap him in her soft shawls.

"What a sweet thing you are!" she would say quite sincerely, smoothing his hair. "My handsome sweet!"

At Lent he left for Moscow to engage a company of actors for the summer season, and she could not sleep with him away. She sat at the window and watched the stars. It occurred to her that she had something in common with the hens: they too stayed awake all night and were disturbed when the cock was absent from the henhouse. Kukin was detained in Moscow, and wrote that he would return by Easter, and in his letters he sent instructions about The Tivoli. But on the Monday of Passion Week, late in the evening, there was a sudden ominous knock at the gate; someone was banging at the wicket as though it were a barrel—boom, boom, boom! The sleepy cook, her bare feet splashing through the puddles, ran to open the gate.

"Open, please!" someone on the other side of the gate was saying in a deep voice. "There's a telegram for you."

Olenka had received telegrams from her husband before, but this time for some reason she was numb with fright. With trembling hands she opened the telegram and read the following:

"Ivan Petrovich died suddenly today awaiting prot instructions tuneral Tuesday."

That is exactly how the telegram had it: "tuneral," and there was also the incomprehensible word "prot"; the signature was that of the director of the comic opera company.

"My precious!" Olenka sobbed. "Vanichka, my precious, my sweet! Why did we ever meet! Why did I get to know you and to love you! To whom can your poor unhappy Olenka turn?"

Kukin was buried on Tuesday in the Vagankovo Cemetery in Moscow. Olenka returned home on Wednesday, and no sooner did she enter her room than she sank onto the bed and sobbed so loudly that she could be heard in the street and in the neighboring courtyards.

"The darling!" said the neighbors, crossing themselves. "Darling Olga Semyonovna! How the poor soul takes on!"

Three months later Olenka was returning from Mass one day in deep mourning and very sad. It happened that one of her neighbors, Vasily Andreich Pustovalov, the manager of Babakayev's lumberyard, who was also returning from church, was walking beside her. He was wearing a straw hat and a white waistcoat, with a gold watch chain, and he looked more like a landowner than a businessman.

"There is order in all things, Olga Semyonovna," he was saying sedately, with a note of sympathy in his voice; "and if one of our dear ones passes on, then it means that this was the will of God, and in that case we must keep ourselves in hand and bear it submissively."

Having seen Olenka to her gate, he took leave of her and went further. All the rest of the day she heard his sedate voice, and as soon as she closed her eyes she had a vision of his dark beard. She liked him very much. And apparently she too had made an impression on him, because a little later a certain elderly lady, whom she scarcely knew, called to have coffee with her, and no sooner was she seated at table than the visitor began to talk about Pustovalov, saying that he was a fine, substantial man, and that any marriageable woman would be glad to go to the altar with him. Three days later Pustovalov himself paid her a visit. He did not stay more than ten minutes and he said little, but Olenka fell in love with him, so deeply that she stayed awake all night burning as with fever, and in the morning she sent for the elderly lady. The match was soon arranged and then came the wedding.

As a married couple Pustovalov and Olenka got on very well together. As a rule he was in the lumberyard till dinnertime, then he went out on business and was replaced by Olenka, who stayed in the office till evening, making out bills and seeing that orders were shipped.

"We pay twenty per cent more for lumber every year," she would say to customers and acquaintances. "Why, we used to deal in local timber, and now Vasichka has to travel to the province of Mogilev for timber regularly. And the freight rates!" she would exclaim, putting her hands to her cheeks in horror. "The freight rates!"

It seemed to her that she had been in the lumber business for ages, that lumber was the most important, the most essential thing in the world, and she found something intimate and touching in the very sound of such words as beam, log, batten, plank, boxboard, lath, scantling, slab. . . .

At night she would dream of whole mountains of boards and planks, of endless caravans of carts hauling lumber out of town to distant points. She would dream that a regiment of beams, 28 feet by 8 inches, standing on end, was marching in the lumberyard, that beams, logs, and slabs were crashing against each other with the hollow sound of dry wood, that they kept tumbling down and rising again, piling themselves on each other. Olenka would scream in her sleep and Pustovalov would say to her tenderly: "Olenka, what's the matter, darling? Cross yourself!"

Whatever ideas her husband had, she adopted as her own. If he thought that the room was hot or that business was slow, she thought so too. Her husband did not care for entertainments and on holidays stayed home—so did she.

"You are always at home or in the office," her friends would say. "You ought to go to the theater, darling, or to the circus."

"Vasichka and I have no time for the theater," she would answer sedately. "We are working people, we're not interested in such foolishness. What good are these theaters?"

On Saturdays the two of them would go to evening service, on holidays they attended early Mass, and returning from the church they walked side by side, their faces wearing a softened expression. There was an agreeable aroma about them, and her silk dress rustled pleasantly. At home they had tea with shortbread, and various kinds of jam, and afterwards they ate pie. Every day at noon, in the yard and on the street just outside the gate, there was a delicious smell of *borshch* and roast lamb or duck, and on fast days there was the odor of fish, and one could not pass the Pustovalov gate without one's mouth watering.

In the office the samovar was always boiling and the customers were

treated to tea with doughnuts. Once a week the pair went to the baths and returned side by side, both with red faces.

"Yes, everything goes well with us, thank God," Olenka would say to her friends. "I wish everyone were as happy as Vasichka and I."

When Pustovalov went off to the provinces of Mogilev for timber, she missed him badly and lay awake nights, crying. Sometimes, in the evening, a young army veterinary, by the name of Smirnin, who rented the wing of their house, would call on her. He chatted or played cards with her and that diverted her. What interested her most was what he told her about his domestic life. He had been married and had a son, but was separated from his wife because she had been unfaithful to him, and now he hated her; he sent her forty rubles a month for the maintenance of the child. And listening to him, Olenka would sigh and shake her head: she was sorry for him.

"Well, God keep you," she would say to him as she took leave of him, going to the stairs with him, candle in hand. "Thank you for relieving my boredom, and may the Queen of Heaven give you health!"

She always expressed herself in this sedate and reasonable manner, in imitation of her husband. Just as the veterinary would be closing the door behind him, she would recall him and say:

"You know, Vladimir Platonych, you had better make up with your wife. You ought to forgive her, at least for your son's sake! I am sure the little boy understands everything."

And when Pustovalov came back, she would tell him in low tones about the veterinary and his unhappy domestic life, and both of them would sigh and shake their heads and speak of the boy, who was probably missing his father. Then by a strange association of ideas they would both turn to the icons, bow down to the ground before them and pray that the Lord would grant them children.

Thus the Pustovalovs lived in peace and quiet, in love and harmony for six years. But one winter day, right after having hot tea at the office, Vasily Andreich went out without his cap to see about shipping some lumber, caught a chill and was taken sick. He was treated by the best doctors, but the illness had its own way with him, and he died after four months. Olenka was a widow again.

"To whom can I turn now, my darling?" she sobbed when she had buried her husband. "How can I live without you, wretched and unhappy as I am? Pity me, good people, left all alone in the world–"

She wore a black dress with white cuffs and gave up wearing hat and gloves for good. She hardly ever left the house except to go to church or

to visit her husband's grave, and at home she lived like a nun. Only at the end of six months did she take off her widow's weeds and open the shutters. Sometimes in the morning she was seen with her cook going to market for provisions, but how she lived now and what went on in her house could only be guessed. People based their guesses on such facts as that they saw her having tea with the veterinary in her little garden, he reading the newspaper aloud to her, and that, meeting an acquaintance at the post office, she would say:

"There is no proper veterinary inspection in our town, and that's why there is so much illness around. So often you hear of people getting ill from the milk or catching infections from horses and cows. When you come down to it, the health of domestic animals must be as well cared for as the health of human beings."

She now repeated the veterinary's words and held the same opinions about everything that he did. It was plain that she could not live even for one year without an attachment and that she had found new happiness in the wing of her house. Another woman would have been condemned for this, but of Olenka no one could think ill: everything about her was so unequivocal. Neither she nor the veterinary mentioned to anyone the change that had occurred in their relations indeed, they tried to conceal it, but they didn't succeed, because Olenka could not keep a secret. When he had visitors, his regimental colleagues, she, pouring the tea or serving the supper, would begin to talk of the cattle plague, of the pearl disease, of the municipal slaughterhouses. He would be terribly embarrassed and when the guests had gone, he would grasp her by the arms and hiss angrily:

"I've asked you before not to talk about things that you don't understand! When veterinaries speak among themselves, please don't butt in! It's really annoying!"

She would look at him amazed and alarmed and ask, "But Volodichka, what shall I talk about?"

And with tears in her eyes she would hug him and beg him not to be angry, and both of them were happy.

Yet this happiness did not last long. The veterinary left, left forever, with his regiment, which was moved to some remote place, it may have been Siberia. And Olenka remained alone.

Now she was quite alone. Her father had died long ago, and his armchair stood in the attic, covered with dust and minus one leg. She got thinner and lost her looks, and passers-by in the street did not glance at her and smile as they used to. Obviously, her best years were over, were

behind her, and now a new kind of life was beginning for her, an unfamiliar kind that did not bear thinking of. In the evening Olenka sat on her porch, and heard the band play at The Tivoli and the rockets go off, but this no longer suggested anything to her mind. She looked apathetically at the empty courtyard, thought of nothing, and later, when night came, she would go to bed and dream of the empty courtyard. She ate and drank as though involuntarily.

Above all, and worst of all, she no longer had any opinions whatever. She saw objects about her and understood what was going on, but she could not form an opinion about anything and did not know what to talk about. And how terrible it is not to have any opinions! You see, for instance, a bottle, or the rain, or a peasant driving in a cart, but what is the bottle for, or the rain, or the peasant, what is the meaning of them, you can't tell, and you couldn't, even if they paid you a thousand rubles. When Kukin was about, or Pustovalov or, later, the veterinary, Olenka could explain it all and give her opinions about anything you like, but now there was the same emptiness in her head and in her heart as in her courtyard. It was weird, and she felt as bitter as if she had been eating wormwood.

Little by little the town was extending in all directions. Gypsy Road was now a regular street, and where The Tivoli had been and the lumberyards, houses had sprung up and lanes had multiplied. How swiftly time passes! Olenka's house had taken on a shabby look, the roof was rusty, the shed sloped, and the whole yard was invaded by burdock and stinging nettles. Olenka herself had aged and grown homely. In the summer she sat on the porch, feeling empty and dreary and bitter, as before; in the winter she sat by the window and stared at the snow. Sometimes at the first breath of spring or when the wind brought her the chime of church bells, memories of the past would overwhelm her, her heart would contract sweetly and her eyes would brim over with tears. But this only lasted a moment, and then there was again emptiness and once more she was possessed by a sense of the futility of life; Trot, the black kitten, rubbed against her and purred softly, but Olenka was not affected by these feline caresses. Is that what she needed? She needed an affection that would take possession of her whole being, her soul, her mind, that would give her ideas, a purpose in life, that would warm her aging blood. And she would shake the kitten off her lap, and say irritably: "Scat! Scat! Don't stick to me!"

And so it went, day after day, year after year, and no joy, no opinion! Whatever Mavra the cook would say was well enough.

One hot July day, toward evening, when the cattle were being driven home and the yard was filled with clouds of dust, suddenly someone knocked at the gate. Olenka herself went to open it and was dumfounded at what she saw: at the gate stood Smirnin, the veterinary, already gray, and wearing civilian clothes. She suddenly recalled everything and, unable to control herself, burst into tears, silently letting her head drop on his breast. She was so agitated that she scarcely noticed how the two of them entered the house and sat down to tea.

"My dear," she murmured, trembling with joy, "Vladimir Platonych, however did you get here?"

"I have come here for good," he explained. "I have retired from the army and want to see what it's like to be on my own and live a settled life. And besides, my son is ready for high school. I have made up with my wife, you know."

"Where is she?"

"She's at the hotel with the boy, and I'm out looking for lodgings."

"Goodness, Vladimir Platonych, take my house! You don't need to look further! Good Lord, and you can have it free," exclaimed Olenka, all in a flutter and beginning to cry again. "You live here in the house, and the wing will do for me. Heavens, I'm so glad!"

The next day they began painting the roof and whitewashing the walls, and Olenka, her arms akimbo, walked about the yard, giving orders. The old smile had come back to her face, and she was lively and spry, as though she had waked from a long sleep. Presently the veterinary's wife arrived, a thin, homely lady with bobbed hair who looked as if she were given to caprices. With her was the little boy, Sasha, small for his age (he was going on ten), chubby, with clear blue eyes and dimples in his cheeks.

No sooner did he walk into the yard than he began chasing the cat, and immediately his eager, joyous laughter rang out.

"Auntie, is that your cat?" he asked Olenka. "When she has little ones, please give us a kitten. Mama is terribly afraid of mice."

Olenka chatted with him, then gave him tea, and her heart suddenly grew warm and contracted sweetly, as if this little boy were her own son. And in the evening, as he sat in the dining room doing his homework, she looked at him with pity and tenderness and whispered:

"My darling, my pretty one, my little one! How blond you are, and so clever!"

"An island," he was reciting from the book, "is a body of land entirely surrounded by water."

"An island is a body of land . . ." she repeated and this was the first opinion she expressed with conviction after so many years of silence and mental vacuity.

She now had opinions of her own, and at supper she had a conversation with Sasha's parents, saying that studying in high school was hard on the children, but that nevertheless the classical course was better than the scientific one because a classical education opened all careers to you: you could be either a doctor or an engineer.

Sasha started going to high school. His mother went off to Kharkov to visit her sister and did not come back; every day his father left town to inspect herds and sometimes he stayed away for three days together, and it seemed to Olenka that Sasha was wholly abandoned, that he was unwanted, that he was being starved, and she moved him into the wing with her and settled him in a little room there.

For six months now Sasha has been living in her wing. Every morning Olenka comes into his room; he is fast asleep, his hand under his cheek, breathing quietly. She is sorry to wake him.

"Sashenka," she says sadly, "get up, my sweet! It's time to go to school."

He gets up, dresses, says his prayers, and sits down to his breakfast: he drinks three glasses of tea and eats two large doughnuts, and half a buttered French roll. He is hardly awake and consequently cross.

"You haven't learned the fable, Sashenka," says Olenka, looking at him as though she were seeing him off on a long journey. "You worry me. You must do your best, darling, study. And pay attention to your teachers."

"Please leave me alone!" says Sasha.

Then he walks down the street to school, a small boy in a big cap, with his books in a rucksack. Olenka follows him noiselessly.

"Sashenka!" she calls after him. He turns around and she thrusts a date or a caramel into his hand. When they turn into the school lane, he feels ashamed at being followed by a tall stout woman; he looks round and says: "You'd better go home, auntie; I can go alone now."

She stands still and stares after him until he disappears at the school entrance. How she loves him! Not one of her former attachments was so deep; never had her soul surrendered itself so unreservedly, so disinterestedly and with such joy as now when her maternal instinct was increasingly asserting itself. For this little boy who was not her own, for the dimples in his cheeks, for his very cap, she would have laid down her life, would have laid it down with joy, with tears of tenderness. Why? But who knows why?

Having seen Sasha off to school, she goes quietly home, contented, tranquil, brimming over with love; her face, grown younger in the last six months, beams with happiness; people meeting her look at her with pleasure and say:

"Good morning, Olga Semyonovna, darling! How are you, darling?"

"They make the children work so hard at high school nowadays," she says, as she does her marketing. "Think of it: yesterday in the first form they had a fable to learn by heart, a Latin translation and a problem for homework. That's entirely too much for a little fellow."

And she talks about the teachers, the lessons, the textbooks—saying just what Sasha says about them.

At three o'clock they have dinner together, in the evening they do the homework together, and cry. When she puts him to bed, she takes a long time making the sign of the cross over him and whispering prayers. Then she goes to bed and thinks of the future, distant and misty, when Sasha, having finished his studies, will become a doctor or an engineer, will have a large house of his own, horses, a carriage, will marry and become a father. She falls asleep and her dreams are of the same thing, and tears flow down her cheeks from her closed eyes. The black kitten lies beside her purring: Purr-purrr-purrr.

Suddenly there is a loud knock at the gate. Olenka wakes up, breathless with fear, her heart palpitating. Half a minute passes, and there is another knock.

"That's a telegram from Kharkov," she thinks, beginning to tremble from head to foot. "Sasha's mother is sending for him from Kharkov—O Lord!"

She is in despair. Her head, her hands, her feet grow chill and it seems to her that she is the most unhappy woman in the whole world. But another minute passes, voices are heard: it's the veterinary returning from the club.

"Well, thank God!" she thinks.

Little by little the load rolls off her heart and she is again at ease; she goes back to bed and thinks of Sasha who is fast asleep in the next room and sometimes shouts in his sleep:

"I'll give it to you! Scram! No fighting!"

Translated by Avrahm Yarmolinsky.

Isaac Singer

1904–1991

Isaac Bashevis Singer was born in Poland in 1904. He attended a rabbinical seminary in Warsaw and then began to write fiction in Hebrew, later turning to Yiddish. He went to the United States in 1935 and settled in New York. He has been on the staff of the *Jewish Daily Forward* since that time.

Most of Singer's stories, which he has been writing for more than thirty years, have appeared in the *Jewish Daily Forward,* in Yiddish, but they have been translated and have been published in many anthologies. In addition, two collections of his stories have appeared: *Gimpel the Fool and Other Stories* (1957) and *The Spinoza of Market Street and Other Stories* (1961), the title story of which is reprinted here. He is also the author of three novels: *The Family Moskat* (1950), which won the Louis Lamed Prize, *Satan in Goray* (1955), and *The Slave* (1962). The last is an heroic story of a Jew in Poland in the eighteenth century.

Spinoza was a Jew, but aside from that fact he would seem to have little in common with the characters that inhabit most of Singer's stories. These characters are ordinary, often simple folk (though they may be deeply versed in Jewish tradition), on the one hand, and strange demonic creatures of the imagination, on the other. Singer's world is mad and unreal, from one point of view. Witches and mystical forces take on a kind of weird, topsy-turvy life. His heroes and heroines seem to be listening to voices that other people do not hear.

Spinoza was neither ordinary, simple, nor demonic. His thought was complex and powerful, but it was also clear. The clarity and

purity of Spinoza's ideas are among the wonders of philosophy.

Nevertheless, Singer has managed to make him a character in the story that follows. At first glance, it might almost seem that Spinoza is another of those strange, half-real figures that people the minds of Singer's heroes. Spinoza seems to be almost as real to the main protagonist of this story, Dr. Fischelson, as the other living people in it. In a score of Singer stories there is a figure that plays much the same role.

But Spinoza in this remarkable story plays another role, too. He is more than a mere figment of the imagination who has, nevertheless, a part in the action. He is also a great philosopher with a compelling view of the world.

What is this view, as Singer, or perhaps only Dr. Fischelson, understands it? Spinoza stands for, and describes with magnificent eloquence, the eternal aspect of our ever changing, muddled, incomprehensible life. That eternal aspect, which is represented in this story by the stars, is not an illusion. But neither is the muddle that is represented in turn by the insects circling "the trembling flame," then by Dr. Fischelson's intestinal troubles, then by the crowd in Market Street seen from Dr. Fischelson's high window, then by the "savage and passionate" cats which offend the hero, and finally by Black Dobbe, Dr. Fischelson's bride.

But the eternal aspect and the muddle do not, at least in this story, merely exist side by side. Perhaps they never do. Here at any rate they are in conflict. At the beginning of the story Dr. Fischelson runs to his window to see the stars in order to escape the heat and the buzzing insects. But at the window he sees not only the eternal stars but also the "half-lit bedlam" below and the "ignorant savage" of a cat. Life cannot be run away from; the muddle attacks Dr. Fischelson even in his own insides. He then, it seems, attempts to make his peace with it. He marries, he becomes a husband, he even, we are given to understand, loves. Yet he rises from his bed on his wedding night and seeks the stars once more. And he cries out to Spinoza, to the permanent, unchanging, eternal universe, that he has become a fool.

His heartfelt words raise many questions. In uttering them, does Dr. Fischelson once and for all renounce the earthbound happiness which may be all that we creatures of the muddle know? Does he turn his back on his love for Black Dobbe and embrace once more the *amor dei intellectualis* [the intellectual love of god]?

Is that one moment of passionate involvement in life to be his last?

Or does he speak those last words with a kind of profound humility and acceptance? Is he saying that there are worse things than to be a fool? Is he asking for forgiveness because he, uniquely, has acted foolishly, or because foolishness is man's eternal lot?

The essence of this memorable tale is to be found in those last murmured words. Perhaps every reader will have to find it, and answer the questions raised by the words, for himself.

The Spinoza of Market Street

Dr. Nahum Fischelson paced back and forth in his garret room in Market Street, Warsaw. Dr. Fischelson was a short, hunched man with a grayish beard, and was quite bald except for a few wisps of hair remaining at the nape of the neck. His nose was as crooked as a beak and his eyes were large, dark, and fluttering like those of some huge bird. It was a hot summer evening, but Dr. Fischelson wore a black coat which reached to his knees, and he had on a stiff collar and a bow tie. From the door he paced slowly to the dormer window set high in the slanting room and back again. One had to mount several steps to look out. A candle in a brass holder was burning on the table and a variety of insects buzzed around the flame. Now and again one of the creatures would fly too close to the fire and sear its wings, or one would ignite and glow on the wick for an instant. At such moments Dr. Fischelson grimaced. His wrinkled face would twitch and beneath his disheveled moustache he would bite his lips. Finally he took a handkerchief from his pocket and waved it at the insects.

"Away from there, fools and imbeciles," he scolded. "You won't get warm here; you'll only burn yourself."

The insects scattered but a second later returned and once more circled the trembling flame. Dr. Fischelson wiped the sweat from his wrinkled forehead and sighed, "Like men they desire nothing but the pleasure of the moment." On the table lay an open book written in Latin, and on its broad-margined pages were notes and comments printed in small letters by Dr. Fischelson. The book was Spinoza's *Ethics* and Dr. Fischelson had been studying it for the last thirty years. He knew every proposition, every proof, every corollary, every note by heart. When he wanted to find a particular passage, he generally opened to the place immediately with-

out having to search for it. But, nevertheless, he continued to study the *Ethics* for hours every day with a magnifying glass in his bony hand, murmuring and nodding his head in agreement. The truth was that the more Dr. Fischelson studied, the more puzzling sentences, unclear passages, and cryptic remarks he found. Each sentence contained hints unfathomed by any of the students of Spinoza. Actually the philosopher had anticipated all of the criticisms of pure reason made by Kant and his followers. Dr. Fischelson was writing a commentary on the *Ethics*. He had drawers full of notes and drafts, but it didn't seem that he would ever be able to complete his work. The stomach ailment which had plagued him for years was growing worse from day to day. Now he would get pains in his stomach after only a few mouthfuls of oatmeal. "God in Heaven, it's difficult, very difficult," he would say to himself using the same intonation as had his father, the late Rabbi of Tishevitz. "It's very, very hard."

Dr. Fischelson was not afraid of dying. To begin with, he was no longer a young man. Secondly, it is stated in the fourth part of the *Ethics* that "a free man thinks of nothing less than of death and his wisdom is a meditation not of death, but of life." Thirdly, it is also said that "the human mind cannot be absolutely destroyed with the human body but there is some part of it that remains eternal." And yet Dr. Fischelson's ulcer (or perhaps it was a cancer) continued to bother him. His tongue was always coated. He belched frequently and emitted a different foul-smelling gas each time. He suffered from heartburn and cramps. At times he felt like vomiting and at other times he was hungry for garlic, onions, and fried foods. He had long ago discarded the medicines prescribed for him by the doctors and had sought his own remedies. He found it beneficial to take grated radish after meals and lie on his bed, belly down, with his head hanging over the side. But these home remedies offered only temporary relief. Some of the doctors he consulted insisted there was nothing the matter with him. "It's just nerves," they told him. "You could live to be a hundred."

But on this particular hot summer night, Dr. Fischelson felt his strength ebbing. His knees were shaky, his pulse weak. He sat down to read and his vision blurred. The letters on the page turned from green to gold. The lines became waved and jumped over each other, leaving white gaps as if the text had disappeared in some mysterious way. The heat was unbearable, flowing down directly from the tin roof; Dr. Fischelson felt he was inside of an oven. Several times he climbed the four steps to the window and thrust his head out into the cool of the evening breeze. He would remain in that position for so long his knees would become wobbly.

"Oh it's a fine breeze," he would murmur, "really delightful," and he would recall that according to Spinoza, morality and happiness were identical, and that the most moral deed a man could perform was to indulge in some pleasure which was not contrary to reason.

Dr. Fischelson, standing on the top step at the window and looking out, could see into two worlds. Above him were the heavens, thickly strewn with stars. Dr. Fischelson had never seriously studied astronomy but he could differentiate between the planets, those bodies which like the earth, revolve around the sun, and the fixed stars, themselves distant suns, whose light reaches us a hundred or even a thousand years later. He recognized the constellations which mark the path of the earth in space and that nebulous sash, the Milky Way. Dr. Fischelson owned a small telescope he had bought in Switzerland where he had studied and he particularly enjoyed looking at the moon through it. He could clearly make out on the moon's surface the volcanoes bathed in sunlight and the dark, shadowy craters. He never wearied of gazing at these cracks and crevasses. To him they seemed both near and distant, both substantial and insubstantial. Now and then he would see a shooting star trace a wide arc across the sky and disappear, leaving a fiery trail behind it. Dr. Fischelson would know then that a meteorite had reached our atmosphere, and perhaps some unburned fragment of it had fallen into the ocean or had landed in the desert or perhaps even in some inhabited region. Slowly the stars which had appeared from behind Dr. Fischelson's roof rose until they were shining above the house across the street. Yes, when Dr. Fischelson looked up into the heavens, he became aware of that infinite extension which is, according to Spinoza, one of God's attributes. It comforted Dr. Fischelson to think that although he was only a weak, puny man, a changing mode of the absolutely infinite Substance, he was nevertheless a part of the cosmos, made of the same matter as the celestial bodies; to the extent that he was a part of the Godhead, he knew he could not be destroyed. In such moments, Dr. Fischelson experienced the *Amor Dei Intellectualis* which is, according to the philosopher of Amsterdam, the highest perfection of the mind. Dr. Fischelson breathed deeply, lifted his head as high as his stiff collar permitted and actually felt he was whirling in company with the earth, the sun, the stars of the Milky Way, and the infinite host of galaxies known only to infinite thought. His legs became light and weightless and he grasped the window frame with both hands as if afraid he would lose his footing and fly out into eternity.

When Dr. Fischelson tired of observing the sky, his glance dropped to Market Street below. He could see a long strip extending from Yanash's market to Iron Street with the gas lamps lining it merged into a string of fiery dots. Smoke was issuing from the chimneys on the black, tin roofs; the bakers were heating their ovens, and here and there sparks mingled with the black smoke. The street never looked so noisy and crowded as on a summer evening. Thieves, prostitutes, gamblers, and fences loafed in the square which looked from above like a pretzel covered with poppy seeds. The young men laughed coarsely and the girls shrieked. A peddler with a keg of lemonade on his back pierced the general din with his intermittent cries. A watermelon vendor shouted in a savage voice, and the long knife which he used for cutting the fruit dripped with the bloodlike juice. Now and again the street became even more agitated. Fire engines, their heavy wheels clanging, sped by; they were drawn by sturdy black horses which had to be tightly curbed to prevent them from running wild. Next came an ambulance, its siren screaming. Then some thugs had a fight among themselves and the police had to be called. A passer-by was robbed and ran about shouting for help. Some wagons loaded with firewood sought to get through into the courtyards where the bakeries were located but the horses could not lift the wheels over the steep curbs and the drivers berated the animals and lashed them with their whips. Sparks rose from the clanging hoofs. It was now long after seven, which was the prescribed closing time for stores, but actually business had only begun. Customers were led in stealthily through back doors. The Russian policemen on the street, having been paid off, noticed nothing of this. Merchants continued to hawk their wares, each seeking to outshout the others.

"Gold, gold, gold," a woman who dealt in rotten oranges shrieked.

"Sugar, sugar, sugar," croaked a dealer of overripe plums.

"Heads, heads, heads," a boy who sold fishheads roared.

Through the window of a Hasidic study house across the way, Dr. Fischelson could see boys with long sidelocks swaying over holy volumes, grimacing and studying aloud in singsong voices. Butchers, porters, and fruit dealers were drinking beer in the tavern below. Vapor drifted from the tavern's open door like steam from a bathhouse, and there was the sound of loud music. Outside of the tavern, streetwalkers snatched at drunken soldiers and at workers on their way home from the factories. Some of the men carried bundles of wood on their shoulders, reminding Dr. Fischelson of the wicked who are condemned to kindle their own fires in Hell. Husky record players poured out their raspings through open

windows. The liturgy of the high holidays alternated with vulgar vaudeville songs.

Dr. Fischelson peered into the half-lit bedlam and cocked his ears. He knew that the behavior of this rabble was the very antithesis of reason. These people were immersed in the vainest of passions, were drunk with emotions, and, according to Spinoza, emotion was never good. Instead of the pleasure they ran after, all they succeeded in obtaining was disease and prison, shame and the suffering that resulted from ignorance. Even the cats which loitered on the roofs here seemed more savage and passionate than those in other parts of the town. They caterwauled with the voices of women in labor, and like demons scampered up walls and leaped onto eaves and balconies. One of the toms paused at Dr. Fischelson's window and let out a howl which made Dr. Fischelson shudder. The doctor stepped from the window and, picking up a broom, brandished it in front of the black beast's glowing, green eyes. "Scat, begone, you ignorant savage!"– and he rapped the broom handle against the roof until the tom ran off.

When Dr. Fischelson had returned to Warsaw from Zürich, where he had studied philosophy, a great future had been predicted for him. His friends had known that he was writing an important book on Spinoza. A Jewish Polish journal had invited him to be a contributor; he had been a frequent guest at several wealthy households and he had been made head librarian at the Warsaw synagogue. Although even then he had been considered an old bachelor, the matchmakers had proposed several rich girls for him. But Dr. Fischelson had not taken advantage of these opportunities. He had wanted to be as independent as Spinoza himself. And he had been. But because of his heretical ideas he had come into conflict with the rabbi and had had to resign his post as librarian. For years after that, he had supported himself by giving private lessons in Hebrew and German. Then, when he had become sick, the Berlin Jewish community had voted him a subsidy of five hundred marks a year. This had been made possible through the intervention of the famous Dr. Hildesheimer with whom he corresponded about philosophy. In order to get by on so small a pension, Dr. Fischelson had moved into the attic room and had begun cooking his own meals on a kerosene stove. He had a cupboard which had many drawers, and each drawer was labeled with the food it contained–buckwheat, rice, barley, onions, carrots, potatoes, mushrooms. Once a week Dr. Fischelson put on his wide-brimmed black hat, took a basket in one hand and Spinoza's *Ethics* in the other, and went off to the market for his provisions. While he was waiting to be served, he

would open the *Ethics*. The merchants knew him and would motion him to their stalls.

"A fine piece of cheese, Doctor–just melts in your mouth."

"Fresh mushrooms, Doctor, straight from the woods,"

"Make way for the Doctor, ladies," the butcher would shout. "Please don't block the entrance."

During the early years of his sickness, Dr. Fischelson had still gone in the evening to a café which was frequented by Hebrew teachers and other intellectuals. It had been his habit to sit there and play chess while drinking a half a glass of black coffee. Sometimes he would stop at the bookstores on Holy Cross Street where all sorts of old books and magazines could be purchased cheap. On one occasion a former pupil of his had arranged to meet him at a restaurant one evening. When Dr. Fischelson arrived, he had been surprised to find a group of friends and admirers who forced him to sit at the head of the table while they made speeches about him. But these were things that had happened long ago. Now people were no longer interested in him. He had isolated himself completely and had become a forgotten man. The events of 1905 when the boys of Market Street had begun to organize strikes, throw bombs at police stations, and shoot strikebreakers so that the stores were closed even on weekdays had greatly increased his isolation. He began to despise everything associated with the modern Jew–Zionism, socialism, anarchism. The young men in question seemed to him nothing but an ignorant rabble intent on destroying society, society without which no reasonable existence was possible. He still read a Hebrew magazine occasionally, but he felt contempt for modern Hebrew which had no roots in the Bible or the Mishnah. The spelling of Polish words had changed also. Dr. Fischelson concluded that even the so-called spiritual men had abandoned reason and were doing their utmost to pander to the mob. Now and again he still visited a library and browsed through some of the modern histories of philosophy, but he found that the professors did not understand Spinoza, quoted him incorrectly, attributed their own muddled ideas to the philosopher. Although Dr. Fischelson was well aware that anger was an emotion unworthy of those who walk the path of reason, he would become furious, and would quickly close the book and push it from him. "Idiots," he would mutter, "asses, upstarts." And he would vow never again to look at modern philosophy.

Every three months a special mailman who only delivered money orders brought Dr. Fischelson eighty rubles. He expected his quarterly allotment at the beginning of July but as day after day passed and the

tall man with the blond moustache and the shiny buttons did not appear, the Doctor grew anxious. He had scarcely a groshen left. Who knows—possibly the Berlin Community had rescinded his subsidy; perhaps Dr. Hildesheimer had died, God forbid; the post office might have made a mistake. Every event has its cause, Dr. Fischelson knew. All was determined, all necessary, and a man of reason had no right to worry. Nevertheless, worry invaded his brain, and buzzed about like the flies. If the worst came to the worst, it occurred to him, he could commit suicide, but then he remembered that Spinoza did not approve of suicide and compared those who took their own lives to the insane.

One day when Dr. Fischelson went out to a store to purchase a composition book, he heard people talking about war. In Serbia somewhere, an Austrian prince had been shot and the Austrians had delivered an ultimatum to the Serbs. The owner of the store, a young man with a yellow beard and shifty yellow eyes, announced, "We are about to have a small war," and he advised Dr. Fischelson to store up food because in the near future there was likely to be a shortage.

Everything happened so quickly. Dr. Fischelson had not even decided whether it was worthwhile to spend four groshen on a newspaper, and already posters had been hung up announcing mobilization. Men were to be seen walking on the street with round, metal tags on their lapels, a sign that they were being drafted. They were followed by their crying wives. One Monday when Dr. Fischelson descended to the street to buy some food with his last kopecks, he found the stores closed. The owners and their wives stood outside and explained that merchandise was unobtainable. But certain special customers were pulled to one side and let in through back doors. On the street all was confusion. Policemen with swords unsheathed could be seen riding on horseback. A large crowd had gathered around the tavern where, at the command of the Tsar, the tavern's stock of whiskey was being poured into the gutter.

Dr. Fischelson went to his old café. Perhaps he would find some acquaintances there who would advise him. But he did not come across a single person he knew. He decided, then, to visit the rabbi of the synagogue where he had once been librarian, but the sexton with the six-sided skull cap informed him that the rabbi and his family had gone off to the spas. Dr. Fischelson had other old friends in town but he found no one at home. His feet ached from so much walking; black and green spots appeared before his eyes and he felt faint. He stopped and waited for the giddiness to pass. The passers-by jostled him. A dark-eyed high school girl tried to give him a coin. Although the war had just started,

soldiers eight abreast were marching in full battle dress—the men were covered with dust and were sunburned. Canteens were strapped to their sides and they wore rows of bullets across their chests. The bayonets on their rifles gleamed with a cold, green light. They sang with mournful voices. Along with the men came cannons, each pulled by eight horses; their blind muzzles breathed gloomy terror. Dr. Fischelson felt nauseous. His stomach ached; his intestines seemed about to turn themselves inside out. Cold sweat appeared on his face.

"I'm dying," he thought. "This is the end." Nevertheless, he did manage to drag himself home where he lay down on the iron cot and remained, panting and gasping. He must have dozed off because he imagined that he was in his home town, Tishvitz. He had a sore throat and his mother was busy wrapping a stocking stuffed with hot salt around his neck. He could hear talk going on in the house; something about a candle and about how a frog had bitten him. He wanted to go out into the street but they wouldn't let him because a Catholic procession was passing by. Men in long robes, holding double-edged axes in their hands, were intoning in Latin as they sprinkled holy water. Crosses gleamed; sacred pictures waved in the air. There was an odor of incense and corpses. Suddenly the sky turned a burning red and the whole world started to burn. Bells were ringing; people rushed madly about. Flocks of birds flew overhead, screeching. Dr. Fischelson awoke with a start. His body was covered with sweat and his throat was now actually sore. He tried to meditate about his extraordinary dream, to find its rational connection with what was happening to him and to comprehend it *sub specie eternitatis* [under the aspect of eternity; in its universal form], but none of it made sense. "Alas, the brain is a receptacle for nonsense," Dr. Fischelson thought. "This earth belongs to the mad."

And he once more closed his eyes; once more he dozed; once more he dreamed.

The eternal laws, apparently, had not yet ordained Dr. Fischelson's end.

There was a door to the left of Dr. Fischelson's attic room which opened off a dark corridor, cluttered with boxes and baskets, in which the odor of fried onions and laundry soap was always present. Behind this door lived a spinster whom the neighbors called Black Dobbe. Dobbe was tall and lean, and as black as a baker's shovel. She had a broken nose and there was a moustache on her upper lip. She spoke with the hoarse voice of a man and she wore men's shoes. For years Black Dobbe had sold breads,

rolls, and bagels which she had bought from the baker at the gate of the house. But one day she and the baker had quarreled and she had moved her business to the market place and now she dealt in what were called "wrinklers," which was a synonym for cracked eggs. Black Dobbe had no luck with men. Twice she had been engaged to baker's apprentices but in both instances they had returned the engagement contract to her. Some time afterwards she had received an engagement contract from an old man, a glazier who claimed that he was divorced, but it had later come to light that he still had a wife. Black Dobbe had a cousin in America, a shoemaker, and repeatedly she boasted that this cousin was sending her passage, but she remained in Warsaw. She was constantly being teased by the women who would say, "There's no hope for you, Dobbe. You're fated to die an old maid." Dobbe always answered, "I don't intend to be a slave for any man. Let them all rot."

That afternoon Dobbe received a letter from America. Generally she would go to Leizer the Tailor and have him read it to her. However, that day Leizer was out and so Dobbe thought of Dr. Fischelson whom the other tenants considered a convert since he never went to prayer. She knocked on the door of the doctor's room but there was no answer. "The heretic is probably out," Dobbe thought but, nevertheless, she knocked once more, and this time the door moved slightly. She pushed her way in and stood there frightened. Dr. Fischelson lay fully clothed on his bed; his face was as yellow as wax; his Adam's apple stuck out prominently; his beard pointed upward. Dobbe screamed; she was certain that he was dead, but–no–his body moved. Dobbe picked up a glass which stood on the table, ran into the corridor, filled the glass with water from the faucet, hurried back, and threw the water into the face of the unconscious man. Dr. Fischelson shook his head and opened his eyes.

"What's wrong with you?" Dobbe asked. "Are you sick?"

"Thank you very much. No."

"Have you a family? I'll call them."

"No family," Dr. Fischelson said.

Dobbe wanted to fetch the barber from across the street but Dr. Fischelson signified that he didn't wish the barber's assistance. Since Dobbe was not going to the market that day, no "wrinklers" being available, she decided to do a good deed. She assisted the sick man to get off the bed and smoothed down the blanket. Then she undressed Dr. Fischelson and prepared some soup for him on the kerosene stove. The sun never entered Dobbe's room, but here squares of sunlight shimmered on the faded walls. The floor was painted red. Over the bed hung a pic-

ture of a man who was wearing a broad frill around his neck and had long hair. "Such an old fellow and yet he keeps his place so nice and clean," Dobbe thought approvingly. Dr. Fischelson asked for the *Ethics,* and she gave it to him disapprovingly. She was certain it was a gentile prayer book. Then she began bustling about, brought in a pail of water, swept the floor. Dr. Fischelson ate; after he had finished, he was much stronger and Dobbe asked him to read her the letter.

He read it slowly, the paper trembling in his hands. It came from New York, from Dobbe's cousin. Once more he wrote that he was about to send her a "really important letter" and a ticket to America. By now, Dobbe knew the story by heart and she helped the old man decipher her cousin's scrawl. "He's lying," Dobbe said. "He forgot about me a long time ago." In the evening, Dobbe came again. A candle in a brass holder was burning on the chair next to the bed. Reddish shadows trembled on the walls and ceiling. Dr. Fischelson sat propped up in bed, reading a book. The candle threw a golden light on his forehead which seemed as if cleft in two. A bird had flown in through the window and was perched on the table. For a moment Dobbe was frightened. This man made her think of witches, of black mirrors and corpses wandering around at night and terrifying women. Nevertheless, she took a few steps toward him and inquired, "How are you? Any better?"

"A little, thank you."

"Are you really a convert?" she asked although she wasn't quite sure what the word meant.

"Me, a convert? No, I'm a Jew like any other Jew," Dr. Fischelson answered.

The doctor's assurances made Dobbe feel more at home. She found the bottle of kerosene and lit the stove, and after that she fetched a glass of milk from her room and began cooking kasha. Dr. Fischelson continued to study the *Ethics,* but that evening he could make no sense of the theorems and proofs with their many references to axioms and definitions and other theorems. With trembling hand he raised the book to his eyes and read, "The idea of each modification of the human body does not involve adequate knowledge of the human body itself. . . . The idea of the idea of each modification of the human mind does not involve adequate knowledge of the human mind."

Dr. Fischelson was certain he would die any day now. He made out his will, leaving all of his books and manuscripts to the synagogue library. His clothing and furniture would go to Dobbe since she had taken care of

him. But death did not come. Rather his health improved. Dobbe returned to her business in the market, but she visited the old man several times a day, prepared soup for him, left him a glass of tea, and told him news of the war. The Germans had occupied Kalish, Bendin, and Cestechow, and they were marching on Warsaw People said that on a quiet morning one could hear the rumblings of the cannon. Dobbe reported that the casualties were heavy. "They're falling like flies," she said. "What a terrible misfortune for the women."

She couldn't explain why, but the old man's attic room attracted her. She liked to remove the gold-rimmed books from the bookcase, dust them, and then air them on the window sill. She would climb the few steps to the window and look out through the telescope. She also enjoyed talking to Dr. Fischelson. He told her about Switzerland where he had studied, of the great cities he had passed through, of the high mountains that were covered with snow even in the summer. His father had been a rabbi, he said, and before he, Dr. Fischelson, had become a student, he had attended a yeshiva. She asked him how many languages he knew and it turned out that he could speak and write Hebrew, Russian, German, and French, in addition to Yiddish. He also knew Latin. Dobbe was astonished that such an educated man should live in an attic room on Market Street. But what amazed her most of all was that although he had the title "Doctor," he couldn't write prescriptions. "Why don't you become a real doctor?" she would ask him. "I am a doctor," he would answer. "I'm just not a physician." "What kind of a doctor?" "A doctor of philosophy." Although she had no idea of what this meant, she felt it must be very important. "Oh my blessed mother," she would say, "where did you get such a brain?"

Then one evening after Dobbe had given him his crackers and his glass of tea with milk, he began questioning her about where she came from, who her parents were, and why she had not married. Dobbe was surprised. No one had ever asked her such questions. She told him her story in a quiet voice and stayed until eleven o'clock. Her father had been a porter at the kosher butcher shops. Her mother had plucked chickens in the slaughterhouse. The family had lived in a celler at No. 19 Market Street. When she had been ten, she had become a maid. The man she had worked for had been a fence who bought stolen goods from thieves on the square. Dobbe had had a brother who had gone into the Russian army and had never returned. Her sister had married a coachman in Praga and had died in childbirth. Dobbe told of the battles between the underworld and the revolutionaries in 1905, of blind Itche and his gang and

how they collected protection money from the stores, of the thugs who attacked young boys and girls out on Saturday afternoon strolls if they were not paid money for security. She also spoke of the pimps who drove about in carriages and abducted women to be sold in Buenos Aires. Dobbe swore that some men had even sought to inveigle her into a brothel, but that she had run away. She complained of a thousand evils done to her. She had been robbed; her boy friend had been stolen; a competitor had once poured a pint of kerosene into her basket of bagels; her own cousin, the shoemaker, had cheated her out of a hundred rubles before he had left for America. Dr. Fischelson listened to her attentively. He asked her questions, shook his head, and grunted.

"Well, do you believe in God?" he finally asked her.

"I don't know," she answered. "Do you?"

"Yes, I believe."

"Then why don't you go to synagogue?" she asked.

"God is everywhere," he replied. "In the synagogue. In the market place. In this very room. We ourselves are parts of God."

"Don't say such things," Dobbe said. "You frighten me."

She left the room and Dr. Fischelson was certain she had gone to bed. But he wondered why she had not said "good night." "I probably drove her away with my philosophy," he thought. The very next moment he heard her footsteps. She came in carrying a pile of clothing like a peddler.

"I wanted to show you these," she said. "They're my trousseau." And she began to spread out, on the chair, dresses—woolen, silk, velvet. Taking each dress up in turn, she held it to her body. She gave him an account of every item in her trousseau—underwear, shoes, stockings.

"I'm not wasteful," she said. "I'm a saver. I have enough money to go to America."

Then she was silent and her face turned brick-red. She looked at Dr. Fischelson out of the corner of her eyes, timidly, inquisitively. Dr. Fischelson's body suddenly began to shake as if he had the chills. He said, "Very nice, beautiful things." His brow furrowed and he pulled at his beard with two fingers. A sad smile appeared on his toothless mouth and his large fluttering eyes, gazing into the distance through the attic window, also smiled sadly.

The day that Black Dobbe came to the rabbi's chambers and announced that she was to marry Dr. Fischelson, the rabbi's wife thought she had gone mad. But the news had already reached Leizer the Tailor,

and had spread to the bakery, as well as to other shops. There were those who thought that the "old maid" was very lucky; the doctor, they said, had a vast hoard of money. But there were others who took the view that he was a run-down degenerate who would give her syphilis. Although Dr. Fischelson had insisted that the wedding be a small, quiet one, a host of guests assembled in the rabbi's rooms. The baker's apprentices who generally went about barefoot, and in their underwear, with paper bags on the tops of their heads, now put on light-colored suits, straw hats, yellow shoes, gaudy ties, and they brought with them huge cakes and pans filled with cookies. They had even managed to find a bottle of vodka although liquor was forbidden in wartime. When the bride and groom entered the rabbi's chamber, a murmur arose from the crowd. The women could not believe their eyes. The woman that they saw was not the one they had known. Dobbe wore a wide-brimmed hat which was amply adorned with cherries, grapes, and plumes, and the dress that she had on was of white silk and was equipped with a train; on her feet were high-heeled shoes, gold in color, and from her thin neck hung a string of imitation pearls. Nor was this all: her fingers sparkled with rings and glittering stones. Her face was veiled. She looked almost like one of those rich brides who were married in the Vienna Hall. The baker's apprentices whistled mockingly. As for Dr. Fischelson, he was wearing his black coat and broad-toed shoes. He was scarcely able to walk; he was leaning on Dobbe. When he saw the crowd from the doorway, he became frightened and began to retreat, but Dobbe's former employer approached him saying, "Come in, come in, bridegroom. Don't be bashful. We are all brethren now."

The ceremony proceeded according to the law. The rabbi, in a worn satin gabardine, wrote the marriage contract and then had the bride and groom touch his handkerchief as a token of agreement; the rabbi wiped the point of the pen on his skullcap. Several porters who had been called from the street to make up the quorum supported the canopy. Dr. Fischelson put on a white robe as a reminder of the day of his death and Dobbe walked around him seven times as custom required. The light from the braided candles flickered on the walls. The shadows wavered. Having poured wine into a goblet, the rabbi chanted the benedictions in a sad melody. Dobbe uttered only a single cry. As for the other women, they took out their lace handkerchiefs and stood with them in their hands, grimacing. When the baker's boys began to whisper wisecracks to each other, the rabbi put a finger to his lips and murmured, *"Eh nu oh,"* as a sign that talking was forbidden. The moment came to slip the wed-

ding ring on the bride's finger, but the bridegroom's hand started to tremble and he had trouble locating Dobbe's index finger. The next thing, according to custom, was the smashing of the glass, but though Dr. Fischelson kicked the goblet several times, it remained unbroken. The girls lowered their heads, pinched each other gleefully, and giggled. Finally one of the apprentices struck the goblet with his heel and it shattered. Even the rabbi could not restrain a smile. After the ceremony the guests drank vodka and ate cookies. Dobbe's former employer came up to Dr. Fischelson and said, "*Mazel tov,* bridegroom. Your luck should be as good as your wife." "Thank you, thank you," Dr. Fischelson murmured, "but I don't look forward to any luck." He was anxious to return as quickly as possible to his attic room. He felt a pressure in his stomach and his chest ached. His face had become greenish. Dobbe had suddenly become angry. She pulled back her veil and called out to the crowd, "What are you laughing at? This isn't a show." And without picking up the cushion cover in which the gifts were wrapped, she returned with her husband to their rooms on the fifth floor.

Dr. Fischelson lay down on the freshly made bed in his room and began reading the *Ethics*. Dobbe had gone back to her own room. The doctor had explained to her that he was an old man, that he was sick and without strength. He had promised her nothing. Nevertheless she returned wearing a silk nightgown, slippers with pompoms, and with her hair hanging down over her shoulders. There was a smile on her face, and she was bashful and hesitant. Dr. Fischelson trembled and the *Ethics* dropped from his hands. The candle went out. Dobbe groped for Dr. Fischelson in the dark and kissed his mouth. "My dear husband," she whispered to him, *"Mazel tov."*

What happened that night could be called a miracle. If Dr. Fischelson hadn't been convinced that every occurrence is in accordance with the laws of nature, he would have thought that Black Dobbe had bewitched him. Powers long dormant awakened in him. Although he had had only a sip of the benediction wine, he was as if intoxicated. He kissed Dobbe and spoke to her of love. Long forgotten quotations from Klopfstock, Lessing, Goethe rose to his lips. The pressures and aches stopped. He embraced Dobbe, pressed her to himself, was again a man as in his youth. Dobbe was faint with delight; crying, she murmured things to him in a Warsaw slang which he did not understand. Later, Dr. Fischelson slipped off into the deep sleep young men know. He dreamed that he was in Switzerland and that he was climbing mountains—running, falling, flying. At dawn he opened his eyes; it seemed to him that

someone had blown into his ears. Dobbe was snoring. Dr. Fischelson quietly got out of bed. In his long nightshirt he approached the window, walked up the steps and looked out in wonder. Market Street was asleep, breathing with a deep stillness. The gas lamps were flickering. The black shutters on the stores were fastened with iron bars. A cool breeze was blowing. Dr. Fischelson looked up at the sky. The black arch was thickly sown with stars—there were green, red, yellow, blue stars; there were large ones and small ones, winking and steady ones. There were those that were clustered in dense groups and those that were alone. In the higher sphere, apparently, little notice was taken of the fact that a certain Dr. Fischelson had in his declining days married someone called Black Dobbe. Seen from above even the Great War was nothing but a temporary play of the modes. The myriads of fixed stars continued to travel their destined courses in unbounded space. The comets, planets, satellites, asteroids kept circling these shining centers. Worlds were born and died in cosmic upheavals. In the chaos of nebulae, primeval matter was being formed. Now and again a star tore loose, and swept across the sky, leaving behind it a fiery streak. It was the month of August when there are showers of meteors. Yes, the divine substance was extended and had neither beginning nor end; it was absolute, indivisible, eternal, without duration, infinite in its attributes. Its waves and bubbles danced in the universal cauldron, seething with change, following the unbroken chain of causes and effects, and he, Dr. Fischelson, with his unavoidable fate, was part of this. The doctor closed his eyelids and allowed the breeze to cool the sweat on his forehead and stir the hair of his beard. He breathed deeply of the midnight air, supported his shaky hands on the window sill and murmured, "Divine Spinoza, forgive me. I have become a fool."

Alexander Pushkin

1799–1837

Alexander Pushkin was born in Moscow, on June 6, 1799. His father belonged to the nobility; his mother was descended from an Abyssinian who served Peter the Great. Young Pushkin went to school at Tsarskoe Selo. By 1817 he was attached to the Ministry of Foreign Affairs and writing *Ruslan and Ly'udmila,* a romantic epic. He became a man about town. Before he was twenty-one his outspoken *Ode to Liberty,* handed round in manuscript, got him banished to the south of Russia.

From that day on he was never free of censors and police spies. A series of Byronic poems came out of his six years in the Caucasus. His tragedy *Boris Godunov* later became the rootstock for Mussorgsky's opera. Czar Nicholas I, in the midst of his coronation, ordered the exiled poet brought to Moscow. ". . . it is I who shall be your censor," said the Czar.

In the Dekabrist Rebellion of 1825, Pushkin, who had been mixed up with the conspirators, managed to burn his incriminating papers. During the 1820's and 30's he wrote such narrative poems as *Poltava* and *A Voyage to Arzrum.* By the early 1830's he had finished *Eugen Onegin,* on which the Tschaikovsky opera is based.

Pushkin began his first, unfinished prose works, *The Negro of Peter the Great,* in 1827. Out of the factual *History of the Revolt of Pugachev of 1773* came his only completed novel, *The Captain's Daughter.* In 1831 he married Natalia Goncharov, a Moscow beauty and favorite of the Czar. Pushkin was restored to a job in the Ministry of Foreign Affairs, at 5,000 rubles a year.

The husband of his wife's sister, Baron George Heckeren d'Anthès, adopted son of the Dutch minister, began to pay open court to Natalia. Anonymous letters reached Pushkin. In the duel that fol-

lowed, Pushkin was wounded. He died two days later, on February 10, 1837.

The Queen of Spades was published in 1834. Dostoevsky said that it had created a Russian literary language. Tschaikovsky turned it into the opera *Pique Dame*. Later it became a distinguished motion picture. It was certainly the most popular of Pushkin's stories and took its place among the half-dozen most popular in the whole Romantic movement. Through all these changes it has kept its air of teasing mystery. It is a piece of electric storytelling.

Who is Hermann, the hero or anti-hero? He is a cousin of Stendhal's Julien Sorel, who had appeared earlier in *The Red and the Black*. He is the young man on the make in the hurly-burly of post-Napoleonic Europe. He lives by the will. "A man without morals or religion!" as Pushkin's legend tells us. Petty heir to Napoleon, Hermann is master of a cool self-possession in every action. And this is his mark: he acts.

He wants power. Money is the most available kind of power. Moved by a casual story, he resolves to make money gambling. But honest gambling is by definition chance. Hermann is not interested in chance. He wants a sure thing. To believe in a sure thing, we must believe (a) that the cards fall in a certain rigidly predictable order, and (b) that this order can be known and acted on. Hermann does believe this, and for the term of the story Pushkin asks us to believe it too.

The young officer of engineers is convinced that the aged Countess Anna Fedotovna knows this secret. We are told that it has already worked twice: once when it enabled Anna Fedotovna to pay off her gambling debts, and once when she gave it to young Chaplitzky. And where did she get it? It was given to her by the Count St.-Germain (a real personage, who served Louis XV as an envoy, claimed to have found the elixir of life, and was one of the most famous occultists of his time). So, almost from the first, we are edged over into that shadowy region where what is believable merges with what we wish to believe.

Rosemary Edmonds, one of Pushkin's translators, has remarked that this is "a psychological tale without psychology." That is, we are not told what the character is thinking; we are allowed to deduce it from his acts. But we are left with a residue of mystery, placed there,

for our entertainment, by the author himself. If Hermann had not played the wrong card, would he have won again? And *why* did he play the wrong card? Was it because he was tricked into punishing himself for the guilt he felt at the old woman's death? Or was he, in fact, perhaps a little deranged? Was it all delusion—Anna Fedotovna's phantom, the three cards, her distorted face in the queen of spades? Or should we believe—in terms of the story, at least—that the old woman had got her revenge for the indignity of her death? In that case, why had she given him the names of all three winning cards?

The Queen of Spades

The Queen of Spades signifies secret ill-will.
New Fortune-Teller

When bleak was the weather,
The friends came together
To play.
The stakes, they were doubled;
The sly ones, untroubled,
Were gay.
They all had their innings,
And chalked up their winnings,
And so
They kept busy together
Throughout the bleak weather,
Oho!

There was a card-party at the rooms of Narumov of the Horse Guards. The long winter night passed away imperceptibly, and it was five o'clock in the morning before the company sat down to supper. Those who had won ate with a good appetite; the others sat staring absently at their empty plates. When the champagne appeared, however, the conversation became more animated, and all took a part in it.

"And how did you fare, Surin?" asked the host.

"Oh, I lost, as usual. I must confess that I am unlucky: I never raise the original stakes, I always keep cool, I never allow anything to put me out, and yet I always lose!"

"And you have never been tempted? You have never staked on several cards in succession? . . . Your firmness astonishes me."

"But what do you think of Hermann?" said one of the guests, pointing to a young engineer. "He has never had a card in his hand in his life, he has never in his life doubled the stake, and yet he sits here till five o'clock in the morning watching our play."

"Play interests me very much," said Hermann, "but I am not in the position to sacrifice the necessary in the hope of winning the superfluous."

"Hermann is a German; he is prudent—that is all!" observed Tomsky. "But if there is one person that I cannot understand, it is my grandmother, the Countess Anna Fedotovna."

"How? What?" cried the guests.

"I cannot understand," continued Tomsky, "how it is that my grandmother does not punt."

"What is there remarkable about an old lady of eighty not gambling?" said Narumov.

"Then you know nothing about her?"

"No, really, haven't the faintest idea."

"Oh! then listen. You must know that, about sixty years ago, my grandmother went to Paris, where she created quite a sensation. People used to run after her to catch a glimpse of *la Vénus moscovite*. Richelieu courted her, and my grandmother maintains that he almost blew out his brains in consequence of her cruelty. At that time ladies used to play faro. On one occasion at the Court, she lost a very considerable sum to the Duke of Orleans. On returning home, my grandmother removed the patches from her face, took off her hoops, informed my grandfather of her loss at the gaming table, and ordered him to pay the money. My deceased grandfather, as far as I remember, was a sort of butler to my grandmother. He dreaded her like fire; but, on hearing of such a heavy loss, he almost went out of his mind; he calculated the various sums she had lost, and pointed out to her that in six months she had spent half a million, that neither their Moscow nor Saratov estates were near Paris, and finally refused point-blank to pay the debt. My grandmother slapped his face and slept by herself as a sign of her displeasure. The next day she sent for her husband, hoping that this domestic punishment had produced an effect upon him, but she found him inflexible. For the first time in her life, she condescended to offer reasons and explanations. She thought she could convince him by pointing out to him that there are debts and debts, and that there is a great difference between a prince and a coachmaker. But it was all in vain; grandfather was in revolt. He

said 'no,' and that was all. My grandmother did not know what to do. She was on friendly terms with a very remarkable man. You have heard of Count St. Germain, about whom so many marvellous stories are told. You know that he represented himself as the Wandering Jew, as the discoverer of the elixir of life, of the philosopher's stone, and so forth. Some laughed at him as a charlatan; but Casanova, in his memoirs, says that he was a spy. But be that as it may, St. Germain, in spite of the mystery surrounding him, was a man of decent appearance and had an amiable manner in company. Even to this day my grandmother is in love with him, and becomes quite angry if anyone speaks disrespectfully of him. My grandmother knew that St. Germain had large sums of money at his disposal. She resolved to have recourse to him, and she wrote a letter to him asking him to come to her without delay. The queer old man immediately waited upon her and found her overwhelmed with grief. She described to him in the blackest colours the barbarity of her husband, and ended by declaring that she placed all her hopes in his friendship and graciousness.

"St. Germain reflected. 'I could advance you the sum you want,' said he; 'but I know that you would not rest easy until you had paid me back, and I should not like to bring fresh troubles upon you. But there is another way of getting out of your difficulty: you can win back your money.'

" 'But, my dear Count,' replied my grandmother, 'I tell you that we haven't any money left.'

" 'Money is not necessary,' replied St. Germain. 'Be pleased to listen to me.'

"Then he revealed to her a secret, for which each of us would give a good deal . . ."

The young gamblers listened with increased attention. Tomsky lit his pipe, pulled at it, and continued:

"That same evening my grandmother went to Versailles *au jeu de la Reine* [to the game of the Queen]. The Duke of Orleans kept the bank; my grandmother excused herself in an offhanded manner for not having yet paid her debt, by inventing some little story, and then began to play against him. She chose three cards and played them one after the other: all three won at the start and my grandmother recovered all that she had lost."

"Mere chance!" said one of the guests.

"A fairy tale!" observed Hermann.

"Perhaps they were marked cards!" said a third.

"I do not think so," replied Tomsky gravely.

"What!" said Narumov. "You have a grandmother who knows how to hit upon three lucky cards in succession, and you have never yet succeeded in getting the secret of it out of her?"

"That's the deuce of it!" replied Tomsky. "She had four sons, one of whom was my father; all four are desperate gamblers, and yet not to one of them did she ever reveal her secret, although it would not have been a bad thing either for them or for me. But this is what I heard from my uncle, Count Ivan Ilyich, and he assured me, on his honour, that it was true. The late Chaplitzky–the same who died in poverty after having squandered millions–once lost, in his youth, about three hundred thousand roubles–to Zorich, if I remember rightly. He was in despair. My grandmother, who was always very hard on extravagant young men, took pity, however, upon Chaplitzky. She mentioned to him three cards, telling him to play them one after the other, at the same time exacting from him a solemn promise that he would never play cards again as long as he lived. Chaplitzky then went to his victorious opponent, and they began a fresh game. On the first card he staked fifty thousand roubles and won at once; he doubled the stake and won again, doubled it again, and won, not only all he had lost, but something over and above that. . . .

"But it is time to go to bed: it is a quarter to six already."

And indeed it was already beginning to dawn; the young men emptied their glasses and then took leave of one another.

II

–Il paraît que monsieur est
décidément pour les suivantes.
–Que voulez-vous, madame? Elles
sont plus fraîches.

["It appears, monsieur, that you
decidedly favour the lady's maids."
"Of course, madame; they're fresher."]
Society Talk

The old Countess X. was seated in her dressing-room in front of her looking-glass. Three maids stood around her. One held a small pot of rouge, another a box of hairpins, and the third a tall cap with bright red ribbons. The Countess had no longer the slightest pretensions to beauty–hers had faded long ago–but she still preserved all the habits of her youth, dressed in strict accordance with the fashion of the seventies, and

made as long and as careful a toilette as she would have done sixty years previously. Near the window, at an embroidery frame, sat a young lady, her ward.

"Good morning, *Grand'maman,*" said a young officer, entering the room. "*Bonjour, Mademoiselle Lise*. *Grand'maman,* I have a favour to ask of you."

"What is it, Paul?"

"I want you to let me introduce one of my friends to you, and to allow me to bring him to the ball on Friday."

"Bring him direct to the ball and introduce him to me there. Were you at N.'s yesterday?"

"Yes; everything went off very pleasantly, and dancing kept up until five o'clock. How beautiful Mme Yeletzkaya was!"

"But, my dear, what is there beautiful about her? You should have seen her grandmother, Princess Darya Petrovna! By the way, she must have aged very much, Princess Darya Petrovna."

"How do you mean, aged?" cried Tomsky thoughtlessly. "She died seven years ago."

The young lady raised her head and made a sign to the young man. He then remembered that the old Countess was never to be informed of the death of any of her contemporaries, and he bit his lip. But the Countess heard the news with the greatest indifference.

"Died!" said she. "And I did not know it. We were appointed maids of honour at the same time, and when we were being presented, the Empress . . ."

And the Countess for the hundredth time related the anecdote to her grandson.

"Come, Paul," said she, when she had finished her story, "help me to get up. Lizanka, where is my snuff-box?"

And the Countess with her three maids went behind a screen to finish her toilette. Tomsky was left alone with the young lady.

"Who is the gentleman you wish to introduce to the Countess?" asked Lizaveta Ivanovna in a whisper.

"Narumov. Do you know him?"

"No. Is he in the army or is he a civilian?"

"In the army."

"Is he in the Engineers?"

"No, in the Cavalry. What made you think that he was in the Engineers?"

The young lady smiled, but made no reply.

"Paul," cried the Countess, from behind the screen, "send me some new novel, only, pray, not the kind they write nowadays."

"What do you mean, *Grand'maman?*"

"That is, a novel in which the hero strangles neither his father nor his mother, and in which there are no drowned bodies. I have a great horror of them."

"There are no such novels nowadays. Would you like a Russian one?"

"Are there any Russian novels? Send me one, my dear, please send me one!"

"Good-bye, *Grand'maman,* I am in a hurry. . . . Good-bye, Lizaveta Ivanovna. What, then, made you think that Narumov was in the Engineers?"

And Tomsky withdrew from the dressing-room.

Lizaveta Ivanovna was left alone; she laid aside her work and began to look out of the window. A few moments afterwards, from behind a corner house on the other side of the street, a young officer appeared. A deep blush covered her cheeks; she took up her work again and bent her head over the frame. At the same moment the Countess returned, completely dressed.

"Order the carriage, Lizaveta," said she; "we will go out for a drive."

Lizaveta arose from the frame and began to put away her work.

"What is the matter with you, my dear, are you deaf?" cried the Countess. "Order the carriage to be got ready at once."

"I will do so this moment," replied the young lady, and ran into the ante-room.

A servant entered and gave the Countess some books from Prince Pavel Alexandrovich.

"Tell him that I am much obliged to him," said the Countess. "Lizaveta! Lizaveta! Where are you running to?"

"I am going to dress."

"There is plenty of time, my dear. Sit down here. Open the first volume and read aloud to me."

Her companion took the book and read a few lines.

"Louder," said the Countess. "What is the matter with you, my dear? Have you lost your voice? Wait–give me that footstool–a little nearer–that will do!"

Lizaveta read two more pages. The Countess yawned.

"Put the book down," said she. "What a lot of nonsense! Send it back to Prince Pavel with my thanks. . . . But where is the carriage?"

"The carriage is ready," said Lizaveta, looking out into the street.

"How is it that you are not dressed?" said the Countess. "I must always wait for you. It is intolerable, my dear!"

Liza hastened to her room. She had not been there two minutes before the Countess began to ring with all her might. The three maids came running in at one door and the valet at another.

"How is it that you don't come when I ring for you?" said the Countess. "Tell Lizaveta Ivanovna that I am waiting for her."

Lizaveta returned with her hat and cloak on.

"At last you are here!" said the Countess. "But why such an elaborate toilette? Whom do you intend to captivate? What sort of weather is it? It seems rather windy."

"No, Your Ladyship, it is very calm," replied the valet.

"You always speak thoughtlessly. Open the window. So it is: windy and bitterly cold. Unharness the horses. Lizaveta, we won't go out—there was no need for you to deck yourself out like that."

"And that's my life!" thought Lizaveta. Ivanovna.

And, in truth, Lizaveta Ivanovna was a very unfortunate creature. "It is bitter to eat the bread of another," says Dante, "and hard to climb his stair." But who can know what the bitterness of dependence is so well as the poor companion of an old lady of quality? The Countess X. had by no means a bad heart, but she was capricious, like a woman who had been spoiled by the world, as well as avaricious and sunk in cold egoism, like all old people who are no longer capable of affection, and whose thoughts are with the past and not the present. She participated in all the vanities of the great world, went to balls, where she sat in a corner, painted and dressed in old-fashioned style, like an ugly but indispensable ornament of the ballroom; the guests on entering approached her and bowed profoundly, as if in accordance with a set ceremony, but after that nobody took any further notice of her. She received the whole town at her house, and observed the strictest etiquette, although she could no longer recognize people. Her numerous domestics, growing fat and old in her antechamber and servants' hall, did just as they liked, and vied with each other in robbing the moribund old woman. Lizaveta Ivanovna was the martyr of the household. She poured tea, and was reprimanded for using too much sugar; she read novels aloud to the Countess, and the faults of the author were visited upon her head; she accompanied the Countess in her walks, and was held answerable for the weather or the state of the pavement. A salary was attached to the post, but she very rarely received it, although she was expected to dress like everybody else, that is to say, like very few indeed. In society she played the most pitiable

role. Everybody knew her, and nobody paid her any attention. At balls she danced only when a partner was wanted, and ladies would only take hold of her arm when it was necessary to lead her out of the room to attend to their dresses. She had a great deal of *amour propre* [self-esteem], and felt her position keenly, and she looked about her with impatience for a deliverer to come to her rescue; but the young men, calculating in their giddiness, did not condescend to pay her any attention, although Lizaveta Ivanovna was a hundred times prettier than the barefaced and cold-hearted marriageable girls around whom they hovered. Many a time did she quietly slink away from the dull and elegant drawing-room, to go and cry in her own poor little room, in which stood a screen, a chest of drawers, a looking-glass and a painted bedstead, and where a tallow candle burned feebly in a copper candlestick.

One morning—this was about two days after the card-party described at the beginning of this story, and a week previous to the scene at which we have just assisted—Lizaveta Ivanovna was seated near the window at her embroidery frame, when, happening to look out into the street, she caught sight of a young officer of the Engineers, standing motionless with his eyes fixed upon her window. She lowered her head and went on again with her work. About five minutes afterwards she looked out again—the young officer was still standing in the same place. Not being in the habit of coquetting with passing officers, she did not continue to gaze out into the street, but went on sewing for a couple of hours, without raising her head. Dinner was announced. She rose up and began to put her embroidery away, but glancing casually out the window, she perceived the officer again. This seemed to her very strange. After dinner she went to the window with a certain feeling of uneasiness, but the officer was no longer there—and she thought no more about him.

A couple of days afterwards, just as she was stepping into the carriage with the Countess, she saw him again. He was standing close to the entrance, with his face half-concealed by his beaver collar, his black eyes flashing beneath his hat. Lizaveta felt alarmed, though she knew not why, and she trembled as she seated herself in the carriage.

On returning home, she hastened to the window—the officer was standing in his accustomed place, with his eyes fixed upon her. She drew back, a prey to curiosity and agitated by a feeling which was quite new to her.

From that time on not a day passed without the young officer making his appearance under the window at the customary hour. A spontaneous relationship was established between them. Sitting in her place at work,

she would feel his approach; and raising her head, she would look at him longer and longer each day. The young man seemed to be very grateful to her for it: she saw with the sharp eye of youth how a sudden flush covered his pale cheeks each time that their glances met. By the end of the week she smiled at him. . . .

When Tomsky asked permission of his grandmother the Countess to present one of his friends to her, the young girl's heart beat violently. But hearing that Narumov was not an Engineer, but in the Horse Guards, she regretted that by her indiscreet question, she had betrayed her secret to the volatile Tomsky.

Hermann was the son of a Russified German from whom he had inherited a small fortune. Being firmly convinced of the necessity of ensuring his independence, Hermann did not touch even the interest on his capital, but lived on his pay, without allowing himself the slightest luxury. Moreover, he was reserved and ambitious, and his companions rarely had an opportunity of making merry at the expense of his excessive parsimony. He had strong passions and an ardent imagination, but his firmness of disposition preserved him from the ordinary errors of youth. Thus, though a gambler at heart, he never touched a card, for he considered his position did not allow him—as he said—"to risk the necessary in the hope of winning the superfluous," yet he would sit for nights together at the card-table and follow with feverish excitement the various turns of the game.

The story of the three cards had produced a powerful impression upon his imagination, and all night long he could think of nothing else. "If only," he thought to himself the following evening, as he wandered through St. Petersburg, "if only the old Countess would reveal her secret to me! If she would only tell me the names of the three winning cards! Why should I not try my fortune? I must get introduced to her and win her favour—perhaps become her lover. . . . But all that will take time, and she is eighty-seven years old: she might be dead in a week, in a couple of days even! . . . And the story itself: is it credible? . . . No! Prudence, moderation and work: those are my three winning cards; that is what will increase my capital threefold, sevenfold, and procure for me ease and independence."

Musing in this manner, he walked on until he found himself in one of the principal streets of St. Petersburg, in front of a house of old-fashioned architecture. The street was blocked with carriages; one after the other they rolled up in front of the illuminated entrance. Every minute there

emerged from the coaches the shapely foot of a young beauty, a spurred boot, a striped stocking above a diplomatic shoe. Fur coats and cloaks whisked past the majestic porter.

Hermann stopped. "Whose house is this?" he asked the watchman at the corner.

"The Countess X.'s," replied the watchman.

Hermann trembled. The strange story of the three cards again presented itself to his imagination. He began walking up and down before the house, thinking of its owner and her marvellous gift. Returning late to his modest lodging, he could not go to sleep for a long time, and when at last he did doze off, he could dream of nothing but cards, green tables, piles of bank-notes and heaps of gold coins. He played card after card, firmly turning down the corners, and won uninterruptedly, raking in the gold and filling his pockets with the notes. Waking up late the next morning, he sighed over the loss of his imaginary wealth, then went out again to wander about the streets, and found himself once more in front of the Countess's house. Some unknown power seemed to draw him thither. He stopped and began to stare at the windows. In one of these he saw the head of a black-haired woman, which was bent probably over some book or handwork. The head was raised. Hermann saw a fresh-cheeked face and a pair of black eyes. That moment decided his fate.

III

Vous m'écrivez, mon ange, des lettres de
quatre pages plus vite que je ne puis les lire.

[You write me four-page letters, my angel, faster than I can read them.]
A Correspondence

Lizaveta Ivanovna had scarcely taken off her hat and cloak, when the Countess sent for her and again ordered the carriage. The vehicle drew up before the door, and they prepared to take their seats. Just at the moment when two footmen were assisting the old lady into the carriage, Lizaveta saw her Engineer close beside the wheel; he grasped her hand; alarm caused her to lose her presence of mind, and the young man disappeared–but not before leaving a letter in her hand. She concealed it in her glove, and during the whole of the drive she neither saw nor heard anything. It was the custom of the Countess, when out for an airing in her carriage to be constantly asking such questions as: "Who was that person that met us just now? What is the name of this bridge? What is writ-

ten on that sign-board?" On this occasion, however, Lizaveta returned such vague and absurd answers that the Countess became angry with her.

"What is the matter with you, my dear?" she exclaimed. "Have you taken leave of your senses, or what is it? Do you not hear me or understand what I say? . . . Heaven be thanked, I am still in my right mind and speak plainly enough!"

Lizaveta Ivanovna did not hear her. On returning home she ran to her room, and drew the letter out of her glove: it was not sealed. Lizaveta read it. The letter contained a declaration of love; it was tender, respectful, and copied word for word from a German novel. But Lizaveta did not know anything of the German language, and she was quite delighted with the letter.

For all that, it troubled her exceedingly. For the first time in her life she was entering into secret and intimate relations with a young man. His boldness horrified her. She reproached herself for her imprudent behaviour, and knew not what to do. Should she cease to sit at the window and, by assuming an appearance of indifference toward him, put a check upon the young officer's desire to pursue her further? Should she send his letter back to him, or should she answer him in a cold and resolute manner? There was nobody to whom she could turn in her perplexity, for she had neither female friend nor adviser. . . . At length she resolved to reply to him.

She sat down at her little writing-table, took pen and paper, and began to think. Several times she began her letter, and then tore it up: the way she had expressed herself seemed to her either too indulgent or too severe. At last she succeeded in writing a few lines with which she felt satisfied.

"I am convinced," she wrote, "that your intentions are honourable, and that you do not wish to offend me by any imprudent action, but our acquaintance should not have begun in such a manner. I return you your letter, and I hope that I shall never have any cause to complain of undeserved disrespect."

The next day, as soon as Hermann made his appearance, Lizaveta rose from her embroidery, went into the drawing-room, opened the wicket and threw the letter into the street, trusting to the young officer's alertness.

Hermann hastened forward, picked it up and then repaired to a confectioner's shop. Breaking the seal of the envelope, he found inside it his own letter and Lizaveta's reply. He had expected this, and he returned home, very much taken up with his intrigue.

Three days afterwards, a bright-eyed young girl from a milliner's estab-

lishment brought Lizaveta a letter. Lizaveta opened it with great uneasiness, fearing that it was a demand for money, when suddenly she recognized Hermann's handwriting.

"You have made a mistake, my dear," said she; "this letter is not for me."

"Oh, yes, it is for you," replied the pert girl, without concealing a sly smile. "Have the goodness to read it."

Lizaveta glanced at the letter. Hermann requested an interview.

"It cannot be," said Lizaveta Ivanovna, alarmed both at the haste with which he had made his request, and the manner in which it had been transmitted. "This letter is certainly not for me."

And she tore it into fragments.

"If the letter was not for you, why have you torn it up?" said the girl. "I should have given it back to the person who sent it."

"Be good enough, my dear," said Lizaveta, disconcerted by this remark, "not to bring me any more letters in future, and tell the person who sent you that he ought to be ashamed. . . ."

But Hermann was not the man to be thus put off. Every day Lizaveta received from him a letter, sent now in this way, now in that. They were no longer translated from the German. Hermann wrote them under the inspiration of passion, and spoke in his own language, and they bore full testimony to the inflexibility of his desire and the disordered condition of his uncontrollable imagination. Lizaveta no longer thought of sending them back to him: she became intoxicated with them and began to reply to them, and little by little her answers became longer and more affectionate. At last she threw out of the window to him the following letter:

"This evening there is going to be a ball at the X. Embassy. The Countess will be there. We shall remain until two o'clock. This is your opportunity of seeing me alone. As soon as the Countess is gone, the servants will very probably go out, and there will be nobody left but the porter, but he, too, usually retires to his lodge. Come at half past eleven. Walk straight upstairs. If you meet anybody in the ante-room, ask if the Countess is at home. If you are told she is not, there will be nothing left for you to do but to go away and return another time. But it is most probable that you will meet nobody. The maidservants all sit together in one room. On leaving the ante-room, turn to the left, and walk straight on until you reach the Coimtess' bedroom. In the bedroom, behind a screen, you will find two small doors: the one on the right leads to a study, which the Countess never enters; the one on the left leads to a corridor, at the end of which is a narrow winding staircase; this leads to my room."

Hermann quivered like a tiger as he waited for the appointed time. At ten o'clock in the evening he was already in front of the Countess' house. The weather was terrible; the wind was howling; the sleety snow fell in large flakes; the lamps emitted a feeble light, the streets were deserted; from time to time a sledge, drawn by a sorry-looking hack, passed by, the driver on the look out for a belated fare. Hermann stood there wearing nothing but his jacket, yet he felt neither the wind nor the snow.

At last the Countess' carriage drew up. Hermann saw two footmen carry out in their arms the bent form of the old lady, wrapped in sables, and immediately behind her, clad in a light mantle, and with a wreath of fresh flowers on her head, followed Lizaveta. The door was closed. The carriage rolled away heavily through the yielding snow. The porter shut the street door; the windows became dark.

Hermann began walking up and down near the deserted house; at length he stopped under a lamp, and glanced at his watch: it was twenty minutes past eleven. He remained standing under the lamp, his eyes fixed upon the watch, impatiently waiting for the remaining minutes to pass. At half past eleven precisely, Hermann ascended the steps of the house, and made his way into the brightly illuminated vestibule. The porter was not there. Hermann ran up the stairs, opened the door of the ante-room and saw a footman sitting asleep in an antique soiled armchair, under a lamp. With a light firm step Hermann walked past him. The reception room and the drawing-room were in semi-darkness. They were lit feebly by a lamp in the ante-room.

Hermann entered the bedroom. Before an icon case, filled with ancient icons, a golden sanctuary lamp was burning. Armchairs, upholstered in faded brocade, and sofas, the gilding of which was worn off and which were piled with down cushions, stood in melancholy symmetry around the room, the walls of which were hung with China silk. On the wall hung two portraits painted in Paris by Madame Lebrun. One of them represented a plump, pink-cheeked man of about forty in a light-green uniform and with a star on his breast; the other—a beautiful young woman, with an aquiline nose, curls at her temples, and a rose in her powdered hair. In all the corners stood porcelain shepherds and shepherdesses, clocks from the workshop of the celebrated Leroy, boxes, roulettes, fans, and the various gewgaws for ladies that were invented at the end of the last century, together with Montgolfier's balloon and Mesmer's magnetism. Hermann stepped behind the screen. Behind it stood a little iron bed; on the right was the door which led to the study; on the left—the

other which led to the corridor. He opened the latter, and saw the little winding staircase which led to the room of the poor ward. . . . But he retraced his steps and entered the dark study.

The time passed slowly. All was still. The clock in the drawing-room struck twelve; in all the rooms, one clock after another marked the hour, and everything was quiet again. Hermann stood leaning against the cold stove. He was calm; his heart beat regularly, like that of a man resolved upon a dangerous but inevitable undertaking. The clock struck one, then two; and he heard the distant rumbling of carriage wheels. In spite of himself, excitement seized him. The carriage drew near and stopped. He heard the sound of the carriage step being let down. All was bustle within the house. The servants were running hither and thither, voices were heard, and the house was lit up. Three antiquated chambermaids entered the bedroom, and they were shortly afterwards followed by the Countess who, more dead than alive, sank into an arm-chair. Hermann peeped through a chink. Lizaveta Ivanovna passed close by him, and he heard her steps as she hurried up her staircase. For a moment his heart was assailed by something like remorse, but the emotion was only transitory. He stood petrified.

The Countess began to undress before her looking-glass. Her cap, decorated with roses, was unpinned, and then her powdered wig was removed from off her white and closely cropped head. Hairpins fell in showers around her. Her yellow satin dress, embroidered with silver, fell down at her swollen feet.

Herman witnessed the repulsive mysteries of her toilette; at last the Countess was in her night-cap and night-gown, and in this costume, more suitable to her age, she appeared less hideous and terrifying.

Like all old people in general, the Countess suffered from sleeplessness. Having undressed, she seated herself at the window in an arm-chair and dismissed her maids. The candles were taken away, and once more the room was lit only by the sanctuary lamp. The Countess sat there looking quite yellow, moving her flaccid lips and swaying from side to side. Her dull eyes expressed complete vacancy of mind, and, looking at her, one would have thought that the rocking of her body was not voluntary, but was produced by the action of some concealed galvanic mechanism.

Suddenly the deathlike face changed incredibly. The lips ceased to move, the eyes became animated: before the Countess stood a stranger.

"Do not be alarmed, for Heaven's sake, do not be alarmed!" said he in a low but distinct voice. "I have no intention of doing you any harm, I have only come to ask a favour of you."

The old woman looked at him in silence, as if she had not heard what he had said. Hermann thought that she was deaf, and, bending down toward her ear, he repeated what he had said. The old woman remained silent as before.

"You can ensure the happiness of my life," continued Hermann, "and it will cost you nothing. I know that you can name three cards in succession–"

Hermann stopped. The Countess appeared now to understand what was asked of her; she seemed to be seeking words with which to reply.

"It was a joke," she replied at last. "I swear it was only a joke."

"This is no joking matter," replied Hermann angrily. "Remember Chaplitzky, whom you helped to win back what he had lost."

The Countess became visibly uneasy. Her features expressed strong emotion, but she soon lapsed into her former insensibility.

"Can you not name me these three winning cards?" continued Hermann.

The Countess remained silent; Hermann continued: "For whom are you preserving your secret? For your grandsons? They are rich enough without it; they do not know the worth of money. Your cards would be of no use to a spendthrift. He who cannot preserve his paternal inheritance will die in want, even though he had a demon at his service. I am not a man of that sort; I know the value of money. Your three cards will not be wasted on me. Come!"

He paused and tremblingly awaited her reply. The Countess remained silent; Hermann fell upon his knees.

"If your heart has ever known the feeling of love," said he, "if you remember its rapture, if you have ever smiled at the cry of your newborn child, if your breast has ever throbbed with any human feeling, I entreat you by the feelings of a wife, a lover, a mother, by all that is most sacred in life, not to reject my plea. Reveal to me your secret. Of what use is it to you? . . . Maybe it is connected with some terrible sin, the loss of eternal bliss, some bargain with the devil. . . . Consider–you are old; you have not long to live–I am ready to take your sins upon my soul. Only reveal to me your secret. Remember that the happiness of a man is in your hands, that not only I, but my children, grandchildren, and great-grandchildren, will bless your memory and reverence it as something sacred. . . ."

The old woman answered not a word.

Hermann rose to his feet.

"You old witch!" he exclaimed, clenching his teeth. "Then I will make you answer!"

With these words he drew a pistol from his pocket.

At the sight of the pistol, the Countess for the second time exhibited strong emotion. She shook her head and raised her hands as if to protect herself from the shot . . . then she fell backward and remained motionless.

"Come, an end to this childish nonsense!" said Hermann, taking hold of her hand. "I ask you for the last time: will you tell me the names of your three cards, or will you not?"

The Countess made no reply. Hermann perceived that she was dead!

IV

7 mai, 18 – –
Homme sans moeurs et sans religion!

[A man without morals or religion!]
A Correspondence

Lizaveta Ivanovna was sitting in her room, still in her ball dress, lost in deep thought. On returning home, she had hastily dismissed the sleepy maid, who reluctantly came forward to assist her, saying that she would undress herself, and with a trembling heart had gone up to her own room, hoping to find Hermann there, but yet desiring not to find him. At the first glance she convinced herself that he was not there, and she thanked her fate for the obstacle which had prevented their meeting. She sat down without undressing, and began to recall to mind all the circumstances which in so short a time had carried her so far. It was not three weeks since the time when she had first seen the young man from the window–and she already was in correspondence with him, and he had succeeded in inducing her to grant him a nocturnal tryst! She knew his name only through his having written it at the bottom of some of his letters; she had never spoken to him, had never heard his voice, and had never heard anything of him until that evening. But, strange to say, that very evening at the ball, Tomsky, being piqued with the young Princess Pauline N., who, contrary to her usual custom, did not flirt with him, wished to revenge himself by assuming an air of indifference: he therefore engaged Lizaveta Ivanovna and danced an endless mazurka with her. All the time he kept teasing her about her partiality for officers in the Engineers; he assured her that he knew far more than she could have supposed, and some of his jests were so happily aimed, that Lizaveta thought several times that her secret was known to him.

"From whom have you learned all this?" she asked, smiling.

"From a friend of a person very well known to you," replied Tomsky, "from a very remarkable man."

"And who is this remarkable man?"

"His name is Hermann."

Lizaveta made no reply; but her hands and feet turned to ice.

"This Hermann," continued Tomsky, "is a truly romantic character. He has the profile of a Napoleon, and the soul of a Mephistopheles. I believe that he has at least three crimes upon his conscience. . . . How pale you are!"

"I have a headache. . . . But what did this Hermann—or whatever his name is—tell you?"

"Hermann is very much dissatisfied with his friend: he says that in his place he would act very differently. . . . I even think that Hermann himself has designs upon you; at least, he listens not indifferently to his friend's enamoured exclamations."

"But where has he seen me?"

"In church, perhaps; or promenading—God alone knows where. It may have been in your room, while you were asleep, for he is capable of it."

Three ladies approaching him with the question: "*Oubli ou regret* [Forgetfulness or regret]?" interrupted the conversation, which had become so tantalizingly interesting to Lizaveta.

The lady chosen by Tomsky was the Princess Pauline herself. She succeeded in effecting a reconciliation with him by making an extra turn in the dance and managing to delay resuming her seat. On returning to his place, Tomsky thought no more either of Hermann or Lizaveta. She longed to renew the interrupted conversation, but the mazurka came to an end, and shortly afterwards the old Countess took her departure.

Tomsky's words were nothing more than the small talk of the mazurka, but they sank deep into the soul of the young dreamer. The portrait, sketched by Tomsky, agreed with the picture she had formed in her own mind, and that image, rendered commonplace by current novels, terrified and fascinated her imagination. She was now sitting with her bare arms crossed and her head, still adorned with flowers, was bowed over her half-uncovered breast. Suddenly the door opened and Hermann entered. She shuddered.

"Where have you been?" she asked in a frightened whisper.

"In the old Countess' bedroom," replied Hermann. "I have just left her. The Countess is dead."

"My God! What are you saying?"

"And I am afraid," added Hermann, "that I am the cause of her death."

Lizaveta looked at him, and Tomsky's words found an echo in her soul: "This man has at least three crimes upon his conscience!" Hermann sat down by the window near her, and related all that had happened.

Lizaveta listened to him in terror. So all those passionate letters, those ardent demands, this bold obstinate pursuit–all this was not love! Money–that was what his soul yearned for! She could not satisfy his desire and make him happy! The poor girl had been nothing but the blind accomplice of a robber, of the murderer of her aged benefactress! . . . She wept bitter tears of belated, agonized repentance. Hermann gazed at her in silence: his heart, too, was tormented, but neither the tears of the poor girl, nor the wonderful charm of her beauty, enhanced by her grief, could produce any impression upon his hardened soul. He felt no pricking of conscience at the thought of the dead old woman. One thing only horrified him: the irreparable loss of the secret which he had expected would bring him wealth.

"You are a monster!" said Lizaveta at last.

"I did not wish her death," replied Hermann: "my pistol is not loaded."

Both grew silent.

The day began to dawn. Lizaveta extinguished her candle: a pale light illumined her room. She wiped her tear-stained eyes and raised them toward Hermann: he was sitting on the window-sill, with his arms folded and frowning fiercely. In this attitude he bore a striking resemblance to the portrait of Napoleon. This resemblance struck even Lizaveta Ivanovna.

"How shall I get you out of the house?" said she at last. "I thought of conducting you down the secret staircase, but in that case it would be necessary to go through the Countess' bedroom, and I am afraid."

"Tell me how to find this secret staircase–I will go alone."

Lizaveta arose, took from her drawer a key, handed it to Hermann and gave him the necessary instructions. Hermann pressed her cold, unresponsive hand, kissed her bowed head, and left the room.

He descended the winding staircase, and once more entered the Countess' bedroom. The dead old woman sat as if petrified; her face expressed profound tranquillity. Hermann stopped before her, and gazed long and earnestly at her, as if he wished to convince himself of the terrible reality; at last he entered the study, felt behind the tapestry for the door, and then began to descend the dark staircase, agitated by strange emotions. "At this very hour," thought he, "some sixty years ago, a young gallant, who has long been mouldering in his grave, may have stolen down

this very staircase, perhaps coming from the very same bedroom, wearing an embroidered caftan, with his hair dressed *à l'oiseau royal* and pressing to his heart his three-cornered hat, and the heart of his aged mistress has only today ceased to beat. . . ."

At the bottom of the staircase Hermann found a door, which he opened with the same key, and found himself in a corridor which led him into the street.

V

> That night the deceased Baroness von W. appeared to me. She was clad all in white and said to me: "How are you, Mr. Councilor?"
>
> Swedenborg

Three days after the fatal night, at nine o'clock in the morning, Hermann repaired to the Convent of––, where the burial service for the deceased Countess was to be held. Although feeling no remorse, he could not altogether stifle the voice of conscience, which kept repeating to him: "You are the murderer of the old woman!" While he had little true faith, he was very superstitious; and believing that the dead Countess might exercise an evil influence on his life, he resolved to be present at her funeral in order to ask her pardon.

The church was full. It was with difficulty that Hermann made his way through the crowd. The coffin stood on a sumptuous catafalque under a velvet baldachin. The deceased lay within it, her hands crossed upon her breast, and wearing a lace cap and a white satin gown. Around the catafalque stood the members of her household: the servants in black caftans, with armorial ribbons upon their shoulders, and candles in their hands; the relatives–children, grandchildren, and great-grandchildren–in deep mourning.

Nobody wept; tears would have been *une affectation.* The Countess was so old that her death could have surprised nobody, and her relatives had long looked upon her as not among the living. A famous preacher delivered the funeral oration. In simple and touching words he described the peaceful passing away of the saintly woman whose long life had been a serene, moving preparation for a Christian end. "The angel of death found her," said the preacher, "engaged in pious meditation and waiting for the midnight bridegroom."

The service concluded in an atmosphere of melancholy decorum. The relatives went forward first to bid farewell to the deceased. Then fol-

lowed the numerous acquaintances, who had come to render the last homage to her who for so many years had participated in their frivolous amusements. After these followed the members of the Countess' household. The last of these was the old housekeeper who was of the same age as the deceased. Two young women led her forward, supporting her by the arms. She had not strength enough to bow down to the ground—she was the only one to shed a few tears and kiss the cold hand of her mistress.

Hermann now resolved to approach the coffin. He bowed down to the ground and for several minutes lay on the cold floor, which was strewn with fir boughs; at last he arose, as pale as the deceased Countess herself, ascended the steps of the catafalque and bent over the corpse. . . . At that moment it seemed to him that the dead woman darted a mocking look at him and winked with one eye. Hermann started back, took a false step and fell to the ground. He was lifted up. At the same moment Lizaveta Ivanovna was carried into the vestibule of the church in a faint. This episode disturbed for some minutes the solemnity of the gloomy ceremony. Among the congregation arose a muffled murmur, and the lean chamberlain, a near relative of the deceased, whispered in the ear of an Englishman who was standing near him, that the young officer was a natural son of the Countess, to which the Englishman coldly replied: "Oh!"

During the whole of that day, Hermann was exceedingly perturbed. Dining in an out-of-the-way restaurant, he drank a great deal of wine, contrary to his usual custom, in the hope of allaying his inward agitation. But the wine only served to excite his imagination still more. On returning home, he threw himself upon his bed without undressing, and fell into a deep sleep.

When he woke up it was already night, and the moon was shining into the room. He looked at his watch: it was a quarter to three. Sleep had left him; he sat down upon his bed and thought of the funeral of the old Countess.

At that moment somebody in the street looked in at his window, and immediately passed on again. Hermann paid no attention to this incident. A few moments afterwards he heard the door of the ante-room open. Hermann thought that it was his orderly, drunk as usual, returning from some nocturnal expedition, but presently he heard footsteps that were unknown to him: somebody was shuffling softly across the floor in slippers. The door opened, and a woman, dressed in white, entered the room. Hermann mistook her for his old nurse, and wondered what could

bring her there at that hour of the night. But the white woman glided rapidly across the room and stood before him—and Hermann recognized the Countess!

"I have come to you against my will," she said in a firm voice: "but I have been ordered to grant your request. Three, seven, ace will win for you if played in succession, but only on these conditions: that you do not play more than one card in twenty-four hours, and that you never play again during the rest of your life. I forgive you my death, on condition that you marry my ward, Lizaveta Ivanovna."

With these words she turned round very quietly, walked with a shuffling gait toward the door and disappeared. Hermann heard the street door bang, and he saw someone look in at him through the window again.

For a long time Hermann could not recover himself. Then he went into the next room. His orderly was asleep upon the floor, and he had much difficulty in waking him. The orderly was drunk as usual, and nothing could be got out of him. The street door was locked. Hermann returned to his room, lit his candle, and set down an account of his vision.

VI

"*Attendez!*"
"How dare you say *attendez* to me?"
"Your Excellency, I said: '*Attendez*, Sir.' "

Two fixed ideas can no more exist together in the moral world than two bodies can occupy one and the same place in the physical world. "Three, seven, ace" soon drove out of Hermann's mind the thought of the dead Countess. "Three, seven, ace" were perpetually running through his head and continually on his lips. If he saw a young girl, he would say: "How slender she is! Quite like the three of hearts." If anybody asked: "What is the time?" he would reply: "Five minutes to seven." Every stout man that he saw reminded him of the ace. "Three, seven, ace" haunted him in his sleep, and assumed all possible shapes. The three bloomed before him in the form of a magnificent flower, the seven was represented by a Gothic portal, and the ace became transformed into a gigantic spider. One thought alone occupied his whole mind—to make use of the secret which he had purchased so dearly. He thought of applying for a furlough so as to travel abroad. He wanted to go to Paris and force fortune to yield a treasure to him in the public gambling houses there. Chance spared him all this trouble.

There was in Moscow a society of wealthy gamblers, presided over by the celebrated Chekalinsky, who had passed all his life at the card table and had amassed millions, accepting bills of exchange for his winnings and paying his losses in ready money. His long experience secured for him the confidence of his companions, and his open house, his famous cook, and his agreeable and cheerful manner gained for him the respect of the public. He came to St. Petersburg. The young men of the capital flocked to his rooms, forgetting balls for cards, and preferring the temptations of faro to the seductions of flirting. Narumov conducted Hermann to Chekalinsky's residence.

They passed through a suite of magnificent rooms, filled with courteous attendants. Several generals and privy counsellors were playing whist; young men were lolling carelessly upon the velvet-covered sofas, eating ices and smoking pipes. In the drawing room, at the head of a long table, around which crowded about a score of players, sat the master of the house keeping the bank. He was a man of about sixty years of age, of a very dignified appearance; his head was covered with silvery-white hair; his full, florid countenance expressed good nature, and his eyes twinkled with a perpetual smile. Narumov introduced Hermann to him. Chekalinsky shook him by the hand in a friendly manner, requested him not to stand on ceremony, and then went on dealing.

The game lasted a long time. On the table lay more than thirty cards. Chekalinsky paused after each throw, in order to give the players time to arrange their cards and note down their losses, listened politely to their requests, and more politely still, straightened out the corners of cards that some absent-minded player's hand had turned down. At last the game was finished. Chekalinsky shuffled the cards and prepared to deal again.

"Allow me to play a card," said Hermann, stretching out his hand from behind a stout gentleman who was punting.

Chekalinsky smiled and bowed silently, as a sign of acquiescence. Narumov laughingly congratulated Hermann on ending his long abstention from cards, and wished him a lucky beginning.

"Here goes!" said Hermann, writing the figure with chalk on the back of his card.

"How much, sir?" asked the banker, screwing up his eyes. "Excuse me, I cannot see quite clearly."

"Forty-seven thousand," replied Hermann.

At these words every head in the room turned suddenly round, and all eyes were fixed upon Hermann.

"He has taken leave of his senses!" thought Narumov.

"Allow me to observe," said Chekalinsky, with his eternal smile, "that that is a very high stake; nobody here has ever staked more than two hundred and seventy-five roubles at a time."

"Well," retorted Hermann, "do you accept my card or not?"

Chekalinsky bowed with the same look of humble acquiescence.

"I only wish to inform you," said he, "that enjoying the full confidence of my partners, I can only play for ready money. For my own part, I am, of course, quite convinced that your word is sufficient, but for the sake of order, and because of the accounts, I must ask you to put the money on your card."

Hermann drew from his pocket a banknote and handed it to Chekalinsky, who, after examining it in a cursory manner, placed it on Hermann's card.

He began to deal. On the right a nine turned up, and on the left a three.

"I win!" said Hermann, showing his card.

A murmur of astonishment arose among the players. Chekalinsky frowned, but the smile quickly returned to his face.

"Do you wish me to settle with you?" he said to Hermann.

"If you please," replied the latter.

Chekalinsky drew from his pocket a number of banknotes and paid up at once. Hermann took his money and left the table. Narumov could not recover from his astonishment. Hermann drank a glass of lemonade and went home.

The next evening he again appeared at Chekalinsky's. The host was dealing. Hermann walked up to the table; the punters immediately made room for him. Chekalinsky greeted him with a gracious bow.

Hermann waited for the next game, took a card and placed upon it his forty-seven thousand roubles, together with his winnings of the previous evening.

Chekalinsky began to deal. A knave turned up on the right, a seven on the left.

Hermann showed his seven.

There was a general exclamation. Chekalinsky was obviously disturbed, but he counted out the ninety-four thousand roubles and handed them over to Hermann, who pocketed them in the coolest manner possible and immediately left the house.

The next evening Hermann appeared again at the table. Everyone was expecting him. The generals and privy counselors left their whist in order to watch such extraordinary play. The young officers jumped up

from their sofas, and even the servants crowded into the room. All pressed round Hermann. The other players left off punting, impatient to see how it would end. Hermann stood at the table and prepared to play alone against the pale but still smiling Chekalinsky. Each opened a new pack of cards. Chekalinsky shuffled. Hermann took a card and covered it with a pile of banknotes. It was like a duel. Deep silence reigned.

Chekalinsky began to deal; his hands trembled. On the right a queen turned up, and on the left an ace:

"Ace wins!" cried Hermann, showing his card.

"Your queen has lost," said Chekalinsky sweetly.

Hermann started; instead of an ace, there lay before him the queen of spades! He could not believe his eyes, nor could he understand how he had made such a mistake.

At that moment it seemed to him that the queen of spades screwed up her eyes and sneered. He was struck by the remarkable resemblance. . . .

"The old woman!" he exclaimed, in terror.

Chekalinsky gathered up his winnings. For some time Hermann remained perfectly motionless. When at last he left the table, the room buzzed with loud talk.

"Splendidly punted!" said the players. Chekalinsky shuffled the cards afresh, and the game went on as usual.

CONCLUSION

Hermann went out of his mind. He is now confined in room Number 17 of the Obukhov Hospital. He never answers any questions, but he constantly mutters with unusual rapidity: "Three, seven, ace! Three, seven, queen!"

Lizaveta Ivanovna has married a very amiable young man, a son of the former steward of the old Countess. He is a civil servant, and has a considerable fortune. Lizaveta is bringing up a poor relative.

Tomsky has been promoted to the rank of captain, and is marrying Princess Pauline.

Translated by T. Keane.

D. H. Lawrence

1885–1930

D. H. (David Herbert) Lawrence was born in Nottinghamshire, England, on September 11, 1885. He was the son of a Midlands coal miner. The younger Lawrence taught school, and attended University College in Nottingham. His reputation built up slowly with the publication of *The White Peacock* in 1911, followed by *The Trespasser* the next year and *Sons and Lovers* in 1913. On July 13, 1914, he became the third husband of Frieda von Richthofen, whose brother ranked as the most famous German fighter pilot in World War I.

The English edition of Lawrence's novel *The Rainbow* was prosecuted for obscenity in 1915. After 1919 he took up the wandering life of the international artist in the 1920's. "There's nothing like keeping on the move," he said in one of his letters. But he wrote wherever he went–the Italian mainland, Capri, Sicily, and Austria up to 1922; Ceylon, Australia, New Mexico, and Mexico in the years 1922–23; England, France, and Germany in the following year; then back to New Mexico and Mexico. He remained in Europe after 1925.

In his own decidedly individual way, lie was a complete man of letters who worked in many forms. Much of his poetry, from *Amores* to the posthumous work, takes high rank. His *Studies in Classic American Literature* made some important revaluations in

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Notes from the artist: ". . . Lawrence's portrait emphasizes his monumental stature as a writer and at the same time suggests his delicate physical appearance. The two phoenixes entwining his figure are Lawrence's own personally selected symbols; a similar motif is used to decorate the Lawrence Memorial Chapel at Taos, New Mexico."

D. H. Lawrence

that field. In partial dissent from Freud, two of his books examined the role of the unconscious. He wrote *The Widowing of Mrs. Holroyd* and other plays, and such penetrating travel books as *Mornings in Mexico* and *Sea and Sardinia.* He translated the stories of Giovanni Verga.

He is best known, however, for his own stories, and for such novels or novelettes as *Women in Love, St. Mawr, The Lost Girl, The Plumed Serpent,* and *The Virgin and the Gypsy*. In 1928 the first edition of *Lady Chatterley's Lover* was privately printed in Florence. Some thirty years later it was cleared of obscenity charges in British and American courts. As the 1920's ended, Lawrence's health gradually declined. He died of bronchial tuberculosis in Vence, France, on March 2, 1930.

The Rocking-Horse Winner first appeared in the 1920's in Lady Cynthia Asquith's *The Ghost Book*. In 1949 it was made into an English motion picture written and directed by Anthony Pelissier.

It is perhaps Lawrence's best-known short story, and one of his finest. It has that touch of the dark sorcerer which we have learned to look for in his most impressive work. He did not need to sign it. His mark is on every word. No one else in English literature could have written it. No one else could have given us that unique mingling of qualities—a style so simple, so apparently offhand in its colloquial ease; the uneasy theme that catches us at once; the particular detail about one family that somehow expands into whole classes in many countries; and the tone of fever, of tension, rising to a shrill pitch in the climax.

What is *The Rocking-Horse Winner* about? We may take it first on a perfectly everyday level. It is a story about a family that needs money. ". . . your father has no luck," the small boy's mother tells him. He decides that *he* has luck. He will get money for her. He will play the races. He does, and wins. That is all. Or is it? How does he win? He is driven by the soundless voices in the house: "There must be more money! There must be more money!" Like a demented child jockey, he rides his rocking horse in a symbolic race. If he can ride hard enough and "get there," he will "know" which of the real horses is going to win. When he "knows," his horse always comes in.

So we begin to understand that, on the second or social level, this is a story about the epidemic anxiety of the contemporary world: money worry. Here it communicates itself from the unloving mother to her children, so that the whole house is whispering with it. That this is not real need, that it is anxiety rooted in other sources, Lawrence shows us in a single sardonic touch. Through his uncle, the boy arranges to transfer a considerable sum of money to his mother. Does this quiet the voices? No. They scream now "in a sort of ecstasy: 'There must be more money!" We know there will be no end to it.

We recognize too the theme of luck. The mother has communicated to her son the belief that luck is the key, the one hope of relief. So he does not ride merely to win money. Money is the magic key that will release his mother's and his own unbearable anxiety. If he can do this, he will win her love. He gets the money for her and he sees that it does not work. There is nothing to do but try again, to ride and ride until he can bring the winning horse in. We are reminded of that other story of money and luck and magic powers, Pushkin's *The Queen of Spades*.[1]

Lawrence's handling of his many-sided symbol is nowhere so masterly as in his muted intimations of love and sexual excitement. We are aware of his doctrine that true sexuality is the live core of human feeling. In the small boy's anxiety we catch the note of childish sexuality described by Freud. We recognize the familiar Freudian triangle: the son challenging the father for the mother's love. But Lawrence brings them all together–anxiety, money, luck, love, sexuality–in that last blazing instant when the mother turns on the light in her son's room.

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[1] See Vol. 3, pp. 484–507, in this set.

The Rocking–Horse Winner

There was a woman who was beautiful, who started with all the advantages, yet she had no luck. She married for love, and the love turned to dust. She had bonny children, yet she felt they had been thrust upon her, and she could not love them. They looked at her coldly, as if they were finding fault with her. And hurriedly she felt she must cover up some fault in herself. Yet what it was that she must cover up she never knew. Nevertheless, when her children were present, she always felt the centre of her heart go hard. This troubled her, and in her manner she was all the more gentle and anxious for her children, as if she loved them very much. Only she herself knew that at the centre of her heart was a hard little place that could not feel love, no, not for anybody. Everybody else said of her: "She is such a good mother. She adores her children." Only she herself, and her children themselves, knew it was not so. They read it in each other's eyes.

There were a boy and two little girls. They lived in a pleasant house, with a garden, and they had discreet servants, and felt themselves superior to anyone in the neighbourhood.

Although they lived in style, they felt always an anxiety in the house. There was never enough money. The mother had a small income, and the father had a small income, but not nearly enough for the social position which they had to keep up. The father went into town to some office. But though he had good prospects, these prospects never materialized. There was always the grinding sense of the shortage of money, though the style was always kept up.

At last the mother said: "I will see if I can't make something." But she did not know where to begin. She racked her brains, and tried this thing and the other, but could not find anything successful. The failure made deep lines come into her face. Her children were growing up, they

would have to go to school. There must be more money, there must be more money. The father, who was always very handsome and expensive in his tastes, seemed as if he never would be able to do anything worth doing. And the mother, who had a great belief in herself, did not succeed any better, and her tastes were just as expensive.

And so the house came to be haunted by the unspoken phrase: There must be more money! There must be more money! The children could hear it all the time, though nobody said it aloud. They heard it at Christmas, when the expensive and splendid toys filled the nursery. Behind the shining modern rocking-horse, behind the smart doll's house, a voice would start whispering: "There must be more money! There must be more money!" And the children would stop playing, to listen for a moment. They would look into each other's eyes, to see if they had all heard. And each one saw in the eyes of the other two that they too had heard. "There must be more money! There must be more money!"

It came whispering from the springs of the still-swaying rocking-horse, and even the horse, bending his wooden, champing head, heard it. The big doll, sitting so pink and smirking in her new pram, could hear it quite plainly, and seemed to be smirking all the more self-consciously because of it. The foolish puppy, too, that took the place of the teddy-bear, he was looking so extraordinarily foolish for no other reason but that he heard the secret whisper all over the house: "There must be more money!"

Yet nobody ever said it aloud. The whisper was everywhere, and therefore no one spoke it. Just as no one ever says: "We are breathing!" in spite of the fact that breath is coming and going all the time.

"Mother," said the boy Paul one day, "why don't we keep a car of our own? Why do we always use uncle's, or else a taxi?"

"Because we're the poor members of the family," said the mother.

"But why are we, mother?"

"Well–I suppose," she said slowly and bitterly, "it's because your father has no luck."

The boy was silent for some time.

"Is luck money, mother?" he asked, rather timidly.

"No, Paul. Not quite. It's what causes you to have money."

"Oh!" said Paul vaguely. "I thought when Uncle Oscar said filthy lucker, it meant money."

"Filthy lucre does mean money," said the mother. "But it's lucre, not luck."

"Oh!" said the boy. "Then what is luck, mother?"

"It's what causes you to have money. If you're lucky you have money. That's why it's better to be born lucky than rich. If you're rich, you may lose your money. But if you're lucky, you will always get more money."

"Oh! Will you? And is father not lucky?"

"Very unlucky, I should say," she said bitterly.

The boy watched her with unsure eyes.

"Why?" he asked.

"I don't know. Nobody ever knows why one person is lucky and another unlucky."

"Don't they? Nobody at all? Does nobody know?"

"Perhaps God. But He never tells."

"He ought to, then. And aren't you lucky either, mother?"

"I can't be, if I married an unlucky husband."

"But by yourself, aren't you?"

"I used to think I was, before I married. Now I think I am very unlucky indeed."

"Why?"

"Well—never mind! Perhaps I'm not really," she said.

The child looked at her, to see if she meant it. But he saw, by the lines of her mouth, that she was only trying to hide something from him.

"Well, anyhow," he said stoutly, "I'm a lucky person."

"Why?" said his mother, with a sudden laugh.

He stared at her. He didn't even know why he had said it.

"God told me," he asserted, brazening it out.

"I hope He did, dear!" she said, again with a laugh, but rather bitter.

"He did, mother!"

"Excellent!" said the mother, using one of her husband's exclamations.

The boy saw she did not believe him; or, rather, that she paid no attention to his assertion. This angered him somewhat, and made him want to compel her attention.

He went off by himself, vaguely, in a childish way, seeking for the clue to "luck." Absorbed, taking no heed of other people, he went about with a sort of stealth, seeking inwardly for luck. He wanted luck, he wanted it, he wanted it. When the two girls were playing dolls in the nursery, he would sit on his big rocking-horse, charging madly into space, with a frenzy that made the little girls peer at him uneasily. Wildly the horse careered, the waving dark hair of the boy tossed, his eyes had a strange glare in them. The little girls dared not speak to him.

When he had ridden to the end of his mad little journey, he climbed down and stood in front of his rocking-horse, staring fixedly into its low-

ered face. Its red mouth was slightly open, its big eye was wide and glassy-bright.

"Now!" he would silently command the snorting steed. "Now, take me to where there is luck! Now take me!"

And he would slash the horse on the neck with the little whip he had asked Uncle Oscar for. He knew the horse could take him to where there was luck, if only he forced it. So he would mount again, and start on his furious ride, hoping at last to get there. He knew he could get there.

"You'll break your horse, Paul!" said the nurse.

"He's always riding like that! I wish he'd leave off!" said his elder sister Joan.

But he only glared down on them in silence. Nurse gave him up. She could make nothing of him. Anyhow he was growing beyond her.

One day his mother and his Uncle Oscar came in when he was on one of his furious rides. He did not speak to them.

"Hallo, you young jockey! Riding a winner?" said his uncle.

"Aren't you growing too big for a rocking-horse? You're not a very little boy any longer, you know," said his mother.

But Paul only gave a blue glare from his big, rather close-set eyes. He would speak to nobody when he was in full tilt. His mother watched him with an anxious expression on her face.

At last he suddenly stopped forcing his horse into the mechanical gallop, and slid down.

"Well, I got there!" he announced fiercely, his blue eyes still flaring, and his sturdy long legs straddling apart.

"Where did you get to?" asked his mother.

"Where I wanted to go," he flared back at her.

"That's right, son!" said Uncle Oscar. "Don't you stop till you get there. What's the horse's name?"

"He doesn't have a name," said the boy.

"Gets on without all right?" asked the uncle.

"Well, he has different names. He was called Sansovino last week."

"Sansovino, eh? Won the Ascot. How did you know his name?"

"He always talks about horse-races with Bassett," said Joan.

The uncle was delighted to find that his small nephew was posted with all the racing news. Bassett, the young gardener, who had been wounded in the left foot in the war and had got his present job through Oscar Cresswell, whose batman he had been, was a perfect blade of the "turf." He lived in the racing events, and the small boy lived with him.

Oscar Cresswell got it all from Bassett.

"Master Paul comes and asks me, so I can't do more than tell him, sir," said Bassett, his face terribly serious, as if he were speaking of religious matters.

"And does he ever put anything on a horse he fancies?"

"Well–I don't want to give him away–he's a young sport, a fine sport, sir. Would you mind asking him yourself? He sort of takes a pleasure in it, and perhaps he'd feel I was giving him away, sir, if you don't mind."

Bassett was serious as a church.

The uncle went back to his nephew, and took him off for a ride in the car.

"Say, Paul, old man, do you ever put anything on a horse?" the uncle asked.

The boy watched the handsome man closely.

"Why, do you think I oughtn't to?" he parried.

"Not a bit of it! I thought perhaps you might give me a tip for the Lincoln."

The car sped on into the country, going down to Uncle Oscar's place in Hampshire.

"Honour bright?" said the nephew.

"Honour bright, son!" said the uncle.

"Well, then, Daffodil."

"Daffodil! I doubt it, sonny. What about Mirza?"

"I only know the winner," said the boy. "That's Daffodil."

"Daffodil, eh?"

There was a pause. Daffodil was an obscure horse comparatively.

"Uncle!"

"Yes, son?"

"You won't let it go any further, will you? I promised Bassett."

"Bassett be damned, old man! What's he got to do with it?"

"We're partners. We've been partners from the first. Uncle, he lent me my first five shillings, which I lost. I promised him, honour bright, it was only between me and him; only you gave me that ten-shilling note I started winning with, so I thought you were lucky. You won't let it go any further, will you?"

The boy gazed at his uncle from those big, hot, blue eyes, set rather close together. The uncle stirred and laughed uneasily.

"Right you are, son! I'll keep your tip private. Daffodil, eh? How much are you putting on him?"

"All except twenty pounds," said the boy. "I keep that in reserve."

The uncle thought it a good joke.

"You keep twenty pounds in reserve, do you, you young romancer? What are you betting, then?"

"I'm betting three hundred," said the boy gravely. "But it's between you and me, Uncle Oscar! Honour bright?"

The uncle burst into a roar of laughter.

"It's between you and me all right, you young Nat Gould," he said, laughing. "But where's your three hundred?"

"Bassett keeps it for me. We're partners."

"You are, are you? And what is Bassett putting on Daffodil?"

"He won't go quite as high as I do, I expect. Perhaps he'll go a hundred and fifty."

"What, pennies?" laughed the uncle.

"Pounds," said the child, with a surprised look at his uncle. "Bassett keeps a bigger reserve than I do."

Between wonder and amusement Uncle Oscar was silent. He pursued the matter no further, but he determined to take his nephew with him to the Lincoln races.

"Now, son," he said, "I'm putting twenty on Mirza, and I'll put five for you on any horse you fancy. What's your pick?"

"Daffodil, uncle."

"No, not the fiver on Daffodil!"

"I should if it was my own fiver," said the child.

"Good! Good! Right you are! A fiver for me and a fiver for you on Daffodil."

The child had never been to a race-meeting before, and his eyes were blue fire. He pursed his mouth tight, and watched. A Frenchman just in front had put his money on Lancelot. Wild with excitement, he flayed his arms up and down, yelling "Lancelot! Lancelot!" in his French accent.

Daffodil came in first, Lancelot second, Mirza third. The child, flushed and with eyes blazing, was curiously serene. His uncle brought him four five-pound notes, four to one.

"What am I to do with these?" he cried, waving them before the boy's eyes.

"I suppose we'll talk to Bassett," said the boy. "I expect I have fifteen hundred now; and twenty in reserve; and this twenty."

His uncle studied him for some moments.

"Look here, son!" he said. "You're not serious about Bassett and that fifteen hundred, are you?"

"Yes, I am. But it's between you and me, uncle. Honour bright!"

"Honour bright all right, son! But I must talk to Bassett."

"If you'd like to be a partner, uncle, with Bassett and me, we could all be partners. Only, you'd have to promise, honour bright, uncle, not to let it go beyond us three. Bassett and I are lucky, and you must be lucky, because it was your ten shillings I started winning with. . . ."

Uncle Oscar took both Bassett and Paul into Richmond Park for an afternoon, and there they talked.

"It's like this, you see, sir," Bassett said. "Master Paul would get me talking about racing events, spinning yarns, you know, sir. And he was always keen on knowing if I'd made or if I'd lost. It's about a year since, now, that I put five shillings on Blush of Dawn for him—and we lost. Then the luck turned, with that ten shillings he had from you, that we put on Singhalese. And since that time, it's been pretty steady, all things considering. What do you say, Master Paul?"

"We're all right when we're sure," said Paul. "It's when we're not quite sure that we go down."

"Oh, but we're careful then," said Bassett.

"But when are you sure?" smiled Uncle Oscar.

"It's Master Paul, sir," said Bassett, in a secret, religious voice. "It's as if he had it from heaven. Like Daffodil, now, for the Lincoln. That was as sure as eggs."

"Did you put anything on Daffodil?" asked Oscar Cresswell.

"Yes, sir. I made my bit."

"And my nephew?"

Bassett was obstinately silent, looking at Paul.

"I made twelve hundred, didn't I, Bassett? I told uncle I was putting three hundred on Daffodil."

"That's right," said Bassett, nodding.

"But where's the money?" asked the uncle.

"I keep it safe locked up, sir. Master Paul he can have it any minute he likes to ask for it."

"What, fifteen hundred pounds?"

"And twenty! And forty, that is, with the twenty he made on the course."

"It's amazing!" said the uncle.

"If Master Paul offers you to be partners, sir, I would, if I were you; if you'll excuse me," said Bassett.

Oscar Cresswell thought about it.

"I'll see the money," he said.

They drove home again, and sure enough, Bassett came round to the garden-house with fifteen hundred pounds in notes. The twenty pounds reserve was left with Joe Glee, in the Turf Commission deposit.

"You see, it's all right, uncle, when I'm sure! Then we go strong, for all we're worth. Don't we, Bassett?"

"We do that, Master Paul."

"And when are you sure?" said the uncle, laughing.

"Oh, well, sometimes I'm absolutely sure, like about Daffodil," said the boy; "and sometimes I have an idea; and sometimes I haven't even an idea, have I, Bassett? Then we're careful, because we mostly go down."

"You do? do you! And when you're sure, like about Daffodil, what makes you sure, sonny?"

"Oh, well, I don't know," said the boy uneasily. "I'm sure, you know, uncle; that's all."

"It's as if he had it from heaven, sir," Bassett reiterated.

"I should say so!" said the uncle.

But he became a partner. And when the Leger was coming on, Paul was "sure" about Lively Spark, which was a quite inconsiderable horse. The boy insisted on putting a thousand on the horse, Bassett went for five hundred, and Oscar Cresswell two hundred. Lively Spark came in first, and the betting had been ten to one against him. Paul had made ten thousand.

"You see," he said. "I was absolutely sure of him."

Even Oscar Cresswell had cleared two thousand.

"Look here, son," he said, "this sort of thing makes me nervous."

"It needn't, uncle! Perhaps I shan't be sure again for a long time."

"But what are you going to do with your money?" asked the uncle.

"Of course," said the boy, "I started it for mother. She said she had no luck, because father is unlucky, so I thought if I was lucky, it might stop whispering."

"What might stop whispering?"

"Our house. I hate our house for whispering."

"What does it whisper?"

"Why–why"–the boy fidgeted–"why, I don't know. But it's always short of money, you know, uncle."

"I know it, son, I know it."

"You know people send mother writs, don't you, uncle?"

"I'm afraid I do," said the uncle.

"And then the house whispers, like people laughing at you behind your back. It's awful, that is! I thought if I was lucky . . ."

"You might stop it," added the uncle.

The boy watched him with big blue eyes that had an uncanny cold fire in them, and he said never a word.

"Well, then!" said the uncle. "What are we doing?"

"I shouldn't like mother to know I was lucky," said the boy.

"Why not, son?"

"She'd stop me."

"I don't think she would."

"Oh!"—and the boy writhed in an odd way—"I don't want her to know, uncle."

"All right, son! We'll manage it without her knowing."

They managed it very easily. Paul, at the other's suggestion, handed over five thousand pounds to his uncle, who deposited it with the family lawyer, who was then to inform Paul's mother that a relative had put five thousand pounds into his hands, which sum was to be paid out a thousand pounds at a time, on the mother's birthday, for the next five years.

"So she'll have a birthday present of a thousand pounds for five successive years," said Uncle Oscar. "I hope it won't make it all the harder for her later."

Paul's mother had her birthday in November. The house had been "whispering" worse than ever lately, and, even in spite of his luck, Paul could not bear up against it. He was very anxious to see the effect of the birthday letter, telling his mother about the thousand pounds.

When there were no visitors, Paul now took his meals with his parents, as he was beyond the nursery control. His mother went into town nearly every day. She had discovered that she had an odd knack of sketching furs and dress materials, so she worked secretly in the studio of a friend who was the chief "artist" for the leading drapers. She drew the figures of ladies in furs and ladies in silk and sequins for the newspaper advertisements. This young woman artist earned several thousand pounds a year, but Paul's mother only made several hundreds, and she was again dissatisfied. She so wanted to be first in something, and she did not succeed, even in making sketches for drapery advertisements.

She was down to breakfast on the morning of her birthday. Paul watched her face as she read her letters. He knew the lawyer's letter. As his mother read it, her face hardened and became more expressionless. Then a cold, determined look came on her mouth. She hid the letter under the pile of others and said not a word about it.

"Didn't you have anything nice in the post for your birthday, mother?" said Paul.

"Quite moderately nice," she said, her voice cold and absent.

She went away to town without saying more.

But in the afternoon Uncle Oscar appeared. He said Paul's mother had had a long interview with the lawyer, asking if the whole five thousand could be advanced at once, as she was in debt.

"What do you think, uncle?" said the boy.

"I leave it to you, son."

"Oh, let her have it, then! We can get some more with the other," said the boy.

"A bird in the hand is worth two in the bush, laddie!"

"But I'm sure to know for the Grand National; or the Lincolnshire; or else the Derby. I'm sure to know for one of them," said Paul.

So Uncle Oscar signed the agreement, and Paul's mother touched the whole five thousand. Then something very curious happened. The voices in the house suddenly went mad, like a chorus of frogs on a spring evening. There were certain new furnishings, and Paul had a tutor. He was really going to Eton, his father's school, in the following autumn. There were flowers in the winter, and a blossoming of the luxury Paul's mother had been used to. And yet the voices in the house, behind the sprays of mimosa and almond blossom, and from under the piles of iridescent cushions, simply trilled and screamed in a sort of ecstasy: "There must be more money! Oh-h-h, there must be more money. Oh, now, now-w! Now-w-w–there must be more money!–more than ever! More than ever!"

It frightened Paul terribly. He studied away at his Latin and Greek with his tutors. But his intense hours were spent with Bassett. The Grand National had gone by: he had not "known," and had lost a hundred pounds. Summer was at hand. He was in agony for the Lincoln. But even for the Lincoln he didn't "know" and he lost fifty pounds. He became wild-eyed and strange, as if something were going to explode in him.

"Let it alone, son! Don't you bother about it!" urged Uncle Oscar. But it was as if the boy couldn't really hear what his uncle was saying.

"I've got to know for the Derby! I've got to know for the Derby!" the child reiterated, his big blue eyes blazing with a sort of madness.

His mother noticed how overwrought he was.

"You'd better go to the seaside. Wouldn't you like to go now to the seaside, instead of waiting? I think you'd better," she said, looking down at him anxiously, her heart curiously heavy because of him.

But the child lifted his uncanny blue eyes.

"I couldn't possibly go before the Derby, mother!" he said. "I couldn't possibly!"

"Why not?" she said, her voice becoming heavy when she was opposed. "Why not? You can still go from the seaside to see the Derby with your Uncle Oscar, if that's what you wish. No need for you to wait here. Besides, I think you care too much about these races. It's a bad sign. My family has been a gambling family, and you won't know till you grow up how much damage it has done. But it has done damage. I shall have to send Bassett away, and ask Uncle Oscar not to talk racing to you, unless you promise to be reasonable about it; go away to the seaside and forget it. You're all nerves!"

"I'll do what you like, mother, so long as you don't send me away till after the Derby," the boy said.

"Send you away from where? Just from this house?"

"Yes," he said, gazing at her.

"Why, you curious child, what makes you care about this house so much, suddenly? I never knew you loved it."

He gazed at her without speaking. He had a secret within a secret, something he had not divulged, even to Bassett or to his Uncle Oscar.

But his mother, after standing undecided and a little bit sullen for some moments, said:

"Very well, then! Don't go to the seaside till after the Derby, if you don't wish it. But promise me you won't let your nerves go to pieces. Promise you won't think so much about horse-racing and events, as you call them!"

"Oh, no," said the boy casually. "I won't think much about them, mother. You needn't worry. I wouldn't worry, mother, if I were you."

"If you were me and I were you," said his mother, "I wonder what we should do!"

"But you know you needn't worry, mother, don't you?" the boy repeated.

"I should be awfully glad to know it," she said wearily.

"Oh, well, you can, you know. I mean, you ought to know you needn't worry," he insisted.

"Ought I? Then I'll see about it," she said.

Paul's secret of secrets was his wooden horse, that which had no name. Since he was emancipated from a nurse and a nursery-governess, he had had his rocking-horse removed to his own bedroom at the top of the house.

"Surely, you're too big for a rocking-horse!" his mother had remonstrated.

"Well, you see, mother, till I can have a real horse, I like to have some sort of animal about," had been his quaint answer.

"Do you feel he keeps you company?" she laughed.

"Oh, yes! He's very good, he always keeps me company, when I'm there," said Paul.

So the horse, rather shabby, stood in an arrested prance in the boy's bedroom.

The Derby was drawing near, and the boy grew more and more tense. He hardly heard what was spoken to him, he was very frail, and his eyes were really uncanny. His mother had sudden seizures of uneasiness about him. Sometimes, for half an hour, she would feel a sudden anxiety about him that was almost anguish. She wanted to rush to him at once, and know he was safe.

Two nights before the Derby, she was at a big party in town, when one of her rushes of anxiety about her boy, her first-born, gripped her heart till she could hardly speak. She fought with the feeling, might and main, for she believed in common sense. But it was too strong. She had to leave the dance and go downstairs to telephone to the country. The children's nursery-governess was terribly surprised and startled at being rung up in the night.

"Are the children all right, Miss Wilmot?"

"Oh, yes, they are quite all right."

"Master Paul? Is he all right?"

"He went to bed as right as a trivet. Shall I run up and look at him?"

"No," said Paul's mother reluctantly. "No! Don't trouble. It's all right. Don't sit up. We shall be home fairly soon." She did not want her son's privacy intruded upon.

"Very good," said the governess.

It was about one o'clock when Paul's mother and father drove up to their house. All was still. Paul's mother went to her room and slipped off her white fur cloak. She had told her maid not to wait up for her. She heard her husband downstairs, mixing a whisky-and-soda.

And then, because of the strange anxiety at her heart, she stole upstairs to her son's room. Noiselessly she went along the upper corridor. Was there a faint noise? What was it?

She stood, with arrested muscles, outside his door, listening. There was a strange, heavy, and yet not loud noise. Her heart stood still. It was a soundless noise, yet rushing and powerful. Something huge, in violent,

hushed motion. What was it? What in God's name was it? She ought to know. She felt that she knew the noise. She knew what it was.

Yet she could not place it. She couldn't say what it was. And on and on it went, like a madness.

Softly, frozen with anxiety and fear, she turned the door-handle.

The room was dark. Yet in the space near the window, she heard and saw something plunging to and fro. She gazed in fear and amazement.

Then suddenly she switched on the light, and saw her son, in his green pyjamas, madly surging on the rocking-horse. The blaze of light suddenly lit him up, as he urged the wooden horse, and lit her up, as she stood, blonde, in her dress of pale green and crystal, in the doorway.

"Paul!" she cried. "Whatever are you doing?"

"It's Malabar!" he screamed, in a powerful, strange voice. "It's Malabar."

His eyes blazed at her for one strange and senseless second, as he ceased urging his wooden horse. Then he fell with a crash to the ground, and she, all her tormented motherhood flooding upon her, rushed to gather him up.

But he was unconscious, and unconscious he remained, with some brain-fever. He talked and tossed, and his mother sat stonily by his side.

"Malabar! It's Malabar! Bassett, Bassett, I know! It's Malabar!"

So the child tried, trying to get up and urge the rocking-horse that gave him his inspiration.

"What does he mean by Malabar?" asked the heart-frozen mother.

"I don't know," said the father stonily.

"What does he mean by Malabar?" she asked her brother Oscar.

"It's one of the horses running for the Derby," was the answer.

And, in spite of himself, Oscar Cresswell spoke to Bassett, and himself put a thousand on Malabar: at fourteen to one.

The third day of the illness was critical: they were waiting for a change. The boy, with his rather long, curly hair, was tossing ceaselessly on the pillow. He neither slept nor regained consciousness, and his eyes were like blue stones. His mother sat, feeling her heart had gone, turned actually into a stone.

In the evening, Oscar Cresswell did not come, but Bassett sent a message, saying could he come up for one moment, just one moment? Paul's mother was very angry at the intrusion, but on second thought she agreed. The boy was the same. Perhaps Bassett might bring him to consciousness.

The gardener, a shortish fellow with a little brown moustache, and

sharp little brown eyes, tiptoed into the room, touched his imaginary cap to Paul's mother, and stole to the bedside, staring with glittering, smallish eyes, at the tossing, dying child.

"Master Paul!" he whispered. "Master Paul! Malabar come in first all right, a clean win. I did as you told me. You've made over seventy thousand pounds, you have; you've got over eighty thousand. Malabar came in all right, Master Paul!"

"Malabar! Malabar! Did I say Malabar, mother? Did I say Malabar? Do you think I'm lucky, mother? I knew Malabar, didn't I? Over eighty thousand pounds! I call that lucky, don't you, mother? Over eighty thousand pounds! I knew, didn't I know I knew? Malabar came in all right. If I ride my horse till I'm sure, then I tell you, Bassett, you can go as high as you like. Did you go for all you were worth, Bassett?"

"I went a thousand on it, Master Paul."

"I never told you, mother, that if I can ride my horse, and get there, then I'm absolutely sure—oh, absolutely! Mother, did I ever tell you? I am lucky."

"No, you never did," said the mother.

But the boy died in the night.

And even as he lay dead, his mother heard her brother's voice saying to her: "My God, Hester, you're eighty-odd thousand to the good and a poor devil of a son to the bad. But, poor devil, poor devil, he's best gone out of a life where he rides his rocking-horse to find a winner."

Henry James

1843–1916

Henry James was born in New York City, on April 15, 1843. He was the second son of the Swedenborgian philosopher Henry James, Sr., and brother of the psychologist William James. In the year of his birth the future novelist made his first visit to Europe. He grew up largely in Albany, New York, and New York City. His education was a planned succession of governesses, tutors, schools, and travel experiences in the United States, Switzerland, Germany, France, and England.

In 1860–62 he lived in Newport, Rhode Island. A spinal injury incurred with a volunteer fire company probably kept him out of the Civil War and forced him to leave Harvard Law School. In Boston he wrote criticism, travel articles, and short stories. By 1875 he had decided to live in Europe. He settled first in Paris, where Turgenev, Flaubert, Maupassant, and Zola became his friends. In the following year he moved to London.

His first full-length novel, *Roderick Hudson,* was published in 1876. During this early period he wrote *The American, The Portrait of a Lady* (said to have been studied from his beloved cousin, Minny Temple, who died young), *Daisy Miller, Washington*

Notes from the artist: ". . . James as a boy—his head spinning—in an otherwise 'period' portrait with his father, complete with elaborate Victorian frame. The deliberate shock in this generally sedate family portrait was intended to suggest the restlessness of the artist, both as a youth who resisted formal education and as the mature writer who would dissect some of the tragedy that lay beneath the apparent calm of turn-of-the-century society."

Square, and *The Aspern Papers*. He made extended visits to the United States, France, and Italy. Beginning in 1889, he tried hard but unsuccessfully to break into the theater. Only two plays of his were produced: *The American* and *Guy Domville*.

In the 1890's he published a long row of such distinguished works as *The Tragic Muse, What Maisie Knew, The Lesson of the Master,* and *The Turn of the Screw*. He moved to Lamb House in Rye, Sussex. *The American Scene* came out of a visit to the United States in 1904–05. *The Wings of the Dove, The Ambassadors,* and *The Golden Bowl* belong among the great novels of his final period. During World War I he became a naturalized British subject and was awarded the Order of Merit. He died on February 28, 1916.

In one of the prefaces to the New York Edition of his works, Henry James tells how the suggestion for *The Pupil* came to him. On a summer day, he writes, "in a very hot Italian railway-carriage," a physician friend "happened to speak to me of a wonderful American family, an odd, adventurous, extravagant band, the most interesting member of which was a small boy, acute and precocious, afflicted with a heart of weak action. . . ."

Its imaginative power, James adds, might well have come out of "an old latent and dormant impression, a buried germ, implanted by experience and then forgotten. . . ." Van Wyck Brooks suggests that this must have been a recollection of the Sargent family–its most famous member was the painter John Singer Sargent–who "wandered like gypsies all over Europe, from Biarritz to Venice, to Switzerland, to Paris, 'living one year like ambassadors and the next like paupers' as Henry James was to describe them in his story 'The Pupil'. . . ."

If this is so, the Sargents must have undergone a striking change when James turned them into the Moreens. They became what the Sargents had probably never been–"a houseful of Bohemians who wanted tremendously to be Philistines." And what is a Philistine? A prosperous conservative who has no use for artists. Out of the Moreens' desire to be fashionable and secure, without having the means for it, comes all the falseness that Morgan and his young American tutor find in them.

They try to present a solvent and conventional face to the world. They are Bohemians only in private and by necessity. This gives

them a resemblance to a troupe of actors who must never be off guard, who must never forget to pretend that they are not acting. James makes an amusing thing of it. In a series of light touches he gives us Mr. Moreen, with his white mustache and his "ribbon of a foreign order"; the eternal macaroni and coffee; the talk about "good places"–"as if they had been pickpockets or strolling players"; and the villa at Nice with "a carriage, a piano and a banjo. . . ."

But the story hinges on the friendship between Pemberton, the tutor, and young Morgan Moreen. Morgan himself–because he is "a genius," as his mother says? because he has a weak heart?–is treated with "a genuine tenderness, an artless admiration. . . ." By that very sign he is an outsider. He is not privy to the family secrets. He must find them out for himself–and does. He and Pemberton make a small union of outsiders. They are at once ironic spectators and hopelessly involved. They have a common longing to escape; but there is no future for them outside the trap of the family.

Do we have misgivings of a sort that James, for once, does not seem to have anticipated? "I think a position in society is a legitimate object of ambition," he remarked once. So we are a little dismayed perhaps when young Morgan and his tutor assume the right to judge "such people" as the Moreens. Pemberton, in fact, reflected that "they were adventurers because they were toadies and snobs." Perhaps they are "toadies and snobs" by nature. But they are adventurers because they have no money, or too little to be any use to them. They live like prospective heirs borrowing against an inheritance that will never come.

The Pupil

The poor young man hesitated and procrastinated: it cost him such an effort to broach the subject of terms, to speak of money to a person who spoke only of feelings and, as it were, of the aristocracy. Yet he was unwilling to take leave, treating his engagement as settled, without some more conventional glance in that direction than he could find an opening for in the manner of the large affable lady who sat there drawing a pair of soiled *gants de Suède* [suede gloves] through a fat jewelled hand and, at once pressing and gliding, repeated over and over everything but the thing he would have liked to hear. He would have liked to hear the figure of his salary; but just as he was nervously about to sound that note the little boy came back–the little boy Mrs. Moreen had sent out of the room to fetch her fan. He came back without the fan, only with the casual observation that he couldn't find it. As he dropped this cynical confession he looked straight and hard at the candidate for the honour of taking his education in hand. This personage reflected somewhat grimly that the first thing he should have to teach his little charge would be to appear to address himself to his mother when he spoke to her–especially not to make her such an improper answer as that.

When Mrs. Moreen bethought herself of this pretext for getting rid of their companion, Pemberton supposed it was precisely to approach the delicate subject of his remuneration. But it had been only to say some things about her son that it was better a boy of eleven shouldn't catch. They were extravagantly to his advantage save when she lowered her voice to sigh, tapping her left side familiarly, "And all overclouded by *this,* you know; all at the mercy of a weakness–!" Pemberton gathered that the weakness was in the region of the heart. He had known the poor child was not robust: this was the basis on which he had been invited to treat, through an English lady, an Oxford acquaintance, then at Nice, who happened to know both his needs and those of the amiable American family looking out for something really superior in the way of a resident tutor.

The young man's impression of his prospective pupil, who had come into the room as if to see for himself the moment Pemberton was admitted, was not quite the soft solicitation the visitor had taken for granted. Morgan Moreen was somehow sickly without being "delicate," and that he looked intelligent–it is true Pemberton wouldn't have enjoyed his being stupid–only added to the suggestion that, as with his big mouth and big ears he really couldn't be called pretty, he might too utterly fail to please. Pemberton was modest, was even timid; and the chance that his small scholar would prove cleverer than himself had quite figured, to his anxiety, among the dangers of an untried experiment. He reflected, however, that these were risks one had to run when one accepted a position, as it was called, in a private family; when as yet one's university honours had, pecuniarily speaking, remained barren. At any rate when Mrs. Moreen got up as to intimate that, since it was understood he would enter upon his duties within the week, she would let him off now, he succeeded, in spite of the presence of the child, in squeezing out a phrase about the rate of payment. It was not the fault of the conscious smile which seemed a reference to the lady's expensive identity, it was not the fault of this demonstration, which had, in a sort, both vagueness and point, if the allusion didn't sound rather vulgar. This was exactly because she became still more gracious to reply: "Oh I can assure you that all that will be quite regular."

Pemberton only wondered, while he took up his hat, what "all that" was to amount to–people had such different ideas. Mrs. Moreen's words, however, seemed to commit the family to a pledge definite enough to elicit from the child a strange little comment in the shape of the mocking foreign ejaculation "Oh la-la!"

Pemberton, in some confusion, glanced at him as he walked slowly to the window with his back turned, his hands in his pockets and the air in his elderly shoulders of a boy who didn't play. The young man wondered if he should be able to teach him to play, though his mother had said it would never do and that this was why school was impossible. Mrs. Moreen exhibited no discomfiture; she only continued blandly: "Mr. Moreen will be delighted to meet your wishes. As I told you, he has been called to London for a week. As soon as he comes back you shall have it out with him."

This was so frank and friendly that the young man could only reply, laughing as his hostess laughed: "Oh I don't imagine we shall have much of a battle."

"They'll give you anything you like," the boy remarked unexpectedly,

returning from the window. "We don't mind what anything costs—we live awfully well."

"My darling, you're too quaint!" his mother exclaimed, putting out to caress him a practised but ineffectual hand. He slipped out of it, but looked with intelligent innocent eyes at Pemberton, who had already had time to notice that from one moment to the other his small satiric face seemed to change its time of life. At this moment it was infantine, yet it appeared also to be under the influence of curious intuitions and knowledges. Pemberton rather disliked precocity and was disappointed to find gleams of it in a disciple not yet in his teens. Nevertheless he divined on the spot that Morgan wouldn't prove a bore. He would prove on the contrary a source of agitation. This idea held the young man, in spite of a certain repulsion.

"You pompous little person! We're not extravagant!" Mrs. Moreen gaily protested, making another unsuccessful attempt to draw the boy to her side. "You must know what to expect," she went on to Pemberton.

"The less you expect the better!" her companion interposed. "But we *are* people of fashion."

"Only so far as *you* make us so!" Mrs. Moreen tenderly mocked. "Well then, on Friday—don't tell me you're superstitious—and mind you don't fail us. Then you'll see us all. I'm so sorry the girls are out. I guess you'll like the girls. And, you know, I've another son, quite different from this one."

"He tries to imitate me," Morgan said to their friend.

"He tries? Why he's twenty years old!" cried Mrs. Moreen.

"You're very witty," Pemberton remarked to the child—a proposition his mother echoed with enthusiasm, declaring Morgan's sallies to be the delight of the house.

The boy paid no heed to this; he only enquired abruptly of the visitor, who was surprised afterwards that he hadn't struck him as offensively forward: "Do you *want* very much to come?"

"Can you doubt it after such a description of what I shall hear?" Pemberton replied. Yet he didn't want to come at all; he was coming because he had to go somewhere, thanks to the collapse of his fortune at the end of a year abroad spent on the system of putting his scant patrimony into a single full wave of experience. He had had his full wave but couldn't pay the score at his inn. Moreover he had caught in the boy's eyes the glimpse of a far-off appeal.

"Well, I'll do the best I can for you," said Morgan; with which he turned away again. He passed out of one of the long windows; Pember-

ton saw him go and lean on the parapet of the terrace. He remained there while the young man took leave of his mother, who, on Pemberton's looking as if he expected a farewell from him, interposed with: "Leave him, leave him; he's so strange!" Pemberton supposed her to fear something he might say. "He's a genius—you'll love him," she added. "He's much the most interesting person in the family." And before he could invent some civility to oppose to this she wound up with: "But we're all good, you know!"

"He's a genius—you'll love him!" were words that recurred to our aspirant before the Friday, suggesting among many things that geniuses were not invariably lovable. However, it was all the better if there was an element that would make tutorship absorbing: he had perhaps taken too much for granted it would only disgust him. As he left the villa after his interview he looked up at the balcony and saw the child leaning over it. "We shall have great larks!" he called up.

Morgan hung fire a moment and then gaily returned: "By the time you come back I shall have thought of something witty!"

This made Pemberton say to himself "After all he's rather nice."

On the Friday he saw them all, as Mrs. Moreen had promised, for her husband had come back and the girls and the other son were at home. Mr. Moreen had a white moustache, a confiding manner and, in his button-hole, the ribbon of a foreign order—bestowed, as Pemberton eventually learned, for services. For what services he never clearly ascertained: this was a point—one of a larger number—that Mr. Moreen's manner never confided. What it emphatically did confide was that he was even more a man of the world than you might first make out. Ulick, the first-born, was in visible training for the same profession—under the disadvantage as yet, however, of a button-hole but feebly floral and a moustache with no pretensions to type. The girls had hair and figures and manners and small fat feet, but had never been out alone. As for Mrs. Moreen, Pemberton saw on a nearer view that her elegance was intermittent and her parts didn't always match. Her husband, as she had promised, met with enthusiasm Pemberton's ideas in regard to a salary. The young man had endeavoured to keep these stammerings modest, and Mr. Moreen made it no secret that *he* found them wanting in "style." He further mentioned that he aspired to be intimate with his children, to be their best friend, and that he was always looking out for them. That was what he went off for, to London and other places—to look out; and this vigilance was the theory of life, as well as the real

occupation, of the whole family. They all looked out, for they were very frank on the subject of its being necessary. They desired it to be understood that they were earnest people, and also that their fortune, though quite adequate for earnest people, required the most careful administration. Mr. Moreen, as the parent bird, sought sustenance for the nest. Ulick invoked support mainly at the club, where Pemberton guessed that it was usually served on green cloth. The girls used to do up their hair and their frocks themselves, and our young man felt appealed to to be glad, in regard to Morgan's education, that, though it must naturally be of the best, it didn't cost too much. After a little he *was* glad, forgetting at times his own needs in the interest inspired by the child's character and culture and the pleasure of making easy terms for him.

During the first weeks of their acquaintance Morgan had been as puzzling as a page in an unknown language—altogether different from the obvious little Anglo-Saxons who had misrepresented childhood to Pemberton. Indeed the whole mystic volume in which the boy had been amateurishly bound demanded some practice in translation. Today, after a considerable interval, there is something phantasmagoric, like a prismatic reflection or a serial novel, in Pemberton's memory of the queerness of the Moreens. If it were not for a few tangible tokens—a lock of Morgan's hair cut by his own hand, and the half-dozen letters received from him when they were disjoined—the whole episode and the figures peopling it would seem too inconsequent for anything but dreamland. Their supreme quaintness was their success—as it appeared to him for a while at the time; since he had never seen a family so brilliantly equipped for failure. Wasn't it success to have kept him so hatefully long? Wasn't it success to have drawn him in that first morning at *déjeuner* [lunch], the Friday he came—it was enough to *make* one superstitious—so that he utterly committed himself, and this not by calculation or on a signal, but from a happy instinct which made them, like a band of gipsies, work so neatly together? They amused him as much as if they had really been a band of gipsies. He was still young and had not seen much of the world—his English years had been properly arid; therefore the reversed conventions of the Moreens—for they had *their* desperate properties—struck him as topsy-turvy. He had encountered nothing like them at Oxford; still less had any such note been struck to his younger American ear during the four years at Yale in which he had richly supposed himself to be reacting against a Puritan strain. The reaction of the Moreens, at any rate, went ever so much further. He

had thought himself very sharp that first day in hitting them all off in his mind with the "cosmopolite" label. Later it seemed feeble and colourless—confessedly helplessly provisional.

He yet when he first applied it felt a glow of joy—for an instructor he was still empirical—rise from the apprehension that living with them would really be to see life. Their sociable strangeness was an imitation of that—their chatter of tongues, their gaiety and good humour, their infinite dawdling (they were always getting themselves up, but it took for ever, and Pemberton had once found Mr. Moreen shaving in the drawing-room), their French, their Italian and, cropping up in the foreign fluencies, their cold tough slices of American. They lived on macaroni and coffee—they had these articles prepared in perfection—but they knew recipes for a hundred other dishes. They overflowed with music and song, were always humming and catching each other up, and had a sort of professional acquaintance with Continental cities. They talked of "good places" as if they had been pickpockets or strolling players. They had at Nice a villa, a carriage, a piano and a banjo, and they went to official parties. They were a perfect calendar of the "days" of their friends, which Pemberton knew them, when they were indisposed, to get out of bed to go to, and which made the week larger than life when Mrs. Moreen talked of them with Paula and Amy. Their initiations gave their new inmate at first an almost dazzling sense of culture. Mrs. Moreen had translated something at some former period—an author whom it made Pemberton feel *borné* [limited] never to have heard of. They could imitate Venetian and sing Neapolitan, and when they wanted to say something very particular communicated with each other in an ingenious dialect of their own, an elastic spoken cipher which Pemberton at first took for some *patois* of one of their countries, but which he "caught on to" as he would not have grasped provincial development of Spanish or German.

"It's the family language—Ultramoreen," Morgan explained to him drolly enough; but the boy rarely condescended to use it himself, though he dealt in colloquial Latin as if he had been a little prelate.

Among all the "days" with which Mrs. Moreen's memory was taxed she managed to squeeze in one of her own, which her friends sometimes forgot. But the house drew a frequented air from the number of fine people who were freely named there and from several mysterious men with foreign titles and English clothes whom Morgan called the Princes and who, on sofas with the girls, talked French very loud—though sometimes

with some oddity of accent—as if to show they were saying nothing improper. Pemberton wondered how the Princes could ever propose in that tone and so publicly: he took for granted cynically that this was what was desired of them. Then he recognized that even for the chance of such an advantage Mrs. Moreen would never allow Paula and Amy to receive alone. These young ladies were not at all timid, but it was just the safeguards that made them so candidly free. It was a houseful of Bohemians who wanted tremendously to be Philistines.

In one respect, however, certainly, they achieved no rigour—they were wonderfully amiable and ecstatic about Morgan. It was a genuine tenderness, an artless admiration, equally strong in each. They even praised his beauty, which was small, and were as afraid of him as if they felt him of finer clay. They spoke of him as a little angel and a prodigy—they touched on his want of health with long, vague faces. Pemberton feared at first an extravagance that might make him hate the boy, but before this happened he had become extravagant himself. Later, when he had grown rather to hate the others, it was a bribe to patience for him that they were at any rate nice about Morgan, going on tiptoe if they fancied he was showing symptoms, and even giving up somebody's "day" to procure him a pleasure. Mixed with this too was the oddest wish to make him independent, as if they had felt themselves not good enough for him. They passed him over to the new members of their circle very much as if wishing to force some charity of adoption on so free an agent and get rid of their own charge. They were delighted when they saw Morgan take so to his kind playfellow, and could think of no higher praise for the young man. It was strange how they contrived to reconcile the appearance, and indeed the essential fact, of adoring the child with their eagerness to wash their hands of him. Did they want to get rid of him before he should find them out? Pemberton was finding them out month by month. The boy's fond family, however this might be, turned their backs with exaggerated delicacy, as if to avoid the reproach of interfering. Seeing in time how little he had in common with them—it was by *them* he first observed it; they proclaimed it with complete humility—his companion was moved to speculate on the mysteries of transmission, the far jumps of heredity. Where his detachment from most of the things they represented had come from was more than an observer could say—it certainly had burrowed under two or three generations.

As for Pemberton's own estimate of his pupil, it was a good while before he got the point of view, so little had he been prepared for it by the

smug young barbarians to whom the tradition of tutorship, as hitherto revealed to him, had been adjusted. Morgan was scrappy and surprising, deficient in many properties supposed common to the *genus* and abounding in others that were the portion only of the supernaturally clever. One day his friend made a great stride: it cleared up the question to perceive that Morgan *was* supernaturally clever and that, though the formula was temporarily meagre, this would be the only assumption on which one could successfully deal with him. He had the general quality of a child for whom life had not been simplified by school, a kind of home-bred sensibility which might have been bad for himself but was charming for others, and a whole range of refinement and perception—little musical vibrations as taking as picked-up airs—begotten by wandering about Europe at the tail of his migratory tribe. This might not have been an education to recommend in advance, but its results with so special a subject were as appreciable as the marks on a piece of fine porcelain. There was at the same time in him a small strain of stoicism, doubtless the fruit of having had to begin early to bear pain, which counted for pluck and made it of less consequence that he might have been thought at school rather a polyglot little beast. Pemberton indeed quickly found himself rejoicing that school was out of the question: in any million of boys it was probably good for all but one, and Morgan was that millionth. It would have made him comparative and superior—it might have made him really require kicking. Pemberton would try to be school himself—a bigger seminary than five hundred grazing donkeys, so that, winning no prizes, the boy would remain unconscious and irresponsible and amusing—amusing, because, though life was already intense in his childish nature, freshness still made there a strong draught for jokes. It turned out that even in the still air of Morgan's various disabilities jokes flourished greatly. He was a pale lean acute undeveloped little cosmopolite, who liked intellectual gymnastics and who also, as regards the behaviour of mankind, had noticed more things than you might suppose, but who nevertheless had his proper playroom of superstitions, where he smashed a dozen toys a day.

At Nice once, toward evening, as the pair rested in the open air after a walk, and looked over the sea at the pink western lights, he said suddenly to his comrade: "Do you like it, you know—being with us all in this intimate way?"

"My dear fellow, why should I stay if I didn't?"

"How do I know you'll stay? I'm almost sure you won't, very long."

"I hope you don't mean to dismiss me," said Pemberton.

Morgan debated, looking at the sunset. "I think if I did right I ought to."

"Well, I know I'm supposed to instruct you in virtue; but in that case don't do right."

"You're very young–fortunately," Morgan went on, turning to him again.

"Oh yes, compared with you!"

"Therefore it won't matter so much if you do lose a lot of time."

"That's the way to look at it," said Pemberton accommodatingly.

They were silent a minute; after which the boy asked: "Do you like my father and my mother very much?"

"Dear me, yes. Charming people."

Morgan received this with another silence; then unexpectedly, familiarly, but at the same time affectionately, he remarked: "You're a jolly old humbug!"

For a particular reason the words made our young man change colour. The boy noticed in an instant that he had turned red, whereupon he turned red himself and pupil and master exchanged a longish glance in which there was a consciousness of many more things than are usually touched upon, even tacitly, in such a relation. It produced for Pemberton an embarrassment; it raised in a shadowy form a question–this was the first glimpse of it–destined to play a singular and, as he imagined, owing to the altogether peculiar conditions, an unprecedented part in his intercourse with his little companion. Later, when he found himself talking with the youngster in a way in which few youngsters could ever have been talked with, he thought of that clumsy moment on the bench at Nice as the dawn of an understanding that had broadened. What had added to the clumsiness then was that he thought it his duty to declare to Morgan that he might abuse him, Pemberton, as much as he liked, but must never abuse his parents. To this Morgan had the easy retort that he hadn't dreamed of abusing them; which appeared to be true: it put Pemberton in the wrong.

"Then why am I a humbug for saying *I* think them charming?" the young man asked, conscious of a certain rashness.

"Well–they're not your parents."

"They love you better than anything in the world–never forget that," said Pemberton.

"Is that why you like them so much?"

"They're very kind to me," Pemberton replied evasively.

"You *are* a humbug!" laughed Morgan, passing an arm into his tutor's. He leaned against him looking off at the sea again and swinging his long thin legs.

"Don't kick my shins," said Pemberton while he reflected "Hang it, I can't complain of them to the child!"

"There's another reason too," Morgan went on, keeping his legs still.

"Another reason for what?"

"Besides their not being your parents."

"I don't understand you," said Pemberton.

"Well, you will before long. All right!"

He did understand fully before long, but he made a fight even with himself before he confessed it. He thought it the oddest thing to have a struggle with the child about. He wondered he didn't hate the hope of the Moreens for bringing the struggle on. But by the time it began any such sentiment for that scion was closed to him. Morgan was a special case, and to know him was to accept him on his own odd terms. Pemberton had spent his aversion to special cases before arriving at knowledge. When at last he did arrive his quandary was great. Against every interest he had attached himself. They would have to meet things together. Before they went home that evening at Nice the boy had said, clinging to his arm:

"Well, at any rate you'll hang on to the last."

"To the last?"

"Till you're fairly beaten."

"*You* ought to be fairly beaten!" cried the young man, drawing him closer.

A year after he had come to live with them Mr. and Mrs. Moreen suddenly gave up the villa at Nice. Pemberton had got used to suddenness, having seen it practised on a considerable scale during two jerky little tours—one in Switzerland the first summer, and the other late in the winter, when they all ran down to Florence and then, at the end of ten days, liking it much less than they had intended, straggled back in mysterious depression. They had returned to Nice "for ever," as they said; but this didn't prevent their squeezing, one rainy muggy May night, into a second-class railway carriage—you could never tell by which class they would travel—where Pemberton helped them to stow away a wonderful collection of bundles and bags. The explanation of this manoeuvre was that they had determined to spend the summer "in some bracing place"; but in Paris they dropped into a small furnished apartment—a fourth

floor in a third-rate avenue, where there was a smell on the staircase and the *portier* was hateful—and passed the next four months in blank indigence.

The better part of this baffled sojourn was for the preceptor and his pupil, who, visiting the Invalides and Notre Dame, the Conciergerie and all the museums, took a hundred remunerative rambles. They learned to know their Paris, which was useful, for they came back another year for a longer stay, the general character of which in Pemberton's memory today mixes pitiably and confusedly with that of the first. He sees Morgan's shabby knickerbockers—the everlasting pair that didn't match his blouse and that as he grew longer could only grow faded. He remembers the particular holes in his three or four pair of coloured stockings.

Morgan was dear to his mother, but he never was better dressed than was absolutely necessary—partly, no doubt, by his own fault, for he was as indifferent to his appearance as a German philosopher. "My dear fellow, you *are* coming to pieces," Pemberton would say to him in sceptical remonstrance; to which the child would reply, looking at him serenely up and down: "My dear fellow, so are you! I don't want to cast you in the shade." Pemberton could have no rejoinder for this—the assertion so closely represented the fact. If however the deficiencies of his own wardrobe were a chapter by themselves he didn't like his little charge to look too poor. Later he used to say, "Well, if we're poor, why, after all, shouldn't we look it?" and he consoled himself with thinking there was something rather elderly and gentlemanly in Morgan's disrepair—it differed from the untidiness of the urchin who plays and spoils his things. He could trace perfectly the degrees by which, in proportion as her little son confined himself to his tutor for society, Mrs. Moreen shrewdly forbore to renew his garments. She did nothing that didn't show, neglected him because he escaped notice, and then, as he illustrated this clever policy, discouraged at home his public appearances. Her position was logical enough—those members of her family who did show had to be showy.

During this period and several others Pemberton was quite aware of how he and his comrade might strike people; wandering languidly through the Jardin des Plantes as if they had nowhere to go, sitting on the winter days in the galleries of the Louvre, so splendidly ironical to the homeless, as if for the advantage of the *calorifère* [stove]. They joked about it sometimes: it was the sort of joke that was perfectly within the boy's compass. They figured themselves as part of the vast vague hand-to-mouth multitude of the enormous city and pretended they were

proud of their position in it—it showed them "such a lot of life" and made them conscious of a democratic brotherhood. If Pemberton couldn't feel a sympathy in destitution with his small companion—for after all Morgan's fond parents would never have let him really suffer—the boy would at least feel it with him, so it came to the same thing. He used sometimes to wonder what people would think they were—to fancy they were looked askance at, as if it might be a suspected case of kidnapping. Morgan wouldn't be taken for a young patrician with a preceptor—he wasn't smart enough; though he might pass for his companion's sickly little brother. Now and then he had a five-franc piece, and except once, when they bought a couple of lovely neck-ties, one of which he made Pemberton accept, they laid it out scientifically in old books. This was sure to be a great day, always spent on the quays, in a rummage of the dusty boxes that garnish the parapets. Such occasions helped them to live, for their books ran low very soon after the beginning of their acquaintance. Pemberton had a good many in England, but he was obliged to write to a friend and ask him kindly to get some fellow to give him something for them.

If they had to relinquish that summer the advantage of the bracing climate the young man couldn't but suspect this failure of the cup when at their very lips to have been the effect of a rude jostle of his own. This had represented his first blow-out, as he called it, with his patrons; his first successful attempt—though there was little other success about it—to bring them to a consideration of his impossible position. As the ostensible eve of a costly journey the moment had struck him as favourable to an earnest protest, the presentation of an ultimatum. Ridiculous as it sounded, he had never yet been able to compass an uninterrupted private interview with the elder pair or with either of them singly. They were always flanked by their elder children, and poor Pemberton usually had his own little charge at his side. He was conscious of its being a house in which the surface of one's delicacy got rather smudged; nevertheless he had preserved the bloom of his scruple against announcing to Mr. and Mrs. Moreen with publicity that he shouldn't be able to go on longer without a little money. He was still simple enough to suppose Ulick and Paula and Amy might not know that since his arrival he had only had a hundred and forty francs; and he was magnanimous enough to wish not to compromise their parents in their eyes. Mr. Moreen now listened to him, as he listened to every one and to every thing, like a man of the world, and seemed to appeal to him—though not of course too grossly—to try and be a little more of one himself. Pemberton recognized in fact

the importance of the character–from the advantage it gave Mr. Moreen. He was not even confused or embarrassed, whereas the young man in his service was more so than there was any reason for. Neither was he surprised–at least any more than a gentleman had to be who freely confessed himself a little shocked–though not perhaps strictly at Pemberton.

"We must go into this, mustn't we, dear?" he said to his wife. He assured his young friend that the matter should have his very best attention; and he melted into space as elusively as if, at the door, he were taking an inevitable but deprecatory precedence. When, the next moment, Pemberton found himself alone with Mrs. Moreen it was to hear her say, "I see, I see"–stroking the roundness of her chin and looking as if she were only hesitating between a dozen easy remedies. If they didn't make their push Mr. Moreen could at least disappear for several days. During his absence his wife took up the subject again spontaneously, but her contribution to it was merely that she had thought all the while they were getting on so beautifully. Pemberton's reply to this revelation was that unless they immediately put down something on account he would leave them on the spot and for ever. He knew she would wonder how he would get away, and for a moment expected her to enquire. She didn't for which he was almost grateful to her, so little was he in a position to tell.

"You won't, you *know* you won't–you're too interested," she said. "You *are* interested, you know you are, you dear kind man!" She laughed with almost condemnatory archness, as if it were a reproach–though she wouldn't insist; and flirted a soiled pocket-handkerchief at him.

Pemberton's mind was fully made up to take his step the following week. This would give him time to get an answer to a letter he had dispatched to England. If he did in the event nothing of the sort–that is if he stayed another year and then went away only for three months–it was not merely because before the answer to his letter came (most unsatisfactory when it did arrive) Mr. Moreen generously counted out to him, and again with the sacrifice to "form" of a marked man of the world, three hundred francs in elegant ringing gold. He was irritated to find that Mrs. Moreen was right, that he couldn't at the pinch bear to leave the child. This stood out clearer for the very reason that, the night of his desperate appeal to his patrons, he had seen fully for the first time where he was. Wasn't it another proof of the success with which those patrons practised their arts that they had managed to avert for so long the illuminating flash? It descended on our friend with a breadth of effect which perhaps would have struck a spectator as comical, after he had returned

to his little servile room, which looked into a close court where a bare dirty opposite wall took, with the sound of shrill clatter, the reflection of lighted back windows. He had simply given himself away to a band of adventurers. The idea, the word itself, wore a romantic horror for him—he had always lived on such safe lines. Later it assumed a more interesting, almost a soothing, sense: it pointed a moral, and Pemberton could enjoy a moral. The Moreens were adventurers not merely because they didn't pay their debts, because they lived on society, but because their whole view of life, dim and confused and instinctive, like that of clever colour-blind animals, was speculative and rapacious and mean. Oh they were "respectable," and that only made them more *immondes* [ignoble]! The young man's analysis, while he brooded, put it at last very simply—they were adventurers because they were toadies and snobs. That was the completest account of them—it was the law of their being. Even when this truth became vivid to their ingenious inmate he remained unconscious of how much his mind had been prepared for it by the extraordinary little boy who had now become such a complication in his life. Much less could he then calculate on the information he was still to owe the extraordinary little boy.

But it was during the ensuing time that the real problem came up—the problem of how far it was excusable to discuss the turpitude of parents with a child of twelve, of thirteen, of fourteen. Absolutely inexcusable and quite impossible it of course at first appeared; and indeed the question didn't press for some time after Pemberton had received his three hundred francs. They produced a temporary lull, a relief from the sharpest pressure. The young man frugally amended his wardrobe and even had a few francs in his pocket. He thought the Moreens looked at him as if he were almost too smart, as if they ought to take care not to spoil him. If Mr. Moreen hadn't been such a man of the world he would perhaps have spoken of the freedom of such neck-ties on the part of a subordinate. But Mr. Moreen was always enough a man of the world to let things pass—he had certainly shown that. It was singular how Pemberton guessed that Morgan, though saying nothing about it, knew something had happened. But three hundred francs, especially when one owed money, couldn't last for ever; and when the treasure was gone—the boy knew when it had failed—Morgan did break ground. The party had returned to Nice at the beginning of the winter, but not to the charming villa. They went to a hotel, where they stayed three months, and then moved to another establishment, explaining that they had left

the first because, after waiting and waiting, they couldn't get the rooms they wanted. These apartments, the rooms they wanted, were generally very splendid; but fortunately they never *could* get them—fortunately, I mean, for Pemberton, who reflected always that if they had got them there would have been a still scanter educational fund. What Morgan said at last was said suddenly, irrelevantly, when the moment came, in the middle of a lesson, and consisted of the apparently unfeeling words: "You ought to *filer,* you know—you really ought."

Pemberton stared. He had learnt enough French slang from Morgan to know that to *filer* meant to cut sticks. "Ah my dear fellow, don't turn me off!"

Morgan pulled a Greek lexicon toward him—he used a Greek-German—to look out a word, instead of asking it of Pemberton. "You can't go on like this, you know."

"Like what, my boy?"

"You know they don't pay you up," said Morgan, blushing and turning his leaves.

"Don't pay me?" Pemberton stared again and feigned amazement. "What on earth put that into your head?"

"It has been there a long time," the boy replied, rummaging his book.

Pemberton was silent, then he went on: "I say, what are you hunting for? They pay me beautifully."

"I'm hunting for the Greek for awful whopper," Morgan dropped.

"Find that rather for gross impertinence and disabuse your mind. What do I want of money?"

"Oh, that's another question!"

Pemberton wavered—he was drawn in different ways. The severely correct thing would have been to tell the boy that such a matter was none of his business and bid him go on with his lines. But they were really too intimate for that; it was not the way he was in the habit of treating him; there had been no reason it should be. On the other hand Morgan had quite lighted on the truth—he really shouldn't be able to keep it up much longer; therefore why not let him know one's real motive for forsaking him? At the same time it wasn't decent to abuse to one's pupil the family of one's pupil; it was better to misrepresent than to do that. So in reply to his comrade's last exclamation he just declared, to dismiss the subject, that he had received several payments.

"I say—I say!" the boy ejaculated, laughing.

"That's all right," Pemberton insisted. "Give me your written rendering."

Morgan pushed a copybook across the table, and he began to read the page, but with something running in his head that made it no sense. Looking up after a minute or two he found the child's eyes fixed on him and felt in them something strange. Then Morgan said: "I'm not afraid of the stern reality."

"I haven't yet seen the thing you *are* afraid of–I'll do you that justice!"

This came out with a jump–it was perfectly true–and evidently gave Morgan pleasure. "I've thought of it a long time," he presently resumed.

"Well, don't think of it any more."

The boy appeared to comply, and they had a comfortable and even an amusing hour. They had a theory that they were very thorough, and yet they seemed always to be in the amusing part of lessons, the intervals between the dull dark tunnels, where there were waysides and jolly views. Yet the morning was brought to a violent end by Morgan's suddenly leaning his arms on the table, burying his head in them and bursting into tears: at which Pemberton was the more startled that, as it then came over him, it was the first time he had ever seen the boy cry and that the impression was consequently quite awful.

The next day, after much thought, he took a decision and, believing it to be just, immediately acted on it. He cornered Mr. and Mrs. Moreen again and let them know that if on the spot they didn't pay him all they owed him he wouldn't only leave their house but would tell Morgan exactly what had brought him to it.

"Oh you *haven't* told him?" cried Mrs. Moreen with a pacifying hand on her well-dressed bosom.

"Without warning you? For what do you take me?" the young man returned.

Mr. and Mrs. Moreen looked at each other; he could see that they appreciated, as tending to their security, his superstition of delicacy, and yet that there was a certain alarm in their relief. "My dear fellow," Mr. Moreen demanded, "what use *can* you have, leading the quiet life we all do, for such a lot of money?"–a question to which Pemberton made no answer, occupied as he was in noting that what passed in the mind of his patrons was something like: "Oh then, if we've felt that the child, dear little angel, has judged us and how he regards us, and we haven't been betrayed, he must have guessed–and in short it's *general!*" an inference that rather stirred up Mr. and Mrs. Moreen, as Pemberton had desired it should. At the same time, if he had supposed his threat would do something towards bringing them round, he was disappointed to find them

taking for granted—how vulgar their perception *had* been!—that he had already given them away. There was a mystic uneasiness in their parental breasts, and that had been the inferior sense of it. None the less, however, his threat did touch them; for if they had escaped it was only to meet a new danger. Mr. Moreen appealed to him, on every precedent, as a man of the world; but his wife had recourse, for the first time since his domestication with them, to a fine *hauteur,* reminding him that a devoted mother, with her child, had arts that protected her against gross misrepresentation.

"I should misrepresent you grossly if I accused you of common honesty!" our friend replied; but as he closed the door behind him sharply, thinking he had not done himself much good, while Mr. Moreen lighted another cigarette, he heard his hostess shout after him more touchingly:

"Oh you do, you *do,* put the knife to one's throat!"

The next morning, very early, she came to his room. He recognized her knock, but had no hope she brought him money; as to which he was wrong, for she had fifty francs in her hand. She squeezed forward in her dressing-gown, and he received her in his own, between his bath-tub and his bed. He had been tolerably schooled by this time to the "foreign ways" of his hosts. Mrs. Moreen was ardent, and when she was ardent she didn't care what she did; so she now sat down on his bed, his clothes being on the chairs, and, in her preoccupation, forgot, as she glanced round, to be ashamed of giving him such a horrid room. What Mrs. Moreen's ardour now bore upon was the design of persuading him that in the first place she was very good-natured to bring him fifty francs, and that in the second, if he would only see it, he was really too absurd to expect to be *paid.* Wasn't he paid enough without perpetual money—wasn't he paid by the comfortable luxurious home he enjoyed with them all, without a care, an anxiety, a solitary want? Wasn't he sure of his position, and wasn't that everything to a young man like him, quite unknown, with singularly little to show, the ground of whose exorbitant pretensions it had never been easy to discover? Wasn't he paid above all by the sweet relation he had established with Morgan—quite ideal as from master to pupil—and by the simple privilege of knowing and living with so amazingly gifted a child; than whom really (and she meant literally what she said) there was no better company in Europe? Mrs. Moreen herself took to appealing to him as a man of the world; she said, *"Voyons, mon cher,"* and "My dear man, look here now"; and urged him to be reasonable, putting it before him that it was truly a chance for him. She spoke as if, according as he *should* be reasonable, he would prove himself worthy to

be her son's tutor and of the extraordinary confidence they had placed in him.

After all, Pemberton reflected, it was only a difference of theory and the theory didn't matter much. They had hitherto gone on that of remunerated, as now they would go on that of gratuitous, service; but why should they have so many words about it? Mrs. Moreen at all events continued to be convincing; sitting there with her fifty francs she talked and reiterated as women reiterate, and bored and irritated him, while he leaned against the wall with his hands in the pockets of his wrapper, drawing it together round his legs and looking over the head of his visitor at the grey negations of his window. She wound up with saying: "You see I bring you a definite proposal."

"A definite proposal?"

"To make our relations regular, as it were—to put them on a comfortable footing."

"I see—it's a system," said Pemberton. "A kind of organized blackmail."

Mrs. Moreen bounded up, which was exactly what he wanted. "What do you mean by that?"

"You practise on one's fears—one's fears about the child if one should go away."

"And pray what would happen to him in that event?" she demanded with majesty.

"Why he'd be alone with *you*."

"And pray with whom *should* a child be but with those whom he loves most?"

"If you think that, why don't you dismiss me?"

"Do you pretend he loves you more than he loves *us*?" cried Mrs. Moreen.

"I think he ought to. I make sacrifices for him. Though I've heard of those *you* make I don't see them."

Mrs. Moreen stared a moment; then with emotion she grasped her inmate's hand. "*Will* you make it—the sacrifice?"

He burst out laughing. "I'll see. I'll do what I can. I'll stay a little longer. Your calculation's just—I *do* hate intensely to give him up; I'm fond of him and he thoroughly interests me, in spite of the inconvenience I suffer. You know my situation perfectly. I haven't a penny in the world and, occupied as you see me with Morgan, am unable to earn money."

Mrs. Moreen tapped her undressed arm with her folded bank-note. "Can't you write articles? Can't you translate as *I* do?"

"I don't know about translating; it's wretchedly paid."

"I'm glad to earn what I can," said Mrs. Moreen with prodigious virtue.

"You ought to tell me who you do it for." Pemberton paused a moment, and she said nothing; so he added: "I've tried to turn off some little sketches, but the magazines won't have them–they're declined with thanks."

"You see then you're not such a phoenix," his visitor pointedly smiled–"to pretend to abilities you're sacrificing for our sake."

"I haven't time to do things properly," he ruefully went on. Then as it came over him that he was almost abjectly good-natured to give these explanations he added: "If I stay on longer it must be on one condition–that Morgan shall know distinctly on what footing I am."

Mrs. Moreen demurred. "Surely you don't want to show off to a child?"

"To show *you* off, do you mean?"

Again she cast about, but this time it was to produce a still finer flower. "And *you* talk of blackmail!"

"You can easily prevent it," said Pemberton.

"And *you* talk of practising on fears!" she bravely pushed on.

"Yes, there's no doubt I'm a great scoundrel."

His patroness met his eyes–it was clear she was in straits. Then she thrust out her money at him. "Mr. Moreen desired me to give you this on account."

"I'm much obliged to Mr. Moreen, but we *have* no account."

"You won't take it?"

"That leaves me more free," said Pemberton.

"To poison my darling's mind?" groaned Mrs. Moreen.

"Oh your darling's mind–!" the young man laughed.

She fixed him a moment, and he thought she was going to break out tormentedly, pleadingly: "For God's sake, tell me what *is* in it!" But she checked this impulse–another was stronger. She pocketed the money–the crudity of the alternative was comical–and swept out of the room with the desperate concession: "You may tell him any horror you like!"

A couple of days after this, during which he had failed to profit by so free a permission, he had been for a quarter of an hour walking with his charge in silence when the boy became sociable again with the remark: "I'll tell you how I know it; I know it through Zénobie."

"Zénobie? Who in the world is *she*?"

"A nurse I used to have–ever so many years ago. A charming woman. I liked her awfully, and she liked me."

"There's no accounting for tastes. What is it you know through her?"

"Why what their idea is. She went away because they didn't fork out. She did like me awfully, and she stayed two years. She told me all about it—that at last she could never get her wages. As soon as they saw how much she liked me they stopped giving her anything. They thought she'd stay for nothing—just *because,* don't you know?" And Morgan had a queer little conscious lucid look. "She did stay ever so long—as long as she could. She was only a poor girl. She used to send money to her mother. At last she couldn't afford it any longer, and went away in a fearful rage one night—I mean of course in a rage against *them.* She cried over me tremendously, she hugged me nearly to death. She told me all about it," the boy repeated. "She told me it was their idea. So I guessed, ever so long ago, that they have had the same idea with you."

"Zénobie was very sharp," said Pemberton. "And she made you so."

"Oh that wasn't Zénobie; that was nature. And experience!" Morgan laughed.

"Well, Zénobie was a part of your experience."

"Certainly I was a part of hers, poor dear!" the boy wisely sighed. "And I'm part of yours."

"A very important part. But I don't see how you know I've been treated like Zénobie."

"Do you take me for the biggest dunce you've known?" Morgan asked. "Haven't I been conscious of what we've been through together?"

"What we've been through?"

"Our privations—our dark days."

"Oh our days have been bright enough."

Morgan went on in silence for a moment. Then he said: "My dear chap, you're a hero!"

"Well, you're another!" Pemberton retorted.

"No, I'm not, but I ain't a baby. I won't stand it any longer. You must get some occupation that pays. I'm ashamed, I'm ashamed!" quavered the boy with a ring of passion, like some high silver note from a small cathedral chorister, that deeply touched his friend.

"We ought to go off and live somewhere together," the young man said.

"I'll go like a shot if you'll take me."

"I'd get some work that would keep us both afloat," Pemberton continued.

"So would I. Why shouldn't *I* work? I ain't such a beastly little muff as *that* comes to."

"The difficulty is that your parents wouldn't hear of it. They'd never part with you; they worship the ground you tread on. Don't you see the

proof of it?" Pemberton developed. "They don't dislike me; they wish me no harm; they're very amiable people; but they're perfectly ready to expose me to any awkwardness in life for your sake."

The silence in which Morgan received his fond sophistry struck Pemberton somehow as expressive. After a moment the child repeated: "You *are* a hero!" Then he added: "They leave me with you altogether. You've all the responsibility. They put me off on you from morning till night. Why then should they object to my taking up with you completely? I'd help you."

"They're not particularly keen about my being helped, and they delight in thinking of you as *theirs*. They're tremendously proud of you."

"I'm not proud of *them*. But you know that," Morgan returned.

"Except for the little matter we speak of they're charming people," said Pemberton, not taking up the point made for his intelligence, but wondering greatly at the boy's own, and especially at this fresh reminder of something he had been conscious of from the first—the strangest thing in his friend's large little composition, a temper, a sensibility, even a private ideal, which made him as privately disown the stuff his people were made of. Morgan had in secret a small loftiness which made him acute about betrayed meanness; as well as a critical sense for the manners immediately surrounding him that was quite without precedent in a juvenile nature, especially when one noted that it had not made this nature "old-fashioned," as the word is of children—quaint or wizened or offensive. It was as if he had been a little gentleman and had paid the penalty by discovering that he was the only such person in his family. This comparison didn't make him vain, but it could make him melancholy and a trifle austere. While Pemberton guessed at these dim young things, shadows of shadows, he was partly drawn on and partly checked, as for a scruple, by the charm of attempting to sound the little cool shallows that were so quickly growing deeper. When he tried to figure to himself the morning twilight of childhood, so as to deal with it safely, he saw it was never fixed, never arrested, that ignorance, at the instant he touched it, was already flushing faintly into knowledge, that there was nothing that at a given moment you could say an intelligent child didn't know. It seemed to him that he himself knew too much to imagine Morgan's simplicity and too little to disembroil his tangle.

The boy paid no heed to his last remark; he only went on: "I'd have spoken to them about their idea, as I call it, long ago, if I hadn't been sure what they'd say."

"And what would they say?"

"Just what they said about what poor Zénobie told me—that it was a horrid dreadful story, that they had paid her every penny they owed her."

"Well, perhaps they had," said Pemberton.

"Perhaps they've paid you!"

"Let us pretend they have, and *n'en parlons plus* [speak no more about it]."

"They accused her of lying and cheating"—Morgan stuck to historic truth. "That's why I don't want to speak to them."

"Lest they should accuse me too?" To this Morgan made no answer, and his companion, looking down at him—the boy turned away his eyes, which had filled—saw that he couldn't have trusted himself to utter. "You're right. Don't worry them," Pemberton pursued. "Except for that, they *are* charming people."

"Except for *their* lying and *their* cheating?"

"I say—I say!" cried Pemberton, imitating a little tone of the lad's which was itself an imitation.

"We must be frank, at the last; we *must* come to an understanding," said Morgan with the importance of the small boy who lets himself think he is arranging great affairs—almost playing at shipwreck or at Indians. "I know all about everything."

"I dare say your father has his reasons," Pemberton replied, but too vaguely, as he was aware.

"For lying and cheating?"

"For saving and managing and turning his means to the best account. He has plenty to do with his money. You're an expensive family."

"Yes, I'm very expensive," Morgan concurred in a manner that made his preceptor burst out laughing.

"He's saving for *you*" said Pemberton. "They think of you in everything they do."

"He might, while he's about it, save a little—" The boy paused, and his friend waited to hear what. Then Morgan brought out oddly: "A little reputation."

"Oh there's plenty of that. That's all right!"

"Enough of it for the people they know, no doubt. The people they know are awful."

"Do you mean the princes? We mustn't abuse the princes."

"Why not? They haven't married Paula—they haven't married Amy. They only clean out Ulick."

"You *do* know everything!" Pemberton declared.

"No, I don't after all. I don't know what they live on, or how they live,

or *why* they live! What have they got and how did they get it? Are they rich, are they poor, or have they a *modeste aisance* [moderate wherewithal]? Why are they always chiveying me about–living one year like ambassadors and the next like paupers? Who are they, anyway, and what are they? I've thought of all that–I've thought of a lot of things. They're so beastly worldly. That's what I hate most–oh, I've *seen* it! All they care about is to make an appearance and to pass for something or other. What the dickens do they want to pass for? What *do* they, Mr. Pemberton?"

"You pause for a reply," said Pemberton, treating the question as a joke, yet wondering too and greatly struck with his mate's intense if imperfect vision. "I haven't the least idea."

"And what good does it do? Haven't I seen the way people treat them–the 'nice' people, the ones they want to know? They'll take anything from them–they'll lie down and be trampled on. The nice ones hate that–they just sicken them. You're the only really nice person we know."

"Are you sure? They don't lie down for me!"

"Well, you shan't lie down for them. You've got to go–that's what you've got to do," said Morgan.

"And what will become of you?"

"Oh I'm growing up. I shall get off before long. I'll see you later."

"You had better let me finish you," Pemberton urged, lending himself to the child's strange superiority.

Morgan stopped in their walk, looking up at him. He had to look up much less than a couple of years before–he had grown, in his loose leanness, so long and high. "Finish me?" he echoed.

"There are such a lot of jolly things we can do together yet I want to turn you out–I want you to do me credit."

Morgan continued to look at him. "To give you credit–do you mean?"

"My dear fellow, you're too clever to live."

"That's just what I'm afraid you think. No, no; it isn't fair–I can't endure it. We'll separate next week. The sooner it's over the sooner to sleep."

"If I hear of anything–any other chance–I promise to go," Pemberton said.

Morgan consented to consider this. "But you'll be honest," he demanded; "you won't pretend you haven't heard?"

"I'm much more likely to pretend I have."

"But what can you hear of, this way, stuck in a hole with us? You ought to be on the spot, to go to England–you ought to go to America."

"One would think you were *my* tutor!" said Pemberton.

Morgan walked on and after a little had begun again: "Well, now that you know I know and that we look at the facts and keep nothing back–it's much more comfortable, isn't it?"

"My dear boy, it's so amusing, so interesting, that it will surely be quite impossible for me to forego such hours as these."

This made Morgan stop once more. "You *do* keep something back. Oh you're not straight–*I* am!"

"How am I not straight?"

"Oh you've got your idea!"

"My idea?"

"Why that I probably shan't make old–make older–bones, and that you can stick it out till I'm removed."

"You *are* too clever to live!" Pemberton repeated.

"I call it a mean idea," Morgan pursued. "But I shall punish you by the way I hang on."

"Look out or I'll poison you!" Pemberton laughed.

"I'm stronger and better every year. Haven't you noticed that there hasn't been a doctor near me since you came?"

"*I'm* your doctor," said the young man, taking his arm and drawing him tenderly on again.

Morgan proceeded and after a few steps gave a sigh of mingled weariness and relief. "Ah, now that we look at the facts it's all right!"

They looked at the facts a good deal after this; and one of the first consequences of their doing so was that Pemberton stuck it out, in his friend's parlance, for the purpose. Morgan made the facts so vivid and so droll, and at the same time so bald and so ugly, that there was fascination in talking them over with him, just as there would have been heartlessness in leaving him alone with them. Now that the pair had such perceptions in common it was useless for them to pretend they didn't judge such people; but the very judgment and the exchange of perceptions created another tie. Morgan had never been so interesting as now that he himself was made plainer by the sidelight of these confidences. What came out in it most was the small fine passion of his pride. He had plenty of that, Pemberton felt–so much that one might perhaps wisely wish for it some early bruises. He would have liked his people to have a spirit and had waked up to the sense of their perpetually eating humble pie. His mother would consume any amount, and his father would consume even more than his mother. He had a theory that Ulick had

wriggled out of an "affair" at Nice: there had once been a flurry at home, a regular panic, after which they all went to bed and took medicine, not to be accounted for on any other supposition. Morgan had a romantic imagination, fed by poetry and history, and he would have liked those who "bore his name"—as he used to say to Pemberton with the humour that made his queer delicacies manly—to carry themselves with an air. But their one idea was to get in with people who didn't want them and to take snubs as if they were honourable scars. Why people didn't want them more he didn't know—that was people's own affair; after all they weren't superficially repulsive, they were a hundred times cleverer than most of the dreary grandees, the "poor swells" they rushed about Europe to catch up with. "After all they *are* amusing—they are!" he used to pronounce with the wisdom of the ages. To which Pemberton always replied: "Amusing—the great Moreen troupe? Why they're altogether delightful; and if it weren't for the hitch that you and I (feeble performers!) make in the *ensemble* they'd carry everything before them."

What the boy couldn't get over was the fact that this particular blight seemed, in a tradition of self-respect, so undeserved and so arbitrary. No doubt people had a right to take the line they liked; but why should *his* people have liked the line of pushing and toadying and lying and cheating? What had their forefathers—all decent folk, so far as he knew—done to them, or what had *he* done to them? Who had poisoned their blood with the fifth-rate social ideal, the fixed idea of making smart acquaintances and getting into the *monde chic* [fashionable world], especially when it was foredoomed to failure and exposure? They showed so what they were after; that was what made the people they wanted not want *them.* And never a wince for dignity, never a throb of shame at looking each other in the face, never any independence or resentment or disgust. If his father or his brother would only knock some one down once or twice a year! Clever as they were they never guessed the impression they made. They were good-natured, yes—as good-natured as Jews at the doors of clothing shops! But was that the model one wanted one's family to follow? Morgan had dim memories of an old grandfather, the maternal, in New York, whom he had been taken across the ocean at the age of five to see: a gentleman with a high neckcloth and a good deal of pronunciation, who wore a dress-coat in the morning, which made one wonder what he wore in the evening, and had, or was supposed to have, "property" and something to do with the Bible Society. It couldn't have been but that *he* was a good type. Pemberton himself remembered Mrs. Clancy, a widowed sister of Mr. Moreen's, who was as irritating as a moral

tale and had paid a fortnight's visit to the family at Nice shortly after he came to live with them. She was "pure and refined," as Amy said over the banjo, and had the air of not knowing what they meant when they talked, and of keeping something rather important back. Pemberton judged that what she kept back was an approval of many of their ways; therefore it was to be supposed that she too was of a good type, and that Mr. and Mrs. Moreen and Ulick and Paula and Amy might easily have been of a better one if they would.

But that they wouldn't was more and more perceptible from day to day. They continued to "chivey," as Morgan called it, and in due time became aware of a variety of reasons for proceeding to Venice. They mentioned a great many of them—they were always strikingly frank and had the brightest friendly chatter, at the late foreign breakfast in especial, before the ladies had made up their faces, when they leaned their arms on the table, had something to follow the *demi-tasse,* and, in the heat of familiar discussion as to what they "really ought" to do, fell inevitably into the languages in which they could *tutoyer.*[1] Even Pemberton liked them then; he could endure even Ulick when he heard him give his little flat voice for the "sweet sea-city." That was what made him have a sneaking kindness for them—that they were so out of the workaday world and kept him so out of it. The summer had waned when, with cries of ecstasy, they all passed out on the balcony that overhung the Grand Canal. The sunsets then were splendid and the Dorringtons had arrived. The Dorringtons were the only reason they hadn't talked of at breakfast; but the reasons they didn't talk of at breakfast always came out in the end. The Dorringtons on the other hand came out very little; or else when they did they stayed—as was natural—for hours, during which periods Mrs. Moreen and the girls sometimes called at their hotel (to see if they had returned) as many as three times running. The gondola was for the ladies, as in Venice too there were "days," which Mrs. Moreen knew in their order an hour after she arrived. She immediately took one herself, to which the Dorringtons never came, though on a certain occasion when Pemberton and his pupil were together at Saint Mark's—where, taking the best walks they had ever had and haunting a hundred churches, they spent a great deal of time—they saw the old lord turn up with Mr. Moreen and Ulick, who showed him the dim basilica as if it belonged to them. Pemberton noted how much less, among its curiosities, Lord Dorrington carried himself as a man of the world;

1. Address one another in the familiar second person; *e.g.,* French *tu,* German *du* [Ed.].

wondering too whether, for such services, his companions took a fee from him. The autumn at any rate waned, the Dorringtons departed, and Lord Verschoyle, the eldest son, had proposed neither for Amy nor for Paula.

One sad November day, while the wind roared round the old palace and the rain lashed the lagoon, Pemberton, for exercise and even somewhat for warmth—the Moreens were horribly frugal about fires; it was a cause of suffering to their inmate—walked up and down the big bare *sala* with his pupil. The scagliola floor was cold, the high battered casements shook in the storm, and the stately decay of the place was unrelieved by a particle of furniture. Pemberton's spirits were low, and it came over him that the fortune of the Moreens was now even lower. A blast of desolation, a portent of disgrace and disaster, seemed to draw through the comfortless hall. Mr. Moreen and Ulick were in the Piazza, looking out for something, strolling drearily, in mackintoshes, under the arcades; but still, in spite of mackintoshes, unmistakable men of the world. Paula and Amy were in bed—it might have been thought they were staying there to keep warm. Pemberton looked askance at the boy at his side, to see to what extent he was conscious of these dark omens. But Morgan, luckily for him, was now mainly conscious of growing taller and stronger and indeed of being in his fifteenth year. This fact was intensely interesting to him and the basis of a private theory—which, however, he had imparted to his tutor—that in a little while he should stand on his own feet. He considered that the situation would change—that in short he should be "finished," grown up, producible in the world of affairs and ready to prove himself of sterling ability. Sharply as he was capable at times of analysing, as he called it, his life, there were happy hours when he remained, as he also called it—and as the name, really, of their right ideal—"jolly" superficial; the proof of which was his fundamental assumption that he should presently go to Oxford, to Pemberton's college, and aided and abetted by Pemberton, do the most wonderful things. It depressed the young man to see how little in such a project he took account of ways and means: in other connections he mostly kept to the measure. Pemberton tried to imagine the Moreens at Oxford and fortunately failed; yet unless they were to adopt it as a residence there would be no *modus vivendi* for Morgan. How could he live without an allowance, and where was the allowance to come from? He, Pemberton, might live on Morgan; but how could Morgan live on *him*? What was to become of him anyhow? Somehow the fact that he was a big boy now, with better prospects of health, made the question of his future more diffi-

cult. So long as he was markedly frail the great consideration he inspired seemed enough of an answer to it. But at the bottom of Pemberton's heart was the recognition of his probably being strong enough to live and not yet strong enough to struggle or to thrive. Morgan himself at any rate was in the first flush of the rosiest consciousness of adolescence, so that the beating of the tempest seemed to him after all but the voice of life and the challenge of fate. He had on his shabby little overcoat, with the collar up, but was enjoying his walk.

It was interrupted at last by the appearance of his mother at the end of the *sala*. She beckoned him to come to her, and while Pemberton saw him, complaisant, pass down the long vista and over the damp false marble, he wondered what was in the air. Mrs. Moreen said a word to the boy and made him go into the room she had quitted. Then, having closed the door after him, she directed her steps swiftly to Pemberton. There *was* something in the air, but his wildest flight of fancy wouldn't have suggested what it proved to be. She signified that she had made a pretext to get Morgan out of the way, and then she enquired–without hesitation–if the young man could favour her with the loan of three louis. While, before bursting into a laugh, he stared at her with surprise, she declared that she was awfully pressed for the money; she was desperate for it–it would save her life.

"Dear lady, *c'est trop fort* [this is too much]!" Pemberton laughed in the manner and with the borrowed grace of idiom that marked the best colloquial, the best anecdotic, moments of his friends themselves. "Where in the world do you suppose I should get three louis, *du train dont vous allez* [at the rate you're going]?"

"I thought you worked–wrote things. Don't they pay you?"

"Not a penny."

"Are you such a fool as to work for nothing?"

"You ought surely to know that."

Mrs. Moreen stared, then she coloured a little. Pemberton saw she had quite forgotten the terms–if "terms" they could be called–that he had ended by accepting from herself; they had burdened her memory as little as her conscience. "Oh yes, I see what you mean–you've been very nice about that; but why drag it in so often?" She had been perfectly urbane with him ever since the rough scene of explanation in his room the morning he made her accept *his* "terms"–the necessity of his making his case known to Morgan. She had felt no resentment after seeing there was no danger Morgan would take the matter up with her. Indeed, attributing this immunity to the good taste of his influence with the boy,

she had once said to Pemberton, "My dear fellow, it's an immense comfort you're a gentleman." She repeated this in substance now. "Of course you're a gentleman–that's a bother the less!" Pemberton reminded her that he had not "dragged in" anything that wasn't already in as much as his foot was in his shoe; and she also repeated her prayer that, somewhere and somehow, he would find her sixty francs. He took the liberty of hinting that if he could find them it wouldn't be to lend them to *her*–as to which he consciously did himself injustice, knowing that if he had them he would certainly put them at her disposal. He accused himself, at bottom and not unveraciously, of a fantastic, a demoralized sympathy with her. If misery made strange bedfellows it also made strange sympathies. It was moreover a part of the abasement of living with such people that one had to make vulgar retorts, quite out of one's own tradition of good manners. "Morgan, Morgan, to what pass have I come for you?" he groaned while Mrs. Moreen floated voluminously down the *sala* again to liberate the boy, wailing as she went that everything was too odious.

Before their young friend was liberated there came a thump at the door communicating with the staircase, followed by the apparition of a dripping youth who poked in his head. Pemberton recognized him as the bearer of a telegram and recognized the telegram as addressed to himself. Morgan came back as, after glancing at the signature–that of a relative in London–he was reading the words: "Found jolly job for you, engagement to coach opulent youth on own terms. Come at once." The answer happily was paid and the messenger waited. Morgan. who had drawn near, waited too and looked hard at Pemberton; and Pemberton, after a moment, having met his look, handed him the telegram. It was really by wise looks–they knew each other so well now–that, while the telegraph boy, in his waterproof cape, made a great puddle on the floor, the thing was settled between them. Pemberton wrote the answer with a pencil against the frescoed wall, and the messenger departed. When he had gone the young man explained himself.

"I'll make a tremendous charge; I'll earn a lot of money in a short time, and we'll live on it."

"Well, I hope the opulent youth will be a dismal dunce–he probably will," Morgan parenthesized–"and keep you a long time a-hammering or it in."

"Of course the longer he keeps me the more we shall have for our old age."

"But suppose *they* don't pay you!" Morgan awfully suggested.

"Oh, there are not two such–!" But Pemberton pulled up; he had been on the point of using too invidious a term. Instead of this he said "Two such fatalities."

Morgan flushed–the tears came to his eyes. "*Dites toujours* [go ahead and say] two such rascally crews!" Then in a different tone he added: "Happy opulent youth!"

"Not if he's a dismal dunce."

"Oh, they're happier then. But you can't have everything, can you?" the boy smiled.

Pemberton held him fast, hands on his shoulders–he had never loved him so. "What will become of *you,* what will you do?" He thought of Mrs. Moreen, desperate for sixty francs.

"I shall become an *homme fait* [grown-up man]." And then as if he recognized all the bearings of Pemberton's allusion: "I shall get on with them better when you're not here."

"Ah don't say that–it sounds as if I set you against them!"

"You do–the sight of you. It's all right; you know what I mean. I shall be beautiful. I'll take their affairs in hand; I'll marry my sisters."

"You'll marry yourself!" joked Pemberton; as high, rather tense pleasantry would evidently be the right, or the safest, tone for their separation.

It was, however, not purely in this strain that Morgan suddenly asked: "But I say–how will you get to your jolly job? You'll have to telegraph to the opulent youth for money to come on."

Pemberton bethought himself. "They won't like that, will they?"

"Oh look out for them!"

Then Pemberton brought out his remedy. "I'll go to the American Consul; I'll borrow some money of him–just for the few days, on the strength of the telegram."

Morgan was hilarious. "Show him the telegram–then collar the money and stay!"

Pemberton entered into the joke sufficiently to reply that for Morgan he was really capable of that; but the boy, growing more serious, and to prove he hadn't meant what he said, not only hurried him off to the Consulate–since he was to start that evening, as he had wired to his friend–but made sure of their affair by going with him. They splashed through the tortuous perforations and over the hump-backed bridges, and they passed through the Piazza, where they saw Mr. Moreen and Ulick go into a jeweller's shop. The Consul proved accommodating–Pemberton said it wasn't the letter, but Morgan's grand air–and on their way

back they went into Saint Mark's for a hushed ten minutes. Later they took up and kept up the fun of it to the very end; and it seemed to Pemberton a part of that fun that Mrs. Moreen, who was very angry when he had announced her his intention, should charge him, grotesquely and vulgarly and in reference to the loan she had vainly endeavoured to effect, with bolting lest they should "get something out" of him. On the other hand he had to do Mr. Moreen and Ulick the justice to recognize that when on coming in *they* heard the cruel news they took it like perfect men of the world.

When he got at work with the opulent youth, who was to be taken in hand for Balliol, he found himself unable to say if this aspirant had really such poor parts or if the appearance were only begotten of his own long association with an intensely living little mind. From Morgan he heard half a dozen times: the boy wrote charming young letters, a patchwork of tongues, with indulgent postscripts in the family Volapuk and, in little squares and rounds and crannies of the text, the drollest illustrations–letters that he was divided between the impulse to show his present charge as a vain, a wasted incentive, and the sense of something in them that publicity would profane. The opulent youth went up in due course and failed to pass; but it seemed to add to the presumption that brilliancy was not expected of him all at once that his parents, condoning the lapse, which they good-naturedly treated as little as possible as if it were Pemberton's, should have sounded the rally again, begged the young coach to renew the siege.

The young coach was now in a position to lend Mrs. Moreen three louis, and he sent her a post-office order even for a larger amount. In return for his favour he received a frantic scribbled line from her: "Implore you to come back instantly–Morgan dreadfully ill." They were on the rebound, once more in Paris–often as Pemberton had seen them depressed he had never seen them crushed–and communication was therefore rapid. He wrote to the boy to ascertain the state of his health, but awaited the answer in vain. He accordingly, after three days, took an abrupt leave of the opulent youth and, crossing the Channel, alighted at the small hotel, in the quarter of the Champs Elysées, of which Mrs. Moreen had given him the address. A deep if dumb dissatisfaction with this lady and her companions bore him company: they couldn't be vulgarly honest, but they could live at hotels, in velvety entresols, amid a smell of burnt pastilles, surrounded by the most expensive city in Europe. When he had left them in Venice it was with an irrepressible suspicion

that something was going to happen; but the only thing that could have taken place was again their masterly retreat. "How is he? where is he?" he asked of Mrs. Moreen; but before she could speak these questions were answered by the pressure round his neck of a pair of arms, in shrunken sleeves, which still were perfectly capable of an effusive young foreign squeeze.

"Dreadfully ill–I don't see it!" the young man cried. And then to Morgan: "Why on earth didn't you relieve me? Why didn't you answer my letter?"

Mrs. Moreen declared that when she wrote he was very bad, and Pemberton learned at the same time from the boy that he had answered every letter he had received. This led to the clear inference that Pemberton's note had been kept from him so that the game to be practised should not be interfered with. Mrs. Moreen was prepared to see the fact exposed, as Pemberton saw the moment he faced her that she was prepared for a good many other things. She was prepared above all to maintain that she had acted from a sense of duty, that she was enchanted she had got him over, whatever they might say, and that it was useless of him to pretend he didn't know in all his bones that his place at such a time was with Morgan. He had taken the boy away from them and now had no right to abandon him. He had created for himself the gravest responsibilities and must at least abide by what he had done.

"Taken him away from you?" Pemberton exclaimed indignantly.

"Do it–do it for pity's sake; that's just what I want. I can't stand *this*–and such scenes. They're awful frauds–poor dears!" These words broke from Morgan, who had intermitted his embrace, in a key which made Pemberton turn quickly to him and see that he had suddenly seated himself, was breathing in great pain and was very pale.

"*Now* do you say he's not in a state, my precious pet?" shouted his mother, dropping on her knees before him with clasped hands, but touching him no more than if he had been a gilded idol. "It will pass–it's only for an instant; but don't say such dreadful things!"

"I'm all right–all right," Morgan panted to Pemberton, whom he sat looking up at with a strange smile, his hands resting on either side on the sofa.

"Now do you pretend I've been dishonest, that I've deceived?" Mrs. Moreen flashed at Pemberton as she got up.

"It isn't *he* says it, it's I!" the boy returned, apparently easier but sinking back against the wall; while his restored friend, who had sat down beside him, took his hand and bent over him.

"Darling child, one does what one can; there are so many things to consider," urged Mrs. Moreen. "It's his *place*–his only place. You see *you* think it is now."

"Take me away–take me away," Morgan went on, smiling to Pemberton with his white face.

"Where shall I take you, and how–oh *how,* my boy?" the young man stammered, thinking of the rude way in which his friends in London held that, for his convenience, with no assurance of prompt return, he had thrown them over; of the just resentment with which they would already have called in a successor, and of the scant help to finding fresh employment that resided for him in the grossness of his having failed to pass his pupil.

"Oh, we'll settle that. You used to talk about it," said Morgan. "If we can only go all the rest's a detail."

"Talk about it as much as you like, but don't think you can attempt it. Mr. Moreen would never consent–it would be so *very* hand to mouth," Pemberton's hostess beautifully explained to him. Then to Morgan she made it clearer: "It would destroy our peace, it would break our hearts. Now that he's back it will be all the same again. You'll have your life, your work and your freedom, and we'll all be happy as we used to be. You'll bloom and grow perfectly well, and we won't have any more silly experiments, will we? They're too absurd. It's Mr. Pemberton's place–every one in his place. You in yours, your papa in his, me in mine–*n'est-ce pas, chéri* [isn't that so, my dear]? We'll all forget how foolish we've been and have lovely times."

She continued to talk and to surge vaguely about the little draped stuffy salon while Pemberton sat with the boy, whose colour gradually came back; and she mixed up her reasons, hinting that there were going to be changes, that the other children might scatter (who knew?–Paula had her ideas) and that then it might be fancied how much the poor old parent birds would want the little nestling. Morgan looked at Pemberton, who wouldn't let him move; and Pemberton knew exactly how he felt at hearing himself called a little nestling. He admitted that he had had one or two bad days, but he protested afresh against the wrong of his mother's having made them the ground of an appeal to poor Pemberton. Poor Pemberton could laugh now, apart from the comicality of Mrs. Moreen's mustering so much philosophy for her defence–she seemed to shake it out of her agitated petticoats, which knocked over the light gilt chairs–so little did their young companion, *marked,* unmistakably marked at the best, strike him as qualified to repudiate any advantage.

He himself was in for it at any rate. He should have Morgan on his hands again indefinitely; though indeed he saw the lad had a private theory to produce which would be intended to smooth this down. He was obliged to him for it in advance; but the suggested amendment didn't keep his heart rather from sinking, any more than it prevented him from accepting the prospect on the spot, with some confidence moreover that he should do even better if he could have a little supper. Mrs. Moreen threw out more hints about the changes that were to be looked for, but she was such a mixture of smiles and shudders—she confessed she was very nervous—that he couldn't tell if she were in high feather or only in hysterics. If the family was really at last going to pieces why shouldn't she recognize the necessity of pitching Morgan into some sort of life-boat? This presumption was fostered by the fact that they were established in luxurious quarters in the capital of pleasure; that was exactly where they naturally *would* be established in view of going to pieces. Moreover didn't she mention that Mr. Moreen and the others were enjoying themselves at the opera with Mr. Granger, and wasn't *that* also precisely where one would look for them on the eve of a smash? Pemberton gathered that Mr. Granger was a rich vacant American—a big bill with a flourishy heading and no items; so that one of Paula's "ideas" was probably that this time she hadn't missed fire—by which straight shot indeed she would have shattered the general cohesion. And if the cohesion was to crumble what would become of poor Pemberton? He felt quite enough bound up with them to figure to his alarm as a dislodged block in the edifice.

It was Morgan who eventually asked if no supper had been ordered for him; sitting with him below, later, at the dim delayed meal, in the presence of a great deal of corded green plush, a plate of ornamental biscuit and an aloofness marked on the part of the waiter. Mrs. Moreen had explained that they had been obliged to secure a room for the visitor out of the house; and Morgan's consolation—he offered it while Pemberton reflected on the nastiness of lukewarm sauces—proved to be, largely, that this circumstance would facilitate their escape. He talked of their escape—recurring to it often afterwards—as if they were making up a "boy's book" together. But he likewise expressed his sense that there was something in the air, that the Moreens couldn't keep it up much longer. In point of fact, as Pemberton was to see, they kept it up for five or six months. All the while, however, Morgan's contention was designed to cheer him. Mr. Moreen and Ulick, whom he had met the day after his return, accepted that return like perfect men of the world. If Paula and Amy treated it even with less formality an allowance was to be made

for them, inasmuch as Mr. Granger hadn't come to the opera after all. He had only placed his box at their service, with a bouquet for each of the party; there was even one apiece, embittering the thought of his profusion, for Mr. Moreen and Ulick. "They're all like that," was Morgan's comment; "at the very last, just when we think we've landed them they're back in the deep sea!"

Morgan's comments in these days were more and more free; they even included a large recognition of the extraordinary tenderness with which he had been treated while Pemberton was away. Oh yes, they couldn't do enough to be nice to him, to show him they had him on their mind and make up for his loss. That was just what made the whole thing so sad and caused him to rejoice after all in Pemberton's return—he had to keep thinking of their affection less, had less sense of obligation. Pemberton laughed out at this last reason, and Morgan blushed and said "Well, dash it, you know what I mean." Pemberton knew perfectly what he meant; but there were a good many things that—dash it too!—it didn't make any clearer. This episode of his second sojourn in Paris stretched itself out wearily, with their resumed readings and wanderings and maunderings, their potterings on the quays, their hauntings of the museums, their occasional lingerings in the Palais Royal when the first sharp weather came on and there was a comfort in warm emanations, before Chevet's wonderful succulent window. Morgan wanted to hear all about the opulent youth—he took an immense interest in him. Some of the details of his opulence—Pemberton could spare him none of them—evidently fed the boy's appreciation of all his friend had given up to come back to him; but in addition to the greater reciprocity established by that heroism he had always his little brooding theory, in which there was a frivolous gaiety too, that their long probation was drawing to a close. Morgan's conviction that the Moreens couldn't go on much longer kept pace with the unexpended impetus with which, from month to month, they did go on. Three weeks after Pemberton had rejoined them they went on to another hotel, a dingier one than the first; but Morgan rejoiced that his tutor had at least still not sacrificed the advantage of a room outside. He clung to the romantic utility of this when the day, or rather the night, should arrive for their escape.

For the first time, in this complicated connection, our friend felt his collar gall him. It was, as he had said to Mrs. Moreen in Venice, *trop fort*—everything was *trop fort*. He could neither really throw off his blighting burden nor find in it the benefit of a pacified conscience or of a rewarded affection. He had spent all the money accruing to him in Eng-

land, and he saw his youth going and that he was getting nothing back for it. It was all very well of Morgan to count it for reparation that he should now settle on him permanently—there was an irritating flaw in such a view. He saw what the boy had in his mind; the conception that as his friend had had the generosity to come back he must show his gratitude by giving him his life. But the poor friend didn't desire the gift—what could he do with Morgan's dreadful little life? Of course at the same time that Pemberton was irritated he remembered the reason, which was very honourable to Morgan and which dwelt simply in his making one so forget that he was no more than a patched urchin. If one dealt with him on a different basis one's misadventures were one's own fault. So Pemberton waited in a queer confusion of yearning and alarm for the catastrophe which was held to hang over the house of Moreen, of which he certainly at moments felt the symptoms brush his cheek and as to which he wondered much in what form it would find its liveliest effect.

Perhaps it would take the form of sudden dispersal—a frightened *sauve qui peut* [rout], a scuttling into selfish corners. Certainly they were less elastic than of yore; they were evidently looking for something they didn't find. The Dorringtons hadn't reappeared, the princes had scattered; wasn't that the beginning of the end? Mrs. Moreen had lost her reckoning of the famous "days"; her social calendar was blurred—it had turned its face to the wall. Pemberton suspected that the great, the cruel discomfiture had been the unspeakable behaviour of Mr. Granger, who seemed not to know what he wanted, or, what was much worse, what *they* wanted. He kept sending flowers, as if to bestrew the path of his retreat, which was never the path of a return. Flowers were all very well, but—Pemberton could complete the proposition. It was now positively conspicuous that in the long run the Moreens were a social failure; so that the young man was almost grateful the run had not been short. Mr. Moreen indeed was still occasionally able to get away on business and, what was more surprising, was likewise able to get back. Ulick had no club, but you couldn't have discovered it from his appearance, which was as much as ever that of a person looking at life from the window of such an institution; therefore Pemberton was doubly surprised at an answer he once heard him make his mother in the desperate tone of a man familiar with the worst privations. Her question Pemberton had not quite caught; it appeared to be an appeal for a suggestion as to whom they might get to take Amy. "Let the Devil take her!" Ulick snapped; so that Pemberton could see that they had not only lost their amiability but had ceased to believe in themselves. He could also see that if Mrs. Moreen

was trying to get people to take her children she might be regarded as closing the hatches for the storm. But Morgan would be the last she would part with.

One winter afternoon—it was a Sunday—he and the boy walked far together in the Bois de Boulogne. The evening was so splendid, the cold lemon-coloured sunset so clear, the stream of carriages and pedestrians so amusing and the fascination of Paris so great that they stayed out later than usual and became aware that they should have to hurry home to arrive in time for dinner. They hurried accordingly, arm-in-arm, good-humoured and hungry, agreeing that there was nothing like Paris after all and that after everything too that had come and gone they were not yet sated with innocent pleasures. When they reached the hotel they found that, though scandalously late, they were in time for all the dinner they were likely to sit down to. Confusion reigned in the apartments of the Moreens—very shabby ones this time, but the best in the house—and before the interrupted service of the table, with objects displaced almost as if there had been a scuffle and a great wine stain from an overturned bottle, Pemberton couldn't blink the fact that there had been a scene of the last proprietary firmness. The storm had come—they were all seeking refuge. The hatches were down, Paula and Amy were invisible—they had never tried the most casual art upon Pemberton, but he felt they had enough of an eye to him not to wish to meet him as young ladies whose frocks had been confiscated—and Ulick appeared to have jumped overboard. The host and his staff, in a word, had ceased to "go on"at the pace of their guests, and the air of embarrassed detention, thanks to a pile of gaping trunks in the passage, was strangely commingled with the air of indignant withdrawal.

When Morgan took all this in—and he took it in very quickly—he coloured to the roots of his hair. He had walked from his infancy among difficulties and dangers, but he had never seen a public exposure. Pemberton noticed in a second glance at him that the tears had rushed into his eyes and that they were tears of a new and untasted bitterness. He wondered an instant, for the boy's sake, whether he might successfully pretend not to understand. Not successfully, he felt, as Mr. and Mrs. Moreen, dinnerless by their extinguished hearth, rose before him in their little dishonoured salon, casting about with glassy eyes for the nearest port in such a storm. They were not prostrate but were horribly white, and Mrs. Moreen had evidently been crying. Pemberton quickly learned however that her grief was not for the loss of her dinner, much as she usually enjoyed it, but the fruit of a blow that struck even deeper, as she

made all haste to explain. He would see for himself, so far as that went, how the great change had come, the dreadful bolt had fallen, and how they would now all have to turn themselves about. Therefore cruel as it was to them to part with their darling she must look to him to carry a little further the influence he had so fortunately acquired with the boy—to induce his young charge to follow him into some modest retreat. They depended on him—that was the fact—to take their delightful child temporarily under his protection: it would leave Mr. Moreen and herself so much more free to give the proper attention (too little, alas! had been given) to the readjustment of their affairs.

"We trust you—we feel we *can,*" said Mrs. Moreen, slowly rubbing her plump white hands and looking with compunction hard at Morgan, whose chin, not to take liberties, her husband stroked with a tentative paternal forefinger.

"Oh yes—we feel that we *can.* We trust Mr. Pemberton fully, Morgan," Mr. Moreen pursued.

Pemberton wondered again if he might pretend not to understand; but everything good gave way to the intensity of Morgan's understanding. "Do you mean he may take me to live with him for ever and ever?" cried the boy. "May take me away, away, anywhere he likes?"

"For ever and ever? *Comme vous-y-allez* [How you go on]!" Mr. Moreen laughed indulgently. "For as long as Mr. Pemberton may be so good."

"We've struggled, we've suffered," his wife went on; "but you've made him so your own that we've already been through the worst of the sacrifice."

Morgan had turned away from his father—he stood looking at Pemberton with a light in his face. His sense of shame for their common humiliated state had dropped; the case had another side—the thing was to clutch at *that.* He had a moment of boyish joy, scarcely mitigated by the reflection that with this unexpected consecration of his hope—too sudden and too violent; the turn taken was away from a *good* boy's book—the "escape" was left on their hands. The boyish joy was there an instant, and Pemberton was almost scared at the rush of gratitude and affection that broke through his first abasement. When he stammered "My dear fellow, what do you say to *that*?" how could one not say something enthusiastic? But there was more need for courage at something else that immediately followed and that made the lad sit down quickly on the nearest chair. He had turned quite livid and had raised his hand to his left side. They were all three looking at him, but Mrs. Moreen suddenly bounded for-

ward. "Ah his darling little heart!" she broke out; and this time, on her knees before him and without respect for the idol, she caught him ardently in her arms. "You walked him too far, you hurried him too fast!" she hurled over her shoulder at Pemberton. Her son made no protest, and the next instant, still holding him, she sprang up with her face convulsed and with the terrified cry "Help, help! he's going, he's gone!" Pemberton saw with equal horror, by Morgan's own stricken face, that he was beyond their wildest recall. He pulled him half out of his mother's hands, and for a moment, while they held him together, they looked all their dismay into each other's eyes. "He couldn't stand it with his weak organ," said Pemberton–"the shock, the whole scene, the violent emotion."

"But I thought he *wanted* to go to you!" wailed Mrs. Moreen.

"I *told* you he didn't, my dear," her husband made answer. Mr. Moreen was trembling all over and was in his way as deeply affected as his wife. But after the very first he took his bereavement as a man of the world.

Thomas Mann

1875–1955

Thomas Mann was born in Lübeck, Germany, on June 6, 1875. His father was a grain merchant and senator of the city, his mother descended from Portuguese-Creole Brazilian ancestors. Young Mann, who detested school, was a writer almost from the first. After his father's death, he worked as an insurance clerk and attended the university in Munich. With his brother Heinrich, also a writer, he spent a year in Rome. A first book of stories, *Little Herr Friedemann,* was published in 1898.

In Palestrina, near Rome, he began his first novel, *Buddenbrooks,* and finished it later while he was working as an editor on the satirical journal *Simplicissimus* in Munich. Slow to take hold, in a year *Buddenbrooks* made its author the most famous young writer in Germany. *Tristan,* which included *Tonio Kröger* and other tales, came out in 1903, and the play *Fiorenza* in 1906. That same year he married the daughter of the mathematician Alfred Pringsheim. They had six children.

Mann's second novel, *Royal Highness,* appeared in 1909, and was followed by one of his best-known works, *Death in Venice*. During World War I he published a book of stories and *Reflections of a Nonpolitical Man*. At the same time he was working on *The Magic Mountain*. Brought out in 1924, this great novel established its author as a world figure. In 1929 he was awarded the Nobel Prize for literature.

Mann left Germany in 1933, the year Hitler came to power. That same year he published the first volume of his massive biblical tetralogy, *Joseph and His Brothers*. It was finished ten years later. He lived for a while in Switzerland, then moved to Princeton, New Jersey, and in 1941 to Pacific Palisades, California. In 1944 he be-

came an American citizen. During this period he wrote *The Beloved Returns, Doctor Faustus,* and *The Holy Sinner*. In essays, speeches, and radio addresses, he spoke out strongly for human liberty. In the early 1950's he settled near Zurich, Switzerland, where he wrote the book-length *Confessions of Felix Krull, Confidence Man.* He was one of the great composers of Form in literature, dedicated, as he said, to the task of "marrying the daemonic with the formal, the private and Bohemian with the official and representative. . . ." He died on August 12, 1955.

In *A Sketch of My Life,* Mann tells how he wrote *Mario and the Magician.* During the summer of 1929 he took his wife and younger children to Rauschen, a Baltic seaside resort. He had, as he says, "no talent for unoccupied recreation"; and the manuscript of *Joseph* was too bulky to carry with him. So he decided to work on something that could be written without notes, "an incident of a previous holiday in Forte dei Marmi, near Viareggio," Italy.

He tried to work in his room. But "the feeling that the sea was waiting" forced him outside. In a wicker chair at the water's edge, with a pad on his knee, tranquil amidst the animation of the bathing hour, he found that "the fable, all unexpectedly, grew out of the anecdote, the intellectualized literary form out of mere 'story-telling'; the personal turned into the symbolic and ethical."

How well he understood what he was doing–and how well he has done it! In the opening sentence–"The atmosphere of Torre di Venere remains unpleasant in the memory"–the tone is set. First we are given a broad view of the resort. Then two or three "unpleasantnesses." Oh, nothing much–a shade of discrimination at the Grand Hotel, the highhandedness of the Principessa. These are relieved at once by the good nature of Signora Angiolieri, one-time companion of the actress Eleonora Duse.

But almost at once the irritations, offset here and there by a touch of humor, begin again. The children are puzzled by phrases "about

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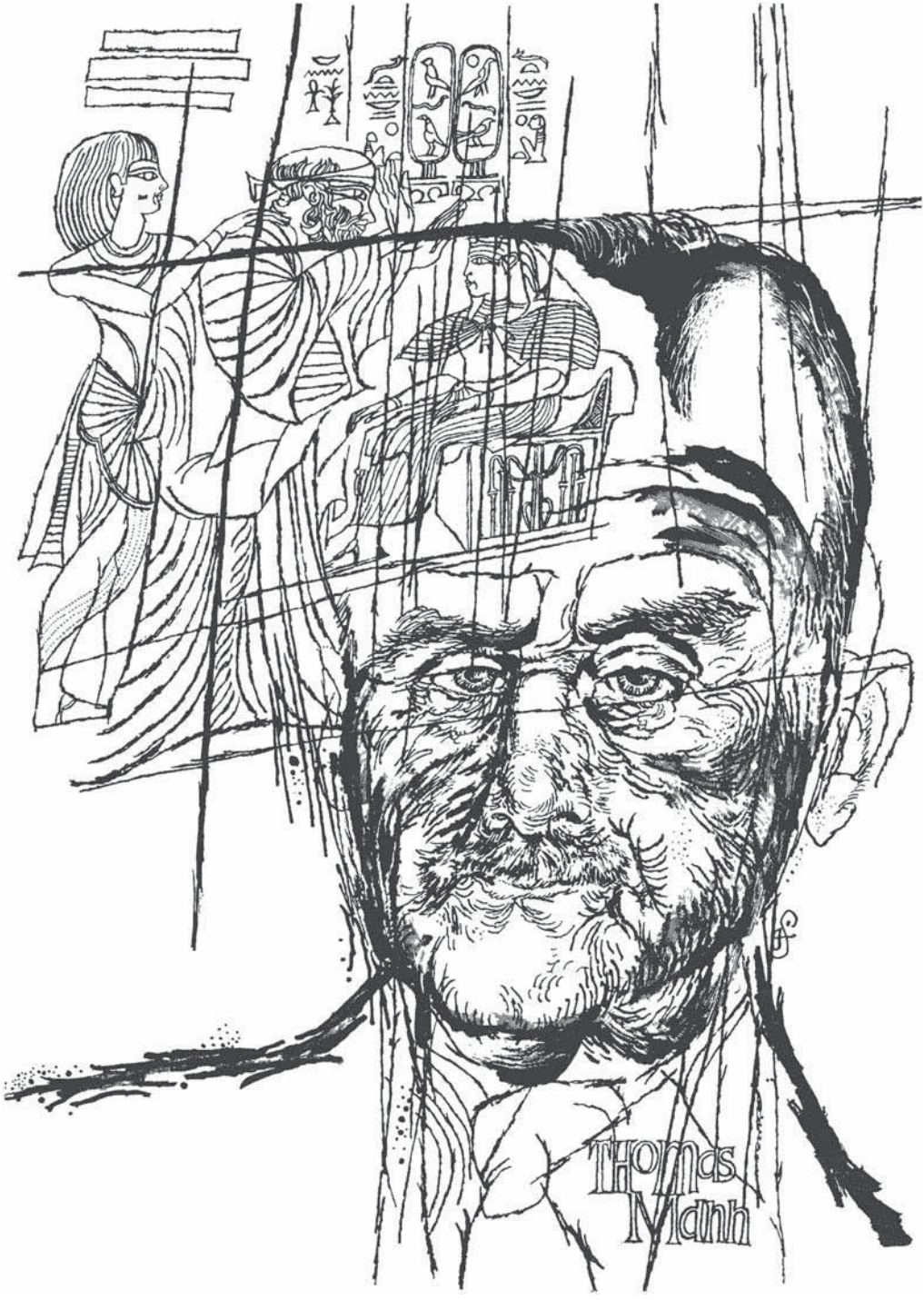
Notes from the artist: "*Thomas Mann shortly before his death in 1955. The background, drawn in an Egyptian style, is a scene from Mann's biblical tetralogy,* Joseph and His Brothers."


Thomas
Mann

the greatness and dignity of Italy." A spoiled boy gets hysterical about a crab. A gentleman in a bowler hat is outraged when the little girl is allowed to take off her bathing suit. He summons the authorities, Gradually, out of such trivia, the temper of a whole society is built up. The sun burns down "in all its arrogant power." But all this is a mere prelude to that last evening under the domination of a "traveling virtuoso" who calls himself Cavaliere Cipolla.

Cipolla bills himself as *"forzatore, illusionista, prestidigitatore"*–that is, compeller or dominator, illusionist, juggler. He is a masterful creation and a great symbol. Note that when Mann brought him to life, he had only the lesser model of Mussolini. Hitler was still a politician gathering a following. Using only the quietest and most judicious means, in the voice of a narrator who is himself part of the uneasy audience, Mann creates the malevolent Cipolla with such naked force that we ourselves feel a hostile anger rise in us at the whistle of his whip.

Cipolla is a charlatan. Like Stevenson's Mr. Hyde, he is deformed, and his deformity is a sign. He is a figure of the corrupt artist who debases his audience. He is a man literally insane with the will to power. His power is the power of Circe. He is an animal trainer who turns men into beasts. He is the kind of tyrant who demands not mere service but eager co-operation; a tyrant who violates not merely the bodies but the hearts and minds of his victims; a tyrant who destroys the personality of his subjects and demands to be loved for it.

He believes in his own terrible will and in nothing else. We do not need to be told that Mann, like Lawrence, detested this imposing of the will, by fear or fraud or violence or mere superior power, on other human beings. We may coin a term for it–Cipolla's Evil. In everyday living or public life, it is all too often still powerful in our world.

Mario and the Magician

The atmosphere of Torre di Venere remains unpleasant in the memory. From the first moment the air of the place made us uneasy, we felt irritable, on edge; then at the end came the shocking business of Cipolla, that dreadful being who seemed to incorporate, in so fateful and so humanly impressive a way, all the peculiar evilness of the situation as a whole. Looking back, we had the feeling that the horrible end of the affair had been preordained and lay in the nature of things; that the children had to be present at it was an added impropriety, due to the false colors in which the weird creature presented himself. Luckily for them, they did not know where the comedy left off and the tragedy began; and we let them remain in their happy belief that the whole thing had been a play up till the end.

Torre di Venere lies some fifteen kilometers from Portoclemente, one of the most popular summer resorts on the Tyrrhenian Sea. Portoclemente is urban and elegant and full to overflowing for months on end. Its gay and busy main street of shops and hotels runs down to a wide sandy beach covered with tents and pennanted sand castles and sunburnt humanity, where at all times a lively social bustle reigns, and much noise. But this same spacious and inviting fine-sanded beach, this same border of pine grove and, near, presiding mountains, continues all the way along the coast. No wonder then that some competition of a quiet kind should have sprung up further on. Torre di Venere—the tower that gave the town its name is gone long since, one looks for it in vain—is an offshoot of the larger resort, and for some years remained an idyll for the few, a refuge for more unworldly spirits. But the usual history of such places repeated itself: peace has had to retire further along the coast, to Marina Petriera and dear knows where else. We all know how the world at once seeks peace and puts her to flight—rushing upon her in the fond idea that they

two will wed, and where she is, there it can be at home. It will even set up its Vanity Fair in a spot and be capable of thinking that peace is still by its side. Thus Torre—though its atmosphere so far is more modest and contemplative than that of Portoclemente—has been quite taken up, by both Italians and foreigners. It is no longer the thing to go to Portoclemente—though still so much the thing that it is as noisy and crowded as ever. One goes next door, so to speak: to Torre. So much more refined, even, and cheaper to boot. And the attractiveness of these qualities persists, though the qualities themselves long ago ceased to be evident. Torre has got a Grand Hotel. Numerous pensions have sprung up, some modest, some pretentious. The people who own or rent the villas and pinetas overlooking the sea no longer have it all their own way on the beach. In July and August it looks just like the beach at Portoclemente: it swarms with a screaming, squabbling, merrymaking crowd, and the sun, blazing down like mad, peels the skin off their necks. Garish little flat-bottomed boats rock on the glittering blue, manned by children, whose mothers hover afar and fill the air with anxious cries of Nino! and Sandro! and Bice! and Maria! Peddlers step across the legs of recumbent sun bathers, selling flowers and corals, oysters, lemonade, and *cornetti al burro* [buttered croissants], and crying their wares in the breathy, full-throated southern voice.

Such was the scene that greeted our arrival in Torre: pleasant enough, but after all, we thought, we had come too soon. It was the middle of August, the Italian season was still at its height, scarcely the moment for strangers to learn to love the special charms of the place. What an afternoon crowd in the cafés on the front! For instance, in the Esquisito, where we sometimes sat and were served by Mario, that very Mario of whom I shall have presently to tell. It is well-nigh impossible to find a table; and the various orchestras contend together in the midst of one's conversation with bewildering effect. Of course, it is in the afternoon that people come over from Portoclemente. The excursion is a favorite one for the restless denizens of that pleasure resort, and a Fiat motorbus plies to and fro, coating inch-thick with dust the oleander and laurel hedges along the highroad—a notable if repulsive sight.

Yes, decidedly one should go to Torre in September, when the great public has left. Or else in May, before the water is warm enough to tempt the Southerner to bathe. Even in the before and after seasons Torre is not empty, but life is less national and more subdued. English, French, and German prevail under the tent awnings and in the pension dining rooms; whereas in August—in the Grand Hotel, at least, where, in default of

private addresses, we had engaged rooms—the stranger finds the field so occupied by Florentine and Roman society that he feels quite isolated and even temporarily *déclassé*.

We had, rather to our annoyance, this experience on the evening we arrived, when we went in to dinner and were shown to our table by the waiter in charge. As a table, it had nothing against it, save that we had already fixed our eyes upon those on the veranda beyond, built out over the water, where little red-shaded lamps glowed—and there were still some tables empty, though it was as full as the dining room within. The children went into raptures at the festive sight, and without more ado we announced our intention to take our meals by preference in the veranda. Our words, it appeared, were prompted by ignorance; for we were informed, with somewhat embarrassed politeness, that the cosy nook outside was reserved for the clients of the hotel: *ai nostri clienti*. Their clients? But we were their clients. We were not tourists or trippers, but boarders for a stay of some three or four weeks. However, we forbore to press for an explanation of the difference between the likes of us and that clientele to whom it was vouchsafed to eat out there in the glow of the red lamps, and took our dinner by the prosaic common light of the dining-room chandelier—a thoroughly ordinary and monotonous hotel bill of fare, be it said. In Pensione Eleonora, a few steps landward, the table, as we were to discover, was much better.

And thither it was that we moved, three or four days later, before we had had time to settle in properly at the Grand Hotel. Not on account of the veranda and the lamps. The children, straightway on the best of terms with waiters and pages, absorbed in the joys of life on the beach, promptly forgot those colorful seductions. But now there arose, between ourselves and the veranda clientele—or perhaps more correctly with the compliant management—one of those little unpleasantnesses which can quite spoil the pleasure of a holiday. Among the guests were some high Roman aristocracy, a Principe X and his family. These grand folk occupied rooms close to our own, and the Principessa, a great and a passionately maternal lady, was thrown into a panic by the vestiges of a whooping cough which our little ones had lately got over, but which now and then still faintly troubled the unshatterable slumbers of our youngest-born. The nature of this illness is not clear, leaving some play for the imagination. So we took no offense at our elegant neighbor for clinging to the widely held view that whooping cough is acoustically contagious and quite simply fearing lest her children yield to the bad example set by ours. In the fullness of her feminine self-confidence she protested to the

management, which then, in the person of the proverbial frock-coated manager, hastened to represent to us, with many expressions of regret, that under the circumstances they were obliged to transfer us to the annex. We did our best to assure him that the disease was in its very last stages, that it was actually over, and presented no danger of infection to anybody. All that we gained was permission to bring the case before the hotel physician—not one chosen by us—by whose verdict we must then abide. We agreed, convinced that thus we should at once pacify the Princess and escape the trouble of moving. The doctor appeared, and behaved like a faithful and honest servant of science. He examined the child and gave his opinion: the disease was quite over, no danger of contagion was present. We drew a long breath and considered the incident closed—until the manager announced that despite the doctor's verdict it would still be necessary for us to give up our rooms and retire to the dependence. Byzantinism like this outraged us. It is not likely that the Principessa was responsible for the willful breach of faith. Very likely the fawning management had not even dared to tell her what the physician said. Anyhow, we made it clear to his understanding that we preferred to leave the hotel altogether and at once—and packed our trunks. We could do so with a light heart, having already set up casual friendly relations with Casa Eleonora. We had noticed its pleasant exterior and formed the acquaintance of its proprietor, Signora Angiolieri, and her husband: she slender and black-haired, Tuscan in type, probably at the beginning of the thirties, with the dead ivory complexion of the southern woman, he quiet and bald and carefully dressed. They owned a larger establishment in Florence and presided only in summer and early autumn over the branch in Torre di Venere. But earlier, before her marriage, our new landlady had been companion, fellow traveler, wardrobe mistress, yes, friend, of Eleonora Duse and manifestly regarded that period as the crown of her career. Even at our first visit she spoke of it with animation. Numerous photographs of the great actress, with affectionate inscriptions, were displayed about the drawing room, and other souvenirs of their life together adorned the little tables and *étagères*. This cult of a so interesting past was calculated, of course, to heighten the advantages of the signora's present business. Nevertheless our pleasure and interest were quite genuine as we were conducted through the house by its owner and listened to her sonorous and staccato Tuscan voice relating anecdotes of that immortal mistress, depicting her suffering saintliness, her genius, her profound delicacy of feeling.

Thither, then, we moved our effects, to the dismay of the staff of the

Grand Hotel, who, like all Italians, were very good to children. Our new quarters were retired and pleasant, we were within easy reach of the sea through the avenue of young plane trees that ran down to the esplanade. In the clean, cool dining room Signora Angiolieri daily served the soup with her own hands, the service was attentive and good, the table capital. We even discovered some Viennese acquaintances, and enjoyed chatting with them after luncheon, in front of the house. They, in their turn, were the means of our finding others—in short, all seemed for the best, and we were heartily glad of the change we had made. Nothing was now wanting to a holiday of the most gratifying kind.

And yet no proper gratification ensued. Perhaps the stupid occasion of our change of quarters pursued us to the new ones we had found. Personally, I admit that I do not easily forget these collisions with ordinary humanity, the naïve misuse of power, the injustice, the sycophantic corruption. I dwelt upon the incident too much, it irritated me in retrospect—quite futilely, of course, since such phenomena are only all too natural and all too much the rule. And we had not broken off relations with the Grand Hotel. The children were as friendly as ever there, the porter mended their toys, and we sometimes took tea in the garden. We even saw the Principessa. She would come out, with her firm and delicate tread, her lips emphatically corallined, to look after her children, playing under the supervision of their English governess. She did not dream that we were anywhere near, for so soon as she appeared in the offing we sternly forbade our little one even to clear his throat.

The heat—if I may bring it in evidence—was extreme. It was African. The power of the sun, directly one left the border of the indigo-blue wave, was so frightful, so relentless, that the mere thought of the few steps between the beach and luncheon was a burden, clad though one might be only in pajamas. Do you care for that sort of thing? Weeks on end? Yes, of course, it is proper to the south, it is classic weather, the sun of Homer, the climate wherein human culture came to flower—and all the rest of it. But after a while it is too much for me, I reach a point where I begin to find it dull. The burning void of the sky, day after day, weighs one down; the high coloration, the enormous naïveté of the unrefracted light—they do, I dare say, induce lightheartedness, a carefree mood born of immunity from downpours and other meteorological caprices. But slowly, slowly, there makes itself felt a lack: the deeper, more complex needs of the northern soul remain unsatisfied. You are left barren—even it may be, in time a little contemptuous. True without that stupid business of the whooping cough I might not have been feeling these

things. I was annoyed, very likely I wanted to feel them and so half-unconsciously seized upon an idea lying ready to hand to induce, or if not to induce, at least to justify and strengthen, my attitude. Up to this point, then, if you like, let us grant some ill will on our part. But the sea; and the mornings spent extended upon the fine sand in face of its eternal splendors—no, the sea could not conceivably induce such feelings. Yet it was none the less true that, despite all previous experience, we were not at home on the beach, we were not happy.

It was too soon, too soon. The beach, as I have said, was still in the hands of the middle-class native. It is a pleasing breed to look at, and among the young we saw much shapeliness and charm. Still, we were necessarily surrounded by a great deal of very average humanity—a middle-class mob, which, you will admit, is not more charming under this sun than under one's own native sky. The voices these women have! It was sometimes hard to believe that we were in the land which is the western cradle of the art of song. *"Fuggièro!"* I can still hear that cry, as for twenty mornings long I heard it close behind me, breathy, full-throated, hideously stressed, with a harsh open *e,* uttered in accents of mechanical despair. *"Fuggièro! Rispondi almeno* [Well, answer then]!" Answer when I call you! The *sp* in *rispondi* was pronounced like *shp,* as Germans pronounce it; and this, on top of what I felt already, vexed my sensitive soul. The cry was addressed to a repulsive youngster whose sunburn had made disgusting raw sores on his shoulders. He outdid anything I have ever seen for ill breeding, refractoriness, and temper and was a great coward to boot, putting the whole beach in an uproar, one day, because of his outrageous sensitiveness to the slightest pain. A sand crab had pinched his toe in the water, and the minute injury made him set up a cry of heroic proportions—the shout of an antique hero in his agony—that pierced one to the marrow and called up visions of some frightful tragedy. Evidently he considered himself not only wounded but poisoned as well; he crawled out on the sand and lay in apparently intolerable anguish, groaning *"Ohi!"* and *"Ohimè!"* and threshing about with arms and legs to ward off his mother's tragic appeals and the questions of the bystanders. An audience gathered round. A doctor was fetched—the same who had pronounced objective judgment on our whooping cough—and here again acquitted himself like a man of science. Good-naturedly he reassured the boy, telling him that he was not hurt at all, he should simply go into the water again to relieve the smart. Instead of which, Fuggièro was borne off the beach, followed by a concourse of people. But he did not fail to appear next morning, nor did he leave off spoil-

ing our children's sand castles. Of course, always by accident. In short, a perfect terror.

And this twelve-year-old lad was prominent among the influences that, imperceptibly at first, combined to spoil our holiday and render it unwholesome. Somehow or other, there was a stiffness, a lack of innocent enjoyment. These people stood on their dignity—just why, and in what spirit, it was not easy at first to tell. They displayed much self-respectingness; towards each other and towards the foreigner their bearing was that of a person newly conscious of a sense of honor. And wherefore? Gradually we realized the political implications and understood that we were in the presence of a national ideal. The beach, in fact, was alive with patriotic children—a phenomenon as unnatural as it was depressing. Children are a human species and a society apart, a nation of their own, so to speak. On the basis of their common form of life, they find each other out with the greatest ease, no matter how different their small vocabularies. Ours soon played with natives and foreigners alike. Yet they were plainly both puzzled and disappointed at times. There were wounded sensibilities, displays of assertiveness—or rather hardly assertiveness, for it was too self-conscious and too didactic to deserve the name. There were quarrels over flags, disputes about authority and precedence. Grownups joined in, not so much to pacify as to render judgment and enunciate principles. Phrases were dropped about the greatness and dignity of Italy, solemn phrases that spoiled the fun. We saw our two little ones retreat, puzzled and hurt, and were put to it to explain the situation. These people, we told them, were just passing through a certain stage, something rather like an illness, perhaps; not very pleasant, but probably unavoidable.

We had only our own carelessness to thank that we came to blows in the end with this "stage"—which, after all, we had seen and sized up long before now. Yes, it came to another "cross-purposes," so evidently the earlier ones had not been sheer accident. In a word, we became an offense to the public morals. Our small daughter—eight years old, but in physical development a good year younger and thin as a chicken—had had a good long bathe and gone playing in the warm sun in her wet costume. We told her that she might take off her bathing suit, which was stiff with sand, rinse it in the sea, and put it on again, after which she must take care to keep it cleaner. Off goes the costume and she runs down naked to the sea, rinses her little jersey, and comes back. Ought we to have foreseen the outburst of anger and resentment which her conduct, and thus our conduct, called forth? Without delivering a homily

on the subject, I may say that in the last decade our attitude towards the nude body and our feelings regarding it have undergone, all over the world, a fundamental change. There are things we "never think about" any more, and among them is the freedom we had permitted to this by no means provocative little childish body. But in these parts it was taken as a challenge. The patriotic children hooted. Fuggièro whistled on his fingers. The sudden buzz of conversation among the grown people in our neighborhood boded no good. A gentleman in city togs, with a not very apropos bowler hat on the back of his head, was assuring his outraged womenfolk that he proposed to take punitive measures; he stepped up to us, and a philippic descended on our unworthy heads, in which all the emotionalism of the sense-loving south spoke in the service of morality and discipline. The offense against decency of which we had been guilty was, he said, the more to be condemned because it was also a gross ingratitude and an insulting breach of his country's hospitality. We had criminally injured not only the letter and spirit of the public bathing regulations but also the honor of Italy; he, the gentleman in the city togs, knew how to defend that honor and proposed to see to it that our offense against the national dignity should not go unpunished.

We did our best, bowing respectfully, to give ear to this eloquence. To contradict the man, overheated as he was, would probably be to fall from one error into another. On the tips of our tongues we had various answers: as, that the word "hospitality," in its strictest sense, was not quite the right one, taking all the circumstances into consideration. We were not literally the guests of Italy, but of Signora Angiolieri, who had assumed the role of dispenser of hospitality some years ago on laying down that of familiar friend to Eleonora Duse. We longed to say that surely this beautiful country had not sunk so low as to be reduced to a state of hypersensitive prudishness. But we confined ourselves to assuring the gentleman that any lack of respect, any provocation on our parts, had been the furthest from our thoughts. And as a mitigating circumstance we pointed out the tender age and physical slightness of the little culprit. In vain. Our protests were waved away, he did not believe in them; our defense would not hold water. We must be made an example of. The authorities were notified, by telephone, I believe, and their representatives appeared on the beach. He said the case was "*molto grave*." We had to go with him to the Municipio up in the Piazza, where a higher official confirmed the previous verdict of "*molto grave*" launched into a stream of the usual didactic phrases–the selfsame tune and words as the man in the bowler hat–and levied a fine and ransom of fifty lire. We felt that the adventure

must willy-nilly be worth to us this much of a contribution to the economy of the Italian government; paid, and left. Ought we not at this point to have left Torre as well?

If we only had! We should thus have escaped that fatal Cipolla. But circumstances combined to prevent us from making up our minds to a change. A certain poet says that it is indolence that makes us endure uncomfortable situations. The *aperçu* may serve as an explanation for our inaction. Anyhow, one dislikes voiding the field immediately upon such an event. Especially if sympathy from other quarters encourages one to defy it. And in the Villa Eleonora they pronounced as with one voice upon the injustice of our punishment. Some Italian after-dinner acquaintances found that the episode put their country in a very bad light, and proposed taking the man in the bowler hat to task, as one fellow citizen to another. But the next day he and his party had vanished from the beach. Not on our account, of course. Though it might be that the consciousness of his impending departure had added energy to his rebuke; in any case his going was a relief. And, furthermore, we stayed because our stay had by now become remarkable in our own eyes, which is worth something in itself, quite apart from the comfort or discomfort involved. Shall we strike sail, avoid a certain experience so soon as it seems not expressly calculated to increase our enjoyment or our self-esteem? Shall we go away whenever life looks like turning in the slightest uncanny, or not quite normal, or even rather painful and mortifying? No, surely not. Rather stay and look matters in the face, brave them out; perhaps precisely in so doing lies a lesson for us to learn. We stayed on and reaped as the awful reward of our constancy the unholy and staggering experience with Cipolla.

I have not mentioned that the after-season had begun, almost on the very day we were disciplined by the city authorities. The worshipful gentleman in the bowler hat, our denouncer, was not the only person to leave the resort. There was a regular exodus, on every hand you saw luggage carts on their way to the station. The beach denationalized itself. Life in Torre, in the cafés and the pinetas, became more homelike and more European. Very likely we might even have eaten at a table in the glass veranda, but we refrained, being content at Signora Angiolieri's—as content, that is, as our evil star would let us be. But at the same time with this turn for the better came a change in the weather: almost to an hour it showed itself in harmony with the holiday calendar of the general public. The sky was overcast; not that it grew any cooler, but the unclouded heat of the entire eighteen days since our arrival, and probably

long before that, gave place to a stifling sirocco air, while from time to time a little ineffectual rain sprinkled the velvety surface of the beach. Add to which that two-thirds of our intended stay at Torre had passed. The colorless, lazy sea, with sluggish jellyfish floating in its shallows, was at least a change. And it would have been silly to feel retrospective longings after a sun that had caused us so many sighs when it burned down in all its arrogant power.

At this juncture, then, it was that Cipolla announced himself. Cavaliere Cipolla he was called on the posters that appeared one day stuck up everywhere, even in the dining room of Pensione Eleonora. A traveling virtuoso, an entertainer, "*forzatore* [conjuror], *illusionista, prestidigitatore,*" as he called himself, who proposed to wait upon the highly respectable population of Torre di Venere with a display of extraordinary phenomena of a mysterious and staggering kind. A conjuror! The bare announcement was enough to turn our children's heads. They had never seen anything of the sort, and now our present holiday was to afford them this new excitement. From that moment on they besieged us with prayers to take tickets for the performance. We had doubts, from the first, on the score of the lateness of the hour, nine o'clock; but gave way, in the idea that we might see a little of what Cipolla had to offer, probably no great matter, and then go home. Besides, of course, the children could sleep late next day. We bought four tickets of Signora Angiolieri herself, she having taken a number of the stalls on commission to sell them to her guests. She could not vouch for the man's performance, and we had no great expectations. But we were conscious of a need for diversion, and the children's violent curiosity proved catching.

The Cavaliere's performance was to take place in a hall where during the season there had been a cinema with a weekly program. We had never been there. You reached it by following the main street under the wall of the *"palazzo"* a ruin with a "For sale" sign, that suggested a castle and had obviously been built in lordlier days. In the same street were the druggist, the hairdresser, and all the better shops; it led, so to speak, from the feudal past the bourgeois into the proletarian, for it ended off between two rows of poor fishing huts, where old women sat mending nets before the doors. And here, among the proletariat, was the hall, not much more, actually, than a wooden shed, though a large one, with a turreted entrance, plastered on either side with layers of gay placards. Some while after dinner, then, on the appointed evening, we wended our way thither in the dark, the children dressed in their best and blissful with the sense of so much irregularity. It was sultry, as it had been for

days; there was heat lightning now and then, and a little rain; we proceeded under umbrellas. It took us a quarter of an hour.

Our tickets were collected at the entrance, our places we had to find ourselves. They were in the third row left, and as we sat down we saw that, late though the hour was for the performance, it was to be interpreted with even more laxity. Only very slowly did an audience—who seemed to be relied upon to come late—begin to fill the stalls. These comprised the whole auditorium; there were no boxes. This tardiness gave us some concern. The children's cheeks were already flushed as much with fatigue as with excitement. But even when we entered, the standing room at the back and in the side aisles was already well occupied. There stood the manhood of Torre di Venere, all and sundry, fisherfolk, rough-and-ready youths with bare forearms crossed over their striped jerseys. We were well pleased with the presence of this native assemblage, which always adds color and animation to occasions like the present; and the children were frankly delighted. For they had friends among these people—acquaintances picked up on afternoon strolls to the further ends of the beach. We would be turning homeward, at the hour when the sun dropped into the sea, spent with the huge effort it had made and gilding with reddish gold the oncoming surf; and we would come upon barelegged fisherfolk standing in rows, bracing and hauling with long-drawn cries as they drew in the nets and harvested in dripping baskets their catch, often so scanty, of *frutto di mare*. The children looked on, helped to pull, brought out their little stock of Italian words, made friends. So now they exchanged nods with the "standing room" clientele; there was Guiscardo, there Antonio, they knew them by name and waved and called across in half whispers, getting answering nods and smiles that displayed rows of healthy white teeth. Look, there is even Mario, Mario from the Esquisito, who brings us the chocolate. He wants to see the conjuror, too, and he must have come early, for he is almost in front; but he does not see us, he is not paying attention; that is a way he has, even though he is a waiter. So we wave instead to the man who lets out the little boats on the beach; he is there too, standing at the back.

It had got to a quarter past nine, it got to almost half past. It was natural that we should be nervous. When would the children get to bed? It had been a mistake to bring them, for now it would be very hard to suggest breaking off their enjoyment before it had got well under way. The stalls had filled in time; all Torre, apparently, was there: the guests of the Grand Hotel, the guests of Villa Eleonora, familiar faces from the beach. We heard English and German and the sort of French that Ruma-

nians speak with Italians. Madame Angiolieri herself sat two rows behind us, with her quiet, bald-headed spouse, who kept stroking his mustache with the two middle fingers of his right hand. Everybody had come late, but nobody too late. Cipolla made us wait for him.

He made us wait. That is probably the way to put it. He heightened the suspense by his delay in appearing. And we could see the point of this, too—only not when it was carried to extremes. Towards half past nine the audience began to clap—an amiable way of expressing justifiable impatience, evincing as it does an eagerness to applaud. For the little ones, this was a joy in itself—all children love to clap. From the popular sphere came loud cries of *"Pronti!" "Cominciamo!"* And lo, it seemed now as easy to begin as before it had been hard. A gong sounded, greeted by the standing rows with a many-voiced "Ah-h!" and the curtains parted. They revealed a platform furnished more like a schoolroom than like the theater of a conjuring performance—largely because of the blackboard in the left foreground. There was a common yellow hatstand, a few ordinary straw-bottomed chairs, and further back a little round table holding a water carafe and glass, also a tray with a liqueur glass and a flask of pale yellow liquid. We had still a few seconds of time to let these things sink in. Then, with no darkening of the house, Cavaliere Cipolla made his entry.

He came forward with a rapid step that expressed his eagerness to appear before his public and gave rise to the illusion that he had already come a long way to put himself at their service—whereas, of course, he had only been standing in the wings. His costume supported the fiction. A man of an age hard to determine, but by no means young; with a sharp, ravaged face, piercing eyes, compressed lips, small black waxed mustache, and a so-called imperial in the curve between mouth and chin. He was dressed for the street with a sort of complicated evening elegance, in a wide black pelerine with velvet collar and satin lining; which, in the hampered state of his arms, he held together in front with his white-gloved hands. He had a white scarf round his neck; a top hat with a curving brim sat far back on his head. Perhaps more than anywhere else the eighteenth century is still alive in Italy, and with it the charlatan and mountebank type so characteristic of the period. Only there, at any rate, does one still encounter really well-preserved specimens. Cipolla had in his whole appearance much of the historic type; his very clothes helped to conjure up the traditional figure with its blatantly, fantastically foppish air. His pretentious costume sat upon him, or rather hung upon him, most

curiously, being in one place drawn too tight, in another a mass of awkward folds. There was something not quite in order about his figure, both front and back—that was plain later on. But I must emphasize the fact that there was not a trace of personal jocularity or clownishness in his pose, manner, or behavior. On the contrary, there was complete seriousness, an absence of any humorous appeal; occasionally even a cross-grained pride, along with that curious, self-satisfied air so characteristic of the deformed. None of all this, however, prevented his appearance from being greeted with laughter from more than one quarter of the hall.

All the eagerness had left his manner. The swift entry had been merely an expression of energy, not of zeal. Standing at the footlights he negligently drew off his gloves, to display long yellow hands, one of them adorned with a seal ring with a lapis lazuli in a high setting. As he stood there, his small hard eyes, with flabby pouches beneath them, roved appraisingly about the hall, not quickly, rather in a considered examination, pausing here and there upon a face with his lips clipped together, not speaking a word. Then with a display of skill as surprising as it was casual, he rolled his gloves into a ball and tossed them across a considerable distance into the glass on the table. Next from an inner pocket he drew forth a packet of cigarettes; you could see by the wrapper that they were the cheapest sort the government sells. With his fingertips he pulled out a cigarette and lighted it, without looking, from a quick-firing benzine lighter. He drew the smoke deep into his lungs and let it out again, tapping his foot, with both lips drawn in an arrogant grimace and the gray smoke streaming out between broken and saw-edged teeth.

With a keenness equal to his own his audience eyed him. The youths at the rear scowled as they peered at this cocksure creature to search out his secret weaknesses. He betrayed none. In fetching out and putting back the cigarettes his clothes got in his way. He had to turn back his pelerine, and in so doing revealed a riding whip with a silver claw handle that hung by a leather thong from his left forearm and looked decidedly out of place. You could see that he had on not evening clothes but a frock coat, and under this, as he lifted it to get at his pocket, could be seen a striped sash worn about the body. Somebody behind me whispered that this sash went with his title of Cavaliere. I give the information for what it may be worth—personally, I never heard that the title carried such insignia with it. Perhaps the sash was sheer pose, like the way he stood there, without a word, casually and arrogantly puffing smoke into his audience's face.

People laughed, as I said. The merriment had become almost general when somebody in the "standing seats," in a loud, dry voice, remarked: *"Buona sera."*

Cipolla cocked his head. "Who was that?" asked he, as though he had been dared. "Who was that just spoke? Well? First so bold and now so modest? *Paura,* eh?" He spoke with a rather high, asthmatic voice, which yet had a metallic quality. He waited.

"That was me," a youth at the rear broke into the stillness, seeing himself thus challenged. He was not far from us, a handsome fellow in a woolen shirt, with his coat hanging over one shoulder. He wore his surly, wiry hair in a high, disheveled mop, the style affected by the youth of the awakened Fatherland; it gave him an African appearance that rather spoiled his looks. "*Bè!* That was me. It was your business to say it first, but I was trying to be friendly."

More laughter. The chap had a tongue in his head. *"Ha sciolto lo scilinguagnolo* [He has a quick tongue]," I heard near me. After all, the retort was deserved.

"Ah, bravo!" answered Cipolla. "I like you, *giovanotto* [young man]. Trust me, I've had my eye on you for some time. People like you are just in my line. I can use them. And you are the pick of the lot, that's plain to see. You do what you like. Or is it possible you have ever not done what you liked—or even, maybe, what you didn't like? What somebody else liked, in short? Hark ye, my friend, that might be a pleasant change for you, to divide up the willing and the doing and stop tackling both jobs at once. Division of labor, *sistema americano, sa!* For instance, suppose you were to show your tongue to this select and honorable audience here—your whole tongue, right down to the roots?"

"No, I won't," said the youth, hostilely. "Sticking out your tongue shows a bad bringing-up."

"Nothing of the sort," retorted Cipolla. "You would only be *doing* it. With all due respect to your bringing-up, I suggest that before I count ten, you will perform a right turn and stick out your tongue at the company here further than you knew yourself that you could stick it out."

He gazed at the youth, and his piercing eyes seemed to sink deeper into their sockets. *"Uno!"* said he. He had let his riding whip slide down his arm and made it whistle once through the air. The boy faced about and put out his tongue, so long, so extendedly, that you could see it was the very uttermost in tongue which he had to offer. Then turned back, stony-faced, to his former position.

"That was me," mocked Cipolla, with a jerk of his head towards the

youth. "*Bè!* That was me." Leaving the audience to enjoy its sensations, he turned towards the little round table, lifted the bottle, poured out a small glass of what was obviously cognac, and tipped it up with a practiced hand.

The children laughed with all their hearts. They had understood practically nothing of what had been said, but it pleased them hugely that something so funny should happen, straightaway, between that queer man up there and somebody out of the audience. They had no preconception of what an "evening" would be like and were quite ready to find this a priceless beginning. As for us, we exchanged a glance and I remember that involuntarily I made with my lips the sound that Cipolla's whip had made when it cut the air. For the rest, it was plain that people did not know what to make of a preposterous beginning like this to a sleight-of-hand performance. They could not see why the *giovanotto,* who after all in a way had been their spokesman, should suddenly have turned on them to vent his incivility. They felt that he had behaved like a silly ass and withdrew their countenances from him in favor of the artist, who now came back from his refreshment table and addressed them as follows:

"Ladies and gentlemen," said he, in his wheezing, metallic voice, "you saw just now that I was rather sensitive on the score of the rebuke this hopeful young linguist saw fit to give me"—*"questo linguista di belle speranze"* [this hopeful linguist] was what he said, and we all laughed at the pun [on *lingua,* the tongue]. "I am a man who sets some store by himself, you may take it from me. And I see no point in being wished a good evening unless it is done courteously and in all seriousness. For anything else there is no occasion. When a man wishes me a good evening he wishes himself one, for the audience will have one only if I do. So this lady-killer of Torre di Venere" (another thrust) "did well to testify that I have one tonight and that I can dispense with any wishes of his in the matter. I can boast of having good evenings almost without exception. One not so good does come my way now and again, but very seldom. My calling is hard and my health not of the best. I have a little physical defect which prevented me from doing my bit in the war for the greater glory of the Fatherland. It is perforce with my mental and spiritual parts that I conquer life—which after all only means conquering oneself. And I flatter myself that my achievements have aroused interest and respect among the educated public. The leading newspapers have lauded me, the *Corriere della Sera* did me the courtesy of calling me a phenomenon, and in Rome the brother of the *Duce* honored me by his presence at one

of my evenings. I should not have thought that in a relatively less important place" (laughter here, at the expense of poor little Torre) "I should have to give up the small personal habits which brilliant and elevated audiences had been ready to overlook. Nor did I think I had to stand being heckled by a person who seems to have been rather spoiled by the f Favors of the fair sex." All this of course at the expense of the youth whom Cipolla never tired of presenting in the guise of *donnaiuolo* [lover] and rustic Don Juan. His persistent thin-skinnedness and animosity were in striking contrast to the self-confidence and the worldly success he boasted of. One might have assumed that the *giovanotto* was merely the chosen butt of Cipolla's customary professional sallies had not the very pointed witticisms betrayed a genuine antagonism. No one looking at the physical parts of the two men need have been at a loss for the explanation, even if the deformed man had not constantly played on the other's supposed success with the fair sex. "Well," Cipolla went on, "before beginning our entertainment this evening, perhaps you will permit me to make myself comfortable."

And he went towards the hatstand to take off his things.

"*Parla benissimo* [He talks beautifully]," asserted somebody in our neighborhood. So far, the man had done nothing; but what he had said was accepted as an achievement, by means of that he had made an impression. Among southern peoples speech is a constituent part of the pleasure of living, it enjoys far livelier social esteem than in the north. That national cement, the mother tongue, is paid symbolic honors down here, and there is something blithely symbolical in the pleasure people take in their respect for its forms and phonetics. They enjoy speaking, they enjoy listening; and they listen with discrimination. For the way a man speaks serves as a measure of his personal rank; carelessness and clumsiness are greeted with scorn; elegance and mastery are rewarded with social éclat. Wherefore the small man too, where it is a question of getting his effect, chooses his phrase nicely and turns it with care. On this count, then, at least, Cipolla had won his audience; though he by no means belonged to the class of men which the Italian, in a singular mixture of moral and aesthetic judgments, labels *"simpatico."*

After removing his hat, scarf, and mantle he came to the front of the stage, settling his coat, pulling down his cuffs with their large cuff buttons, adjusting his absurd sash. He had very ugly hair; the top of his head, that is, was almost bald, while a narrow, black-varnished frizz of curls ran from front to back as though stuck on; the side hair, likewise blackened, was brushed forward to the corners of the eyes–it was, in

short, the hairdressing of an old-fashioned circus director, fantastic, but entirely suited to his outmoded personal type and worn with so much assurance as to take the edge off the public's sense of humor. The little physical defect of which he had warned us was now all too visible, though the nature of it was even now not very clear; the chest was too high, as is usual in such cases, but the corresponding malformation of the back did not sit between the shoulders; it took the form of a sort of hips or buttocks hump, which did not indeed hinder his movements but gave him a grotesque and dipping stride at every step he took. However, by mentioning his deformity beforehand he had broken the shock of it, and a delicate propriety of feeling appeared to reign throughout the hall.

"At your service," said Cipolla. "With your kind permission, we will begin the evening with some arithmetical tests."

Arithmetic? That did not sound much like sleight of hand. We began to have our suspicions that the man was sailing under a false flag, only we did not yet know which was the right one. I felt sorry on the children's account; but for the moment they were content simply to be there.

The numerical test which Cipolla now introduced was as simple as it was baffling. He began by fastening a piece of paper to the upper right-hand corner of the blackboard; then lifting it up, he wrote something underneath. He talked all the while, relieving the dryness of his offering by a constant flow of words, and showed himself a practiced speaker, never at a loss for conversational turns of phrase. It was in keeping with the nature of his performance, and at the same time vastly entertained the children, that he went on to eliminate the gap between stage and audience, which had already been bridged over by the curious skirmish with the fisher lad; he had representatives from the audience mount the stage, and himself descended the wooden steps to seek personal contact with his public. And again, with individuals, he fell into his former taunting tone. I do not know how far that was a deliberate feature of his system; he preserved a serious, even a peevish, air, but his audience, at least the more popular section, seemed convinced that that was all part of the game. So then, after he had written something and covered the writing by the paper, he desired that two persons should come up on the platform and help to perform the calculations. They would not be difficult, even for people not clever at figures. As usual, nobody volunteered, and Cipolla took care not to molest the more select portion of his audience. He kept to the populace. Turning to two sturdy young louts standing behind us, he beckoned them to the front, encouraging and scolding by turns. They should not stand there gaping, he said, unwilling to oblige the

company. Actually he got them in motion; with clumsy tread they came down the middle aisle, climbed the steps, and stood in front of the blackboard, grinning sheepishly at their comrades' shouts and applause. Cipolla joked with them for a few minutes, praised their heroic firmness of limb and the size of their hands, so well calculated to do this service for the public. Then he handed one of them the chalk and told him to write down the numbers as they were called out. But now the creature declared that he could not write! *"Non so scrivere,"* said he in his gruff voice, and his companion added that neither did he.

God knows whether they told the truth or whether they wanted to make game of Cipolla. Anyhow, the latter was far from sharing the general merriment which their confession aroused. He was insulted and disgusted. He sat there on a straw-bottomed chair in the center of the stage with his legs crossed, smoking a fresh cigarette out of his cheap packet; obviously it tasted the better for the cognac he had indulged in while the yokels were stumping up the steps. Again he inhaled the smoke and let it stream out between curling lips. Swinging his leg, with his gaze sternly averted from the two shamelessly chuckling creatures and from the audience as well, he stared into space as one who withdraws himself and his dignity from the contemplation of an utterly despicable phenomenon.

"Scandalous," said he, in a sort of icy snarl. "Go back to your places! In Italy everybody can write—in all her greatness there is no room for ignorance and unenlightenment. To accuse her of them, in the hearing of this international company, is a cheap joke, in which you yourselves cut a very poor figure and humiliate the government and the whole country as well. If it is true that Torre di Venere is indeed the last refuge of such ignorance, then I must blush to have visited the place—being, as I already was, aware of its inferiority to Rome in more than one respect—"

Here Cipolla was interrupted by the youth with the Nubian coiffure and his jacket across his shoulder. His fighting spirit, as we now saw, had only abdicated temporarily, and he now flung himself into the breach in defense of his native heath. "That will do," said he loudly. "That's enough jokes about Torre. We all come from the place and we won't stand strangers making fun of it. These two chaps are our friends. Maybe they are no scholars, but even so they may be straighter than some folks in the room who are so free with their boasts about Rome, though they did not build it either."

That was capital. The young man had certainly cut his eye teeth. And this sort of spectacle was good fun, even though it still further delayed

the regular performance. It is always fascinating to listen to an altercation. Some people it simply amuses; they take a sort of kill-joy pleasure in not being principals. Others feel upset and uneasy, and my sympathies are with these latter, although on the present occasion I was under the impression that all this was part of the show—the analphabetic yokels no less than the *giovanotto* with the jacket. The children listened well pleased. They understood not at all, but the sound of the voices made them hold their breath. So this was a "magic evening"—at least it was the kind they have in Italy. They expressly found it "lovely." Cipolla had stood up and with two of his scooping strides was at the footlights.

"Well, well, see who's here!" said he with grim cordiality. "An old acquaintance! A young man with his heart at the end of his tongue" (he used the word *linguaccia,* which means a coated tongue, and gave rise to much hilarity). "That will do, my friends," he turned to the yokels. "I do not need you now, I have business with this deserving young man here, *con questo torregiano di Venere,* this tower of Venus, who no doubt expects the gratitude of the fair as a reward for his prowess—"

"*Ah, non scherziamo* [Let's not joke now]! We're talking earnest," cried out the youth. His eyes flashed, and he actually made as though to pull off his jacket and proceed to direct methods of settlement.

Cipolla did not take him too seriously. We had exchanged apprehensive glances; but he was dealing with a fellow countryman and had his native soil beneath his feet. He kept quite cool and showed complete mastery of the situation. He looked at his audience, smiled, and made a sideways motion of the head towards the young cockerel as though calling the public to witness how the man's bumptiousness only served to betray the simplicity of his mind. And then, for the second time, something strange happened, which set Cipolla's calm superiority in an uncanny light, and in some mysterious and irritating way turned all the explosiveness latent in the air into matter for laughter.

Cipolla drew still nearer to the fellow, looking him in the eye with a peculiar gaze. He even came halfway down the steps that led into the auditorium on our left, so that he stood directly in front of the troublemaker, on slightly higher ground. The riding whip hung from his arm.

"My son, you do not Feel much like joking," he said. "It is only too natural, for anyone can see that you are not feeling too well. Even your tongue, which leaves something to be desired on the score of cleanliness, indicates acute disorder of the gastric system. An evening entertainment is no place for people in your state; you yourself, I can tell, were of several minds whether you would not do better to put on a flannel bandage and

go to bed. It was not good judgment to drink so much of that very sour white wine this afternoon. Now you have such a colic you would like to double up with the pain. Go ahead, don't be embarrassed. There is a distinct relief that comes from bending over in cases of intestinal cramp."

He spoke thus, word for word, with quiet impressiveness and a kind of stern sympathy, and his eyes, plunged the while deep in the young man's, seemed to grow very tired and at the same time burning above their enlarged tear ducts—they were the strangest eyes; you could tell that not manly pride alone was preventing the young adversary from withdrawing his gaze. And presently, indeed, all trace of its former arrogance was gone from the bronzed young face. He looked openmouthed at the Cavaliere and the open mouth was drawn in a rueful smile.

"Double over," repeated Cipolla. "What else can you do? With a colic like that you *must* bend. Surely you will not struggle against the performance of a perfectly natural action just because somebody suggests it to you?"

Slowly the youth lifted his forearms, folded and squeezed them across his body; it turned a little sideways, then bent, lower and lower, the feet shifted, the knees turned inward, until he had become a picture of writhing pain, until he all but groveled upon the ground. Cipolla let him stand for some seconds thus, then made a short cut through the air with his whip and went with his scooping stride back to the little table, where he poured himself out a cognac.

"*Il boit beaucoup* [He drinks a lot]," asserted a lady behind us. Was that the only thing that struck her? We could not tell how far the audience grasped the situation. The fellow was standing upright again, with a sheepish grin—he looked as though he scarcely knew how it had all happened. The scene had been followed with tense interest and applauded at the end; there were shouts of "*Bravo, Cipolla!*" and "*Bravo, giovanotto!*" Apparently the issue of the duel was not looked upon as a personal defeat for the young man. Rather the audience encouraged him as one does an actor who succeeds in an unsympathetic role. Certainly his way of screwing himself up with cramp had been highly picturesque, its appeal was directly calculated to impress the gallery—in short, a fine dramatic performance. But I am not sure how far the audience were moved by that natural tactfulness in which the south excels, or how far it penetrated into the nature of what was going on.

The Cavaliere, refreshed, had lighted another cigarette. The numerical tests might now proceed. A young man was easily found in the back row who was willing to write down on the blackboard the numbers as

they were dictated to him. Him too we knew; the whole entertainment had taken on an intimate character through our acquaintance with so many of the actors. This was the man who worked at the greengrocer's in the main street; he had served us several times, with neatness and dispatch. He wielded the chalk with clerkly confidence, while Cipolla descended to our level and walked with his deformed gait through the audience, collecting numbers as they were given, in two, three, and four places, and calling them out to the grocer's assistant, who wrote them down in a column. In all this, everything on both sides was calculated to amuse, with its jokes and its oratorical asides. The artist could not fail to hit on foreigners, who were not ready with their figures, and with them he was elaborately patient and chivalrous, to the great amusement of the natives, whom he reduced to confusion in their turn, by making them translate numbers that were given in English or French. Some people gave dates concerned with great events in Italian history. Cipolla took them up at once and made patriotic comments. Somebody shouted "Number one!" The Cavaliere, incensed at this as at every attempt to make game of him, retorted over his shoulder that he could not take less than two-place figures. Whereupon another joker cried out "Number two!" and was greeted with the applause and laughter which every reference to natural functions is sure to win among southerners.

When fifteen numbers stood in a long straggling row on the board, Cipolla called for a general adding match. Ready reckoners might add in their heads, but pencil and paper were not forbidden. Cipolla, while the work went on, sat on his chair near the blackboard, smoked and grimaced, with the complacent, pompous air cripples so often have. The five-place addition was soon done. Somebody announced the answer, somebody else confirmed it, a third had arrived at a slightly different result, but the fourth agreed with the first and second. Cipolla got up, tapped some ash from his coat, and lifted the paper at the upper right-hand corner of the board to display the writing. The correct answer, a sum close on a million, stood there; he had written it down beforehand.

Astonishment, and loud applause. The children were overwhelmed. How had he done that, they wanted to know. We told them it was a trick, not easily explainable offhand. In short, the man was a conjuror. This was what a sleight-of-hand evening was like, so now they knew. First the fisherman had cramp, and then the right answer was written down beforehand–it was all simply glorious, and we saw with dismay that despite the hot eyes and the hand of the clock at almost half past ten, it would be very hard to get them away. There would be tears. And yet

it was plain that this magician did not "magick"—at least not in the accepted sense of manual dexterity—and that the entertainment was not at all suitable for children. Again, I do not know, either, what the audience really thought. Obviously there was grave doubt whether its answers had been given of "free choice"; here and there an individual might have answered of his own motion, but on the whole Cipolla certainly selected his people and thus kept the whole procedure in his own hands and directed it towards the given result. Even so, one had to admire the quickness of his calculations, however much one felt disinclined to admire anything else about the performance. Then his patriotism, his irritable sense of dignity—the Cavaliere's own countrymen might feel in their element with all that and continue in a laughing mood; but the combination certainly gave us outsiders food for thought.

Cipolla himself saw to it—though without giving them a name—that the nature of his powers should be clear beyond a doubt to even the least-instructed person. He alluded to them, of course, in his talk—and he talked without stopping—but only in vague, boastful, self-advertising phrases. He went on awhile with experiments on the same lines as the first, merely making them more complicated by introducing operations in multiplying, subtracting, and dividing; then he simplified them to the last degree in order to bring out the method. He simply had numbers "guessed" which were previously written under the paper; and the guess was nearly always right. One guesser admitted that he had had in mind to give a certain number, when Cipolla's whip went whistling through the air, and a quite different one slipped out, which proved to be the "right" one. Cipolla's shoulders shook. He pretended admiration for the powers of the people he questioned. But in all his compliments there was something fleering and derogatory; the victims could scarcely have relished them much, although they smiled, and although they might easily have set down some part of the applause to their own credit. Moreover, I had not the impression that the artist was popular with his public. A certain ill will and reluctance were in the air, but courtesy kept such feelings in check, as did Cipolla's competency and his stern self-confidence. Even the riding whip, I think, did much to keep rebellion from becoming overt.

From tricks with numbers he passed to tricks with cards. There were two packs, which he drew out of his pockets, and so much I still remember, that the basis of the tricks he played with them was as follows: From the first pack he drew three cards and thrust them without looking at them inside his coat. Another person then drew three out of the second

pack, and these turned out to be the same as the first three—not invariably all the three, for it did happen that only two were the same. But in the majority of cases Cipolla triumphed, showing his three cards with a little bow in acknowledgment of the applause with which his audience conceded his possession of strange powers—strange whether for good or evil. A young man in the front row, to our right, an Italian, with proud, finely chiseled features, rose up and said that he intended to assert his own will in his choice and consciously to resist any influence, of whatever sort. Under these circumstances, what did Cipolla think would be the result? "You will," answered the Cavaliere, "make my task somewhat more difficult thereby. As for the result, your resistance will not alter it in the least. Freedom exists, and also the will exists; but freedom of the will does not exist, for a will that aims at its own freedom aims at the unknown. You are free to draw or not to draw. But if you draw, you will draw the right cards—the more certainly, the more willfully obstinate your behavior."

One must admit that he could not have chosen his words better, to trouble the waters and confuse the mind. The refractory youth hesitated before drawing. Then he pulled out a card and at once demanded to see if it was among the chosen three. "But why?" queried Cipolla. "Why do things by halves?" Then, as the other defiantly insisted, *"E servito,"* said the juggler, with a gesture of exaggerated servility; and held out the three cards fanwise, without looking at them himself. The left-hand card was the one drawn.

Amid general applause, the apostle of freedom sat down. How far Cipolla employed small tricks and manual dexterity to help out his natural talents, the deuce only knew. But even without them the result would have been the same: the curiosity of the entire audience was unbounded and universal, everybody both enjoyed the amazing character of the entertainment and unanimously conceded the professional skill of the performer. "*Lavora bene* [He works well]," we heard, here and there in our neighborhood; it signified the triumph of objective judgment over antipathy and repressed resentment.

After his last, incomplete, yet so much the more telling, success, Cipolla had at once fortified himself with another cognac. Truly he did "drink a lot," and the fact made a bad impression. But obviously he needed the liquor and the cigarettes for the replenishment of his energy, upon which, as he himself said, heavy demands were made in all directions. Certainly in the intervals he looked very ill, exhausted and hollow-eyed. Then the little glassful would redress the balance, and the flow of lively, self-

confident chatter run on, while the smoke he inhaled gushed out gray from his lungs. I clearly recall that he passed from the card tricks to parlor games—the kind based on certain powers which in human nature are higher or else lower than human reason: on intuition and "magnetic" transmission; in short, upon a low type of manifestation. What I do not remember is the precise order things came in. And I will not bore you with a description of these experiments; everybody knows them, everybody has at one time or another taken part in this finding of hidden articles, this blind carrying out of a series of acts, directed by a force that proceeds from organism to organism by unexplored paths. Everybody has had his little glimpse into the equivocal, impure, inexplicable nature of the occult, has been conscious of both curiosity and contempt, has shaken his head over the human tendency of those who deal in it to help themselves out with humbuggery, though, after all, the humbuggery is no disproof whatever of the genuiness of the other elements in the dubious amalgam. I can only say here that each single circumstance gains in weight and the whole greatly in impressiveness when it is a man like Cipolla who is the chief actor and guiding spirit in the sinister business. He sat smoking at the rear of the stage, his back to the audience while they conferred. The object passed from hand to hand which it was his task to find, with which he was to perform some action agreed upon beforehand. Then he would start to move zigzag through the hall, with his head thrown back and one hand outstretched, the other clasped in that of a guide who was in the secret but enjoined to keep himself perfectly passive, with his thoughts directed upon the agreed goal. Cipolla moved with the bearing typical in these experiments: now groping upon a false start, now with a quick forward thrust, now pausing as though to listen and by sudden inspiration correcting his course. The roles seemed reversed, the stream of influence was moving in the contrary direction, as the artist himself pointed out, in his ceaseless flow of discourse. The suffering, receptive, performing part was now his, the will he had before imposed on others was shut out, he acted in obedience to a voiceless common will which was in the air. But he made it perfectly clear that it all came to the same thing. The capacity for self-surrender, he said, for becoming a tool, for the most unconditional and utter self-abnegation, was but the reverse side of that other power to will and to command. Commanding and obeying formed together one single principle, one indissoluble unity; he who knew how to obey knew also how to command, and conversely; the one idea was comprehended in the other, as people and leader were comprehended in one another. But that which was

done, the highly exacting and exhausting performance, was in every case his, the leader's and mover's, in whom the will became obedience, the obedience will, whose person was the cradle and womb of both, and who thus suffered enormous hardship. Repeatedly he emphasized the fact that his lot was a hard one—presumably to account for his need of stimulant and his frequent recourse to the little glass.

Thus he groped his way forward, like a blind seer, led and sustained by the mysterious common will. He drew a pin set with a stone out of its hiding place in an Englishwoman's shoe, carried it, halting and pressing on by turns, to another lady—Signora Angiolieri—and handed it to her on bended knee, with the words it had been agreed he was to utter. "I present you with this in token of my respect" was the sentence. Their sense was obvious, but the words themselves not easy to hit upon, for the reason that they had been agreed on in French; the language complication seemed to us a little malicious, implying as it did a conflict between the audience's natural interest in the success of the miracle and their desire to witness the humiliation of this presumptuous man. It was a strange sight: Cipolla on his knees before the Signora, wrestling, amid efforts at speech, after knowledge of the preordained words. "I must say something," he said, "and I feel clearly what it is I must say. But I also feel that if it passed my lips it would be wrong. Be careful not to help me unintentionally!" he cried out, though very likely that was precisely what he was hoping for. "*Pensez très fort* [Think very hard]," he cried all at once, in bad French, and then burst out with the required words—in Italian, indeed, but with the final substantive pronounced in the sister tongue, in which he was probably far from fluent: he said *vénération* instead of *venerazione,* with an impossible nasal. And this partial success, after the complete success before it, the finding of the pin, the presentation of it on his knees to the right person—was almost more impressive than if he had got the sentence exactly right, and evoked bursts of admiring applause.

Cipolla got up from his knees and wiped the perspiration from his brow. You understand that this experiment with the pin was a single case, which I describe because it sticks in my memory. But he changed his method several times and improvised a number of variations suggested by his contact with his audience; a good deal of time thus went by. He seemed to get particular inspiration from the person of our landlady; she drew him on to the most extraordinary displays of clairvoyance. "It does not escape me, madame," he said to her, "that there is something unusual about you, some special and honorable distinction. He who has eyes to

see descries about your lovely brow an aureola–if I mistake not, it once was stronger than now–a slowly paling radiance . . . hush, not a word! Don't help me. Beside you sits your husband–yes?" He turned towards the silent Signor Angiolieri. "You are the husband of this lady, and your happiness is complete. But in the midst of this happiness memories rise . . . the past, Signora, so it seems to me, plays an important part in your present. You knew a king . . . has not a king crossed your path in bygone days?"

"No," breathed the dispenser of our midday soup, her golden-brown eyes gleaming in the noble pallor of her face.

"No? No, not a king; I meant that generally, I did not mean literally a king. Not a king, not a prince, and a prince after all, a king of a loftier realm; it was a great artist, at whose side you once–you would contradict me, and yet I am not wholly wrong. Well, then! It was a woman, a great, a world-renowned woman artist, whose friendship you enjoyed in your tender years, whose sacred memory overshadows and transfigures your whole existence. Her name? Need I utter it, whose fame has long been bound up with the Fatherland's, immortal as its own? Eleonora Duse," he finished, softly and with much solemnity.

The little woman bowed her head, overcome. The applause was like a patriotic demonstration. Nearly everyone there knew about Signora Angiolieri's wonderful past; they were all able to confirm the Cavaliere's intuition–not least the present guests of Casa Eleonora. But we wondered how much of the truth he had learaed as the result of professional inquiries made on his arrival. Yet I see no reason at all to cast doubt, on rational grounds, upon powers which, before our very eyes, became fatal to their possessor.

At this point there was an intermission. Our lord and master withdrew. Now I confess that almost ever since the beginning of my tale I have looked forward with dread to this moment in it. The thoughts of men are mostly not hard to read; in this case they are very easy. You are sure to ask why we did not choose this moment to go away–and I must continue to owe you an answer. I do not know why. I cannot defend myself. By this time it was certainly eleven, probably later. The children were asleep. The last series of tests had been too long, nature had had her way. They were sleeping in our laps, the little one on mine, the boy on his mother's. That was, in a way, a consolation; but at the same time it was also ground for compassion and a clear leading to take them home to bed. And I give you my word that we wanted to obey this touching admonition, we seriously wanted to. We roused the poor things and told them it was now high

time to go. But they were no sooner conscious than they began to resist and implore–you know how horrified children are at the thought of leaving before the end of a thing. No cajoling has any effect; you have to use force. It was so lovely, they wailed. How did we know what was coming next? Surely we could not leave until after the intermission; they liked a little nap now and again–only not go home, only not go to bed, while the beautiful evening was still going on!

We yielded, but only for the moment, of course–so far as we knew–only for a little while, just a few minutes longer. I cannot excuse our staying, scarcely can I even understand it. Did we think, having once said A, we had to say B–having once brought the children hither we had to let them stay? No, it is not good enough. Were we ourselves so highly entertained? Yes, and no. Our feelings for Cavaliere Cipolla were of a very mixed kind, but so were the feelings of the whole audience, if I mistake not, and nobody left. Were we under the sway of a fascination which emanated from this man who took so strange a way to earn his bread; a fascination which he gave out independently of the program and even between the tricks and which paralyzed our resolve? Again, sheer curiosity may account for something. One was curious to know how such an evening turned out; Cipolla in his remarks having all along hinted that he had tricks in his bag stranger than any he had yet produced.

But all that is not it–or at least it is not all of it. More correct it would be to answer the first question with another. Why had we not left Torre di Venere itself before now? To me the two questions are one and the same, and in order to get out of the impasse I might simply say that I had answered it already. For, as things had been in Torre in general: queer, uncomfortable, troublesome, tense, oppressive, so precisely they were here in this hall tonight Yes, more than precisely. For it seemed to be the fountainhead of all the uncanniness and all the strained feelings which had oppressed the atmosphere of our holiday. This man whose return to the stage we were awaiting was the personification of all that; and, as we had not gone away in general, so to speak, it would have been inconsistent to do it in the particular case. You may call this an explanation, you may call it inertia, as you see fit. Any argument more to the purpose I simply do not know how to adduce.

Well, there was an interval of ten minutes, which grew into nearly twenty. The children remained awake. They were enchanted by our compliance, and filled the break to their own satisfaction by renewing relations with the popular sphere, with Antonio, Guiscardo, and the canoe man. They put their hands to their mouths and called messages across,

appealing to us for the Italian words. "Hope you have a good catch tomorrow, a whole netful!" They called to Mario, Esquisito Mario: "*Mario, una cioccolata e biscotti* [a chocolate and biscuits]!" And this time he heeded and answered with a smile: "*Subito, signorini* [Right away ladies]!" Later we had reason to recall this kindly, if rather absent and pensive, smile.

Thus the interval passed, the gong sounded. The audience, which had scattered in conversation, took their places again; the children sat up straight in their chairs with their hands in their laps. The curtain had not been dropped. Cipolla came forward again, with his dipping stride, and began to introduce the second half of the program with a lecture.

Let me state once for all that this self-confident cripple was the most powerful hypnotist I have ever seen in my life. It was pretty plain now that he threw dust in the public eye and advertised himself as a prestidigitator on account of police regulations which would have prevented him from making his living by the exercise of his powers. Perhaps this eyewash is the usual thing in Italy; it may be permitted or even connived at by the authorities. Certainly the man had from the beginning made little concealment of the actual nature of his operations; and this second half of the program was quite frankly and exclusively devoted to one sort of experiment. While he still practiced some rhetorical circumlocutions, the tests themselves were one long series of attacks upon the will power, the loss or compulsion of volition. Comic, exciting, amazing by turns, by midnight they were still in full swing; we ran the gamut of all the phenomena this natural-unnatural field has to show, from the unimpressive at one end of the scale to the monstrous at the other. The audience laughed and applauded as they followed the grotesque details; shook their heads, clapped their knees, fell very frankly under the spell of this stern, self-assured personality. At the same time I saw signs that they were not quite complacent, not quite unconscious of the peculiar ignominy which lay, for the individual and for the general, in Cipolla's triumphs.

Two main features were constant in all the experiments: the liqueur glass and the claw-handled riding whip. The first was always invoked to add fuel to his demoniac fires; without it, apparently, they might have burned out. On this score we might even have felt pity for the man; but the whistle of his scourge, the insulting symbol of his domination, before which we all cowered, drowned out every sensation save a dazed and outbraved submission to his power. Did he then lay claim to our sympathy to boot? I was struck by a remark he made–it suggested no

less. At the climax of his experiments, by stroking and breathing upon a certain young man who had offered himself as a subject and already proved himself a particularly susceptible one, he had not only put him into the condition known as deep trance and extended his insensible body by neck and feet across the backs of two chairs, but had actually sat down on the rigid form as on a bench, without making it yield. The sight of this unholy figure in a frock coat squatted on the stiff body was horrible and incredible; the audience, convinced that the victim of this scientific diversion must be suffering, expressed its sympathy: *"Ah, poveretto!"* Poor soul, poor soul! *"Poor soul!"* Cipolla mocked them, with some bitterness. "Ladies and gentlemen, you are barking up the wrong tree. *Sono io il poveretto.* I am the person who is suffering, I am the one to be pitied." We pocketed the information. Very good. Maybe the experiment was at his expense, maybe it was he who had suffered the cramp when the *giovanotto* over there had made the faces. But appearances were all against it; and one does not feel like saying *poveretto* to a man who is suffering to bring about the humiliation of others.

I have got ahead of my story and lost sight of the sequence of events. To this day my mind is full of the Cavaliere's feats of endurance; only I do not recall them in their order—which does not matter. So much I do know: that the longer and more circumstantial tests, which got the most applause, impressed me less than some of the small ones which passed quickly over. I remember the young man whose body Cipolla converted into a board, only because of the accompanying remarks which I have quoted. An elderly lady in a cane-seated chair was lulled by Cipolla in the delusion that she was on a voyage to India and gave a voluble account of her adventures by land and sea. But I found this phenomenon less impressive than one which followed immediately after the intermission. A tall, well-built, soldierly man was unable to lift his arm after the hunchback had told him that he could not and given a cut through the air with his whip. I can still see the face of that stately, mustachioed colonel smiling and clenching his teeth as he struggled to regain his lost freedom of action. A staggering performance! He seemed to be exerting his will, and in vain; the trouble, however, was probably simply that he could not will. There was involved here that recoil of the will upon itself which paralyzes choice—as our tyrant had previously explained to the Roman gentleman.

Still less can I forget the touching scene, at once comic and horrible, with Signora Angiolieri. The Cavaliere, probably in his first bold survey of the room, had spied out her ethereal lack of resistance to his power.

For actually he bewitched her, literally drew her out of her seat, out of her row, and away with him whither he willed. And in order to enhance his effect, he bade Signor Angiolieri call upon his wife by her name, to throw, as it were, all the weight of his existence and his rights in her into the scale, to rouse by the voice of her husband everything in his spouse's soul which could shield her virtue against the evil assaults of magic. And how vain it all was! Cipolla was standing at some distance from the couple, when he made a single cut with his whip through the air. It caused our landlady to shudder violently and turn her face towards him. "Sofronia!" cried Signor Angiolieri—we had not known that Signora Angiolieri's name was Sofronia. And he did well to call; everybody saw that there was no time to lose. His wife kept her face turned in the direction of the diabolical Cavaliere, who with his ten long yellow fingers was making passes at his victim, moving backwards as he did so, step by step. Then Signora Angiolieri, her pale face gleaming, rose up from her seat, turned right round, and began to glide after him. Fatal and forbidding sight! Her face as though moon-struck, stiff-armed, her lovely hands lifted a little at the wrists, the feet as it were together, she seemed to float slowly out of her row and after the tempter. "Call her, sir, keep on calling," prompted the redoubtable man. And Signor Angiolieri, in a weak voice, called: "Sofronia!" Ah, again and again he called; as his wife went further off he even curved one hand round his lips and beckoned with the other as he called. But the poor voice of love and duty echoed unheard, in vain, behind the lost one's back; the Signora swayed along, moon-struck, deaf, enslaved; she glided into the middle aisle and down it towards the fingering hunchback, towards the door. We were driven to the conviction that she would have followed her master, had he so willed it, to the ends of the earth.

"Accidente!" cried out Signor Angiolieri, in genuine affright, springing up as the exit was reached. But at the same moment the Cavaliere put aside, as it were, the triumphal crown and broke off. "Enough, Signora, I thank you," he said, and offered his arm to lead her back to her husband. "Signor," he greeted the latter, "here is your wife. Unharmed, with my compliments, I give her into your hands. Cherish with all the strength of your manhood a treasure which is so wholly yours, and let your zeal be quickened by knowing that there are powers stronger than reason or virtue, and not always so magnanimously ready to relinquish their prey!"

Poor Signor Angiolieri, so quiet, so bald! He did not look as though he would know how to defend his happiness, even against powers much less demoniac than these which were now adding mockery to frightfulness.

Solemnly and pompously the Cavaliere retired to the stage, amid applause to which his eloquence gave double strength. It was this particular episode, I feel sure, that set the seal upon his ascendancy. For now he made them dance, yes, literally; and the dancing lent a dissolute, abandoned, topsy-turvy air to the scene, a drunken abdication of the critical spirit which had so long resisted the spell of this man. Yes, he had had to fight to get the upper hand–for instance against the animosity of the young Roman gentleman, whose rebellious spirit threatened to serve others as a rallying point. But it was precisely upon the importance of example that the Cavaliere was so strong. He had the wit to make his attack at the weakest point and to choose as his first victim that feeble, ecstatic youth whom he had previously made into a board. The master had but to look at him, when this young man would fling himself back as though struck by lightning, place his hands rigidly at his sides, and fall into a state of military somnambulism, in which it was plain to any eye that he was open to the most absurd suggestion that might be made to him. He seemed quite content in his abject state, quite pleased to be relieved of the burden of voluntary choice. Again and again he offered himself as a subject and gloried in the model facility he had in losing consciousness. So now he mounted the platform, and a single cut of the whip was enough to make him dance to the Cavaliere's orders, in a kind of complacent ecstasy, eyes closed, head nodding, lank limbs flying in all directions.

It looked unmistakably like enjoyment, and other recruits were not long in coming forward: two other young men, one humbly and one well dressed, were soon jigging alongside the first. But now the gentleman from Rome bobbed up again, asking defiantly if the Cavaliere would engage to make him dance too, even against his will.

"Even against your will," answered Cipolla, in unforgettable accents. That frightful *"anche se non vuole"* still rings in my ears. The struggle began. After Cipolla had taken another little glass and lighted a fresh cigarette he stationed the Roman at a point in the middle aisle and himself took up a position some distance behind, making his whip whistle through the air as he gave the order: *"Balla!"* His opponent did not stir. *"Balla!"* repeated the Cavaliere incisively, and snapped his whip. You saw the young man move his neck round in his collar; at the same time one hand lifted slightly at the wrist, one ankle turned outward. But that was all, for the time at least; merely a tendency to twitch, now sternly repressed, now seeming about to get the upper hand. It escaped nobody that here a heroic obstinacy, a fixed resolve to resist, must needs be con-

quered; we were beholding a gallant effort to strike out and save the honor of the human race. He twitched but danced not; and the struggle was so prolonged that the Cavaliere had to divide his attention between it and the stage, turning now and then to make his riding whip whistle in the direction of the dancers, as it were to keep them in leash. At the same time he advised the audience that no fatigue was involved in such activities, however long they went on, since it was not the automatons up there who danced, but himself. Then once more his eye would bore itself into the back of the Roman's neck and lay siege to the strength of purpose which defied him.

One saw it waver, that strength of purpose, beneath the repeated summons and whipcrackings. Saw with an objective interest which yet was not quite free from traces of sympathetic emotion—from pity, even from a cruel kind of pleasure. If I understand what was going on, it was the negative character of the young man's fighting position which was his undoing. It is likely that not willing is not a practicable state of mind; *not* to want to do something may be in the long run a mental content impossible to subsist on. Between not willing a certain thing and not willing at all—in other words, yielding to another person's will—there may lie too small a space for the idea of freedom to squeeze into. Again, there were the Cavaliere's persuasive words, woven in among the whipcrackings and commands, as he mingled effects that were his own secret with others of a bewilderingly psychological kind. *"Balla!"* said he. "Who wants to torture himself like that? Is forcing yourself your idea of freedom? *Una ballatina!* Why, your arms and legs are aching for it. What a relief to give way to them—there, you are dancing already! That is no struggle any more, it is a pleasure!" And so it was. The jerking and twitching of the refractory youth's limbs had at last got the upper hand; he lifted his arms, then his knees, his joints quite suddenly relaxed, he flung his legs and danced, and amid bursts of applause the Cavaliere led him to join the row of puppets on the stage. Up there we could see his face as he "enjoyed" himself; it was clothed in a broad grin and the eyes were half shut. In a way, it was consoling to see that he was having a better time than he had had in the hour of his pride.

His "fall" was, I may say, an epoch. The ice was completely broken. Cipolla's triumph had reached its height. The Circe's wand, that whistling leather whip with the claw handle, held absolute sway. At one time—it must have been well after midnight—not only were there eight or ten persons dancing on the little stage, but in the hall below a varied animation reigned, and a long-toothed Anglo-Saxoness in a pince-nez left

her seat of her own motion to perform a tarantella in the center aisle. Cipolla was lounging in a cane-seated chair at the left of the stage, gulping down the smoke of a cigarette and breathing it impudently out through his bad teeth. He tapped his foot and shrugged his shoulders, looking down upon the abandoned scene in the hall; now and then he snapped his whip backwards at a laggard upon the stage. The children were awake at the moment, With shame I speak of them. For it was not good to be here, least of all for them; that we had not taken them away can only be explained by saying that we had caught the general devil-may-careness of the hour. By that time it was all one. Anyhow, thank goodness, they lacked understanding for the disreputable side of the entertainment, and in their innocence were perpetually charmed by the unheard-of indulgence which permitted them to be present at such a thing as a magician's "evening." Whole quarter hours at a time they drowsed on our laps, waking refreshed and rosy-cheeked, with sleep-drunken eyes, to laugh to bursting at the leaps and jumps the magician made those people up there make. They had not thought it would be so jolly; they joined with their clumsy little hands in every round of applause. And jumped for joy upon their chairs, as was their wont, when Cipolla beckoned to their friend Mario from the Esquisito, beckoned to him just like a picture in a book, holding his hand in front of his nose and bending and straightening the forefinger by turns.

Mario obeyed. I can see him now going up the stairs to Cipolla, who continued to beckon him, in that droll, picture-book sort of way. He hesitated for a moment at first; that, too, I recall quite clearly. During the whole evening he had lounged against a wooden pillar at the side entrance, with his arms folded, or else with his hands thrust into his jacket pockets. He was on our left, near the youth with the militant hair, and had followed the performance attentively, so far as we had seen, if with no particular animation and God knows how much comprehension. He could not much relish being summoned thus, at the end of the evening. But it was only too easy to see why he obeyed. After all, obedience was his calling in life; and then, how should a simple lad like him find it within his human capacity to refuse compliance to a man so throned and crowned as Cipolla at that hour? Willy-nilly he left his column and with a word of thanks to those making way for him he mounted the steps with a doubtful smile on his full lips.

Picture a thickset youth of twenty years, with clipped hair, a low forehead, and heavy-lidded eyes of an indefinite gray, shot with green and yellow. These things I knew from having spoken with him, as we often

had. There was a saddle of freckles on the flat nose, the whole upper half of the face retreated behind the lower, and that again was dominated by thick lips that parted to show the salivated teeth. These thick lips and the veiled look of the eyes lent the whole face a primitive melancholy—it was that which had drawn us to him from the first. In it was not the faintest trace of brutality—indeed, his hands would have given the lie to such an idea, being unusually slender and delicate even for a southerner. They were hands by which one liked being served.

We knew him humanly without knowing him personally, if I may make that distinction. We saw him nearly every day, and felt a certain kindness for his dreamy ways, which might at times be actual inattentiveness, suddenly transformed into a redeeming zeal to serve. His mien was serious; only the children could bring a smile to his face. It was not sulky, but uningratiating, without intentional effort to please—or, rather, it seemed to give up being pleasant in the conviction that it could not succeed. We should have remembered Mario in any case, as one of those homely recollections of travel which often stick in the mind better than more important ones. But of his circumstances we knew no more than that his father was a petty clerk in the Municipio and his mother took in washing.

His white waiter's-coat became him better than the faded striped suit he wore, with a gay colored scarf instead of a collar, the ends tucked into his jacket. He neared Cipolla, who however did not leave off that motion of his finger before his nose, so that Mario had to come still closer, right up to the chair seat and the master's legs. Whereupon the latter spread out his elbows and seized the lad, turning him so that we had a view of his face. Then gazed him briskly up and down, with a careless, commanding eye.

"Well, *ragazzo mio* [my boy], how comes it we make acquaintance so late in the day? But believe me, I made yours long ago. Yes, yes, I've had you in my eye this long while and known what good stuff you were made of. How could I go and forget you again? Well, I've had a good deal to think about. . . . Now tell me, what is your name? The first name, that's all I want."

"My name is Mario," the young man answered, in a low voice.

"Ah, Mario. Very good. Yes, yes, there is such a name, quite a common name, a classic name too, one of those which preserve the heroic traditions of the Fatherland. *Bravo! Salve!*" And he flung up his arm slantingly above his crooked shoulder, palm outward, in the Roman salute. He may have been slightly tipsy by now, and no wonder; but he spoke as before, clearly, fluently, and with emphasis. Though about this time there had

crept into his voice a gross, autocratic note, and a kind of arrogance was in his sprawl.

"Well, now, Mario *mio,*" he went on, "it's a good thing you came this evening, and that's a pretty scarf you've got on; it is becoming to your style of beauty. It must stand you in good stead with the girls, the pretty pretty girls of Torre–"

From the row of youths, close by the place where Mario had been standing, sounded a laugh. It came from the youth with the militant hair. He stood there, his jacket over his shoulder, and laughed outright, rudely and scornfully.

Mario gave a start. I think it was a shrug, but he may have started and then hastened to cover the movement by shrugging his shoulders, as much as to say that the neckerchief and the fair sex were matters of equal indifference to him.

The Cavaliere gave a downward glance.

"We needn't trouble about him," he said. "He is jealous, because your scarf is so popular with the girls, maybe partly because you and I are so friendly up here. Perhaps he'd like me to put him in mind of his colic–I could do it free of charge. Tell me, Mario. You've come here this evening for a bit of fun–and in the daytime you work in an ironmonger's shop?"

"In a café," corrected the youth.

"Oh, in a café. That's where Cipolla nearly came a cropper! What you are is a cupbearer, a Ganymede–I like that, it is another classical allusion–*Salvietta!*" Again the Cavaliere saluted, to the huge gratification of his audience.

Mario smiled too. "But before that," he interpolated, in the interest of accuracy, "I worked for a while in a shop in Portoclemente." He seemed visited by a natural desire to assist the prophecy by dredging out its essential features.

"There, didn't I say so? In an ironmonger's shop?"

"They kept combs and brushes," Mario got round it.

"Didn't I say that you were not always a Ganymede? Not always at the sign of the serviette? Even when Cipolla makes a mistake, it is a kind that makes you believe in him. Now tell me: Do you believe in me?"

An indefinite gesture.

"A halfway answer," commented the Cavaliere. "Probably it is not easy to win your confidence. Even for me, I can see, it is not so easy. I see in your features a reserve, a sadness, *un tratto di malinconia* [a trace of melancholy] . . . tell me" (he seized Mario's hand persuasively) "have you troubles?"

"Nossignore" answered Mario, promptly and decidedly.

"You *have* troubles," insisted the Cavaliere, bearing down the denial by the weight of his authority. "Can't I see? Trying to pull the wool over Cipolla's eyes, are you? Of course, about the girls—it is a girl, isn't it? You have love troubles?"

Mario gave a vigorous headshake. And again the *giovanotto's* brutal laugh rang out. The Cavaliere gave heed. His eyes were roving about somewhere in the air: but he cocked an ear to the sound, then swung his whip backwards, as he had once or twice before in his conversation with Mario, that none of his puppets might flag in their zeal. The gesture had nearly cost him his new prey: Mario gave a sudden start in the direction of the steps. But Cipolla had him in his clutch.

"Not so fast," said he. "That would be fine, wouldn't it? So you want to skip, do you, Ganymede, right in the middle of the fun, or, rather, when it is just beginning? Stay with me, I'll show you something nice. I'll convince you. You have no reason to worry, I promise you. This girl—you know her and others know her too—what's her name? Wait! I read the name in your eyes, it is on the tip of my tongue and yours too—"

"Silvestra!" shouted the *giovanotto* from below.

The Cavaliere's face did not change.

"Aren't there the forward people?" he asked, not looking down, more as in undisturbed converse with Mario. "Aren't there the young fighting cocks that crow in season and out? Takes the word out of your mouth, the conceited fool, and seems to think he has some special right to it. Let him be. But Silvestra, your Silvestra—ah, what a girl that is! What a prize! Brings your heart into your mouth to see her walk or laugh or breathe, she is so lovely. And her round arms when she washes, and tosses her head back to get the hair out of her eyes! An angel from paradise!"

Mario started at him, his head thrust forward. He seemed to have forgotten the audience, forgotten where he was. The red rings round his eyes had got larger, they looked as though they were painted on. His thick lips parted.

"And she makes you suffer, this angel," went on Cipolla, "or, rather, you make yourself suffer for her—there is a difference, my lad, a most important difference, let me tell you. There are misunderstandings in love, maybe nowhere else in the world are there so many. I know what you are thinking: what does this Cipolla, with his little physical defect, know about love? Wrong, all wrong, he knows a lot. He has a wide and powerful understanding of its workings, and it pays to listen to his advice. But let's leave Cipolla out, cut him out altogether and think only of Sil-

vestra, your peerless Silvestra! What! Is she to give any young gamecock the preference, so that he can laugh while you cry? To prefer him to a chap like you, so full of feeling and so sympathetic? Not very likely, is it? It is impossible—we know better, Cipolla and she. If I were to put myself in her place and choose between the two of you, a tarry lout like that—a codfish, a sea urchin—and a Mario, a knight of the serviette, who moves among gentlefolk and hands round refreshments with an air—my word, but my heart would speak in no uncertain tones—it knows to whom I gave it long ago. It is time that he should see and understand, my chosen one! It is time that you see me and recognize me, Mario, my beloved! Tell me, who am I?"

It was grisly, the way the betrayer made himself irresistible, wreathed and coquetted with his crooked shoulder, languished with the puffy eyes, and showed his splintered teeth in a sickly smile. And alas, at his beguiling words, what was come of our Mario? It is hard for me to tell, hard as it was for me to see; for here was nothing less than an utter abandonment of the inmost soul, a public exposure of timid and deluded passion and rapture. He put his hands across his mouth, his shoulders rose and fell with his pantings. He could not, it was plain, trust his eyes and ears for joy, and the one thing he forgot was precisely that he could not trust them. "Silvestra!" he breathed, from the very depths of his vanquished heart.

"Kiss me!" said the hunchback. "Trust me, I love thee. Kiss me here." And with the tip of his index finger, hand, arm, and little finger outspread, he pointed to his cheek, near the mouth. And Mario bent and kissed him.

It had grown very still in the room. That was a monstrous moment, grotesque and thrilling, the moment of Mario's bliss. In that evil span of time, crowded with a sense of the illusiveness of all joy, one sound became audible, and that not quite at once, but on the instant of the melancholy and ribald meeting between Mario's lips and the repulsive flesh which thrust itself forward for his caress. It was the sound of a laugh, from the *giovanotto* on our left. It broke into the dramatic suspense of the moment, coarse, mocking, and yet—or I must have been grossly mistaken—with an undertone of compassion for the poor, bewildered, victimized creature. It had a faint ring of that *"Poveretto"* which Cipolla had declared was wasted on the wrong person, when he claimed the pity for his own.

The laugh still rang in the air when the recipient of the caress gave his whip a little swish, low down, close to his chair leg, and Mario started

up and flung himself back. He stood in that posture staring, his hands one over the other on those desecrated lips. Then he beat his temples with his clenched fists, over and over; turned and staggered down the steps, while the audience applauded, and Cipolla sat there with his hands in his lap, his shoulders shaking. Once below, and even while in full retreat, Mario hurled himself round with legs flung wide apart; one arm flew up, and two flat shattering detonations crashed through applause and laughter.

There was instant silence. Even the dancers came to a full stop and stared about, struck dumb. Cipolla bounded from his seat. He stood with his arms spread out, slanting as though to ward everybody off, as though next moment he would cry out: "Stop! Keep back! Silence! What was that?" Then, in that instant, he sank back in his seat, his head rolling on his chest; in the next he had fallen sideways to the floor, where he lay motionless, a huddled heap of clothing, with limbs awry.

The commotion was indescribable. Ladies hid their faces, shuddering, on the breasts of their escorts. There were shouts for a doctor, for the police. People flung themselves on Mario in a mob, to disarm him, to take away the weapon that hung from his fingers—that small, dull-metal, scarcely pistol-shaped tool with hardly any barrel—in how strange and unexpected a direction had fate leveled it!

And now—now finally, at last—we took the children and led them towards the exit, past the pair of *carabinieri* just entering. Was that the end, they wanted to know, that they might go in peace? Yes, we assured them, that was the end. An end of horror, a fatal end. And yet a liberation—for I could not, and I cannot, but find it so!

Isak Dinesen

1885–1962

Isak Dinesen (pen name of Karen Dinesen, later Baroness Blixen) was born in Denmark in 1885. Her father was a venturesome naval officer who lived for a while as a trapper among the Indians in Minnesota. She grew up near the sea and said later that she could not remember when she had first sailed a boat. In the years before World War I, she studied painting in Copenhagen, Paris, and Rome. She recalled that time as a period of free and youthful gaiety.

In 1914 she married Baron Bror von Blixen and went with him to British East Africa, later Kenya Colony. There, largely with capital borrowed from her family, they bought a big coffee plantation. It prospered. When they were divorced in 1921, Baroness Blixen took over the management of the estate. Much of the time she saw no fellow Europeans. She lived alone with the crews of fieldworkers and her household servants.

She began to write, as she said, "to amuse myself in the rainy season." Her Kikuyu servants would bow respectfully and ask "what God had now inspired me to write." In 1931, when the bottom fell out of the world coffee market, she gave up the plantation and went back to live with her mother on the family estate at Rungstedlund, Denmark.

She wrote *Seven Gothic Tales* in English. It was published in 1934. In *Out of Africa,* an account of her life on that continent, she returned to Danish. The English translation appeared in 1938. This was followed in 1943 by *Winters Tales,* which contained the remarkable *Sorrow-Acre* (see below). During the Nazi occupation of Denmark in World War II, a novel by one "Pierre Andrézel" was published. Censors passed it as a harmless "Gothic romance," but the more knowing Danes recognized a satire on the invaders. In

1947 it came out in English, as *The Angelic Avengers,* under the proper pen name of its author, Isak Dinesen. She died in Denmark on September 7, 1962.

The Danish stories of Isak Dinesen take us back to the half-feudal world of Sigrid Undset and Giovanni Verga, or to Turgenev's *A Sportsman's Sketches*. In all these works, what we feel is the feudal spirit. The story, in fact, might conceivably happen at any time from, say, the twelfth century to World War I. But in *Sorrow-Acre* the period is clearly suggested. Heavy four-horse coaches, young Adam's hair caught with a ribbon, the powder in Sophie Magdalena's hair—what can this be but the late eighteenth century, or at most the early nineteenth?

Sorrow-Acre is no more than the story of a single day at a great Danish manor house, but it presents us with a human problem of such complexity that we can hardly be sure we understand it on first reading. Not that the story itself is difficult. Far from it. Indeed, it stirs us at once. Like Adam at first, we conceive a hot sympathy for the old woman and brush away all objections to it.

Perhaps we are right. Why not? we ask ourselves. Certainly what happens to Anne-Marie bears no likeness to any sort of justice we know. We go over the facts again, as the old lord tells them to Adam. Someone has burned down the barn at Rødmosegaard. Two men bring the boy Goske to the old lord and charge that they saw him near the barn that night. They are known to be hostile to him. He protests that he is innocent.

The old lord orders him to be locked up. But the judge, he says, "is a fool, and would naturally do nothing but what he thought I wished him to do." At this point the widow Anne-Marie, Goske's mother, makes a weeping appeal for her son. Very well, says the old lord. If you can, between sunrise and sunset, reap this field of rye

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Notes from the artist: "Isak Dinesen draped in the hooded black garments she affected and which gave her the appearance of being a character in one of her Seven Gothic Tales. *Her residence in Africa and use of it as a locale for some of her work suggested the drawings at left, which are derived from Bushman cave art."*

ISAK
DIN
ESEN

that we stand in with your own hands, your son may go free. And he adds that "the mowing of that field is a day's work to three men, or three days' work to one man." A little later he murmurs the strangest sentence of all: "We are not quibbling with the law, Anne-Marie and I."

Monstrous! we say to ourselves. What sort of cat-and-mouse game is this? And what was it the old lord had said earlier—that "power is in itself the supreme virtue"? We remember that he too has lost his only son, taken from him by a power against which there is no appeal. We begin to piece things together, as Adam did. We do not have Adam's reasons for love or gratitude. So, more quickly perhaps than Adam, we guess the secret. The old lord is playing god.

And what kind of god? Perhaps, as he has hinted, a god like the Roman Jove, who knows nothing of good or evil because the nature of his own being is the necessity of the world. What if this necessity includes setting some old woman an all-but-impossible task if she wishes to save the life of her son? Like Adam, we listen to the old lord's discourse on tragedy as "the right of human beings" and comedy as "a condescension of the divine to the world of man. . . ."

The old lord has made a decree. The old woman accepts it. Both have the sense that what is decreed must be. But there are compensations: like Adam, we hear the words of the little French song: "To die for what one loves/This is too sweet an effort. . . ." We reflect that a mother may welcome the chance to sacrifice herself for her son, and that other people may find in it a great community of feeling. Is this what the old lord meant? Perhaps. But behind all this, we glimpse for a moment, as Adam does, the freedom of the New World, where every man has the right to his own feelings.

Sorrow-Acre

The low, undulating Danish landscape was silent and serene, mysteriously wide awake, in the hour before sunrise. There was not a cloud in the pale sky, not a shadow along the dim, pearly fields, hills, and woods. The mist was lifting from the valleys and hollows, the air was cool, the grass and the foliage dripping wet with morning dew. Unwatched by the eyes of man, and undisturbed by his activity, the country breathed a timeless life, to which language was inadequate.

All the same, a human race had lived on this land for a thousand years, had been formed by its soil and weather, and had marked it with its thoughts, so that now no one could tell where the existence of the one ceased and the other began. The thin grey line of a road, winding across the plain and up and down hills, was the fixed materialization of human longing, and of the human notion that it is better to be in one place than another.

A child of the country would read this open landscape like a book. The irregular mosaic of meadows and cornlands was a picture, in timid green and yellow, of the people's struggle for its daily bread; the centuries had taught it to plough and sow in this way. On a distant hill the immovable wings of a windmill, in a small blue cross against the sky, delineated a later stage in the career of bread. The blurred outline of thatched roofs—a low, brown growth of the earth—where the huts of the village thronged together, told the history, from his cradle to his grave of the peasant, the creature nearest to the soil and dependent on it, prospering in a fertile year and dying in years of drought and pests.

A little higher up, with the faint horizontal line of the white cemetery-wall round it, and the vertical contour of tall poplars by its side, the red-tiled church bore witness, as far as the eye reached, that this was a Christian country. The child of the land knew it as a strange house, inhabited only for a few hours every seventh day, but with a strong, clear

voice in it to give out the joys and sorrows of the land: a plain, square embodiment of the nation's trust in the justice and mercy of heaven. But where, amongst cupular woods and groves, the lordly, pyramidal silhouette of the cut lime avenues rose in the air, there a big country house lay.

The child of the land would read much within these elegant, geometrical ciphers on the hazy blue. They spoke of power, the lime trees paraded round a stronghold, Up here was decided the destiny of the surrounding land and of the men and beasts upon it, and the peasant lifted his eyes to the green pyramids with awe. They spoke of dignity, decorum and taste. Danish soil grew no finer flower than the mansion to which the long avenue led. In its lofty rooms life and death bore themselves with stately grace. The country house did not gaze upward, like the church, nor down to the ground like the huts; it had a wider earthly horizon than they, and was related to much noble architecture all over Europe. Foreign artisans had been called in to panel and stucco it, and its own inhabitants travelled and brought back ideas, fashions and things of beauty. Paintings, tapestries, silver and glass from distant countries had been made to feel at home here, and now formed part of Danish country life.

The big house stood as firmly rooted in the soil of Denmark as the peasants' huts, and was as faithfully allied to her four winds and her changing seasons, to her animal life, trees and flowers. Only its interests lay in a higher plane. Within the domain of the lime trees it was no longer cows, goats and pigs on which the minds and the talk ran, but horses and dogs. The wild fauna, the game of the land, that the peasant shook his fist at, when he saw it on his young green rye or in his ripening wheat field, to the residents of the country houses were the main pursuit and the joy of existence.

The writing in the sky solemnly proclaimed continuance, a worldly immortality. The great country houses had held their ground through many generations. The families who lived in them revered the past as they honoured themselves, for the history of Denmark was their own history.

A Rosenkrantz had sat at Rosenholm, a Juel at Hverringe, a Skeel at Gammel-Estrup as long as people remembered. They had seen kings and schools of style succeed one another and, proudly and humbly, had made over their personal existence to that of their land, so that amongst their equals and with the peasants they passed by its name: Rosenholm, Hverringe, Gammel-Estrup. To the King and the country, to his family and to the individual lord of the manor himself it was a matter of minor consequence which particular Rosenkrantz, Juel or Skeel, out of a long

row of fathers and sons, at the moment in his person incarnated the fields and woods, the peasants, cattle and game of the estate. Many duties rested on the shoulders of the big landowners—towards God in heaven, towards the King, his neighbour and himself—and they were all harmoniously consolidated into the idea of his duties towards his land. Highest amongst these ranked his obligation to uphold the sacred continuance, and to produce a new Rosenkrantz, Juel or Skeel for the service of Rosenholm, Hverringe and Gammel-Estrup.

Female grace was prized in the manors. Together with good hunting and fine wine it was the flower and emblem of the higher existence led there, and in many ways the families prided themselves more on their daughters than on their sons.

The ladies who promenaded in the lime avenues, or drove through them in heavy coaches with four horses, carried the future of the name in their laps and were, like dignified and debonair caryatides, holding up the houses. They were themselves conscious of their value, kept up their price, and moved in a sphere of pretty worship and self-worship. They might even be thought to add to it, on their own, a graceful, arch, paradoxical haughtiness. For how free were they, how powerful! Their lords might rule the country, and allow themselves many liberties, but when it came to that supreme matter of legitimacy which was the vital principle of their world, the centre of gravity lay with them.

The lime trees were in bloom. But in the early morning only a faint fragrance drifted through the garden, an airy message, an aromatic echo of the dreams during the short summer night.

In a long avenue that led from the house all the way to the end of the garden, where, from a small white pavilion in the classic style, there was a great view over the fields, a young man walked. He was plainly dressed in brown, with pretty linen and lace, bareheaded, with his hair tied by a ribbon. He was dark, a strong and sturdy figure with fine eyes and hands; he limped a little on one leg.

The big house at the top of the avenue, the garden and the fields had been his childhood's paradise. But he had travelled and lived out of Denmark, in Rome and Paris, and he was at present appointed to the Danish Legation to the Court of King George, the brother of the late, unfortunate young Danish Queen. He had not seen his ancestral home for nine years. It made him laugh to find, now, everything so much smaller than he remembered it, and at the same time he was strangely moved by meeting it again. Dead people came towards him and smiled at him; a small boy in a ruff ran past him with his hoop and kite, in passing gave

him a clear glance and laughingly asked: "Do you mean to tell me that you are I?" He tried to catch him in the flight, and to answer him: "Yes, I assure you that I am you," but the light figure did not wait for a reply.

The young man, whose name was Adam, stood in a particular relation to the house and the land. For six months he had been heir to all; nominally he was so even at this moment. It was this circumstance which had brought him from England, and on which his mind was dwelling, as he walked along slowly.

The old lord up at the manor, his father's brother, had had much misfortune in his domestic life. His wife had died young, and two of his children in infancy. The one son then left to him, his cousin's playmate, was a sickly and morose boy. For ten years the father travelled with him from one watering place to another, in Germany and Italy, hardly ever in other company than that of his silent, dying child, sheltering the faint flame of life with both hands, until such time as it could be passed over to a new bearer of the name. At the same time another misfortune had struck him: he fell into disfavour at Court, where till now he had held a fine position. He was about to rehabilitate his family's prestige through the marriage which he had arranged for his son, when before it could take place the bridegroom died, not yet twenty years old.

Adam learned of his cousin's death, and his own changed fortune, in England, through his ambitious and triumphant mother. He sat with her letter in his hand and did not know what to think about it.

If this, he reflected, had happened to him while he was still a boy, in Denmark, it would have meant all the world to him. It would be so now with his friends and schoolfellows, if they were in his place, and they would, at this moment, be congratulating or envying him. But he was neither covetous nor vain by nature; he had faith in his own talents and had been content to know that his success in life depended on his personal ability. His slight infirmity had always set him a little apart from other boys; it had, perhaps, given him a keener sensibility of many things in life, and he did not, now, deem it quite right that the head of the family should limp on one leg. He did not even see his prospects in the same light as his people at home. In England he had met with greater wealth and magnificence than they dreamed of; he had been in love with, and made happy by, an English lady of such rank and fortune that to her, he felt, the finest estate of Denmark would look but like a child's toy farm.

And in England, too, he had come in touch with the great new ideas of the age: of nature, of the right and freedom of man, of justice and

beauty. The universe, through them, had become infinitely wider to him; he wanted to find out still more about it and was planning to travel to America, to the new world. For a moment he felt trapped and imprisoned, as if the dead people of his name, from the family vault at home, were stretching out their parched arms for him.

But at the same time he began to dream at night of the old house and garden. He had walked in these avenues in dream, and had smelled the scent of the flowering limes. When at Ranelagh an old gypsy woman looked at his hand and told him that a son of his was to sit in the seat of his fathers, he felt a sudden, deep satisfaction, queer in a young man who till now had never given his sons a thought.

Then, six months later, his mother again wrote to tell him that his uncle had himself married the girl intended for his dead son. The head of the family was still in his best age, not over sixty, and although Adam remembered him as a small, slight man, he was a vigorous person; it was likely that his young wife would bear him sons.

Adam's mother in her disappointment lay the blame on him. If he had returned to Denmark, she told him, his uncle might have come to look upon him as a son, and would not have married; nay, he might have handed the bride over to him. Adam knew better. The family estate, differing from the neighbouring properties, had gone down from father to son ever since a man of their name first sat there. The tradition of direct succession was the pride of the clan and a sacred dogma to his uncle; he would surely call for a son of his own flesh and bone.

But at the news the young man was seized by a strange, deep, aching remorse towards his old home in Denmark. It was as if he had been making light of a friendly and generous gesture, and disloyal to someone unfailingly loyal to him. It would be but just, he thought, if from now the place should disown and forget him. Nostalgia, which before he had never known, caught hold of him; for the first time he walked in the streets and parks of London as a stranger.

He wrote to his uncle and asked if he might come and stay with him, begged leave from the Legation and took ship for Denmark. He had come to the house to make his peace with it; he had slept little in the night, and was up so early and walking in the garden, to explain himself, and to be forgiven.

While he walked, the still garden slowly took up its day's work. A big snail, of the kind that his grandfather had brought back from France, and which he remembered eating in the house as a child, was already, with dignity, dragging a silver train down the avenue. The birds began to

sing; in an old tree under which he stopped a number of them were worrying an owl; the rule of the night was over.

He stood at the end of the avenue and saw the sky lightening. An ecstatic clarity filled the world; in half an hour the sun would rise. A rye field here ran along the garden; two roe-deer were moving in it and looked roseate in the dawn. He gazed out over the fields, where as a small boy he had ridden his pony, and towards the wood where he had killed his first stag. He remembered the old servants who had taught him; some of them were now in their graves.

The ties which bound him to this place, he reflected, were of a mystic nature. He might never again come back to it, and it would make no difference. As long as a man of his own blood and name should sit in the house, hunt in the fields and be obeyed by the people in the huts, wherever he travelled on earth, in England or amongst the red Indians of America, he himself would still be safe, would still have a home, and would carry weight in the world.

His eyes rested on the church. In old days, before the time of Martin Luther, younger sons of great families, he knew, had entered the Church of Rome, and had given up individual wealth and happiness to serve the greater ideals. They, too, had bestowed honour upon their homes and were remembered in its registers. In the solitude of the morning half in jest he let his mind run as it listed; it seemed to him that he might speak to the land as to a person, as to the mother of his race. "Is it only my body that you want," he asked her, "while you reject my imagination, energy and emotions? If the world might be brought to acknowledge that the virtue of our name does not belong to the past only, will it give you no satisfaction?" The landscape was so still that he could not tell whether it answered him yes or no.

After a while he walked on, and came to the new French rose garden laid out for the young mistress of the house. In England he had acquired a freer taste in gardening, and he wondered if he could liberate these blushing captives, and make them thrive outside their cut hedges. Perhaps, he meditated, the elegantly conventional garden would be a floral portrait of his young aunt from Court, whom he had not yet seen.

As once more he came to the pavilion at the end of the avenue his eyes were caught by a bouquet of delicate colours which could not possibly belong to the Danish summer morning. It was in fact his uncle himself, powdered and silk-stockinged, but still in a brocade dressing-gown, and obviously sunk in deep thought. "And what business, or what meditations," Adam asked himself, "drags a connoisseur of the beautiful, but

three months married to a wife of seventeen, from his bed into his garden before sunrise?" He walked up to the small, slim, straight figure.

His uncle on his side showed no surprise at seeing him, but then he rarely seemed surprised at anything. He greeted him, with a compliment on his matutinality, as kindly as he had done on his arrival last evening. After a moment he looked to the sky, and solemnly proclaimed: "It will be a hot day." Adam, as a child, had often been impressed by the grand, ceremonial manner in which the old lord would state the common happenings of existence; it looked as if nothing had changed here, but all was what it used to be.

The uncle offered the nephew a pinch of snuff. "No, thank you, Uncle," said Adam, "it would ruin my nose to the scent of your garden, which is as fresh as the Garden of Eden, newly created." "From every tree of which," said his uncle, smiling, "thou, my Adam, mayest freely eat." They slowly walked up the avenue together.

The hidden sun was now already gilding the top of the tallest trees. Adam talked of the beauties of nature, and of the greatness of Nordic scenery, less marked by the hand of man than that of Italy. His uncle took the praise of the landscape as a personal compliment, and congratulated him because he had not, in likeness to many young travellers in foreign countries, learned to despise his native land. No, said Adam, he had lately in England longed for the fields and woods of his Danish home. And he had there become acquainted with a new piece of Danish poetry which had enchanted him more than any English or French work. He named the author, Johannes Ewald, and quoted a few of the mighty, turbulent verses.

"And I have wondered, while I read," he went on after a pause, still moved by the lines he himself had declaimed, "that we have not till now understood how much our Nordic mythology in moral greatness surpasses that of Greece and Rome. If it had not been for the physical beauty of the ancient gods, which has come down to us in marble, no modern mind could hold them worthy of worship. They were mean, capricious and treacherous. The gods of our Danish forefathers are as much more divine than they as the Druid is nobler than the Augur. For the fair gods of Asgaard did possess the sublime human virtues; they were righteous, trustworthy, benevolent and even, within a barbaric age, chivalrous." His uncle here for the first time appeared to take any real interest in the conversation. He stopped, his majestic nose a little in the air. "Ah, it was easier to them," he said.

"What do you mean, Uncle?" Adam asked. "It was a great deal easier,"

said his uncle, "to the northern gods than to those of Greece to be, as you will have it, righteous and benevolent. To my mind it even reveals a weakness in the souls of our ancient Danes that they should consent to adore such divinities." "My dear Uncle," said Adam, smiling, "I have always felt that you would be familiar with the modes of Olympus. Now please let me share your insight, and tell me why virtue should come easier to our Danish gods than to those of milder climates." "They were not as powerful," said his uncle.

"And does power," Adam again asked, "stand in the way of virtue?" "Nay," said his uncle gravely. "Nay, power is in itself the supreme virtue. But the gods of which you speak were never all-powerful. They had, at all times, by their side those darker powers which they named the Jotuns, and who worked the suffering, the disasters, the ruin of our world. They might safely give themselves up to temperance and kindness. The omnipotent gods," he went on, "have no such facilitation. With their omnipotence they take over the woe of the universe."

They had walked up the avenue till they were in view of the house. The old lord stopped and ran his eyes over it. The stately building was the same as ever; behind the two tall front windows, Adam knew, was now his young aunt's room. His uncle turned and walked back.

"Chivalry," he said, "chivalry, of which you were speaking, is not a virtue of the omnipotent. It must needs imply mighty rival powers for the knight to defy. With a dragon inferior to him in strength, what figure will St. George cut? The knight who finds no superior forces ready to hand must invent them, and combat windmills; his knighthood itself stipulates dangers, vileness, darkness on all sides of him. Nay, believe me, my nephew, in spite of his moral worth, your chivalrous Odin of Asgaard as a Regent must take rank below that of Jove who avowed his sovereignty, and accepted the world which he ruled. But you are young," he added, "and the experience of the aged to you will sound pedantic."

He stood immovable for a moment and then with deep gravity proclaimed: "The sun is up."

The sun did indeed rise above the horizon. The wide landscape was suddenly animated by its splendour, and the dewy grass shone in a thousand gleams.

"I have listened to you, Uncle," said Adam, "with great interest. But while we have talked you yourself have seemed to me preoccupied; your eyes have rested on the field outside the garden, as if something of great moment, a matter of life and death, was going on there. Now that the sun is up, I see the mowers in the rye and hear them whetting their sickles. It

is, I remember you telling me, the first day of the harvest. That is a great day to a landowner and enough to take his mind away from the gods. It is very fine weather, and I wish you a full barn."

The elder man stood still, his hands on his walking-stick. "There is indeed," he said at last, "something going on in that field, a matter of life fe and death. Come, let us sit down here, and I will tell you the whole story." They sat down on the seat that ran all along the pavilion, and while he spoke the old lord of the land did not take his eyes off the rye field.

"A week ago, on Thursday night," he said, "someone set fire to my barn at Rødmosegaard—you know the place, close to the moor—and burned it all down. For two or three days we could not lay hands on the offender. Then on Monday morning the keeper at Rødmose, with the wheelwright over there, came up to the house; they dragged with them a boy, Goske Piil, a widow's son, and they made their Bible oath that he had done it; they had themselves seen him sneaking round the barn by nightfall on Thursday. Goske had no good name on the farm; the keeper bore him a grudge upon an old matter of poaching, and the wheelwright did not like him either, for he did, I believe, suspect him with his young wife. The boy, when I talked to him, swore to his innocence, but he could not hold his own against the two old men. So I had him locked up, and meant to send him in to our judge of the district, with a letter.

"The judge is a fool, and would naturally do nothing but what he thought I wished him to do. He might have the boy sent to the convict prison for arson, or put amongst the soldiers as a bad character and a poacher. Or again, if he thought that that was what I wanted, he could let him off.

"I was out riding in the fields, looking at the corn that was soon ripe to be mowed, when a woman, the widow, Goske's mother, was brought up before me, and begged to speak to me. Anne-Marie is her name. You will remember her; she lives in the small house east of the village. She has not got a good name in the place either. They tell as a girl she had a child and did away with it.

"From five days' weeping her voice was so cracked that it was difficult for me to understand what she said. Her son, she told me at last, had indeed been over at Rødmose on Thursday, but for no ill purpose; he had gone to see someone. He was her only son, she called the Lord God to witness on his innocence, and she wrung her hands to me that I should save the boy for her.

"We were in the rye field that you and I are looking at now. That gave

me an idea. I said to the widow: 'If in one day, between sunrise and sunset, with your own hands you can mow this field, and it be well done, I will let the case drop and you shall keep your son. But if you cannot do it, he must go, and it is not likely that you will then ever see him again.'

"She stood up then and gazed over the field. She kissed my riding boot in gratitude for the favour shown to her."

The old lord here made a pause, and Adam said: "Her son meant much to her?" "He is her only child," said his uncle. "He means to her her daily bread and support in old age. It may be said that she holds him as dear as her own life. As," he added, "within a higher order of life, a son to his father means the name and the race, and he holds him as dear as life everlasting. Yes, her son means much to her. For the mowing of that field is a day's work to three men, or three days' work to one man. Today, as the sun rose, she set to her task. And down there, by the end of the field, you will see her now, in a blue head-cloth, with the man I have set to follow her and to ascertain that she does the work unassisted, and with two or three friends by her, who are comforting her."

Adam looked down, and did indeed see a woman in a blue head-cloth, and a few other figures in the corn.

They sat for a while in silence. "Do you yourself," Adam then said, "believe the boy to be innocent?" "I cannot tell," said his uncle. "There is no proof. The word of the keeper and the wheelwright stand against the boy's word. If indeed I did believe the one thing or the other, it would be merely a matter of chance, or maybe of sympathy. The boy," he said after a moment, "was my son's playmate, the only other child that I ever knew him to like or to get on with." "Do you," Adam again asked, "hold it possible to her to fulfil your condition?" "Nay, I cannot tell," said the old lord. "To an ordinary person it would not be possible. No ordinary person would ever have taken it on at all. I chose it so. We are not quibbling with the law, Anne-Marie and I."

Adam for a few minutes followed the movement of the small group in the rye. "Will you walk back?" he asked. "No," said his uncle, "I think that I shall stay here till I have seen the end of the thing." "Until sunset?" Adam asked with surprise. "Yes," said the old lord. Adam said: "It will be a long day." "Yes," said his uncle, "a long day. But," he added, as Adam rose to walk away, "if, as you said, you have got that tragedy of which you spoke in your pocket, be as kind as to leave it here, to keep me company." Adam handed him the book.

In the avenue he met two footmen who carried the old lord's morning chocolate down to the pavilion on large silver trays.

As now the sun rose in the sky, and the day grew hot, the lime trees gave forth their exuberance of scent, and the garden was filled with unsurpassed, unbelievable sweetness. Toward the still hour of midday the long avenue reverberated like a soundboard with a low, incessant murmur: the humming of a million bees that clung to the pendulous, thronging clusters of blossoms and were drunk with bliss.

In all the short lifetime of Danish summer there is no richer or more luscious moment than that week wherein the lime trees flower. The heavenly scent goes to the head and to the heart; it seems to unite the fields of Denmark with those of Elysium; it contains both hay, honey and holy incense, and is half fairyland and half apothecary's locker. The avenue was changed into a mystic edifice, a dryad's cathedral, outward from summit to base lavishly adorned, set with multitudinous ornaments, and golden in the sun. But behind the walls the vaults were benignly cool and sombre, like ambrosial sanctuaries in a dazzling and burning world, and in here the ground was still moist.

Up in the house, behind the silk curtains of the two front windows, the young mistress of the estate from the wide bed stuck her feet into two little high-heeled slippers. Her lace-trimmed nightgown had slid up above her knee and down from the shoulder; her hair, done up in curling-pins for the night, was still frosty with the powder of yesterday, her round face flushed with sleep. She stepped out to the middle of the floor and stood there, looking extremely grave and thoughtful, yet she did not think at all. But through her head a long procession of pictures marched, and she was unconsciously endeavouring to put them in order, as the pictures of her existence had used to be.

She had grown up at Court; it was her world, and there was probably not in the whole country a small creature more exquisitely and innocently drilled to the stately measure of a palace. By favour of the old Dowager Queen she bore her name and that of the King's sister, the Queen of Sweden: Sophie Magdalena. It was with a view to these things that her husband, when he wished to restore his status in high places, had chosen her as a bride, first for his son and then for himself. But her own father, who held an office in the Royal Household and belonged to the new Court aristocracy, in his day had done the same thing the other way round, and had married a country lady, to get a foothold within the old nobility of Denmark. The little girl had her mother's blood in her veins. The country to her had been an immense surprise and delight.

To get into her castle court she must drive through the farm-yard, through the heavy stone gateway in the barn itself, wherein the rolling of

her coach for a few seconds re-echoed like thunder. She must drive past the stables and the timber-mare, from which sometimes a miscreant would follow her with sad eyes, and might here startle a long string of squalling geese, or pass the heavy, scowling bull, led on by a ring in his nose and kneading the earth in dumb fury. At first this had been to her, every time, a slight shock and a jest. But after a while all these creatures and things, which belonged to her, seemed to become part of herself. Her mothers, the old Danish country ladies, were robust persons, undismayed by any kind of weather; now she herself had walked in the rain and had laughed and glowed in it like a green tree.

She had taken her great new home in possession at a time when all the world was unfolding, mating and propagating. Flowers, which she had known only in bouquets and festoons, sprung from the earth round her; birds sang in all the trees. The new-born lambs seemed to her daintier than her dolls had been. From her husband's Hanoverian stud, foals were brought to her to give names; she stood and watched as they poked their soft noses into their mothers' bellies to drink. Of this strange process she had till now only vaguely heard. She had happened to witness, from a path in the park, the rearing and screeching stallion on the mare. All this luxuriance, lust and fecundity was displayed before her eyes, as for her pleasure.

And for her own part, in the midst of it, she was given an old husband who treated her with punctilious respect because she was to bear him a son. Such was the compact; she had known of it from the beginning. Her husband, she found, was doing his best to fulfil his part of it, and she herself was loyal by nature and strictly brought up. She would not shirk her obligation. Only she was vaguely aware of a discord or an incompatibility within her majestic existence, which prevented her from being as happy as she had expected to be.

After a time her chagrin took a strange form: as the consciousness of an absence. Someone ought to have been with her who was not. She had no experience in analyzing her feelings; there had not been time for that at Court. Now, as she was more often left to herself, she vaguely probed her own mind. She tried to set her father in that void place, her sisters, her music master, an Italian singer whom she had admired; but none of them would fill it for her. At times she felt lighter at heart, and believed the misfortune to have left her. And then again it would happen, if she were alone, or in her husband's company, and even within his embrace, that everything round her would cry out: Where? Where? so that she let

her wild eyes run about the room in search for the being who should have been there, and who had not come.

When, six months ago, she was informed that her first young bridegroom had died and that she was to marry his father in his place, she had not been sorry. Her youthful suitor, the one time she had seen him, had appeared to her infantile and insipid; the father would make a statelier consort. Now she had sometimes thought of the dead boy, and wondered whether with him life would have been more joyful. But she soon again dismissed the picture, and that was the sad youth's last recall to the stage of this world.

Upon one wall of her room there hung a long mirror. As she gazed into it new images came along. The day before, driving with her husband, she had seen, at a distance, a party of village girls bathe in the river, and the sun shining on them. All her life she had moved amongst naked marble deities, but it had till now never occurred to her that the people she knew should themselves be naked under their bodices and trains, waistcoats and satin breeches, that indeed she herself felt naked within her clothes. Now, in front of the looking-glass, she tardily untied the ribbons of her nightgown, and let it drop to the floor.

The room was dim behind the drawn curtains. In the mirror her body was silvery like a white rose; only her cheeks and mouth, and the tips of her fingers and breasts had a faint carmine. Her slender torso was formed by the whalebones that had clasped it tightly from her childhood; above the slim, dimpled knee a gentle narrowness marked the place of the garter. Her limbs were rounded as if, at whatever place they might be cut through with a sharp knife, a perfectly circular transverse incision would be obtained. The side and belly were so smooth that her own gaze slipped and glided, and grasped for a hold. She was not altogether like a statue, she found, and lifted her arms above her head. She turned to get a view of her back, the curves below the waistline were still blushing from the pressure of the bed. She called to mind a few tales about nymphs and goddesses, but they all seemed a long way off, so her mind returned to the peasant girls in the river. They were, for a few minutes, idealized into playmates, or sisters even, since they belonged to her as did the meadow and the blue river itself. And within the next moment the sense of forlornness once more came upon her, a *horror vaccui* like a physical pain. Surely, surely someone should have been with her now, her other self, like the image in the glass, but nearer, stronger, alive. There was no one, the universe was empty round her.

A sudden, keen itching under her knee took her out of her reveries, and awoke in her the hunting instincts of her breed. She wetted a finger on her tongue, slowly brought it down and quickly slapped it to the spot. She felt the diminutive, sharp body of the insect against the silky skin, pressed the thumb to it, and triumphantly lifted up the small prisoner between her fingertips. She stood quite still, as if meditating upon the fact that a flea was the only creature risking its life for her smoothness and sweet blood.

Her maid opened the door and came in, loaded with the attire of the day—shift, stays, hoop and petticoats. She remembered that she had a guest in the house, the new nephew arrived from England. Her husband had instructed her to be kind to their young kinsman, disinherited, so to say, by her presence in the house. They would ride out on the land together.

In the afternoon the sky was no longer blue as in the morning. Large clouds slowly towered up on it, and the great vault itself was colourless, as if diffused into vapours round the white-hot sun in zenith. A low thunder ran along the western horizon; once or twice the dust of the roads rose in tall spirals. But the fields, the hills and the woods were as still as a painted landscape.

Adam walked down the avenue to the pavilion, and found his uncle there, fully dressed, his hands upon his walking-stick and his eyes on the rye field. The book that Adam had given him lay by his side. The field now seemed alive with people. Small groups stood here and there in it, and a long row of men and women were slowly advancing towards the garden in the line of the swath.

The old lord nodded to his nephew, but did not speak or change his position. Adam stood by him as still as himself.

The day to him had been strangely disquieting. At the meeting again with old places the sweet melodies of the past had filled his senses and his mind, and had mingled with new, bewitching tunes of the present. He was back in Denmark, no longer a child but a youth, with a keener sense of the beautiful, with tales of other countries to tell, and still a true son of his own land and enchanted by its loveliness as he had never been before.

But through all these harmonies the tragic and cruel tale which the old lord had told him in the morning, and the sad contest which he knew to be going on so near by, the cornfield, had re-echoed, like the recurrent, hollow throbbing of a muffled drum, a redoubtable sound. It came back time after time, so that he had felt himself to change colour

and to answer absently. It brought with it a deeper sense of pity with all that lived than he had ever known. When he had been riding with his young aunt, and their road ran along the scene of the drama, he had taken care to ride between her and the field, so that she should not see what was going on there, or question him about it. He had chosen the way home through the deep, green wood for the same reason.

More dominantly even than the figure of the woman struggling with her sickle for her son's life, the old man's figure, as he had seen it at sunrise, kept him company through the day. He came to ponder on the part which that lonely, determinate form had played in his own life. From the time when his father died, it had impersonated to the boy law and order, wisdom of life and kind guardianship. What was he to do, he thought, if after eighteen years these filial feelings must change, and his second father's figure take on to him a horrible aspect, as a symbol of the tyranny and oppression of the world? What was he to do if ever the two should come to stand in opposition to each other as adversaries?

At the same time an unaccountable, a sinister alarm and dread on behalf of the old man himself took hold of him. For surely here the Goddess Nemesis could not be far away. This man had ruled the world round him for a longer period than Adam's own lifetime and had never been gainsaid by anyone. During the years when he had wandered through Europe with a sick boy of his own blood as his sole companion he had learned to set himself apart from his surroundings, and to close himself up to all outer life, and he had become insusceptible to the ideas and feelings of other human beings. Strange fancies might there have run in his mind, so that in the end he had seen himself as the only person really existing, and the world as a poor and vain shadow-play, which had no substance to it.

Now, in senile wilfulness, he would take in his hand the life of those simpler and weaker than himself, of a woman, using it to his own ends, and he feared of no retributive justice. Did he not know, the young man thought, that there were powers in the world, different from and more formidable than the short-lived might of a despot?

With the sultry heat of the day this foreboding of impending disaster grew upon him, until he felt ruin threatening not the old lord only, but the house, the name and himself with him. It seemed to him that he must cry out a warning to the man he had loved, before it was too late.

But as now he was once more in his uncle's company, the green calm of the garden was so deep that he did not find his voice to cry out. Instead a little French air which his aunt had sung to him up in the house kept

running in his mind–"*C'est un trop doux effort* . . ." He had good knowledge of music; he had heard the air before, in Paris, but not so sweetly sung.

After a time he asked: "Will the woman fulfil her bargain?" His uncle unfolded his hands. "It is an extraordinary thing," he said animatedly, "that it looks as if she might fulfil it. If you count the hours from sunrise till now, and from now till sunset, you will find the time left her to be half of that already gone. And see! She has now mowed two-thirds of the field. But then we will naturally have to reckon with her strength declining as she works on. All in all, it is an idle pursuit in you or me to bet on the issue of the matter; we must wait and see. Sit down, and keep me company in my watch." In two minds Adam sat down.

"And here," said his uncle, and took up the book from the seat, "is your book, which has passed the time finely. It is great poetry, ambrosia to the ear and the heart And it has, with our discourse on divinity this morning, given me stuff for thought. I have been reflecting upon the law of retributive justice." He took a pinch of snuff, and went on. "A new age," he said, "has made to itself a god in its own image, an emotional god. And now you are already writing a tragedy on your god."

Adam had no wish to begin a debate on poetry with his uncle, but he also somehow dreaded a silence, and said: "It may be, then, that we hold tragedy to be, in the scheme of life, a noble, a divine phenomenon."

"Aye," said his uncle solemnly, "a noble phenomenon, the noblest on earth. But of the earth only, and never divine. Tragedy is the privilege of man, his highest privilege. The God of the Christian Church Himself, when He wished to experience tragedy, had to assume human form. And even at that," he added thoughtfully, "the tragedy was not wholly valid, as it would have become had the hero of it been, in very truth, a man. The divinity of Christ conveyed to it a divine note, the moment of comedy. The real tragic part, by the nature of things, fell to the executors, not to the victim. Nay, my nephew, we should not adulterate the pure elements of the cosmos. Tragedy should remain the right of human beings, subject, in their conditions or in their own nature, to the dire law of necessity. To them it is salvation and beatification. But the gods, whom we must believe to be unacquainted with and incomprehensive of necessity, can have no knowledge of the tragic. When they are brought face to face with it they will, according to my experience, have the good taste and decorum to keep still, and not interfere.

"No," he said after a pause, "the true art of the gods is the comic. The comic is a condescension of the divine to the world of man; it is the

sublime vision, which cannot be studied, but must ever be celestially granted. In the comic the gods see their own being reflected as in a mirror, and while the tragic poet is bound by strict laws, they will allow the comic artist a freedom as unlimited as their own. They do not even withhold their own existence from his sports. Jove may favour Lucianos of Samosata. As long as your mockery is in true godly taste you may mock at the gods and still remain a sound devotee. But in pitying, or condoling with your god, you deny and annihilate him, and such is the most horrible of atheisms.

"And here on earth, too," he went on, "we, who stand in lieu of the gods and have emancipated ourselves from the tyranny of necessity, should leave to our vassals their monopoly of tragedy, and for ourselves accept the comic with grace. Only a boorish and cruel master—a parvenu, in fact—will make a jest of his servants' necessity, or force the comic upon them. Only a timid and pedantic ruler, a *petit-maître,* will fear the ludicrous on his own behalf. Indeed," he finished his long speech, "the very same fatality, which, in striking the burgher or peasant, will become tragedy, with the aristocrat is exalted to the comic. By the grace and wit of our acceptance hereof our aristocracy is known."

Adam could not help smiling a little as he heard the apotheosis of the comic on the lips of the erect, ceremonious prophet. In this ironic smile he was, for the first time, estranging himself from the head of his house.

A shadow fell across the landscape. A cloud had crept over the sun; the country changed colour beneath it, faded and bleached, and even all sounds for a minute seemed to die out of it.

"Ah, now," said the old lord, "if it is going to rain, and the rye gets wet, Anne-Marie will not be able to finish in time. And who comes there?" he added, and turned his head a little.

Preceded by a lackey a man in riding-boots and a striped waistcoat with silver buttons, and with his hat in his hand, came down the avenue. He bowed deeply, first to the old lord and then to Adam.

"My bailiff," said the old lord. "Good afternoon, Bailiff. What news have you to bring?" The bailiff made a sad gesture. "Poor news only, my lord," he said. "And how poor news?" asked his master. "There is," said the bailiff with weight, "not a soul at work on the land, and not a sickle going except that of Anne-Marie in this rye field. The mowing has stopped; they are all at her heels. It is a poor day for a first day of the harvest." "Yes, I see," said the old lord. The bailiff went on. "I have spoken kindly to them," he said, "and I have sworn at them; it is all one. They might as well all be deaf."

"Good Bailiff," said the old lord, "leave them in peace; let them do as they like. This day may, all the same, do them more good than many others. Where is Goske, the boy, Anne-Marie's son?" "We have set him in the small room by the barn," said the bailiff. "Nay, let him be brought down," said the old lord; "let him see his mother at work. But what do you say—will she get the field mowed in time?" "If you ask me, my lord," said the bailiff, "I believe that she will. Who would have thought so? She is only a small woman. It is as hot a day today as, well, as I do ever remember. I myself, you yourself, my lord, could not have done what Anne-Marie has done today." "Nay, nay, we could not, Bailiff," said the old lord.

The bailiff pulled out a red handkerchief and wiped his brow, somewhat calmed by venting his wrath. "If," he remarked with bitterness, "they would all work as the widow works now, we would make a profit on the land." "Yes," said the old lord, and fell into thought, as if calculating the profit it might make. "Still," he said, "as to the question of profit and loss, that is more intricate than it looks. I will tell you something that you may not know: The most famous tissue ever woven was ravelled out again every night. But come," he added, "she is close by now. We will go and have a look at her work ourselves." With these words he rose and set his hat on.

The cloud had drawn away again; the rays of the sun once more burned the wide landscape, and as the small party walked out from under the shade of the trees the dead-still heat was heavy as lead; the sweat sprang out on their faces and their eyelids smarted. On the narrow path they had to go one by one, the old lord stepping along first, all black, and the footman, in his bright livery, bringing up the rear.

The field was indeed filled with people like a market-place; there were probably a hundred or more men and women in it. To Adam the scene recalled pictures from his Bible: the meeting between Esau and Jacob in Edom, or Boaz's reapers in his barley field near Bethlehem. Some were standing by the side of the field, others pressed in small groups close to the mowing woman, and a few followed in her wake, binding up sheaves where she had cut the corn, as if thereby they thought to help her, or as if by all means they meant to have part in her work. A younger woman with a pail on her head kept close to her side, and with her a number of half-grown children. One of these first caught sight of the lord of the estate and his suite, and pointed to him. The binders let their sheaves drop, and as the old man stood still many of the onlookers drew close round him.

The woman on whom till now the eyes of the whole field had rested—a small figure on the large stage—was advancing slowly and unevenly,

bent double as if she were walking on her knees, and stumbling as she walked. Her blue head-cloth had slipped back from her head; the grey hair was plastered to the skull with sweat, dusty and stuck with straw. She was obviously totally unaware of the multitude round her; neither did she now once turn her head or her gaze towards the new arrivals.

Absorbed in her work she again and again stretched out her left hand to grasp a handful of corn, and her right hand with the sickle in it to cut it off close to the soil, in wavering, groping pulls, like a tired swimmer's strokes. Her course took her so close to the feet of the old lord that his shadow fell on her. Just then she staggered and swayed sideways, and the woman who followed her lifted the pail from her head and held it to her lips. Anne-Marie drank without leaving her hold on her sickle, and the water ran from the corners of her mouth. A boy, close to her, quickly bent one knee, seized her hands in his own and, steadying and guiding them, cut off a gripe of rye. "No, no," said the old lord, "you must not do that, boy. Leave Anne-Marie in peace to her work." At the sound of his voice the woman, falteringly, lifted her face in his direction.

The bony and tanned face was streaked with sweat and dust; the eyes were dimmed. But there was not in its expression the slightest trace of fear or pain. Indeed amongst all the grave and concerned faces of the field hers was the only one perfectly calm, peaceful and mild. The mouth was drawn together in a thin line, a prim, keen, patient little smile, such as will be seen in the face of an old woman at her spinning-wheel or her knitting, eager on her work, and happy in it. And as the younger woman lifted back the pail, she immediately again fell to her mowing, with an ardent, tender craving, like that of a mother who lays a baby to the nipple. Like an insect that bustles along in high grass, or like a small vessel in a heavy sea, she butted her way on, her quiet face once more bent upon her task.

The whole throng of onlookers, and with them the small group from the pavilion, advanced as she advanced, slowly and as if drawn by a string. The bailiff, who felt the intense silence of the field heavy on him, said to the old lord: "The rye will yield better this year than last," and got no reply. He repeated his remark to Adam, and at last to the footman, who felt himself above a discussion on agriculture, and only cleared his throat in answer. In a while the bailiff again broke the silence. "There is the boy," he said and pointed with his thumb. "They have brought him down." At that moment the woman fell forward on her face and was lifted up by those nearest to her.

Adam suddenly stopped on the path, and covered his eyes with his

hand. The old lord without turning asked him if he felt incommoded by the heat. "No," said Adam, "but stay. Let me speak to you." His uncle stopped, with his hand on the stick and looking ahead, as if regretful of being held back.

"In the name of God," cried the young man in French, "force not this woman to continue." There was a short pause. "But I force her not, my friend," said his uncle in the same language. "She is free to finish at any moment." "At the cost of her child only," again cried Adam. "Do you not see that she is dying? You know not what you are doing, or what it may bring upon you."

The old lord, perplexed by this unexpected animadversion, after a second turned all round, and his pale, clear eyes sought his nephew's face with stately surprise. His long, waxen face, with two symmetrical curls at the sides, had something of the mien of an idealized and ennobled old sheep or ram. He made sign to the bailiff to go on. The footman also withdrew a little, and the uncle and nephew were, so to say, alone on the path. For a minute neither of them spoke.

"In this very place where we now stand," said the old lord, then, with hauteur, "I gave Anne-Marie my word."

"My uncle!" said Adam. "A life is a greater thing even than a word. Recall that word, I beseech you, which was given in caprice, as a whim. I am praying you more for your sake than for my own, yet I shall be grateful to you all my life if you will grant me my prayer."

"You will have learned in school," said his uncle, "that in the beginning was the word. It may have been pronounced in caprice, as a whim, the Scripture tells us nothing about it. It is still the principle of our world, its law of gravitation. My own humble word has been the principle of the land on which we stand, for an age of man. My father's word was the same, before my day."

"You are mistaken," cried Adam. "The word is creative–it is imagination, daring and passion. By it the world was made. How much greater are these powers which bring into being than any restricting or controlling law! You wish the land on which we look to produce and propagate; you should not banish from it the forces which cause, and which keep up life, nor turn it into a desert by dominance of law. And when you look at the people, simpler than we and nearer to the heart of nature, who do not analyze their feelings, whose life is one with the life of the earth, do they not inspire in you tenderness, respect, reverence even? This woman is ready to die for her son; will it ever happen to you or me that a woman willingly gives up her life for us? And if it did indeed come to

pass, should we make so light of it as not to give up a dogma in return?"

"You are young," said the old lord. "A new age will undoubtedly applaud you. I am old-fashioned, I have been quoting to you texts a thousand years old. We do not, perhaps, quite understand one another. But with my own people I am, I believe, in good understanding. Anne-Marie might well feel that I am making light of her exploit, if now, at the eleventh hour, I did nullify it by a second word. I myself should feel so in her place. Yes, my nephew, it is possible, did I grant you your prayer and pronounce such an amnesty, that I should find it void against her faithfulness, and that we would still see her at her work, unable to give it up, as a shuttle in the rye field, until she had it all mowed. But she would then be a shocking, a horrible sight, a figure of unseemly fun, like a small planet running wild in the sky, when the law of gravitation had been done away with."

"And if she dies at her task," Adam exclaimed, "her death, and its consequences will come upon your head."

The old lord took off his hat and gently ran his hand over his powdered head. "Upon my head?" he said. "I have kept up my head in many weathers. Even," he added proudly, "against the cold wind from high places. In what shape will it come upon my head, my nephew?" "I cannot tell," cried Adam in despair. "I have spoken to warn you. God only knows." "Amen," said the old lord with a little delicate smile. "Come, we will walk on." Adam drew in his breath deeply.

"No," he said in Danish. "I cannot come with you. This field is yours; things will happen here as you decide. But I myself must go away. I beg you to let me have, this evening, a coach as far as town. For I could not sleep another night under your roof, which I have honoured beyond any on earth." So many conflicting feelings at his own speech thronged in his breast that it would have been impossible for him to give them words.

The old lord, who had already begun to walk on, stood still, and with him the lackey. He did not speak for a minute, as if to give Adam time to collect his mind. But the young man's mind was in uproar and would not be collected.

"Must we," the old man asked, in Danish, "take leave here, in the rye field? I have held you dear, next to my own son. I have followed your career in life from year to year, and have been proud of you. I was happy when you wrote to say that you were coming back. If now you will go away, I wish you well." He shifted his walking-stick from the right hand to the left and gravely looked his nephew in the face.

Adam did not meet his eyes. He was gazing out over the landscape.

In the late mellow afternoon it was resuming its colours, like a painting brought into proper light; in the meadows the little black stacks of peat stood gravely distinct upon the green sward. On this same morning he had greeted it all, like a child running laughingly to its mother's bosom; now already he must tear himself from it, in discordance, and forever. And at the moment of parting it seemed infinitely dearer than any time before, so much beautified and solemnized by the coming separation that it looked like the place in a dream, a landscape out of paradise, and he wondered if it was really the same. But, yes—there before him was, once more, the hunting-ground of long ago. And there was the road on which he had ridden today.

"But tell me where you mean to go from here," said the old lord slowly. "I myself have travelled a good deal in my days. I know the word of leaving, the wish to go away. But I have learned by experience that, in reality, the word has a meaning only to the place and the people which one leaves. When you have left my house—although it will see you go with sadness—as far as it is concerned the matter is finished and done with. But to the person who goes away it is a different thing, and not so simple. At the moment that he leaves one place he will be already, by the laws of life, on his way to another, upon this earth. Let me know, then, for the sake of our old acquaintance, to which place you are going when you leave here. To England?"

"No," said Adam. He felt in his heart that he could never again go back to England or to his easy and carefree life there. It was not far enough away; deeper waters than the North Sea must now be laid between him and Denmark. "No, not to England," he said. "I shall go to America, to the new world." For a moment he shut his eyes, trying to form to himself a picture of existence in America, with the grey Atlantic Ocean between him and these fields and woods.

"To America?" said his uncle and drew up his eyebrows. "Yes, I have heard of America. They have got freedom there, a big waterfall, savage red men. They shoot turkeys, I have read, as we shoot partridges. Well, if it be your wish, go to America, Adam, and be happy in the new world."

He stood for some time, sunk in thought, as if he had already sent off the young man to America, and had done with him. When at last he spoke, his words had the character of a monologue, enunciated by the person who watches things come and go, and himself stays on.

"Take service, there," he said, "with the power which will give you an easier bargain than this: That with your own life you may buy the life of your son."

Adam had not listened to his uncle's remarks about America, but the conclusive, solemn words caught his ear. He looked up. As if for the first time in his life, he saw the old man's figure as a whole, and conceived how small it was, so much smaller than himself, pale, a thin black anchorite upon his own land. A thought ran through his head: "How terrible to be old!" The abhorrence of the tyrant, and the sinister dread on his behalf, which had followed him all day, seemed to die out of him, and his pity with all creation to extend even to the sombre form before him.

His whole being had cried out for harmony. Now, with the possibility of forgiving, of a reconciliation, a sense of relief went through him; confusedly he bethought himself of Anne-Marie drinking the water held to her lips. He took off his hat, as his uncle had done a moment ago, so that to a beholder at a distance it would seem that the two dark-clad gentlemen on the path were repeatedly and respectfully saluting one another, and brushed the hair from his forehead. Once more the tune of the garden-room rang in his mind:

"Mourir pour ce qu'on aime
C'est un trop doux effort . . ."

[To die for what one loves,
This is too sweet an effort . . .]

He stood for a long time immobile and dumb. He broke off a few ears of rye, kept them in his hand and looked at them.

He saw the ways of life, he thought, as a twined and tangled design, complicated and mazy; it was not given him or any mortal to command or control it. Life and death, happiness and woe, the past and the present, were interlaced within the pattern. Yet to the initiated it might be read as easily as our ciphers—which to the savage must seem confused and incomprehensible—will be read by the schoolboy. And out of the contrasting elements concord rose. All that lived must suffer; the old man, whom he had judged hardly, had suffered, as he had watched his son die, and had dreaded the obliteration of his being. He himself would come to know ache, tears and remorse, and, even through these, the fullness of life. So might now, to the woman in the rye field, her ordeal be a triumphant procession. For to die for the one you loved was an effort too sweet for words.

As now he thought of it, he knew that all his life he had sought the unity of things, the secret which connects the phenomena of existence. It was this strife, this dim presage, which had sometimes made him stand

still and inert in the midst of the games of his playfellows, or which had, at other moments–on moonlight nights, or in his little boat on the sea–lifted the boy to ecstatic happiness. Where other young people, in their pleasures or their amours, had searched for contrast and variety, he himself had yearned only to comprehend in full the oneness of the world. If things had come differently to him, if his young cousin had not died, and the events that followed his death had not brought him to Denmark, his search for understanding and harmony might have taken him to America, and he might have found them there, in the virgin forests of a new world. Now they have been disclosed to him today, in the place where he had played as a child. As the song is one with the voice that sings it, as the road is one with the goal, as lovers are made one in their embrace, so is man one with his destiny, and he shall love it as himself.

He looked up again, towards the horizon. If he wished to, he felt, he might find out what it was that had brought to him, here, the sudden conception of the unity of the universe. When this same morning he had philosophized, lightly and for his own sake, on his feeling of belonging to this land and soil, it had been the beginning of it. But since then it had grown; it had become a mightier thing, a revelation to his soul. Some time he would look into it, for the law of cause and effect was a wonderful and fascinating study. But not now. This hour was consecrated to greater emotions, to a surrender to fate and to the will of life.

"No," he said at last. "If you wish it I shall not go. I shall stay here."

At that moment a long, loud roll of thunder broke the stillness of the afternoon. It re-echoed for a while amongst the low hills, and it reverberated within the young man's breast as powerfully as if he had been seized and shaken by hands. The landscape had spoken. He remembered that twelve hours ago he had put a question to it, half in jest, and not knowing what he did. Here it gave him its answer.

What it contained he did not know; neither did he inquire. In his promise to his uncle he had given himself over to the mightier powers of the world. Now what must come must come.

"I thank you," said the old lord, and made a little stiff gesture with his hand. "I am happy to hear you say so. We should not let the difference in our ages, or of our views, separate us. In our family we have been wont to keep peace and faith with one another. You have made my heart lighter."

Something within his uncle's speech faintly recalled to Adam the misgivings of the afternoon. He rejected them; he would not let them trouble the new, sweet felicity which his resolution to stay had brought him.

"I shall go on now," said the old lord. "But there is no need for you to follow me. I will tell you tomorrow how the matter has ended." "No," said Adam, "I shall come back by sunset, to see the end of it myself."

All the same he did not come back. He kept the hour in his mind, and all through the evening the consciousness of the drama, and the profound concern and compassion with which, in his thoughts, he followed it, gave to his speech, glance and movements a grave and pathetic substance. But he felt that he was, in the rooms of the manor, and even by the harpsichord on which he accompanied his aunt to her air from *Alceste,* as much in the centre of things as if he had stood in the rye field itself, and as near to those human beings whose fate was now decided there. Anne-Marie and he were both in the hands of destiny, and destiny would, by different ways, bring each to the designated end.

Later on he remembered what he had thought that evening.

But the old lord stayed on. Late in the afternoon he even had an idea; he called down his valet to the pavilion and made him shift his clothes on him and dress him up in a brocaded suit that he had worn at Court. He let a lace-trimmed shirt be drawn over his head and stuck out his slim legs to have them put into thin silk stockings and buckled shoes. In this majestic attire he dined alone, of a frugal meal, but took a bottle of Rhenish wine with it, to keep up his strength. He sat on for a while, a little sunk in his seat; then, as the sun neared the earth, he straightened himself, and took the way down to the field.

The shadows were now lengthening, azure blue along all the eastern slopes. The lonely trees in the corn marked their site by narrow blue pools running out from their feet, and as the old man walked a thin, immensely elongated reflection stirred behind him on the path. Once he stood still; he thought he heard a lark singing over his head, a spring-like sound; his tired head held no clear perception of the season; he seemed to be walking, and standing, in a kind of eternity.

The people in the field were no longer silent, as they had been in the afternoon. Many of them talked loudly among themselves, and a little farther away a woman was weeping.

When the bailiff saw his master, he came up to him. He told him, in great agitation, that the widow would, in all likelihood, finish the mowing of the field within a quarter of an hour.

"Are the keeper and the wheelwright here?" the old lord asked him. "They have been here," said the bailiff, "and have gone away, five times. Each time they have said that they would not come back. But they have come back again, all the same, and they are here now." "And where is

the boy?" the old lord asked again. "He is with her," said the bailiff. "I have given him leave to follow her. He has walked close to his mother all the afternoon, and you will see him now by her side, down there."

Anne-Marie was now working her way up towards them more evenly than before, but with extreme slowness, as if at any moment she might come to a standstill. This excessive tardiness, the old lord reflected, if it had been purposely performed, would have been an inimitable, dignified exhibition of skilled art; one might fancy the Emperor of China advancing in like manner on a divine procession or rite. He shaded his eyes with his hand, for the sun was now just beyond the horizon, and its last rays made light, wild, many-coloured specks dance before his sight. With such splendour did the sunset emblazon the earth and the air that the landscape was turned into a melting-pot of glorious metals. The meadows and the grasslands became pure gold; the barley field near by, with its long ears, was a live lake of shining silver.

There was only a small patch of straw standing in the rye field, when the woman, alarmed by the change in the light, turned her head a little to get a look at the sun. The while she did not stop her work, but grasped one handful of corn and cut it off, then another, and another. A great stir, and a sound like a manifold, deep sigh, ran through the crowd. The field was now mowed from one end to the other. Only the mower herself did not realize the fact; she stretched out her hand anew, and when she found nothing in it, she seemed puzzled or disappointed. Then she let her arms drop, and slowly sank to her knees.

Many of the women burst out weeping, and the swarm drew close round her, leaving only a small open space at the side where the old lord stood. Their sudden nearness frightened Anne-Marie; she made a slight, uneasy movement, as if terrified that they should put their hands on her.

The boy, who had kept by her all day, now fell on his knees beside her. Even he dared not touch her, but held one arm low behind her back and the other before her, level with her collar-bone, to catch hold of her if she should fall, and all the time he cried aloud. At that moment the sun went down.

The old lord stepped forward and solemnly took off his hat. The crowd became silent, waiting for him to speak. But for a minute or two he said nothing. Then he addressed her, very slowly.

"Your son is free, Anne-Marie," he said. He again waited a little, and added: "You have done a good day's work, which will long be remembered."

Anne-Marie raised her gaze only as high as his knees, and he under-

stood that she had not heard what he said. He turned to the boy. "You tell your mother, Goske," he said, gently, "what I have told her."

The boy had been sobbing wildly, in raucous, broken moans. It took him some time to collect and control himself. But when at last he spoke, straight into his mother's face, his voice was low, a little impatient, as if he were conveying an everyday message to her. "I am free, Mother," he said. "You have done a good day's work that will long be remembered."

At the sound of his voice she lifted her face to him. A faint, bland shadow of surprise ran over it, but still she gave no sign of having heard what he said, so that the people round them began to wonder if the exhaustion had turned her deaf. But after a moment she slowly and waveringly raised her hand, fumbling in the air as she aimed at his face, and with her fingers touched his cheek. The cheek was wet with tears, so that at the contact her fingertips lightly stuck to it, and she seemed unable to overcome the infinitely slight resistance, or withdraw her hand. For a minute the two looked each other in the face. Then, softly and lingeringly, like a sheaf of corn that falls to the ground, she sank forward onto the boy's shoulder, and he closed his arms round her.

He held her thus, pressed against him, his own face buried in her hair and head-cloth, for such a long time that those nearest to them, frightened because her body looked so small in his embrace, drew closer, bent down and loosened his grip. The boy let them do so without a word or a movement. But the woman who held Anne-Marie, in her arms to lift her up, turned her face to the old lord. "She is dead," she said.

The people who had followed Anne-Marie all through the day kept standing and stirring in the field for many hours, as long as the evening light lasted, and longer. Long after some of them had made a stretcher from branches of the trees and had carried away the dead woman, others wandered on, up and down the stubble, imitating and measuring her course from one end of the rye field to the other, and binding up the last sheaves, where she had finished her mowing.

The old lord stayed with them for a long time, stepping along a little, and again standing still.

In the place where the woman had died the old lord later on had a stone set up, with a sickle engraved in it. The peasants on the land then named the rye field "Sorrow-Acre." By this name it was known a long time after the story of the woman and her son had itself been forgotten.

Leo Tolstoy

1828–1910

Count Leo Tolstoy was born into a family of landed gentry at Yasnaya Polyana, Tula, Russia, on August 28, 1828 (Old Style). Both parents died when he was a child. In 1844 he entered Kazan University, but showed more taste for society than for the academic. By 1850 he was living the life of a young man about town in Moscow. He enlisted in the artillery and did garrison duty among the Cossacks. In 1852 his first published work, *Childhood,* appeared in a magazine. Commissioned in 1854, he saw action against the Turks and served through the siege of Sevastopol.

He was afterward posted to St. Petersburg. He frequented society and made two visits to Western Europe. *The Cossacks,* begun in 1854, was not published until 1862. Meantime he produced *Two Hussars, Lucerne, Boyhood, Youth,* and other works. In 1857 he resigned from the army and five years later married Sophie Behrs. They spent a large part of each year at Yasnaya Polyana, where Tolstoy became an efficient manager of his estates and began work on his masterpiece, *War and Peace*.[1]

In 1869, after several years of work, the final installment was published. Four years later he embarked on *Anna Karenina,* his second great work. Distracted by other projects, he did not finish the book

[1] *Great Books of the Western World.*

Notes from the artist: "Tolstoy in the peasant garb he adopted in his later years after his conversion and renunciation of his worldly belongings. . . . The quotation is from his aesthetic credo, What Is Art.*"*

Art is not a handicraft. It is the transmission of feeling the artist has experienced.
Толстой

until 1877. Before it was ended he had undergone a religious conversion, set off by his famous experience at Arzamas, the hallucination of sudden death. He wrote an account of these experiences later in *A Confession* and *Notes of a Madman.*

This change of heart was accompanied by a change in his way of life and in his view of literature. He stated this view in *What Is Art?* and it is reflected in *Resurrection,* perhaps the least effective of his novels. But it must also have been applied to such masterly later fiction as *The Death of Ivan Ilyitch* (see below), *Master and Man, Hadji Murad,* and *The Kreutzer Sonata.*

Tolstoy had nine children. With the exception of works written after 1880, he gave his wife power of attorney over all his property and lived like a peasant guest in his own household. He became a vegetarian, did manual labor, and devoted himself to social and ethical teaching. Like his friend Gandhi and Thoreau he preached the doctrine of nonviolence. He is regarded as one of the two or three greatest novelists in literature. His ethical views made him a world figure. He died in a railway station at Astapovo on November 7, (O. S. 20) 1910.

In reading Tolstoy's later works, we need to distinguish between those that seem to be addressed to the same world audience as *War and Peace* and what he called his Popular Stories. The latter are no less serious, but they are much more plainly written. They make a simple religious point. They were meant to be read by the peasants and poor people in general. We may define the difference in another way by saying that the stories of the first kind were usually *about* people of the middle and upper classes, whereas the popular stories were *about* poor people and embodied their viewpoint. In Tolstoy's Russia, as he knew very well, these were all but separate cultures.

The Death of Ivan Ilyitch belongs in the first class. No word but *genius* will do for it. Perhaps nothing else in literature speaks so directly to the final point of human life: that every man must die, and that every man must face his own dying and somehow make peace with it. Certain men, soldiers and others in dangerous trades, may face it many times in their lives. But to Ivan Ilyitch, who has lived with serene equanimity on the level of the acceptable and conventional, it comes only once, for the first and last time.

It comes as pure horror. Beginning as an ordinary household accident, it is dismissed and returns, variously diagnosed by various physicians. It strikes down through layer after layer of Ivan Ilyitch's consciousness, in three ways: (1) as an increasing bodily pain and disintegration; (2) as a withdrawal from and slight disturbance of his bourgeois family and professional circle; (3) as a rising terror of death, which turns into something else.

This "something else" is what Tolstoy is chiefly concerned with. In the end, it absorbs every other element in the story and transforms it. We begin with the formal announcement of Ivan Ilyitch's death and the conventional reaction of his colleagues. When we have read the story, we will see that this is its final irony. In effect, nothing has happened. The waters of Ivan Ilyitch's world have closed over him without a ripple. But *we* know that it is not true. We have taken part in his dying. We have seen that, like Marcher in Henry James's *The Beast in the Jungle,* he discovers, too late, that he has never truly lived. But in the last two hours left to him, he falls through into "light." What is this light? The end of his terror? Understanding? Love? The knowledge of God? In the perfect rightness of his art, Tolstoy does not tell us.

Both *What Men Live By* and *The Three Hermits* belong among his Popular Stories. In his old age Tolstoy was asked which of his works he considered the best. He mentioned, not *War and Peace,* but *What Men Live By* and one other devotional story. We are troubled at first by the events in *What Men Live By*. How can this be a just God, this God who punishes his servant Mikhaïla for showing Christian compassion to a mother and her newborn children? We read it again, and though we may not agree, we understand that this is part of the lesson Tolstoy wishes us to learn. And how can we help but be enchanted by the simple men of God in *The Three Hermits*? These are true parables transfigured into art.

The Death of Ivan Ilyitch

In the great building of the law courts, while the proceedings in the Mielvinsky suit were at a standstill, the members of the board and the prokuror met in Ivan Yegorovitch Shebek's private room, and the conversation turned on the famous Krasovsky suit. Feodor Vasilyevitch talked himself into a passion in pointing out the men's innocence; Ivan Yegorovitch maintained his side; but Piotr Ivanovitch, who had not entered into the discussion at first, took no part in it even now, and was glancing over the *Vyedomosti,* which had just been handed to him.

"Gentlemen!" said he, "Ivan Ilyitch is dead!"

"Is it possible?"

"Here! read for yourself," said he to Feodor Vasilyevitch, handing him the paper, which had still retained its odor of freshness.

Heavy black lines enclosed these printed words:

> Praskovia Feodorovna Golovina, with heartfelt sorrow, announces to relatives and friends the death of her beloved husband, Ivan Ilyitch Golovin, member of the Court of Appeal, who departed this life on the 16th February, 1882. The funeral will take place on Friday, at one o'clock in the afternoon.

Ivan Ilyitch had been the colleague of the gentlemen there assembled, and all liked him. He had been ill for several weeks, and it was said that his case was incurable. His place was kept vacant for him; but it had been decided that, in case of his death, Alekseyef might be assigned to his place, while either Vinnikof or Schtabel would take Alekseyef's place. And so, on hearing of Ivan Ilyitch's death, the first thought of each of the gentlemen gathered in that room was in regard to the changes and promotions which this death might bring about among the members of the council and their acquaintances.

"Now, surely, I shall get either Schtabel's or Vinnikof's place," was Feodor Vasilyevitch's thought. "It has been promised me for a long time; and this promotion will mean an increase in my salary of eight hundred rubles, besides allowances."

"I must propose right away to have my brother-in-law transferred from Kaluga," thought Piotr Ivanovitch. "My wife will be very glad. Then it will be impossible for her to say that I have never done anything for her relations."

"I have been thinking that he wouldn't get up again," said Piotr Ivanovitch aloud. "It is too bad."

"But what was really the matter with him?"

"The doctors could not determine. That is to say, they determined it, but each in his own way. When I saw him the last time, it seemed to me that he was getting better."

"But I haven't been to see him since the Christmas holidays. I kept meaning to go."

"Did he have any property?"

"His wife had a very little, I think. But a mere pittance."

"Well, we must go to see her. They live a frightful distance off."

"That is, from you. Everything is far from you!"

"Now, see here! He can't forgive me because I live on the other side of the river," said Piotr Ivanovitch to Shebek, with a smile.

And then they talked about the long distances in cities, till the recess was over.

Over and above the considerations caused by the death of this man, in regard to the mutations and possible changes in the court that might result from it, the very fact of the death of an intimate friend aroused as usual in all who heard about it a feeling of pleasure that "it was he, and not I, who was dead."

Each one said to himself, or felt: "Well, he is dead, and I am not."

The intimate acquaintances, the so-called friends, of Ivan Ilyitch could not help having these thoughts, and also felt that now it was incumbent on them to fulfill the very melancholy obligation of propriety, in going to the funeral and paying a visit of condolence to the widow.

Feodor Vasilyevitch and Piotr Ivanovitch had been more intimate with him than the others.

Piotr Ivanovitch had been his fellow in the law school, and had felt under obligations to Ivan Ilyitch.

Having, at dinnertime, informed his wife of Ivan Ilyitch's death, and his reflections as to the possibility of his brother-in-law's transfer into their

circle, Piotr Ivanovitch, not stopping to rest, put on his dress coat, and drove off to Ivan Ilyitch's.

At the door of Ivan Ilyitch's residence stood a carriage and two *izvozchiks*. At the foot of the stairs, in the hallway by the hat rack, pushed back against the wall, was the brocaded coffin cover, with tassels and lace full of purified powdered camphor. Two ladies in black were taking off their shubkas.[1] One whom he knew was Ivan Ilyitch's sister; the other lady he did not know. Piotr Ivanovitch's colleague, Schwartz, was just coming downstairs; and, as he recognized the newcomer, he stopped on the upper step, and winked at him as much as to say: "Ivan Ilyitch was a bad manager; you and I understand a thing or two."

Schwartz's face, with its English side whiskers, and his spare figure under his dress coat, had, as always, an elegant solemnity; and this solemnity, which was forever contradicted by Schwartz's jovial nature, here had a peculiar piquancy, so Piotr Ivanovitch thought.

Piotr Ivanovitch gave precedence to the ladies, and slowly followed them upstairs. Schwartz did not make any move to descend, but waited at the landing. Piotr Ivanovitch understood his motive; without doubt, he wanted to make an appointment for playing cards that evening. The ladies mounted the stairs to the widow's room; and Schwartz, with lips gravely compressed and firm, and with mischievous eyes, indicated to Piotr Ivanovitch, by the motion of his brows, the room at the right, where the dead man was.

Piotr Ivanovitch entered, having that feeling of uncertainty, ever present under such circumstances, as to what would be the proper thing to do. But he knew that in such circumstances the sign of the cross never came amiss. As to whether he ought to make a salutation or not, he was not quite sure; and he therefore took a middle course. As he went into the room, he began to cross himself, and, at the same time, he made an almost imperceptible inclination. As far as he was permitted by the motion of his hands and head, he took in the appearance of the room. Two young men, apparently nephews—one, a scholar at the gymnasium—were just leaving the room, making the sign of the cross. An old woman was standing motionless; and a lady, with strangely arched eyebrows, was saying something to her in a whisper. A hearty-looking, energetic sacristan in a frock was reading something in a loud voice, with an expression which forbade all objection. The muzhik, Gerasim, who acted as butler, was sprinkling something on the floor, passing slowly in front of Piotr Ivano-

1. Fur garments.

vitch. As he saw this, Piotr Ivanovitch immediately became cognizant of a slight odor of decomposition.

Piotr Ivanovitch, at his last call on Ivan Ilyitch, had seen this muzhik in the library. He was performing the duties of nurse, and Ivan Ilyitch was extremely fond of him.

Piotr Ivanovitch kept crossing himself, and bowing impartially toward the corpse, the sacristan, and the icons that stood on a table in the corner. Then, when it seemed to him that he had already continued too long making signs of the cross with his hand, he stopped short, and began to gaze at the dead man.

The dead man lay in the drapery of the coffin, as dead men always lie, a perfectly lifeless weight, absolutely unconscious, with stiffened limbs, with head forever at rest on the pillow; and showing, as all corpses show, a brow like yellow wax, with spots on the sunken temples, and a nose so prominent as almost to press down on the upper lip.

He had greatly changed, and was far more emaciated than when Piotr Ivanovitch had last seen him; but, as in the case of all the dead, his face was more beautiful, especially more dignified, than it had been when he was alive. On his face was an expression signifying that what was necessary to do, that had been done, and had been done in due form. Besides this, there was in his expression a reproach or warning to the living. This warning seemed ill-judged to Piotr Ivanovitch, or at least was not applicable to him. There was something displeasing in it; and therefore Piotr Ivanovitch again crossed himself hastily, and, it seemed to him, too hastily for proper decorum, turned around and went to the door.

Schwartz was waiting for him in the next room, standing with legs wide apart, and with both hands behind his back twirling his "cylinder" hat. Piotr Ivanovitch was cheered by the first glance at Schwartz's jovial, tidy, elegant figure. Piotr Ivanovitch comprehended that Schwartz was superior to these things, and did not give way to these harassing impressions. His appearance alone said: The incident of Ivan Ilyitch's funeral cannot serve as a sufficient reason for breaking into the order of exercises of the session; that is to say, nothing shall hinder us this very evening from opening and shuffling a pack of cards while the servant is putting down four fresh candles; in general, there is no occasion to presuppose that this incident can prevent us from having a good time this evening, as well as any other.

He even said this in a whisper to Piotr Ivanovitch as he joined him, and proposed that they meet for a game at Feodor Vasilyevitch's. But evidently it was not Piotr Ivanovitch's fate to play cards that evening.

Praskovia Feodorovna, a short woman, and stout in spite of all her efforts to the contrary–for her figure grew constantly wider and wider from her shoulders down–dressed all in black, with lace on her head, and with the same extraordinarily arched eyebrows as the lady who had been standing by the coffin, came out from her rooms with other ladies; and as she preceded them through the door of the death chamber, she said: "Mass will take place immediately. Please come in."

Schwartz, making a slight, indefinite bow, stood still, evidently undecided whether to accept or to decline this invitation. Praskovia Feodorovna, as soon as she recognized Piotr Ivanovitch, sighed, came quite close to him, took him by the hand, and said: "I know that you were a true friend of Ivan Ilyitch's." And she fixed her eyes on him, awaiting his action to respond to her words.

Piotr Ivanovitch knew that, just as in the other case it had been incumbent upon him to make the sign of the cross, so here he must press her hand, sigh, and say, "Why, certainly." And so he did. And having done so, he realized that the desired result was obtained–that he was touched, and she was touched.

"Come," said the widow; "before it begins, I must have a talk with you. Give me your arm."

Piotr Ivanovitch offered her his arm; and they walked along to the inner rooms, passing by Schwartz, who winked compassionately at Piotr Ivanovitch.

His jovial glance said: "It's all up with your game of vint; but don't be concerned, we'll find another partner. We'll cut in when you have finished."

Piotr Ivanovitch sighed still more deeply and grievously, and Praskovia Feodorovna pressed his arm gratefully.

When they entered her drawing room, which had hangings of rose-colored cretonne, and was dimly lighted by a lamp, they sat down near a table–she on a divan, but Piotr Ivanovitch on a low ottoman, the springs of which were out of order, and yielded unevenly under his weight.

Praskovia Feodorovna wanted to suggest to him to take another chair; but to make such a suggestion seemed out of place in her situation, and she gave it up. As he sat down on the ottoman, Piotr Ivanovitch remembered how, when Ivan Ilyitch was decorating that drawing room, he had asked his opinion about this very same rose-colored cretonne, with its green leaves.

As the widow passed by the table in going to the divan–the whole room

was crowded with ornaments and furniture–she caught the black lace of her black mantilla on the woodwork. Piotr Ivanovitch got up, in order to detach it; and the ottoman, freed from his weight, began to shake and jostle him. The widow herself was busy disengaging her lace; and Piotr Ivanovitch sat down again, flattening out the ottoman which had rebelled under him. But still the widow could not get free, and Piotr Ivanovitch again arose; and again the ottoman rebelled, and even creaked.

When all this was arranged, she took out a clean cambric handkerchief, and began to weep. The episode with the lace and the struggle with the ottoman had thrown a chill over Piotr Ivanovitch, and he sat with a frown. This awkward situation was interrupted by Sokolof, Ivan Ilyitch's butler, with the announcement that the lot in the graveyard which Praskovia Feodorovna had selected would cost two hundred rubles. She ceased to weep, and, with the air of a martyr, looked at Piotr Ivanovitch, saying in French that it was very trying for her. Piotr Ivanovitch made a silent gesture, signifying his undoubted belief that this was inevitable.

"Smoke, I beg of you!" she said with a voice expressive of magnanimity as well as melancholy. And she discussed with Sokolof the price of the lot.

As Piotr Ivanovitch began to smoke, he overheard how she very circumstantially inquired into the various prices of land, and finally determined on the one which it suited her to purchase. When she had settled upon the lot, she also gave her orders in regard to the singers. Sokolof withdrew.

"I attend to everything myself," she said to Piotr Ivanovitch, moving to one side the albums that lay on the table; and then, noticing that the ashes were about to fall on the table, she hastened to hand Piotr Ivanovitch an ash tray, and continued: "It would be hypocritical for me to declare that grief prevents me from attending to practical affairs. On the contrary, though it cannot console me, yet it may divert my mind from my troubles."

Again she took out her handkerchief, as if preparing to weep; and suddenly, apparently making an effort over herself, she shook herself, and began to speak calmly: "At all events, I have some business with you."

Piotr Ivanovitch bowed, not giving the springs of the ottoman a chance to rise up against him, since only the moment before they had been misbehaving under him.

"During the last days, his sufferings were terrible."

"He suffered very much?" asked Piotr Ivanovitch.

"Oh! terribly! For hours before he died he did not cease to shriek. For

three days and nights he shrieked all the time. It was unendurable. I cannot understand how I stood it. You could hear him through three doors! Akh! how I suffered!"

"And was he in his senses?" asked Piotr Ivanovitch.

"Yes," she said in a whisper, "to the last moment. He bade us farewell a quarter of an hour before he died, and even asked us to send Volodya out."

The thought of the sufferings of a man whom he had known so intimately, first as a jolly child and schoolboy, and then in adult life as his colleague, suddenly filled Piotr Ivanovitch with terror in spite of the unpleasant sense of this woman's hypocrisy and his own. Once more he saw that forehead, that nose nipping on the lip, and he felt frightened for himself.

"Three days and nights of horrible sufferings and death! Perhaps this may happen to me also, immediately, at any moment," he said to himself. And for an instant he felt panic-stricken. But immediately, though he himself knew not how, there came to his aid the common idea that this had happened to Ivan Ilyitch, and not to him, and therefore such a thing had no business to happen to him, and could not be possible; that, in thinking so, he had fallen into a melancholy frame of mind, which was a foolish thing to do, as was evident by Schwartz's face.

In the course of these reflections, Piotr Ivanovitch became calm, and began with interest to ask for the details of Ivan Ilyitch's decease, as if death were some accident peculiar to Ivan Ilyitch alone, and absolutely remote from himself.

After speaking at greater or less length of the details of the truly terrible physical suff Ferings endured by Ivan Ilyitch–Piotr Ivanovitch listened to these details simply because Praskovia Feodorovna's nerves had been affected by her husband's sufferings–the widow evidently felt that it was time to come to the point.

"Oh! Piotr Ivanovitch! how painful! how horribly painful! how horribly painful!" and again the tears began to flow.

Piotr Ivanovitch sighed, and waited till she had blown her nose. When she had blown her nose, he said: "Believe me . . ."

And again the springs of her speech were unloosed, and she explained what was apparently her chief object in seeing him: this matter concerned the problem of how she should make her husband's death secure her funds from the treasury.

She pretended to ask Piotr Ivanovitch's advice about a pension; but he clearly saw that she had already mastered the minutest points, even

those that he himself knew not, in the process of extracting from the treasury the greatest possible amount in case of death. But what she wanted to find out was whether it were not possible to become the recipient of still more money.

Piotr Ivanovitch endeavored to devise some means to this effect; but, having pondered a little, and out of politeness condemned our government for its niggardliness, he said that it seemed to him impossible to obtain more. Then she sighed, and evidently began to devise some means of getting rid of her visitor. He understood, put out his cigarette, arose, pressed her hand, and passed into the anteroom.

In the dining room, where stood the clock that Ivan Ilyitch had taken such delight in, when he purchased it at a bric-a-brac shop, Piotr Ivanovitch met the priest and a few more acquaintances who had come to the funeral; and he recognized Ivan Ilyitch's daughter, a pretty young lady, whom he knew. She was all in black. Her very slender figure seemed more slender than usual. She looked melancholy, determined, almost irritated. She bowed to Piotr Ivanovitch as if he were in some way to blame. Behind the daughter, with the same melancholy look, stood a rich young man, a magistrate of Piotr Ivanovitch's acquaintance, who, as he heard, was her betrothed. He bowed to them disconsolately, and was about to pass into the death chamber, when he saw coming up the stairs the slender form of Ivan Ilyitch's son—a gymnasium student, and a striking image of Ivan Ilyitch. It was the same little Ivan Ilyitch whom Piotr Ivanovitch remembered at the law school. His eyes were wet with tears, and had the faded appearance common to unhealthy boys of thirteen or fourteen. The boy, as soon as he saw Piotr Ivanovitch, scowled rudely and bashfully. Piotr Ivanovitch nodded at him, and entered the death chamber.

The mass had begun; there were candles, groans, incense, tears, and sobs. Piotr Ivanovitch stood looking gloomily down at his feet. He did not once glance at the corpse, and to the end did not yield to the softening influences; and he was one of the first to leave. There was no one in the anteroom. Gerasim, the butler, rushed from the dead man's late room, tossed about all the fur garments with his strong hands in order to find Piotr Ivanovitch's shuba, and handed it to him.

"Well, brother Gerasim," said Piotr Ivanovitch, so as to say something, "it's too bad, isn't it?"

"God's will. We shall all be there," said Gerasim, showing his close, white, peasant's teeth; and, like a man earnestly engaged in some great work, he opened the door with alacrity, called the coachman, helped

Piotr Ivanovitch into the carriage, and then hastened back up the front steps, as if he were eager to find something else to do.

It was particularly agreeable to Piotr Ivanovitch to breathe the fresh air, after the odor of the incense, of the dead body, and carbolic acid.

"Where shall I drive to?" asked the coachman.

"It's not too late. I'll go to Feodor Vasilyevitch's, after all."

And Piotr Ivanovitch drove off. And, in fact, he found them just finishing the first rubber, so that it was convenient for him to cut in.

The past history of Ivan Ilyitch's life was most simple and uneventful, and yet most terrible.

Ivan Ilyitch died at the age of forty-five, a member of the Court of Justice. He was the son of a functionary who had followed, in various ministries and departments at Petersburg, a career such as brings men into a position from which, on account of their long service and their rank, they are never turned adrift, even though it is plainly manifest that their actual usefulness is at an end; and consequently they obtain imaginary, fictitious places, and from six to ten thousand that are not fictitious, on which they live till a good old age.

Such had been Ilya Yefimovitch Golovin, privy councilor, a useless member of various useless commissions.

He had three sons; Ivan Ilyitch was the second. The eldest had followed the same career as his father's, but in a different ministry, and was already nearing that period of his service in which inertia carries a man into emoluments. The third son had been a failure. He had completely gone to pieces in several positions, and he was now connected with railways; and his father and his brothers and especially their wives not only disliked to meet him, but, except when it was absolutely necessary, even forgot that he existed.

A sister was married to Baron Gref, who, like his father-in-law, was a Petersburg chinovnik [official]. Ivan Ilyitch had been *le phénix de la famille,* as they used to say. He was neither so chilling and formal as the eldest brother, nor so unpromising as the youngest. He was the mean between them—an intelligent, lively, agreeable, and polished man. He had studied at the law school with his younger brother, who did not graduate but was expelled from the fifth class; Ivan Ilyitch, however, finished his course creditably. At the law school he showed the same characteristics by which he was afterward distinguished all his life: he was capable, good-natured even to gaiety, and sociable, but strictly fulfilling all that he considered to be his duty; duty, in his opinion, was all that is considered

to be such by men in the highest station. He was not one to curry favor, either as a boy, or afterward in manhood; but from his earliest years he had been attracted by men in the highest station in society, just as a fly is by the light; he adopted their ways, their views of life, and entered into relations of friendship with them. All the passions of childhood and youth had passed away, not leaving serious traces. He had yielded to sensuality and vanity, and, toward the last of his life, to the higher forms of liberalism, but all within certain limits which his nature faithfully prescribed for him.

While at the law school, he had done some things which hitherto had seemed to him very shameful, and which while he was engaged in them aroused in him deep scorn for himself. But afterward, finding that these things were also done by men of high position, and were not considered by them disgraceful, he came to regard them, not indeed as worthy, but as something to put entirely out of his mind, and he was not in the least troubled by the recollection of them.

When Ivan Ilyitch had graduated from the law school with the tenth rank, and received from his father some money for his uniform, he ordered a suit of Scharmer, added to his trinkets the little medal with the legend *respice finem* [look to the end], bade the prince and principal farewell, ate a dinner with his classmates at Donon's, and, furnished with new and stylish trunk, linen, uniform, razors, and toilet articles, and a plaid, ordered or bought at the very best shops, he departed for the province, as chinovnik and private secretary to the governor—a place which his father procured for him.

In the province, Ivan Ilyitch at once got himself into the same sort of easy and agreeable position as his position in the law school had been. He attended to his duties, pressed forward in his career, and at the same time enjoyed life in a cheerful and circumspect manner. From time to time, delegated by his chief, he visited the districts, bore himself with dignity toward both his superiors and subordinates, and, without overweening conceit, fulfilled with punctuality and incorruptible integrity the duties imposed upon him, pre-eminently in the affair of the dissenters.[2]

Notwithstanding his youth, and his tendency to be gay and easygoing, he was, in matters of state, thoroughly discreet, and carried his official reserve even to sternness. But in society he was often merry and witty, and

2. The first body of *raskolniks,* or dissenters, called the "Old Believers," arose in the time of the Patriarch Nikon, who, in 1654, revised the Scriptures. A quarrel as to the number of fingers to be used in giving the blessing, and the manner of spelling Jesus, seems to have been the chief cause of the *raskol,* or schism.

always good-natured, polite, and *bon enfant,* as he was called by his chief and his chief's wife, at whose house he was intimate.

While he was in the province, he had maintained relations with one of those ladies who are ready to fling themselves into the arms of an elegant young lawyer. There was also a dressmaker; and there were occasional sprees with visiting flügel-adjutants, and visits to some out-of-the-way street after supper; he had also the favor of his chief and even of his chief's wife, but everything of this sort was attended with such a high tone of good breeding that it could not be qualified by hard names; it all squared with the rubric of the French expression, *Il faut que jeunesse se passe*.[3]

All was done with clean hands, with clean linen, with French words, and, above all, in company with the very highest society, and therefore with the approbation of those high in rank.

In this way Ivan Ilyitch served five years, and a change was instituted in the service. The new tribunals were established; new men were needed.

And Ivan Ilyitch was chosen as one of the new men.

He was offered the position of examining magistrate; and accepted it, notwithstanding the fact that this place was in another government, and that he would be obliged to give up the connections he had formed, and form new ones.

Ivan Ilyitch's friends saw him off. They were photographed in a group, they presented him a silver cigarette case, and he departed for his new post.

As an examining magistrate, Ivan Ilyitch was just as *comme il faut* [proper], just as circumspect, and careful to sunder the obligations of his office from his private life, and as successful in winning universal consideration, as when he was a chinovnik with special functions. The office of magistrate itself was vastly more interesting and attractive to Ivan Ilyitch than his former position had been.

To be sure, it used to be agreeable to him, in his former position, to pass with free and easy gait, in his Scharmer-made uniform, in front of trembling petitioners and petty officials waiting for an interview and envying him as he went without hesitation into his chief's private room, and sat down with him to drink a cup of tea and smoke a cigarette; but the men who had been directly dependent on his pleasure were few—merely police captains and dissenters, if he were sent out with special instructions. And he liked to meet these men, dependent on him, not only

3. "A man must sow his wild oats."

politely, but even on terms of comradeship; he liked to make them feel that he, who had the power to crush them, treated them simply, and like friends. Such men at that time were few.

But now, as examining magistrate, Ivan Ilyitch felt that all, all without exception, even men of importance, of distinction, all were in his hands, and that all he had to do was to write such and such words on a piece of paper with a heading, and this important, distinguished man would be brought to him in the capacity of accused or witness, and, unless he wished to ask him to sit down, he would have to stand in his presence, and submit to his questions. Ivan Ilyitch never took undue advantage of this power; on the contrary, he tried to temper the expression of it. But the consciousness of this power, and the possibility of tempering it, furnished for him the chief interest and attractiveness of his new office.

In the office itself, especially in investigations, Ivan Ilyitch was very quick to master the process of eliminating all circumstances extraneous to the case, and of disentangling the most complicated details in such a manner that the case would be presented on paper only in its essentials, and absolutely shorn of his own personal opinion, and, last and not least, that every necessary formality would be fulfilled. This was a new mode of doing things. And he was one of the first to be engaged in putting into operation the code of 1864.

When he took up his residence in the new city, as examining magistrate, Ivan Ilyitch made new acquaintances and ties; he put himself on a new footing, and adopted a somewhat different tone. He held himself rather aloof from the provincial authorities, and took up with a better circle among the judges and wealthy nobles living in the city; and he adopted a tone of easygoing criticism of the government, together with a moderate form of liberalism and "civilized citizenship." At the same time, though Ivan Ilyitch in no wise diminished the elegance of his toilet, yet he ceased to shave his chin, and allowed his beard to grow as it would.

Ivan Ilyitch's life in the new city also passed very agreeably. The society which *fronded* against the government was good and friendly; his salary was larger than before; and, while he had no less zest in life, he had the additional pleasure of playing whist, a game in which, as he enjoyed playing cards, he quickly learned to excel, so that he was always on the winning side.

After two years of service in the new city Ivan Ilyitch met the lady who became his wife. Praskovia Feodorovna Mikhel was the most fascinating, witty, brilliant young girl in the circle where Ivan Ilyitch moved. In the multitude of other recreations, and as a solace from the labors of his office,

Ivan Ilyitch established sportive easygoing relations with Praskovia Feodorovna.

At the time when Ivan Ilyitch was a chinovnik with special functions, he had been a passionate lover of dancing; but now that he was examining magistrate, he danced only as an occasional exception. He now danced with the idea that, "though I am an advocate of the new order of things, and belong to the fifth class, still, as far as the question of dancing goes, I can at least show that in this respect I am better than the rest."

Thus, it frequently happened that, toward the end of a party, he danced with Praskovia Feodorovna; and it was principally at the time of these dances, that he made the conquest of Praskovia Feodorovna. She fell in love with him. Ivan Ilyitch had no clearly decided intention of getting married; but when the girl fell in love with him, he asked himself this question: "In fact, why should I not get married?" said he to himself.

The young lady, Praskovia Feodorovna, came of a good family belonging to the nobility, far from ill-favored, had a small fortune. Ivan Ilyitch might have aspired to a more brilliant match, but this was an excellent one. Ivan Ilyitch had his salary; she, he hoped, would have as much more. She was of good family; she was sweet, pretty, and a thoroughly well-bred woman. To say that Ivan Ilyitch got married because he was in love with his betrothed, and found in her sympathy with his views of life, would be just as incorrect as to say that he got married because the men of his set approved of the match.

Ivan Ilyitch took a wife for two reasons: he gave himself a pleasure in taking such a wife; and, at the same time, the people of the highest rank considered such an act proper.

And so Ivan Ilyitch got married.

The wedding ceremony itself, and the first few days of their married life with its connubial caresses, their new furniture, their new plate, their new linen, everything, even the prospects of an increasing family, were all that could be desired. So that Ivan Ilyitch began to think that marriage not only was not going to disturb his easygoing, pleasant, gay, and always respectable life, so approved by society, and which Ivan Ilyitch considered a perfectly natural characteristic of life in general, but was also going to add to it. But from the first months of his wife's pregnancy, there appeared something new, unexpected, disagreeable, hard, and trying, which he could not have foreseen, and from which it was impossible to escape.

His wife, without any motive, as it seemed to Ivan Ilyitch, *de gaité de coeur,* as he said to himself, began to interfere with the pleasant and de-

cent current of his life; without any cause she grew jealous of him, demanded attentions from him, found fault with everything, and caused him disagreeable and stormy scenes.

At first Ivan Ilyitch hoped to free himself from this unpleasant state of things by the same easygoing and respectable acceptation of life which had helped him in days gone by. He tried to ignore his wife's disposition, and continued to live as before in an easy and pleasant way. He invited his friends, he gave card parties, he attempted to make his visits to the club or to friends; but his wife began one time to abuse him with rough and energetic language, and continued persistently to scold him each time that he failed to fulfill her demands, having evidently made up her mind not to cease berating him until he was completely subjected to her authority–in other words, until he would stay at home, and be just as deeply in the dumps as she herself–a thing which Ivan Ilyitch dreaded above all.

He learned that married life, at least as far as his wife was concerned, did not always add to the pleasantness and decency of existence, but, on the contrary, disturbed it, and that, therefore, it was necessary to protect himself from such interference. And Ivan Ilyitch tried to devise means to this end. His official duties were the only thing that had an imposing effect upon Praskovia Feodorovna; and Ivan Ilyitch, by means of his office, and the duties arising from it, began to struggle with his wife for the defense of his independent life.

When the child was born, and in consequence of the various attempts and failures to have it properly nursed, and the illnesses, real and imaginary, of both mother and child, wherein Ivan Ilyitch's sympathy was demanded, but which were absolutely foreign to him, the necessity for him to secure a life outside of his family became still more imperative.

According as his wife grew more irritable and exacting, so Ivan Ilyitch transferred the center of his life's burdens more and more into his office. He began to love his office more and more, and became more ambitious than he had ever been.

Very soon, not longer than a year after his marriage, Ivan Ilyitch came to the conclusion that married life, while affording certain advantages, was in reality a very complicated and burdensome thing, in relation to which, if one would fulfill his duty, that is, live respectably and with the approbation of society, one must work out a certain system, just as in public office.

And such a system Ivan Ilyitch secured in his matrimonial life. He demanded of family life only such conveniences in the way of home dinners,

a housekeeper, a bed, as it could furnish him, and, above all, that respectability in external forms which was in accordance with the opinions of society. As for the rest, he was anxious for pleasant amenities; and if he found them, he was very grateful. On the other hand, if he met with opposition and complaint, then he immediately took refuge in the far-off world of his official duties, which alone offered him delight.

Ivan Ilyitch was regarded as an excellent magistrate, and at the end of three years he was appointed deputy prokuror. His new functions, their importance, the power vested in him of arresting and imprisoning anyone, the publicity of his speeches, his success obtained in this field—all this still more attached him to the service.

Children came; his wife kept growing more irritable and ill-tempered; but the relations which Ivan Ilyitch maintained toward family life made him almost proof against her temper.

After seven years of service in one city, Ivan Ilyitch was promoted to the office of prokuror in another government. They moved; they had not much money, and the place where they went did not suit his wife. Although his salary was larger than before, yet living was more expensive; moreover, two of their children died; and thus family life became still more distasteful to Ivan Ilyitch.

Praskovia Feodorovna blamed her husband for all the misfortunes that came on them in their new place of abode. Most of the subjects of conversation between husband and wife, especially the education of their children, led to questions which were productive of quarrels, so that quarrels were always ready to break out. Only at rare intervals came those periods of affection which distinguish married life, but they were not of long duration. These were little islands in which they rested for a time; but then again they pushed out into the sea of secret animosity, which expressed itself by driving them farther and farther apart.

This alienation might have irritated Ivan Ilyitch, if he had not considered that it was inevitable; but he now began to look on this situation not merely as normal, but even as the goal of his activity in the family. This goal consisted in withdrawing as far as possible from these unpleasantnesses, or of giving them a character of innocence and respectability; and he attained this end by spending less and less time with his family; but when he was to do so, then he endeavored to guarantee his position by the presence of strangers.

But Ivan Ilyitch's chief resource was his office. In the world of his duties was concentrated all his interest in life. And this interest wholly absorbed him. The consciousness of his power of ruining any one whom he might

wish to ruin; the importance of his position manifested outwardly when he came into court or met his subordinates; his success with superiors and subordinates; and, above all, his skill in the conduct of affairs—and he was perfectly conscious of it—all this delighted him, and, together with conversations with his colleagues, dinners and whist, filled all his life. Thus, for the most part, Ivan Ilyitch's life continued to flow in its even tenor as he considered that it ought to flow—pleasantly and respectably.

Thus he lived seven years longer. His eldest daughter was already sixteen years old; still another little child had died; and there remained a lad, the one who was in school, the object of their wrangling. Ivan Ilyitch wanted to send him to the law school; but Praskovia, out of spite toward him, selected the gymnasium. The daughter studied at home, and made good progress; the lad also was not at all backward in his studies.

Thus seventeen years of Ivan Ilyitch's life passed since the time of his marriage. He was already an old prokuror, having declined several transfers in the hope of a still more desirable place, when there occurred unexpectedly an unpleasant turn of affairs which was quite disturbing to his peaceful life.

Ivan Ilyitch had been hoping for the position of president in a university city; but Hoppe got in ahead of him, and obtained the place. Ivan Ilyitch became irritated, began to make recriminations, got into a quarrel with him and his next superior; signs of coolness were manifested toward him, and in the subsequent appointments he was passed over.

This was in 1880. This year was the most trying of Ivan Ilyitch's life. It happened, on the one hand, that his salary did not suffice for his expenses; on the other, that he was forgotten by all, and that what seemed to him a great, an atrocious, injustice toward himself was regarded by others as a perfectly natural thing. Even his father did not think it his duty to come to his aid. He felt that he was abandoned by all his friends, who considered that his position, worth thirty-five hundred rubles a year, was very normal and even fortunate. He alone knew that with the consciousness of the injustice which had been done him, and with his wife's everlasting rasping, and with the debts which began to accumulate, now that he lived beyond his means—he alone knew that his situation was far from normal.

The summer of that year, in order to lighten his expenses, he took leave of absence, and went with his wife to spend the summer at the country place belonging to Praskovia Feodorovna's brother.

In the country, relieved of his official duties, Ivan Ilyitch for the first

time felt not only irksomeness, but insupportable anguish; and he made up his mind that it was impossible to live in such a way, and that he must take immediate and decisive steps, no matter what they were.

After a long, sleepless night, which he spent walking up and down the terrace, Ivan Ilyitch decided to go to Petersburg, to bestir himself and to get transferred into another ministry so as to punish *them* who had not known how to appreciate him.

On the next day, notwithstanding all the protests of his wife and brother-in-law, he started for Petersburg.

He wanted only one thing—to obtain a place worth five thousand a year. He would not stipulate for any special ministry, any special direction, any form of activity. All that he needed was a place—a place with a salary of five thousand, in the administration, in the banks, on the railways, in the institutions of the Empress Maria, even in the customs service; but the sole condition was the five thousand salary, the sole condition to be relieved from the ministry where they did not know how to appreciate him.

And lo! this trip of Ivan Ilyitch's met with astonishing, unexpected success. At Kursk an acquaintance of his, F. S. Ilyin, came into the first-class carriage, and informed him of a telegram just received by the governor of Kursk to the effect that a change was about to be made in the ministry: in Piotr Ivanovitch's place would be appointed Ivan Semyonovitch.

This probable change, over and above its significance for Russia, had a special significance for Ivan Ilyitch, from the fact that by bringing up a new official, Piotr Petrovitch, and probably his friend Zakhar Ivanovitch, it was in the highest degree favorable for Ivan Ilyitch. Zakhar Ivanovitch was a colleague and friend of Ivan Ilyitch.

In Moscow the tidings were confirmed. And when he reached Petersburg, Ivan Ilyitch sought out Zakhar Ivanovitch, and obtained the promise of a sure position in his old ministry—that of justice.

At the end of a week he telegraphed his wife: ZAKHAR, IN MILLER'S PLACE; IN THE FIRST REPORT SHALL BE APPOINTED.

Ivan Ilyitch, thanks to this change of administration, suddenly obtained in his old ministry such an appointment as put him two grades above his colleagues—five thousand salary, and thirty-five hundred for traveling expenses.

All his grievances against his former rivals and against the whole ministry were forgotten, and Ivan Ilyitch was entirely happy.

Ivan Ilyitch returned to the country, jocund, contented, as he had not been for a long time. Praskovia Feodorovna also brightened up, and peace was re-established between them. Ivan Ilyitch related how he was hon-

ored by everyone in Petersburg; how all those who had been his enemies were covered with shame and now fawned on him; how they envied him his position, and especially how dearly everyone in Petersburg loved him.

Praskovia Feodorovna listened to this, and made believe that she believed it, and did not contradict him in anything, but only made plans for the arrangement of their new life in the city where they were going. And Ivan Ilyitch had the joy of seeing that these plans were his plans, that they coincided, and that his life, interrupted though it had been, was now about to regain its own character of festive pleasure and decency.

Ivan Ilyitch went back for a short visit only. On the 22nd of September he was obliged to assume his duties; and, moreover, he needed time to get established in his new place, to transport all his possessions from the province, to buy new things, to give orders for still more—in a word, to install himself as it seemed proper to his mind, and pretty nearly as it seemed proper to Praskovia Feodorovna's ideas.

And now, when all was ordered so happily, and when he and his wife were in accord, and, above all, lived together but a small portion of the time, they became better friends than they had been since the first years of their married life.

Ivan Ilyitch at first thought of taking his family with him immediately; but the insistence of his sister- and brother-in-law, who suddenly manifested an extraordinary friendliness and brotherly love for Ivan Ilyitch and his family, induced him to depart alone.

Ivan Ilyitch took his departure; and his jocund frame of mind, arising from his success and his reconciliation with his wife, the one consequent upon the other, did not for a moment leave him.

He found admirable apartments, exactly coinciding with the dreams of husband and wife—spacious, lofty reception rooms in the old style; a convenient, grandiose library; rooms for his wife and daughter; study room for his son—all as if expressly designed for them. Ivan Ilyitch himself took charge of the arrangements. He selected the wallpapers; he bought the furniture, mostly antique, to which he attributed a specially *comme-il-faut* style; hangings and all took form, and took form and approached that ideal which he had established in his conception.

When his arrangements were half completed, they surpassed his expectations. He perceived what a *comme-il-faut*, exquisite, and far from commonplace character all would have when completed. When he lay down to sleep, he imagined his "hall" as it would be. As he looked about his drawing room, still unfinished, he already saw the fireplace, the screen, the little *étagère,* and those easy chairs scattered here and there,

those plates and saucers on the walls, and the bronzes, just as they would be when all was in place.

He was delighted with the thought of how he should astonish Pasha and Lizanka, who also had such good taste in these things. "They would never look for this. Especially that he would have the thought of going and buying, at such a low price, these old things that gave the whole an extraordinary character of gentility."

In his letters he purposely represented everything worse than it really was—so as to surprise them. All this so occupied him, that even his new duties, much as he enjoyed them, were not so absorbing as he expected. Even while court was in session, he had his moments of abstraction; he was cogitating as to what sort of cornices he should have for his curtains—straight or matched. He was so interested in this that often he himself took hold, rearranged the furniture, and even rehung the curtains himself.

One time, when he was climbing on a pair of steps, so as to explain to a dull-minded upholsterer how he wished a drapery to be arranged, he slipped and fell; but, being a strong, dexterous man, he saved himself. He only hit his side on the edge of the frame. He received a bruise, but it quickly passed away. Ivan Ilyitch all this time felt perfectly happy and well. He wrote, "I feel as if I were fifteen years younger."

He expected to finish in September, but circumstances delayed it till the middle of October. But it was all admirable; not only he himself said so, but all who saw it said the same.

In reality, it was exactly what is customary among those people who are not very rich, but who like to ape the rich, and therefore only resemble one another—silken fabrics, mahogany, flowers, carpets, and bronzes, dark and shining, all that which all people of a certain class affect, so as to be comparable to all people of a certain class. And in his case, there was a greater resemblance, so that it was impossible to single out anything for attention; but still, this to him was something extraordinary.

When he met his family at the railway station, he took them to their apartments, freshly put in order for them; and the lackey, in a white necktie, opened the door into the vestibule, ornamented with flowers; and then they went into the parlor, the library, and ohed and ahed with delight; and he was very happy; he showed them everything, drank in their praises, and shone with satisfaction. On that very evening at tea, when Praskovia Feodorovna asked him, among other things, how he fell, he laughed, and illustrated in pantomime how he went head over heels, and scared the upholsterer.

"I'm not a gymnast for nothing. Another man would have been killed, but I just struck myself here a little; when you touch it, it hurts; but it's already wearing off–it's a mere bruise."

And they began to live in the new domicile, in which, as always, after one has become fairly established, it was discovered that there was just one room too few; and with their new means, which, as always, lacked a little of being sufficient; about five hundred rubles additional, and it would have been well.

All went extraordinarily well at first, while still their arrangements were not wholly regulated, and there was still much to do–buying this thing, giving orders for that, rearranging, mending. Although there were occasional disagreements between husband and wife, yet both were so satisfied, and they had so many occupations, that no serious quarrel resulted. Still, when there was nothing left to arrange, they became a trifle bored, and felt that something was lacking; but now they began to form new acquaintances, new habits, and their lives became full.

Ivan Ilyitch spent the morning at court, but returned home to dinner; and at first he was in excellent humor, although sometimes he was a little vexed by something or other in the household management.

Any kind of spot on the tablecloth, on the draperies, any break in the curtain cords, irritated him. He had taken so much pains in getting things in order that any kind of harm befalling was painful to him.

But, on the whole, Ivan Ilyitch's life ran on, as in his opinion life ought to run, smoothly, pleasantly, and decently.

He rose at nine o'clock, drank his coffee, read the paper, then donned his uniform, and went down to court. There he instantly got himself into the harness to which he had been so long accustomed–petitioners, inquiries at the chancery, the chancery itself, sessions public and administrative. In all this, it was necessary to devise means to exclude all those external concerns of life which forever tend to trespass on the accuracy of conducting official duties; it was necessary that he should tolerate no relations with people except on an official basis; and the cause for such relations must be official, and the relations themselves must be only official.

For example, a man comes, and wants to know something or other. Ivan Ilyitch, as a man apart from his office, cannot have any relations with this man; but if the relationship of this man to the magistrate is such that it can be expressed on letterhead paper, then, within the limits of these relations, Ivan Ilyitch would do all, absolutely all, in his power, and at the same time preserve the semblance of affable, philanthropical relations–in

other words, of politeness. The point where his official life and his private life joined was very strictly drawn. Ivan Ilyitch had a high degree of skill in separating the official side from the other without confounding them; and his long practice and talent gave him such finesse that he sometimes, as a virtuoso, allowed himself, by way of a jest, to confound the humanitarian and his official relations.

This act in Ivan Ilyitch's case was played, not only smoothly, pleasantly, and decently, but also in a virtuoso manner. During the intervals, he smoked, drank tea, talked a little about politics, a little about affairs in general, a little about cards, and more than all about appointments; and when weary, but still conscious of his virtuosity, as of one who has well played his part, like one of the first violins of an orchestra, he went home.

At home the mother and daughter had been receiving or making calls; the son was at the gymnasium, preparing his lessons with tutors; and he learned accurately whatever was taught him in the gymnasium. All was excellent.

After dinner, unless he had guests, Ivan Ilyitch sometimes read some book which was much talked about; and during the evening he sat down to his work—that is, read papers, consulted the laws, compared depositions and applied the law to them.

This was neither tedious nor inspiriting. It was tedious when he had the chance to play vint; but if there was no vint, then it was far better than to sit alone or with his wife.

Very delightful to Ivan Ilyitch were the little dinners to which he invited ladies and gentlemen holding high positions in society; and such entertainments were like the entertainments of people of the same class, just as his drawing room was like all drawing rooms.

One evening they even had a party; they danced, and Ivan Ilyitch felt gay, and all was good; only a great quarrel arose between husband and wife about the patties and sweetmeats. Praskovia Feodorovna had her ideas about them; but Ivan Ilyitch insisted on buying them all of an expensive confectioner, and he got a great quantity of patties; and the quarrel was because there was an extra quantity, and the confectioner's bill amounted to forty-five rubles.

The quarrel was sharp and disagreeable, inasmuch as Praskovia Feodorovna called him, "Fool! Pighead!"

And he, putting his hands to his head in his vexation, muttered something about divorce.

But the party itself was gay. The very best society were present; and

Ivan Ilyitch danced with the Princess Trufonova, the sister of the well-known founder of the society called *Unesi tui mayo gore* [Take away my sorrow].

Ivan Ilyitch's official pleasures were the pleasures of self-love; his pleasures in society were pleasures of vanity; but his real pleasures were the pleasures of playing vint. He confessed that, after all, after any disagreeable event befalling his life, the pleasure which, like a candle, glowed brighter than all others was that of sitting down—four good players, and partners who did not shout—to a game of vint—and always four, for it is very bad form to have any one cut in, even though you say, "I like it very much"—and have a reasonable, serious game—when the cards run well—and then to eat a little supper, and drink a glass of wine. And Ivan Ilyitch used to go to sleep, especially after a game of vint, when he had won a little something—a large sum is disagreeable—and feel particularly happy in his mind.

Thus they lived. The circle of their friends consisted of the very best society; men of high position visited them, and young men came.

As far as their views upon the circle of their acquaintance were concerned, husband, wife, and daughter were perfectly unanimous. And tacitly they each in the same way pushed aside, and rid themselves of, certain friends and relatives—the undesirable kind, who came fawning around them in their drawing room decorated with Japanese plates on the wall. Very soon these undesirable friends ceased to flutter around them, and the Golovins had only the very best society.

Young men were attracted to Lizanka; and the examining magistrate, Petrishchef, the son of Dmitri Ivanovitch Petrishchef and the sole heir to his wealth, began to flutter around Liza so assiduously that Ivan Ilyitch already asked Praskovia Feodorovna whether it would not be a good plan to take them on a troika ride together, or arrange some private theatricals.

Thus they lived. And thus all went along in its even course, and all was very good.

All were well. It was impossible to see any symptom of ill-health in the fact that Ivan Ilyitch sometimes spoke of a strange taste in his mouth and an uneasiness in the left side of his abdomen.

But it happened that this unpleasant feeling kept increasing; it did not as yet become a pain, but he was all the time conscious of a dull weight in his side, and of an irritable temper. This irritability, constantly increasing and increasing, began to disturb the pleasant, easygoing, decent life that had been characteristic of the Golovin family. The husband and

wife began to quarrel more and more frequently; and before long their easy, pleasant relations were broken up, and even the decency was maintained under difficulties.

Scenes once more became very frequent. Once more, but quite infrequently, the little islands appeared, on which husband and wife could meet without an explosion. And Praskovia Feodorovna now said, with some justification, that her husband had a very trying disposition. With her peculiar tendency to exaggeration, she declared that he had always had such a horrible disposition, that nothing but her good nature had enabled her to endure it for twenty years.

It was indeed true that now he was the one that began the quarrels. His querulousness began always before dinner, and often, indeed, just as they sat down to eat the soup. Sometimes he noticed that a dish was chipped; sometimes the food did not suit him; now his son rested his elbows on the table; now it was the way his daughter dressed her hair. And he blamed Praskovia Feodorovna for everything. At first Praskovia Feodorovna answered him back, and said disagreeable things to him; but twice, during dinnertime, he broke out into such a fury that she perceived this to be an unhealthy state, which proceeded from the assimilation of his food; and she held her peace; she did not reply, and merely hastened to finish dinner.

Praskovia Feodorovna regarded her meekness as a great merit. As she had made up her mind that her husband had a horrible disposition, and was making her life wretched, she began to pity herself. And the more she pitied herself, the more she detested her husband. She began to wish that he would die; but she could not wish it, because then they would not have his salary any more. And this actually exasperated her still more against him. She regarded herself as terribly unhappy, from the very fact that his death could not relieve her; and she grew bitter, but concealed it; and this concealed bitterness strengthened her hatred of him.

After one scene in which Ivan Ilyitch was particularly unjust, and which he afterward explained on the ground of his irritability being the result of not being well, she told him that, if he was ill, then he ought to take some medicine; and she begged him to go to a famous physician.

He went. Everything was as he expected: everything was done according to the usual way—the delay; and the pompous *doctorial* air of importance, so familiar to him, the same as he himself assumed in court; and the tapping and the auscultation; and the leading questions requiring answers predetermined, and apparently not heard; and the look of superlative wisdom which seemed to say, "You, now, just trust yourself to us,

and we will do everything; we understand without fail how to manage; everything is done in the same way for any man."

Everything was just exactly as in court. The airs he put on in court for the benefit of those brought before him, the same were assumed by the famous doctor for his benefit.

The doctor said, "Such and such a thing shows that you have such and such a thing in you; but if this is not confirmed according to the investigations of such and such a man, then you must suppose such and such a thing. Now, if we suppose such and such a thing, then"–and so on.

For Ivan Ilyitch, only one question was momentous: Was his case dangerous, or not? But the doctor ignored this inconvenient question. From a doctor's point of view, this question was idle, and deserved no consideration; the only thing to do was to weigh probabilities–floating kidney, chronic catarrh, appendicitis.

It was not a question about Ivan Ilyitch's life, but there was doubt whether it was floating kidney, or appendicitis; and this doubt the doctor, in Ivan Ilyitch's presence, settled in the most brilliant manner in favor of the appendix, making a reserve in case an analysis of the urine should give new results, and then the case would have to be examined anew.

All this was exactly what Ivan Ilyitch himself had done a thousand times in the same brilliant manner for the benefit of the prisoner at the bar. Thus, even more brilliantly, the doctor made his résumé, and with an air of still more joyful triumph gazed down from over his spectacles on the prisoner at the bar. From the doctor's résumé, Ivan Ilyitch came to the conclusion that, as far as he was concerned, it was bad; but as far as the doctor, and perhaps the rest of the world, was concerned, it made no difference; but for him it was bad!

And this conclusion struck Ivan Ilyitch with a painful shock, causing in him a feeling of painful pity for himself, and of painful wrath against this physician who showed such indifference to such a vital question.

But he said nothing; then he got up, laid some money on the table, and, with a sigh, said: "Probably we sick men often ask you foolish questions," said he; "but, in general, is this trouble serious, or not?"

The doctor gave him a severe glance with one eye, through the spectacles, as if to say: "Prisoner at the bar, if you do not confine yourself to the limits of the questions already put to you, I shall be constrained to take measures for having you put out of the audience chamber."

"I have already told you what I considered necessary and suitable," said the doctor; "a further examination will complete the diagnosis"; and the doctor bowed him out.

Ivan Ilyitch went out slowly, lugubriously took his seat in his sledge, and drove home. All the way he kept repeating what the doctor had said, endeavoring to translate all those involved scientific phrases into simple language, and find in them an answer to the question, "Is it a serious, very serious, case for me, or is it a mere nothing?"

And it seemed to him that the sense of all the doctor's words indicated a very serious case. The aspect of everything in the streets was gloomy. The *izvozchiks* were gloomy; gloomy the houses, the pedestrians; the shops were gloomy. This pain, this obscure, dull pain, which did not leave him for a second, seemed to him, when taken in connection with the doctor's ambiguous remarks, to gather a new and more serious significance. Ivan Ilyitch, with a new sense of depression, now took heed of it.

He reached home, and began to tell his wife. His wife listened, but while he was in the midst of his account, his daughter came in with her hat on; she was ready to go out with her mother. She sat down with evident disrelish to listen to this wearisome tale, but she was not detained long; her mother did not hear him out.

"Well," said she, "I am very glad, for now you will be careful, and take your medicine properly. Give me the prescription, and I will send Gerasim to the apothecary's."

And she went to get dressed.

He could not get a long breath all the time that she was in the room, and he sighed heavily when she went out.

"Well," said he, "perhaps it's a mere nothing, after all."

He began to take his medicine, and to follow the doctor's prescriptions, which were somewhat modified after the urine had been analyzed. But just here it so happened exactly that in this analysis, and in what ought to have followed it, there was some confusion. It was impossible to trace it back to the doctor, but the result was that what the doctor said to him did not take place. Either he had forgotten or neglected or concealed something from him.

But Ivan Ilyitch nevertheless began faithfully to follow the doctor's prescriptions, and in this way at first he found consolation.

Ivan Ilyitch's principal occupation, after he went to consult the doctor, consisted in carefully carrying out the doctor's prescription in regard to hygiene, and taking his medicine, and watching the symptoms of his malady, all the functions of his organism. Ivan Ilyitch became chiefly interested in human disease and human health. When people spoke in his presence of those who were sick, of those who had died, of those who were recuperating, especially from diseases like his own, he would listen.

endeavoring to hide his agitation, would ask questions, and make comparisons with his own ailment.

The pain did not diminish, but Ivan Ilyitch compelled himself to feign that he was getting better. And he was able to deceive himself as long as there was nothing to irritate him. But the moment that he had any disagreeable scene with his wife, any failure at court, a bad hand at vint, then he instantly felt the full force of his malady; formerly he endured these reverses, hopefully saying to himself: "Now I shall straighten out this wretched business, shall conquer, shall attain success, win the next hand."

But now every little failure cut him down, and plunged him in despair. He said to himself: "Here I was just beginning to get a little better, and the medicine was already helping me, and here this cursed bad luck or this unpleasantness. . . ."

And he would break out against his bad luck, or against the people that brought him unpleasantness, and were killing him; and he realized how this fit of anger was killing him, but he could not control it.

It would seem that it must be clear to him that these fits of anger against circumstances and people made his malady worse, and that, therefore, he ought not to notice disagreeable trifles; but he reasoned in precisely the opposite way: he said that he needed quiet; he was on the watch for everything which disturbed this quiet, and at every least disturbance his irritation broke out.

His condition was rendered worse by the fact that he read medical works, and consulted doctors. The progress of his disease was so gradual that he was able to deceive himself by comparing one evening with the next; there was little difference. But when he consulted the doctors, then it seemed to him that it was growing worse, and very rapidly also. And notwithstanding that he constantly consulted doctors.

During this month he went to another celebrity; the second celebrity said pretty much the same as the first had said, but he asked questions in a different way. And the consultation with this celebrity redoubled Ivan Ilyitch's doubt and fear.

A friend of a friend of his–a very good doctor–gave an absolutely different definition of his malady; and, notwithstanding the fact that he predicted recovery, his questions and hypotheses still further confused Ivan Ilyitch, and increased his doubts.

A homeopathist defined his disease in a still different manner, and gave him some pellets; and Ivan Ilyitch, without being suspected by any one, took them for a week. But at the end of the week, not perceiving that

any relief came of them, and losing faith, not only in this, but in his former methods of treatment, he fell into still greater melancholy.

One time a lady of his acquaintance was telling him about cures effected by means of icons. Ivan Ilyitch surprised himself by listening attentively, and believing in the reality of the fact. This circumstance frightened him.

"Is it possible that I have reached such a degree of mental weakness?" he asked himself. "Nonsense! All rubbish! One must not give way to mere fancies. Now I'm going to select one physician, and rigorously follow his advice. That's what I will do. That's the end of it. I will not bother my brain, and till summer I will strictly carry out his prescription; and then the result will be seen. Now for an end to these hesitations."

It was easy to say this, but impossible to carry it out. The pain in his side kept troubling him, kept growing if anything worse, became incessant; the taste in his mouth became always more and more peculiar; it seemed to him that his breath was disagreeable, and that he was all the time losing his appetite and strength.

It was impossible to deceive himself; something terrible, novel, and significant, more significant than anything which had ever happened before to Ivan Ilyitch, was taking place in him. And he alone was conscious of it; those who surrounded him did not comprehend it, or did not wish to comprehend it, and thought that everything in the world was going on as before.

This more than aught else pained Ivan Ilyitch. His family—especially his wife and daughter, who were in the very white heat of social pleasures—he saw, did not comprehend at all, were vexed with him because he was gloomy and exacting, as if he were to blame for it. Even though they tried to hide it, he saw that he was in their way, but that his wife had definitely made up her mind in regard to his trouble, and stuck to it, no matter what he might say or do.

This mental attitude was expressed in some such way as this: "You know," she would say to an acquaintance, "Ivan Ilyitch, like all easy-going men, can't carry out the doctor's prescriptions strictly. One day he will take his drops, and eat what is ordered for him, and go to bed in good season; then all of a sudden, if I don't look out, he will forget to take his medicine, will eat sturgeon—though it is forbidden—yes, and sit up at vint till one o'clock."

"Well, now, when?" asks Ivan Ilyitch, with asperity. "Just once at Piotr Ivanovitch's."

"And last evening with Shebek."

"All right–I could not sleep from pain."

"Yes, no matter what it comes from; only you will never get over it in this way, and will keep on tormenting us."

Praskovia Feodorovna's settled conviction in regard to his ailment–and she impressed it on every one, and on Ivan Ilyitch himself–was that he was to blame for it, and that his whole illness was a new affliction which he was causing his wife. Ivan Ilyitch felt that this was involuntary on her part, but it was not on that account any easier for him to bear it.

In court Ivan Ilyitch noticed, or thought he noticed, the same strange behavior toward him; now it seemed to him that he was regarded as a man who was soon to give up his place; again, his friends would suddenly begin to rally him about his low spirits, as if this horrible, strange, and unheard-of something that was breeding in him and ceaselessly sucking up his vitality, and irresistibly dragging him away, were a pleasant subject for raillery! Schwartz especially irritated him with his jocularity, his lively ways, and his *comme-il-faut-ness,* reminding Ivan Ilyitch of himself as he had been ten years before.

Friends came in to have a game of cards. They sat down, they dealt, new cards were shuffled, diamonds were thrown on diamonds–seven of them. His partner said, "No trumps," and held up two diamonds. What more could be desired? It ought to have been a gay proud moment,–a clean sweep.

And suddenly Ivan Ilyitch was conscious of that living pain, of that taste in his mouth, and it seemed to him barbarous that he should be able thus to rejoice in this hand. He looked at Mikhaïl Mikhaïlovitch, his partner, as he rapped the table with his big red hand, and courteously and condescendingly refrained from gathering up the tricks, but pushed them over to Ivan Ilyitch that he might have the pleasure of counting them, without inconveniencing himself, without putting his hand out.

"What! does he think that I am so weak that I can't put my hand out?" said Ivan Ilyitch to himself; then he forgot what were trumps; trumped his partner's trick, and lost the sweep by three points. And what was more terrible than all was that he saw how Mikhaïl Mikhaïlovitch suffers, and yet to him it was a matter of indifference. And it was terrible to think why it was a matter of indifference to him.

All could see that it was hard for him, and they said to him: "We can stop playing if you are tired. You rest awhile."

Rest? No, he was not tired at all; they would finish the rubber. All were gloomy and taciturn. Ivan Ilyitch felt that he was the cause of their gloominess, and he could not enliven it. They had supper, and then

went home; and Ivan Ilyitch was left alone, with the consciousness that his life is poisoned for him, and that he is poisoning the lives of others, and that this poison is not growing weaker, but is always working its way deeper and deeper into his being.

And with this consciousness, sometimes also with physical pain, sometimes with terror, he would have to go to bed, and frequently not sleep from anguish the greater part of the night. And in the morning he would have to get up again and dress and go to court and speak, write, and, unless he went out to ride, stay at home for those twenty-four hours, each one of which was a torture. And he had to live thus on the edge of destruction—alone, without anyone to understand him and pity him.

Thus passed one month and two.

Before New Year's his brother-in-law came to their city, and stopped at their house. Praskovia Feodorovna had gone out shopping. Ivan Ilyitch was in court. When he came home, and went into his library, he found his brother-in-law there, a healthy, sanguine man, engaged in opening his trunk. He raised his head as he heard Ivan Ilyitch's steps, and looked at him a moment in silence. This look revealed all to Ivan Ilyitch. His brother-in-law opened his mouth to exclaim at him, and refrained. This motion confirmed everything.

"What? Have I changed?"

"Yes . . . there is a change."

And whenever afterward Ivan Ilyitch tried to bring the conversation round to the subject of his external appearance, his brother-in-law avoided it. Praskovia Feodorovna came in and his brother-in-law went to her room. Ivan Ilyitch locked the door, and began to look at himself in the glass, first front face, then his profile. He took his portrait painted with his wife, and compared it with what he saw in the mirror. The change was portentous. Then he bared his arm to the elbow, looked at it, pulled down his sleeve, sat down on the otomanka, and it became darker than night.

"It must not . . . it must not be!" said he to himself; jumped up, went to the table, unfolded a document, began to read it, but could not. He opened the door, went out into the hall. The drawing-room door was shut. He tiptoed up to it, and began to listen.

"No, you exaggerate," Praskovia Feodorovna was saying.

"How do I exaggerate? Isn't it plain to you? He's a dead man. Look at his eyes, no light in them. . . . But what's the matter with him?"

"No one knows. Nikolayef"—that was another doctor—"says one thing,

but I don't know about it. Leshchititsky"—that was the famous doctor—"says the opposite."

Ivan Ilyitch turned away, went to his room, lay down, and began to think: "Kidney—a floating kidney!"

He recalled all that the doctors had told him—how it was torn away, and how it was loose. And by an effort of his imagination he endeavored to catch this kidney, to stop it, to fasten it. "It is such a small thing to do," it seemed to him.

"No; I will make another visit to Piotr Ivanovitch."

This was the friend whose friend was a doctor.

He rang, ordered the horse to be harnessed, and got ready to go out.

"Where are you going, *Jean*?" asked his wife, with a peculiarly gloomy and unusually gentle expression.

This unusually gentle expression angered him. He looked at her grimly.

"I have got to go to Piotr Ivanovitch's."

He went to the friend whose friend was a doctor. They went together to this doctor's. He found him and had a long talk with him.

As he examined the anatomical and physiological details of what, according to the doctor, was taking place in him, he comprehended it perfectly.

There was one more trifle—the least bit of a trifle in the vermiform appendix. All that could be put to rights. Strengthen the force of one organ, weaken the activity of another—assimilation ensues, and all is set to rights.

He was a little late to dinner. He ate heartily, he talked gaily, but for a long time he was not able to make up his mind to go to work.

At last he went to his library, and immediately sat down to his labors. He read his documents, and labored over them; but he did not get rid of the consciousness that he had before him an important, private duty, which he must carry out to a conclusion.

When he had finished with his documents, he remembered that this private duty was the thought about the vermiform appendix. But he did not give in to it; he went to the drawing room to tea. They had callers; there was conversation, there was playing on the pianoforte, and singing; the examining magistrate, the desirable match for their daughter, was there. Ivan Ilyitch spent the evening, as Praskovia Feodorovna observed, more cheerfully than usual; but he did not for a moment forget that he had before him those important thoughts about the vermiform appendix.

At eleven o'clock he bade his friends good night, and retired to his own room. Since his illness began, he had slept alone in a little room off the

library. He went to it, undressed, and took a romance of Zola's; but he did not read it; he thought. And in his imagination the longed-for cure of the vermiform appendix took place. Assimilation, secretion, were stimulated; regulated activity was established.

"Yes, it is just exactly so," said he to himself. "It is only necessary to help nature."

He remembered his medicine, got up, took it, lay on his back, waiting for the medicine to have its beneficent effect, and gradually ease his pain.

"Only take it regularly, and avoid unhealthy influences; even now I feel a little better, considerably better."

He began to punch his side; it was not painful to the touch.

"No, I don't feel it . . . already I feel considerably better."

He blew out the candle, and lay on his side. . . . "The vermiform appendix becomes regulated, is absorbed . . ."

And suddenly he began to feel the old, well-known, dull, lingering pain, stubborn, silent, serious; in his mouth the same well-known taste. His heart sank within him; his brain was in a whirl.

"My God! my God!" he cried, "again, again! and it will never cease!"

And suddenly the trouble presented itself to him absolutely in another guise.

"The vermiform appendix! the kidney!" he said to himself. "The trouble lies, not in the blind intestine, not in the kidney . . . but in life . . . and death! Yes, once there was life; but now it is passing away, passing away, and I cannot hold it back. Yes. Why deceive oneself? Is it not evident to every one, except myself, that I am going to die? and it is only a question of weeks, of days . . . maybe instantly. It was light, but now darkness. . . . Now I was here, but then I shall be there! Where?"

A chill ran over him, his breathing ceased. He heard only the thumping of his heart.

"I shall not be, but what will be? There will be nothing. Then, where shall I be when I am no more? Will that be death? No, I will not have it!"

He leaped up, wished to light the candle, fumbled about with trembling hands, knocked the candle and candlestick to the floor, and again fell back on the pillow.

"Wherefore? It is all the same," he said to himself, gazing into the darkness with wide-open eyes.

"Death! Yes, death! And *they* know nothing about it, and wish to know nothing about it; and they do not pity me. They are playing." He heard

through the door the distant sound of voices and *ritornelles*. "To them it is all the same . . . and they also will die. Little fools! I first, and they after me. It will be their turn also. But they are enjoying themselves! Cattle!"

Anger choked him, and he felt an insupportably heavy burden of anguish.

"It cannot be that all men have been exposed to this horrible terror."

He lifted himself once more.

"No, it is not so at all. I must calm myself; I must think it all over from the beginning."

And here he began to reflect: "Yes, the beginning of the trouble. I hit my side, and I was just the same as before, one day and the next, only a little ache, then more severe, then the doctor, then low spirits, anxiety, the doctor again. And I am all the time coming nearer and nearer to the abyss. Less strength. Nearer, nearer! And how wasted I am! I have no light in my eyes. And death . . . and I thinking about the intestine! I am thinking only how to cure my intestine; but this is death!–Is it really death?"

Again fear fell on him. He panted, bent over, tried to find the matches, hit his elbow against the table. It hindered him, and hurt him; he lost his patience, pushed angrily against it with more violence, and tipped it over. And in despair, all out of breath, he fell back, expecting death instantly.

At this time the visitors were going. Praskovia Feodorovna was showing them out. She heard the table fall, and came in.

"What is the matter?"

"Nothing . . . I unintentionally knocked it over,"

She went out, and brought in a candle. He was lying, breathing heavily, and quickly, like a man who has just run a verst; his eyes were staring at her.

"What is it, *Jean*?"

"No-o-thing. I . . . knock-ed . . . over. . . . Why say anything? she will not understand," he thought.

She did not in the least understand. She picked up the table, lighted the candle for him, and hurried out. She had to say good night to her company.

When she came back, he was still lying on his back, looking up.

"What is the matter? Are you worse?"

"Yes."

She shook her head, and sat down.

"Do you know, *Jean,* I think we had better send for Leshchititsky? Don't you?"

That meant, send for the celebrated doctor, and not mind the expense. He smiled bitterly, and said: "No."

She sat a moment, then came to him, and kissed him on the forehead.

He abhorred her, with all the strength of his soul, at that moment when she kissed him; and he had to restrain himself from pushing her away.

"Good night! God give you pleasant sleep!"

"Yes."

Ivan Ilyitch saw that he was going to die, and he was in perpetual despair. In the depths of his soul, he knew that he was going to die; but he not only failed to get used to the thought, but also simply did not comprehend it, could not comprehend it.

This form of syllogism, which he had studied in Kiziveter's "Logic"–"Kaï is a man, men are mortal, therefore Kaï is mortal"–had seemed to him all his life true only in its application to Kaï, but never to himself. It was Kaï as man, as man in general, and in this respect it was perfectly correct; but he was not Kaï, and not man in general, and he had always been an entity absolutely, absolutely distinct from all others; he had been Vanya with mamma and papa, with Mitya and Volodya, with his playthings, the coachman, with the nurse; then with Katenka, with all the joys, sorrows, enthusiasms of childhood, boyhood, youth.

Was it Kaï who smelt the odor of the little striped leather ball that Vanya had loved so dearly? Was it Kaï who had kissed his mother's hand? and was it for Kaï that the silken folds of his mother's dress had rustled so pleasantly? Was it he who made a conspiracy for the tarts at the law school? Was it Kaï who had been so deeply in love? Was it Kaï who had such ability in conducting the sessions?

"And Kaï is certainly mortal, and it is proper that he should die; but for me, Vanya, Ivan Ilyitch, with all my feelings, my thoughts–for me, that is another thing, and it cannot be that I must take my turn and die. That would be too horrible."

This was the way that he felt about it: "If I were going to die, like Kaï, then, surely, I should have known it; some internal voice would have told me; but nothing of the sort happened in me, and I myself, and my friends, all of us, have perceived that it was absolutely different in our case from what it was with Kaï. But now how is it?" he said to himself. "It cannot be, it cannot be, but it is! How is this? How understand it?"

And he could not understand it; and he endeavored to put away this

thought as false, unjust, unwholesome, and to supplant it with other thoughts true and wholesome. But this thought, not merely as a thought, but, as it were, a reality, kept recurring and taking form before him.

And he summoned in place of this thought other thoughts, one after the other, in the hope of finding succor in them. He strove to return to his former course of reasoning, which hid from him of old the thought of death. But, strangely enough, all that which formerly hid, concealed, destroyed the image of death, was now incapable of producing that effect.

Ivan Ilyitch came to spend the larger part of his time in these attempts to restore the former current of feeling which put death out of sight. Sometimes he said to himself: "I will take up my duties again; they certainly kept me alive."

And he went to court, driving away every sort of doubt. He joined his colleagues in conversation, and sat down, according to his old habit, pensively looking with dreamy eyes on the throng, and resting his two emaciated hands on the arms of his oak chair, leaning over, just as usual, toward his colleague, running through the brief, whispering his comments; and then, suddenly lifting his eyes, and sitting straight, he pronounced the well-known words, and began business.

But suddenly, right in the midst of it, the pain in his side, entirely disregarding the time of public business, began its simultaneous business. Ivan Ilyitch perceived it, tried to turn his thoughts from it; but it took its course, and DEATH came up and stood directly before him, and gazed at him: and he was stupefied; the fire died out in his eyes, and he began once more to ask himself: "Is there nothing true save IT?"

And his colleagues and subordinates saw with surprise and concern that he, this brilliant, keen judge, was confused, was making mistakes.

He shook himself, tried to collect his thoughts, and in a way conducted the session till it adjourned, and then returned home with the melancholy consciousness that he no longer had the ability, as of old, to separate between his judicial acts and what he wished to put out of his thoughts; that even in the midst of his judicial acts, he could not deliver himself from IT. And what was worse than all, was the fact that IT distracted his attention, not to make him do anything, but only to make him look at IT, straight in the eye–look at IT, and, though doing nothing, suffer beyond words.

And, while attempting to escape from this state of things, Ivan Ilyitch sought relief, sought other shelter; and other aids came along, and for a short time seemed to help him; but immediately they not so much failed,

as grew transparent, as if IT became visible through all, and nothing could hide it.

It happened in this latter part of the time that he went into the drawing room which he had decorated–that very drawing room where he had met with the fall, for which he–as he had to think with bitterness and scorn–for the decoration of which he had sacrificed his life; because he knew that his malady began with that bruise: he went in, and saw that on the varnished table was a scratch, cut by something. He sought for the cause of it, and found it in the bronze decoration of an album, which was turned up at the edge. He took the precious album, lovingly filled by him, and broke out in a passion against the carelessness of his daughter and her friends, who destroyed things so, who dog-eared photographs. He put this carefully to rights, and bent back the ornament.

Then the idea occurred to him to transfer this *établissement,* albums and all, to the other corner, where the flowers were. He summoned a servant. Either his wife or his daughter came to his help; they did not agree with him; they argued against the change: he argued, he lost his temper; but everything was good, because he did not think about IT, IT did not appear.

But here, as he himself was beginning to shift the things, his wife said: "Hold on! the men will attend to that; you will strain yourself again."

And suddenly IT gleamed through the shelter; he saw IT. IT gleamed; he was already hoping that IT had disappeared, but involuntarily he watched for the pain in his side–there it was, all the time, always making its advance; and he could not forget it, and IT clearly gazed at him from among the flowers. What was the purpose of it all?

"And it is true that here I have lost my life on that curtain as in a charge! Is it possible? How horrible and how ridiculous! It cannot be! It cannot be! but it is."

He went back to his library, went to bed, and found himself again alone with IT. Face to face with IT. But to do anything with IT–impossible! Only to look at IT, and grow chill!

How it came about in the third month of Ivan Ilyitch's illness, it was impossible to say, because it came about step by step, imperceptibly; but it came about that his wife and daughter, and his son and the servants, and his acquaintances and the doctors, and chiefly he himself, knew that all the interest felt in him by others was concentrated in this one thing–how soon he would vacate his place, would free the living

from the constraint caused by his presence, and be himself freed from his sufferings.

He slept less and less; they gave him opium, and began to try hypodermic injections of morphine. But this did not relieve him. The dull distress which he experienced in his half-drowsy condition at first merely afforded the relief of change; but soon it came back as severe as ever, or even more intense than open pain.

They prepared for him special dishes, according to the direction of the physicians; but these dishes became ever more and more tasteless, more and more repugnant to him.

Special arrangements also had been made, so that he might perform the wants of nature; and each time it became more trying for him. The torture came from the uncleanliness, the indecency, of it, and the ill odor, from the knowledge that he required the assistance of another.

But from this very same disagreeable circumstance Ivan Ilyitch drew a consolation. His butler, the muzhik Gerasim, always came to set things to rights.

Gerasim was a clean, ruddy young muzhik, who had grown stout in waiting on the table in the city houses. He was always festive, always serene. From the very first, the sight of this man, always so neatly attired in his Russian costume, engaged in this repulsive task, made Ivan Ilyitch ashamed.

One time, after he had got up and was feeling too weak to lift his pantaloons, he threw himself into an easy chair and was contemplating with horror his bare thighs with their strangely flabby muscles standing out.

Gerasim came in with light, buoyant steps, in thick boots, diffusing an agreeable odor of tar from his boots, and the freshness of the winter air. He wore a clean hempen apron and a clean cotton shirt, with the cuffs rolled up on his bare, strong young arms; and, not looking at Ivan Ilyitch, evidently curbing the joy in life which shone in his face, so as not to offend the sick man, he began to do his work.

"Gerasim," said Ivan Ilyitch, in a weak voice.

Gerasim started, evidently fearing that he had failed in some duty, and turned toward the sick man his fresh, good, simple young face, on which the beard was only just beginning to sprout.

"What can I do for you?"

"This, I am thinking, is disagreeable to you. Forgive me. I cannot help it."

"Do not mention it." And Gerasim's eyes shone, and he showed his

white young teeth. "Why should I not do you this service? It is for a sick man."

And with expert, strong hands, he fulfilled his wonted task and went out with light steps. After five minutes he returned, still walking with light steps. He had made everything clean and sweet.

Ivan Ilyitch was still sitting in his arm chair.

"Gerasim," he said, "be good enough to assist me. Come here."

Gerasim went to him.

"Lift me up. It is hard for me alone, and I sent Dmitri away."

Gerasim went to him. In just the same way as he walked, he lifted him with his strong arm, deftly, gently, and held him. With his other hand he adjusted his clothing, and then was about to let him sit down. But Ivan Ilyitch requested him to help him to the divan. Gerasim, without effort, and exercising no sensible pressure, supported him, almost carrying him, to the divan, and set him down.

"Thank you. How easily, how well, you do it all!"

Gerasim again smiled, and was about to go. But Ivan Ilyitch felt so good with him, that he wanted him to stay.

"Wait! Please bring me that chair . . . no; that one there. Put it under my feet. It is easier for me when my feet are raised."

Gerasim brought the chair, put it down noiselessly, arranged so that it sat even on the floor, and put Ivan Ilyitch's legs on the chair. It seemed to Ivan Ilyitch that he felt more comfortable while Gerasim was holding up his legs.

"It is better when my legs are up," said Ivan Ilyitch. "Bring me that cushion."

Gerasim did this. Again he lifted his legs, and arranged it all. Again Ivan Ilyitch felt better while Gerasim was holding his legs. When he put them down, he felt worse.

"Gerasim," said he, "are you busy just now?"

"Not at all," said Gerasim, having learned of city people how to speak with gentlefolk.

"What more have you to do?"

"What more have I to do? Everything has been done, except splitting wood against tomorrow."

"Then, hold my legs a little higher, can you?"

"Why not? Of course I can!"

Gerasim lifted his legs higher, and it seemed to Ivan Ilyitch that in this position he felt no pain at all.

"But how about the wood?"

"Don't be worried about that. We shall have time enough."

Ivan Ilyitch bade Gerasim to sit down and hold his legs, and he talked with him. And, strangely enough, it seemed to him that he felt better while Gerasim was holding his legs.

From that time forth Ivan Ilyitch would sometimes call Gerasim, and make him hold his legs on his shoulders, and he liked to talk with him. Gerasim did this easily, willingly, simply, and with a goodness of heart which touched Ivan Ilyitch. In all other people, good health, strength, and vigorous life affronted Ivan Ilyitch; but Gerasim's strength and vigorous life did not affront Ivan Ilyitch, but calmed him.

Ivan Ilyitch's chief torment was a lie—the lie somehow accepted by everyone, that he was only sick, but not dying, and that he needed only to be calm, and trust to the doctors, and then somehow he would come out all right. But *he* knew that, whatever was done, nothing would come of it, except still more excruciating anguish and death. And this lie tormented him; it tormented him that they were unwilling to acknowledge what all knew as well as he knew, but preferred to lie to him about his terrible situation, and made him also a party to this lie. This lie, this lie, it clung to him, even to the very evening of his death; this lie, tending to reduce the strange, solemn act of his death to the same level as visits, curtains, sturgeon for dinner—it was horribly painful for Ivan Ilyitch. And strange! many times, when they were playing this farce for his benefit, he was within a hairbreadth of shouting at them: "Stop your foolish lies! you know as well as I know that I am dying, and so at least stop lying."

But he never had the spirit to do this. The strange, terrible act of his dissolution, he saw, was reduced by all who surrounded him to the grade of an accidental unpleasantness, often unseemly—when he was treated as a man who should come into the drawing room and diffuse about him a bad odor—and contrary to those principles of "propriety" which he had served all his life. He saw that no one pitied him, because no one was willing even to appreciate his situation. Only Gerasim appreciated his situation, and pitied him. And, therefore, Ivan Ilyitch was contented only when Gerasim was with him.

He was contented when Gerasim for whole nights at a time held his legs, and did not care to go to sleep, saying: "Don't you trouble yourself, Ivan Ilyitch; I shall get sleep enough."

Or when suddenly, using *thou* instead of *you,* he would add: "If thou wert not sick . . . but since thou art, why not serve thee?"

Gerasim alone did not lie: in every way it was evident that he alone comprehended what the trouble was, and thought it unnecessary to hide

it, and simply pitied his sick barin,[4] who was wasting away. He even said directly when Ivan Ilyitch wanted to send him off to bed: "We shall all die. Then, why should I not serve you?" he said, meaning by this that he was not troubled by his extra work, for precisely the reason that he was doing it for a dying man, and he hoped that, when his time came, some one would undertake the same service for him.

Besides this lie, or in consequence of it, Ivan Ilyitch felt the greatest torment from the fact that no one pitied him as he longed for them to pity him. At some moments after long agonies he yearned more than all—although he would have been the last to confess it—he yearned for some one to pity him as a sick child is pitied. He longed to be caressed, to be kissed, to be wept for, as a child is caressed and comforted. He knew that he was a magistrate of importance, that his beard was turning gray, and that hence it was impossible; but nevertheless he longed for it. And in his relations with Gerasim there was something that approached this. And, therefore, his relations with Gerasim comforted him.

Ivan Ilyitch would have liked to weep, would have liked to be caressed, and have tears shed for him; and here came his colleague, the member Shebek, and, instead of weeping and being caressed, Ivan Ilyitch puts on a serious, stern, melancholy expression of countenance, and with all his energy speaks his opinions concerning the significance of a judgment of cassation, and obstinately stands up for it.

This lie surrounding him, and existing in him, more than all else poisoned Ivan Ilyitch's last days.

It was morning.

It was morning merely because Gerasim had gone, and Piotr, the lackey, had come. He put out the candles, opened one curtain, and began noiselessly to put things to rights. Whether it were morning, whether it were evening, Friday or Sunday, all was a matter of indifference to him, all was one and the same thing. The agonizing, shooting pain, never for an instant appeased; the consciousness of a life hopelessly wasting away, but not yet departed; the same terrible, cursed death coming nearer and nearer, the one reality, and always the same lie—what matter, then, here, of days, weeks, and hours of the day?

"Will you not have me bring the tea?"

"He must follow form, and that requires masters to take tea in the morning," he thought; and he said merely: "No."

"Wouldn't you like to go over to the divan?"

4. The ordinary title of a landowner or noble.

"He has to put the room in order, and I hinder him; I am uncleanness, disorder!" he thought to himself, and said merely: "No: leave me!"

The lackey still bustled about a little. Ivan Ilyitch put out his hand. Piotr officiously hastened to him: "What do you wish?"

"My watch."

Piotr got the watch, which lay nearby, and gave it to him.

"Half-past eight. They aren't up yet?"

"No one at all. Vasili Ivanovitch"–that was his son–"has gone to school, and Praskovia Feodorovna gave orders to wake her up if you asked for her. Do you wish it?"

"No, it is not necessary.–Shall I not try the tea?" he asked himself. "Yes . . . tea . . . bring me some."

Piotr started to go out. Ivan Ilyitch felt terror-stricken at being left alone. "How can I keep him? Yes, my medicine. Piotr, give me my medicine.–Why not? perhaps the medicine may help me yet."

He took the spoon, sipped it.

"No, there is no help. All this is nonsense and delusion," he said, as he immediately felt the familiar, mawkish, hopeless taste.

"No, I cannot have any faith in it. But this pain, . . . why this pain? Would that it might cease for a minute!"

And he began to groan. Piotr came back.

"Nothing . . . go! Bring the tea."

Piotr went out. Ivan Ilyitch, left alone, began to groan, not so much from the pain, although it was horrible, as from mental anguish.

"Always the same thing, and the same thing; all these endless days and nights. Would it might come very soon! What very soon? Death, blackness? No, no! Anything rather than death!"

When Piotr came back with the tea on a tray, Ivan Ilyitch stared long at him in bewilderment, not comprehending who he was, what he was. Piotr was abashed at this gaze; and when Piotr showed his confusion, Ivan Ilyitch came to himself.

"Oh, yes," said he, "the tea; very well, set it down. Only help me to wash, and to put on a clean shirt."

And Ivan Ilyitch began to perform his toilet. With resting spells he washed his hands and face, cleaned his teeth, began to comb his hair, and looked into the mirror. It seemed frightful, perfectly frightful, to him, to see how his hair lay flat upon his pale brow.

While he was changing his shirt, he knew that it would be still more frightful if he gazed at his body; and so he did not look at himself. But now it was done. He put on his khalat, wrapped himself in his plaid, and

sat down in his easy chair to take his tea. For a single moment he felt refreshed; but as soon as he began to drink the tea, again that same taste, that same pain. He compelled himself to drink it all, and lay down, stretching out his legs. He lay down, and let Piotr go.

Always the same thing. Now a drop of hope gleaming, then a sea of despair rising up, and always pain, always melancholy, and always the same monotony. It was terribly melancholy to the lonely man; he longed to call in someone, but he knew in advance that it is still worse when others are present.

"Even morphine again . . . to get a little sleep! . . . I will tell him, tell the doctor, to find something else. It is impossible, impossible so."

One hour, two hours, would pass in this way. But there! the bell in the corridor. Perhaps it is the doctor. Exactly: it is the doctor, fresh, hearty, portly, jovial, with an expression as if he said, "You may feel apprehension of something or other, but we will immediately straighten things out for you."

The doctor knows that this expression is not appropriate here; but he has already put it on once for all, and he cannot rid himself of it—like a man who has put on his dress coat in the morning, and gone to make calls.

The doctor rubs his hands with an air of hearty assurance.

"I am cold. A healthy frost. Let me get warm a little," says he, with just the expression that signifies that all he needs is to wait until he gets warmed a little, and, when he is warmed, then he will straighten things out.

"Well, now, how goes it?"

Ivan Ilyitch feels that the doctor wants to say, "How go your little affairs?" but that he feels that it is impossible to say so; and he says, "What sort of a night did you have?"

Ivan Ilyitch would look at the doctor with an expression which seemed to ask the question, "Are you never ashamed of lying?"

But the doctor has no desire to understand his question.

And Ivan Ilyitch *says:* "It was just horrible! The pain does not cease, does not disappear. If you could only give me something for it!"

"That is always the way with you sick folks! Well, now, it seems to me I am warm enough; even the most particular Praskovia Feodorovna would not find anything to take exception to in my temperature. Well, now, how are you really?"

And the doctor shakes hands with him.

And, laying aside his former jocularity, the doctor begins with serious

mien to examine the sick man, his pulse and temperature, and he renews the tappings and the auscultation.

Ivan Ilyitch knew for a certainty, and beyond peradventure, that all this was nonsense and foolish deception; but when the doctor, on his knees, leaned over toward him, applying his ear, now higher up, now lower down, and with most sapient mien performed various gymnastic evolutions on him, Ivan Ilyitch succumbed to him, as once he succumbed to the discourses of the lawyers, even when he knew perfectly well that they were deceiving him, and why they were deceiving him.

The doctor, still on his knees on the divan, was still performing the auscultation, when at the door were heard the rustle of Praskovia Feodorovna's silk dress, and her words of blame to Piotr because he had not informed her of the doctor's visit.

She came in, kissed her husband, and immediately began to explain that she had been up a long time; and only through a misunderstanding she had not been there when the doctor came.

Ivan Ilyitch looked at her, observed her from head to foot, and felt a secret indignation at her fairness and her plumpness, and the cleanliness of her hands, her neck, her glossy hair, and the brilliancy of her eyes, brimming with life. He hated her with all the strength of his soul, and her touch made him suffer an actual paroxysm of hatred of her.

Her attitude toward him and his malady was the same as before. Just as the doctor had formulated his treatment of his patient and could not change it, so she had formulated her treatment of him, making him feel that he was not doing what he ought to do, and was himself to blame; and she liked to reproach him for this, and she could not change her attitude toward him.

"Now, just see! he does not heed, he does not take his medicine regularly; and, above all, he lies in a position that is surely bad for him—his feet up."

She related how he made Gerasim hold his legs.

The doctor listened with a disdainfully good-natured smile, as much as to say: "What is to be done about it, pray? These sick folks are always conceiving some such foolishness. But you must let it go."

When the examination was over, the doctor looked at his watch; and then Praskovia Feodorovna declared to Ivan Ilyitch that, whether he was willing or not, she was going that very day to call in the celebrated doctor to come and have an examination and consultation with Mikhaïl Danilovitch—that was the name of their ordinary doctor.

"Now, don't oppose it, please. I am doing this for my own self," she

said ironically, giving him to understand that she did it all for him, and only on this account did not allow him the right to oppose her.

He said nothing, and frowned. He felt that this lie surrounding him was so complicated that it was now hard to escape from it.

She did all this for him, only in her own interest; and she said that she was doing it for him, while she was in reality doing it for herself, as some incredible thing, so that he was forced to take it in its opposite sense.

The celebrated doctor, in fact, came about half-past eleven. Once more they had auscultations; and learned discussions took place before him, or in the next room, about his kidney, about the blind intestine, and questions and answers in such a learned form that again the place of the real question of life and death, which now alone faced him, was driven away by the question of the kidney and the blind intestine, which were not acting as became them, and on which Mikhaïl Danilovitch and the celebrity were to fall instantly and compel to attend to their duties.

The famous doctor took leave with a serious but not hopeless expression. And in reply to the timid question which Ivan Ilyitch's eyes, shining with fear and hope, asked of him, whether there was a possibility of his getting well, it replied that it could not vouch for it, but there was a possibility.

The look of hope with which Ivan Ilyitch followed the doctor was so pathetic that Praskovia Feodorovna, seeing it, even wept, as she went out of the library door in order to give the celebrated doctor his honorarium.

The raising of his spirits, caused by the doctor's hopefulness, was but temporary. Again the same room, the same pictures, curtains, wallpaper, vials, and his aching, pain-broken body. And Ivan Ilyitch began to groan. They gave him a subcutaneous injection, and he fell asleep.

When he woke up it was beginning to grow dusky. They brought him his dinner. He forced himself to eat a little bouillon. And again the same monotony, and again the advancing night.

About seven o'clock, after dinner, Praskovia Feodorovna came into his room, dressed as for a party, with her exuberant bosom swelling in her stays, and with traces of powder on her face. She had already that morning told him that they were going to the theater. Sarah Bernhardt had come to town, and they had a box which he had insisted on their taking.

Now he had forgotten about that, and her toilet offended him. But he concealed his vexation when he recollected that he himself had insisted on their taking a box, and going, on the ground that it would be an instructive, aesthetic enjoyment for the children.

Praskovia Feodorovna, came in self-satisfied, but, as it were, feeling a

little to blame. She sat down, asked after his health, as he saw, only for the sake of asking, and not so as to learn, knowing that there was nothing to learn, and began to say what was incumbent on her to say–that she would not have gone for anything, but that they had taken the box; and that Elen and her daughter and Petrishchef–the examining magistrate, her daughter's betrothed–were going, and it was impossible to let them go alone, but that it would have been more agreeable to her to stay at home with him. Only he should be sure to follow the doctor's prescriptions in her absence.

"Yes–and Feodor Petrovitch"–the betrothed–"wanted to come in. May he? And Liza!"

"Let them come."

The daughter came in, in evening dress, with her fair young body, her body that made his anguish more keen. But she paraded it before him, strong, healthy, evidently in love, and irritated against the disease, the suffering, and death which stood in the way of her happiness.

Feodor Petrovitch also entered, in his dress coat, with curly hair *á la Capoul,* with long, sinewy neck tightly incased in a white standing collar, with a huge white bosom, and his long, muscular legs in tight black trousers, with a white glove on one hand, and with an opera hat.

Immediately behind him, almost unnoticed, came the gymnasium scholar, in his new uniform, poor little fellow, with gloves on, and with that terrible blue circle under the eyes, the meaning of which Ivan Ilyitch understood.

He always felt a pity for his son. And terrible was his timid and compassionate glance. With the exception of Gerasim, Vasya alone, it seemed to Ivan Ilyitch, understood and pitied him.

All sat down; again they asked after his health. Silence ensued. Liza asked her mother if she had the opera glasses. A dispute arose between mother and daughter as to who had mislaid them. It was a disagreeable episode.

Feodor Petrovitch asked Ivan Ilyitch if he had seen Sarah Bernhardt. Ivan Ilyitch did not at first understand his question, but in a moment he said: "No . . . why, have you seen her yet?"

"Yes, in 'Adrienne Lecouvreur.' "

Praskovia Feodorovna said that she was especially good in that. The daughter disagreed with her. A conversation arose about the grace and realism of her acting–the same conversation which is always and forever one and the same thing.

In the midst of the conversation, Feodor Petrovitch glanced at Ivan

Ilyitch, and grew silent. The others glanced at him, and grew silent. Ivan Ilyitch was looking straight ahead with gleaming eyes, evidently indignant at them. Some one had to extricate them from their embarrassment, but there seemed to be no way out of it. No one spoke; and a panic seized them all, lest suddenly this ceremonial lie should somehow be shattered, and the absolute truth become manifest to all.

Liza was the first to speak. She broke the silence. She wished to hide what all felt, but she betrayed it.

"One thing is certain–*if we are going,* it is time," she said, glancing at her watch, her father's gift; and giving the young man a sign, scarcely perceptible, and yet understood by him, she smiled, and arose in her rustling dress.

All arose, said good-by, and went.

When they had gone, Ivan Ilyitch thought that he felt easier: the lying was at an end; it had gone with them; but the pain remained. Always this same pain, always this same terror, made it hard as hard could be. There was no easing of it. It grew ever worse, always worse.

Again minute after minute dragged by, hour after hour, forever the same monotony, and forever endless, and forever more terrible–the inevitable end.

"Yes, send me Gerasim," was his reply to Piotr's question.

Late at night his wife returned. She came in on her tiptoes, but he heard her; he opened his eyes, and quickly closed them again. She wanted to send Gerasim away, and sit with him herself. He opened his eyes, and said: "No, go away."

"You suffer very much."

"It makes no difference."

"Take some opium."

He consented, and drank it. She went.

Until three o'clock he was in a painful sleep. It seemed to him that they were forcing him cruelly into a narrow sack, black and deep; and they kept crowding him down, but could not force him in. And this performance, horrible for him, was accompanied with anguish. And he was afraid, and yet wished to get in, and struggled against it, and yet tried to help.

And here suddenly he broke through, and fell . . . and awoke.

There was Gerasim still sitting at his feet on the bed, dozing peacefully, patiently.

But he was lying there with his emaciated legs in stockings resting on

his shoulders, the same candle with its shade, and the same never ending pain.

"Go away, Gerasim," he whispered.

"It's nothing; I will sit here a little while."

"No, go away."

He took down his legs, lay on his side on his arm, and began to pity himself. He waited only until Gerasim had gone into the next room, and then he no longer tried to control himself, but wept like a child. He wept over his helplessness, over his terrible loneliness, over the cruelty of men, over the cruelty of God, over the absence of God.

"Why hast Thou done this? Why didst Thou place me here? Why, why dost Thou torture me so horribly?"

He expected no reply; and he wept because there was none, and could be none. The pain seized him again; but he did not stir, did not call. He said to himself: "There, now, again, now strike! But why? What have I done to Thee? Why is it?"

Then he became silent; ceased not only to weep, ceased to breathe, and became all attention: as it were, he heard, not a voice speaking with sounds, but the voice of his soul, the tide of his thoughts, arising in him.

"What dost thou need?" was the first clear concept possible to be expressed in words which he heard.

" 'What dost thou need? What dost thou need?' " he said to himself. "What? Freedom from suffering. To live," he replied.

And again he gave his attention, with such effort that already he did not even notice his pain.

"To live? how live?" asked the voice of his soul.

"Yes, to live as I used to live—well, pleasantly."

"How didst thou live before when thou didst live well and pleasantly?" asked the voice.

And he began to call up in his imagination the best moments of his pleasant life. But, strangely enough, all these best moments of his pleasant life seemed to him absolutely different from what they had seemed then—all, except the earliest remembrances of his childhood. There, in childhood, was something really pleasant, which would give new zest to life if it were to return. But the person who had enjoyed that pleasant existence was no more; it was as if it were the remembrance of someone else.

As soon as the period began which had produced the present *he,* Ivan Ilyitch, all the pleasures which seemed such then, now in his eyes dwindled away, and changed into something of no account, and even disgusting.

And the farther he departed from infancy, and the nearer he came to the present, so much the more unimportant and dubious were the pleasures.

This began in the law school. There was still something even then which was truly good; then there was gaiety, there was friendship, there were hopes. But in the upper classes these good moments became rarer.

Then, in the time of his first service at the governor's, again appeared good moments; these were the recollections of love for a woman. Then all this became confused, and the happy time grew less. The nearer he came to the present, the worse it grew, and still worse and worse it grew.

"My marriage . . . so unexpected, and disillusionment and my wife's breath, and sensuality, hypocrisy! And this dead service, and these labors for money; and thus one year, and two, and ten, and twenty, and always the same thing. And the longer it went, the more dead it became.

"It is as if all the time I were going down the mountain, while thinking that I was climbing it. So it was. According to public opinion, I was climbing the mountain; and all the time my life was gliding away from under my feet. . . . And here it is already . . . die!

"What is this? Why? It cannot be! It cannot be that life has been so irrational, so disgusting. But even if it is so disgusting and irrational, still, why die, and die in such agony? There is no reason.

"Can it be that I did not live as I ought?" suddenly came into his head. "But how can that be, when I have done all that it was my duty to do?" he asked himself. And immediately he put away this sole explanation of the enigma of life and death as something absolutely impossible.

"What dost thou wish now?–To live? To live how? To live as thou livest in court when the usher proclaims, 'The court is coming! the court is coming'?

"The court is coming–the court," he repeated to himself. "Here it is, the court. Yes; but I am not guilty," he cried with indignation. "What for?"

And he ceased to weep; and, turning his face to the wall, he began to think about that one thing, and that alone. "Why, wherefore, all this horror?"

But, in spite of all his thoughts, he received no answer. And when the thought occurred to him, as it had often occurred to him, that all this came from the fact that he had not lived as he should, he instantly remembered all the correctness of his life, and he drove away this strange thought.

Thus two weeks longer passed. Ivan Ilyitch no longer got up from the

divan. He did not wish to lie in bed, and he lay on the divan. And, lying almost all the time with his face to the wall, he still suffered in solitude the same inexplicable sufferings, and still thought in solitude the same inexplicable thought.

"What is this? Is it true that this is death?"

And an inward voice responded: "Yes, it is true."

"Why these torments?"

And the voice responded: "But it is so. There is no why."

Farther and beyond this, there was nothing.

From the very beginning of his malady, from the time when Ivan Ilyitch for the first time went to the doctor, his life was divided into two conflicting tendencies, alternately succeeding each other. Now it was despair, and the expectation of an incomprehensible and frightful death; now it was hope, and the observation of the functional activity of his body, so full of interest for him. Now before his eyes was the kidney, or the intestine, which, for the time being, failed to fulfill its duty. Then it was that incomprehensible, horrible death, from which it was impossible for anyone to escape.

These two mental states, from the very beginning of his illness, kept alternating with one another. But the farther the illness progressed, the more dubious and fantastical became his ideas about the kidney, and the more real his consciousness of approaching death.

He had but to call to mind what he had been three months before, and what he was now, to call to mind with what regularity he had been descending the mountain; and that was sufficient for all possibility of hope to be dispelled.

During the last period of this solitude through which he was passing, as he lay with his face turned to the back of the divan—a solitude amid a populous city, and amid his numerous circle of friends and family, a solitude deeper than which could not be found anywhere, either in the depths of the sea, or in the earth—during the last period of this terrible solitude, Ivan Ilyitch lived only by imagination in the past.

One after another, the pictures of his past life arose before him. They always began with the time nearest to the present, and went back to the very remotest—to his childhood, and there they rested.

If Ivan Ilyitch remembered the stewed prunes which they had given him to eat that very day, then he remembered the raw, puckery French prunes of his childhood, their peculiar taste, and the abundant flow of saliva caused by the stone. And in connection with these recollections of taste started a whole series of recollections of that time—his nurse, his brother, his toys.

"I must not think about these things; it is too painful," said Ivan Ilyitch to himself. And again he transported himself to the present—the button on the back of the divan, and the wrinkles of the morocco. "Morocco is costly, not durable. There was a quarrel about it. But there was some other morocco, and some other quarrel, when we tore father's portfolio and got punished, and mamma brought us some tarts."

And again his thoughts reverted to childhood; and again it was painful to Ivan Ilyitch, and he tried to avoid it, and think of something else.

And again, together with this current of recollections, there passed through his mind another current of recollections about the progress and rise of his disease. Here, also, according as he went back, there was more and more of life. There was more, also, of excellence in life, and more of life itself. And the two were confounded.

"Just as this agony goes from worse to worse, so also all my life has gone from worse to worse," he thought. "One shining point, there back in the distance, at the beginning of life; and then all growing blacker and blacker, swifter and swifter, in inverse proportion to the square of the distance from death," thought Ivan Ilyitch.

And the comparison of a stone falling with accelerating rapidity occurred to his mind. Life, a series of increasing tortures, always speeding swifter and swifter to the end—the most horrible torture.

"I am falling."

He shuddered, he tossed, he wished to resist it. But he already knew that it was impossible to resist; and again, with eyes weary of looking, but still not able to resist looking at what was before him, he stared at the back of the divan, and waited, waited for this frightful fall, shock, and destruction.

"It is impossible to resist," he said to himself. "But can I not know the wherefore of it? Even that is impossible. It might be explained by saying that I had not lived as I ought. But it is impossible to acknowledge that," he said to himself, recollecting all the legality, the uprightness, the propriety of his life.

"It is impossible to admit that," he said to himself, with a smile on his lips, as if someone were to see that smile of his, and be deceived by it.

"No explanation! torture, death . . . why?"

Thus passed two weeks. In these weeks, there occurred an event desired by Ivan Ilyitch and his wife. Petrishchef made a formal proposal. This took place in the evening. On the next day, Praskovia Feodorovna went to her husband, meditating in what way to explain to him Feodor

Petrovitch's proposition; but that very same night, a change for the worse had taken place in Ivan Ilyitch's condition. Praskovia Feodorovna found him on the same divan, but in a new position. He was lying on his back; he was groaning, and looking straight up with a fixed stare.

She began to speak about medicines. He turned his eyes on her. She did not finish saying what she had begun, so great was the hatred against her expressed in that look.

"For Christ's sake, let me die in peace!" said he.

She was about to go out; but just at this instant the daughter came in, and came near to wish him good morning. He looked at his daughter as he had looked at his wife, and, in reply to her questions about his health, told her dryly that he would quickly relieve them all of his presence. Neither mother nor daughter said anything more; but they sat for a few moments longer, and then went out.

"What are we to blame for?" said Liza to her mother. "As if we had made him so! I am sorry for papa, but why should he torment us?"

At the usual time the doctor came. Ivan Ilyitch answered "yes," "no," not taking his angry eyes from him; and at last he said: "Now see here, you know that you don't help any, so leave me!"

"We can appease your sufferings," said the doctor.

"You cannot even do that; leave me!"

The doctor went into the drawing room, and advised Praskovia Feodorovna that it was very serious, and that there was only one means—opium—of appeasing his sufferings, which must be terrible.

The doctor said that his physical sufferings were terrible, and this was true; but more terrible than his physical sufferings were his moral sufferings, and in this was his chief torment.

His moral sufferings consisted in the fact that that very night, as he looked at Gerasim's sleepy, good-natured face, with its high cheekbones, it had suddenly come into his head: "But how is it if in reality my whole life, my conscious life, has been wrong?"

It came into his head that what had shortly before presented itself to him as an absolute impossibility—that he had not lived his life as he ought—might be true. It came into his head that the scarcely recognizable desires to struggle against what men highest in position considered good—desires scarcely recognizable, which he had immediately banished—might be true, and all the rest might be wrong. And his service, and his course of life, and his family, and these interests of society and office—all this might be wrong.

He endeavored to defend all this before himself. And suddenly he

realized all the weakness of what he was defending. And there was nothing to defend.

"But if this is so," he said to himself, "and I am departing from life with the consciousness that I have wasted all that was given me, and that it is impossible to rectify it, what then?"

He lay flat on his back, and began entirely anew to examine his whole life.

When in the morning he saw the lackey, then his wife, then his daughter, then the doctor, each one of their motions, each one of their words, confirmed for him the terrible truth which had been disclosed to him that night. He saw in them himself, all that for which he had lived; and he saw clearly that all this was wrong, all this was a terrible, monstrous lie, concealing both life and death.

This consciousness increased his physical sufferings, added tenfold to them. He groaned and tossed, and threw off the clothes. It seemed to him that they choked him, and loaded him down.

And that was why he detested them.

They gave him a great dose of opium; he became unconscious, but at dinnertime the same thing began again. He drove them from him, and threw himself from place to place.

His wife came to him, and said: "Jean, darling, do this for me (*for me!*). It cannot do any harm, and sometimes it helps. Why, it is a mere nothing. And often well people try it."

He opened his eyes wide.

"What? Take the sacrament? Why? It's not necessary. But, however . . ."

She burst into tears.

"Will you, my dear? I will get our priest. He is so sweet!"

"Excellent! very good," he continued.

When the priest came, and confessed him, he became calmer, felt, as it were, an alleviation of his doubts, and consequently of his suffering; and there came a moment of hope. He again began to think about the blind intestine and the possibility of curing it. He took the sacrament with tears in his eyes.

When they put him to bed after the sacrament, he felt comfortable for the moment, and once more hope of life appeared. He began to think of the operation which they had proposed.

"I want to live, to live," he said to himself.

His wife came to congratulate him. She said the customary words, and added: "You feel better, don't you?"

Without looking at her, he said: "Yes."

Her hope, her temperament, the expression of her face, the sound of her voice, all said to him one thing:

"Wrong! all that for which thou hast lived, and thou livest, is falsehood, deception, hiding from thee life and death."

And as soon as he expressed this thought, his exasperation returned, and, together with his exasperation, the physical, tormenting agony; and, with the agony, the consciousness of inevitable death close at hand. Something new took place: a screw seemed to turn in him, twinging pain to show through him, and his breathing was constricted.

The expression of his face, when he said "yes," was terrible. After he had said that "yes," he looked straight into her face, and then, with extraordinary quickness for one so weak, he threw himself on his face and cried: "Go away! go away! leave me!"

From that moment began that shriek that did not cease for three days, and was so terrible that, when it was heard two rooms away, it was impossible to hear it without terror. At the moment that he answered his wife, he felt that he was lost, and there was no return, that the end had come, absolutely the end, and the question was not settled, but remained a question.

"U! uu! u!" he cried in varying intonations. He began to shriek, "*N'ye khotchu*–I won't"; and thus he kept up the cry on the letter *u*.

Three whole days, during which for him there was no time, he struggled in that black sack into which an invisible, invincible power was thrusting him. He fought as one condemned to death fights in the hands of the hangman, knowing that he cannot save himself, and at every moment he felt that, notwithstanding all the violence of his struggle, he was nearer and nearer to that which terrified him. He felt that his suffering consisted, both in the fact that he was being thrust into that black hole, and still more that he could not make his way through into it. What hindered him from making his way through was the confession that his life had been good. This justification of his life caught him, and did not let him advance, and more than all else tormented him.

Suddenly some force knocked him in the breast, in the side, still more forcibly compressed his breath; he was hurled through the hole, and there at the bottom of the hole some light seemed to shine on him. It happened to him as it sometimes does on a railway carriage when you think that you are going forward, but are really going backward, and suddenly recognize the true direction.

"Yes, all was wrong," he said to himself; "but that is nothing. I might, I might have done right. What is right?" he asked himself, and suddenly stopped.

This was at the end of the third day, two hours before his death. At this very same time the little student noiselessly stole into his father's room, and approached his bed. The moribund was continually shrieking desperately, and tossing his arms. His hand struck upon the little student's head. The little student seized it, pressed it to his lips, and burst into tears.

It was at this very same time that Ivan Ilyitch fell through, saw the light, and it was revealed to him that his life had not been as it ought, but that still it was possible to repair it. He was just asking himself, "What is right?" and stopped to listen.

Then he felt that someone was kissing his hand. He opened his eyes, and looked at his son. He felt sorry for him. His wife came to him. He looked at her. With open mouth, and with her nose and cheeks wet with tears, with an expression of despair, she was looking at him. He felt sorry for her.

"Yes, I am a torment to them," he thought. "I am sorry for them, but they will be better off when I am dead."

He wanted to express this, but he had not the strength to say it.

"However, why should I say it? I must do it"

He pointed out his son to his wife by a glance, and said: "Take him away . . . I am sorry . . . and for thee."

He wanted to say also, "*Prosti*–Forgive," but he said, "*Propusti*–Let it pass"; and, not having the strength to correct himself, he waved his hand, knowing that he would comprehend who had the right.

And suddenly it became clear to him that what oppressed him, and was hidden from him, suddenly was lighted up for him all at once, and on two sides, on ten sides, on all sides.

He felt sorry for them; he felt that he must do something to make it less painful for them. To free them, and free himself, from these torments, "How good and how simple!" he thought.

"But the pain," he asked himself, "where is it?–Here, now, where art thou, pain?"

He began to listen.

"Yes, here it is! Well, then, do your worst, pain!"

"And death? where is it?"

He tried to find his former customary fear of death, and could not.

"Where is death? What is it?"

There was no fear, because there was no death.

In place of death was light!

"Here is something like!" he suddenly said aloud. "What joy!"

For him all this passed in a single instant, and the significance of this instant did not change.

For those who stood by his side, his death agony was prolonged two hours more. In his breast something bubbled up, his emaciated body shuddered. Then more and more rarely came the bubbling and the rattling.

"It is all over," said someone above him.

He heard these words, and repeated them in his soul.

"It is over! death!" he said to himself. "It does not exist more."

He drew in one more breath, stopped in the midst of it, stretched himself, and died.

The Three Hermits

> But when ye pray, use not vain repetitions, as the heathen do: for they think that they shall be heard for their much speaking.
>
> Be ye not therefore like unto them: for your Father knoweth what things ye have need of, before ye ask him.
>
> Matthew, VI, 7–8.

bishop set sail in a ship from the city of Archangel to Solovki.[1] In the same ship sailed some pilgrims to the saints.

The wind was propitious, the weather was clear, the sea was not rough. The pilgrims, some of whom were lying down, some lunching, some sitting in little groups, conversed together.

The bishop also came on deck and began to walk up and down on the bridge. As he approached the bow, he saw a knot of people crowded together. A little muzhik was pointing his hand at something in the sea, and talking; and the people were listening.

The bishop stood still, and looked where the little muzhik was pointing; nothing was to be seen, except the sea glittering in the sun.

The bishop came closer and began to listen. When the little muzhik saw the bishop, he took off his cap, and stopped speaking. The people also, when they saw the bishop, took off their hats, and paid their respects.

"Don't mind me, brothers," said the bishop. "I have also come to listen to what you are saying, my good friend."

"This fisherman was telling us about some hermits," said a merchant, who was bolder than the rest.

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1. The Slovetsky Monastery, at the mouth of the Dvina River.

"What about the hermits?" asked the bishop, as he came to the gunwale, and sat down on a box. "Tell me too; I should like to hear. What were you pointing at?"

"Well, then, yonder's the little island just heaving in sight," said the little peasant; and he pointed toward the port side. "On that very islet, three hermits live, working out their salvation."

"Where is the little island?" asked the bishop.

"Here, look along my arm, if you please. You see that little cloud? Well, just below it to the left it shows like a streak."

The bishop looked and looked; the water gleamed in the sun, but from lack of practice he could not see anything.

"I don't see it," says he. "What sort of hermits are they who live on the little island?"

"God's people," replied the peasant. "For a long time I had heard tell of them, but I never chanced to see them until last summer."

And the fisherman again began to relate how he had been out fishing, and how he was driven to that island, and knew not where he was. In the morning he started to look around, and stumbled upon a little earthen hut; and he found in the hut one hermit, and then two others came in. They fed him, and dried him, and helped him repair his boat.

"What sort of men were they" asked the bishop.

"One was rather small, humpbacked, very, very old; he was dressed in well-worn stole; he must have been more than a hundred years old; the gray hairs in his beard were already turning green; but he always had a smile ready, and he was as serene as an angel of heaven. The second was taller, also old, in a torn caftan; his long beard was growing a little yellowish, but he was a strong man; he turned my boat over as if it had been a tub, and I didn't even have to help him: he was also a jolly man. But the third was tall, with a long beard reaching to his knee, and white as the moon; but he was gloomy; his eyes glared out from under beetling brows; and he was naked, all save a plaited belt."

"What did they say to you?" asked the bishop.

"They did everything mostly without speaking, and they talked very little among themselves; one had only to look, and the other understood. I began to ask the tall one if they had lived there long. He frowned, muttered something, grew almost angry: then the little old man instantly seized him by the hand, smiled, and the large man said nothing. But the old man said, 'Excuse us,' and smiled."

While the peasant was speaking, the ship had been sailing nearer and nearer to the islands.

"There, now you can see plainly," said the merchant. "Now, please look, your reverence," said he, pointing.

The bishop tried to look, and he barely managed to make out a black speck—the little island.

The bishop gazed and gazed; and he went from the bow to the stern, and he approached the helmsman.

"What is that little island," says he, "that you see over yonder?"

"As far as I know, it has no name; there are a good many of them here."

"Is it true as they say, that some monks are winning their salvation there?"

"They say so, your reverence, but I don't rightly know. Fishermen, they say, have seen them. Still, folks talk a good deal of nonsense."

"I should like to land on the little island, and see the hermits," said the bishop. "How can I manage it?"

"It is impossible to go there in the ship," said the helmsman. "You might do it in a boat, but you will have to ask the captain."

They summoned the captain.

"I should like to have a sight of those hermits," said the bishop. "Is it out of the question to take me there?"

The captain tried to dissuade him.

"It is possible, quite possible, but we should waste much time; and I take the liberty of assuring your reverence, they are not worth looking at. I have heard from people that those old men are perfectly stupid; they don't understand anything, and can't say anything, just like some sort of sea fish."

"I wish it," said the bishop. "I will pay for the trouble, if you will take me there."

There was nothing else to be done: the sailors arranged it; they shifted sail. The helmsman put the ship about and they sailed toward the island. A chair was set for the bishop on the bow. He sat down and looked. And all the people gathered on the bow, all looked at the little island. And those who had trustworthy eyes already began to see rocks on the island, and point out the hut. And one even saw the three hermits. The captain got out a spyglass, gazed through it, handed it to the bishop.

"He is quite right," said the captain; "there on the shore at the right, standing on a great rock, are three men."

The bishop also looked through the glass; he pointed it in the right direction and plainly saw the three men standing there—one tall, the second shorter, but the third very short. They were standing on the shore, hand in hand.

The captain came to the bishop: "Here, your reverence, the ship must come to anchor; if it suit you, you can be put ashore in a yawl, and we will anchor out here and wait for you."

Immediately they got the tackle ready, cast anchor, and furled the sails; the vessel brought up, began to roll. They lowered a boat, the rowers manned it, and the bishop started to climb down by the companionway. The bishop climbed down, took his seat on the thwart; the rowers lifted their oars; they sped away to the island. They sped away like a stone from a sling; they could see the three old men standing–the tall one naked, with his plaited belt; the shorter one in his torn caftan; and the little old humpbacked one, in his old stole–all three were standing there, hand in hand.

The sailors reached shore and caught hold with the boat hook. The bishop got out.

The hermits bowed before him; he blessed them; they bowed still lower. And the bishop began to speak to them: "I heard," says he, "that you hermits were here, working out your salvation, that you pray Christ our God for your fellow men; and I am here by God's grace, an unworthy servant of Christ, called to be a shepherd to His flock; and so I desired also, if I might, to give instruction to you, who are the servants of God."

The hermits made no reply; they smiled, they exchanged glances.

"Tell me how you are working out your salvation, and how you serve God," said the bishop.

The middle hermit sighed, and looked at the aged one, at the venerable one; the tall hermit frowned, and looked at the aged one, at the venerable one. And the venerable old hermit smiled, and said: "Servant of God, we have not the skill to serve God; we only serve ourselves, getting something to eat."

"How do you pray to God?" asked the bishop.

And the venerable hermit said: "We pray thus: 'You three, have mercy on us three.' "

And as soon as the venerable hermit said this, all three of the hermits raised their eyes to heaven, and all three said, "*Troe vas, troe nas, pomiluï nas!*"

The bishop smiled, and said: "You have heard this about the Holy Trinity, but you should not pray so. I have taken a fancy to you, men of God. I see that you desire to please God, but you know not how to serve Him. You should not pray so; but listen to me, I will teach you. I shall not teach you my own words, but shall teach you from God's scriptures how God commanded all people to pray to God."

And the bishop began to explain to the hermits how God revealed Himself to men. He taught them about God the Father, God the Son, and God the Holy Spirit, and said: "God the Son came upon earth to save men, and this is the way He taught all men to pray; listen, and repeat after me–"

And the bishop began to say: "*Our Father.*"

And one hermit repeated: "*Our Father.*"

And then the second repeated: "*Our Father.*"

And the third also repeated: "*Our Father.*"

"*Who art in heaven*"; and the hermits tried to repeat, "*Who art in heaven*."

But the middle hermit mixed the words up, he could not repeat them so; and the tall, naked hermit could not repeat them–his mustache had grown so as to cover his mouth, he could not speak distinctly; and the venerable, toothless hermit could not stammer the words intelligibly.

The bishop said it a second time; the hermits repeated it again. And the bishop sat down on a little boulder, and the hermits stood about him; and they looked at his lips, and they repeated it after him until they knew it. And all that day till evening the bishop labored with them; and ten times, and twenty times, and a hundred times, he repeated each word, and the hermits learned it by rote. And when they got mixed up, he set them right, and made then begin all over again.

And the bishop did not leave the hermits until he had taught them the whole of the Lord's Prayer. They repeated it after him, and then by themselves.

First of all, the middle hermit learned it, and he repeated it from beginning to end; and the bishop bade him say it again and again, and still again to repeat it; and the others also learned the whole prayer.

It was already beginning to grow dark, and the moon was just coming up out of the sea, when the bishop arose to go back to the ship.

The bishop said farewell to the hermits; they all bowed very low before him. He raised them to their feet and kissed each of them, bade them pray as he had taught them; and he took his seat in the boat, and returned to the ship.

And while the bishop was rowed back to the ship, he heard all the time how the hermits were repeating the Lord's Prayer at the top of their voices.

They returned to the ship, and here the voices of the hermits could no longer be heard; but they could still see, in the light of the moon, the three old men standing in the very same place on the shore–one shorter than the rest in the middle, with the tall one on the right, and the other on the left hand.

The bishop returned to the ship, climbed up on deck; the anchor was hoisted; the sails were spread, and bellied with wind; the ship began to move, and they sailed away.

The bishop came to the stern, and took a seat there, and kept looking at the little island. At first the hermits were to be seen; then they were hidden from sight, and only the island was visible; and then the island went out of sight, and only the sea was left playing in the moonlight.

The pilgrims lay down to sleep, and all was quiet on deck. But the bishop cared not to sleep; he sat by himself in the stern, looked out over the sea in the direction where the island had faded from sight, and thought about the good hermits.

He thought of how they had rejoiced in what they had learned in the prayer; and he thanked God because He had led him to the help of the hermits, in teaching them the word of God.

Thus the bishop was sitting and thinking, looking at the sea in the direction where the little island lay hidden. And his eyes were filled with the moonlight, as it danced here and there on the waves. Suddenly he saw something shining and gleaming white in the track of the moon. Was it a bird, a gull, or a boat sail gleaming white? The bishop strained his sight.

"A sailboat," he said to himself, "is chasing us. Yes, it is catching up with us very rapidly. It was far, far off, but now it is close to us. But, after all, it is not much like a sailboat. Anyway, something is chasing us, and catching up with us."

And the bishop could not decide what it was–a boat, or not a boat; a bird, or not a bird; a fish, or not a fish. It was like a man, but very great; but a man could not be in the midst of the sea.

The bishop got up and went to the helmsman.

"Look!" says he, "what is that? what is that, brother? what is it?" said the bishop.

But by this time he himself saw. It was the hermits running over sea. Their gray beards gleamed white, and shone; and they drew near the ship as if it were stationary.

The helmsman looked. He was scared, dropped the tiller, and cried with a loud voice: "Lord! the hermits are running over the sea as if it were dry land!"

The people heard and sprang up; all rushed aft. All beheld the hermits running, hand in hand. The end ones swung their arms; they signaled the ship to come to. All three ran over the water as if it were dry land, and did not move their feet.

It was not possible to bring the ship to before the hermits overtook it,

came on board, raised their heads, and said with one voice: "We have forgotten, servant of God, we have forgotten what thou didst teach us. While we were learning it, we remembered it; but when we ceased for an hour to repeat it, one word slipped away; we have forgotten it: the whole was lost. We remembered none of it; teach it to us again."

The bishop crossed himself, bowed low to the hermits, and said: "Acceptable to God is your prayer, ye hermits. It is not for me to teach you. Pray for us sinners."

And the bishop bowed before the feet of the hermits. And the hermits paused, turned about, and went back over the sea. And until the morning, there was something seen shining in the direction where the hermits had gone.

What Men Live By

We know that we have passed out of death into life, because we love the brethren. He that loveth not abideth in death.

I John, III, 14.

But whoso hath the world's goods, and beholdeth his brother in need, and shutteth up his compassion from him, how doth the love of God abide in him?

My little children, let us not love in word, neither with the tongue, but in deed and truth. I John, III, 17–18.

Love is of God; and every one that loveth is begotten of God and knoweth God.

He that loveth not knoweth not God; for God is love.

I John, IV, 7–8.

No man hath beheld God at any time: if we love one another, God abideth in us. I John, IV, 12.

God is love; and he that abideth in love abideth in God, and God abideth in him. I John, IV, 16.

If a man say, I love God, and hateth his brother, he is a liar; for he that loveth not his brother whom he hath seen cannot love God whom he hath not seen. I John, IV, 20.

cobbler and his wife and children had lodgings with a peasant. He owned neither house nor land, and he supported himself and his family by shoemaking.

Bread was dear and labor was poorly paid, and whatever he earned went for food.

The cobbler and his wife had one shuba between them, and this had come to tatters, and for two years the cobbler had been hoarding in order to buy sheepskins for a new shuba.

When autumn came, the cobbler's hoard had grown; three paper rubles lay in his wife's box, and five rubles and twenty kopecks more were due the cobbler from his customers.

One morning the cobbler betook himself to the village to get his new shuba. He put on his wife's wadded nankeen jacket over his shirt, and outside of all a woolen caftan. He put the three-ruble note in his pocket, broke off a staff, and after breakfast he set forth.

He said to himself: "I will get my five rubles from the peasant, and that with these three will buy pelts for my shuba."

The cobbler reached the village and went to one peasant's; he was not at home, but his wife promised to send her husband with the money the next week, but she could not give him any money. He went to another, and this peasant swore that he had no money at all; but he paid him twenty kopecks for cobbling his boots.

The cobbler made up his mind to get the pelts on credit. But the fur dealer refused to sell on credit.

"Bring the money," said he; "then you can make your choice; but we know how hard it is to get what is one's due."

And so the cobbler did not do his errand, but he had the twenty kopecks for cobbling the boots, and he took from a peasant an old pair of felt boots to mend with leather.

At first the cobbler was vexed at heart; then he spent the twenty kopecks for vodka, and started to go home. In the morning he had felt cold, but after having drunk the brandy he was warm enough even without the shuba.

The cobbler was walking along the road, striking the frozen ground with the staff which he had in one hand, and swinging the felt boots in the other, and thus he talked to himself:

"I am warm even without a shuba," said he. "I drank a glass, and it dances through all my veins. And so I don't need a sheepskin coat. I walk along, and all my vexation is forgotten. What a fine fellow I am! What do I need? I can get along without the shuba. I don't need it at all. There's one thing: the wife will feel bad. Indeed, it is too bad; here I have been working for it, and now to have missed it! You just wait now! if you don't bring the money, I will take your hat, I vow I will! What a way of doing things! He pays me twenty kopecks at a time! Now what can you do with twenty kopecks? Get a drink; that's all! You say, 'I am poor!' But if you are poor, how is it with me? You have a house and cattle and everything; I have nothing but my own hands. You raise your own grain, but I have to buy mine, when I can, and it costs me three rubles a week for food alone. When I get home now, we shall be out of

bread. Another ruble and a half of outgo! So you must give me what you owe me."

By this time the cobbler had reached the chapel at the crossroads, and he saw something white behind the chapel.

It was already twilight, and the cobbler strained his eyes, but he could not make out what the object was.

"There never was any such stone there," he said to himself. "A cow? But it does not look like a cow! The head is like a man's; but what is that white? And why should there be any man there?"

He went nearer. Now he could see plainly. What a strange thing! It was indeed a man, but was he alive or dead? sitting there stark naked, leaning against the chapel, and not moving.

The cobbler was frightened. He said to himself: "Some one has killed that man, stripped him, and flung him down there. If I go near, I may get into trouble."

And the cobbler hurried by.

In passing the chapel he could no longer see the man; but after he was fairly beyond it, he looked back, and saw that the man was no longer leaning against the chapel, but was moving, and apparently looking after him.

The cobbler was still more scared by this, and he said to himself: "Shall I go back to him or go on? If I go back to him, there might something unpleasant happen; who knows what sort of a man he is? He can't have gone there for any good purpose. If I went to him, he might spring on me and choke me, and I could not get away from him; and even if he did not choke me, why should I try to make his acquaintance? What could be done with him, naked as he is? I can't take him with me, and give him my own clothes! That would be absurd."

And the cobbler hastened his steps. He had already gone some distance beyond the chapel, when his conscience began to prick him.

He stopped short.

"What is this that you are doing, Semyon?" he asked himself. "A man is perishing of cold, and you are frightened, and hurry by! Are you so very rich? Are you afraid of losing your money? Aï, Sema! That is not right!"

Semyon turned and went back to the man.

Semyon went back to the man, looked at him, and saw that it was a young man in the prime of life; there were no bruises visible on him, but he was evidently freezing and afraid; he was sitting there, leaning back, and he did not look at Semyon; apparently he was so weak that he could not lift his eyes.

Semyon went up close to him, and suddenly the man seemed to revive; he lifted his head and fastened his eyes on Semyon.

And by this glance the man won Semyon's heart.

He threw the felt boots down on the ground, took off his belt and laid it on the boots, and pulled off his caftan.

"There's nothing to be said," he exclaimed. "Put these on! There now!"

Semyon put his hand under the man's elbow, to help him, and tried to lift him. The man got up.

And Semyon saw that his body was graceful and clean, that his hands and feet were comely, and that his face was agreeable. Semyon threw the caftan over his shoulders. He could not get his arms into the sleeves. Semyon found the place for him, pulled the coat up, wrapped it around him, and fastened the belt.

He took off his tattered cap, and was going to give it to the stanger, but his head felt cold, and he said to himself: "The whole top of my head is bald, but he has long curly hair."

So he put his hat on again.

"I had better let him put on my boots."

He made him sit down and put the felt boots on him.

After the cobbler had thus dressed him, he says: "There now, brother, just stir about, and you will get warmed up. All these things are in other hands than ours. Can you walk?"

The man stood up, looked affectionately at Semyon, but was unable to speak a word.

"Why don't you say something? We can't spend the winter here. We must get to shelter. Now, then, lean on my stick, if you don't feel strong enough. Bestir yourself!"

And the man started to move. And he walked easily, and did not lag behind. As they walked along the road Semyon said: "Where are you from, if I may ask?"

"I do not belong hereabouts."

"No; I know all the people of this region. How did you happen to come here and get to that chapel?"

"I cannot tell you."

"Someone must have treated you outrageously."

"No one has treated me outrageously. God has punished me."

"God does all things, but you must have been on the road bound for somewhere. Where do you want to go?"

"It makes no difference to me."

Semyon was surprised. The man did not look like a malefactor, and his speech was gentle, but he seemed reticent about himself.

And Semyon said to himself: "Such things as this do not happen every day." And he said to the man, "Well, come to my house, though you will find it very narrow quarters."

As Semyon approached the yard, the stranger did not lag behind, but walked abreast of him. The wind had arisen, and searched under Semyon's shirt, and as the effect of the wine had now passed away, he began to be chilled to the bone. He walked along, and began to snuffle, and he muffled his wife's jacket closer around him, and he said to himself: "That's the way you get a shuba! You go after a shuba, and you come home without your caftan! yes, and you bring with you a naked man—besides, Matriona won't take kindly to it!"

And as soon as the thought of Matriona occurred to him, he began to feel downhearted.

But as soon as his eyes fell on the stranger, he remembered what a look he had given him behind the chapel, and his heart danced with joy.

Semyon's wife had finished her work early. She had chopped wood, brought water, fed the children, taken her own supper, and was now deliberating when it would be best to mix some bread, "today or tomorrow?"

A large crust was still left. She said to herself: "If Semyon gets something to eat in town, he won't care for much supper, and the bread will last till tomorrow."

Matriona contemplated the crust for some time, and said: "I am not going to mix any bread. There's just enough flour to make one more loaf. We shall get along till Friday."

Matriona put away the bread, and sat down at the table to sew a patch on her husband's shirt.

She sewed, and thought how her husband would be buying sheepskins for the shuba.

"I hope the fur dealer will not cheat him. For he is as simple as he can be. He, himself, would not cheat anybody, but a baby could lead him by the nose. Eight rubles is no small sum. You can get a fine shuba with it. Perhaps not one tanned, but still a good one. How we suffered last winter without any shuba! Could not go to the river nor anywhere! And whenever he went outdoors, he put on all the clothes, and I hadn't anything to

wear. He is late in getting home. He ought to be here by this time. Can my sweetheart have got drunk?"

Just as these thoughts were passing through her mind the doorsteps creaked: someone was at the door. Matriona stuck in the needle, and went to the entry. There she saw two men had come in–Semyon, and with him a strange peasant, without a cap and in felt boots.

Matriona perceived immediately that her husband's breath smelled of liquor.

"Now," she said to herself, "he has gone and got drunk."

And when she saw that he had not his caftan on, and wore only her jacket, and had nothing in his hands, and said nothing, but only simpered, Matriona's heart failed within her.

"He has drunk up the money, he has been on a spree with this miserable beggar; and, worse than all, he has gone and brought him home!"

Matriona let them pass by her into the cottage; then she herself went in; she saw that the stranger was young, and that he had on their caftan. There was no shirt to be seen under the caftan; and he wore no cap.

As soon as he went in, he paused, and did not move and did not raise his eyes.

And Matriona thought: "He is not a good man; his conscience troubles him."

Matriona scowled, went to the oven, and watched to see what they would do.

Semyon took off his cap and sat down on the bench good-naturedly.

"Well," said he, "Matriona, can't you get us something to eat?"

Matriona muttered something under her breath.

She did not offer to move, but as she stood by the oven she looked from one to the other and kept shaking her head.

Semyon saw that his wife was out of sorts and would not do anything, but he pretended not to notice it, and took the stranger by the arm.

"Sit down, brother," says he; "we'll have some supper."

The stranger sat down on the bench.

"Well," says Semyon, "haven't you cooked anything?"

Matriona's anger blazed out.

"I cooked," said she, "but not for you. You are a fine man! I see you have been drinking! You went to get a shuba, and you have come home without your caftan. And, then, you have brought home this naked vagabond with you. I haven't any supper for such drunkards as you are!"

"That'll do, Matriona; what is the use of letting your tongue run on so? If you had only asked first: 'What kind of a man . . .' "

"You just tell me what you have done with the money!"

Semyon went to his caftan, took out the bill, and spread it out.

"Here's the money, but Trifonof did not pay me; he promised it tomorrow."

Matriona grew still more angry: "You didn't buy the new shuba, and you have given away your only caftan to this naked vagabond whom you have brought home!"

She snatched the money from the table, and went off to hide it away, saying: "I haven't any supper. I can't feed all your drunken beggars!"

"Hey there! Matriona, just hold your tongue! First you listen to what I have to say . . ."

"Much sense should I hear from a drunken fool! Good reason I had for not wanting to marry such a drunkard as you are. Mother gave me linen, and you have wasted it in drink; you went to get a shuba, and you spent it for drink."

Semyon was going to assure his wife that he had spent only twenty kopecks for drink; he was going to tell her where he had found the man; but Matriona would not give him a chance to speak a word; it was perfectly marvelous, but she managed to speak two words at once! Things that had taken place ten years before—she called them all up.

Matriona scolded and scolded; then she sprang at Semyon, and seized him by the sleeve.

"Give me back my jacket! It's the only one I have, and you took it from me and put it on yourself. Give it here, you miserable dog! bestir yourself, you villain!"

Semyon began to strip off the jacket. As he was pulling his arms out of the sleeves, his wife gave it a twitch and split the jacket up the seams. Matriona snatched the garment away, threw it over her head, and started for the door. She intended to go out, but she paused, and her heart was pulled in two directions—she wanted to vent her spite, and she wanted to find what kind of a man the stranger was.

Matriona paused, and said: "If he were a good man, then he would not have been naked; why, even now, he hasn't any shirt on; if he had been engaged in decent business, you would have told where you discovered such an elegant fellow!"

"Well, I was going to tell you. I was walking along, and there, behind the chapel, this man was sitting, stark naked, and half frozen to death. It is not summer, mind you, for a naked man! God brought me to him, else he would have perished. Now what could I do? Such things don't happen every day. I took and dressed him, and brought him home with me. Calm your anger. It's a sin, Matriona; we must all die."

Matriona was about to make a surly reply, but her eyes fell on the stranger, and she held her peace.

The stranger was sitting motionless on the edge of the bench, just as he had sat down. His hands were folded on his knees, his head was bent on his breast, his eyes were shut, and he kept frowning, as if something stifled him.

Matriona made no reply.

Semyon went on to say: "Matriona, can it be that God is not in you?"

Matriona heard his words, and glanced again at the stranger, and suddenly her anger vanished. She turned from the door, went to the corner where the oven was, and brought the supper.

She set a bowl on the table, poured out the kvass, and put on the last of the crust. She gave them the knife and the spoons.

"Have some victuals," she said.

Semyon touched the stranger.

"Draw up, young man," said he.

Semyon cut the bread and crumbled it into the bowl, and they began to eat their supper. And Matriona sat at the end of the table, leaned on her hand, and gazed at the stranger. And Matriona began to feel sorry for him, and she took a fancy to him.

And suddenly the stranger brightened up, ceased to frown, lifted his eyes to Matriona, and smiled.

After they had finished their supper, the woman cleared off the things, and began to question the stranger: "Where are you from?"

"I do not belong hereabouts."

"How did you happen to get into this road?"

"I cannot tell you."

"Who maltreated you?"

"God punished me."

"And you were lying there stripped?"

"Yes; there I was lying all naked, freezing to death, when Semyon saw me, had compassion on me, took off his caftan, put it on me, and bade me come home with him. And here you have fed me, given me something to eat and to drink, and have taken pity on me. May the Lord requite you!"

Matriona got up, took from the window Semyon's old shirt which she had been patching, and gave it to the stranger; then she found a pair of drawers and gave them also to him.

"There now," said she, "I see that you have no shirt. Put these things on, and then lie down wherever you please, in the loft or on the oven."

The stranger took off the caftan, put on the shirt, and went to bed in

the loft. Matriona put out the light, took the caftan, and lay down beside her husband.

Matriona covered herself up with the skirt of the caftan, but she lay without sleeping; she could not get the thought of the stranger out of her mind.

When she remembered that he had eaten her last crust, and that there was no bread for the morrow, when she remembered that she had given him the shirt and the drawers, she felt disturbed; but then came the thought of how he had smiled at her, and her heart leaped within her.

Matriona lay a long time without falling asleep, and when she heard that Semyon was also awake, she pulled up the caftan, and said: "Semyon!"

"Ha?"

"You ate up the last of the bread, and I did not mix any more. I don't know how we shall get along tomorrow. Perhaps I might borrow some of neighbor Malanya."

"We shall get along; we shall have enough."

The wife lay without speaking. Then she said: "Well, he seems like a good man; but why doesn't he tell us about himself?"

"It must be because he can't."

"Siom!"[1]

"Ha?"

"We are always giving; why doesn't someone give to us?"

Semyon did not know what reply to make. He said: "You have talked enough!"

Then he turned over and went to sleep.

In the morning Semyon woke up.

His children were still asleep; his wife had gone to a neighbor's to get some bread. The stranger of the evening before, dressed in the old shirt and drawers, was sitting alone on the bench, looking up. And his face was brighter than it had been the evening before. And Semyon said:

"Well, my dear, the belly asks for bread, and the naked body for clothes. You must earn your own living. What do you know how to do?"

"There is nothing that I know how to do."

Semyon was amazed, and he said: "If one has only the mind to, men can learn anything."

"Men work, and I will work."

"What is your name?"

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1. Diminutive of Semyon, or Simon.

"Mikhaïla."

"Well, Mikhaïla, if you aren't willing to tell about yourself, that is your affair; but you must earn your own living. If you will work as I shall show you, I will keep you."

"The Lord requite you! I am willing to learn; only show me what to do."

Semyon took a thread, drew it through his fingers, and showed him how to make a waxed end.

"It does not take much skill . . . look . . ."

Mikhaïla looked, and then he also twisted the thread between his fingers; he instantly imitated him, and finished the point.

Semyon showed him how to make the welt. This also Mikhaïla immediately understood. The shoemaker likewise showed him how to twist the bristle into the thread, and how to use the awl; and these things also Mikhaïla immediately learned to do.

Whatever part of the work Semyon showed him he imitated him in, and in two days he was able to work as if he had been all his life a cobbler. He worked without relaxation, he ate little, and when his work was done he would sit silent, looking up. He did not go on the street, he spoke no more than was absolutely necessary, he never jested, he never laughed.

The only time that he was seen to smile was on the first evening, when the woman got him his supper.

Day after day, week after week, rolled by for a whole year.

Mikhaïla lived on in the same way, working for Semyon. And the fame of Semyon's apprentice went abroad; no one, it was said, could make such neat, strong boots as Semyon's apprentice, Mikhaïla. And from all around people came to Semyon to have boots made, and Semyon began to lay up money.

One winter's day, as Semyon and Mikhaïla were sitting at their work, a sleigh drawn by a troika drove up to the cottage, with a jingling of bells.

They looked out of the window; the sleigh stopped in front of the cottage; a footman jumped down from the box and opened the door. A barin in a fur coat got out of the sleigh, walked up to Semyon's cottage, and mounted the steps. Matriona hurried to throw the door wide open.

The barin bent his head and entered the cottage; when he drew himself up to his full height, his head almost touched the ceiling; he seemed to take up nearly all the room.

Semyon rose and bowed; he was surprised to see the barin. He had never before seen such a man.

Semyon himself was thin, the stranger was spare, and Matriona was like a dry chip; but this man seemed to be from a different world. His face was ruddy and full, his neck was like a bull's, it seemed as if he were made out of cast iron.

The barin got his breath, took off his shuba, sat down on the bench, and said: "Which is the master shoemaker?"

Semyon stepped out, saying: "I, your honor."

The barin shouted to his footman: "Hey, Fedka,[2] bring me the leather."

The young fellow ran out and brought back a parcel. The barin took the parcel and laid it on the table.

"Open it," said he.

The footman opened it.

The barin touched the leather with his finger, and said to Semyon: "Now listen, shoemaker. Do you see this leather?"

"I see it, your honor," says he.

"Well, do you appreciate what kind of leather it is?"

Semyon felt of the leather, and said: "That's good leather."

"Indeed it's good! Fool that you are! you never in your life saw such before! German leather. It cost twenty rubles."

Semyon was startled. He said: "Where, indeed, could we have seen anything like it?"

"Well, that's all right. Can you make from this leather a pair of boots that will fit me?"

"I can, your honor."

The barin shouted at him: " 'Can' is a good word. Now just realize whom you are making those boots for, and out of what kind of leather. You must make a pair of boots, so that when the year is gone they won't have got out of shape, or ripped. If you can, then take the job and cut the leather; but if you can't, then don't take it and don't cut the leather. I will tell you beforehand, if the boots rip or wear out of shape before the year is out, I will have you locked up; but if they don't rip or get out of shape before the end of the year, then I will give you ten rubles for your work."

Semyon was frightened, and was at a loss what to say.

He glanced at Mikhaïla. He nudged him with his elbow, and whispered: "Had I better take it?"

Mikhaïla nodded his head, meaning: "You had better take the job."

Semyon took Mikhaïla's advice; he agreed to make a pair of boots that would not rip or wear out of shape before the year was over.

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2. Diminutive of Feodor, Theodore.

The barin shouted to his footman, ordered him to take the boot from his left foot; then he stretched out his leg: "Take the measure!"

Semyon cut off a piece of paper seventeen inches long, smoothed it out knelt down, wiped his hands nicely on his apron, so as not to soil the barin's stockings, and began to take the measure.

Semyon took the measure of the sole, he took the measure of the instep; then he started to measure the calf of the leg, but the paper was not long enough. The leg at the calf was as thick as a beam.

"Look out; don't make it too tight around the calf!"

Semyon was going to cut another piece of paper. The barin sat there, rubbing his toes together in his stockings, and looking at the inmates of the cottage; he caught sight of Mikhaïla.

"Who is that yonder?" he asked; "does he belong to you?"

"He is a master workman. He will make the boots."

"Look here," says the barin to Mikhaïla, "remember that they are to be made so as to last a whole year."

Semyon also looked at Mikhaïla; he saw that Mikhaïla was paying no attention, but was standing in the corner, as if he saw someone there behind the barin. Mikhaïla gazed and gazed, and suddenly smiled, and his whole face lighted up.

"What a fool you are, showing your teeth that way! You had better see to it that the boots are ready in time."

And Mikhaïla replied: "They will be ready as soon as they are needed."

"Very well."

The barin drew on his boot, wrapped his shuba round him, and went to the door. But he forgot to stoop, and so struck his head against the lintel.

The barin stormed and rubbed his head; then he got into his sleigh and drove off. After the barin was gone Semyon said: "Well, he's as solid as a rock! You could not kill him with a mallet. His head almost broke the doorpost, but it did not seem to hurt him much."

And Matriona said: "How can they help getting fat, living as they do? Even death does not carry off such a nail as he is."

And Semyon said to Mikhaïla: "Now, you see, we have taken this work, and we must do it as well as we can. The leather is expensive, and the barin gruff. We must not make any blunder. Now, your eye has become quicker, and your hand is more skillful, than mine; there's the measure. Cut out the leather, and I will be finishing up those vamps."

Mikhaïla did not fail to do as he was told; he took the barin's leather, stretched it out on the table, doubled it over, took the knife, and began to cut.

Matriona came and watched Mikhaïla as he cut, and she was amazed to see what he was doing. For she was used to cobbler's work, and she looked and saw that Mikhaïla was not cutting the leather for boots, but in rounded fashion.

Matriona wanted to speak, but she thought in her own mind: "Of course I can't be expected to understand how to make boots for gentlemen; Mikhaïla must understand it better than I do; I will not interfere."

After he had cut out the work, he took his waxed ends and began to sew, not as one does in making boots, with double threads, but with one thread, just as slippers are made.

Matriona wondered at this also, but still she did not like to interfere. And Mikhaïla kept on steadily with his work.

It came time for the nooning; Semyon got up, looked, and saw that Mikhaïla had been making slippers out of the barin's leather. Semyon groaned.

"How is this?" he asked himself. "Mikhaïla has lived with me a whole year, and never made a mistake, and now he has made such a blunder! The barin ordered thick-soled boots, and he has been making slippers without soles! He has ruined the leather. How can I make it right with the barin? We can't find such leather."

And he said to Mikhaïla: "What is this you have been doing? . . . My dear fellow, you have ruined me! You know the barin ordered boots, and what have you made?"

He was in the midst of his talk with Mikhaïla when a knock came at the rapper; someone was at the door. They looked out of the window, someone had come on horseback, and was fastening the horse. They opened the door. The same barin's footman came walking in.

"Good day."

"Good day to you; what is it?"

"My mistress sent me in regard to a pair of boots."

"What about the boots?"

"It is this. My barin does not need the boots; he has gone from this world."

"What is that you say?"

"He did not live to get home from your house; he died in the sleigh. When the sleigh reached home, we went to help him out, but there he had fallen over like a bag, and there he lay stone dead, and it took all our strength to lift him out of the sleigh. And his lady has sent me, saying: 'Tell the shoemaker of whom your barin just ordered boots from leather which he left with him—tell him that the boots are not needed, and that he is to make a pair of slippers for the corpse out of that leather

just as quick as possible.' And I was to wait till they were made, and take them home with me. And so I have come."

Mikhaïla took the rest of the leather from the table and rolled it up; he also took the slippers, which were all done, slapped them together, wiped them with his apron, and gave them to the young man. The young man took them.

"Goodby, friends! Good luck to you!"

Still another year, and then two more passed by, and Mikhaïla had now been living five years with Semyon. He lived in just the same way as before. He never went anywhere, he kept his own counsels, and in all that time he smiled only twice—once when Matriona gave him something to eat, and the other time when he smiled on the barin.

Semyon was more than contented with his workman, and he no longer asked him where he came from; his only fear was lest Mikhaïla should leave him.

One time they were all at home. The mother was putting the iron kettles on the oven, and the children were playing on the benches and looking out of the window. Semyon was pegging away at one window, and Mikhaïla at the other was putting lifts on a heel.

One of the boys ran along the bench toward Mikhaïla, leaned over his shoulder, and looked out of the window.

"Uncle Mikhaïla, just look! a merchant's wife is coming to our house with some little girls. And one of the little girls is a cripple."

The words were scarcely out of the boy's mouth before Mikhaïla threw down his work, leaned over toward the window, and looked out-of-doors. And Semyon was surprised. Never before had Mikhaïla cared to look out, but now his face seemed soldered to the window; he was looking at something very intently.

Semyon also looked out of the window: he saw a woman coming straight through his yard; she was neatly dressed; she had two little girls by the hand; they wore shubkas, and kerchiefs over their heads. The little girls looked so much alike that it was hard to tell them apart, except that one of the little girls was lame in her foot; she limped as she walked.

The woman came into the entry, felt about in the dark, lifted the latch, and opened the door. She let the two little girls go before her into the cottage, and then she followed.

"How do you do, friends?"

"Welcome! What can we do for you?"

The woman sat down by the table; the two little girls clung to her knee; they were bashful.

"These little girls need to have some goatskin shoes made for the spring."

"Well, it can be done. We don't generally make such small ones; but it's perfectly easy, either with welts or lined with linen. This here is Mikhaïla; he's my master workman."

Semyon glanced at Mikhaïla, and saw that he had thrown down his work, and was sitting with his eyes fastened on the little girls.

And Semyon was amazed at Mikhaïla. To be sure the little girls were pretty; they had dark eyes, they were plump and rosy, and they wore handsome shubkas and kerchiefs; but still Semyon could not understand why he gazed so intently at them, as if they were friends of his.

Semyon was amazed, and he began to talk with the woman, and to make his bargain. After he had made his bargain, he began to take the measures. The woman lifted on her lap the little cripple, and said: "Take two measures from this one; make one little shoe from the twisted foot, and three from the well one. Their feet are alike; they are twins."

Semyon took his tape, and said in reference to the little cripple: "How did this happen to her? She is such a pretty little girl. Was she born so?"

"No; her mother crushed it."

Matriona joined the conversation; she was anxious to learn who the woman and children were, and so she said: "Then you aren't their mother?"

"No, I am not their mother; I am no relation to them, good wife, and they are no relation to me at all; I adopted them."

"If they are not your children, you take good care of them."

"Why shouldn't I take good care of them? I nursed them both at my own breast. I had a baby of my own, but God took him. I did not take such good care of him as I do of these."

"Whose children are they?"

The woman became confidential, and began to tell them about it.

"Six years ago," said she, "these little ones were left orphans in one week; the father was buried on Tuesday, and the mother died on Friday. Three days these little ones remained without their father, and then their mother followed him. At that time I was living with my husband in the country: we were neighbors; we lived in adjoining yards. Their father was a peasant, and worked in the forest at woodcutting. And they were

felling a tree, and it caught him across the body. It hurt him all inside. As soon as they got him out, he gave his soul to God, and that same week his wife gave birth to twins–these are the little girls here. There they were, poor and alone, no one to take care of them, either grandmother or sister.

"She must have died soon after the children were born. For when I went in the morning to look after my neighbor, as soon as I entered the cottage, I found the poor thing dead and cold. And when she died she must have rolled over on this little girl. . . . That's the way she crushed it, and spoiled this foot.

"The people got together, they washed and laid out the body, they had a coffin made, and buried her. The people were always kind. But the two little ones were left alone. What was to be done with them? Now I was the only one of the women who had a baby. For eight weeks I had been nursing my first-born, a boy. So I took them for the time being. The peasants got together; they planned and planned what to do with them, and they said to me:

" 'Marya, you just keep the little girls for a while, and give us a chance to decide.'

"So I nursed the well one for a while, but did not think it worthwhile to nurse the deformed one. I did not expect that she was going to live. And, then, I thought to myself, why should the little angel's soul pass away? and I felt sorry for it. I tried to nurse her, and so I had my own and these two besides; yes, I had three children at the breast. But I was young and strong, and I had good food! And God gave me so much milk in my breasts that I had enough and to spare. I used to nurse two at once and let the third one wait. When one had finished, I would take up the third. And so God let me nurse all three; but when my boy was in his third year, I lost him. And God never gave me any more children. But we began to be in comfortable circumstances. And now we are living with the trader at the mill. We get good wages and live well. But we have no children of our own. And how lonely it would be, if it were not for these two little girls! How could I help loving them? They are to me like the wax in the candle!"

And the woman pressed the little lame girl to her with one arm, and with the other hand she tried to wipe the tears from her cheeks.

And Matriona sighed, and said: "The old saw isn't far wrong, 'Men can live without father and mother, but without God one cannot live.' "

While they were thus talking together, suddenly a flash of lightning

seemed to irradiate from that corner of the cottage where Mikhaïla was sitting. All looked at him; and, behold! Mikhaïla was sitting there with his hands folded in his lap, and looking up and smiling.

The woman went away with the children, and Mikhaïla arose from the bench and laid down his work; he took off his apron, made a low bow to the shoemaker and his wife, and said: "Farewell, friends; God has forgiven me. Do you also forgive me?"

And Semyon and Matriona perceived that it was from Mikhaïla that the light had flashed. And Semyon arose, bowed low before Mikhaïla, and said to him: "I see, Mikhaïla, that you are not a mere man, and I have no right to detain you nor to ask questions of you. But tell me one thing: when I had found you and brought you home, you were sad; but when my wife gave you something to eat, you smiled on her, and after that you became more cheerful. And then when the barin ordered the boots, why did you smile a second time, and after that become still more cheerful; and now when this woman brought these two little girls, why did you smile for the third time and become perfectly radiant? Tell me, Mikhaïla, why was it that such a light streamed from you, and why you smiled three times?"

And Mikhaïla said: "The light blazed from me because I had been punished, but now God has forgiven me. And I smiled the three times because it was required of me to learn three of God's truths, and I have now learned the three truths of God. One truth I learned when your wife had pity on me, and so I smiled; the second truth I learned when the rich man ordered the boots, and I smiled for the second time; and now that I have seen the little girls, I have learned the third and last truth, and I smiled for the third time."

And Semyon said: "Tell me, Mikhaïla, why God punished you, and what were the truths of God, that I, too, may know them."

And Mikhaïla said: "God punished me because I disobeyed Him. I was an angel in heaven, and I was disobedient to God. I was an angel in heaven, and the Lord sent me to bring back the soul of a certain woman. I flew down to earth and I saw the woman lying alone—she was sick—she had just borne twins, two little girls. The little ones were sprawling about near their mother, but their mother was unable to lift them to her breast. The mother saw me; she perceived that God had sent me after her soul; she burst into tears, and said:

" 'Angel of God, I have just buried my husband; a tree fell on him in

the forest and killed him. I have no sister, nor aunt, nor mother to take care of my little ones; do not carry off my soul; let me bring up my children myself, and nurse them and put them on their feet. It is impossible for children to live without father or mother.'

"And I heeded what the mother said; I put one child to her breast, and laid the other in its mother's arms, and I returned to the Lord in heaven. I flew back to the Lord, and I said:

" 'I cannot take the mother's soul. The father has been killed by a tree, the mother has given birth to twins, and begs me not to take her soul; she says:

" ' "Let me bring up my little ones; let me nurse them and put them on their feet. It is impossible for children to live without father and mother." I did not take the mother's soul.'

"And the Lord said: 'Go and take the mother's soul, and thou shalt learn three lessons: Thou shalt learn *what is in men,* and *what is not given unto men,* and *what men live by*. When thou shalt have learned these three lessons, then return to heaven.'

"And I flew down to earth and took the mother's soul. The little ones fell from her bosom. The dead body rolled over on the bed, and fell on one of the little girls and crushed her foot. I rose above the village and was going to give the soul to God, when a wind seized me, my wings ceased to move and fell off, and the soul arose alone to God, and I fell back to earth."

And Semyon and Matriona now knew whom they had clothed and fed, and who it was that had been living with them, and they burst into tears of dismay and joy; and the angel said:

"I was there in the field naked and alone. Hitherto I had never known what human poverty was; I had known neither cold nor hunger, and now I was a man. I was famished, I was freezing, and I knew not what to do. And I saw across the field a chapel made for God's service. I went to God's chapel, thinking to get shelter in it. But the chapel was locked, and I could not enter. And I crouched down behind the chapel, so as to get shelter from the wind. Evening came; I was hungry and chill, and ached all over. Suddenly I hear a man walking along the road, with a pair of boots in his hand, and talking to himself. I now saw for the first time since I had become a man the face of a mortal man, and it filled me with dismay, and I tried to hide from him. And I heard this man asking himself how he should protect himself from cold during the winter, and how get food for his wife and children. And I thought: 'I am perishing

with cold and hunger, and here is a man whose sole thought is to get a shuba for himself and his wife and to furnish bread for their sustenance. It is impossible for him to help me.'

"The man saw me and scowled; he seemed even more terrible than before; then he passed on. And I was in despair. Suddenly I heard the man coming back. I looked up, and did not recognize that it was the same man as before; then there was death in his face, but now it had suddenly become alive, and I saw that God was in his face. He came to me, put clothes on me, and took me home with him.

"When I reached his house, a woman came out to meet us, and she began to scold. The woman was even more terrible to me than the man; a dead soul seemed to proceed forth from her mouth, and I was suffocated by the stench of death. She wanted to drive me out into the cold, and I knew that she would die if she drove me out. And suddenly her husband reminded her of God. And instantly a change came over the woman. And when she had prepared something for me to eat, and looked kindly on me, I looked at her, and there was no longer anything like death about her; she was now alive, and in her also I recognized God.

"And I remembered God's first lesson: *'Thou shalt learn what is in men.'*

"And I perceived that LOVE was in men. And I was glad because God had begun to fulfill His promise to me, and I smiled for the first time. But I was not yet ready to know the whole. I could not understand what was not given to men, and what men lived by.

"I began to live in your house, and after I had lived with you a year the man came to order the boots which should be strong enough to last him a year without ripping or wearing out of shape. And I looked at him, and suddenly perceived behind his back my comrade, the Angel of Death. No one besides myself saw this angel; but I knew him, and I knew that before the sun should go down he would take the rich man's soul. And I said to myself: 'This man is laying his plans to live another year, and he knows not that ere evening comes he will be dead.'

"And I realized suddenly the second saying of God: *'Thou shalt know what is not given unto men.'*

"And now I knew what was in men. And now I knew also what was not given unto men. It is not given unto men to know what is needed for their bodies. And I smiled for the second time. I was glad because I saw my comrade, the angel, and because God had revealed unto me the second truth.

"But I could not yet understand all. I could not understand what men live by, and so I lived on, and waited until God should reveal to me the

third truth also. And now in the sixth year the little twin girls have come with the woman, and I recognized the little ones, and I remembered how they had been left. And after I had recognized them, I thought: The mother besought me in behalf of her children, because she thought that it would be impossible for children to live without father and mother, but another woman, a stranger, has nursed them and brought them up.'

"And when the woman caressed the children that were not her own, and wept over them, then I saw in her THE LIVING GOD, and knew *what people live by*. And I knew that God had revealed to me the last truth, and had pardoned me, and I smiled for the third time."

And the angel's body became manifest, and he was clad with light so bright that the eyes could not endure to look on him, and he spoke in clearer accents, as if the voice proceeded not from him, but came from heaven.

And the angel said: "I have learned that every man lives, not through care of himself, but by love.

"It was not given to the mother to know what her children needed to keep them alive. It was not given the rich man to know what he himself needed, and it is not given to any man to know whether he will need boots for daily living, or slippers for his burial.

"When I became a man, I was kept alive, not by what thought I took for myself, but because a stranger and his wife had love in their hearts, and pitied and loved me. The orphans were kept alive, not because other people deliberated about what was to be done with them, but because a strange woman had love for them in her heart, and pitied them and loved them. And all men are kept alive, not by their own forethought, but because there is LOVE IN MEN.

"I knew before that God gave life to men, and desired them to live; but now I know something above and beyond that.

"I have learned that God does not wish men to live each for himself, and therefore He has not revealed to them what they each need for themselves, but He wishes them to live in union, and therefore He has revealed to them what is necessary for each and for all together.

"I have now learned that it is only in appearance that they are kept alive through care for themselves, but that in reality they are kept alive through love. *He who dwelleth in love dwelleth in God, and God in him, for God is love*."

And the angel sang a hymn of praise to God, and the cottage shook with the sound of his voice.

And the ceiling parted, and a column of fire reached from earth to heaven. And Semyon and his wife and children fell prostrate on the ground. And pinions appeared on the angel's shoulders, and he soared away to heaven.

And when Semyon opened his eyes, the cottage was the same as it had ever been, and there was no one in it save himself and his family.

The three foregoing selections were translated by Nathan Haskell Dole.

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Molière

1622–1673

Jean Baptiste Poquelin (Molière) was born in Paris on January 15, 1622. His father, a well-to-do upholsterer and interior decorator, was a *valet de chambre* to the royal household. The boy's mother died when he was ten.

In 1636 he entered the Collège de Clermont, an aristocratic school that was reputed to be the best in Paris. There he learned logic and rhetoric under the Jesuit teachers and became familiar with Roman comedies. He studied law and could have either practiced that profession or followed his father's. But he had become enthusiastic about the theater and in 1643, when he was twenty-one, helped to found a theatrical company, the Illustre Théâtre. He adopted his stage name, Molière. The company, of which the Béjart family was an important part–Madeleine Béjart was its star–rented a tennis court and began to produce plays.

The enterprise was a financial failure, and Molière was imprisoned for debt. The company left Paris to tour the provinces, and Molière went with it. For thirteen years he traveled, mostly through southern France, appearing in this city and that, gaining priceless experience acting in and producing plays. By the time the company returned to Paris, Molière was its director, its leading actor, and the author of two plays of his own.

In 1658 Louis XIV's brother, Phillippe d'Orléans, took the company under his patronage, and from then on its success in Paris was assured. It was given the use of a hall in the Petit-Bourbon, next to the Louvre. Later, when this was torn down, the company performed in the Palais-Royal. The plays of Molière are still produced by the Comédie Française in this building.

Molière presented tragedies by Corneille and others, and he wrote

one tragedy himself. But it was a failure, and it became evident that the company would have to depend on farce and comedy.

In 1662 Molière married Armande Béjart, a member of his company who was only half his age. The marriage was unhappy, for Armande's flirtations seem to have been as frequent, and as public, as Célimène's in *The Misanthrope*.

For the rest of his life Molière turned out, at the rate of nearly two a year, the comedies which have made him famous as France's greatest dramatist. In 1665 the king took over patronage of the company, and thereafter Molière produced many musical entertainments and extravaganzas for the royal family.

Molière suffered during the last half of his life from tuberculosis. In February, 1673, he produced his play, *Le Malade imaginaire* (*The Hypochondriac*), in which he satirized the medical profession. On February 17 he suffered an attack while playing the title role in this play and died that evening. Because he had been an actor, he was refused the last rites of the Church and was buried with a simple ceremony on February 21.

Molière has been called a skeptic. Insofar as it is possible to sum up such a complex person, the word seems to fit him. He questioned the worth of many of the accepted social institutions of his time. Like Swift, he valued reason above emotion, and entertained a low opinion of mankind. His radical ideas found expression in his plays, and some of them were banned by scandalized officials. But his character must have been exceptional, for though he was exposed to calumny and attack such as few men have had to face, nothing mean was ever charged to his personal account.

The Misanthrope was presented on June 4, 1666. It was a relative failure. It has never been a great success on the stage, but it is generally held to be Molière's greatest work.

Seventeenth-century audiences may have found too little to laugh

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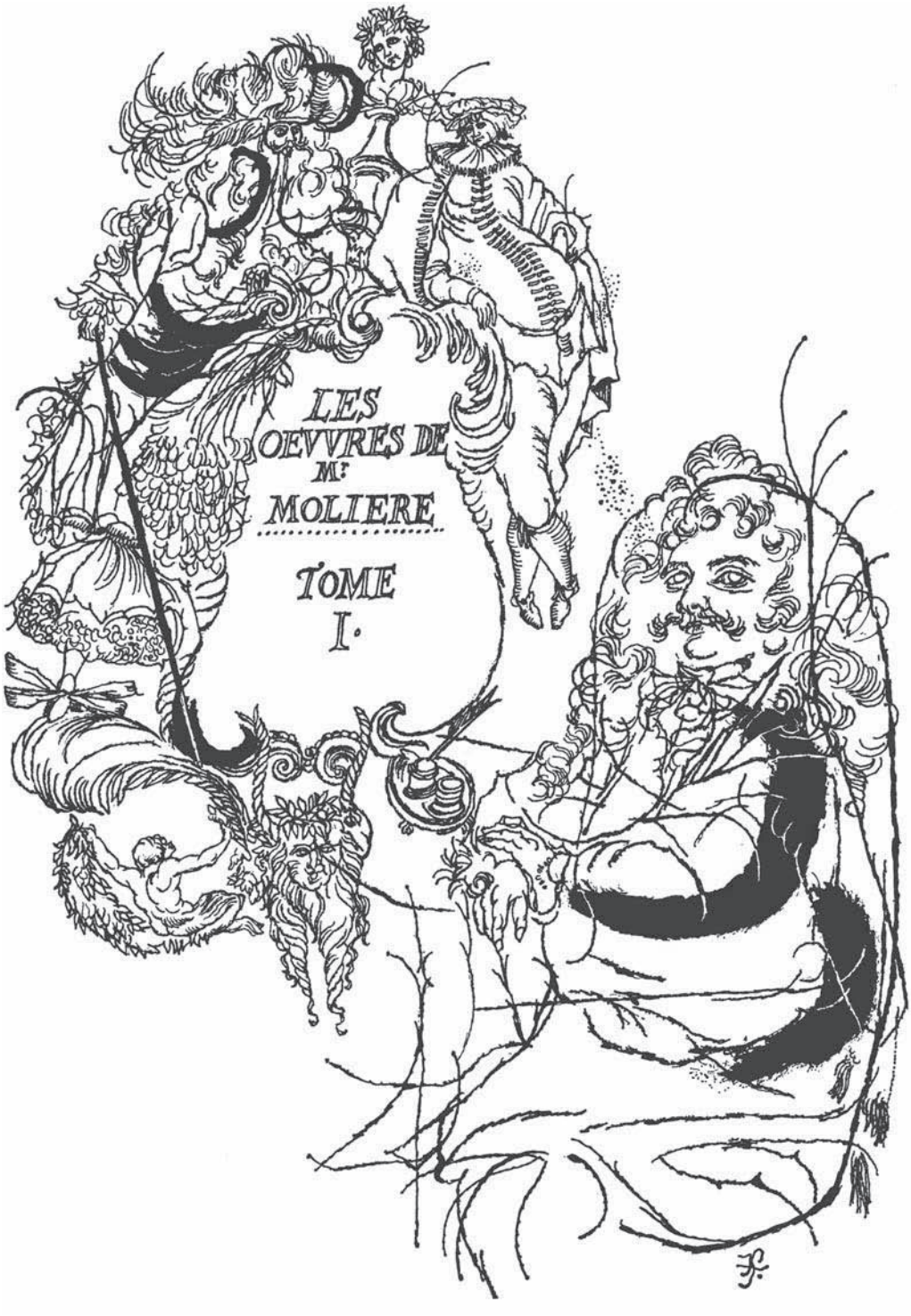
Notes from the artist: "Molière at his writing desk . . . with a background design based upon the frontispiece of a 1666 edition of Molière's works."


LES
OEVVRES DE
Mr
MOLIERE
TOME
I.

at. The play is a comedy, but there are tragic overtones. Molière himself had reasons for misanthropy. He had been violently attacked, his marriage was unhappy, his first-born son had died after a month, and he was ill and exhausted from overwork. Alcestes–played by Molière himself–cries out at the beginning of the play: "I want to be angry! I don't want to listen!" Critics have found in such remarks as these, and in Alcestes' undeviating demand that the world live up to his ideal, a reflection of Molière's own feelings.

Whether or not this is true, the play asks questions that might disturb any audience. Alcestes' friend, Philintes, reminds him that the world will not change because he wants it to. Probably everyone has moods, however, in which that fact is not very comforting. Few are willing to lose everything, as Alcestes does, for the sake of their ideals. But it is difficult not to agree with Éliante's judgment that there "is something rather noble and heroic" about Alcestes. He is certainly "unreasonable." But if everyone were "reasonable" about the injustice and hypocrisy of the world, where would we be?

Célimène–who was played by Molière's young wife–is a masterly creation. She is charming, intelligent, articulate–and she seems to love Alcestes. But she is spoiled for him because she does not respond as he does to the world's evil. She likes the world, she is "reasonable" about hypocrisy, though she certainly does not approve of it, and she is not willing to risk everything on a quixotic pursuit that is bound to fail.

Philintes, too, is masterly. He is the epitome of the man of the world–calm, sensible, a success. There is nothing evil about him; Molière seems to be saying that one can be good and still prosper in life. The relation between the two friends is particularly rich. At the end of the play, Philintes promises to try to save Alcestes from himself. We can hope that the two men will mutually improve each other.

Molière is said to have clowned the part of Alcestes, to have made him ridiculous, even grotesque. He may have been trying to temper the undeniable sadness of the play. It ends in a way no other great comedy ends: with the stage almost empty, the hero alone, lost, in despair. If the audience wanted to leave the theater laughing, they must have been disappointed.

Molière felt a deep sense of obligation to his audience, and, besides, he wrote and produced plays for a living. He seems to have set to work, as soon as he saw what would be *The Misanthrope's*

reception, on an old farce which the company may have played in the provinces. The new work appeared on August 6, 1666, with the title *Le Médecin malgré lui* (*The Doctor in Spite of Himself*), and it was an immediate and continuing hit. It is a farce, and Molière loved farces. He himself played the part of Sganarel, and he made the theater ring and the audience howl. The fact that the play satirizes doctors is, perhaps, of little importance. Molière was a great entertainer, and to make an audience happy made him happy, too. *The Doctor in Spite of Himself* has been making audiences happy for three hundred years. It runs second only to *Tartuffe* in the number of recorded performances of Molière's plays.

The play should be read not as an intellectual document but as an entertainment. In particular, the reader might practice his own acting and read it–or parts of it–aloud to himself. The timing of the lines, the look of the actors, the stage "business" that we can imagine being performed–these are the essence of the play. They are what make it wonderful. If it "means" anything, it is that the world, besides being tragicomic, can also be seen as utterly mad.

The Misanthrope

CAST OF CHARACTERS

ALCESTES, *in love with Célimène.*
PHILINTES, *friend to Alcestes.*
ORONTES, *in love with Célimène.*
CÉLIMÈNE, *in love with Alcestes.*
ÈLIANTE, *cousin to Célimène.*
ARSINOÉ, *friend to Célimène.*
ACASTES, CLITANDER, } *Marquises.*
BASQUE, *servant to Célimène.*
A GUARD *of the court of the marshals of France.*
DU BOIS, *servant to Alcestes.*

SCENE: *Paris, in Célimène's house.*

ACT I

SCENE I

Philintes. What's the matter? What ails you?
Alcestes (*sitting*). Pray leave me.
Philintes. But once more tell me, what whim–
Alcestes. Leave me, I say, and go hide yourself.
Philintes. But you might hear people at least, without being angry.
Alcestes. I will be angry, and I won't hear.

Philintes. I can't comprehend you in your hasty humours; and in short, though a friend, I am one of the first–

Alcestes (*rising hastily*). I, your friend? Strike that out o' your books. I have hitherto professed myself to be so, but after what I have now discovered in you, I flatly declare to you that I am so no longer; I'll have no place in corrupt hearts.

Philintes. I am guilty then, Alcestes, in your account?

Alcestes. Go, you ought to die with mere shame, there's no excusing such an action, and every man of honour ought to be shocked at it. I see you stifle a man with caresses, and profess the utmost tenderness for him; you overcharge the transport of your embraces with protestations, offers, and oaths; and when I afterwards ask you, who is this man, you scarce can tell me what his name is. Your hot fit's all over the moment you are parted, and you treat him, to me, as a person absolutely indifferent. S'death! 'tis an unworthy, base, infamous thing, so far to demean oneself as to act contrary to one's own sentiments. And if, by ill-luck, I had done as much, I should have gone that instant and hanged myself for vexation.

Philintes. I don't see, for my part, that this is a hanging matter, and I shall petition you that you would graciously think fit that I mitigate a little the severity of your sentence, and with your leave, not hang myself for this fact.

Alcestes. How awkwardly this raillery sits upon you!

Philintes. But seriously, what would you have one do?

Alcestes. I would have you be sincere, and, like a man of honour, let no word slip which comes not from the heart.

Philintes. When a man comes and embraces you with joy, you should in reason pay him in the same coin, answer his eagerness as one can, return him offer for offer, and oaths for oaths.

Alcestes. No, I can't endure that base method which the generality of your people of mode affect; and I hate nothing so much as the contortions of all those great protestation-mongers, those affable dealers in frivolous embraces, those obliging utterers of empty words, who attack everybody with civilities, and treat the man of worth and the coxcomb with the same air. What good does it do you for a man to caress you, swear amity, faith, zeal, esteem, tenderness, and make a grand eulogium upon you, when he runs to do the same to the first scoundrel he meets? No, no, there's not a soul of the least good disposition will accept an esteem so prostituted, and the most illustrious will have but a poor relish when one finds one is blended with the

whole universe. Esteem is founded on some preference, and to esteem all the world is to esteem nobody. Since you give in to these vices of the times, i'faith you are not calculated to be one of my companions; I refuse the vast complaisance of a heart which makes no difference of merit; I would have people distinguish me; and, to cut the matter short, a friend to all mankind is no friend for me.

Philintes. But whilst we are of the world, 'tis necessary that we pay some outward civilities which custom demands.

Alcestes. No, I tell ye we ought to chastise, without mercy, that shameful commerce of appearances of friendship. I would have us be men, and think that on all occasions the very bottom of our hearts should show itself in our discourse; that it should be that which speaks, and that our sentiments should never be masked under vain compliments.

Philintes. There are a good many occasions in which an absolute frankness would be ridiculous, and hardly be endured; and sometimes, no offence to your austere honour, 'tis right to conceal what we have in our hearts. Would it be proper or decent to tell thousands o' people what we think of 'em? when we have to do with a man we hate, or who is disagreeable to us, ought we to declare the matter to him, just as it is?

Alcestes. Yes.

Philintes. What! would you tell the antiquated Emilia that it ill becomes her, at her age, to set up for a beauty? and that the white she lays on so thick is shocking to everybody?

Alcestes. Without doubt.

Philintes. Or Dorilas, that he's too impertinent? And that there is not an ear at court which he does not tire in recounting his bravery, and the splendour of his family?

Alcestes. Very right.

Philintes. You jest sure.

Alcestes. I don't jest; and I shall spare nobody in this point. My eyes are too much offended; neither court nor city present me with anything but objects to provoke my spleen. It throws me into a melancholy humour, a profound chagrin, when I see men converse together in the manner they do; I find nothing anywhere but base flattery, but injustice, interest, treachery, and knavery; I can hold no longer; I'm distracted and have taken up a resolution to break abruptly with all mankind.

Philintes. This sour philosopher is a little too savage; I can't help laughing

to see you in these gloomy fits; and methinks I see in us two, who have been brought up together, the two brothers which *The School for Husbands* describes, of whom . . .

Alcestes. Pray, let's ha' done with your insipid comparisons.

Philintes. No, truly, leave you off all these rude insults. The world won't alter its ways, for all your pains, and since frankness has such charms with you, I shall tell you frankly that this distemper o' yours is as good as a comedy, wherever you go, and that such a mighty wrath against the manners of the age makes you ridiculous with a great many people.

Alcestes. So much the better, s'death, so much the better; that's what I want, 'tis a good sign, and I'm overjoyed at it; all men are to such a degree odious to me that I should be sorry to be wise in their eyes.

Philintes. You wish very ill then to human nature?

Alcestes. Yes, I have conceived a horrible aversion to it.

Philintes. Shall all poor mortals, without any exception, be involved in this aversion? Besides, are there not some in our age–

Alcestes. No, 'tis general, and I hate all men. Some, because they are wicked and mischievous; and others, for being complaisant to the wicked, and not having that vigorous hatred for 'em which vice ought to give to all virtuous minds. One sees the unjust excess of this complaisance to that sheer villain with whom I have a lawsuit; the treacherous rascal is plainly seen through his mask; he is everywhere known for what he is; his rolling eyes and soft tone impose only upon strangers. People know that this wretched fellow, who richly deserves the gallows, has pushed himself into the world by dirty jobs, and that the splendid condition these have brought him to makes merit repine and virtue blush; whatever shameful titles persons everywhere give him, his wretched honour sees nobody on its side; call him infamous knave and cursed villain, all the world agrees to't, and nobody contradicts it. In the meantime his grimace is everywhere welcome, they entertain him, smile upon him, he insinuates himself into all companies; and if there is any rank to be disputed by canvassing, you'll see him carry it over a man of the greatest worth. Plague! these are to me mortal wounds, to see men keep any measures with vice; I am strongly moved to fly into some desert to avoid all approach of human creatures.

Philintes. Lack-a-day! Let us give ourselves less trouble about the manners of the age, and make some small allowances to human nature; let us

not examine it with so great rigour, but look upon its defects with some indulgence. This world requires a tractable virtue, one may be blameworthy by stress of wisdom, right reason avoids every extremity, and would have us be wise with sobriety. That great stiffness in the virtues of ancient times too much shocks our age and common usage; it would have mortals too perfect; we must yield to the times without obstinacy, and 'tis an extremity of folly to busy ourselves in correcting the world. I observe, as you do, a thousand things every day which might go better taking another course; but whatever I may discover in every transaction, people don't see me in a rage, like you. I take men with great calmness, just as they are; I accustom myself to bear with what they do; and I think that at court, as well as in the city, my phlegm is as much a philosopher as your choler.

Alcestes. But this phlegm, sir, which reasons so nicely, this same phlegm, can nothing ruffle it? Should it happen by chance that a friend should betray you, that a subtle plot were formed to get your estate, or that people should endeavour to spread ill reports of you, could you see all this, without putting yourself in a passion?

Philintes. Yes, I look upon these defects that you make such a noise about as vices linked with human nature; and in short, my mind is no more shocked to see a man a knave, unjust, dishonest, selfish, than to see a vulture ravenous after carnage, apes mischievous, and wolves full of rage.

Alcestes. Shall I see myself betrayed, torn to pieces, robbed, without being–Plague! I won't talk at all, this is such an impertinent way of reasoning.

Philintes. Faith, you will do well to hold your tongue. Exclaim something less against your antagonist, and bestow part of your care on your lawsuit.

Alcestes. I won't bestow any upon it, I have said it.

Philintes. But who then do you expect should solicit for you?

Alcestes. Who do I expect? Reason, my just right, equity.

Philintes. Shall you pay no visit to any of the judges?

Alcestes. No; what, is my cause unjust, or dubious?

Philintes. I grant ye, but canvassing is a plaguy thing, and–

Alcestes. No, I am determined not to move one step. I am in the wrong, or I am in the right.

Philintes. Don't you trust to that.

Alcestes. I shan't stir.

Philintes. Your adversary is strong, and may by caballing draw–

Alcestes. It signifies nothing.

Philintes. You'll be deceived.

Alcestes. Be it so. I'll see the success of it.

Philintes. But–

Alcestes. I shall have the pleasure to lose my suit.

Philintes. But in short–

Alcestes. I shall see by this trial whether men will have impudence enough, will be wicked, villainous, perverse enough to do me injustice in the face of all the world.

Philintes. What a strange man!

Alcestes. I wish, though it cost me a great deal, that for the pleasantness of the thing, I had lost my cause.

Philintes. In good earnest, Alcestes, people would laugh at you, did they hear you talk in this manner.

Alcestes. So much the worse for him that laughed.

Philintes. But this rectitude, which you require in everything with so much exactness, this absolute integrity that you entrench yourself in, do you find it in the person you are in love with? I'm astonished, for my part, that since, as it should seem, you and human nature are by the ears together, yet in spite of all that can render it odious to you, you should have found that in it which charms your eyes. And what surprises me still the more is that strange choice your heart is fixed upon. The sincere Éliante has an inclination for you, the prude Arsinoé casts a sheep's eye upon you; in the meantime your heart rejects their passion, whilst Célimène amuses it in her chains, whose coquettish humour and slanderous temper seem to give in so strongly to the manners of the times. Whence comes it that, bearing so mortal a hatred to these, you should easily bear with such a degree of 'em as this fair one possesses? Are they no longer defects in so sweet an object? Don't you see them? Or do you excuse 'em?

Alcestes. No, the passion I have for this young widow does not shut my eyes against the defects one sees in her, and with what ardour soever she may have inspired me, I am the first to see them, as I am to condemn them. But, with all this, do what I can, I confess my foible, she has the art of pleasing me: in vain I see her faults, in vain I blame them, in spite of me she makes me love her; her agreeableness turns the scale, and without doubt my affection will be able to rid her mind of these vices of the times.

Philintes. If you do that, you do not do a little. You believe then, that you are beloved by her?

Alcestes. Yes, troth, I should not love her at all if I did not think so.

Philintes. But if her affection for you discovers itself plainly, whence comes it that your rivals give you so much uneasiness?

Alcestes. 'Tis because a heart thoroughly smitten would have the person wholly to itself; and I come here only with the design of telling her everything my passion inspires me with upon that head.

Philintes. For my part, had I nothing to do but give way to love, her cousin Éliante should have all my sighs; her heart, which esteems you, is solid and sincere; and this choice, which is more agreeable, would be more for your interest.

Alcestes. It's true, my reason daily tells me so. But reason is not what governs love.

Philintes. I'm terribly afraid for this love of yours, and the hopes you have may–

SCENE II

Orontes (*to* ALCESTES). I was informed below that Éliante and Célimène were both gone abroad to make some purchase. But as they told me you were here, I came up to assure you, with a sincere heart, that I have conceived an incredible esteem for you; and that for a long time, this esteem has given me an ardent desire to be in the number of your friends. Yes, my heart loves to do justice to merit, and I ardently long that the bond of friendship might unite us. I think that a friend who is zealous, and of my quality too, is certainly not to be rejected. (*During this time* ALCESTES *appears in a musing posture, and seems not to know that* ORONTES *speaks to him.*)

Orontes. 'Tis to you (*to* ALCESTES), if you please, that this discourse is addressed.

Alcestes. To me, sir?

Orontes. To you. Is it offensive to you?

Alcestes. Not at all, but my surprise is very great, and I did not expect the honour I receive.

Orontes. The esteem I hold you in ought not by any means to surprise you; you may claim it from the whole universe.

Alcestes. Sir–

Orontes. The whole kingdom contains nothing which is not below the shining merit the world discovers in you.

Alcestes. Sir–

Orontes. Yes, for my part, I hold you preferable to everything that I perceive the most considerable in it.

Alcestes. Sir–

Orontes. May the sky crush me if I lie; and, to confirm you in my sentiments, permit me with an open heart to embrace you, and to demand a place in your friendship. Your hand, if you please. You promise me your friendship?

Alcestes. Sir–

Orontes. What! do ye refuse?

Alcestes. Sir, 'tis too much honour you design me. But friendship demands something more of mystery, and 'tis certainly to profane the name to think of bringing it upon all occasions. This union must spring from judgment and choice; before we engage ourselves, 'tis necessary we should be better acquainted, and we may possibly be of such complexions that we may both of us heartily repent of the bargain.

Orontes. Egad, this is talking upon the affair like a man of sense, and I esteem you still the more for it; let us leave it to time then to form so delightful a union. But in the meanwhile, I make you an entire offer of myself; if I am to ask any favour for you at court, the world knows I make some figure near the king; I have his ear, and faith, he always treats me with all the freedom in the world. In short, I am in all respects absolutely yours. And as you are a man of bright parts, I come, by way of commencing this agreeable union, to show you a song which I made a little while ago, and to know whether 'tis fit I should expose it to the public.

Alcestes. Sir, I am a very unfit person to decide the affair; be so good to excuse me.

Orontes. Why so?

Alcestes. I have the weakness of being a little more sincere in this case than I should be.

Orontes. The very thing I ask; I should have room for complaint if, exposing myself to you that you might speak without dissimulation, you should deceive me, and hide anything from me in disguise.

Alcestes. Since you are pleased to have it so, sir, I am very willing.

Orontes. A song–'Tis a song. *Hope*–'Tis a lady who had flattered my passion with some hope. *Hope*–These are none of your grand pompous verses, but your slighter verses, soft, tender, and languishing.

Alcestes. We shall see.

Orontes. *Hope*–I don't know whether the style may appear sufficiently clear and easy, and whether you will be satisfied with the choice of the words.

Alcestes. We shall see presently, sir.

Orontes. Besides, you must know that I took up no longer time than a quarter of an hour in making of 'em.

Alcestes. Let us see, sir, the time makes nothing to the purpose.

Orontes.

Hope, for a while, allays, 'tis true,
And rocks to sleep our tedious pain:
But, Phyllis, poor gain must accrue,
When nothing marches in its train.

Philintes. I am charmed already with this little taste.

Alcestes (*softly*). What! Have you the assurance to admire this?

Orontes.

You showed indeed great complaisance,
Less had been better, take my word;
Why should you be at that expense,
When hope was all you could afford?

Philintes. O! in what gallant terms these things are couched!

Alcestes (*softly*). O fie! vile complaisance! You praise things that are stupid.

Orontes.

But if an endless expectation,
Push to the last extreme my passion,
Death must be my reliever.
Nor, to prevent this, serves your care;
Fair Phyllis, 'tis downright despair,
When we must hope for ever.

Philintes. The conclusion is pretty, amorous, admirable.

Alcestes (*softly*). Plague o' your conclusion! Deuce take that poisoned tongue! would you had concluded your head off!

Philintes. I never heard verses so well turned.

Alcestes (*softly*). S'death–

Orontes (*to* PHILINTES). You flatter me, and you think perhaps–

Philintes. No, I don't flatter at all.

Alcestes (*softly*). Heh! What d'ye then, treacherous creature?

Orontes (*to* ALCESTES). But now for you, you know the agreement we made; pray, speak with sincerity.

Alcestes. Sir, this is always a most delicate affair, and in point of genius, we love people should flatter us. But I was saying one day to a certain person who shall be nameless, seeing some verses of his composition, that it is necessary a fine gentleman should always have a

great command over that itch of writing which we are so apt to catch; that he should keep a strait rein over the great propensity one has to make a show with such amusements; and that people are exposed, by the eagerness of showing their works, to make but a very scurvy figure.

Orontes. What, would you have me understand by this, that I am wrong to pretend–

Alcestes. I don't say that. But I told him that a heavy composition does a person's business, that there needs no other foible to disgrace a man; and that though they had in other respects a hundred fine qualities, yet we view people on their weak sides.

Orontes. D'ye mean that you have any objection to my song?

Alcestes. I don't say that; but that he should not write, I set before his eyes how, in our time, this thirst has spoiled many very worthy people.

Orontes. What, do I write ill? and should I resemble them?

Alcestes. I don't say that. But in short, says I to him, what occasion so urgent have you to rhyme? and who the deuce drives you into print? if one could pardon the sending a bad book into the world, it would only be in those wretches who compose for a livelihood. Take my advice, withstand your present intentions, keep such business as this from public view, and don't throw away what people challenge from you, the reputation which you have at court of a worthy gentleman, to receive by the hands of a greedy printer that of a ridiculous and wretched author. This is what I endeavoured to make him comprehend.

Orontes. Admirably well put; and I think I understand you. But mayn't I know what it is in my song that–

Alcestes. Frankly, 'tis a very good one to lock up in your scrutoire; you have been governed by villainous models, and your expressions are not at all natural.

> Pray what is–And rocks to sleep our tedious pain?
> And what–When nothing marches in its train?
> What–Why should you be at that expense,
> When hope was all you could afford?
> And that–Fair Phyllis, 'tis downright despair,
> When we must hope for ever?

This figurative style that people are so vain of is wide of all just character, and of truth; 'tis nothing but playing with words, pure affectation, and 'tis not thus that nature speaks. The wretched taste

of the age in this case is horrible. Our forefathers, unpolished as they were, had a much better one; and I take all this that people admire to be much inferior to an old ballad that I am going to repeat to you:

Had Royal Henry given to me
  His Paris large and fair,
And I straightway must quit for aye
  The love of my own dear;
I'd say pardie, my Liege Henry,
  Take back your Paris fair;
Much mo love I my dear, truly,
  Much mo love I my dear.

The versification is not rich, and the style is antiquated. But don't you see that this is infinitely better than such gewgaw stuff as good sense would despite? And that pure nature speaks here void of art?

Had Royal Henry given to me
  His Paris large and fair,
And I straightway must quit for aye,
  The love of my own dear;
I'd say pardie, my Liege Henry,
  Take back your Paris fair;
Much mo love I my dear, truly,
  Much mo love I my dear.

This is what a heart may say that's really smitten. (*To* PHILINTES, *laughing.*) Yes, Mr. Sneerer, in spite of all your *beaux esprits,* I value this more than all the flourishing fustian of the tinsel, which people so generally cry up.

Orontes. And I maintain that my verses are very good.

Alcestes. You have your reasons to think 'em so; but you will please to allow me to have others which would be excused from submitting to yours.

Orontes. 'Tis sufficient for me that I see other people value them.

Alcestes. 'Tis because they have the art of dissimulation and I have not.

Orontes. Do you think you have so great a share of wit?

Alcestes. If I commended your verses I should have more.

Orontes. I shall be very well satisfied without your approbation.

Alcestes. 'Twill be very expedient, if you please, that you should be satisfied without it.

Orontes. I should be very glad, for trial, that you would compose some verses upon the same subject after your manner.

Alcestes. I might unluckily make as bad ones; but I should take care how I showed 'em to people.

Orontes. You speak to me with a great deal of assurance, and this sufficiency–

Alcestes. Pray seek somebody else to flatter you, and not me.

Orontes. But, my little sir, don't be so much in your altitudes.

Alcestes. Faith, my great sir, I am just as much in my altitudes as I should be.

Philintes (*stepping between them*). Nay, gentlemen, that is carrying the matter too far, pray have done with it.

Orontes. I'm in the wrong, I confess it, and I quit the place. I am your slave, sir, with all my heart.

Alcestes. And I am, sir, your humble servant.

SCENE III

Philintes. Well, you see; by being too sincere, you had like to have had a troublesome affair upon your hands; and I saw that Orontes wanted to be flattered, when–

Alcestes. Don't speak to me.

Philintes. But–

Alcestes. No more society.

Philintes. 'Tis too much–

Alcestes. Leave me.

Philintes. If I–

Alcestes. No more words.

Philintes. But how–

Alcestes. I hear nothing.

Philintes. But–

Alcestes. Again?

Philintes. This is an outrageous–

Alcestes. S'death, this is too much, don't follow me at the heels.

Philintes. You joke with me; I shan't leave you.

ACT II

SCENE I

Alcestes. Madam, would you have me be plain with you? I am very much dissatisfied with your manner of behaviour: it increases my choler too much when I think of it, and I perceive 'tis necessary we should

break with each other. Yes, I should deceive you to talk otherwise; sooner or later we must break, that's without dispute; and I might promise you the contrary a thousand times, but I should not have it in my power to do it.

Célimène. 'Tis in order to scold me then, I perceive, that you were pleased to wait upon me home?

Alcestes. I don't scold; but your humour, madam, opens too easy an access in your heart to the first-comer; one sees too many lovers laying siege to you, and my mind can by no means be reconciled to this.

Célimène. Will you needs have me to blame for gaining lovers? Can I hinder people from thinking me handsome? And when they make tender efforts to visit me, ought I to take a stick and beat 'em out o' doors?

Alcestes. No, 'tis not a stick, madam, you want, but a heart less yielding, and less melting at their love tales. I know you are surrounded with charms, go where you will, but the reception you give 'em retains the persons your eyes attract; and that gentleness which offers itself to those who throw down their arms finishes in every heart the work which your charms had begun. The too gay hope you inspire 'em with fixes their assiduous attendance about you; and a complaisance in you something less extensive would drive away that great crowd of admirers. But, however, tell me, madam, by what chance your Clitander has the happiness to please you so much? Upon what fund of merit and sublime virtue do you ground the honour of your esteem? Is it by the long nail he has upon his little finger that he has gained the great esteem with you, which we see him have? Did you surrender, with all the *beau monde,* to the shining merit of his fair periwig? Or are they his large pantaloons that make you in love with him? Has the huge collection of ribands the knack of charming you? Is it by the allurement of his vast Rhinegrave that he has gained your heart, whilst he was acting the part of your slave? Or has his manner of laughing and his soft tone of voice found the secret of touching you?

Célimène. How unjustly do you take umbrage at him! Don't you very well know why I keep fair with him? That he can interest all his friends in my lawsuit, as he has actually promised me to do?

Alcestes. Lose your lawsuit, madam, with firmness of mind, and don't keep fair with a rival, who is offensive to me.

Célimène. But you are grown jealous of all the world.

Alcestes. 'Tis because all the world is kindly received by you.

Célimène. That's the very thing which ought to calm that wild spirit of

yours, since my complaisance diffuses itself to all; and you would have more room to be offended, should you see me taken up entirely with one.

Alcestes. But as to me whom you blame so much for jealousy, what have I more than the rest of them, pray madam?

Célimène. The happiness to know that you are beloved.

Alcestes. But what room has my inflamed heart to believe that?

Célimène. I think that as I have taken the pains to tell you so, a confession of that kind should be sufficient for you.

Alcestes. But who shall assure me at the same time that you mayn't say quite as much, perhaps, to everybody else?

Célimène. A pretty, amorous speech this, truly, for a lover to make; and you treat me in a gallant manner here. Well, to remove from you a suspicion of this nature, I here unsay all that I have said; and nothing can deceive you more than yourself. Rest satisfied.

Alcestes. S'heart, must I then love you? Oh! could I once again recover this heart o' mine out o' your hands, I would bless Heaven for the singular happiness! I make no secret of it, I do all that's possible to break this cruel attachment of my heart; but my greatest efforts have hitherto done nothing, and 'tis for my sins that I love you thus.

Célimène. 'Tis very true, your love for me is unparalleled.

Alcestes. Yes, upon that head I can defy all the world. My love is inconceivable, and never, madam, did any man love as I do.

Célimène. In good truth, the method of it is entirely new, for you love people to pick a quarrel with 'em; and your passion breaks out only in peevish expressions; never did anybody see such a growling lover.

Alcestes. But it only sticks with you whether this chagrin shall vanish; I beg of you, let's cut short all our debates, let us converse with open heart, and see to put a stop–

SCENE II

Célimène. What's the matter?

Basque. Acastes is below.

Célimène. Well, bid him come up.

SCENE III

Alcestes. What! can one never have a little private conversation with you? Must one find you always ready to receive company? And can't you resolve only for one moment to suffer yourself to be denied?

Célimène. Would you have me quarrel with him?
Alcestes. You have that regard for people, which by no means is agreeable to me.
Célimène. He's a man would never forgive me, should he know that his visits had been troublesome to me.
Alcestes. And what signifies that to you, to plague yourself in this manner–
Célimène. Lack-a-day! the goodwill of such as he is of importance, and these are a sort of people who have, I don't know how, usurped the privilege of talking loud at court. One sees they introduce themselves into all conversations; they can do you no good, but they may do you harm; and whatever support one may have besides, one should never embroil one's self with these very noisy fellows.
Alcestes. In short, be the matter as it will, and whatever foundation one goes upon, you always find reasons to entertain all the world; and the precautions of your judgment–

SCENE IV

Basque. Here's Clitander too, madam.
Alcestes. Mighty right.
Célimène. Whither d'ye run?
Alcestes. Out o' doors.
Célimène. Stay.
Alcestes. What for?
Célimène. Stay.
Alcestes. I can't.
Célimène. I would have you.
Alcestes. I won't. These conversations do nothing but weary me, and 'tis unreasonable to desire me to endure 'em.
Célimène. I say you shall, you shall.
Alcestes. No, 'tis impossible for me.
Célimène. Well, go, begone, you are at your full liberty.

SCENE V

Éliante (*to* CÉLIMÈNE). Here are the two marquises a-coming up with us: did anybody tell you of it?
Célimène. Yes; chairs here for everybody. (*To* ALCESTES.) What, aren't you gone?

Alcestes. No; but I'm resolved, madam, to make you explain your mind, either for them, or for me.

Célimène. Hold your tongue.

Alcestes. You shall explain yourself this very day.

Célimène. You're out o' your wits.

Alcestes. No, you shall declare yourself.

Célimène. Nay–

Alcestes. You must take one side or t'other.

Célimène. You jest, sure.

Alcestes. No, but you must make your choice, I've had patience too long.

Clitander. Egad, madam, I'm just come from court, where Cleontes appeared at the levee most ridiculously finished out. Has he ne'er a friend to give him the light of a little charitable advice upon his behaviour.

Célimène. To say the truth, he loses himself strangely in the world; he carries an air with him wherever he goes that immediately strikes the eye; and when one sees him again, after a short absence, one still finds him more full of his extravagances.

Acastes. Egad, if you must talk of extravagant people, I've just now been teased by a most tedious one: that reasoner Damon, who kept me, an 't please ye, a full hour out o' my chaise, in the heat of the sun.

Célimène. 'Tis a strange tittle-tattle, and then he has always the art, with a great deal of discourse, of saying nothing to you. There's never anything in the arguments he holds, and all we hear is nothing but noise.

Éliante (*to* PHILINTES). This is no bad beginning. The conversation takes a fine turn enough against one's neighbour.

Clitander. Timantes, too, is an admirable character, madam!

Célimène. 'Tis a mortal, from head to foot, entirely a mystery, who casts a wild glance upon you in passing, and is always busy without anything to do. Everything he utters abounds with grimace; he quite oppresses you by force o' ceremony; he has ever to break off the conversation, a secret to whisper to you, and that secret is–nothing; he makes a miracle of the least trifle, and speaks everything in your ear, even to a good-morrow.

Acastes. And Gerald, madam?

Célimène. O the tedious romancer! He never descends below his grand air of a lord, he's perpetually mingling himself with the highest company, and never cites ye anything less than a duke, a prince or prin-

cess. Quality perfectly turns his head, and all his discourse turns upon nothing but horses, equipage, and dogs; he thou's and thee's people of highest rank, when he speaks to 'em, and the name of Sir is quite obsolete with him.

Clitander. They tell you that he is all in all with Belisa.

Célimène. Poor-spirited wretch! and the driest company! I suffer martyrdom when she comes to visit me. One must sweat perpetually to find out what to say to her, and the barrenness of her expression lets the conversation die at every turn. In vain do you call in the aid of all your commonplace stuff to attack her stupid silence; the fine weather, and the rain, and the cold, and the heat, are funds that one presently drains with her. At the same time, her visits, insupportable enough of 'emselves, are drawn out also to a hideous length; and one may ask what's-a-clock, and yawn twenty times, yet no more will she stir than if she were a log of wood.

Acastes. What think ye of Adrastus?

Célimène. Oh! pride to extremity! a man puffed up with the love of himself; his merit is never satisfied with the court, he makes a daily trade of railing at it, and there's not an employment, charge, or benefice they give away without doing injustice to the considerable person he fancies himself to be.

Clitander. But the young Cleon, whom all the people of fashion now visit, what say you of him?

Célimène. That he has gained his merit from his cook, and 'tis his table that people pay their visits to.

Éliante. He takes care to have the most delicate of provisions served there.

Célimène. Yes, but I should be very glad he would not serve himself up there; that same stupid person of his is a villainous dish, and it spoils, to my taste, all the entertainment he gives you.

Philintes. His uncle Damis is generally very much esteemed; what say you of him, madam?

Célimène. Oh! he's one of my friends.

Philintes. I take him to be a worthy man, and of good sense enough in appearance.

Célimène. Yes—but, what makes me mad is, he will needs have too much wit; he's ever upon the high strain; and one sees him labouring to be witty in everything he says. Since he took it into his head to be that clever man, nothing can hit his taste, he's so difficult; he will needs see faults in everything one writes; and thinks that to praise

is not to be a man of wit; that it is learned to find fault, and that it only belongs to fools to admire and to laugh; and that in not approving any of the works of the age, he gives himself a superiority to all other people. Even in conversation he finds something to carp at, the discourse is too low for him to condescend to; and with his arms across, he looks down with pity from the height of his genius upon all that everybody says.

Acastes. A true portrait of him, split me.

Clitander (*to* CÉLIMÈNE). You have an admirable hand at painting people to the life.

Alcestes. Courage, steady on, my brave friends of the court, you spare nothing, and every one has his turn. In the meantime, let but any one of these persons appear, and we shall see you run hastily to meet him, give him your hand, and with a flattering kiss back it with oaths that you are his humble servant.

Clitander. Why do you apply yourself to us? If what is said offends you, the charge must be directed to the lady.

Alcestes. No, s'death, 'tis to you; and your fawning laughs draw from her all these slanderous reflections; her satirical humour is constantly fed by the criminal incense of your flattery; her mind would find fewer charms in raillery had she observed that people did not applaud it. Thus 'tis to flatterers that one ought everywhere to impute the vices that overspread human nature.

Philintes. But why so greatly interested for these people, you who would yourself condemn what is blamed in 'em?

Célimène. And must not the gentleman contradict, indeed? Would you have him confine himself to the common opinion? And not display in all places the contradicting spirit that Heaven has blest him with? The sentiment of another can never please him, he always takes the contrary opinion in hand, and he would think he had the appearance of a common person should he be observed to be of anybody's opinion but his own. The honour of contradiction has such charms with him that he very frequently takes up arms against himself, and falls foul on his own sentiments as soon as ever he discovers 'em in the mouth of another.

Alcestes. The laughers are on your side, madam, that's saying everything; and you may push your satire as far as you please against me.

Philintes. But 'tis very true, too, that your way is to bluster at everything one says; and by a peevishness, which itself avows, can neither bear that one should blame or praise.

Alcestes. S'death, 'tis because men are never in the right, because being peevish with 'em is always in season, and because I see that in all affairs they praise impertinently, or censure rashly.

Célimène. But–

Alcestes. No, madam, no, though I were to die for 't, you have diversions that I can't bear with; and they are in the wrong here to cherish in your mind that strong adherence to faults which they themselves blame in you.

Clitander. For my part, I don't know; but I loudly declare I always thought hitherto that the lady was without fault.

Acastes. With graces and attractions I see her well stored, but for faults, they don't fall under my observation.

Alcestes. But they do under mine, and so far am I from concealing 'em, she knows I take care to reproach her with 'em. The more we love any person, the less we should flatter them; true love shows itself by giving no quarter; and for my part, I would banish all those mean-spirited lovers, whom I found submissive to all my sentiments, and whose faint-hearted complaisance would offer incense to all my extravagances.

Célimène. In short, were you to be umpire of hearts, to be rightly in love, one ought to renounce all tenderness, and to place the supreme honour of a perfect passion in railing handsomely at the persons we love.

Eliante. Love, for the generality, is but little regulated by these rules, and lovers are always observed to extol their choice. Never does their passion see anything to be blamed in it, and everything to them becomes amiable in the object beloved; they reckon blemishes as perfections, and know how to give favourable names to 'em. The pale vies with the jessamy in fairness, the black, even to a frightful degree, is an adorable brunette; the lean has shape and easiness; the fat has a portliness full of majesty; the naturally slattern, who has few charms, is placed under the name of a negligent beauty; the giant is a goddess in their eyes; the dwarf an epitome of all Heaven's wonders; the haughty has a soul worthy of a diadem; the cheat has wit; the fool is all good nature; the over-talkative has agreeable humour; and the dumb preserves a decent modesty. 'Tis thus that a lover, in the extremity of his passion, loves even the very faults of those he is enamoured with.

Alcestes. And, for my part, I maintain–

Célimène. Let's drop this discourse, and take a turn or two in the gallery. What! are you going, gentlemen?

Clitander and Acastes. No, madam.

Alcestes. You are mightily taken up with the fear of their going; go when you please, gentlemen; but I give you notice that I shan't go hence till you are gone.

Acastes. Did I not think I should be troublesome to the lady, I have nothing to call me hence the whole day.

Clitander. As for me, provided I am but soon enough to attend the king at his going to bed, I have no affair else to engage me.

Célimène (*to* ALCESTES). You only joke, I fancy.

Alcestes. No, not in the least. We shall see whether I am the person you want to have gone.

SCENE VI

Basque (*to* ALCESTES). Sir, here's a man wants to speak with you about an affair which he says will admit of no delay.

Alcestes. Tell him, I have no such urgent affairs.

Basque. He has a jacket on with large plaited skirts, laced with gold lace.

Célimène (*to* ALCESTES). Go see what he wants, or bid him come in.

SCENE VII

Alcestes (*going up to the Guard*). Well then, what's your pleasure? come hither, sir.

Guard. Sir, I want to speak a word or two with you.

Alcestes. You may speak aloud, sir, to let me know what it is.

Guard. The marshals of France, whose commands I am charged with, order you, sir, to come and appear before them immediately.

Alcestes. Who? me, sir?

Guard. Yourself, sir.

Alcestes. And what for?

Philintes (*to* ALCESTES). 'Tis the ridiculous affair between you and Orontes.

Célimène (*to* PHILINTES). How?

Philintes. Orontes and he affronted one another just now about some trifling verses he did not approve of, and they want to quash the thing in its infancy.

Alcestes. I shall never show any base compliance.

Philintes. But you must obey order, come, get ready–

Alcestes. What accommodation would they propose between us? Shall the vote of these gentlemen condemn me to approve the verses

which are the occasion of our quarrel? I won't unsay what I have said; I think 'em villainous.

Philintes. But you should with more temper–

Alcestes. I shan't abate an ace of it, the verses are execrable.

Philintes. You should show yourself tractable in your sentiments. Come, let's away.

Alcestes. I'll go, but nothing shall prevail upon me to retract.

Philintes. Come, we shall show you.

Alcestes. Unless an express command comes from the king for me to approve the verses about which there's such a bustle, egad, I shall ever maintain that they are wretched, and that a man deserves hanging for having made 'em. (*To* CLITANDER *and* ACASTES, *who laugh.*) S'heart, gentlemen, I did not think to be so diverting as I am.

Célimène. Go quickly, and make your appearance where you should.

Alcestes. I am going thither, madam, and I shall return hither immediately to decide our debates.

ACT III

SCENE I

Clitander. Dear marquis, I see thou art absolutely at ease, everything makes thee gay, and nothing discomposes thee. Dost thou think i' good faith, if thou hast not lost thy eyesight, that thou hast any mighty reason to appear so joyful?

Acastes. Egad, I don't see when I examine myself where I can pick out any reason to be melancholy. I have a fortune, I'm young and spring from a family which, with some reason, may style itself noble; and I think, by the rank my extraction gives me, that there are very few employments which I don't stand fair for; as to courage, which we ought to value above everything, the world knows without vanity that I don't lack it; and the world has seen me push an affair in life after a vigorous and gallant manner enough. For wit, doubtless I have it, with a good taste too, to judge and reason upon everything without study; to make a learned figure in the playhouse when anything new comes out which I am fond of to idolatry, to decide there in chief, and set the whole house in an uproar at all the fine passages that deserve a clap. I'm adroit enough, I've a good air, a good mien, above all a handsome set of teeth, and a very fine shape. As to dressing well, I think, without flattering myself, he would be very

unlucky who should dispute it with me. I am in great esteem, as great as a man can be, beloved by the fair sex, and well with my prince. I do think that with all this, my dear marquis, I do verily think a man might rest mighty well satisfied with himself in any country of the world.

Clitander. Yes, but finding conquests so easy elsewhere, why do you sigh here to no purpose?

Acastes. I? 'fore gad I'm not of the make nor humour to endure the indifference of a fine lady. 'Tis enough for awkward people, for vulgar merit, to burn with constancy for your severe beauties; to languish at their feet, and be passive under their cruelty; to seek relief from sighs and tears, and endeavour by dancing a careful long attendance to obtain what is denied to their merit. But people of my air, marquis, are not made to love upon credit, and be at the whole expense. How extraordinary soever the merit of the fair may be, I'm of opinion, thank Heaven, that we have our value as well as they, and that 'tis not reason sufficient to be honoured with a heart like mine that it costs 'em nothing; and, at least to place everything in its just balance, 'tis fitting advances ought to be made at a common expense.

Clitander. 'Tis therefore thy opinion, marquis, that thou art very well here!

Acastes. I have some room, marquis, to think so.

Clitander. Believe me, and ha' done with that extreme mistake; you flatter yourself, my dear, and put out your own eyes.

Acastes. 'Tis true, I flatter myself, really I do put out my own eyes.

Clitander. But who makes you judge yourself so perfectly happy?

Acastes. I flatter myself.

Clitander. What d'ye found your conjectures upon?

Acastes. I do put out my own eyes.

Clitander. Have you pretty sure proof of it?

Acastes. I impose upon myself, I tell you.

Clitander. May Célimène have made any secret acknowledgment of her passion?

Acastes. No, I am cruelly used.

Clitander. Prithee, answer me.

Acastes. I meet with nothing but rebuffs.

Clitander. Ha' done with this raillery, and tell me what hopes she may have given you.

Acastes. I am the wretch, and thou the fortunate man; she has an utter aversion to my person, and I must hang myself some o' these days.

Clitander. Come on then, are you willing, marquis, that, to adjust our love affairs, we should both unanimously determine upon one thing? That he who can show a certain mark of having the greater share in Célimène's heart, the other shall here give place to the pretended conqueror, and set him free from a continual rival?

Acastes. Egad, this is a language exactly to my taste, and I do from the bottom of my heart agree to it. But hush.

SCENE II

Célimène. Here still?

Clitander. Love, madam, detains us.

Célimène. I just now heard a coach enter below, do you know who it is?

Clitander. No.

SCENE III

Basque. Arsinoé, madam, is coming up to see you.

Célimène. What would the woman have with me?

Basque. Éliante is there below to entertain her.

Célimène. What's in her head? And who sends for her?

Acastes. She passes in all places for a consummated prude; and the ardour of her zeal–

Célimène. Yes, yes, mere grimace. In her soul she's one of this world, and all her cares are bent to hook in somebody, without being able to compass it. She can't look but with an envious eye upon the professed humble servants who are followers of any other lady; and, her forlorn merit being abandoned by everybody, is perpetually a-raving against the blindness of the age. She endeavours under the sham veil of prudery to conceal that hideous solitude which one sees in her house; and to save the credit of her feeble charms she would fix a crime upon everything out of their power. At the same time, a spark would highly please the dame; and she has a sneaking kindness even for Alcestes. The court he pays me is an insult upon her charms; she will have it a kind of robbery that I commit upon her. And her jealous spite, which she hides with great difficulty, gives underhand a fling against me in all places where she comes. In short, I never saw anything, to my fancy, so stupid; she is to a supreme degree impertinent, and–

SCENE IV

Célimène. Hah! What propitious fortune has brought you hither, madam? Sincerely I was in pain about you.

Arsinoé. I come to give you some intelligence which I thought I owed you.

Célimène. Oh! my stars! how glad am I to see you!

Exeunt Clitander and Acastes laughing.

SCENE V

Arsinoé. They could not have gone away more apropos.

Célimène. Shall we sit down?

Arsinoé. 'Tis not at all necessary. Friendship, madam, ought, above all, to display itself in those things which may be of most importance to us. And as nothing can be of greater importance than honour and decorum, I come to testify the friendship I have for you by a piece of intelligence which touches your honour. Yesterday I was a-visiting some people of singular virtue, where they turned the subject of the discourse upon you: and there your conduct, madam, with all its mighty show, had the misfortune not to be commended. That crowd o' people whose visits you admit of, your gallantry, and the rumours it excites found censurers more than it should have done, and more rigorous than I could have wished. You may well think what side I took. I did everything in my power to defend you; I strongly excused you, on the foot of your intention, and would be bound for the honesty of your mind. But you know there are certain things in life which one cannot excuse, however desirous one may be to do it. And I was obliged to grant that the air with which you live did you some injury. That it had but an ill face in the eyes of the world, that there are no stories so ill-natured but are everywhere raised about it, and that, if you pleased, your whole deportment might give less handle to uncharitable judges. Not that I believe at the bottom your virtue touched; Heaven preserve me from entertaining such a thought! But folks easily give credit to the shadow of a crime, and 'tis not enough for us to live well, as to ourselves. I believe you, madam, to be of too considerate a spirit not to take in good part this profitable advice, and to attribute it to the secret motions of a zeal which gives me a thorough attachment to all your interests.

Célimène. Madam, I have a great many thanks to return you. Such intelligence obliges me: and so far from taking it ill, I design this instant to acknowledge the favour by a piece of intelligence which touches your honour too; and as I see you discover yourself my friend by informing me of the reports that people spread about me, I shall in my turn follow so kind an example by acquainting you what 'tis people say of you. In a certain place, where I was a-visiting t'other day, I met with some people of most extraordinary merit, who, speaking of the true pains a person takes who lives virtuously, turned the conversation, madam, upon you. There your prudery and your violent zeal were not by any means cited as a good model: that affectation of an exterior gravity; your everlasting discourses about wisdom and honour; your grimaces and outcries at the shadow of an indecency, which yet may have all the innocence of an expression only ambiguous; that high esteem you are in with yourself, and the eye of pity you cast upon everybody else; your frequent lectures and keen censures on things that are innocent and pure. All this, madam, if I may speak frankly to you, was blamed by common consent. To what purpose, said they, that modest look, that sage outside, that gives the lie to all the rest? She's exact at her prayers to the utmost punctilio, but she beats her servants, and pays 'em no wages. She makes a show of huge zeal in all places of devotion, but she paints, and wants to appear handsome; she can't bear the sight of anything naked in a picture, but has a mighty love for realities. For my part, I undertook your defence against 'em every one, and positively assured 'em 'twas all scandal; but the whole run of their opinions went against me, and their conclusion was that you would do well to be less solicitous about the actions of others, and take a little pains about your own. That one ought to look a great while into oneself before we think of condemning other people; that one should add the weight of an exemplary life to the corrections we pretend to make in our neighbours; and that 'twould be still better to refer ourselves in this business to those whom Heaven has committed the care of it to. I believe also, madam, you are of too considerate a spirit not to take in good part this useful intelligence, and to attribute it to the secret motions of a zeal which gives me a thorough attachment to all your interests.

Arsinoé. Whatever we may be exposed to in our reproofs, I did not expect, madam, such a reply as this; and I see plainly, by the sharpness there is in it, that my sincere advice has touched you to the quick.

Célimène. Quite the contrary, madam; and if people were but wise, these

mutual cautions would be brought more into fashion; they would put an end by this frank treatment of each other, to that great blindness which all are under in respect to themselves. It will be entirely your fault if we do not continue this honest office with the same zeal, and do not take great care to compare notes as to what we hear of each other, you of me, I of you.

Arsinoé. Ah! madam, I can hear nothing of you, 'tis in me that a great deal is to be found fault with.

Célimène. Madam, one may, I believe, praise or blame everything, and everybody may have their reason according to their age or taste. There is a season for gallantry, and there is one also proper for prudery. One may out of policy choose that when the glory of our youthful years is faded. That serves to cover some vexatious misfortunes. I don't say but I may, one time or other, follow your steps; age brings about everything; but 'tis not the time, madam, as every one knows, to be a prude at twenty.

Arsinoé. Really you plume yourself upon a very trifling advantage, and make a hideous noise with your age. Whatever mine may be more than yours, 'tis no such mighty matter to value yourself so much upon it; and I can't imagine, madam, why you should put yourself into such a heat, and lash me in the strange manner you do.

Célimène. No more can I imagine, madam, why you are observed to inveigh so bitterly against me in all places; must you be eternally revenging your vexations upon me? And how can I help it if folks won't make love to you? If my person captivates people, and they continue daily to make me those addresses from which you may wish they would desist, I don't know what to do in this case, and 'tis not my fault. You have a clear stage, and 'tis not I that prevents your having charms to attract them.

Arsinoé. Alas! And do ye think I give myself any pain about the number of lovers which you are so vain of? And is it not very easy to judge at what price one may engage 'em nowadays? D'ye think to make one believe, as we see how things go, that your merit alone draws this crowd together? That they only burn for you with an honourable passion, and that they all make court to you on the score of your virtue? People are not blinded by vain pretences, the world is no dupe, and I see people who are formed with the power of inspiring tender sentiments who nevertheless don't gather sparks to their houses: from thence we may draw consequences that one does not win their hearts without great advances; that nobody is our admirer only for

the beauty of our eyes; and that we must pay for the court that's made to us. Therefore don't puff yourself up so much with glory for the trifling tinsel of a poor victory: correct a little the pride of your charms, and don't treat people with contempt on that account. Should our eyes envy yours their conquests, I fancy we might do as other people do, be under no restraint, and let you plainly see that one has lovers when one has a mind to have 'em.

Célimène. Have 'em then, madam, and let's see this affair; labour hard by this extraordinary secret to please: and without–

Arsinoé. Let us break off this kind of conversation, madam, it would transport both your temper and mine too far; and I should have already taken my leave, as I ought to do, had not my coach obliged me to wait longer.

Célimène. You are at liberty to stay, madam, as long as you please, and nothing should hurry you on that account; but, without fatiguing you with ceremony to me, I am going to give you better company; and this gentleman whom chance has brought hither apropos will better supply my place in entertaining you.

SCENE VI

Célimène. Alcestes, I must go write a line or two of a letter, which I can defer no longer without doing myself an injury: please to stay with the lady, she will easily be so good as to excuse my incivility.

SCENE VII

Arsinoé. You see she desires I would entertain you whilst I wait a moment till my coach comes; and never could all her care offer me anything more charming than such a conversation. Indeed persons of sublime merit attract the love and esteem of everybody; and doubtless yours has hidden charms that influence my heart so as to enter into all your interests. I wish the court, by a propitious regard, would do more justice to your worth. You have reason to complain, and I am out of all patience when I daily see that they don't do anything for you.

Alcestes. Me, madam? and what pretensions have I to anything? what service have I done the state? What have I done, pray, so illustrious in itself, that I should complain of the court that they do nothing for me?

Arsinoé. All those on whom the court casts a propitious eye have not always performed such famous services; there must be opportunity as well as power; and in short the merit you discover ought—

Alcestes. Lack-a-day! No more of my merit, for goodness' sake; what are you for having the court perplex itself about? It would have enough to do, and a plaguy deal o' care upon its hands, to have people's merit to bring to light.

Arsinoé. Illustrious merit brings itself to light; yours is extremely valued in many places, and you may take it from me that in two considerable places you were yesterday extolled by people of great consequence.

Alcestes. Why, madam, all the world are made fools of nowadays, and there's nothing but what the present age confounds by that means; every man has equally great merit bestowed upon him, 'tis no longer an honour to be praised; one's sick o' panegyrics, and throws 'em back in people's faces, even my *valet-de-chambre* is put into the gazette.

Arsinoé. For my part, I could heartily wish, the better to show yourself, that an employment at court could allure you. Would you but discover the least inclination that way, one may set many engines at work to serve you, and I have persons at beck whom I'll employ for you, who can make your way easy to everything.

Alcestes. And what would you have me do there, madam? The humour I am of requires me to banish myself thence; Heaven, when it sent me into the world, never made me a soul compatible with the air of a court. I don't find in myself the virtues necessary to succeed well, and make my fortune there. My chief talent is to be frank and sincere: I don't know how to cajole people in conversation; and he who has not the gift of concealing his thoughts ought to make but a very short stay in that country. Out of a court, one has not that interest, doubtless, and those titles of honour, which it gives at present; but at the same time, in losing these advantages, one has not the vexation of acting very scurvy parts. One has not a thousand cruel rebuffs to suffer, one has not Mr. Such-a-one's verses to praise, nor my Lady Such-a-one to flatter, nor to bear with the skull of a true marquis.

Arsinoé. Let us drop this discourse of a court, since you are so pleased; but I must pity you in your amour, and that you may have my thoughts on that subject, I could heartily wish your affections were better placed: you deserve, without doubt, a much happier fate, and she whom you are charmed with is unworthy of you.

Alcestes. But pray, madam, consider, when you say so, that this person is your friend.

Arsinoé. Yes; but it really goes against my conscience to suffer any longer the wrong she does you; the situation I see you in gives me too sensible an affliction, and I give you notice that you are abused in your love.

Alcestes. 'Tis discovering a great tenderness for me, madam, and such intelligence is obliging to a lover.

Arsinoé. Yes, for all she is my friend, she is, and I say she is unworthy to enslave the heart of a man of honour, and that hers entertains no more than a dissembled kindness for you.

Alcestes. That may be, madam, one cannot see through people's hearts; but your charity might well have forborne throwing such a suspicion into mine.

Arsinoé. If you won't be undeceived, I shall e'en say no more to you, that's easy enough.

Alcestes. No, but on such a subject as this, whatever you expose us to, doubts are of all things the most tormenting: and for my part, I should be glad you would inform me of nothing but what you can plainly make appear to me.

Arsinoé. Well, enough is said, and you are going to receive full light into this matter. Yes, I am willing your eyes should convince you of everything, only give me your hand as far as my house. There I shall let you see a faithful proof of the infidelity of your fair one's heart: and if yours can be smitten with any other eyes, one may, perhaps, offer you something to give you consolation.

ACT IV

SCENE I

Philintes. No, never was there a soul seen of so obstinate a make, nor an accommodation more difficult to be brought about; in vain did they endeavour to wind and turn him all ways, there was no drawing him from his opinion, and, in my thoughts, never did so whimsical a difference employ the prudence of these gentlemen. "No, gentlemen," said he, "I won't retract, and shall agree to anything, barring this point. What is he affronted at? And what would he have me say? What is it over with him as to honour, if he can't write well? What

harm did my advice do him, which he took so heinously? One may be a worthy man and write bad verses; these affairs touch not at all upon the point of honour. I esteem him a gallant man in all respects, a man of quality, of merit, and courage, everything you please, but he's a very bad author. I'll praise, if you please, his train and his expense, his skill in horsemanship, in arms, in dancing. But for commending his verses, I am his humble servant; and when one has not the happiness to write well in that way, one should have no itch after rhyming, on pain of being cast for one's life." In short, all the favour and agreement that he could, with the utmost efforts, bring himself to stoop to, was to say (thinking to soften his style greatly), "Sir, I am sorry I am so difficult to please; and out of respect to you, I could have wished with all my soul to have thought your late song better"; and to conclude, they obliged 'em to close the whole proceeding in an embrace.

Éliante. He is very singular in his way of acting, but I have, I own it, a particular value for him: and the sincerity he piques himself upon has something noble and heroic in it. 'Tis a virtue very rare in this present age, and I could wish to see it in everybody as it is in him.

Philintes. For my part, the more I see him the more am I astonished at this passion he so abandons himself to. Being of the humour Heaven has formed him with, I can't imagine how he takes it into his head to be in love; and less still can I imagine how your cousin should be the person his fancy inclines him to.

Éliante. This lets us sufficiently see that love is not always the product of a resemblance of humours; and in this example all those accounts of tender sympathies are falsified.

Philintes. But d'ye think, by what appears, that she loves him?

Éliante. That's a point not very easy to be known. How can one judge whether she loves him in reality? That heart of hers is not, even itself, very sure what it thinks; it loves sometimes without knowing very well why, and fancies too at other times that it loves when there is nothing in't.

Philintes. I believe our friend will find more vexation with this cousin o' yours than he imagines; and to say the truth, had he my heart he would turn his addresses quite to another quarter; and we should see him, madam, by a choice much more just, make his use of the kindness you discover for him.

Éliante. For my part, I use no disguise in the matter, and I think one

should be sincere in these points. I don't oppose his passion at all; on the contrary I interest myself in it: and if the thing stuck only at me, I myself, the world should see, would join him to her he loves; but if in such a choice, as it possibly may happen, his passion should try its fate another way, and it must be so that he should make somebody else happy, I could resolve upon receiving his addresses; and his being refused in such an affair would not create in me any aversion to him.

Philintes. And I, madam, on my part, do not at all oppose that kindness your beauty entertains for him: and he himself, if he please, can fully acquaint you with what I have taken care to tell him upon this subject. But if by their being united in marriage, you should be out of a capacity of receiving his addresses, all mine should attempt that glorious favour, which with so much goodness you present him with. Happy, madam, if when your heart can withdraw itself from him, it might but fall to my share.

Éliante. You are pleased to be merry, Philintes.

Philintes. No, madam, I speak now from the bottom of my soul; I wait the occasion of making you an offer without reserve, and with all my wishes impatiently wait for that moment.

SCENE II

Alcestes. Ah! madam, do me justice for an offence which has just now triumphed over all my constancy.

Éliante. What's the matter? what has disturbed you?

Alcestes. Something ails me, which 'tis death to think of; and the dissolution of all nature had not oppressed me like this adventure. 'Tis over with me—my love—I can't speak.

Éliante. Endeavour to recover your spirits a little.

Alcestes. O just Heaven! must the odious vices of the basest minds be joined to so many charms?

Éliante. But pray who can—

Alcestes. Ah! all is ruined, I am, I am betrayed, I am murdered. Célimène—could one have believed this news? Célimène deceives me, and is no better than a faithless wretch.

Éliante. Have you just grounds to believe it?

Philintes. Perhaps 'tis a suspicion lightly conceived; your jealous temper sometimes takes chimeras—

Alcestes. Oh! s'death, sir, meddle you with your own affairs. (*To* ÉLIANTE.) 'Tis being but too certain of her treachery, to have a let-

ter in my pocket under her own hand. Yes, madam, a letter writ to Orontes has set before my eyes my disgrace, and her shame. Orontes. whose addresses I thought she avoided, and whom I dreaded the least of all my rivals.

Philintes. A letter may deceive us by appearance, and is not so culpable sometimes as one thinks it.

Alcestes. Once more, sir, pray leave me, and trouble yourself only about your own concerns.

Éliante. You should moderate your passion, and the injury–

Alcestes. This work, madam, belongs to you, 'tis to you that my heart has now recourse for power to free itself from this galling affliction. Revenge me of your ungrateful and perfidious relation, who basely betrays so constant a passion; revenge me for this stroke which ought to raise your horror.

Éliante. I revenge you! How?

Alcestes. In receiving my heart. Accept it, madam, in room of the faithless creature: 'tis that way I can take vengeance on her; and I will punish her by the sincere addresses, by the profound love, the respectful concern, the earnest devoirs, and the assiduous service, which this heart shall offer you as an ardent sacrifice.

Éliante. I sympathize with you, doubtless, in what you suffer, and don't despise the heart you offer me; but perhaps the harm is not so great as you think it, and you may lay aside this desire of vengeance; when the injury proceeds from an object full of charms, one forms many designs one never executes. In vain do we see powerful reason to part, the beloved criminal is presently innocent; all the harm we wish easily vanishes, and 'tis very well known what the anger of a lover is.

Alcestes. No, no, madam, no. The crime is mortal, there's no return, and I absolutely break with her; nothing shall change the resolution I have fixed of doing it, and I should be my own tormentor ever to love her more. Here she is; my passion doubles at her approach. I'll go reproach her in the most lively manner for her black ingratitude, absolutely confound her, and after that bring you back a heart entirely disengaged from her delusive charms.

SCENE III

Alcestes (*aside*). Oh Heaven! can I be now master of my transports?

Célimène (*aside*). Hey, hey! (*To* ALCESTES.) What confusion is this you are in? What means that sighing, and those gloomy looks you cast upon me?

Alcestes. That all the horrors a soul is capable of have nothing in them comparable to your perfidies; that fate, devils, and incensed Heaven never produced anything so wicked as yourself.

Célimène. This is certainly an admirable way of courtship.

Alcestes. Nay, none of your jests, 'tis no time to laugh; much rather blush, you have reason for it. I have sure proofs of your treachery. This is what the perplexities of my heart had pointed out; 'twas not in vain that my affection was alarmed. By those frequent suspicions, which you abhorred, I searched after the misfortune my eyes have hit upon; and in spite of all your caution and address in dissimulation, my genius hinted to me what I had to fear; but don't presume that I shall endure the vexation of seeing myself outrageously abused without being revenged. I know that one has no power over one's inclinations, that love will always spring up independent; that one can never take possession of a heart by force, and that every mind is free to name its conqueror. Accordingly I should have had no reason of complaint, had you explained to me without dissimulation; and though you had rejected my addresses at the first sight, my heart had had no right of taxing anything but fortune. But to have my passion applauded by a deceitful confession, 'tis a treachery, 'tis a perfidy, which can't meet with too great a punishment; and I shall give full swing to my resentments. Yes, yes, after such an outrage dread everything that can happen. I am no more myself, I am all rage. Pierced by the mortal wound which you have given me, my senses are no longer under the government of reason; I yield to the motions of a just fury, and shall not answer for what I may do.

Célimène. Whence then, I pray, proceeds such raving? Tell me, have you lost your senses?

Alcestes. Yes, yes, I lost 'em, when on sight of you I imbibed, to my misfortune, the poison which kills me, and when I thought of finding any sincerity in the treacherous charms with which I was enchanted.

Célimène. What treachery then can you complain of?

Alcestes. Oh! the double heart, how well it knows the art of dissimulation! But I have the means ready at hand to drive it to its last shifts; cast your eyes here, and know the strokes of your own pen; the discovery of this letter is sufficient to confound you, and against this evidence you can have nothing to answer.

Célimène. And this is the thing that ruffles your spirits?

Alcestes. Don't you blush at sight of this writing?

Célimène. And for what reason should I blush at it?

Alcestes. How! Do you add assurance to artifice? Will you disown it because it is not signed?

Célimène. Why disown a letter of my own handwriting?

Alcestes. And can you look upon it without being in confusion at the crime of which the whole tenor of it accuses you?

Célimène. You are in truth a most extravagant mortal.

Alcestes. What? Do you thus outbrave this convincing proof? And has that which lets me see your tenderness for Orontes, nothing in it injurious to me, and shameful to you?

Célimène. Orontes! Who told you that the letter is for him?

Alcestes. The persons who this day put it into my hands. But I'm willing to grant that it should be for another; has my heart the less reason to complain of yours? Will you in reality, be less culpable towards me, on that account?

Célimène. But if 'tis a woman this letter is written to, wherein does it hurt you? and what is there culpable in it?

Alcestes. Ha! the turn is good, and the excuse admirable; I was not thinking of this stroke, I own it. And here I am absolutely convicted. Dare you have recourse to these gross impositions? and d'ye think people have lost their eyes? Let's see, let's see a little in what way, with what air, you will support a falsity so palpable; and how can you misapply all the words of a letter which shows so much passion, to a woman? To cover your want of constancy, adjust what I'm going to read–

Célimène. I've no mind to't. You are very merry to take such command upon you, and to tell me flatly to my face what you dare to tell me.

Alcestes. No, without being in a passion, take a little pains to justify the terms here.

Célimène. No, I won't do it; and in this accident, whatever you think is of little importance to me.

Alcestes. Pray, show me, I shall be satisfied, if you can but explain this letter for a woman.

Célimène. No, 'tis for Orontes, and I would have you think so; I receive all his addresses with the greatest joy. I admire his discourse, I esteem his person, and I agree to whatever you please. Do, quarrel, let nothing stop you, and don't torment me any more.

Alcestes (*aside*). Heavens! Can anything be invented more cruel? And was ever heart treated in this manner? What! Here I am justly in a passion with her, 'tis I come to make my complaints, and I must bear

the blame! She aggravates to the last degree my sorrow, and my suspicions; she suffers me to believe everything, and glories in everything; and at the same time, my heart is still cowardly enough not to break the chain that binds it, not to arm itself with a generous disdain against the ungrateful object it is but too much smitten with! (*To* CÉLIMÈNE.) Ah! perfidious creature! how well you know to make your advantage of my extreme weakness even against myself, and manage to your own ends that prodigious excess of this fatal love which took rise from those traitorous eyes! Clear yourself at least from the crime which bears too hard upon me, and no longer affect being guilty of it. If it can be done, make me this letter innocent; my fondness consents to lend you a helping hand. Strive to appear true in this case, and I will strive to believe you such.

Célimène. Go, you are a fool with your jealous transports, and don't deserve the love one has for you. I would know, who could oblige me to descend to the baseness of dissembling with you? And why, if my heart inclined another way, I should not with sincerity tell you so? What! does not the obliging assurance of my sentiments defend me sufficiently against all your suspicions? Are they of any weight against such security? Is it not affronting me to hearken to 'em? And since our heart makes the utmost effort when it can resolve to confess it loves; since the honour of the sex, that enemy to love, so strongly opposes such like confessions; should the lover, who sees us get over such an obstacle for his sake, with impunity suspect that oracle? And is it not a crime not to rest secure of that which one cannot declare but after great struggles with oneself? Go, such suspicions deserve my indignation, and you are not worth one's giving oneself any concern about. I am a fool, and am heartily vexed at my simplicity for still retaining any kindness for you; I ought to fix my esteem somewhere else, and give you just reason to complain of me.

Alcestes. Ah, traitress! How strange is my weakness for you! You certainly deceive me with these tender expressions; but it signifies nothing, I must follow my destiny, my soul's entirely resigned to your fidelity, I must see to the last what your heart will prove, and whether it can form so black a design as to deceive me.

Célimène. No, you don't love me as you ought to love.

Alcestes. Oh! nothing is comparable to the extremity of my passion; and in the zeal I have to show this to all the world, I go so far as to form wishes against you. Yes, I could wish that no person thought you amiable, that you were reduced to a miserable condition, that

Heaven at your infancy had bestowed nothing upon you, that you had had neither rank, birth, nor fortune, so that I might, by a more distinguishing sacrifice of my heart, have made you reparation for the injustice of such a fate; and that I might at this time have had the joy and the glory of seeing you receive your all at the hands of my love.

Célimène. This is wishing one well after a strange manner! Preserve me Heaven from your ever having occasion–Here comes Master Du Bois, ridiculously equipped.

SCENE IV

Alcestes. What means this equipage, and this frightful air? What's the matter with you?

Du Bois. Sir–

Alcestes. Well?

Du Bois. Strange things in abundance.

Alcestes. What is it?

Du Bois. We are scurvily situated, sir, in our affairs.

Alcestes. How?

Du Bois. Shall I speak aloud?

Alcestes. Yes, speak quickly.

Du Bois. Isn't there somebody here–

Alcestes. Pooh, what trifling is here! Will you speak?

Du Bois. Sir, you must step aside.

Alcestes. How?

Du Bois. We must decamp without beat o' drum.

Alcestes. And why?

Du Bois. I tell you we must quit this place.

Alcestes. The cause?

Du Bois. We must depart, sir, without taking leave.

Alcestes. But for what reason all this stuff?

Du Bois. By reason, sir, that we must pack and away.

Alcestes. Plague! I shall infallibly crack your skull, rascal, if you don't explain yourself in another manner.

Du Bois. Sir, a fellow with a black dress and phiz came quite into the kitchen, to leave with us a paper scribbled after such a manner that a man had need be more cunning than the devil to read it. I make no manner o' doubt, but 'tis about your lawsuit; but Beelzebub himself, I believe, could not find it out.

Alcestes. Well! How! What does this paper discover, traitor, with respect to our departure you spoke of just now?

Du Bois. 'Tis to tell you, sir, as how an hour afterwards, a man who comes often to visit you came very earnestly to see for you, and not finding you, charged me softly, knowing that I am a very faithful servant, to tell you–stay, what d'ye call his name?

Alcestes. Ha' done with his name, rascal, and tell me what he said to thee.

Du Bois. In short, 'tis one of your friends, and that's sufficient. He told me that 'tis at your peril not to go hence, and that fortune threatens you here with being arrested.

Alcestes. But how? Would he not specify anything t'ye?

Du Bois. No, he asked me for a pen, ink, and paper; and wrote a word or two, by which, I believe, you may come at the knowledge of the bottom of this mystery.

Alcestes. Give it me then.

Célimène. What can there be in this?

Alcestes. I don't know, but I long to be fully let into it. Wilt thou ha' done quickly, thou impertinent villain?

Du Bois (*after having fumbled for it a long while*). Troth, sir, I left it upon your table.

Alcestes. I don't know what hinders me–

Gélimène. Don't put yourself in a passion, but go and unravel this perplexing business.

Alcestes. It seems to me that fortune, take what care I can, has sworn to debar me of your conversation; but to triumph over it, indulge my passion, madam, with one sight of you more before the day is ended.

ACT V

SCENE I

Alcestes. My resolution is fixed, I tell you.

Philintes. But, whatever this stroke may be, must it needs oblige you–

Alcestes. No, you labour in vain, in vain do you reason with me, nothing can divert me from what I say. Too much perverseness reigns in the age we live in, and I'm resolved to withdraw myself from all human commerce. What! the world sees that honour, probity, modesty, and the laws are all at once against my adversary! People are everywhere crying up the justice of my cause! My mind reposes itself upon the assurance of my right! At the same time I am deceived in the success; I have justice on my side, yet I lose my cause! A scoundrel, whose

scandalous history is so well known, comes off triumphant by a most hellish falsehood! All honesty yields to his perfidy! He finds a way of justifying himself in cutting my throat! The importance of his grimace, wherein is glaring artifice, overthrows all right and perverts justice! He gets a decree of court to crown his villainy; and still not content with the injury they do me, there is got abroad in the world an abominable book, of which even the reading is criminal, a book that deserves the utmost severity, of which the knave has the impudence to make me the author! And upon this Orontes is observed to mutter, and villainously endeavours to support the imposture! He who maintains the rank of an honest man at court, to whom I have nothing but been sincere and frank; who comes to me in spite of me, with an eager forwardness, to demand my opinion of some verses he has made, and because I treat him with honour, and would neither betray him, nor the truth, he is aiding to oppress me with an imaginary crime! Now is he become my greatest adversary! And I am never heartily to be pardoned, because I did not think his song was a good one! S'death, 'tis after this manner mankind are made! These are the actions to which a sense of glory carries 'em! This is the fidelity, the virtuous zeal, the justice and the honour one finds among 'em. Let's away, 'tis too much to bear the plagues they are devising; let us escape from these savage woods, this cutthroat place; and since among men you live like real wolves, traitors, you shall never have me with you again as long as I live.

Philintes. I apprehend the design you are in to be a good deal too hasty, and the whole mischief is not so great as you make it. What your antagonist has the assurance to impute to you has not had the credit to occasion your being arrested; his false report we see destroys itself, and 'tis an action which may possibly turn severely upon himself.

Alcestes. Him! He fears not any clamour from such tricks as these, he has a licence to be an avowed villain; and so far will such an adventure as this be from hurting his credit, you'll see him to-morrow in a more flourishing condition.

Philintes. In short, 'tis certain people have not given in too much to the report his malice has spread against you; from this quarter hitherto you have nothing to fear; and as for your lawsuit, which you may complain about, 'tis easy for you to bring the trial on afresh, and against this sentence–

Alcestes. No, I'll abide by it. However sensible an injury such a sentence may do me, I'll take great care they shall not reverse it; one sees too plainly by this how right is abused; and I would have it remain to

posterity as a notorious mark, a famous testimony of the wickedness of the men of this age. It may indeed cost me about twenty thousand livres, but for twenty thousand livres I shall have a right to rave against the iniquity of human nature, and to nourish an immortal hatred for it.

Philintes. But in short–

Alcestes. But in short your pains are superfluous. What can you say to me, sir, upon this head? Can you possibly have the assurance to excuse to my face the horribleness of all that's transacting?

Philintes. No, I do agree to what you please. Everything goes by cabal, and by pure interest; and 'tis nowadays scarce anything else but craft that carries it, and men should be otherways disposed. But is their want of justice a reason why we should think of withdrawing from their society? All these human defects give us opportunities in life of exercising our philosophy. 'Tis the most amiable employment virtue finds; and if every place were full of honesty, and all hearts were frank, just, and docile, the greatest part of our virtues would be useless to us, since the use of 'em is placed in this, in the power of bearing the injustice of another, in respect to our property, without being ruffled. And after the same way that a heart of profound virtue–

Alcestes. I know, sir, that you talk the best in the world. You always abound in fine reasoning, but you lose your time and all your fine discourses. Reason persuades me for my good to retire; I have not command enough of my tongue, I could not answer for what I might say, and I should run myself into a thousand broils. Let me, without any more words, wait upon Célimène, 'tis proper I have her consent to my design; I shall now see whether she really loves me, and this is the critical moment to convince me of it.

Philintes. Let us go up to Éliante, and wait her coming.

Alcestes. No, my mind is agitated with too much care; go you and see her, and leave me, in short, in this little dusky corner with my gloomy melancholy.

Philintes. That's odd sort o' company to wait for, I'll go prevail upon Éliante to come down.

SCENE II

Orontes. Yes, madam, you are to consider whether by so dear an engagement you will fix me forever yours. I must have an absolute certainty of your affections; a lover does not like wavering in such a

point as this. If the warmth of my passion has really moved you, you should not by any means scruple letting me see it; and after all, the proof I demand of you is no more than not to admit of Alcestes' addresses, to sacrifice him, madam, to my love, and in short, from this time forward to banish him your house.

Célimène. But what mighty matter provokes you against him. You whom I have heard speak so much of his merit?

Orontes. There's no need, madam, of these explanations. The matter in hand is to know your sentiments: pray, choose to keep one or t'other, my resolution only waits upon yours.

Alcestes (*stepping out of the corner whither he had retired*). Yes, the gentleman is right: you must choose, madam, and his demand here agrees with my desire; the same impatience urges me, and the same care calls me, my love must have an infallible mark of yours. Matters can be protracted no longer, this is the moment you are to explain yourself.

Orontes. I would not by any means, sir, disturb your good fortune by an importunate passion.

Alcestes. Jealous, or not jealous, sir, I'll have no share of her heart with you.

Orontes. If she thinks your love preferable to mine–

Alcestes. If she is capable of the least inclination for you–

Orontes. I swear henceforward to make no pretensions to her.

Alcestes. I peremptorily swear never to set eyes on her more.

Orontes. Madam, you may speak without constraint.

Alcestes. Madam, you may explain yourself without fear.

Orontes. You have nothing to do but tell us where your inclinations are fixed.

Alcestes. You have nothing but to cut the matter short, and choose which of us you will.

Orontes. What? do you seem to have any difficulty in such a choice?

Alcestes. What? do you hesitate, and appear uncertain?

Célimène. Good heavens! how unseasonable is this importunity! and how you show yourselves both in the wrong! I can easily determine as to the preference, and 'tis not my heart here that wavers: 'tis not in suspense betwixt you, nor is anything sooner done than to choose what we wish. But to say the truth, I am not a little upon the rack to make a declaration of this kind before you. I think these disobliging speeches should never be spoken in the presence of people. That a heart gives light sufficient in its inclinations, without our being

obliged to proceed abruptly to a quarrel; and that 'tis sufficient, in short, that proofs of a milder nature inform a lover of the ill success of his courtship.

Orontes. No, no, I have nothing to fear from a frank confession, I consent to it on my side.

Alcestes. And I demand it; 'tis that I have here the boldness, above all, to insist on and I don't want to see any of your management. Your great study is to keep in with all the world, but no more amusement, no more uncertainty; you must explain yourself clearly upon this affair, otherways I shall take your refusal for a decision. I shall know, for my part, how to interpret this silence, and shall reckon upon the worst I can think to be really said.

Orontes. I am obliged to you, sir, for this warmth, and I here say the same thing to her that you do.

Célimène. How you tease me here with this obstinacy! Is there any reason in what you demand? And have I not told you what motive restrains me? I'll be judged by Éliante who comes here.

SCENE III

Célimène. Here am I persecuted, cousin, by people whose humour seems to me to be concerted. They both of 'em, with the same heat, will needs have me declare which of 'em my heart makes choice of; and that by a sentence which I must pronounce to his face, I should forbid one of the two all the application he can make. Tell me whether this is ever done?

Eliante. Don't consult me upon the subject: you may perhaps address yourself to a very wrong person. I am for the people who speak their thoughts.

Orontes. 'Tis in vain, madam, for you to excuse yourself.

Alcestes. All your evasions will be but ill-seconded.

Orontes. You must, you must speak, and have done wavering.

Alcestes. You need do no more than continue silent.

Orontes. I desire but one word to end our debates.

Alcestes. And I, for my share, understand you, if you don't speak at all.

SCENE IV

Acastes. Madam, we two come, no offence, to clear up a certain trifling affair.

Clitander (*to* ORONTES *and* ALCESTES). You are here very apropos, gentlemen, and you are also concerned in this affair.

Arsinoé (*to* CÉLIMÈNE). Madam, you will be surprised at sight of me, but these gentlemen are the occasion of my coming. They came to me, and complained of a trick which it can't enter into my heart to give credit to. I have too high an esteem for the native honesty of your mind ever to believe you capable of such a crime; my eyes contradicted their strongest proofs, and my friendship passing by some trifling words we had, I was willing to bear 'em company to your house, to see you clear yourself of this calumny.

Acastes. Yes, madam, let us see, with calmness of spirit, how you will go about to support this; was this letter written by you to Clitander?

Clitander. Did you write this tender epistle to Acastes?

Acastes (*to* ORONTES *and* ALCESTES). Gentlemen, these lines have nothing in them obscure to you. I doubt not but her civility has made you too well acquainted with her hand. But this is well enough worth the trouble of reading.

You are a strange man, Clitander, to condemn my gaiety, and to reproach me, that I am never so merry, as when I am not with you. There is nothing so unjust; and if you don't come very soon, to ask my pardon for this offence, I'll never pardon it as long as I live. Our clumsy Flemish viscount–

He should have been here.

Our clumsy Flemish viscount, with whom you begin your complaints, is a man who can never hit my taste; and since the time I saw him spitting in a pool for full three quarters of an hour, to make circles, I never could have a good opinion of him. As to the little marquis–

That's myself, gentlemen, without vanity.

As to the little marquis who held me so long by the hand yesterday, I think there is nothing so diminutive as his whole person; and 'tis one of your gentry of merit, who have nothing but their sword to trust to. As to the man with green ribbons–

Your turn now, sir.

As to the man with green ribbons, he diverts me sometimes with his blunt ways, and his fantastical peevishness. But there are a thousand occasions when I think him the most troublesome creature in the world. And for the sonnet-monger–

Now for your packet. (*To* ORONTES.)

And for the sonnet-monger who pushes himself forward for a wit, and will be an author in spite of the world, I cannot take the pains to hearken to what he says; and his prose fatigues me as much as his verse. Persuade yourself, therefore, that I am not always diverted so well as you imagine; that I find more matter of complaint than I could wish in all the parties I am drawn into; and that the presence of those we love gives a marvellous relish to the pleasures we enjoy.

Clitander. Now for myself.

Your Clitander, whom you talk to me of, and who is so much of the affected beau, is the last man I should have a kindness for. He is extravagant in persuading himself one loves him; and you are so in believing one does not love you. To be reasonable therefore, change sentiments with him; and see me as often as you can, to help me bear the trouble of being besieged by him.

We have here the model of a very fine character, madam, and you know what to call it. 'Tis enough, we shall both of us go show this glorious portrait of your heart in all places.

Acastes. I could say a good deal to you, and a fine subject it is; but I don't hold you worthy my anger; and I could let you see, that your little marquises, for their consolation, have hearts of a much higher price.

SCENE V

Orontes. What! am I thus pulled to pieces after all the things you have written me? And does your heart, adorned with the fair appearances of love, engage itself by turns to all mankind? Go, I was too much a dupe, and shall be so no longer, you do me a favour in letting me know you; I am the richer by a heart which you thus restore to me, and have my revenge in what you lose. (*To* ALCESTES.) Sir, I don't know any obstacle there is now to your passion, and you may conclude matters with the lady.

SCENE VI

Arsinoé (*to* CÉLIMÈNE). This is certainly one of the basest actions in the world, I can be no longer silent, I'm shocked at it. Were there ever any proceedings like yours, madam? I don't enter into the concerns

of the rest. (*Pointing to* ALCESTES.) But this gentleman, who had fixed your happiness, a man of merit and honour as he is, and who dotes on you to idolatry, should he–

Alcestes. Pray, madam, leave me to manage my own interests in this affair myself, and don't charge yourself with these superfluous cares. In vain does my heart observe you espouse its quarrel, 'tis not in a condition to requite you for this great zeal; and you are not the person I could think of, should I strive to revenge myself by another choice.

Arsinoé. Umph! Do you fancy, sir, I have any such thought, and that I should be in such a violent hurry to have you? You have a great deal of vanity, I think, in your temper, if you can flatter yourself with such a belief. That lady's refuse is a sort of ware one would be much to blame to be taken with. Pray be undeceived, and carry it less haughtily, people of my condition are not for such as you. You will do well to sigh for her still, and I long to see such a fine match.

SCENE VII

Alcestes (*to* CÉLIMÈNE). Well, in spite of all I see, I have hitherto been silent, and have let all the world speak before me. Have I commanded myself long enough? and may I now–

Célimène. Yes, you may say everything. You are in the right when you complain, and reproach me after any manner you please. I'm to blame. I confess it, and my confused mind does not seek to put you off with any frivolous excuse. I despised the fury of the rest here, but I own my crime in respect to you; certainly your resentment is just. I know how criminal I must appear to you, that everything speaks my unfaithfulness to you, and that in short you have reason to hate me. Do so, I consent to it.

Alcestes. But can I do it, traitress, can I thus get the better of all my fondness? And though I should most ardently wish to hate you, shall I find a heart ready to obey me? (*To* ÉLIANTE *and* PHILINTES.) You see what an unworthy fondness can do, and I make you both witnesses of my weakness. But to confess the truth to you, this is not all yet, you will see me push this matter even to extremity, show you that we are wrongfully styled wise, and that in all hearts there is still something of the man. (*To* CÉLIMÈNE.) Yes, perfidious creature, I am willing to forget your crimes, and can find in my heart to excuse all your tricks, and cover 'em with the name of a weakness,

into which the viciousness of the times has betrayed your youth; provided your heart will second a design I have formed of avoiding all human creatures, and that you are determined to follow me without delay into my desert, where I have made a vow to live. This is the only way you can in every one's opinion repair the mischief of your letters, and by which, after this discovery, which a noble mind must abhor, I may be allowed still to love you.

Célimène. I renounce the world before I grow old, and go bury myself in your desert!

Alcestes. And if your flame is answerable to mine, what should all the rest of the world signify to you? Are not your desires satisfied with me?

Célimène. Solitude is frightful to a person of twenty; I don't perceive my soul great or firm enough to resolve upon undertaking a design of that nature. If giving you my hand can satisfy your wishes, I may resolve to tie the knot, and Hymen–

Alcestes. No, now my heart detests you, and this refusal alone does more than all the rest. Since you are not so far linked in the charming bondage to find your all in me as I do in you, go, I discard you, and this sensible affront for ever disengages me from your base tyranny.

SCENE VIII

Alcestes (*speaks to* ÉLIANTE). A thousand virtues, madam, adorn your beauty, and I never saw anything in you but what was sincere. I have had for this long time an extreme value for you; but allow me ever to esteem you in the same way. And excuse my heart in the variety of its troubles, if it waives the honour of wearing your chains; I am sensible that I am unworthy of them, and begin to find Heaven has not formed me for this union; that the refuse of a heart which could be of no worth to you would be too mean an homage for you, and that in short–

Éliante. You may pursue your thought, my hand is under no embarrassment where to bestow itself. And here is your friend, who without giving myself too much uneasiness, might possibly accept it, should I desire it of him.

Philintes. Ah, madam! that honour is my whole ambition, and I could sacrifice my blood and life for it.

Alcestes. That you may taste true contentment, may you ever retain these sentiments each for the other. Betrayed on all sides, oppressed with

injustice, I am going to escape a gulf where vice reigns triumphant; and to search out some retired corner of the world, where one may have the liberty to be a man of honour.

Philintes.

Come, come, my charmer, let's exhaust our art,
To break this savage purpose of his heart.

Translated by H. Baker and J. Miller.

The Doctor in Spite of Himself

CAST OF CHARACTERS

GÉRONTE, *father to Lucinda.*
LUCINDA, *daughter to Géronte.*
LEANDER, *Lucinda's lover.*
SGANAREL, *husband to Martina, a domestic of Géronte.*
MARTINA, *wife of Sganarel.*
MR. ROBERT, *neighbour to Sganarel.*
VALERE, *domestic to Géronte.*
LUCAS, *husband to Jacqueline.*
JACQUELINE, *nurse at Géronte's, and wife to Lucas.*
THIBAUT, *father to Perrin.* } *peasants.*
PERRIN, *son of Thibaut.* }

SCENE: *The Country.*

ACT I

SCENE I

Sganarel. No, I tell thee that I will not do't, and that it belongs to me to talk, and to be master.

Martina. And I tell thee that I'll have thee to live as I please, and that I'm not married to thee to endure thy frolics.

Sganarel. O the monstrous plague of having a wife! How right was Aristotle when he declared that a wife is worse than a devil!

Martina. Observe a little the notable man, with his blockhead of an Aristotle.

Sganarel. Yes, notable man. Find me a faggot-binder, who understands, like me, to reason upon things, who has served for six years a famous physician; and who in his younger days had his accidence by heart.

Martina. Plague on thee for an eternal ass.

Sganarel. Plague on thee for an impudent baggage.

Martina. Cursed be that day and hour wherein I took it into my head to say Yes!

Sganarel. Cursed be the hornified notary who made me sign to my ruin!

Martina. It well becomes you, truly, to complain of that affair. Oughtest thou to be one single moment without thanking Heaven that thou hast me for thy wife? Or didst thou merit such a person as I am?

Sganarel. 'Tis true that you did me too much honour, and I had room to be satisfied the first night of our nuptials. Hey–s'death, don't make me speak upon that head; I should say certain things–

Martina. What? what would you say?

Sganarel. Enough; let us leave this chapter, it sufficeth that we know what we know, and that you were very lucky in lighting on me.

Martina. Lucky d'ye call me in lighting on thee? A fellow who has brought me to a hospital, a sot, a rascal who eats up all that I have.

Sganarel. You lie, I drink part of it.

Martina. Who sells, piece by piece, everything that's in the house.

Sganarel. That's living upon one's means.

Martina. Who has taken my very bed from under me.

Sganarel. You'll rise the earlier.

Martina. Who, in short, has not left a single movable in all the house.
Sganarel. We may move the easier.
Martina. And who from morning to night does nothing but play and drink.
Sganarel. That's to keep myself from the vapours.
Martina. And what would you have me do the while with my family?
Sganarel. Whatever you please.
Martina. I have four poor little infants in arms.
Sganarel. Lay 'em on the ground.
Martina. Who are crying to me every moment for bread.
Sganarel. Give them the rod. When I have drunk well, and eaten well, I'll have every one satisfied in my house.
Martina. And do you mean, Sot, that things shall always go so?
Sganarel. Wife, let us proceed softly, if you please.
Martina. That I shall perpetually endure your insolences and debaucheries.
Sganarel. Don't let us put ourselves in a passion, Wife.
Martina. And that I shall never be able to find a way of bringing you to your duty.
Sganarel. You know, Wife, that I have not a very passive spirit of my own, and that I have an arm sufficiently strong.
Martina. I laugh at your threats.
Sganarel. My pretty little wife, my honey, your hide itches according to custom.
Martina. I'll let you see that I'm no ways afraid of you.
Sganarel. My dear rib, you have a desire to force something from me.
Martina. D'ye think that I fear your words?
Sganarel. Sweet object of my vows, I shall cuff your ears.
Martina. Sot, as thou art!
Sganarel. I shall bang you.
Martina. Wine-sack!
Sganarel. I shall belabour you.
Martina. Scoundrel!
Sganarel. I shall curry you.
Martina. Rascal, impudence, knave, coward, villain, hang-dog, mumper, rogue, pickpocket, varlet, thief–
Sganarel. Um–you will have it then? (SGANAREL *taking a cudgel and beating her*.)
Martina (*crying*). Oh! oh! oh! oh!
Sganarel. This is the true method to make you quiet.

SCENE II

Mr. Robert. Hoity, hoity, hoity; fie, what's here to do? What a base trick is this! Plague on the scoundrel for beating his wife thus.
Martina (*to* MR. ROBERT). I have a mind that he should beat me.
Mr. Robert. Nay then I agree to it with all my heart.
Martina. What do you meddle for?
Mr. Robert. I was in the wrong.
Martina. Is it your business?
Mr. Robert. You say right.
Martina. Observe this impertinent mortal a little, who would hinder husbands from beating their wives!
Mr. Robert. I recant.
Martina. What have you to do to pry into it?
Mr. Robert. Nothing.
Martina. Does it belong to you to run your nose into it?
Mr. Robert. No.
Martina. Concern yourself with your own business.
Mr. Robert. I say no more.
Martina. I have a mind to be beaten.
Mr. Robert. Agreed.
Martina. 'Tisn't at your expense.
Mr. Robert. True.
Martina. And you are a sot to come thrusting in your oar where you have nothing to do. (*Gives him a blow.*)
Mr. Robert (*to* SGANAREL). Neighbour, I ask your pardon with all my heart. Go on, thrash, bang your wife as you should; I'll help you if you will.
Sganarel. I have not a mind to't.
Mr. Robert. Nay, that's another thing.
Sganarel. I will beat her if I will; and if I won't, I won't beat her.
Mr. Robert. Mighty well.
Sganarel. 'Tis my wife, and not yours.
Mr. Robert. Undoubtedly.
Sganarel. You have no business to command me.
Mr. Robert. Right.
Sganarel. I have nothing to do with your help.
Mr. Robert. With all my heart.
Sganarel. And you are an impertinent fellow to intrude into other peo-

ple's affairs. Learn what Cicero says, That between the tree and the finger you must not thrust in the bark. (*Beats* MR. ROBERT, *and drives him off.*)

SCENE III

Sganarel. So, come, let us be at peace with one another. Here, shake hands.
Martina. Yes, after you have beat me in this manner?
Sganarel. That's nothing. Shake hands.
Martina. I won't.
Sganarel. Hey!
Martina. No.
Sganarel. Sweet wife.
Martina. No.
Sganarel. Come, I tell thee.
Martina. I won't do't.
Sganarel. Come, come, come.
Martina. No, I'll be in a passion.
Sganarel. Fie, 'tis a trifle. Come, come.
Martina. Let me alone.
Sganarel. Shake hands, I say.
Martina. You have used me too ill.
Sganarel. Well, go, I ask your pardon, let's see thy hand.
Martina. I forgive thee. (*Aside*.) But thou shalt pay for't.
Sganarel. You are a fool to regard that; these are trifling things, which are often necessary in friendship, and five or six strokes of a cudgel amongst people who love one another only serve to whet the affection. Go, I'll be gone to the wood, and I promise thee above a hundred faggots to-day.

SCENE IV

Martina (*alone*). Get thee gone, whatever face I put on't, I shall not forget my resentment, and I'm all on fire to find means of punishing thee for the blows thou hast given me. I know well enough that a woman has always about her wherewith to be revenged of a husband. But that's too delicate a punishment for my hang-dog. I want a revenge that he would feel a little better; for this is not sufficient for the injury I've received.

SCENE V

Lucas (*to* VALERE, *not seeing* MARTINA). I'facks we have taken the deuce of a commission on us, and I don't know, for my part, what we think we could think of getting by't.

Valere (*to* LUCAS, *not seeing* MARTINA). What wouldst thou have, my honest man-nurse? We must obey our master; besides, we have both of us an interest in the health of our mistress his daughter, for her marriage, which is delayed by her disease, would without doubt bring us in a reward. Horatio, who is a generous man, has the best pretension to her person; and though she has discovered a kindness for one Leander, you know well enough that her father would never consent to receive him for his son-in-law.

Martina (*musing aside, thinking she's alone*). Can't I find out some device to revenge myself?

Lucas (*to* VALERE). But what an a whim is this that's gotten into his head, since the doctors have all lost their Latin in the affair?

Valere (*to* LUCAS). One sometimes finds by dint of searching what could not be found at first; and very often in simple places–

Martina. Yes, I must be revenged at any rate whatever; these strokes of the cudgel rise in my stomach, I can't digest them, and– (*Running against* VALERE *and* LUCAS.) Oh! Gentlemen, I ask your pardon, I did not see you, for I was puzzling my brains for something that perplexes me.

Valere. Every one has their cares in this world. And we are likewise looking for what we gladly would find.

Martina. May it be anything that I can assist you in?

Valere. Perhaps it may: we want to meet with some able man, some particular doctor, who might give some relief to our master's daughter, that's seized with a distemper which has quite and clean taken away the use of her tongue. A great many physicians have already spent all their art upon her; but one sometimes finds folks with wonderful secrets, certain peculiar remedies, which very often do what the others could not do, and 'tis this we are looking for.

Martina (*aside*). Ha! My stars have inspired me with an admirable invention to revenge myself on my rascal! (*To them*.) You could never have applied yourselves better to meet with what you want, for we have a man, the most marvellous man in all the world, for desperate distempers.

Valere. How! Pray where can we find him.

Martina. You'll find him this moment towards that little place there, he diverts himself with cutting of wood.

Lucas. A doctor cut wood!

Valere. He diverts himself with gathering of simples you'd say?

Martina. No. 'Tis an odd kind of a man who takes delight in it, a fantastical, fanciful, humoursome mortal, and one that you'd never take for what he is; he goes dressed in an extravagant manner, affects sometimes to appear ignorant, keeping his knowledge within him, and avoids nothing so much as exercising the marvellous talents which Heaven has given him for medicine.

Valere. 'Tis a wonderful thing that all your great men have still something of caprice, some small grain of folly mixed with their learning.

Martina. The folly of this man is greater than can be believed, for it sometimes goes so far that he'll bear to be beat before he'll acknowledge his capacity; and I give you notice that you'll never gain your end, that he'll never own he's a doctor, if the whim is on him, unless you each take a cudgel and bring him by strength of blows to confess at last what at first he'll conceal from you. 'Tis thus we treat him when we have occasion for him.

Valere. Strange folly!

Martina. 'Tis true. But after that you'll see he'll do miracles.

Valere. What's his name?

Martina. His name is Sganarel; but he is easy to be known. 'Tis a man who has a large black beard, and who wears a ruff, with a yellow and green coat.

Lucas. A yellow and green coat! He's the doctor of paroquets then.

Valere. But is it very true that he is so learned as you say?

Martina. What? Why 'tis a man that does wonders. Six months ago a woman was given over by all the other physicians. They thought her dead for six hours, and prepared to bury her, when they brought the man we are speaking of, by force. Having seen her, he put a little drop of something into her mouth; and that very instant, she raised herself from her bed, and began immediately to walk about the room, as if nothing had been the matter.

Lucas. Hah!

Valere. This must have been some drop of drinkable gold.

Martina. That might really be. 'Tis not three weeks ago that a young lad of twelve years old tumbled down from the top of a tower, and broke his head, arms, and legs, on the pavement. They had no sooner

got our man to him but he rubbed his body all over with a certain ointment, which he makes, and the youth immediately raised himself on his feet, and ran to play at chuck.

Lucas. Hah!

Valere. This same man must have the universal medicine.

Martina. Who doubts of it?

Lucas. Ods bobs, this is just such a man as we want; let's go quickly and search 'en out.

Valere. We thank you for the favour you've done us.

Martina. But remember well, however, the caution I have given you.

Lucas. Hey! 'Zooks, let us alone. If he wants nothing but beating, the cow's our own.

Valere (*To* LUCAS). We were mighty happy in meeting with this woman; I conceive the greatest hopes from it in the world.

SCENE VI

Sganarel (*comes on the stage, with a bottle in his hand, not seeing* VALERE *or* LUCAS). Tol de rol, lol dol dol.

Valere. I hear somebody singing and cutting of wood.

Sganarel. Tol, lol, dol–I'faith, I've worked enough to drink a sup. Let's take a little breath. (*He drinks*.) This same wood is as salt as the devil.

(*Sings*.) What pleasure's so great, as the bottle can give,
What music so sweet, as thy little gull, gull!
My fate might be envied by all men that live,
Were my dear jolly bottle but constantly full.
Say why, my sweet bottle, I prithee, say why,
Since, when full so delightful, you'll ever be dry.

Come, s'death, we must not breed melancholy.

Valere (*low to* LUCAS). There's the very man.

Lucas (*low to* VALERE). I think you say true, and that I'se have found 'en out by my nose.

Valere. Let's see him nearer.

Sganarel (*hugging his bottle*). Ah! my little rogue, how I do love thee, my little corksy! (*Seeing* VALERE *and* LUCAS *looking at him, he lowers his voice*.) My fate–might–be envied–by all men that live–What the deuce, who do these folks want?

Valere. 'Tis he, most certainly.

Lucas (*to* VALERE). He's as like him that was defigured to us as if a had been spitten out of his mouth.

SGANAREL *sets down the bottle on the ground, and* VALERE *bowing to salute him, he thinking 'tis with a design to take it away, puts it on the other side. Upon which* LUCAS *doing the same thing, he takes it up again, and holds it close to his breast, with divers gestures, which make great dumb show.*

Sganarel (*aside*). They consult together, and look earnestly at me. What design can they have?

Valere. Sir, is it not you who are called Sganarel?

Sganarel. Hey! What?

Valere. I ask you if it is not you whose name is Sganarel?

Sganarel (*turning towards* VALERE, *and then towards* LUCAS). Yes, and no, according to what you would have with him.

Valere. Nothing, but to do him all the civilities we could.

Sganarel. In that case, 'tis me whose name's Sganarel.

Valere. Sir, we are transported to see you; we have been recommended to you for that we are searching after; and we come to beg your assistance, which we want.

Sganarel. If 'tis anything, gentlemen, that depends upon my little employment, I am very ready to serve you.

Valere. Sir, 'tis too great a favour that you do us: but be covered, pray, Sir, the sun may incommode you.

Lucas. Cover your skull, zir.

Sganarel (*aside*). These people are mighty full of ceremony. (*Puts on his hat.*)

Valere. Sir, you must not think strange that we come to you. Skilful people are always sought for, and we are informed of your ability.

Sganarel. 'Tis true, Sirs, that I am the first man in the world for making of faggots.

Valere. Ah! Sir–

Sganarel. I spare nothing in doing 'em, and make 'em after a manner that people have no reason to find fault with them.

Valere. Sir, that's not the thing in question.

Sganarel. But then I fell 'em for nine and twopence a hundred.

Valere. Pray don't let us talk of that.

Sganarel. I assure you I can't let them go for less.

Valere. Sir, we know how things are.

Sganarel. If you know how things are, you know that I sell them so.

Valere. Sir, this is jesting, but–
Sganarel. I do not jest, I can't bate anything of it.
Valere. Let us talk after another manner, pray now.
Sganarel. You may get them at another place for less, there are faggots and faggots: but for those that I make–
Valere. Pray, Sir, let us leave this discourse.
Sganarel. I swear to you that you shall not have them, if you fall short a farthing of it.
Valere. Oh! fie.
Sganarel. No, o' my conscience, you shall pay that for 'em. I speak sincerely, and am not a man that would ask too much.
Valere. Should such a person as you, Sir, amuse himself with these gross dissimulations, demean himself by talking in this manner; a man so learned, such a famous physician as you are, be willing to disguise himself from the eyes of the world, and keep buried the fine talents he enjoys?
Sganarel (*aside*). The fellow's a fool.
Valere. Pray, Sir, don't dissemble with us.
Sganarel. What?
Lucas. All this hodge-podge signifies nought; I do know what I do know.
Sganarel. Well then, what would you say? Who do you take me for?
Valere. For what you are, for a great doctor.
Sganarel. Doctor yourself; I am not one, nor ever was.
Valere (*aside*). This is the folly that possesses him. (*Aloud*.) Sir, don't be willing to deny things any longer; and let us not come, pray, to troublesome extremities.
Sganarel. To what?
Valere. To certain things which we should be sorry for.
Sganarel. S'death, come to what you please; I am not a doctor, and don't understand what you would be at.
Valere (*aside*). I see plainly that we must make use of the remedy. (*Aloud*.) Sir, once more I desire you to own what you are.
Lucas. And s'bobs, don't latterlammas it any longer, but confess frankly that you be a doctor.
Sganarel (*aside*). I'm mad–
Valere. Where's the good of denying what is known?
Lucas. Wherefore all these whimsies? What service will this do you.
Sganarel. Gentlemen in one word, as well as in two thousand, I tell you that I am not a doctor.
Valere. You are not a doctor?

Sganarel. No.
Lucas. Y'an't a doctor?
Sganarel. No, I tell you.
Valere. Since you will have it, we must betake ourselves to it then. (*They take each of them a cudgel and thrash him*.)
Sganarel. Hold, hold, hold, Gentlemen, I'm what you please.
Valere. Why, Sir, did you oblige us to this violence?
Lucas. To what good did you make us be at the pain to beat you?
Valere. I assure you that I did it with all the regret in the world.
Lucas. By my foith and vronkly, I did it with zorrow.
Sganarel. What the deuce d'e mean, Sirs? Pray, is it out of a joke, or are you both distracted, that you will have me to be a doctor?
Valere. What, won't you yield yet, and do you deny that you are a physician?
Sganarel. The devil take me if I am one.
Lucas. En't it true that you do understond physic.
Sganarel. No, plague choke me if I do. (*They begin to beat him again*.) Hold, hold; well Gentlemen, yes, since you will have it so, I am a doctor, I am a doctor; an apothecary too, if you think good. I rather choose to agree to everything than suffer myself to be knocked o' the head.
Valere. Ay, now things go well, Sir; I'm transported to see you're become reasonable.
Lucas. You give me a heart full of joy to zee you talk in this monner.
Valere. I ask your pardon with all my soul.
Lucas. I'se demand excuse for the liberty Ic' have ta'en.
Sganarel (*aside*). Whu, have I really deceived myself then, and am I become a doctor without knowing it?
Valere. You shall not repent, Sir, discovering to us what you are; and you'll certainly see that you'll be satisfied for it.
Sganarel. But, Gentlemen, tell me, don't you deceive yourselves? Is it very sure that I am a doctor?
Lucas. Yes, by my foith.
Sganarel. In good earnest?
Valere. Undoubtedly.
Sganarel. The devil take me if I knew it.
Valere. How! You are the most able physician in the world.
Sganarel. Ay! Ay!
Lucas. A doctor that has healed I know not how many ailments.
Sganarel. O dear!

Valere. A woman was taken for dead six hours, she was just ready to be buried, when with one drop of a certain thing you brought her to life again, and made her walk immediately about the room.

Sganarel. The plague I did!

Lucas. A little lad of a dozen-year old fell from the top of a steeple, whereupon a had his head, lags, and arms broaken; and you, with I know not what nointment, made 'en soon scramble up on his feet, and scour away to play at chuck.

Sganarel. The devil!

Valere. In short, Sir, you shall have satisfaction with us; and you may gain whatever you will if you'll but suffer us to conduct you to where we want you.

Sganarel. I may gain what I will?

Valere. Yes.

Sganarel. Oh! I'm a doctor without dispute. I had forgotten it, but I remember it now. What's the affair? Where must I transport myself to?

Valere. We'll conduct you. The affair is to go see a young lady who has lost her speech.

Sganarel. Faith I have not found it.

Valere (*to* LUCAS). He loves to joke. (*To* SGANAREL.) Come, Sir.

Sganarel. Without a doctor's gown?

Valere. We'll procure you one.

Sganarel (*offering his bottle to* VALERE). Do you hold that. That's where I put my julep. (*Then turns towards* LUCAS *and spits.*) Walk you over that by prescription of the doctor.

Lucas. By the mass this is a doctor that pleases me; I believe that he'll succeed, he's such a merry fellow.

ACT II

SCENE I

Valere. Yes, Sir, I believe you will be satisfied; for we have brought you the greatest physician in the world.

Lucas. Adzsooks, none can be better; all the others be not worthy to clean his shoes for'n.

Valere. 'Tis one who has done marvellous cures.

Lucas. Who has healed folk that were dead.

Valere. He's a little whimsical as I told you; and i'faith there are times when his senses give him the slip, and he does not appear to be what he is.

Lucas. Yes, a loves to play the wag, and foith they do say, no offence, that a have had a small knock o' the crown with an axe.

Valere. But he's all skill at the bottom; and he often says things extremely sublime.

Lucas. When a gives his mind to't, a talks as vine exactly as tho'f a read in a book.

Valere. His reputation is already spread round here; and all the world come to him.

Géronte. I've a vast desire to see him; bring him to me immediately.

Valere. I'll go look for him.

SCENE II

Jacqueline. By my trath, zir, this will do just what the others ha' done. I'se believe that he'll be so good so bad; and the best physician you can gee your daughter, according to my notion, is a good hondsome husband for whom she has a kindness.

Géronte. Good lack, my sweet nurse, you meddle with many things.

Lucas. Hold your peace, our huswife Jacqueline; it don't belong to you to thrust in your nose there.

Jacqueline. I tell you, and both o' ye, that all these physicians will do her no more good than a glass of fair water; that your daughter has need o' somewhat else than rhubarb and zenna; and that a husband's a plaster which cures all the ailments of young women.

Géronte. Is she in a condition now that any one would burthen himself with her with the infirmity she has? And when I had a design of marrying her, did she not oppose my intentions?

Jacqueline. I believe so truly, you would a' given her a mon she doan't like. Wherefore did not you not offer her this same Mr. Liander, who has gotten her heart? She'd been mighty obediant, and I'll wager that he'll take her as she is, if yow'd but give her to him.

Géronte. This Leander is not the man she must have; he has not the wealth which the other has.

Jacqueline. He has an nuncle that's mortal rich, whose heritage a is to be.

Géronte. All these riches to come appear to me as mere songs. There's nothing like what people are in possession of; and we run a great risk of being cozened when we reckon up riches which are kept for us by others. Death has not always open ears to the wishes and prayers of your gentlemen inheritors, and they have time to be sharp set who wait for somebody's decease before they can eat.

Jacqueline. In short, I've often heard say that in marriage, as in other affairs, contentment is beyond riches. Vathers and mothers ha' the cursed custom of asking alway what han he, and what han she? And Gaffer Piarre has married his girl Simounetta to fat Tummas, because a had a scrap of a vineyard more than young Robin, where she had placed her liking; and there the poor creature is gone as yallow as a quince, and has gotten nothing all the whoile. This is a foin example for you, zir; folk have nothing but their pleasure in this world; and I should rather choose to gee my girl a good husband, that was agreeable to her, than all the incomes o' the country.

Géronte. Plague! Mrs. Nurse, how you prate! Hold your peace pray; you take too much trouble on you, and will overheat your milk.

Lucas (*striking* GÉRONTE *on the shoulders at the end of every sentence*). S'bobs, hold your tongue, you are an impartinont huswife. Maister ha' nothing to do with thy preachments; he knows what a mun do. Mind to gee your child the breast, without being so much upon the reasonous. Maister is his daughter's vather, and he's a good mon, and a woise one, and knows what to do in the case.

Géronte. Oh! Softly, softly.

Lucas (*striking* GÉRONTE *on the shoulders again*). Sir, I'll mortify her a bit, and learn her the respect she aws you.

Géronte. Yes, but these actions are not necessary.

SCENE III

Valere. Sir, prepare yourself, this is your doctor that's coming in.

Géronte (*to* SGANAREL). Sir, I'm transported to see you at my house, for we have great occasion for you.

Sganarel (*in a physician's gown, with a high crowned hat*). Hippocrates says–let's both be covered.

Géronte. Does Hippocrates say so?

Sganarel. Yes.

Géronte. In what chapter pray?

Sganarel. In his chapter–upon hats.

Géronte. Since Hippocrates says so, it must be done.

Sganarel. Mr. Doctor, having heard of the wonderful things–

Géronte. Who do you speak to, pray?

Sganarel. To you.

Géronte. I am not a doctor.

Sganarel. You are not a doctor?

Géronte. No indeed.
Sganarel. Seriously?
Géronte. Seriously. (SGANAREL *takes a cudgel and beats* GÉRONTE.) Oh! oh! oh!
Sganarel. Now you are a doctor then, I had never any other license.
Géronte (*to* VALERE). What devil of a fellow have you brought me here?
Valere. I told you justly that 'twas a droll doctor.
Géronte. Yes, but I shall send him agoing with his drollery.
Lucas. Don't mind this, Maister, 'tis only for a joke.
Géronte. This kind of joking does not please me.
Sganarel. Sir, I ask pardon for the liberty I've taken.
Géronte. Sir, your servant.
Sganarel. I'm sorry–
Géronte. 'Tis nothing at all.
Sganarel. For the strokes of the cudgel–
Géronte. There's no harm.
Sganarel. Which I've had the honour to give you.
Géronte. Let us talk no more of that. I have a daughter, Sir, who is fallen into a strange disease.
Sganarel. I'm rejoiced, Sir, that your daughter has need of me; and I wish with all my heart that you had the same occasion likewise, you and all your family, that I might manifest the desire I have of serving you.
Géronte. I'm obliged to you for your good wishes.
Sganarel. I assure you 'tis from the bottom of my soul that I speak it.
Géronte. 'Tis too great an honour you do me–
Sganarel. What is your daughter's name?
Géronte. Lucinda.
Sganarel. Lucinda! Oh! a charming name to act the doctor on! Lucinda!
Géronte. I'll go and see a little what she's doing.
Sganarel. Who is that jolly dame there?
Géronte. She's nurse to a young child of mine.

SCENE IV

Sganarel (*aside*). S'life! What a lovely piece of stuff it is! Nurse! Charming nurse, my doctorship is the very humble slave of your nurseship, and I heartily wish I were the happy bantling that sucks the milk of your good graces. (*Putting his hand on her bosom.*) All my medicines, all my skill, all my capacity is at your service, and–

Lucas. With your leave, Mr. Doctor, pray now let alone my wife.
Sganarel. What, is she your wife?
Lucas. Yes.
Sganarel. Hah! I did not know it truly, but am rejoiced at it out of love to you both. (*Making as if he would embrace Lucas, embraces the nurse*.)
Lucas (*drawing* SGANAREL *away, and stepping between him and his wife*). Softly, an you please.
Sganarel. I do assure you that I'm overjoyed at your being joined together. I congratulate her on having such a husband as you; and I congratulate you on having so handsome a wife, one so discreet and so well made as she is. (*He makes again as if he would embrace* LUCAS, *and slipping under his arm, embraces the nurse*.)
Lucas (*drawing him away again*). S'bobs, not so many complamants, I beseech ye!
Sganarel. Would not you have me rejoice with you for so lovely a conjunction?
Lucas. With me as much an you please; but forbear sarimony with my wife.
Sganarel. I take an equal part in both your good fortunes; and if I embrace you to witness my joy to you, I embrace her to witness the same to her. (*Continuing the same action*.)
Lucas (*drawing him away the third time*). 'Sbodikins, Mr. Doctor, what vagaries are here!

SCENE V

Géronte. Sir, they'll bring my daughter to you immediately.
Sganarel. I attend her, Sir, with all the power of medicine.
Géronte. Where is it?
Sganarel (*touching his forehead*). Within here.
Géronte. Mighty well.
Sganarel. But as I am concerned for all your family, I must make a trial of your nurse's milk a little, and visit her breast.
Lucas (*drawing him away, and whisking him round*). Nayh, nayh, I doan't want that to be done.
Sganarel. 'Tis the office of a doctor to inspect into the nipples of nurses.
Lucas. Be't your office how 'twill, I'm your zarvant for that.
Sganarel. Hast thou really the impudence to contradict a physician? Out there.
Lucas. I'se laugh at that.

Sganarel (*looking askew at him*). I'll give thee a fever.

Jacqueline (*taking* LUCAS *by the arm, and whisking him round*). Get thee gone hence; am not I big enough to defend myself if he does anything to me that he should not do?

Lucas. I won't have him meddle with thee.

Sganarel. Fie on the rascal, he's jealous of his wife.

Géronte. Here's my daughter.

SCENE VI

Sganarel. Is this the sick person?

Géronte. Yes, I've no daughter but she, and I should be in the utmost grief were she to die.

Sganarel. Let her take great care of that; she must not die without the doctor's order.

Géronte. A chair, here.

Sganarel (*sits between* GÉRONTE: *and* LUCINDA). This is a patient who is not so very distasteful, and I hold that a man in good health might make a shift well enough with her.

Géronte. You have made her laugh, Sir.

Sganarel. So much the better, when the doctor makes the patient laugh, 'tis the best symptom in the world. (*To* LUCINDA.) Well, what's the case? What ails you? What's the disorder you feel?

Lucinda (*putting her hand to her mouth, head, and under her chin*). Han, hi, hon, han.

Sganarel. Hey! what d'e say?

Lucinda (*continuing the same motions*). Han, hi, hon, han, han, hi, hon.

Sganarel. What?

Lucinda. Han, hi, hon.

Sganarel. Han, hi, hon, han, ha. I don't understand you. What the deuce of a language is this?

Géronte. That's her distemper, Sir. She's become dumb, and we have not yet been able to find out the cause of it; which accident has occasioned her marriage to be retarded.

Sganarel. Why so?

Géronte. He whom she was to marry would wait till she was cured before he'd bring things to a conclusion.

Sganarel. And who is this sot who would not have his wife dumb? Would to Heaven that mine had the same disease! I should take sufficient care not to have her cured.

Géronte. In short, Sir, we must entreat you to employ your utmost application to alleviate her illness.

Sganarel. Oh! don't put yourself in pain about it. But tell me a little; does this illness oppress her very much?

Géronte. Yes, Sir.

Sganarel. So much the better. Does she feel any great pains?

Géronte. Very great.

Sganarel. That's mighty well. Does she go you know where?

Géronte. Yes.

Sganarel. Plentifully?

Géronte. I know nothing of that.

Sganarel. Is the discharge laudable?

Géronte. I'm not skilled in those things.

Sganarel (*to* LUCINDA). Give me your arm. (*To* GÉRONTE.) Here's a pulse which denotes that your daughter is dumb.

Géronte. Why truly, Sir, that's her disease, you have found it out all at the first touch.

Sganarel. Ay, ay!

Jacqueline. Do but zee how a has divoined her ailment.

Sganarel. We great doctors know things instantly. An ignorant fellow would have been puzzled, and would have told you 'tis this, and 'tis that; but for my part, I hit the nail on the head, the very first stroke, and acquaint you that your daughter is dumb.

Géronte. Yes; but I should be glad that you could tell from whence that came.

Sganarel. There's nothing more easy. It came from hence that she has lost her speech.

Géronte. Very good; but the cause, pray, which made her lose her speech?

Sganarel. All our best authors will inform you that 'tis an impediment in the action of her tongue.

Géronte. But your sentiments, moreover, upon this impediment in the action of the tongue.

Sganarel. Aristotle says upon it–mighty fine things.

Géronte. I believe it.

Sganarel. Ah! that same was a great man.

Géronte. No doubt.

Sganarel. A mighty great man: a man that was greater (*holding out his arm from his elbow*) than me by all this. But to return to our reasoning. I hold that this impediment in the action of her tongue is

caused by certain humours, which amongst us scholars are called peccant humours; peccant, that's to say–peccant humours; so that the vapours formed by the exhalations of influences which rise in the region of diseases, coming–as we may say–to–Do you understand Latin?

Géronte. Not in the least.

Sganarel (*getting up hastily*). You don't understand Latin!

Géronte. No.

Sganarel (*making divers diverting postures*). Cabricias arci thuram, *catalamus, singulariter, nominativo, hæc musa,* the muse, *Bonus, bona, bonum, Deus sanctus, est ne oratio Latinas? etiam,* yes. *Quare,* wherefore? *quia substantivo, and adjectivum, concordat in generi, numerum, and casus*.[1]

Géronte. Ah! wherefore did not I study!

Jacqueline. What a learned man is this!

Lucas. Yes, this is so vine, that I doan't understond a sillable of't.

Sganarel. For these vapours that I speak to you of, passing from the left side, where the liver is, to the right side, where the heart is, finds that the lungs, which we call in Latin *Armyan,* having communication with the brain, which in Greek we name *Nasmus,* by means of the hollow vein, which in Hebrew we call *Cubile,* meets in its way the said vapours, which fill the ventricles of the omoplate: and because the said vapours–comprehend this reasoning well, I pray you–and because the said vapours have a certain malignity–attend well to this, I conjure you.

Géronte. Yes.

Sganarel. Have a certain malignity which is caused–be attentive, if you please.

Géronte. I am so.

Sganarel. Which is caused by the acrimony of the humours engendered in the concavity of the diaphragm, it comes to pass that these vapours–*Ossabandus, nequeis, nequer, potarium, quipsa milus*.[1] That's exactly the cause of your daughter's being dumb.

Jacqueline. Ah! that's foinly zaid, our mon!

Lucas. Why ha' not I a tongue so well hanged?

Géronte. Nobody could reason better undoubtedly. There's but one thing in it which stuck in my stomach; and that's the place of the liver and heart. I apprehend that you place them otherwise than they are: that the heart is on the left side, and the liver on the right side.

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1. Nonsense and gibberish [Ed.].

Sganarel. Yes, it was formerly so; but we have altered all that, and we now practise medicine after quite a new method.

Géronte. That's what I did not know, and I ask your pardon for my ignorance.

Sganarel. There's no harm. You are not obliged to be as learned as us.

Géronte. True: but Sir, what think you must be done with this disease?

Sganarel. What do I think must be done?

Géronte. Yes.

Sganarel. My advice is that they put her to bed; and that they make her take for a remedy a quantity of bread soaked in wine.

Géronte. Wherefore that, Sir?

Sganarel. Because that in bread and wine mixed together, there's a sympathetic virtue, which occasions talking. Don't you plainly see that they give no other thing to parrots, and that by eating this they learn to talk?

Géronte. That's true. Oh! the great man! Quickly, a quantity of bread and wine.

Sganarel. I'll return in the evening to see what condition she'll be in.

SCENE VII

Sganarel. (*to* JACQUELINE). Softly, you. (*To* GÉRONTE.) Sir, here's a nurse, for whom I must make up some few remedies.

Jacqueline. Who, I? I ha' the best health in the world.

Sganarel. So much the worse, Nurse, so much the worse. This high health is to be feared; and it won't be amiss to give you a little gentle bleeding, and administer a little dulcifying clyster.

Géronte. But, Sir, this is a method which I don't comprehend. Why let her blood when she has no illness?

Sganarel. No matter, the method is salutary; and as one drinks for thirst to come, one must likewise bleed for illness to come.

Jacqueline (*going*). Trath, I laugh at that; I'll not make a poticary's shop o' my carcass.

Sganarel. You are averse to physic; but we can make you subject to reason.

SCENE VIII

Sganarel. I give you good morrow, Sir.

Géronte. Stay a little, if you please.

Sganarel. What would you do?

Géronte. Give you a fee, Sir.
Sganarel (*reaching out his hand behind him, while* GÉRONTE *opens his purse*). I won't take it, Sir.
Géronte. Sir.
Sganarel. No.
Géronte. Stay one moment.
Sganarel. By no means.
Géronte. Pray now.
Sganarel. You mistake.
Géronte. 'Tis done presently.
Sganarel. I won't do it.
Géronte. Hey!
Sganarel. 'Tis not money that induces me to practise.
Géronte. I believe it.
Sganarel (*after having taken the money*). Is this weight?
Géronte. Yes, Sir.
Sganarel. I am not a mercenary physician.
Géronte. I know it well.
Sganarel. Interest does not govern me.
Géronte. I have not that thought.
Sganarel (*alone, looking on the money he had received*). I' faith this does not go ill, and provided that–

SCENE IX

Leander. Sir, I have waited for you a long time, and am come to implore your assistance.
Sganarel (*feeling his pulse*). A very bad pulse this.
Leander. I am not sick, Sir; nor is it for that I come to you.
Sganarel. If you are not sick, why the deuce did you not say so?
Leander. No. To inform you of the affair in two words, my name is Leander, and I'm in love with Lucinda, whom you come to visit. But as all manner of access to her is blocked up from me by the ill temper of her father, I run the hazard of entreating you to endeavour to serve me in my amour, and to give me an opportunity of executing a stratagem I've invented to be able to speak a word or two with her, on which my life and happiness absolutely depend.
Sganarel. Who d'ye take me for? What? Dare you apply to me to serve you in your amour, and to debase the dignity of a physician by employments of this kind?

Leander. Don't make a noise, Sir!

Sganarel (*making him retreat*). I will do it; you are an impertinent fellow.

Leander. Oh! Sir, softly.

Sganarel. An inconsiderate jackanapes.

Leander. Pray now.

Sganarel. I'll teach you that I'm not such a man, and that 'tis an extreme piece of insolence–

Leander (*taking out a purse*). Sir.

Sganarel (*taking the purse*). To think of employing me–I don't speak as to you, for you are an honest man, and I should rejoice to do you service. But there are certain impertinent creatures in the world who take people for what they are not; and this, I must own to you, puts me in a passion.

Leander. I ask your pardon, Sir, for the liberty that–

Sganarel. You jest. What's the business?

Leander. Know then, Sir, that this disease which you would cure is a feigned disease. The doctors have reasoned upon it as they should do, and have not failed to say that it proceeds, one from the brain, one from the intestines, one from the spleen, one from the liver; but 'tis certain that love's the true cause of it, and that Lucinda counterfeited this disease only to deliver herself from a match which she had been importuned to. But for fear they should see us together, let us retire from hence, and I'll tell you as we go what I wish from you.

Sganarel. Come, Sir, you have given me an inconceivable sensibility for your love; and I'll spend all my physic in the affair, but the patient shall kick up, or else be yours.

ACT III

SCENE I

Leander. Methinks I am not amiss thus for an apothecary, and as the father has scarce ever seen me, this change of dress and peruke is sufficient, I believe, to disguise me.

Sganarel. Undoubtedly.

Leander. All I could wish would be to know five or six strong physical terms, to adorn my discourse, and give me the air of a learned man.

Sganarel. Come come, all that's not necessary; the habit sufficeth; I know no more of the matter than you.

Leander. What!

Sganarel. The deuce take me if I understand anything of physic. You are a gentleman, and I'll repose a confidence in you, as you have in me.

Leander. What, you are not actually–

Sganarel. No, I tell you, they made me a doctor in spite of my teeth. I never attempted to be so learned as that; my studies lasted only till I was six years old. I know not by what means this notion is come to 'em: but when I found that they would make me a doctor by violence, I resolved to be one at the expense of those I might have to do with. Nevertheless, you can't imagine how the error is spread about, and in what manner every one's possessed to believe me a skilful man. They come to seek me from all parts; and if things go on always the same, I intend to keep to physic all my lifetime. I find 'tis the best trade of all; for be it that we do good, or be it that we do ill, we are always paid after the same rate. The bad work never falls upon our back, and we cut out as we please the stuff we work on. A shoemaker can't spoil a scrap of leather in making a pair of shoes but he's obliged to pay sauce for it, when here we may spoil a man without costing one anything. The blunders are not ours; the fault's always in him that dies. In short, the good of this profession is that amongst the dead there is an honesty, a discretion the greatest in the world; you never find 'em complain of the physician that killed 'em.

Leander. 'Tis true, the dead are very honest people in this respect.

Sganarel (*observing men coming to him*). Here are people who look as if they came to consult me. (*To* LEANDER.) Go and wait for me near your mistress's house.

SCENE II

Thibaut. Zir, we come to search for ye, zon Perrin and I.

Sganarel. What's the matter?

Thibaut. His poor mother, whoase naime is Parette, has been this zix months in a zick bed.

Sganarel (*holding out his hand as to receive money*). What would you have me do to her?

Thibaut. I'se would ha' ye, zir, gi' us some little druggery ware to heal her withal.

Sganarel. I must see what she's sick of.

Thibaut. She's zick of an hypocrisy, zir.

Sganarel. Of an hypocrisy?

Thibaut. Ay, that's to zay, she's bloated up all over, and folk do zay that 'tis a deal of zeriosities that she have in her body, and that her liver, her belly, or her spleen, as you would call it, in plaice of making blood make nothing but water. She ha' one day out of two, the quotiguian fever, with lassitudes and pains in the muscles of her legs. One hears fleaims in her throat that are e'en ready to choke her. Zometimes she's ta'en with sincops and conversions, that we do think she's gone off. We have in our parish, a poticary, with reverence be it spoken, who has given her I know not how much historicks, and 't'ave cost me moare than a douzen of good crawns in clysters may't please you, in apostumes which they made her take, in hyacinth infactions, and cordial portions. But all this, as they say, was noathing but a nointment of fiddle-faddle. He'd a' gi'n her some of a certain drug, which they call Ametile Wine; but I'se was under downright fear that 'twould send her to her forefathers, for they zay that thease great doctors kill I know not how many people with that zame invantion.

Sganarel (*holding his hand out all the while*). Let's come to the point, Friend, let's come to the point.

Thibaut. The point is, zir, that we are come to bag o' ye, to tell us what we mun do.

Sganarel. I don't understand you in the least.

Perrin. My mother is zick, zir, and here be two crawns which we ha' brought ye to gee us some cure.

Sganarel. Oh! I understand you. There's a lad that speaks clearly, and explains himself as he should do. You say that your mother is sick of a dropsy, that she's swelled all over the body, that she has a fever, with pains in her legs, and that she's taken by turns, with sincopes and convulsions, that's to say, with fainting fits.

Perrin. Ay, yes, zir, that's exactly the matter.

Sganarel. I comprehended at once what you said. You have a father who does not know what he says. Now then you'd have a remedy from me?

Perrin. Ay, zir.

Sganarel. A remedy to cure her?

Perrin. That's what I mean.

Sganarel. Take this, there's a piece of cheese, which you must make her take.

Perrin. Cheese, zir.

Sganarel. Yes, 'tis prepared cheese, in which there is mixed gold, coral, pearls, and abundance of other costly things.

Perrin. Zir, we're mainly obliged t'ye, and we'll go make her take it this very instont.

Sganarel. Go. If she dies, don't fail to have her buried as handsomely as you can.

SCENE III

Sganarel. Here's the jolly nurse. Ah! nurse of my heart, I'm transported with this meeting; the sight of you is rhubarb, cassia, and senna, which purge away all melancholy from my mind.

Jacqueline. By my troth, Mr. Doctor, that's too foinly said for me, I'se doan't understond your Lattan at all.

Sganarel. Get sick, I beseech you, Nurse, get sick for my sake. I should take all the pleasure in the world to cure you.

Jacqueline. Your zarvant, zir, I'd much rather choose not to be cured.

Sganarel. I pity you, fair nurse, in having such a jealous troublesome husband as he you have.

Jacqueline. What would ye ha' me do, zir, 'tis a penitence for my offences, and where the goat's tied, there she must browse.

Sganarel. What? Such a rustic as that? A fellow that watches you continually, and won't let anybody speak to you?

Jacqueline. Alack, you've not zeen anything of'n yet; this is nothing but a small zample of his ill nature.

Sganarel. Is it possible, and can a fellow have so mean a spirit, as to use such a person as you are, ill? Ah! there are some, sweet nurse, that I know, and who are not far from hence, that would think themselves happy but to kiss the little tops of your toes! Why should one so well made fall into such hands? A mere animal, a brute, a fool, a sot– Forgive me, Nurse, for speaking in this manner of your husband.

Jacqueline. Ah! Sir, I'se know well enow that a deserves all those naimes.

Sganarel. Ay, undoubtedly, Nurse, he does deserve 'em, and he deserves further that you should plant something on his head to punish him for the suspicions he has.

Jacqueline. 'Tis very true that if I'se had nothing in sight but his interest, it might drive me to do some strange thing.

Sganarel. I'faith you'd not do ill to be revenged on him with someone. 'Tis a fellow, I tell you, who richly deserves it, and if I were fortunate enough, fair nurse, to be pitched on for– (*Whilst* SGANAREL *reaches out his arm to embrace* JACQUELINE, LUCAS *thrusts his head*

under his arm, and steps between them; SGANAREL *and* JACQUELINE *look at* LUCAS, *and go off on different sides.*)

SCENE IV

Géronte. Ho, Lucas, hast thou not seen our doctor here?
Lucas. Yes, the deuce had 'en, I'se ha' zeen him, and my wife too.
Géronte. Where is't that he can be then?
Lucas. I don't know; but I wish he were at the devil.
Géronte. Go and see a little how my daughter does.

SCENE V

Géronte. Oh, Sir, I have been asking where you were.
Sganarel. I was amusing myself in your court, to carry off the superfluity of the liquor. How does the patient do?
Géronte. A little worse since your remedy.
Sganarel. So much the better. 'Tis a sign it operates.
Géronte. Yes; but I fear lest it choke her in operating.
Sganarel. Don't be in pain about that; I have medicines which despise all distempers, and I should be glad to see her at death's door.
Géronte. Who is this man you bring here?
Sganarel (*making signs with his hand that it is an apothecary*). 'Tis–
Géronte. What?
Sganarel. He–
Géronte. Hey!
Sganarel. Who–
Géronte. I understand you.
Sganarel. Your daughter will have occasion for him.

SCENE VI

Jacqueline. Here, zir, is your daughter, she desires to walk a little.
Sganarel. That will do her good. (*To* LEANDER.) Go to her, Mr. Apothecary, feel her pulse a little, that I may consult with you by and by about her distemper. (*Here he takes* GÉRONTE *to one end of the stage, and putting one arm over his shoulder, puts his hand under his chin, to prevent him from turning his head towards* LEANDER *and* LUCINDA.) Sir, 'tis a great and subtle question among the doctors whether women are more easy to cure than men. Pray hearken to this if you please. Some say No, others say Yes; and for my part, I say both Yes

and No, forasmuch as the incongruity of the opaque humours which meet in the natural modification of women being the cause that the brutal part will always bear rule over the sensitive, we see that the inequality of their opinions depends on the oblique motion of the circle of the moon, and as the sun, which darts its rays on the concavity of the earth, finds–

Lucinda (*to* LEANDER). No, I'm not capable of changing my sentiments.

Géronte. My daughter speaks! O the great power of medicine! O wonderful physician! How much am I obliged to you, Sir, for this marvellous cure! And what can I do for you, after such a piece of service?

Sganarel (*walking about the stage, and fanning himself with his hat*). This distemper has put me to a vast deal of pains.

Lucinda. Yes, Father, I have recovered my speech; but I've recovered it to tell you that I will never have any other husband than Leander, and that 'tis in vain you intend to give me Horatio.

Géronte. But–

Lucinda. Nothing is capable of shaking the resolution I have taken.

Géronte. What!

Lucinda. You'll oppose me in vain with fine arguments.

Géronte. If–

Lucinda. All your talk will signify nothing.

Géronte. I–

Lucinda. 'Tis a thing I'm determined on.

Géronte. But–

Lucinda. 'Tis not paternal power that shall oblige me to marry whether I will or not.

Géronte. I have–

Lucinda. You have liberty to make all your efforts.

Géronte. It–

Lucinda. My heart cannot submit to this tyranny.

Géronte. There–

Lucinda. And I'll rather cast myself into a convent than marry a man I don't like.

Géronte. But–

Lucinda. No. By no means. Not at all. You lose your time. I will not do it. That's resolved.

Géronte. Oh! what an impetuosity of speech! There's no way of resisting it. (*To* SGANAREL.) Sir, I desire you'll make her dumb again.

Sganarel. 'Tis a thing which is impossible to me. All I can do to serve you is to make you deaf, if you will.

Géronte. I thank you. (*To* LUCINDA.) Think then–

Lucinda. No, all your reasons will gain nothing on my mind.

Géronte. Thou shalt marry Horatio this night.

Lucinda. I'll rather marry death.

Sganarel (*to* GÉRONTE). Good now, hold a little, let me prescribe in this affair. 'Tis a disease that affects her, and I know what remedy must be applied to it.

Géronte. Is it possible, Sir, that you can likewise cure this sickness of the mind?

Sganarel. Yes, let me alone. I have remedies for everything; and our apothecary will assist us in this cure. (*To* LEANDER.) One word. You see that the affection she has for this Leander is altogether contrary to her father's will, that there's no time to lose, that the humours are very acrimonious, and that 'tis necessary to find out speedily a remedy for this illness, which may get ahead by delay; for my part I can see but only one for it, which is a dose of runaway purgative mixed as it should be with two drachms of matrimonium in pills. Perhaps she'll make some difficulty of taking this medicine, but as you are an able man in your business, it belongs to you to bring her to it, and to make her swallow the thing as well as you can. Go and make her take a little turn in the garden, in order to prepare the humours, whilst I hold her father here in discourse; but above all lose no time. To the remedy, quick, to the specific remedy.

SCENE VII

Géronte. What drugs, sir, are those you were speaking of? I think that I never heard 'em named before.

Sganarel. They are drugs which people make use of upon urgent occasions.

Géronte. Did you ever see an insolence like to hers?

Sganarel. Girls are sometimes a little headstrong.

Géronte. You can't think how she dotes upon this Leander.

Sganarel. The heat of the blood occasions this in young minds.

Géronte. For my part, ever since I discovered the violence of this love I have always kept my girl shut up.

Sganarel. You have done wisely.

Géronte. And I effectually prevented their having any communication together.

Sganarel. Mighty well.

Géronte. Some folly would have come on't had I suffered them to see one another.
Sganarel. Undoubtedly.
Géronte. And I believe the girl would have run away with him.
Sganarel. 'Tis well reasoned.
Géronte. They tell me that he does his utmost endeavours to come to the speech of her.
Sganarel. Ridiculous creature!
Géronte. But he'll lose his time.
Sganarel. Ay, ay.
Géronte. For I'll effectually prevent him from seeing of her.
Sganarel. He has not to do with a fool; you know tricks that he knows nothing of. He's no blockhead who is sharper than you.

SCENE VIII

Lucas. Ad's bobs, zir, here's a vine hurly-burly business; your daughter's fled away with her Liandar. 'Twas he that was the poticary; and there's Mr. Doctor that ha' made this vine operation.
Géronte. What, murder me in this manner? Here, a commissary, and hinder him from going off. Ah, villain, I'll make thee suffer the law.
Lucas. Ah! I'foith, Mr. Doctor, you shall be hanged; only budge not from hence.

SCENE IX

Martina (*to* LUCAS). Ad's my life, what plague have I had to find out this house! Tell me some news a little of the doctor I gave you.
Lucas. There a is, just going to be hanged.
Martina. What, my husband hanged? Alas! what has he done to come to that?
Lucas. He ha' made our maister's daughter to be carried off.
Martina. Alas! my dear husband, is it really true that they are going to hang thee?
Sganarel. Thou seest. Ah!
Martina. Must thou die in the presence of so many people?
Sganarel. What wouldst thou have me do in it?
Martina. Yet if thou hadst but made an end of cutting our wood, I could have taken some comfort.
Sganarel. Be gone from hence; you break my heart.

Martina. No; I'll stay to encourage thee to die; I'll not leave thee till I have seen thee hanged.

Sganarel. Oh!

SCENE X

Géronte (*to* SGANAREL). The commissary will come presently, and they'll put you in a place where they shall be answerable to me for you.

Sganarel (*kneeling*). Alas! can't this be changed into a few strokes of a cudgel?

Géronte. No, no, justice shall order it. But what do I see?

SCENE XI

Leander. Sir, I'm come to make Leander appear before you, and to put Lucinda again in your power. We had both of us a design to go off together, and be married; but this enterprise has given place to a more honourable proceeding. I don't design to rob you of your daughter, and 'tis from your hand alone that I'll receive her. What I would say to you, Sir, is that I have just now received letters by which I learn that my uncle is dead, and that I am heir to all his effects.

Géronte. Sir, your virtue is to me of sufficient value, and I give you my daughter with the greatest pleasure in the world.

Sganarel (*aside*). There physic has got a notable 'scape!

Martina. Since you'll not be hanged, thank me for your being a doctor; for 'twas I that procured thee that honour.

Sganarel. Yes, 'twas you that procured me I know not how many thwacks of a cudgel.

Leander (*to* SGANAREL). The effect is too good to resent that.

Sganarel. Be it so. (*To* MARTINA.) I forgive thee those blows, in favour of the dignity thou hast raised me to: but prepare thyself from henceforth to live in great respect with a man of my consequence, and consider that the wrath of a physician is more to be feared than can be imagined.

Translated by H. Baker and J. Miller.

Richard Sheridan

1751–1816

Richard Brinsley Butler Sheridan was born in Dublin October 30, 1751. His father, Thomas, was an actor. Richard went to Harrow when he was eleven years old, where he studied for six years. By 1771 the Sheridan family had moved to Bath. There Sheridan met Elizabeth Ann Linley, the beautiful 16-year-old daughter of a composer. After a romantic courtship, the two were married, in 1773, and went to live in London.

Although the young couple had no income, they took a house in a fashionable neighborhood and began to live far beyond their means. Sheridan, who had previously collaborated in writing one play, now turned seriously to writing as a means of living. *The Rivals,* produced on January 17, 1775, was an instant success.

In June, 1776, Sheridan bought a share of the Drury Lane Theater, where *The School for Scandal* was produced the following year. It, too, was extremely popular, drawing large houses. *The Critic* was produced in 1779. This was the last of Sheridan's important plays. From then on, his life was devoted to politics. He entered Parliament in 1780 and soon became famous as the best orator of the time. His last years were filled with disappointments, and he was always heavily in debt. His wife died in 1792, and he remarried in 1795.

In 1812 he failed to be re-elected to Parliament. Shortly before, the Drury Lane Theater had burned. He died July 7, 1816, very poor, but was buried with great ceremony in Westminster Abbey.

The School for Scandal is a comedy of manners, one of the best, if not the best, of its kind in English. Comedies of manners had become very popular in the Restoration period in England, as part of

the general joyous heel-kicking reaction against the strict Puritanism of the Cromwells. When Englishmen welcomed Charles II back from France, they welcomed the French influence in cultural matters as well, especially in the drama. Molière was the literary hero of the day.

The first plays to appear in the newly reopened English theaters ridiculed all aspects of Puritan morality. Their subject matter was the flirtations and intrigues of sophisticated society. Their heroes were glib-talking dandies; their heroines beautiful flirts. If Restoration comedy writers added little to a profound understanding of human nature, they vividly pictured the customs and atmosphere of their world and in doing so wrote some very amusing plays.

English drama, from the beginning of the Restoration in the middle 1600's gradually became more sentimental and superficial until Sheridan, near the end of the eighteenth century, gave England the last great examples of Restoration comedy in *The Rivals* and *The School for Scandal*.

The "School" of Sheridan's play is a fashionable society of clever but intellectually limited people whose favorite entertainment is slander. Sheridan's thesis might be expressed as "the devil finds work for idlers' tongues."

Because he was picturing a society rather than individuals, Sheridan was content to use stock characters which would have been easily recognizable to English playgoers of his time. Charles Surface is the impulsive but basically good young man. Joseph is the pretender whose efforts to keep up a good appearance lead to his downfall. Lady Teazle is the discontented young woman who has married for money. Sir Peter Teazle is the illusioned old man who expects to be appreciated for himself rather than his possessions.

Out of these materials–a stock cast, an unlikely plot, and such stage conventions as asides–Sheridan makes a hilarious and essentially moral play. His most effective tool is the sparkling dialogue, packed with epigrams, that was so highly prized in the drawing rooms of his day. Sheridan could mix a pun with an epigram and produce a revealing truth as few dramatists have been able to do; for example, "I never think them [my friends] in such danger as when Candour undertakes their defence."

There are two great scenes in *The School for Scandal*–the auction of the family portraits, and the scandal-hiding screen–which a lesser talent would have reduced to slapstick. Under Sheridan's

touch, however, they are so effective that they have been rightfully famous for over 180 years.

The two foibles, scandal and extravagance, which *The School for Scandal* exposes, were chosen by Sheridan to epitomize the temper of upper-class society as he saw it. But behind these lies the hypocrisy of the upper classes–and this is the evil that the play most powerfully attacks.

The School for Scandal

CAST OF CHARACTERS

AS ACTED AT DRURY LANE THEATRE, MAY, 1777

SIR PETER TEAZLE, *Mr. King*
SIR OLIVER SURFACE, *Mr. Yates*
JOSEPH SURFACE, *Mr. Palmer*
CHARLES SURFACE, *Mr. Smith*
CRABTREE, *Mr. Parsons*
SIR BENJAMIN BACKBITE, *Mr. Dodd*
ROWLEY, *Mr. Aickin*
TRIP, *Mr. LaMash*
MOSES, *Mr. Baddeley*
SNAKE, *Mr. Packer*
CARELESS, *Mr. Farren*
LADY TEAZLE, *Mrs. Abington*
MARIA, *Miss P. Hopkins*
LADY SNEERWELL, *Miss Sherry*
MRS. CANDOUR, *Miss Pope*

and other COMPANIONS *to* CHARLES (SURFACE), SERVANTS, *etc.*

SCENE: LONDON

ACT I

SCENE 1–LADY SNEERWELL'S *house*

LADY SNEERWELL *at the dressing-table.* SNAKE *drinking chocolate.*

Lady Sneerwell. The paragraphs, you say, Mr. Snake, were all inserted?

Snake. They were, madam, and as I copied them myself in a feigned hand, there can be so suspicion whence they came.

Lady Sneerwell. Did you circulate the reports of Lady Brittle's intrigue with Captain Boastall?

Snake. That is in as fine a train as your ladyship could wish–in the common course of things, I think it must reach Mrs. Clackit's ears within four-and-twenty hours; and then, you know, the business is as good as done.

Lady Sneerwell. Why, truly, Mrs. Clackit has a very pretty talent, and a great deal of industry.

Snake. True, madam, and has been tolerably successful in her day: to my knowledge, she has been the cause of six matches being broken off, and three sons being disinherited, of four forced elopements, as many close confinements, nine separate maintenances, and two divorces; nay, I have more than once traced her causing a *tête-à-tête* in the *Town and Country Magazine,* when the parties perhaps had never seen each other's faces before in the course of their lives.

Lady Sneerwell. She certainly has talents, but her manner is gross.

Snake. 'Tis very true–she generally designs well, has a free tongue, and a bold invention; but her colouring is too dark, and her outline often extravagant. She wants that *delicacy* of *hint,* and *mellowness* of *sneer,* which distinguish your ladyship's scandal.

Lady Sneerwell. Ah! you are partial, Snake.

Snake. Not in the least; everybody allows that Lady Sneerwell can do more with a *word* or a *look* than many can with the most laboured detail, even when they happen to have a little truth on their side to support it.

Lady Sneerwell. Yes, my dear Snake; and I am no hypocrite to deny the satisfaction I reap from the success of my efforts. Wounded myself, in the early part of my life, by the envenomed tongue of slander, I confess I have since known no pleasure equal to the reducing others to the level of my own injured reputation.

Snake. Nothing can be more natural. But, Lady Sneerwell, there is one af-

fair in which you have lately employed me, wherein, I confess, I am at a loss to guess your motives.

Lady Sneerwell. I conceive you mean with respect to my neighbour, Sir Peter Teazle, and his family?

Snake. I do; here are two young men, to whom Sir Peter has acted as a kind of guardian since their father's death; the elder possessing the most amiable character, and universally well spoken of; the youngest, the most dissipated and extravagant young fellow in the kingdom, without friends or character–the former an avowed admirer of your ladyship, and apparently your favourite; the latter attached to Maria, Sir Peter's ward, and confessedly beloved by her. Now, on the face of these circumstances, it is utterly unaccountable to me, why you, the widow of a city knight, with a good jointure, should not close with the passion of a man of such character and expectations as Mr. Surface; and more so why you should be so uncommonly earnest to destroy the mutual attachment subsisting between his brother Charles and Maria.

Lady Sneerwell. Then, at once to unravel this mystery, I must inform you that love has no share whatever in the intercourse between Mr. Surface and me.

Snake. No!

Lady Sneerwell. His real attachment is to Maria, or her fortune; but, finding in his brother a favoured rival, he has been obliged to mask his pretensions, and profit by my assistance.

Snake. Yet still I am more puzzled why you should interest yourself in his success.

Lady Sneerwell. Heav'ns! how dull you are! Cannot you surmise the weakness which I hitherto, through shame, have concealed even from *you?* Must I confess that Charles–that libertine, that extravagant, that bankrupt in fortune and reputation–that he it is for whom I am thus anxious and malicious, and to gain whom I would sacrifice everything?

Snake. Now, indeed, your conduct appears consistent; but how came you and Mr. Surface so confidential?

Lady Sneerwell. For our mutual interest. I have found him out a long time since–I know him to be artful, selfish, and malicious–in short, a sentimental knave.

Snake. Yet, Sir Peter vows he has not his equal in England–and, above all, he praises him as a man of sentiment.

Lady Sneerwell. True; and with the assistance of his sentiment and hy-

pocrisy he has brought him [Sir Peter] entirely into his interest with regard to Maria.

Enter SERVANT.

Servant. Mr. Surface.

Lady Sneerwell. Show him up. (*Exit* SERVANT.)
He generally calls about this time. I don't wonder at people's giving him to me for a lover.

Enter JOSEPH SURFACE.

Joseph Surface. My dear Lady Sneerwell, how do you do to-day? Mr. Snake, your most obedient.

Lady Sneerwell. Snake has just been arraigning me on our mutual attachment, but I have informed him of our real views; you know how useful he has been to us; and, believe me, the confidence is not ill placed.

Joseph Surface. Madam, it is impossible for me to suspect a man of Mr. Snake's sensibility and discernment.

Lady Sneerwell. Well, well, no compliments now; but tell me when you saw your mistress, Maria—or, what is more material to me, your brother.

Joseph Surface. I have not seen either since I left you; but I can inform you that they never meet. Some of your stories have taken a good effect on Maria.

Lady Sneerwell. Ah, my dear Snake! the merit of this belongs to you. But do your brother's distresses increase?

Joseph Surface. Every hour; I am told he has had another execution in the house yesterday; in short, his dissipation and extravagance exceed anything I ever heard of.

Lady Sneerwell. Poor Charles!

Joseph Surface. True, madam; notwithstanding his vices, one can't help feeling for him. Aye, poor Charles! I'm sure I wish it was in *my* power to be of any essential service to him. For the man who does not share in the distresses of a brother, even though merited by his own misconduct, deserves—

Lady Sneerwell. O lud! you are going to be moral, and forget that you are among friends.

Joseph Surface. Egad, that's true! I'll keep that sentiment till I see Sir Peter. However, it is certainly a charity to rescue Maria from such a

libertine, who, if he is to be reclaimed, can be so only by a person of your ladyship's superior accomplishments and understanding.

Snake. I believe, Lady Sneerwell, here's company coming–I'll go and copy the letter I mentioned to you.–Mr. Surface, your most obedient.

(*Exit* SNAKE.)

Joseph Surface. Sir, your very devoted.–Lady Sneerwell, I am very sorry you have put any further confidence in that fellow.

Lady Sneerwell. Why so?

Joseph Surface. I have lately detected him in frequent conference with old Rowley, who was formerly my father's steward, and has never, you know, been a friend of mine.

Lady Sneerwell. And do you think he would betray us?

Joseph Surface. Nothing more likely: take my word for't, Lady Sneerwell, that fellow hasn't virtue enough to be faithful even to his own villainy.–Hah! Maria!

Enter MARIA.

Lady Sneerwell. Maria, my dear, how do you do? What's the matter?

Maria. Oh! there is that disagreeable lover of mine, Sir Benjamin Backbite, has just called at my guardian's, with his odious uncle, Crabtree; so I slipped out, and run hither to avoid them.

Lady Sneerwell. Is that all?

Joseph Surface. If my brother Charles had been of the party, ma'am, perhaps you would not have been so much alarmed.

Lady Sneerwell. Nay, now you are severe; for I dare swear the truth of the matter is, Maria heard *you* were here; but, my dear, what has Sir Benjamin done, that you should avoid him so?

Maria. Oh, he has done nothing–but 'tis for what he has said–his conversation is a perpetual libel on all his acquaintance.

Joseph Surface. Aye, and the worst of it is, there is no advantage in not knowing him; for he'll abuse a stranger just as soon as his best friend–and his uncle's as bad.

Lady Sneerwell. Nay, but we should make allowance; Sir Benjamin is a wit and a poet.

Maria. For my part, I own, madam, wit loses its respect with me, when I see it in company with malice.–What do you think, Mr. Surface?

Joseph Surface. Certainly, madam; to smile at the jest which plants a thorn in another's breast is to become a principal in the mischief.

Lady Sneerwell. Pshaw! there's no possibility of being witty without a lit-

tle ill nature: the malice of a good thing is the barb that makes it stick.–What's your opinion, Mr. Surface?

Joseph Surface. To be sure, madam, that conversation, where the spirit of raillery is suppressed, will ever appear tedious and insipid.

Maria. Well, I'll not debate how far scandal may be allowable; but in a man, I am sure, it is always contemptible. We have pride, envy, rivalship, and a thousand motives to depreciate each other; but the male slanderer must have the cowardice of a woman before he can traduce one.

Enter SERVANT.

Servant. Madam, Mrs. Candour is below, and, if your ladyship's at leisure, will leave her carriage.

Lady Sneerwell. Beg her to walk in. (*Exit* SERVANT.) Now Maria, however here is a character to your taste; for, though Mrs. Candour is a little talkative, everybody allows her to be the best-natured and best sort of woman.

Maria. Yes, with a very gross affectation of good nature and benevolence, she does more mischief than the direct malice of old Crabtree.

Joseph Surface. I'faith 'tis very true, Lady Sneerwell; whenever I hear the current running against the characters of my friends, I never think them in such danger as when Candour undertakes their defence.

Lady Sneerwell. Hush!–here she is!

Enter MRS. CANDOUR.

Mrs. Candour. My dear Lady Sneerwell, how have you been this century?–Mr. Surface, what news do you hear?–though indeed it is no matter, for I think one hears nothing else but scandal.

Joseph Surface. Just so, indeed, madam.

Mrs. Candour. Ah, Maria! child–what, is the whole affair off between you and Charles? His extravagance, I presume–the town talks of nothing else.

Maria. I am very sorry, ma'am, the town has so little to do.

Mrs. Candour. True, true, child: but there is no stopping people's tongues. I own I was hurt to hear it, as indeed I was to learn, from the same quarter, that your guardian, Sir Peter, and Lady Teazle have not agreed lately so well as could be wished.

Maria. 'Tis strangely impertinent for people to busy themselves so.

Mrs. Candour. Very true, child, but what's to be done? People will talk–

there's no preventing it. Why, it was but yesterday I was told that Miss Gadabout had eloped with Sir Filigree Flirt. But, Lord! there's no minding what one hears—though, to be sure, I had this from very good authority.

Maria. Such reports are highly scandalous.

Mrs. Candour. So they are, child—shameful, shameful! But the world is so censorious, no character escapes. Lord, now who would have suspected your friend, Miss Prim, of an indiscretion? Yet such is the ill nature of people, that they say her uncle stopped her last week, just as she was stepping into the York Diligence with her dancing-master.

Maria. I'll answer for't there are no grounds for the report.

Mrs. Candour. Oh, no foundation in the world, I dare swear; no more, probably, than for the story circulated last month, of Mrs. Festino's affair with Colonel Cassino; though, to be sure, that matter was never rightly cleared up.

Joseph Surface. The licence of invention some people take is monstrous indeed.

Maria. 'Tis so. But, in my opinion, those who report such things are equally culpable.

Mrs. Candour. To be sure they are; talebearers are as bad as the talemakers—'tis an old observation, and a very true one—but what's to be done, as I said before? how will you prevent people from talking? To-day, Mrs. Clackit assured me Mr. and Mrs. Honeymoon were at last become mere man and wife, like the rest of their acquaintances. She likewise hinted that a certain widow, in the next street, had got rid of her dropsy and recovered her shape in a most surprising manner. And at the same time Miss Tattle, who was by, affirmed that Lord Buffalo had discovered his lady at a house of no extraordinary fame—and that Sir Harry Bouquet and Tom Saunter were to measure swords on a similar provocation. But, Lord, do you think I would report these things! No, no! talebearers, as I said before, are just as bad as tale-makers.

Joseph Surface. Ah! Mrs. Candour, if everybody had your forbearance and good nature!

Mrs. Candour. I confess, Mr. Surface, I cannot bear to hear people attacked behind their backs, and when ugly circumstances come out against one's acquaintance I own I always love to think the best. By the by, I hope it is not true that your brother is absolutely ruined?

Joseph Surface. I am afraid his circumstances are very bad indeed, ma'am.

Mrs. Candour. Ah!–I heard so–but you must tell him to keep up his spirits–everybody almost is in the same way! Lord Spindle, Sir Thomas Splint, Captain Quinze, and Mr. Nickit–all up, I hear, within this week; so, if Charles is undone, he'll find half his acquaintances ruined too–and that, you know, is a consolation.

Joseph Surface. Doubtless, ma'am–a very great one.

Enter SERVANT.

Servant. Mr. Crabtree and Sir Benjamin Backbite. (*Exit* SERVANT.)

Lady Sneerwell. So, Maria, you see your lover pursues you; positively you shan't escape.

Enter CRABTREE *and* SIR BENJAMIN BACKBITE.

Crabtree. Lady Sneerwell, I kiss your hands. Mrs. Candour, I don't believe you are acquainted with my nephew, Sir Benjamin Backbite? Egad, ma'am, he has a pretty wit, and is a pretty poet too; isn't he, Lady Sneerwell?

Sir Benjamin. O fie, uncle!

Crabtree. Nay, egad it's true–I'll back him at a rebus or a charade against the best rhymer in the kingdom. Has your ladyship heard the epigram he wrote last week on Lady Frizzle's feather catching fire?–Do, Benjamin, repeat it–or the charade you made last night extempore at Mrs. Drowzie's *conversazione*. Come now; your *first* is the name of a fish, your *second* a great naval commander, and–

Sir Benjamin. Uncle, now–prithee–

Crabtree. I'faith, ma'am, 'twould surprise you to hear how ready he is at these things.

Lady Sneerwell. I wonder, Sir Benjamin, you never publish anything.

Sir Benjamin. To say truth, ma'am, 'tis very vulgar to print; and, as my little productions are mostly satires and lampoons on particular people, I find they circulate more by giving copies in confidence to the friends of the parties–however, I have some love elegies, which, when favoured with this lady's smiles, I mean to give to the public.

Crabtree. 'Fore heav'n, ma'am, they'll immortalize you!–you'll be handed down to posterity like Petrarch's Laura, or Waller's Sacharissa.[1]

Sir Benjamin. Yes, madam, I think you will like them, when you shall see

1. Edmund Waller's poetic name for Lady Dorothy Sidney.

them on a beautiful quarto page, where a neat rivulet of text shall murmur through a meadow of margin. 'Fore gad, they will be the most elegant things of their kind!

Crabtree. But, ladies, that's true–have you heard the news?

Mrs. Candour. What, sir, do you mean the report of–

Crabtree. No, ma'am, that's not it. Miss Nicely is going to be married to her own footman.

Mrs. Candour. Impossible!

Crabtree. Ask Sir Benjamin.

Sir Benjamin. 'Tis very true, ma'am–everything is fixed, and the wedding liveries bespoke.

Crabtree. Yes–and they *do* say there were pressing reasons for it.

Lady Sneerwell. Why, I *have* heard something of this before.

Mrs. Candour. It can't be–and I wonder anyone should believe such a story of so prudent a lady as Miss Nicely.

Sir Benjamin. O lud! ma'am, that's the very reason 'twas believed at once. She has always been so *cautious* and so *reserved,* that everybody was sure there was some reason for it at bottom.

Mrs. Candour. Why, to be sure, a tale of scandal is as fatal to the credit of a prudent lady of her stamp as a fever is generally to those of the strongest constitutions; but there is a sort of puny, sickly reputation that is always ailing, yet will outlive the robuster characters of a hundred prudes.

Sir Benjamin. True, madam, there are valetudinarians in reputation as well as constitution, who, being conscious of their weak part, avoid the least breath of air, and supply their want of stamina by care and circumspection.

Mrs. Candour. Well, but this may be all a mistake. You know, Sir Benjamin, very trifling circumstances often give rise to the most injurious tales.

Crabtree. That they do, I'll be sworn, ma'am. Did you ever hear how Miss Piper came to lose her lover and her character last summer at Tunbridge?–Sir Benjamin, you remember it?

Sir Benjamin. Oh, to be sure!–the most whimsical circumstance–

Lady Sneerwell. How was it, pray?

Crabtree. Why, one evening, at Mrs. Ponto's assembly, the conversation happened to turn on the difficulty of breeding Nova Scotia sheep in this country. Says a young lady in company, "I have known instances of it; for Miss Letitia Piper, a first cousin of mine, had a Nova Scotia sheep that produced her twins." "What!" cries the old Dowager Lady

Dundizzy (who you know is as deaf as a post), "has Miss Piper had twins?" This mistake, as you may imagine, threw the whole company into a fit of laughing. However, 'twas the next morning everywhere reported, and in a few days believed by the whole town, that Miss Letitia Piper had actually been brought to bed of a fine boy and a girl–and in less than a week there were people who could name the father, and the farmhouse where the babies were put out to nurse!

Lady Sneerwell. Strange, indeed!

Crabtree. Matter of fact, I assure you.–O lud! Mr. Surface, pray is it true that your uncle, Sir Oliver, is coming home?

Joseph Surface. Not that I know of, indeed, sir.

Crabtree. He has been in the East Indias a long time. You can scarcely remember him, I believe. Sad comfort, whenever he returns, to hear how your brother has gone on!

Joseph Surface. Charles has been imprudent, sir, to be sure; but I hope no busy people have already prejudiced Sir Oliver against him–he may reform.

Sir Benjamin. To be sure he may–for my part I never believed him to be so utterly void of principle as people say–and though he has lost all his friends, I am told nobody is better spoken of by the Jews.

Crabtree. That's true, egad, nephew. If the old Jewry were a ward, I believe Charles would be an alderman; no man more popular there, 'fore gad! I hear he pays as many annuities as the Irish tontine;[2] and that, whenever he's sick, they have prayers for the recovery of his health in the Synagogue.

Sir Benjamin. Yet no man lives in greater splendour. They tell me, when he entertains his friends, he can sit down to dinner with a dozen of his own securities; have a score [of] tradesmen writing in the antechamber, and an officer behind every guest's chair.

Joseph Surface. This may be entertainment to you, gentlemen, but you pay very little regard to the feelings of a brother.

Maria. Their malice is intolerable!–Lady Sneerwell, I must wish you a good morning–I'm not very well. (*Exit* MARIA.)

Mrs. Candour. O dear! she changes colour very much!

Lady Sneerwell. Do, Mrs. Candour, follow her–she may want assistance.

Mrs. Candour. That I will, with all my soul, ma'am. Poor dear girl! who knows what her situation may be! (*Exit* MRS. CANDOUR.)

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2. In 1773 and thereafter, the Irish parliament raised considerable revenues by selling life annuities to subscribers. The "tontine" plan took its name from the inventor, Tonti, an Italian banker.

Lady Sneerwell. 'Twas nothing but that she could not bear to hear Charles reflected on, notwithstanding their difference.

Sir Benjamin. The young lady's *penchant* is obvious.

Crabtree. But, Benjamin, you mustn't give up the pursuit for that; follow her, and put her into good humour. Repeat her some of your own verses. Come, I'll assist you.

Sir Benjamin. Mr. Surface, I did not mean to hurt you; but depend upon't your brother is utterly undone. (*Going*.)

Crabtree. O lud, aye! undone as ever man was—can't raise a guinea. (*Going*.)

Sir Benjamin. And everything sold, I'm told, that was movable. (*Going*.)

Crabtree. I have seen one that was at his house—not a thing left but some empty bottles that were overlooked, and the family pictures, which I believe are framed in the wainscot. (*Going*.)

Sir Benjamin. And I am very sorry to hear also some bad stories against him. (*Going*.)

Crabtree. Oh, he has done many mean things, that's certain. (*Going*.)

Sir Benjamin. But, however, as he's your brother— (*Going*.)

Crabtree. We'll tell you all, another opportunity.

(*Exeunt* CRABTREE *and* SIR BENJAMIN.)

Lady Sneerwell. Ha, ha! ha! 'tis very hard for them to leave a subject they have not quite run down.

Joseph Surface. And I believe the abuse was no more acceptable to your ladyship than to Maria.

Lady Sneerwell. I doubt [3] her affections are farther engaged than we imagined; but the family are to be here this evening, so you may as well dine where you are, and we shall have an opportunity of observing farther; in the meantime, I'll go and plot mischief, and you shall study sentiments. (*Exeunt*.)

SCENE II—SIR PETER TEAZLE's *house*

Enter SIR PETER.

Sir Peter. When an old bachelor takes a young wife, what is he to expect? 'Tis now six months since Lady Teazle made me the happiest of men—and I have been the miserablest dog ever since that ever committed wedlock! We tift a little going to church, and came to a quarrel before the bells were done ringing. I was more than once

3. Suspect.

nearly choked with gall during the honeymoon, and had lost all comfort in life before my friends had done wishing me joy! Yet I chose with caution–a girl bred wholly in the country, who never knew luxury beyond one silk gown, nor dissipation above the annual gala of a race ball. Yet now she plays her part in all the extravagant fopperies of the fashion and the town, with as ready a grace as if she had never seen a bush nor a grass-plat out of Grosvenor Square! I am sneered at by my old acquaintance–paragraphed in the newspapers. She dissipates my fortune, and contradicts all my humours; yet the worst of it is, I doubt I love her, or I should never bear all this. However, I'll never be weak enough to own it.

Enter ROWLEY.

Rowley. Oh! Sir Peter, your servant–how is it with you, sir?

Sir Peter. Very bad, Master Rowley, very bad; I meet with nothing but crosses and vexations.

Rowley. What can have happened to trouble you since yesterday?

Sir Peter. A good question to a married man!

Rowley. Nay, I'm sure your lady, Sir Peter, can't be the cause of your uneasiness.

Sir Peter. Why, has anyone told you she was dead?

Rowley. Come, come, Sir Peter, you love her, notwithstanding your tempers don't exactly agree.

Sir Peter. But the fault is entirely hers, Master Rowley. I am, myself, the sweetest-tempered man alive, and hate a teasing temper–and so I tell her a hundred times a day.

Rowley. Indeed!

Sir Peter. Aye; and what is very extraordinary, in all our disputes she is always in the wrong! But Lady Sneerwell, and the set she meets at her house, encourage the perverseness of her disposition. Then, to complete my vexations, Maria, my ward, whom I ought to have the power of a father over, is determined to turn rebel too, and absolutely refuses the man whom I have long resolved on for her husband; meaning, I suppose, to bestow herself on his profligate brother.

Rowley. You know, Sir Peter, I have always taken the liberty to differ with you on the subject of these two young gentlemen. I only wish you may not be deceived in your opinion of the elder. For Charles, my life on't! he will retrieve his errors yet. Their worthy father, once my honoured master, was, at his years, nearly as wild a spark; yet,

when he died, he did not leave a more benevolent heart to lament his loss.

Sir Peter. You are wrong, Master Rowley. On their father's death, you know, I acted as a kind of guardian to them both, till their uncle Sir Oliver's Eastern liberality gave them an early independence; of course, no person could have more opportunities of judging of their hearts, and I was never mistaken in my life. Joseph is indeed a model for the young men of the age. He is a man of sentiment, and acts up to the sentiments he professes; but, for the other, take my word for't, if he had any grains of virtue by descent, he has dissipated them with the rest of his inheritance. Ah! my old friend, Sir Oliver, will be deeply mortified when he finds how part of his bounty has been misapplied.

Rowley. I am sorry to find you so violent against the young man, because this may be the most critical period of his fortune. I came hither with news that will surprise you.

Sir Peter. What! let me hear.

Rowley. Sir Oliver *is* arrived, and at this moment in town.

Sir Peter. How! you astonish me! I thought you did not expect him this month.

Rowley. I did not; but his passage has been remarkably quick.

Sir Peter. Egad, I shall rejoice to see my old friend–'tis sixteen years since we met–we have had many a day together; but does he still enjoin us not to inform his nephews of his arrival?

Rowley. Most strictly. He means, before it is known, to make some trial of their dispositions.

Sir Peter. Ah! There needs no art to discover their merits–however, he shall have his way; but, pray, does he know I am married?

Rowley. Yes, and will soon wish you joy.

Sir Peter. What, as we drink health to a friend in a consumption! Ah, Oliver will laugh at me–we used to rail at matrimony together–but he has been steady to his text. Well, he must be at my house, though–I'll instantly give orders for his reception. But, Master Rowley, don't drop a word that Lady Teazle and I ever disagree.

Rowley. By no means.

Sir Peter. For I should never be able to stand Noll's jokes; so I'd have him think, Lord forgive me! that we are a very happy couple.

Rowley. I understand you–but then you must be very careful not to differ while he's in the house with you.

Sir Peter. Egad, and so we must—and that's impossible. Ah! Master Rowley, when an old bachelor marries a young wife, he deserves—no—the crime carries the punishment along with it. (*Exeunt.*)

ACT II

SCENE I—SIR PETER TEAZLE's *house*

Enter SIR PETER *and* LADY TEAZLE.

Sir Peter. Lady Teazle, Lady Teazle, I'll not bear it!

Lady Teazle. Sir Peter, Sir Peter, you may bear it or not, as you please; but I ought to have my own way in everything, and what's more, I *will* too. What! though I was educated in the country, I know very well that women of fashion in London are accountable to nobody after they are married.

Sir Peter. Very well, ma'am, very well—so a husband is to have no influence, no authority?

Lady Teazle. Authority! No, to be sure—if you wanted authority over me, you should have adopted me, and not married me; I am sure you were old enough.

Sir Peter. Old enough!—aye, there it is! Well, well, Lady Teazle, though my life may be made unhappy by your temper, I'll not be ruined by your extravagance.

Lady Teazle. My extravagance! I'm sure I'm not more extravagant than a woman of fashion ought to be.

Sir Peter. No, no, madam, you shall throw away no more sums on such unmeaning luxury. 'Slife! to spend as much to furnish your dressing-room with flowers in winter as would suffice to turn the Pantheon [4] into a greenhouse, and give a *fête-champêtre* [5] at Christmas!

Lady Teazle. Lord, Sir Peter, am I to blame because flowers are dear in cold weather? You should find fault with the climate, and not with me. For my part, I am sure I wish it was spring all the year round, and that roses grew under one's feet!

Sir Peter. Oons! madam—if you had been born to this, I shouldn't wonder at your talking thus. But you forget what your situation was when I married you.

Lady Teazle. No, no, I don't; 'twas a very disagreeable one, or I should never have married *you.*

4. A fashionable concert-hall in Oxford Street.
5. An open-air festival.

Sir Peter. Yes, yes, madam, you were then in somewhat a humbler style—the daughter of a plain country squire. Recollect, Lady Teazle, when I saw you first, sitting at your tambour,[6] in a pretty figured linen gown, with a bunch of keys by your side, your hair combed smooth over a roll, and your apartment hung round with fruits in worsted, of your own working.

Lady Teazle. O, yes! I remember it very well, and a curious life I led—my daily occupation to inspect the dairy, superintend the poultry, make extracts from the family receipt-book, and comb my aunt Deborah's lap-dog.

Sir Peter. Yes, yes, ma'am, 'twas so indeed.

Lady Teazle. And then, you know, my evening amusements! To draw patterns for ruffles, which I had not the materials to make; to play Pope Joan [7] with the curate; to read a novel to my aunt; or to be stuck down to an old spinet to strum my father to sleep after a fox-chase.

Sir Peter. I am glad you have so good a memory. Yes, madam, these were the recreations I took you from; but now you must have your coach—*vis-à-vis*—and three powdered footmen before your chair and, in summer, a pair of white cats [8] to draw you to Kensington Gardens. No recollection, I suppose, when you were content to ride double, behind the butler, on a docked coach-horse?

Lady Teazle. No—I swear I never did that—I deny the butler and the coach-horse.

Sir Peter. This, madam, was your situation—and what have I not done for you? I have made you a woman of fashion, of fortune, of rank—in short, I have made you my wife.

Lady Teazle. Well, then, and there is but one thing more you can make me to add to the obligation—and that is—

Sir Peter. My widow, I suppose?

Lady Teazle. Hem! hem!

Sir Peter. Thank you, madam—but don't flatter yourself; for though your ill conduct may disturb my peace, it shall never break my heart, I promise you: however, I am equally obliged to you for the hint.

Lady Teazle. Then why will you endeavour to make yourself so disagreeable to me, and thwart me in every little elegant expense?

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6. Embroidery-frame.
7. An old-fashioned game of cards.
8. Ponies.

Sir Peter. 'Slife, madam, I say, had you any of these elegant expenses when you married me?

Lady Teazle. Lud, Sir Peter! would you have me be out of the fashion?

Sir Peter. The fashion, indeed! what had you to do with the fashion before you married me?

Lady Teazle. For my part, I should think you would like to have your wife thought a woman of taste.

Sir Peter. Aye—there again—taste! Zounds! madam, you had no taste when you married *me!*

Lady Teazle. That's very true, indeed, Sir Peter! and, *after* having married you, I am sure I should never pretend to taste again! But now, Sir Peter, if we have finished our daily jangle, I presume I may go to my engagement of [at] Lady Sneerwell's?

Sir Peter. Aye—there's another precious circumstance!—a charming set of acquaintances you have made there!

Lady Teazle. Nay, Sir Peter, they are people of rank and fortune, and remarkably tenacious of reputation.

Sir Peter. Yes, egad, they are tenacious of reputation with a vengeance; for they don't choose anybody should have a character but themselves! Such a crew! Ah! many a wretch has rid on a hurdle [9] who has done less mischief than those utterers of forged tales, coiners of scandal—and clippers of reputation.

Lady Teazle. What! would you restrain the freedom of speech?

Sir Peter. Oh! they have made you just as bad as any one of the society.

Lady Teazle. Why, I believe I do bear a part with a tolerable grace. But I vow I have no malice against the people I abuse; when I say an ill-natured thing, 'tis out of pure good humour—and I take it for granted they deal exactly in the same manner with me. But, Sir Peter, you know you promised to come to Lady Sneerwell's too.

Sir Peter. Well, well, I'll call in just to look after my own character.

Lady Teazle. Then, indeed, you must make haste after me or you'll be too late. So good-bye to ye. (*Exit* LADY TEAZLE.)

Sir Peter. So—I have gained much by my intended expostulations! Yet with what a charming air she contradicts everything I say, and how pleasingly she shows her contempt of my authority! Well, though I

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9. Rough cart on which criminals were taken to the place of execution. "Hurdles, with four, five, six wretches convicted of counterfeiting or mutilating the money of the realm, were dragged month after month up Holborn Hill."

can't make her love me, there is a great satisfaction in quarrelling with her; and I think she never appears to such advantage as when she's doing everything in her power to plague me. (*Exit*.)

SCENE II–LADY SNEERWELL'S

Lady Sneerwell. Nay, positively, we will hear it.
Joseph Surface. Yes, yes, the epigram, by all means.
Sir Benjamin. Plague on't, uncle! 'tis mere nonsense.
Crabtree. No, no; 'fore gad, very clever for an extempore!
Sir Benjamin. But, ladies, you should be acquainted with the circumstance–you must know, that one day last week, as Lady Betty Curricle was taking the dust in Hyde Park, in a sort of *duodecimo* [10] phaeton, she desired me to write some verses on her ponies; upon which, I took out my pocket-book, and in one moment produced the following:

> Sure never were seen two such beautiful ponies!
> Other horses are clowns, and these macaronies!
> Nay, to give 'em this title I'm sure isn't wrong–
> Their legs are so slim, and their tails are so long.

Crabtree. There, ladies–done in the smack of a whip, and on horseback too!
Joseph Surface. A very Phoebus, mounted–indeed, Sir Benjamin.
Sir Benjamin. O dear sir–trifles–trifles.

Enter LADY TEAZLE *and* MARIA.

Mrs. Candour. I must have a copy.
Lady Sneerwell. Lady Teazle, I hope we shall see Sir Peter.
Lady Teazle. I believe he'll wait on your ladyship presently.
Lady Sneerwell. Maria, my love, you look grave. Come, you shall sit down to cards with Mr. Surface.
Maria. I take very little pleasure in cards–however, I'll do as your ladyship pleases.
Lady Teazle (*aside*). I am surprised Mr. Surface should sit down with *her*. I thought he would have embraced this opportunity of speaking to me before Sir Peter came.

10. Diminutive.

Mrs. Candour. Now, I'll die but you are so scandalous, I'll forswear your society.

Lady Teazle. What's the matter, Mrs. Candour?

Mrs. Candour. They'll not allow our friend Miss Vermilion to be handsome.

Lady Sneerwell. Oh, surely, she's a pretty woman.

Crabtree. I am very glad you think so, ma'am.

Mrs. Candour. She has a charming fresh colour.

Lady Teazle. Yes, when it is fresh put on.

Mrs. Candour. O fie! I'll swear her colour is natural–I have seen it come and go.

Lady Teazle. I dare swear you have, ma'am–it goes of a night, and comes again in the morning.

Mrs. Candour. Ha! ha! ha! how I hate to hear you talk so! But surely, now, her sister *is*, or *was*, very handsome.

Crabtree. Who? Mrs. Evergreen?–O Lord! she's six-and-fifty if she's an hour!

Mrs. Candour. Now positively you wrong her; fifty-two or fifty-three is the utmost–and I don't think she looks more.

Sir Benjamin. Ah! there is no judging by her looks, unless one could see her face.

Lady Sneerwell. Well, well, if Mrs. Evergreen *does* take some pains to repair the ravages of time, you must allow she effects it with great ingenuity; and surely that's better than the careless manner in which the widow Ochre caulks her wrinkles.

Sir Benjamin. Nay, now, Lady Sneerwell, you are severe upon the widow. Come, come, it is not that she paints so ill–but, when she has finished her face, she joins it on so badly to her neck, that she looks like a mended statue, in which the connoisseur may see at once that the head's modern, though the trunk's antique!

Crabtree. Ha! ha! ha! Well said, nephew!

Mrs. Candour. Ha! ha! ha! Well, you make me laugh, but I vow I hate you for't. What do you think of Miss Simper?

Sir Benjamin. Why, she has very pretty teeth.

Lady Teazle. Yes; and on that account, when she is neither speaking nor laughing (which very seldom happens), she never absolutely shuts her mouth, but leaves it always on a jar, as it were.

Mrs. Candour. How can you be so ill-natured?

Lady Teazle. Nay, I allow even that's better than the pains Mrs. Prim takes to conceal her losses in front. She draws her mouth till it posi-

tively resembles the aperture of a poor's-box,[11] and all her words appear to slide out edgeways.

Lady Sneerwell. Very well, Lady Teazle; I see you can be a little severe.

Lady Teazle. In defence of a friend it is but justice–but here comes Sir Peter to spoil our pleasantry.

Enter SIR PETER TEAZLE.

Sir Peter. Ladies, your most obedient–Mercy on me, here is the whole set! a character dead at every word, I suppose. (*Aside*.)

Mrs. Candour. I am rejoiced you are come, Sir Peter. They have been *so* censorious. They will allow good qualities to nobody–not even good nature to our friend Mrs. Pursy.

Lady Teazle. What, the fat dowager who was at Mrs. Codille's last night?

Mrs. Candour. Nay, her bulk is her misfortune; and, when she takes such pains to get rid of it, you ought not to reflect on her.

Lady Sneerwell. That's very true, indeed.

Lady Teazle. Yes, I know she almost lives on acids and small whey; laces herself by pulleys; and often, in the hottest noon of summer, you may see her on a little squat pony, with her hair platted up behind like a drummer's, and puffing round the Ring [12] on a full trot.

Mrs. Candour. I thank you, Lady Teazle, for defending her.

Sir Peter. Yes, a good defence, truly.

Mrs. Candour. But Sir Benjamin is as censorious as Miss Sallow.

Crabtree. Yes, and she is a curious being to pretend to be censorious!–an awkward gawky, without any one good point under heaven.

Mrs. Candour. Positively you shall not be so very severe. Miss Sallow is a relation of mine by marriage, and, as for her person, great allowance is to be made; for, let me tell you, a woman labours under many disadvantages who tries to pass for a girl at six-and-thirty.

Lady Sneerwell. Though, surely, she is handsome still–and for the weakness in her eyes, considering how much she reads by candlelight, it is not to be wondered at.

Mrs. Candour. True; and then as to her manner, upon my word I think it is particularly graceful, considering she never had the least education; for you know her mother was a Welsh milliner, and her father a sugar-baker at Bristol.

Sir Benjamin. Ah! you are both of you too good-natured!

11. Referring to the narrow slit in the top of the church contribution-box for the poor of the parish.

12. The fashionable drive originally laid out in Hyde Park by Charles II.

Sir Peter. Yes, damned good-natured! This their own relation! mercy on me! (*Aside.*)

Sir Benjamin. And Mrs. Candour is of so moral a turn she can sit for an hour to hear Lady Stucco talk sentiment.

Lady Teazle. Nay, I vow Lady Stucco is very well with the dessert after dinner; for she's just like the French fruit one cracks for mottoes–made up of paint and proverb.

Mrs. Candour. Well, I never will join in ridiculing a friend; and so I constantly tell my cousin Ogle, and you all know what pretensions she has to be critical in beauty.

Crabtree. Oh, to be sure! she has herself the oddest countenance that ever was seen; 'tis a collection of features from all the different countries of the globe.

Sir Benjamin. So she has, indeed–an Irish front!

Crabtree. Caledonian locks!

Sir Benjamin. Dutch nose!

Crabtree. Austrian lip!

Sir Benjamin. Complexion of a Spaniard!

Crabtree. And teeth *à la Chinoise!*

Sir Benjamin. In short, her face resembles a *table d'hôte* at Spa–where no two guests are of a nation–

Crabtree. Or a congress at the close of a general war–wherein all the members, even to her eyes, appear to have a different interest, and her nose and chin are the only parties likely to join issue.

Mrs. Candour. Ha! ha! ha!

Sir Peter. Mercy on my life!–a person they dine with twice a week! (*Aside.*)

Lady Sneerwell. Go–go–you are a couple of provoking toads.

Mrs. Candour. Nay, but I vow you shall not carry the laugh off so–for give me leave to say, that Mrs. Ogle–

Sir Peter. Madam, madam, I beg your pardon–there's no stopping these good gentlemen's tongues. But when I tell *you,* Mrs. Candour, that the lady they are abusing is a particular friend of mine–I hope you'll not take her part.

Lady Sneerwell. Well said, Sir Peter! but you are a cruel creature–too phlegmatic yourself for a jest, and too peevish to allow wit on others.

Sir Peter. Ah, madam, true wit is more nearly allied to good nature than your ladyship is aware of.

Lady Teazle. True, Sir Peter; I believe they are so near akin that they can never be united.

Sir Benjamin. Or rather, madam, suppose them man and wife, because one so seldom sees them together.

Lady Teazle. But Sir Peter is such an enemy to scandal, I believe he would have it put down by parliament.

Sir Peter. 'Fore heaven, madam, if they were to consider the sporting with reputation of as much importance as poaching on manors, and pass *An Act for the Preservation of Fame,* I believe many would thank them for the bill.

Lady Sneerwell. O lud! Sir Peter; would you deprive us of our privileges?

Sir Peter. Aye, madam; and then no person should be permitted to kill characters or run down reputations, but qualified old maids and disappointed widows.

Lady Sneerwell. Go, you monster!

Mrs. Candour. But sure you would not be quite so severe on those who only report what they hear.

Sir Peter. Yes, madam, I would have law merchant [13] for them too; and in all cases of slander currency, whenever the drawer of the lie was not to be found, the injured parties should have a right to come on any of the indorsers.

Crabtree. Well, for my part, I believe there never was a scandalous tale without some foundation.

Lady Sneerwell. Come, ladies, shall we sit down to cards in the next room?

Enter SERVANT *and whispers* SIR PETER.

Sir Peter. I'll be with them directly.–(*Exit* SERVANT.) I'll get away unperceived. (*Aside*.)

Lady Sneerwell. Sir Peter, you are not leaving us?

Sir Peter. Your ladyship must excuse me; I'm called away by particular business–but I leave my character behind me. (*Exit* SIR PETER.)

Sir Benjamin. Well certainly, Lady Teazle, that lord of yours is a strange being; I could tell you some stories of him would make you laugh heartily, if he wasn't your husband.

Lady Teazle. O pray don't mind that–come, do let's hear them.

They join the rest of the company, all talking as they are going into the next room.

Joseph Surface (*rising with* MARIA). Maria, I see you have no satisfaction in this society.

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13. Mercantile law.

Maria. How is it possible I should? If to raise malicious smiles at the infirmities and misfortunes of those who have never injured us be the province of wit or humour, heaven grant me a double portion of dullness!

Joseph Surface. Yet they appear more ill-natured than they are; they have no malice at heart.

Maria. Then is their conduct still more contemptible; for, in my opinion, nothing could excuse the intemperance of their tongues but a natural and ungovernable bitterness of mind.

Joseph Surface. But can you, Maria, feel thus for others, and be unkind to me alone? Is hope to be denied the tenderest passion?

Maria. Why will you distress me by renewing this subject?

Joseph Surface. Ah, Maria! you would not treat me thus, and oppose your guardian, Sir Peter's will, but that I see that profligate Charles is still a favoured rival.

Maria. Ungenerously urged! But, whatever my sentiments of that unfortunate young man are, be assured I shall not feel more bound to give him up, because his distresses have lost him the regard even of a brother.

LADY TEAZLE *returns*.

Joseph Surface. Nay, but, Maria, do not leave me with a frown–by all that's honest, I swear–Gad's life, here's Lady Teazle– (*Aside*.) You must not–no, you shall not–for, though I have the greatest regard for Lady Teazle–

Maria. Lady Teazle!

Joseph Surface. Yet were Sir Peter to suspect–

Lady Teazle (*coming forward*). What's this, pray? Do you take her for me?–Child, you are wanted in the next room.– (*Exit* MARIA.) What is all this, pray?

Joseph Surface. Oh, the most unlucky circumstance in nature! Maria has somehow suspected the tender concern I have for your happiness, and threatened to acquaint Sir Peter with her suspicions, and I was just endeavouring to reason with her when you came.

Lady Teazle. Indeed! but you seemed to adopt a very tender mode of reasoning–do you *usually* argue on your knees?

Joseph Surface. Oh, she's a child–and I thought a little bombast–but, Lady Teazle, when are you to give me your judgment on my library, as you promised?

Lady Teazle. No, no, I begin to think it would be imprudent, and you know I admit you as a lover no further than *fashion* requires.

Joseph Surface. True–a mere Platonic cicisbeo,[14] what every London wife is *entitled* to.

Lady Teazle. Certainly, one must not be out of the fashion; however, I have so many of my country prejudices left, that, though Sir Peter's ill humour may vex me ever so, it never shall provoke me to–

Joseph Surface. The only revenge in your power. Well, I applaud your moderation.

Lady Teazle. Go–you are an insinuating wretch! But we shall be missed–let us join the company.

Joseph Surface. But we had best not return together.

Lady Teazle. Well, don't stay–for Maria shan't come to hear any more of your *reasoning,* I promise you. (*Exit* LADY TEAZLE.)

Joseph Surface. A curious dilemma, truly, my politics have run me into! I wanted, at first, only to ingratiate myself with Lady Teazle, that she might not be my enemy with Maria; and I have, I don't know how, become her serious lover. Sincerely I begin to wish I had never made such a point of gaining so *very good* a character, for it has led me into so many cursed rogueries that I doubt I shall be exposed at last.

(*Exit*.)

SCENE III–SIR PETER'S

Enter SIR OLIVER SURFACE *and* ROWLEY

Sir Oliver. Ha! ha! ha! and so my old friend is married, hey?–a young wife out of the country. Ha! ha! ha!–that he should have stood bluff [15] to old bachelor so long, and sink into a husband at last!

Rowley. But you must not rally him on the subject, Sir Oliver; 'tis a tender point, I assure you, though he has been married only seven months.

Sir Oliver. Then he has been just half a year on the stool of repentance! Poor Peter! But you say he has entirely given up Charles–never sees him, hey?

Rowley. His prejudice against him is astonishing, and I am sure greatly increased by a jealousy of him with Lady Teazle, which he has been industriously led into by a scandalous society in the neighbourhood, who have contributed not a little to Charles's ill name; whereas the

14. Gallant to a married woman.
15. Steadfast.

truth is, I believe, if the lady is partial to either of them, his brother is the favorite.

Sir Oliver. Aye, I know there are a set of malicious, prating, prudent gossips, both male and female, who murder characters to kill time, and will rob a young fellow of his good name before he has years to know the value of it–but I am not to be prejudiced against my nephew by such, I promise you! No, no; if Charles has done nothing false or mean, I shall compound for his extravagance.

Rowley. Then, my life on't, you will reclaim him. Ah, sir, it gives me new life to find that *your* heart is not turned against him, and that the son of my good old master has one friend, however, left.

Sir Oliver. What! shall I forget, Master Rowley, when I was at his years myself? Egad, my brother and I were neither of us very *prudent* youths–and yet, I believe, you have not seen many better men than your old master was?

Rowley. Sir, 'tis this reflection gives me assurance that Charles may yet be a credit to his family. But here comes Sir Peter.

Sir Oliver. Egad, so he does! Mercy on me, he's greatly altered, and seems to have a settled married look! One may read husband in his face at this distance!

Enter SIR PETER TEAZLE.

Sir Peter. Hah! Sir Oliver–my old friend! Welcome to England a thousand times!

Sir Oliver. Thank you, thank you, Sir Peter! and i'faith I am glad to find you well, believe me!

Sir Peter. Ah! 'tis a long time since we met–sixteen years, I doubt, Sir Oliver, and many a cross accident in the time.

Sir Oliver. Aye, I have had my share–but, what! I find you are married, hey, my old boy? Well, well, it can't be helped–and so I wish you joy with all my heart!

Sir Peter. Thank you, thank you, Sir Oliver. Yes, I have entered into the happy state–but we'll not talk of that now.

Sir Oliver. True, true, Sir Peter; old friends should not begin on grievances at first meeting. No, no, no.

Rowley (*to* SIR OLIVER). Take care, pray, sir.

Sir Oliver. Well, so one of my nephews is a wild rogue, hey?

Sir Peter. Wild! Ah! my old friend, I grieve for your disappointment there–he's a lost young man, indeed; however, his brother will make you

amends; Joseph is, indeed, what a youth should be–everybody in the world speaks well of him.

Sir Oliver. I am sorry to hear it–he has too good a character to be an honest fellow. Everybody speaks well of him! Psha! then he has bowed as low to knaves and fools as to the honest dignity of genius or virtue.

Sir Peter. What, Sir Oliver! do you blame him for not making enemies?

Sir Oliver. Yes, if he has merit enough to deserve them.

Sir Peter. Well, well–you'll be convinced when you know him. 'Tis edification to hear him converse–he professes the noblest sentiments.

Sir Oliver. Ah, plague of his sentiments! If he salutes me with a scrap of morality in his mouth, I shall be sick directly. But, however, don't mistake me, Sir Peter; I don't mean to defend Charles's errors–but, before I form my judgment of either of them, I intend to make a trial of their hearts–and my friend Rowley and I have planned something for the purpose.

Rowley. And Sir Peter shall own for once he has been mistaken.

Sir Peter. Oh, my life on Joseph's honour!

Sir Oliver. Well, come, give us a bottle of good wine, and we'll drink the lad's health, and tell you our scheme.

Sir Peter. Allons, then!

Sir Oliver. And don't, Sir Peter, be so severe against your old friend's son. Odds my life! I am not sorry that he has run out of the course a little; for my part, I hate to see prudence clinging to the green succours of youth; 'tis like ivy round a sapling, and spoils the growth of the tree. (*Exeunt.*)

ACT III

SCENE I–SIR PETER'S

Sir Peter. Well, then–we will see this fellow first, and have our wine afterwards. But how is this, Master Rowley? I don't see the jet [16] of your scheme.

Rowley. Why, sir, this Mr. Stanley, whom I was speaking of, is nearly related to them, by their mother; he was once a merchant in Dublin, but has been ruined by a series of undeserved misfortunes. He has

16. Point, gist.

applied, by letter, since his confinement, both to Mr. Surface and Charles—from the former he has received nothing but evasive promises of future service, while Charles has done all that his extravagance has left him power to do; and he is, at this time, endeavouring to raise a sum of money, part of which, in the midst of his own distresses, I know he intends for the service of poor Stanley.

Sir Oliver. Ah! he is my brother's son.

Sir Peter. Well, but how is Sir Oliver personally to—

Rowley. Why, sir, I will inform Charles and his brother that Stanley has obtained permission to apply in person to his friends, and, as they have neither of them ever seen him, let Sir Oliver assume his character, and he will have a fair opportunity of judging at least of the benevolence of their dispositions; and believe me, sir, you will find in the youngest brother one who, in the midst of folly and dissipation, has still, as our immortal bard expresses it—

a tear for pity, and a hand
Open as day, for melting charity.[17]

Sir Peter. Psha! What signifies his having an open hand or purse either, when he has nothing left to give? Well, well, make the trial, if you please; but where is the fellow whom you brought for Sir Oliver to examine, relative to Charles's affairs?

Rowley. Below, waiting his commands, and no one can give him better intelligence. This, Sir Oliver, is a friendly Jew, who, to do him justice, has done everything in his power to bring your nephew to a proper sense of his extravagance.

Sir Peter. Pray let us have him in.

Rowley. Desire Mr. Moses to walk upstairs.

Sir Peter. But why should you suppose he will speak the truth?

Rowley. Oh, I have convinced him that he has no chance of recovering certain sums advanced to Charles but through the bounty of Sir Oliver, who he knows is arrived; so that you may depend on his fidelity to his [own] interest. I have also another evidence in my power, one Snake, whom I have detected in a matter little short of forgery, and shall shortly produce to remove some of *your* prejudices, Sir Peter, relative to Charles and Lady Teazle.

Sir Peter. I have heard too much on that subject.

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17. See *Great Books of the Western World.*

Rowley. Here comes the honest Israelite.

Enter MOSES.

–This is Sir Oliver.

Sir Oliver. Sir, I understand you have lately had great dealings with my nephew Charles.

Moses. Yes, Sir Oliver–I have done all I could for him, but he was ruined before he came to me for assistance.

Sir Oliver. That was unlucky, truly–for you have had no opportunity of showing your talents.

Moses. None at all–I hadn't the pleasure of knowing his distresses–till he was some thousands worse than nothing.

Sir Oliver. Unfortunate, indeed! But I suppose you have done all in your power for him, honest Moses?

Moses. Yes, he knows that. This very evening I was to have brought him a gentleman from the city, who doesn't know him, and will, I believe, advance him some money.

Sir Peter. What, one Charles has never had money from before?

Moses. Yes; Mr. Premium, of Crutched Friars [18]–formerly a broker.

Sir Peter. Egad, Sir Oliver, a thought strikes me!–Charles, you say, doesn't know Mr. Premium?

Moses. Not at all.

Sir Peter. Now then, Sir Oliver, you may have a better opportunity of satisfying yourself than by an old romancing tale of a poor relation; go with my friend Moses, and represent Mr. Premium, and then, I'll answer for't, you will see your nephew in all his glory.

Sir Oliver. Egad, I like this idea better than the other, and I may visit Joseph afterwards, as old Stanley.

Sir Peter. True–so you may.

Rowley. Well, this is taking Charles rather at a disadvantage, to be sure. However, Moses–you understand Sir Peter, and will be faithful?

Moses. You may depend upon me–this is near the time I was to have gone.

Sir Oliver. I'll accompany you as soon as you please, Moses; but hold! I have forgot one thing–how the plague shall I be able to pass for a Jew?

Moses. There's no need–the principal is Christian.

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18. A street, not far from the Tower of London, named from an old Convent of Crossed or Crouched Friars.

Sir Oliver. Is he?–I'm sorry to hear it–but, then again, an't I rather too smartly dressed to look like a money-lender?

Sir Peter. Not at all; 'twould not be out of character, if you went in your own carriage–would it, Moses?

Moses. Not in the least.

Sir Oliver. Well, but how must I talk? there's certainly some cant of usury, and mode of treating, that I ought to know.

Sir Peter. Oh, there's not much to learn–the great point, as I take it, is to be exorbitant enough in your demands–hey, Moses?

Moses. Yes, that's a very great point.

Sir Oliver. I'll answer for't I'll not be wanting in that. I'll ask him eight or ten per cent on the loan, at least.

Moses. If you ask him no more than that, you'll be discovered immediately.

Sir Oliver. Hey! what the plague! how much then?

Moses. That depends upon the circumstances. If he appears not very anxious for the supply, you should require only forty or fifty per cent; but if you find him in great distress, and want the moneys very bad–you may ask double.

Sir Peter. A good honest trade you're learning, Sir Oliver!

Sir Oliver. Truly I think so–and not unprofitable.

Moses. Then, you know, you haven't the moneys yourself, but are forced to borrow them for him of a friend.

Sir Oliver. Oh! I borrow it of a friend, do I?

Moses. Yes, and your friend is an unconscionable dog, but you can't help it.

Sir Oliver. My friend is an unconscionable dog, is he?

Moses. Yes, and he himself has not the moneys by him–but is forced to sell stock at a great loss.

Sir Oliver. He is forced to sell stock, is he, at a great loss, is he? Well, that's very kind of him.

Sir Peter. I'faith, Sir Oliver–Mr. Premium, I mean–you'll soon be master of the trade. But, Moses! wouldn't you have him run out a little against the Annuity Bill? [19] That would be in character, I should think.

Moses. Very much.

Rowley. And lament that a young man now must be at years of discretion before he is suffered to ruin himself?

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19. The Annuity Bill, presented in the House of Commons, April 29, 1777, and passed in May (after the first performance of *The* S. *for* S.) was aimed to safeguard minors against grantors of life annuities.

Moses. Aye, great pity!

Sir Peter. And abuse the public for allowing merit to an act whose only object is to snatch misfortune and imprudence from the rapacious relief of usury, and give the minor a chance of inheriting his estate without being undone by coming into possession.

Sir Oliver. So, so–Moses shall give me further instructions as we go together.

Sir Peter. You will not have much time, for your nephew lives hard by.

Sir Oliver. Oh, never fear! my tutor appears so able, that though Charles lived in the next street, it must be my own fault if I am not a complete rogue before I turn the corner.

(*Exeunt* SIR OLIVER *and* MOSES.)

Sir Peter. So now I think Sir Oliver will be convinced; you are partial, Rowley, and would have prepared Charles for the other plot.

Rowley. No, upon my word, Sir Peter.

Sir Peter. Well, go bring me this Snake, and I'll hear what he has to say presently. I see Maria, and want to speak with her. (*Exit* ROWLEY.) I should be glad to be convinced my suspicions of Lady Teazle and Charles were unjust. I have never yet opened my mind on this subject to my friend Joseph–I'm determined I will do it–*he* will give me his opinion sincerely.

Enter MARIA.

So, child, has Mr. Surface returned with you?

Maria. No, sir–he was engaged.

Sir Peter. Well, Maria, do you not reflect, the more you converse with that amiable young man, what return his partiality for you deserves?

Maria. Indeed, Sir Peter, your frequent importunity on this subject distresses me extremely–you compel me to declare, that I know no man who has ever paid me a particular attention whom I would not prefer to Mr. Surface.

Sir Peter. So–here's perverseness! No, no, Maria, 'tis Charles only whom you would prefer–'tis evident his vices and follies have won your heart.

Maria. This is unkind, sir–you know I have obeyed you in neither seeing nor corresponding with him; I have heard enough to convince me that he is unworthy my regard. Yet I cannot think it culpable, if, while my understanding severely condemns his vices, my heart suggests some pity for his distresses.

Sir Peter. Well, well, pity him as much as you please, but give your heart and hand to a worthier object.

Maria. Never to his brother!

Sir Peter. Go, perverse and obstinate! But take care, madam; you have never yet known what the authority of a guardian is—don't compel me to inform you of it.

Maria. I can only say, you shall not have *just* reason. 'Tis true, by my father's will, I am for a short period bound to regard you as his substitute, but must cease to think you so, when you would compel me to be miserable. (*Exit* MARIA.)

Sir Peter. Was ever man so crossed as I am! everything conspiring to fret me! I had not been involved in matrimony a fortnight, before her father, a hale and hearty man, died—on purpose, I believe, for the pleasure of plaguing me with the care of his daughter. But here comes my helpmate! She appears in great good humour. How happy I should be if I could tease her into loving me, though but a little!

Enter LADY TEAZLE.

Lady Teazle. Lud! Sir Peter, I hope you haven't been quarrelling with Maria—it isn't using me well to be ill humoured when I am not by.

Sir Peter. Ah, Lady Teazle, you might have the power to make me good humoured at all times.

Lady Teazle. I am sure I wish I had—for I want you to be in charming sweet temper at this moment. Do be good humoured now, and let me have two hundred pounds, will you?

Sir Peter. Two hundred pounds! what, an't I to be in a good humour without paying for it! But speak to me thus, and i'faith there's nothing I could refuse you. You shall have it; but seal me a bond for the repayment.

Lady Teazle. O, no—there—my note of hand will do as well.

Sir Peter (*kissing her hand*). And you shall no longer reproach me with not giving you an independent settlement—I mean shortly to surprise you; but shall we always live thus, hey?

Lady Teazle. If you please. I'm sure I don't care how soon we leave off quarrelling, provided you'll own *you* were tired first.

Sir Peter. Well—then let our future contest be, who shall be most obliging.

Lady Teazle. I assure you, Sir Peter, good nature becomes you. You look now as you did before we were married!—when you used to walk with me under the elms, and tell me stories of what a gallant you were in your youth, and chuck me under the chin, you would, and

ask me if I thought I could love an old fellow, who would deny me nothing–didn't you?

Sir Peter. Yes, yes, and you were as kind and attentive.

Lady Teazle. Aye, so I was, and would always take your part, when my acquaintance used to abuse you, and turn you into ridicule.

Sir Peter. Indeed!

Lady Teazle. Aye, and when my cousin Sophy has called you a stiff, peevish old bachelor, and laughed at me for thinking of marrying one who might be my father, I have always defended you–and said, I didn't think you so ugly by any means, and that I dared say you'd make a very good sort of a husband.

Sir Peter. And you prophesied right–and we shall certainly now be the happiest couple–

Lady Teazle. And never differ again!

Sir Peter. No, never!–though at the same time, indeed, my dear Lady Teazle, you must watch your temper very narrowly; for in all our little quarrels, my dear, if you recollect, my love, you always began first.

Lady Teazle. I beg your pardon, my dear Sir Peter: indeed, you always gave the provocation.

Sir Peter. Now, see, my angel! take care–*contradicting* isn't the way to keep friends.

Lady Teazle. Then, don't *you* begin it, my love!

Sir Peter. There, now! you–you are going on–you don't perceive, my life, that you are just doing the very thing which you know always makes me angry.

Lady Teazle. Nay, you know if you will be angry without any reason–

Sir Peter. There now! you want to quarrel again.

Lady Teazle. No, I am sure I don't–but, if you will be so peevish–

Sir Peter. There now! who begins first?

Lady Teazle. Why, you, to be sure. I said nothing–but there's no bearing your temper.

Sir Peter. No, no, madam, the fault's in your own temper.

Lady Teazle. Aye, you are just what my cousin Sophy said you would be.

Sir Peter. Your cousin Sophy is a forward, impertinent gipsy.

Lady Teazle. You are a great bear, I'm sure, to abuse my relations.

Sir Peter. Now may all the plagues of marriage be doubled on me, if ever I try to be friends with you any more!

Lady Teazle. So much the better.

Sir Peter. No, no, madam; 'tis evident you never cared a pin for me, and

I was a madman to marry you–a pert, rural coquette, that had refused half the honest squires in the neighbourhood!

Lady Teazle. And I am sure I was a fool to marry you–an old dangling bachelor, who was single at fifty, only because he never could meet with any one who would have him.

Sir Peter. Aye, aye, madam; but you were pleased enough to listen to me–*you* never had such an offer before.

Lady Teazle. No! didn't I refuse Sir Twivy Tarrier, who everybody said would have been a better match–for his estate is just as good as yours–and he has broke his neck since we have been married.

Sir Peter. I have done with you, madam! You are an unfeeling, ungrateful–but there's an end of everything. I believe you capable of anything that's bad. Yes, madam, I now believe the reports relative to you and Charles, madam–yes, madam, you and Charles–are not without grounds–

Lady Teazle. Take care, Sir Peter! you had better not insinuate any such thing! I'll not be suspected with*out cause*, I promise you.

Sir Peter. Very well, madam! very well! a separate maintenance as soon as you please. Yes, madam, or a divorce! I'll make an example of myself for the benefit of all old bachelors. Let us separate, madam.

Lady Teazle. Agreed! agreed! And now, my dear Sir Peter, we are of a mind once more, we may be the *happiest couple,* and *never differ again,* you know: ha! ha! Well, you are going to be in a passion, I see, and I shall only interrupt you–so, bye-bye! (*Exit*.)

Sir Peter. Plagues and tortures! can't I make her angry neither? Oh, I am the miserablest fellow! But I'll not bear her presuming to keep her temper–no! she may break my heart, but she shan't keep her temper. (*Exit*.)

SCENE II–CHARLES'S *house*

Enter TRIP, MOSES, *and* SIR OLIVER SURFACE.

Trip. Here, Master Moses! if you'll stay a moment, I'll try whether–what's the gentleman's name?

Sir Oliver. Mr. Moses, what *is* my name? (*Aside*.)

Moses. Mr. Premium.

Trip. Premium–very well. (*Exit* TRIP, *taking snuff*.)

Sir Oliver. To judge by the servants, one wouldn't believe the master was ruined. But what!–sure, this was my brother's house?

Moses. Yes, sir; Mr. Charles bought it of Mr. Joseph, with the furniture,

pictures, etc., just as the old gentleman left it–Sir Peter thought it a great piece of extravagance in him.

Sir Oliver. In my mind, the other's economy in *selling* it to him was more reprehensible by half.

Re-enter TRIP.

Trip. My master says you must wait, gentlemen; he has company, and can't speak with you yet.

Sir Oliver. If he knew *who* it was wanted to see him, perhaps he wouldn't have sent such a message?

Trip. Yes, yes, sir; he knows *you* are here–I didn't forget little Premium–no, no, no.

Sir Oliver. Very well–and I pray, sir, what may be your name?

Trip. Trip, sir–my name is Trip, at your service.

Sir Oliver. Well, then, Mr. Trip, you have a pleasant sort of a place here, I guess.

Trip. Why, yes–here are three or four of us pass our time agreeably enough; but then our wages are sometimes a little in arrear–and not very great either–but fifty pounds a year, and find our own bags and bouquets.[20]

Sir Oliver (*aside*). Bags and bouquets! halters and bastinadoes!

Trip. But à *propos,* Moses, have you been able to get me that little bill discounted?

Sir Oliver (*aside*). Wants to raise money, too!–mercy on me! Has his distresses, I warrant, like a lord and affects creditors and duns.

Moses. 'Twas not to be done, indeed, Mr. Trip. (*Gives the note.*)

Trip. Good lack, you surprise me! My friend *Brush* has indorsed it, and I thought when he put his mark on the back of a bill 'twas as good as cash.

Moses. No, 'twouldn't do.

Trip. A small sum–but twenty pounds. Hark'ee, Moses, do you think you couldn't get it me by way of annuity?

Sir Oliver (*aside*). An annuity! ha! ha! ha! a footman raise money by way of annuity! Well done, luxury, egad!

Moses. But you must insure your place.

Trip. Oh, with all my heart! I'll insure my place, and my life too, if you please.

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20. Footman's trappings. The back-hair of the bag-wig was enclosed in an ornamental bag.

Sir Oliver (*aside*). It's more than I would your neck.

Trip. But then, Moses, it must be done before this d–d register [21] takes place–one wouldn't like to have one's name made public, you know.

Moses. No, certainly. But is there nothing you could deposit?

Trip. Why, nothing capital of my master's wardrobe has dropped lately; but I could give you a mortgage on some of his winter clothes, with equity of redemption before November–or you shall have the reversion of the French velvet, or a post-obit [22] on the blue and silver; these, I should think, Moses, with a few pair of point ruffles, as a collateral security–hey, my little fellow?

Moses. Well, well. (*Bell rings*.)

Trip. Gad, I heard the bell! I believe, gentlemen, I can now introduce you. Don't forget the annuity, little Moses! This way, gentlemen, insure my place, you know.

Sir Oliver (*aside*). If the man be a shadow of his master, this is the temple of dissipation indeed! (*Exeunt*.)

SCENE III–CHARLES SURFACE, CARELESS, ETC., ETC.,
at a table with wine, etc.

Charles Surface. 'Fore heaven, 'tis true!–there's the great degeneracy of the age. Many of our acquaintance have taste, spirit, and politeness; but, plague on't, they won't drink.

Careless. It is so, indeed, Charles! they give in to all the substantial luxuries of the table, and abstain from nothing but wine and wit.

Charles Surface. Oh, certainly society suffers by it intolerably! for now, instead of the social spirit of raillery that used to mantle over a glass of bright Burgundy, their conversation is become just like the Spawater they drink, which has all the pertness and flatulence of champagne, without its spirit or flavour.

First Gentleman. But what are *they* to do who love play better than wine?

Careless. True! there's Harry diets himself for gaming, and is now under a hazard regimen.[23]

Charles Surface. Then he'll have the worst of it. What! you wouldn't train a horse for the course by keeping him from corn! For my part, egad,

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21. Another reference to the Annuity Bill of 1777, proposed on April 29, and passed in May. It provided "for registering the Grants of Life Annuities."
22. Future claim.
23. "Keeps in strict training for gambling."

I am now never so successful as when I am a little merry–let me throw on a bottle of champagne, and I never lose–at least I never feel my losses, which is exactly the same thing.

Second Gentleman. Aye, that I believe.

Charles Surface. And, then, what man can pretend to be a believer in love, who is an abjurer of wine? 'Tis the test by which the lover knows his own heart. Fill a dozen bumpers to a dozen beauties, and she that floats at top is the maid that has bewitched you.

Careless. Now then, Charles, be honest, and give us your real favourite.

Charles Surface. Why, I have withheld her only in compassion to you. If I toast her, you must give a round of her peers–which is impossible–on earth.

Careless. Oh, then we'll find some canonized vestals or heathen goddesses that will do, I warrant!

Charles Surface. Here then, bumpers, you rogues! bumpers! Maria! Maria– (*Drink*.)

First Gentleman. Maria who?

Charles Surface. O, damn the surname!–'tis too formal to be registered in Love's calendar–but now, Sir Toby Bumper, beware–we must have beauty superlative.

Careless. Nay, never study, Sir Toby: we'll stand to the toast, though your mistress should want an eye–and you know you have a song will excuse you.

Sir Toby. Egad, so I have! and I'll give him the song instead of the lady. (*Sings*.)

SONG AND CHORUS

Here's to the maiden of bashful fifteen;
Here's to the widow of fifty;
Here's to the flaunting extravagant quean,
And here's to the housewife that's thrifty.
Chorus. Let the toast pass–
Drink to the lass–
I'll warrant she'll prove an excuse for the glass.

Here's to the charmer whose dimples we prize;
Now to the maid who has none, sir;
Here's to the girl with a pair of blue eyes,
And here's to the nymph with but one, sir.
Chorus. Let the toast pass, etc.

Here's to the maid with a bosom of snow:
Now to *her* that's as brown as a berry:
Here's to the wife with a face full of woe,
And now for the damsel that's merry.
Chorus. Let the toast pass, etc.

For let 'em be clumsy, or let 'em be slim,
Young or ancient, I care not a feather:
So fill a pint bumper quite up to the brim,
–And let us e'en toast 'em together.
Chorus. Let the toast pass, etc.

All. Bravo! Bravo!

Enter TRIP, *and whispers* CHARLES SURFACE.

Charles Surface. Gentlemen, you must excuse me a little.–Careless, take the chair, will you?

Careless. Nay, prithee, Charles, what now? This is one of your peerless beauties, I suppose, has dropped in by chance?

Charles Surface. No, faith! To tell you the truth, 'tis a Jew and a broker, who are come by appointment.

Careless. Oh, damn it! let's have the Jew in–

First Gentleman. Aye, and the broker too, by all means.

Second Gentleman. Yes, yes, the Jew and the broker.

Charles Surface. Egad, with all my heart!–Trip, bid the gentlemen walk in. (*Exit* TRIP.)
Though there's one of them a stranger, I can tell you.

Careless. Charles, let us give them some generous Burgundy, and perhaps they'll grow conscientious.

Charles Surface. Oh, hang 'em, no! wine does but draw forth a man's *natural* qualities; and to make *them* drink would only be to whet their knavery.

Enter TRIP, SIR OLIVER SURFACE, *and* MOSES.

Charles Surface. So, honest Moses; walk in, pray, Mr. Premium–that's the gentleman's name, isn't it, Moses?

Moses. Yes, sir.

Charles Surface. Set chairs, Trip.–Sit down, Mr. Premium.–Glasses, Trip.–Sit down, Moses.–Come, Mr. Premium, I'll give you a sentiment; here's "Success to usury!"–Moses, fill the gentleman a bumper.

Moses. Success to usury!

Careless. Right, Moses–usury is prudence and industry, and deserves to succeed.

Sir Oliver. Then here's–All the success it deserves!

Careless. No, no, that won't do! Mr. Premium, you have demurred to the toast, and must drink it in a pint bumper.

First Gentleman. A pint bumper, at least.

Moses. Oh, pray, sir, consider–Mr. Premium's a gentleman.

Careless. And therefore loves good wine.

Second Gentleman. Give Moses a quart glass–this is mutiny, and a high contempt of the chair.

Careless. Here, now for't! I'll see justice done, to the last drop of my bottle.

Sir Oliver. Nay, pray, gentlemen–I did not expect this usage.

Charles Surface. No, hang it, Careless, you shan't; Mr. Premium's a stranger.

Sir Oliver (*aside*). Odd! I wish I was well out of this company.

Careless. Plague on 'em then! if they won't drink, well not sit down with 'em. Come, Harry, the dice are in the next room.–Charles, you'll join us–when you have finished your business with these gentlemen?

Charles Surface. I will! I will! (*Exeunt Gentlemen*.) Careless!

Careless (*returning*). Well!

Charles Surface. Perhaps I may want *you*.

Careless. Oh, you know I am always ready–word, note, or bond, 'tis all the same to me. (*Exit*.)

Moses. Sir, this is Mr. Premium, a gentleman of the strictest honour and secrecy; and always performs what he undertakes. Mr. Premium, this is–

Charles Surface. Pshaw! have done! Sir, my friend Moses is a very honest fellow, but a little slow at expression; he'll be an hour giving us our titles. Mr. Premium, the plain state of the matter is this–I am an extravagant young fellow who wants money to borrow; you I take to be a prudent old fellow, who has got money to lend. I am blockhead enough to give fifty per cent sooner than not have it; and you, I presume, are rogue enough to take a hundred if you could get it. Now, sir, you see we are acquainted at once, and may proceed to business without farther ceremony.

Sir Oliver. Exceeding frank, upon my word. I see, sir, you are not a man of many compliments.

Charles Surface. Oh, no, sir! plain dealing in business I always think best.

Sir Oliver. Sir, I like you the better for't. However, you are mistaken in one thing–I have no money to lend, but I believe I could procure some of a friend; but then he's an unconscionable dog–isn't he, Moses? And must sell stock to accommodate you–mustn't he, Moses?

Moses. Yes, indeed! You know I always speak the truth, and scorn to tell a lie!

Charles Surface. Right! People that expect truth generally do. But these are trifles, Mr. Premium. What! I know money isn't to be bought without paying for't!

Sir Oliver. Well, but what security could you give? You have no land, I suppose?

Charles Surface. Not a mole-hill, not a twig, but what's in beau-pots [24] out at the window!

Sir Oliver. Nor any stock, I presume?

Charles Surface. Nothing but live stock–and that's only a few pointers and ponies. But pray, Mr. Premium, are you acquainted at all with any of my connections?

Sir Oliver. Why, to say truth, I am.

Charles Surface. Then you must know that I have a devilish rich uncle in the East Indies, Sir *Oliver Surface,* from whom I have the greatest expectations.

Sir Oliver. That you have a wealthy uncle, I have heard–but how your expectations will turn out is more, I believe, than you can tell.

Charles Surface. Oh, no!–there can be no doubt–they tell me I'm a prodigious favourite–and that he talks of leaving me everything.

Sir Oliver. Indeed! this is the first I've heard on't.

Charles Surface. Yes, yes, 'tis just so. Moses knows 'tis true; don't you, Moses?

Moses. Oh, yes! I'll swear to't.

Sir Oliver (*aside*). Egad, they'll persuade me presently I'm at Bengal.

Charles Surface. Now I propose, Mr. Premium, if it's agreeable to you, a post-obit on Sir Oliver's life; though at the same time the old fellow has been so liberal to me that I give you my word I should be very sorry to hear anything had happened to him.

Sir Oliver. Not more than *I* should, I assure you. But the bond you mention happens to be just the worst security you could offer me–for I might live to a hundred and never recover the principal.

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24. Large ornamental flower-pots.

Charles Surface. Oh, yes, you would!–the moment Sir Oliver dies, you know, you'd come on me for the money.

Sir Oliver. Then I believe I should be the most unwelcome dun you ever had in your life.

Charles Surface. What! I suppose you are afraid now that Sir Oliver is too good a life?

Sir Oliver. No, indeed I am not–though I have heard he is as hale and healthy as any man of his years in Christendom.

Charles Surface. There again you are misinformed. No, no, the climate has hurt him considerably, poor uncle Oliver. Yes, he breaks apace, I'm told–and so much altered lately that his nearest relations don't know him.

Sir Oliver. No! Ha! ha! ha! so much altered lately that his relations don't know him! Ha! ha! ha! that's droll, egad–ha! ha! ha!

Charles Surface. Ha! ha!–you're glad to hear that, little Premium.

Sir Oliver. No, no, I'm not.

Charles Surface. Yes, yes, you are–ha! ha! ha!–you know that mends your chance.

Sir Oliver. But I'm told Sir Oliver is coming over–nay, some say he is actually arrived.

Charles Surface. Pshaw! sure I must know better than you whether he's come or not. No, no, rely on't, he is at this moment at Calcutta, isn't he, Moses?

Moses. Oh, yes, certainly.

Sir Oliver. Very true, as you say, you must know better than I, though I have it from pretty good authority–haven't I, Moses?

Moses. Yes, most undoubted!

Sir Oliver. But, sir, as I understand you want a few hundreds immediately, is there nothing you would dispose of?

Charles Surface. How do you mean?

Sir Oliver. For instance, now–I have heard–that your father left behind him a great quantity of massy old plate.

Charles Surface. O lud! that's gone long ago–Moses can tell you how better than I can.

Sir Oliver. Good lack! all the family race-cups and corporation-bowls! (*Aside*.)–Then it was also supposed that his library was one of the most valuable and complete.

Charles Surface. Yes, yes, so it was–vastly too much so for a private gentleman–for my part, I was always of a communicative disposition, so I thought it a shame to keep so much knowledge to myself.

Sir Oliver (*aside*). Mercy on me! learning that had run in the family like an heirloom!–(*Aloud.*) Pray, what are become of the books?

Charles Surface. You must inquire of the auctioneer, Master Premium, for I don't believe even Moses can direct you there.

Moses. I never meddle with books.

Sir Oliver. So, so, nothing of the family property left, I suppose?

Charles Surface. Not much, indeed; unless you have a mind to the family pictures. I have got a room full of ancestors above–and if you have a taste for old paintings, egad, you shall have 'em a bargain!

Sir Oliver. Hey! and the devil! sure, you wouldn't sell your forefathers, would you?

Charles Surface. Every man of 'em, to the best bidder.

Sir Oliver. What! your great-uncles and aunts?

Charles Surface. Aye, and my great-grandfathers and grandmothers too.

Sir Oliver. Now I give him up! (*Aside.*)–What the plague, have you no bowels for your own kindred? Odd's life! do you take me for Shylock in the play, that you would raise money of me on your own flesh and blood?

Charles Surface. Nay, my little broker, don't be angry: what need *you* care, if you have your money's worth?

Sir Oliver. Well, I'll be the purchaser–I think I can dispose of the family.–(*Aside.*) Oh, I'll never forgive him this! never!

Enter CARELESS.

Careless. Come, Charles, what keeps you?

Charles Surface. I can't come yet. I'faith! we are going to have a sale above–here's little Premium will buy all my ancestors!

Careless. Oh, burn your ancestors!

Charles Surface. No, he may do that afterwards, if he pleases. Stay, Careless, we want you; egad, you shall be auctioneer–so come along with us.

Careless. Oh, have with you, if that's the case. I can handle a hammer as well as a dice box!

Sir Oliver. Oh, the profligates! (*Aside.*)

Charles Surface. Come, Moses, you shall be appraiser, if we want one.–Gad's life, little Premium, you don't seem to like the business.

Sir Oliver. Oh, yes, I do, vastly! Ha! ha! yes, yes, I think it a rare joke to sell one's family by auction–ha! ha!–(*Aside.*) Oh, the prodigal!

Charles Surface. To be sure! when a man wants money, where the plague

should he get assistance, if he can't make free with his own relations? (*Exeunt.*)

ACT IV

SCENE I–*Picture-room at* CHARLES'

Enter CHARLES SURFACE, SIR OLIVER SURFACE, MOSES, *and* CARELESS.

Charles Surface. Walk in, gentlemen, pray walk in!–here they are, the family of the Surfaces, up to the Conquest.

Sir Oliver. And, in my opinion, a goodly collection.

Charles Surface. Aye, aye, these are done in true spirit of portrait-painting–no volunteer grace or expression–not like the works of your modern Raphael, who gives you the strongest resemblance, yet contrives to make your own portrait independent of you; so that you may sink the original and not hurt the picture. No, no; the merit of these is the inveterate likeness–all stiff and awkward as the originals, and like nothing in human nature beside!

Sir Oliver. Ah! We shall never see such figures of men again.

Charles Surface. I hope not. Well, you see, Master Premium, what a domestic character I am–here I sit of an evening surrounded by my family. But come, get to your pulpit, Mr. Auctioneer–here's an old gouty chair of my grandfather's will answer the purpose.

Careless. Aye, aye, this will do. But, Charles, I have ne'er a hammer; and what's an auctioneer without his hammer?

Charles Surface. Egad, that's true. What parchment have we here? (*Takes down a roll.*) *Richard, heir to Thomas*–our genealogy in full. Here, Careless, you shall have no common bit of mahogany–here's the family tree for you, you rogue–this shall be your hammer, and now you may knock down my ancestors with their own pedigree.

Sir Oliver (*aside*). What an unnatural rogue!–an *ex post facto* parricide!

Careless. Yes, yes, here's a list of your generation indeed; faith, Charles, this is the most convenient thing you could have found for the business, for 'twill serve not only as a hammer, but a catalogue into the bargain. But come, begin–A-going, a-going, a-going!

Charles Surface. Bravo, Careless! Well, here's my great uncle, Sir Richard Raviline, a marvellous good general in his day, I assure you. He served in all the Duke of Marlborough's wars, and got that cut over

his eye at the battle of Malplaquet.[25] What say you, Mr. Premium? look at him–there's a hero for you! not cut out of his feathers, as your modern clipped captains are, but enveloped in wig and regimentals, as a general should be. What do you bid?

Moses. Mr. Premium would have you speak.

Charles Surface. Why, then, he shall have him for ten pounds, and I am sure that's not dear for a staff officer.

Sir Oliver. Heaven deliver me! his famous uncle Richard for ten pounds! (*Aside*.)–Very well, sir, I take him at that.

Charles Surface. Careless, knock down my uncle Richard.–Here, now, is a maiden sister of his, my great-aunt Deborah, done by Kneller,[26] thought to be in his best manner, and a very formidable likeness. There she is, you see, a shepherdess feeding her flock. You shall have her for five pounds ten–the sheep are worth the money.

Sir Oliver. Ah! poor Deborah! a woman who set such a value on herself! (*Aside*.)–Five pound ten–she's mine.

Charles Surface. Knock down my aunt Deborah! Here, now, are two that were a sort of cousins of theirs.–You see, Moses, these pictures were done some time ago, when beaux wore wigs, and the ladies wore their own hair.

Sir Oliver. Yes, truly, head-dresses appear to have been a little lower in those days.

Charles Surface. Well, take that couple for the same.

Moses. 'Tis a good bargain.

Charles Surface. Careless!–This, now, is a grandfather of my mother's, a learned judge, well known on the western circuit.–What do you rate him at, Moses?

Moses. Four guineas.

Charles Surface. Four guineas! Gad's life, you don't bid me the price of his wig.–Mr. Premium, *you* have more respect for the woolsack;[27] do let us knock his lordship down at fifteen.

Sir Oliver. By all means.

Careless. Gone!

Charles Surface. And there are two brothers of his, William and Walter Blunt, Esquires, both members of Parliament, and noted speakers;

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25. On September 11, 1709.
26. Sir Godfrey Kneller (1648–1723), who painted many portraits of English sovereigns and nobles.
27. "For lawyers." The reference to the Lord Chancellor's seat on the Woolsack in the House of Lords is here meant as the symbol of the profession of law.

and, what's very extraordinary, I believe that is the first time they were ever bought and sold.

Sir Oliver. That's very extraordinary, indeed! I'll take them at your own price, for the honour of Parliament.

Careless. Well said, little Premium! I'll knock 'em down at forty.

Charles Surface. Here's a jolly fellow–I don't know what relation, but he was mayor of Manchester; take him at eight pounds.

Sir Oliver. No, no–six will do for the mayor.

Charles Surface. Come, make it guineas, and I'll throw you the two aldermen there into the bargain.

Sir Oliver. They're mine.

Charles Surface. Careless, knock down the mayor and aldermen. But, plague on't! we shall be all day retailing in this manner; do let us deal wholesale–what say you, little Premium? Give me three hundred pounds for the rest of the family in the lump.

Careless. Aye, aye, that will be the best way.

Sir Oliver. Well, well, anything to accommodate you; they are mine. But there is one portrait which you have always passed over.

Careless. What, that ill-looking little fellow over the settee?

Sir Oliver. Yes, sir, I mean that; though I don't think him so ill-looking a little fellow, by any means.

Charles Surface. What, that? Oh, that's my uncle Oliver! 'Twas done before he went to India.

Careless. Your uncle Oliver! Gad, then you'll never be friends, Charles. That, now, to me, is as stern a looking rogue as ever I saw–an unforgiving eye, and a damned disinheriting countenance! an inveterate knave, depend on't. Don't you think so, little Premium?

Sir Oliver. Upon my soul, sir, I do not; I think it is as honest a looking face as any in the room, dead or alive. But I suppose your uncle Oliver goes with the rest of the lumber?

Charles Surface. No, hang it! I'll not part with poor Noll. The old fellow has been very good to me, and egad, I'll keep his picture while I've a room to put it in.

Sir Oliver. The rogue's my nephew after all! (*Aside.*)–But, sir, I have somehow taken a fancy to that picture.

Charles Surface. I'm sorry for't, for you certainly will not have it. Oons! haven't you got enough of 'em?

Sir Oliver. I forgive him everything! (*Aside.*)–But, sir, when I take a whim in my head, I don't value money. I'll give you as much for that as for all the rest.

Charles Surface. Don't tease me, master broker; I tell you I'll not part with it, and there's an end on't.

Sir Oliver. How like his father the dog is!–(*Aloud*.) Well, well, I have done. I did not perceive it before, but I think I never saw such a resemblance. Well, sir–here is a draught for your sum.

Charles Surface. Why, 'tis for eight hundred pounds!

Sir Oliver. You will not let Sir Oliver go?

Charles Surface. Zounds! no! I tell you, once more.

Sir Oliver. Then never mind the difference; we'll balance another time. But give me your hand on the bargain; you are an honest fellow, Charles–I beg pardon, sir, for being so free.–Come, Moses.

Charles Surface. Egad, this is a whimsical old fellow!–but hark'ee, Premium, you'll prepare lodgings for these gentlemen.

Sir Oliver. Yes, yes, I'll send for them in a day or two.

Charles Surface. But hold–do now–send a genteel conveyance for them, for, I assure you, they were most of them used to ride in their own carriages.

Sir Oliver. I will, I will, for all but–Oliver.

Charles Surface. Aye, all but the little honest nabob.

Sir Oliver. You're fixed on that?

Charles Surface. Peremptorily.

Sir Oliver. A dear extravagant rogue! (*Aside*.)–Good day!–Come, Moses.–Let me hear now who dares call him profligate!

(*Exeunt* SIR OLIVER *and* MOSES.)

Careless. Why, this is the oddest genius of the sort I ever saw!

Charles Surface. Egad, he's the prince of brokers, I think. I wonder how the devil Moses got acquainted with so honest a fellow.–Ha! here's Rowley.–Do, Careless, say I'll join the company in a moment.

Careless. I will–but don't let that old blockhead persuade you to squander any of that money on old musty debts, or any such nonsense; for tradesmen, Charles, are the most exorbitant fellows!

Charles Surface. Very true, and paying them is only encouraging them.

Careless. Nothing else.

Charles Surface. Aye, aye, never fear. (*Exit* CARELESS.) So! this was an odd old fellow, indeed! Let me see, two-thirds of this is mine by right–five hundred and thirty pounds. 'Fore heaven! I find one's ancestors are more valuable relations than I took 'em for!–Ladies and gentlemen, your most obedient and very grateful humble servant.

Enter ROWLEY.

Ha! old Rowley! egad, you are just come in time to take leave of your old acquaintance.

Rowley. Yes, I heard they were going. But I wonder you can have such spirits under so many distresses.

Charles Surface. Why, there's the point–my distresses are so many, that I can't afford to part with my spirits; but I shall be rich and splenetic, all in good time. However, I suppose you are surprised that I am not more sorrowful at parting with so many near relations; to be sure, 'tis very affecting; but, rot 'em, you see they never move a muscle, so why should I?

Rowley. There's no making you serious a moment.

Charles Surface. Yes, faith: I am so now. Here, my honest Rowley, here, get me this changed, and take a hundred pounds of it immediately to old Stanley.

Rowley. A hundred pounds! Consider only–

Charles Surface. Gad's life, don't talk about it! poor Stanley's wants are pressing, and, if you don't make haste, we shall have some one call that has a better right to the money.

Rowley. Ah! there's the point! I never will cease dunning you with the old proverb–

Charles Surface. "Be *just* before you're *generous,*" hey! Why, so I would if I could; but Justice is an old lame hobbling beldam, and I can't get her to keep pace with Generosity, for the soul of me.

Rowley. Yet, Charles, believe me, one hour's reflection–

Charles Surface. Aye, aye, it's all very true; but, hark'ee, Rowley, while I have, by heaven I'll give–so, damn your economy! and now for hazard. (*Exit*.)

SCENE II–*The parlour*

Enter SIR OLIVER SURFACE *and* MOSES.

Moses. Well, sir, I think, as Sir Peter said, you have seen Mr. Charles in high glory; 'tis great pity he's so extravagant.

Sir Oliver. True, but he wouldn't sell my picture.

Moses. And loves wine and women so much.

Sir Oliver. But he wouldn't sell my picture!

Moses. And games so deep.

Sir Oliver. But he wouldn't sell my picture. Oh, here's Rowley.

Enter ROWLEY.

Rowley. So, Sir Oliver, I find you have made a purchase–

Sir Oliver. Yes, yes, our young rake has parted with his ancestors like old tapestry.

Rowley. And here has he commissioned me to redeliver you part of the purchase-money–I mean, though, in your necessitous character of old Stanley.

Moses. Ah! there is the pity of all: he is so damned charitable.

Rowley. And I left a hosier and two tailors in the hall, who, I'm sure, won't be paid, and this hundred would satisfy 'em.

Sir Oliver. Well, well, I'll pay his debts–and his benevolence too; but now I am no more a broker, and you shall introduce me to the elder brother as old Stanley.

Rowley. Not yet awhile; Sir Peter, I know, means to call there about this time.

Enter TRIP

Trip. O gentlemen, I beg pardon for not showing you out; this way–Moses, a word. (*Exeunt* TRIP *and* MOSES.)

Sir Oliver. There's a fellow for you! Would you believe it, that puppy intercepted the Jew on our coming, and wanted to raise money before he got to his master!

Rowley. Indeed!

Sir Oliver. Yes, they are now planning an annuity business. Ah, Master Rowley, in my days, servants were content with the follies of their masters, when they were worn a little threadbare–but now they have their vices, like their birthday clothes,[28] with the gloss on.

SCENE III–*A library in* JOSEPH SURFACE'S *house*

JOSEPH SURFACE *and* SERVANT.

Joseph Surface. No letter from Lady Teazle?

Servant. No, sir.

Joseph Surface (*aside*). I am surprised she hasn't sent, if she is prevented from coming. Sir Peter certainly does not suspect me. Yet I wish I may not lose the heiress, through the scrape I have drawn myself in with the wife; however, Charles's imprudence and bad character are great points in my favor. (*Knocking*.)

Servant. Sir, I believe that must be Lady Teazle.

28. Ceremonial dress for the King's Birthday celebrations.

Joseph Surface. Hold! See whether it is or not, before you go to the door–I have a particular message for you, if it should be my brother.

Servant. 'Tis her ladyship, sir; she always leaves her chair at the milliner's in the next street.

Joseph Surface. Stay, stay–draw that screen before the window–that will do; my opposite neighbor is a maiden lady of so curious a temper. (*Servant draws the screen, and exit.*) I have a difficult hand to play in this affair. Lady Teazle has lately suspected my views on Maria; but she must by no means be let into that secret–at least, not till I have her more in my power.

Enter LADY TEAZLE.

Lady Teazle. What, sentiment in soliloquy! Have you been very impatient now? O lud! don't pretend to look grave. I vow I couldn't come before.

Joseph Surface. O madam, punctuality is a species of constancy, a very unfashionable quality in a lady.

Lady Teazle. Upon my word, you ought to pity me. Do you know that Sir Peter is grown so ill-tempered to me of late, and so jealous of Charles too–that's the best of the story, isn't it?

Joseph Surface (*aside*). I am glad my scandalous friends keep that up.

Lady Teazle. I am sure I wish he would let Maria marry him, and then perhaps he would be convinced; don't you, Mr. Surface?

Joseph Surface (*aside*). Indeed I do not.–Oh, certainly I do! for then my dear Lady Teazle would also be convinced how wrong her suspicions were of my having any design on the silly girl.

Lady Teazle. Well, well, I'm inclined to believe you. But isn't it provoking, to have the most ill-natured things said to one? And there's my friend Lady Sneerwell has circulated I don't know how many scandalous tales of me! and all without any foundation, too–that's what vexes me.

Joseph Surface. Aye, madam, to be sure, that *is* the provoking circumstance–without foundation! yes, yes, there's the mortification, indeed; for, when a scandalous story is believed against one, there certainly is no comfort like the consciousness of having deserved it.

Lady Teazle. No, to be sure–then I'd forgive their malice; but to attack me, who am really so innocent, and who never say an ill-natured thing of anybody–that is, of any friend–and then Sir Peter, too, to have him so peevish, and so suspicious, when I know the integrity of my own heart–indeed 'tis monstrous!

Joseph Surface. But, my dear Lady Teazle, 'tis your own fault if you suffer it. When a husband entertains a groundless suspicion of his wife, and withdraws his confidence from her, the original compact is broke, and she owes it to the honour of her sex to endeavour to outwit him.

Lady Teazle. Indeed! So that, if he suspects me without cause, it follows that the best way of curing his jealousy is to give him reason for't?

Joseph Surface. Undoubtedly–for your husband should never be deceived in you: and in that case it becomes *you* to be frail in compliment to *his* discernment.

Lady Teazle. To be sure, what you say is very reasonable, and when the consciousness of my own innocence–

Joseph Surface. Ah, my dear madam, there is the great mistake; 'tis this very conscious innocence that is of the greatest prejudice to you. What is it makes you negligent of forms, and careless of the world's opinion? why, the *consciousness* of your innocence. What makes you thoughtless in your conduct, and apt to run into a thousand little imprudences? why, the *consciousness* of your innocence. What makes you impatient of Sir Peter's temper and outrageous at his suspicions? why, the *consciousness* of your own innocence!

Lady Teazle. 'Tis very true!

Joseph Surface. Now, my dear Lady Teazle, if you would but once make a trifling *faux pas*, you can't conceive how cautious you would grow–and how ready to humour and agree with your husband.

Lady Teazle. Do you think so?

Joseph Surface. Oh, I'm sure on't; and then you would find all scandal would cease at once, for–in short, your character at present is like a person in a plethora, absolutely dying of too much health.

Lady Teazle. So, so; then I perceive your prescription is, that I must sin in my own defence, and part with my virtue to preserve my reputation?

Joseph Surface. Exactly so, upon my credit, ma'am.

Lady Teazle. Well, certainly this is the oddest doctrine, and the newest receipt for avoiding calumny?

Joseph Surface. An infallible one, believe me. *Prudence*, like *experience*, must be paid for.

Lady Teazle. Why, if my understanding were once convinced–

Joseph Surface. Oh, certainly, madam, your understanding *should* be convinced. Yes, yes–heaven forbid I should persuade you to do any-

thing you *thought* wrong. No, no, I have too much honour to desire it.

Lady Teazle. Don't you think we may as well leave honour out of the argument?

Joseph Surface. Ah, the ill effects of your country education, I see, still remain with you.

Lady Teazle. I doubt they do, indeed; and I will fairly own to you, that if I could be persuaded to do wrong, it would be by Sir Peter's ill usage sooner than your honourable logic, after all.

Joseph Surface. Then, by this hand, which he is unworthy of–

(*Taking her hand*.)

Re-enter SERVANT.

'Sdeath, you blockhead–what do you want?

Servant. I beg pardon, sir, but I thought you wouldn't choose Sir Peter to come up without announcing him.

Joseph Surface. Sir Peter!–Oons–the devil!

Lady Teazle. Sir Peter! O lud! I'm ruined! I'm ruined!

Servant. Sir, 'twasn't I let him in.

Lady Teazle. Oh! I'm undone! What will become of me, now, Mr. Logic?–Oh! mercy, he's on the stairs–I'll get behind here–and if ever I'm so imprudent again– (*Goes behind the screen*.)

Joseph Surface. Give me that book.

(*Sits down*. SERVANT *pretends to adjust his hair*.)

Enter SIR PETER TEAZLE.

Sir Peter. Aye, ever improving himself!–Mr. Surface, Mr. Surface–

Joseph Surface. Oh, my dear Sir Peter, I beg your pardon. (*Gaping, and throws away the book*.) I have been dozing over a stupid book. Well, I am much obliged to you for this call. You haven't been here, I believe, since I fitted up this room. Books, you know, are the only things I am a coxcomb in.

Sir Peter. 'Tis very neat indeed. Well, well, that's proper; and you make even your screen a source of knowledge–hung, I perceive, with maps.

Joseph Surface. Oh, yes, I find great use in that screen.

Sir Peter. I dare say you must–certainly–when you want to find anything in a hurry.

Joseph Surface (*aside*). Aye, or to hide anything in a hurry either.

Sir Peter. Well, I have a little private business–

Joseph Surface. You needn't stay. (*To* SERVANT.)
Servant. No, sir. (*Exit*.)
Joseph Surface. Here's a chair, Sir Peter–I beg–
Sir Peter. Well, now we are alone, there is a subject, my dear friend, on which I wish to unburden my mind to you–a point of the greatest moment to my peace: in short, my good friend, Lady Teazle's conduct of late has made me extremely unhappy.
Joseph Surface. Indeed! I am very sorry to hear it.
Sir Peter. Yes, 'tis but too plain she has not the least regard for me; but, what's worse, I have pretty good authority to suspect she must have formed an attachment to another.
Joseph Surface. You astonish me!
Sir Peter. Yes! and, between ourselves, I think I have discovered the person.
Joseph Surface. How! you alarm me exceedingly.
Sir Peter. Aye, my dear friend, I knew you would sympathize with me!
Joseph Surface. Yes, believe me, Sir Peter, such a discovery would hurt me just as much as it would you.
Sir Peter. I am convinced of it. Ah! it is a happiness to have a friend whom one can trust even with one's family secrets. But have you no guess who I mean?
Joseph Surface. I haven't the most distant idea. It can't be Sir Benjamin Backbite!
Sir Peter. O, no! What say you to Charles?
Joseph Surface. My brother! impossible!
Sir Peter. Ah, my dear friend, the goodness of your own heart misleads you–you judge of others by yourself.
Joseph Surface. Certainly, Sir Peter, the heart that is conscious of its own integrity is ever slow to credit another's treachery.
Sir Peter. True; but your brother has no sentiment–you never hear him talk so.
Joseph Surface. Yet I can't but think Lady Teazle herself has too much principle–
Sir Peter. Aye; but what's her principle against the flattery of a handsome, lively young fellow?
Joseph Surface. That's very true.
Sir Peter. And then, you know, the difference of our ages makes it very improbable that she should have any great affection for me; and if she were to be frail, and I were to make it public, why the town would only laugh at me, the foolish old bachelor who had married a girl.

Joseph Surface. That's true, to be sure–they *would* laugh.

Sir Peter. Laugh! aye, and make ballads, and paragraphs, and the devil knows what of me.

Joseph Surface. No, you must never make it public.

Sir Peter. But then again–that the nephew of my old friend, Sir Oliver, should be the person to attempt such a wrong, hurts me more nearly.

Joseph Surface. Aye, there's the point. When ingratitude barbs the dart of injury, the wound has double danger in it.

Sir Peter. Aye–I, that was, in a manner, left his guardian–in whose house he had been so often entertained–who never in my life denied him–my advice!

Joseph Surface. Oh, 'tis not to be credited! There *may* be a man capable of such baseness, to be sure; but, for my part, till you can give me positive proofs, I cannot but doubt it. However, if it should be proved on him, he is no longer a brother of mine! I disclaim kindred with him–for the man who can break through the laws of hospitality, and attempt the wife of his friend, deserves to be branded as the pest of society.

Sir Peter. What a difference there is between you! What noble sentiments!

Joseph Surface. Yet I cannot suspect Lady Teazle's honour.

Sir Peter. I am sure I wish to think well of her, and to remove all ground of quarrel between us. She has lately reproached me more than once with having made no settlement on her; and, in our last quarrel, she almost hinted that she should not break her heart if I was dead. Now, as we seem to differ in our ideas of expense, I have resolved she shall be her own mistress in that respect for the future; and, if I *were* to die, she shall find that I have not been inattentive to her interest while living. Here, my friend, are the drafts of two deeds, which I wish to have your opinion on. By one, she will enjoy eight hundred a year independent while I live; and, by the other, the bulk of my fortune after my death.

Joseph Surface. This conduct, Sir Peter, is indeed truly generous.–(*Aside*.) I wish it may not corrupt my pupil.

Sir Peter. Yes, I am determined she shall have no cause to complain, though I would not have her acquainted with the latter instance of my affection yet awhile.

Joseph Surface. Nor I, if I could help it. (*Aside*.)

Sir Peter. And now, my dear friend, if you please, we will talk over the situation of your hopes with Maria.

Joseph Surface (*softly*). No, no, Sir Peter; another time, if you please.

Sir Peter. I am sensibly chagrined at the little progress you seem to make in her affection.

Joseph Surface. I beg you will not mention it. What are my disappointments when your happiness is in debate! (*Softly.*)–'Sdeath, I shall be ruined every way! (*Aside.*)

Sir Peter. And though you are so averse to my acquainting Lady Teazle with your passion, I am sure she's not your enemy in the affair.

Joseph Surface. Pray, Sir Peter, now oblige me. I am really too much affected by the subject we have been speaking on to bestow a thought on my own concerns. The man who is entrusted with his friend's distresses can never–

Enter SERVANT.

Well, sir?

Servant. Your brother, sir, is speaking to a gentleman in the street, and says he knows you are within.

Joseph Surface. 'Sdeath, blockhead–I'm not within–I'm out for the day.

Sir Peter. Stay–hold–a thought has struck me–you shall be at home.

Joseph Surface. Well, well, let him up. (*Exit* SERVANT.) He'll interrupt Sir Peter–however–

Sir Peter. Now, my good friend, oblige me, I entreat you. Before Charles comes, let me conceal myself somewhere; then do you tax him on the point we have been talking on, and his answers may satisfy me at once.

Joseph Surface. O, fie, Sir Peter! would you have me join in so mean a trick?–to trepan my brother to?

Sir Peter. Nay, you tell me you are *sure* he is innocent; if so, you do him the greatest service by giving him an opportunity to clear himself, and you will set my heart at rest. Come, you shall not refuse me; here, behind the screen will be (*Goes to the screen.*)–Hey! what the devil! there seems to be *one* listener here already–I'll swear I saw a petticoat!

Joseph Surface. Ha! ha! ha! Well, this is ridiculous enough. I'll tell you, Sir Peter, though I hold a man of intrigue to be a most despicable character, yet you know, it doesn't follow that one is to be an absolute Joseph either! Hark'ee! 'tis a little French milliner, a silly rogue that plagues me–and having some character–on your coming, she ran behind the screen.

Sir Peter. Ah, you rogue!–But, egad, she has overheard all I have been saying of my wife.

Joseph Surface. Oh, 'twill never go any further, you may depend on't!
Sir Peter. No! then, i'faith, let her hear it out. Here's a closet will do as well.
Joseph Surface. Well, go in then.
Sir Peter. Sly rogue! sly rogue! (*Goes into the closet*.)
Joseph Surface. A very narrow escape, indeed! and a curious situation I'm in, to part man and wife in this manner.
Lady Teazle (*peeping from the screen*). Couldn't I steal off?
Joseph Surface. Keep close, my angel!
Sir Peter (*peeping out*). Joseph, tax him home.
Joseph Surface. Back, my dear friend!
Lady Teazle (*peeping*). Couldn't you lock Sir Peter in?
Joseph Surface. Be still, my life!
Sir Peter (*peeping*). You're sure the little milliner won't blab?
Joseph Surface. In, in, my dear Sir Peter!–'Fore gad, I wish I had a key to the door.

Enter CHARLES SURFACE.

Charles Surface. Hollo! brother, what has been the matter? Your fellow would not let me up at first. What! have you had a Jew or a wench with you?
Joseph Surface. Neither, brother, I assure you.
Charles Surface. But what has made Sir Peter steal off? I thought he had been with you.
Joseph Surface. He was, brother; but, hearing *you* were coming, he did not choose to stay.
Charles Surface. What! was the old gentleman afraid I wanted to borrow money of him!
Joseph Surface. No, sir: but I am sorry to find, Charles, that you have lately given that worthy man grounds for great uneasiness.
Charles Surface. Yes, they tell me I do that to a great many worthy men. But how so, pray?
Joseph Surface. To be plain with you, brother, he thinks you are endeavouring to gain Lady Teazle's affections from him.
Charles Surface. Who, I? O lud! not I, upon my word. Ha! ha! ha! so the old fellow has found out that he has got a young wife, has he?–or, what's worse, has her ladyship discovered that she has an old husband?
Joseph Surface. This is no subject to jest on, brother. He who can laugh–
Charles Surface. True, true, as you were going to say–then, seriously, I

never had the least idea of what you charge me with, upon my honour.

Joseph Surface. Well, it will give Sir Peter great satisfaction to hear this. (*Aloud*.)

Charles Surface. To be sure, I once thought the lady seemed to have taken a fancy to me; but, upon my soul, I never gave her the least encouragement. Besides, you know my attachment to Maria.

Joseph Surface. But sure, brother, even if Lady Teazle had betrayed the fondest partiality for you–

Charles Surface. Why, look'ee, Joseph, I hope I shall never deliberately do a dishonourable action–but if a pretty woman were purposely to throw herself in my way–and that pretty woman married to a man old enough to be her father–

Joseph Surface. Well!

Charles Surface. Why, I believe I should be obliged to borrow a little of your morality, that's all. But, brother, do you know now that you surprise me exceedingly, by naming *me* with Lady Teazle; for, faith, I always understood *you* were her favourite.

Joseph Surface. Oh, for shame, Charles! This retort is foolish.

Charles Surface. Nay, I swear I have seen you exchange such significant glances–

Joseph Surface. Nay, nay, sir, this is no jest–

Charles Surface. Egad, I'm serious! Don't you remember–one day, when I called here–

Joseph Surface. Nay, prithee, Charles–

Charles Surface. And found you together–

Joseph Surface. Zounds, sir, I insist–

Charles Surface. And another time, when your servant–

Joseph Surface. Brother, brother, a word with you!–(*Aside*.) Gad, I must stop him.

Charles Surface. Informed me, I say, that–

Joseph Surface. Hush! I beg your pardon, but Sir Peter has overheard all we have been saying–I knew you would clear yourself, or I should not have consented.

Charles Surface. How, Sir Peter! Where is he?

Joseph Surface. Softly, there! (*Points to the closet*.)

Charles Surface. Oh, 'fore heaven, I'll have him out.–Sir Peter, come forth!

Joseph Surface. No, no–

Charles Surface. I say, Sir Peter, come into court. (*Pulls in* SIR PETER.) What! my old guardian!–What–turn inquisitor, and take evidence, incog?

Sir Peter. Give me your hand, Charles–I believe I have suspected you wrongfully–but you mustn't be angry with Joseph–'twas my plan!

Charles Surface. Indeed!

Sir Peter. But I acquit you. I promise you I don't think near so ill of you as I did. What I have heard has given me great satisfaction.

Charles Surface. Egad, then, 'twas lucky you didn't hear any more. Wasn't it, Joseph? (*Half aside*.)

Sir Peter. Ah! you would have retorted on him.

Charles Surface. Aye, aye, that was a joke.

Sir Peter. Yes, yes, I know his honour too well.

Charles Surface. But you might as well have suspected him as me in this matter, for all that. Mightn't he, Joseph? (*Half aside*.)

Sir Peter. Well, well, I believe you.

Joseph Surface. Would they were both out of the room! (*Aside*.)

Sir Peter. And in future, perhaps, we may not be such strangers.

Enter SERVANT *who whispers* JOSEPH SURFACE.

Joseph Surface. Lady Sneerwell!–stop her by all means–(*Exit* SERVANT.) Gentlemen–I beg pardon–I must wait on you downstairs–here's a person come on particular business.

Charles Surface. Well, you can see him in another room. Sir Peter and I haven't met a long time, and I have something to say to him.

Joseph Surface. They must not be left together. I'll send Lady Sneerwell away, and return directly.–(*Aside*.) Sir Peter, not a word of the French milliner. (*Exit* JOSEPH SURFACE.)

Sir Peter. Oh! not for the world!–Ah, Charles, if you associated more with your brother, one might indeed hope for your reformation. He is a man of sentiment. Well, there is nothing in the world so noble as a man of sentiment!

Charles Surface. Pshaw! he is too moral by half, and so apprehensive of his good name, as he calls it, that I suppose he would as soon let a priest into his house as a girl.

Sir Peter. No, no–come, come–you wrong him. No, no, Joseph is no rake, but he is not such a saint in that respect either–I have a great mind to tell him–we should have a laugh! (*Aside*.)

Charles Surface. Oh, hang him! he's a very anchorite, a young hermit!

Sir Peter. Hark'ee–you must not abuse him; he may chance to hear of it again, I promise you.

Charles Surface. Why, you won't tell him?

Sir Peter. No–but–this way.–(*Aside.*) Egad, I'll tell him.–Hark'ee, have you a mind to have a good laugh at Joseph?

Charles Surface. I should like it of all things.

Sir Peter. Then, i'faith, we will!–I'll be quit with him for discovering me. (*Aside.*)–He had a girl with him when I called.

Charles Surface. What! Joseph? you jest.

Sir Peter. Hush!–a little–French milliner–and the best of the jest is–she's in the room now.

Charles Surface. The devil she is!

Sir Peter. Hush! I tell you. (*Points to the screen.*)

Charles Surface. Behind the screen! 'Slife, let's unveil her!

Sir Peter. No, no, he's coming: you shan't, indeed!

Charles Surface. Oh, egad, we'll have a peep at the little milliner!

Sir Peter. Not for the world! Joseph will never forgive me.

Charles Surface. I'll stand by you–

Sir Peter. (*Struggling with Charles.*) Odds, here he is!

JOSEPH SURFACE *enters just as* CHARLES *throws down the screen.*

Charles Surface. Lady Teazle, by all that's wonderful!

Sir Peter. Lady Teazle, by all that's horrible!

Charles Surface. Sir Peter, this is one of the smartest French milliners I ever saw. Egad, you seem all to have been diverting yourselves here at hide and seek–and I don't see who is out of the secret. Shall I beg your ladyship to inform me?–Not a word!–Brother, will you please to explain this matter? What! Morality dumb too!–Sir Peter, though I *found* you in the dark, perhaps you are not so now! all mute! Well–though *I* can make nothing of the affair, I suppose you perfectly understand one another; so I'll leave you to yourselves. (*Going.*) Brother, I'm sorry to find you *have given that worthy man so much uneasiness.* Sir Peter! there's nothing *in the world* so *noble as a man of sentiment!* (*Exit* CHARLES.)

They stand for some time looking at each other.

Joseph Surface. Sir Peter–notwithstanding I confess that appearances are against me–if you will afford me your patience–I make no doubt but I shall explain everything to your satisfaction.

Sir Peter. If you please–

Joseph Surface. The fact is, sir, that Lady Teazle, knowing my pretensions to your ward Maria–I say, sir, Lady Teazle, being apprehensive of the jealousy of your temper–and knowing my friendship to the family–she, sir, I say–called here–in order that–I might explain those pretensions–but on your coming–being apprehensive–as I said–of your jealousy–she withdrew–and this, you may depend on't is the whole truth of the matter.

Sir Peter. A very clear account, upon my word; and I dare swear the lady will vouch for every article of it.

Lady Teazle (*coming forward*). For not one word of it, Sir Peter!

Sir Peter. How! don't you think it worth while to agree in the lie?

Lady Teazle. There is not one syllable of truth in what that gentleman has told you.

Sir Peter. I believe you, upon my soul, ma'am!

Joseph Surface (*aside*). 'Sdeath, madam, will you betray me?

Lady Teazle. Good Mr. Hypocrite, by your leave, I will speak for myself.

Sir Peter. Aye, let her alone, sir; you'll find she'll make out a better story than *you*, without prompting.

Lady Teazle. Hear me, Sir Peter!–I came here on no matter relating to your ward, and even ignorant of this gentleman's pretensions to her–but I came, seduced by his insidious arguments, at least to listen to his pretended passion, if not to sacrifice *your* honour to his baseness.

Sir Peter. Now, I believe, the truth *is* coming, indeed!

Joseph Surface. The woman's mad!

Lady Teazle. No, sir; she has recovered her senses, and your own arts have furnished her with the means.–Sir Peter, I do not expect you to credit me–but the tenderness you expressed for me, when I am sure you could not think I was a witness to it, has penetrated to my heart, and had I left the place without the shame of this discovery, my future life should have spoken the sincerity of my gratitude. As for that smooth-tongue hypocrite, who would have seduced the wife of his too credulous friend, while he affected honourable addresses to his ward–I behold him now in a light so truly despicable, that I shall never again respect myself for having listened to him. (*Exit*.)

Joseph Surface. Notwithstanding all this, Sir Peter, heaven knows–

Sir Peter. That you are a villain!–and so I leave you to your conscience.

Joseph Surface. You are too rash, Sir Peter; you shall hear me. The man who shuts out conviction by refusing to–

Sir Peter. Oh!– (*Exeunt,* JOSEPH SURFACE *following and speaking*.)

ACT V

SCENE I—*The library in* JOSEPH SURFACE'S *house*

Enter JOSEPH SURFACE *and* SERVANT.

Joseph Surface. Mr. Stanley! why should you think I would see him? you *must* know he comes to ask something.

Servant. Sir, I should not have let him in, but that Mr. Rowley came to the door with him.

Joseph Surface. Pshaw! blockhead! to suppose that I should *now* be in a temper to receive visits from poor relations! Well, why don't you show the fellow up?

Servant. I will, sir. Why, sir, it was not my fault that Sir Peter discovered my lady—

Joseph Surface. Go, fool! (*Exit* SERVANT.)

Sure, Fortune never played a man of my policy such a trick before! My character with Sir Peter, my hopes with Maria, destroyed in a moment! I'm in a rare humour to listen to other people's distresses! I shan't be able to bestow even a benevolent sentiment on Stanley.—So! here he comes, and Rowley with him. I must try to recover myself—and put a little charity into my face, however. (*Exit*.)

Enter SIR OLIVER SURFACE *and* ROWLEY.

Sir Oliver. What! does he avoid us? That was he, was it not?

Rowley. It was, sir—but I doubt you are come a little too abruptly—his nerves are so weak, that the sight of a poor relation may be too much for him. I should have gone first to break you to him.

Sir Oliver. A plague of his nerves! Yet this is he whom Sir Peter extols as a man of the most benevolent way of thinking!

Rowley. As to his way of thinking, I cannot pretend to decide; for, to do him justice, he appears to have as much speculative benevolence as any private gentleman in the kingdom, though he is seldom so sensual as to indulge himself in the exercise of it.

Sir Oliver. Yet has a string of charitable sentiments, I suppose, at his fingers' ends!

Rowley. Or, rather, at his tongue's end, Sir Oliver; for I believe there is no sentiment he has more faith in than that "Charity begins at home."

Sir Oliver. And his, I presume, is of that domestic sort which never stirs abroad at all.

Rowley. I doubt you'll find it so; but he's coming–I mustn't seem to interrupt you; and you know, immediately as you leave him, I come in to announce your arrival in your real character.

Sir Oliver. True; and afterwards you'll meet me at Sir Peter's.

Rowley. Without losing a moment. (*Exit* ROWLEY.)

Sir Oliver. So! I don't like the complaisance of his features.

Re-enter JOSEPH SURFACE.

Joseph Surface. Sir, I beg you ten thousand pardons for keeping you a moment waiting–Mr. Stanley, I presume.

Sir Oliver. At your service.

Joseph Surface. Sir, I beg you will do me the honour to sit down–I entreat you, sir.

Sir Oliver. Dear sir–there's no occasion.–Too civil by half! (*Aside*.)

Joseph Surface. I have not the pleasure of knowing you, Mr. Stanley; but I am extremely happy to see you look so well. You were nearly related to my mother, I think, Mr. Stanley?

Sir Oliver. I was, sir–so nearly that my present poverty, I fear, may do discredit to her wealthy children–else I should not have presumed to trouble you.

Joseph Surface. Dear sir, there needs no apology: he that is in distress, though a stranger, has a right to claim kindred with the wealthy; I am sure I wish *I* was one of that class, and had it in my power to offer you even a small relief.

Sir Oliver. If your uncle, Sir Oliver, were here, I should have a friend.

Joseph Surface. I wish he were, sir, with all my heart: you should not want an advocate with him, believe me, sir.

Sir Oliver. I should not *need* one–my distresses would recommend me; but I imagined his bounty had enabled *you* to become the agent of his charity.

Joseph Surface. My dear sir, you were strangely misinformed. Sir Oliver is a worthy man, a very worthy sort of man; but–avarice, Mr. Stanley, is the vice of age. I will tell you, my good sir, in confidence, what he has done for me has been a mere nothing; though people, I know, have thought otherwise, and, for my part, I never chose to contradict the report.

Sir Oliver. What! has he never transmitted you bullion! rupees![29] pagodas![30]

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29. Silver coins of India, then valued at two shillings.
30. Gold coins of India, then valued at eight shillings.

Joseph Surface. O dear sir, nothing of the kind! No, no; a few presents now and then–china–shawls–Congo tea–avadavats,[31] and Indian crackers [32]–little more, believe me.

Sir Oliver (*aside*). Here's gratitude for twelve thousand pounds!–Avadavats and Indian crackers!

Joseph Surface. Then, my dear sir, you have heard, I doubt not, of the extravagance of my brother; there are very few would credit what I have done for that unfortunate young man.

Sir Oliver. Not I, for one! (*Aside*.)

Joseph Surface. The sums I have lent him! Indeed I have been exceedingly to blame–it was an amiable weakness: however, I don't pretend to defend it–and now I feel it doubly culpable, since it has deprived me of the pleasure of serving *you*, Mr. Stanley, as my heart dictates.

Sir Oliver (*aside*). Dissembler!–Then, sir, you cannot assist me?

Joseph Surface. At present, it grieves me to say, I cannot; but, whenever I have the ability, you may depend upon hearing from me.

Sir Oliver. I am extremely sorry–

Joseph Surface. Not more than I am, believe me; to pity, without the power to relieve, is still more painful than to ask and be denied.

Sir Oliver. Kind sir, your most obedient humble servant.

Joseph Surface. You leave me deeply affected, Mr. Stanley.–William, be ready to open the door.

Sir Oliver. O dear sir, no ceremony.

Joseph Surface. Your very obedient.

Sir Oliver. Sir, your most obsequious.

Joseph Surface. You may depend upon hearing from me, whenever I can be of service.

Sir Oliver. Sweet sir, you are too good.

Joseph Surface. In the meantime I wish you health and spirits.

Sir Oliver. Your ever grateful and perpetual humble servant.

Joseph Surface. Sir, yours as sincerely.

Sir Oliver. Now I am satisfied! (*Exit*.)

Joseph Surface (*solus*). This is one bad effect of a good character; it invites applications from the unfortunate, and there needs no small degree of address to gain the reputation of benevolence without incurring the expense. The silver ore of pure charity is an expensive article in the catalogue of a man's good qualities; whereas the senti-

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31. Small singing birds of India, having red and black plumage.
32. Fire-crackers with colored wrappers.

mental French plate I use instead of it makes just as good a show, and pays no tax.

Enter ROWLEY.

Rowley. Mr. Surface, your servant–I was apprehensive of interrupting you–though my business demands immediate attention–as this note will inform you.

Joseph Surface. Always happy to see Mr. Rowley. (*Reads*.) How! *Oliver–Surface!*–My uncle arrived!

Rowley. He is, indeed–we have just parted–quite well, after a speedy voyage, and impatient to embrace his worthy nephew.

Joseph Surface. I am astonished!–William! stop Mr. Stanley, if he's not gone.

Rowley. Oh! he's out of reach, I believe.

Joseph Surface. Why didn't you let me know this when you came in together?

Rowley. I thought you had particular business. But I must be gone to inform your brother, and appoint him here to meet his uncle. He will be with you in a quarter of an hour.

Joseph Surface. So he says. Well, I am strangely overjoyed at his coming.–(*Aside*.) Never, to be sure, was anything so damned unlucky!

Rowley. You will be delighted to see how well he looks.

Joseph Surface. Oh! I'm rejoiced to hear it.–(*Aside*.) Just at this time!

Rowley. I'll tell him how impatiently you expect him.

Joseph Surface. Do, do; pray give my best duty and affection. Indeed, I cannot express the sensations I feel at the thought of seeing him. (*Exit* ROWLEY.) Certainly his coming just at this time is the cruellest piece of ill fortune. (*Exit*.)

SCENE II–*At* SIR PETER'S

Enter MRS. CANDOUR *and* MAID.

Maid. Indeed, ma'am, my lady will see nobody at present.

Mrs. Candour. Did you tell her it was her friend Mrs. Candour?

Maid. Yes, madam; but she begs you will excuse her.

Mrs. Candour. Do go again; I shall be glad to see her, if it be only for a moment, for I am sure she must be in great distress. (*Exit* MAID.) Dear heart, how provoking! I'm not mistress of half the circumstances! We shall have the whole affair in the newspapers, with the

names of the parties at length, before I have dropped the story at a dozen houses.

Enter SIR BENJAMIN BACKBITE.

O dear Sir Benjamin! you have heard, I suppose–

Sir Benjamin. Of Lady Teazle and Mr. Surface–

Mrs. Candour. And Sir Peter's discovery–

Sir Benjamin. Oh, the strangest piece of business, to be sure!

Mrs. Candour. Well, I never was so surprised in my life. I am so sorry for all parties, indeed I am.

Sir Benjamin. Now, I don't pity Sir Peter at all–he was so extravagantly partial to Mr. Surface.

Mrs. Candour. Mr. Surface! Why, 'twas with Charles Lady Teazle was detected.

Sir Benjamin. No such thing–Mr. Surface is the gallant.

Mrs. Candour. No, no–Charles is the man. 'Twas Mr. Surface brought Sir Peter on purpose to discover them.

Sir Benjamin. I tell you I have it from one–

Mrs. Candour. And I have it from one–

Sir Benjamin. Who had it from one, who had it–

Mrs. Candour. From one immediately–But here's Lady Sneerwell; perhaps she knows the whole affair.

Enter LADY SNEERWELL

Lady Sneerwell. So, my dear Mrs. Candour, here's a sad affair of our friend Lady Teazle!

Mrs. Candour. Aye, my dear friend, who could have thought it–

Lady Sneerwell. Well, there's no trusting appearances; though, indeed, she was always too lively for me.

Mrs. Candour. To be sure, her manners were a little too free–but she was very young!

Lady Sneerwell. And had, indeed, some good qualities.

Mrs. Candour. So she had, indeed. But have you heard the particulars?

Lady Sneerwell. No; but everybody says that Mr. Surface–

Sir Benjamin. Aye, there, I told you–Mr. Surface was the man.

Mrs. Candour. No, no, indeed–the assignation was with Charles.

Lady Sneerwell. With Charles! You alarm me, Mrs. Candour.

Mrs. Candour. Yes, yes, he was the lover. Mr. Surface–do him justice–was only the informer.

Sir Benjamin. Well, I'll not dispute with you, Mrs. Candour; but, be it which it may, I hope that Sir Peter's wound will not–

Mrs. Candour. Sir Peter's wound! Oh, mercy! I didn't hear a word of their fighting.

Lady Sneerwell. Nor I, a syllable.

Sir Benjamin. No! what, no mention of the duel?

Mrs. Candour. Not a word.

Sir Benjamin. O Lord–yes, yes–they fought before they left the room.

Lady Sneerwell. Pray let us hear.

Mrs. Candour. Aye, do oblige us with the duel.

Sir Benjamin. "Sir," says Sir Peter–immediately after the discovery–"you are a most ungrateful fellow."

Mrs. Candour. Aye, to Charles–

Sir Benjamin. No, no–to Mr. Surface–"a most ungrateful fellow; and old as I am, sir," says he, "I insist on immediate satisfaction."

Mrs. Candour. Aye, that must have been to Charles; for 'tis very unlikely Mr. Surface should go to fight in his house.

Sir Benjamin. 'Gad's life, ma'am, not at all–"giving me immediate satisfaction." On this, madam, Lady Teazle, seeing Sir Peter in such danger, ran out of the room in strong hysterics, and Charles after her, calling out for hartshorn and water! Then, madam, they began to fight with swords–

Enter CRABTREE.

Crabtree. With pistols, nephew–I have it from undoubted authority.

Mrs. Candour. O Mr. Crabtree, then it is all true!

Crabtree. Too true, indeed, ma'am, and Sir Peter's dangerously wounded–

Sir Benjamin. By a thrust of in *seconde* [33] quite through his left side–

Crabtree. By a bullet lodged in the thorax.

Mrs. Candour. Mercy on me! Poor Sir Peter!

Crabtree. Yes, ma'am–though Charles would have avoided the matter, if he could.

Mrs. Candour. I knew Charles was the person.

Sir Benjamin. Oh, my uncle, I see, knows nothing of the matter.

Crabtree. But Sir Peter taxed him with the basest ingratitude–

Sir Benjamin. That I told you, you know.

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33. A term in fencing.

Crabtree. Do, nephew, let me speak!–and insisted on an immediate–

Sir Benjamin. Just as I said.

Crabtree. Odds life, nephew, allow others to know something too! A pair of pistols lay on the bureau (for Mr. Surface, it seems, had come the night before late from Salt-Hill, where he had been to see the Montem [34] with a friend, who has a son at Eton), so, unluckily, the pistols were left charged.

Sir Benjamin. I heard nothing of this.

Crabtree. Sir Peter forced Charles to take one, and they fired, it seems, pretty nearly together. Charles's shot took place, as I told you, and Sir Peter's missed; but, what is very extraordinary, the ball struck against a little bronze Pliny that stood over the chimney-piece, grazed out of the window at a right angle, and wounded the postman, who was just coming to the door with a double letter from Northamptonshire.

Sir Benjamin. My uncle's account is more circumstantial, I must confess; but I believe mine is the true one, for all that.

Lady Sneerwell (*aside*). I am more interested in this affair than they imagine, and must have better information. (*Exit* LADY SNEERWELL.)

Sir Benjamin (*after a pause looking at each other*). Ah! Lady Sneerwell's alarm is very easily accounted for.

Crabtree. Yes, yes, they certainly *do* say–but that's neither here nor there.

Mrs. Candour. But, pray, where is Sir Peter at present?

Crabtree. Oh! they brought him home, and he is now in the house, though the servants are ordered to deny it.

Mrs. Candour. I believe so, and Lady Teazle, I suppose, attending him.

Crabtree. Yes, yes; I saw one of the faculty enter just before me.

Sir Benjamin. Hey! who comes here?

Crabtree. Oh, this is he–the physician, depend on't.

Mrs. Candour. Oh, certainly! it must be the physician; and now we shall know.

Enter SIR OLIVER SURFACE.

Crabtree. Well, doctor, what hopes?

Mrs. Candour. Aye, doctor, how's your patient?

Sir Benjamin. Now, doctor, isn't it a wound with a small-sword?

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34. It was formerly the custom of Eton school boys to go to Salt-Hill (*processus ad montem*) every third year on Whit-Tuesday, and levy *salt-money* from the onlookers at the ceremony.

Crabtree. A bullet lodged in the thorax, for a hundred!

Sir Oliver. Doctor! a wound with a small-sword! and a bullet in the thorax? Oons! are you mad, good people?

Sir Benjamin. Perhaps, sir, you are not a doctor?

Sir Oliver. Truly, I am to thank you for my degree, if I am.

Crabtree. Only a friend of Sir Peter's, then, I presume. But, sir, you must have heard of this accident?

Sir Oliver. Not a word!

Crabtree. Not of his being dangerously wounded?

Sir Oliver. The devil he is!

Sir Benjamin. Run through the body–

Crabtree. Shot in the breast–

Sir Benjamin. By one Mr. Surface–

Crabtree. Aye, the younger.

Sir Oliver. Hey! what the plague! you seem to differ strangely in your accounts–however, you agree that Sir Peter is dangerously wounded.

Sir Benjamin. Oh, yes, we agree there.

Crabtree. Yes, yes, I believe there can be no doubt of that.

Sir Oliver. Then, upon my word, for a person in that situation, he is the most imprudent man alive–for here he comes, walking as if nothing at all were the matter.

Enter SIR PETER TEAZLE.

Odds heart, Sir Peter! you are come in good time, I promise you; for we had just *given you over*.

Sir Benjamin. Egad, uncle, this is the most sudden recovery!

Sir Oliver. Why, man! what do you do out of bed with a small-sword through your body, and a bullet lodged in your thorax?

Sir Peter. A small-sword and a bullet?

Sir Oliver. Aye; these gentlemen would have killed you without law or physic, and wanted to dub me a doctor–to make me an accomplice

Sir Peter. Why, what is all this?

Sir Benjamin. We rejoice, Sir Peter, that the story of the duel is not true and are sincerely sorry for your other misfortunes.

Sir Peter. So; so; all over the town already. (*Aside*.)

Crabtree. Though, Sir Peter, you were certainly vastly to blame to marry at all, at your years.

Sir Peter. Sir, what business is that of yours?

Mrs. Candour. Though, indeed, as Sir Peter made so good a husband, he's very much to be pitied.

Sir Peter. Plague on your pity, ma'am! I desire none of it.
Sir Benjamin. However, Sir Peter, you must not mind the laughing and jests you will meet with on this occasion.
Sir Peter. Sir, I desire to be master in my own house.
Crabtree. 'Tis no uncommon case, that's one comfort.
Sir Peter. I insist on being left to myself: without ceremony, I insist on your leaving my house directly!
Mrs. Candour. Well, well, we are going; and depend on't, we'll make the best report of you we can.
Sir Peter. Leave my house!
Crabtree. And tell how hardly you have been treated.
Sir Peter. Leave my house!
Sir Benjamin. And how patiently you bear it.
Sir Peter. Fiends! vipers! furies! Oh! that their own venom would choke them!

(*Exeunt* MRS. CANDOUR, SIR BENJAMIN BACKBITE, CRABTREE, *etc.*)

Sir Oliver. They are very provoking indeed, Sir Peter.

Enter ROWLEY.

Rowley. I heard high words–what has ruffled you, Sir Peter?
Sir Peter. Pshaw! what signifies asking? Do I ever pass a day without my vexations?
Sir Oliver. Well, I'm not inquisitive–I come only to tell you that I have seen both my nephews in the manner we proposed.
Sir Peter. A precious couple they are!
Rowley. Yes, and Sir Oliver is convinced that your judgment was right, Sir Peter.
Sir Oliver. Yes, I find Joseph is indeed the man, after all.
Rowley. Yes, as Sir Peter says, he's a man of sentiment.
Sir Oliver. And acts up to the sentiments he professes.
Rowley. It certainly is edification to hear him talk.
Sir Oliver. Oh, he's a model for the young men of the age! But how's this, Sir Peter? you don't join in your friend Joseph's praise, as I expected.
Sir Peter. Sir Oliver, we live in a damned wicked world, and the fewer we praise the better.
Rowley. What! do *you* say so, Sir Peter, who were never mistaken in your life?
Sir Peter. Pshaw! plague on you both! I see by your sneering you have heard the whole affair. I shall go mad among you!

Rowley. Then, to fret you no longer, Sir Peter, we are indeed acquainted with it all. I met Lady Teazle coming from Mr. Surface's, so humbled that she deigned to request me to be her advocate with you.

Sir Peter. And does Sir Oliver know all too?

Sir Oliver. Every circumstance.

Sir Peter. What, of the closet–and the screen, hey?

Sir Oliver. Yes, yes, and the little French milliner. Oh, I have been vastly diverted with the story! ha! ha!

Sir Peter. 'Twas very pleasant.

Sir Oliver. I never laughed more in my life, I assure you: ha! ha!

Sir Peter. O, vastly diverting! ha! ha!

Rowley. To be sure, Joseph with his sentiments! ha! ha!

Sir Peter. Yes, yes, his sentiments! ha! ha! A hypocritical villain!

Sir Oliver. Aye, and that rogue Charles to pull Sir Peter out of the closet: ha! ha!

Sir Peter. Ha! ha! 'twas devilish entertaining, to be sure!

Sir Oliver. Ha! ha! Egad, Sir Peter, I should like to have seen your face when the screen was thrown down: ha! ha!

Sir Peter. Yes, yes, my face when the screen was thrown down: ha! ha! Oh, I must never show my head again!

Sir Oliver. But come, come, it isn't fair to laugh at you neither, my old friend–though, upon my soul, I can't help it.

Sir Peter. Oh, pray don't restrain your mirth on my account–it does not hurt me at all! I laugh at the whole affair myself. Yes, yes, I think being a standing jest for all one's acquaintances a very happy situation. O yes, and then of a morning to read the paragraphs about Mr. S––, Lady T––, and Sir P––, will be so entertaining!

Rowley. Without affectation, Sir Peter, you may despise the ridicule of fools. But I see Lady Teazle going towards the next room; I am sure you must desire a reconciliation as earnestly as she does.

Sir Oliver. Perhaps my being here prevents her coming to you. Well, I'll leave honest Rowley to mediate between you; but he must bring you all presently to Mr. Surface's, where I am now returning, if not to reclaim a libertine, at least to expose hypocrisy.

Sir Peter. Ah! I'll be present at your discovering yourself there with all my heart–though 'tis a vile unlucky place for discoveries!

Rowley. We'll follow. (*Exit* SIR OLIVER SURFACE.)

Sir Peter. She is not coming here, you see, Rowley.

Rowley. No, but she has left the door of that room open, you perceive. See, she is in tears!

Sir Peter. Certainly a little mortification appears very becoming in a wife! Don't you think it will do her good to let her pine a little?

Rowley. Oh, this is ungenerous in you!

Sir Peter. Well, I know not what to think. You remember, Rowley, the letter I found of hers, evidently intended for Charles!

Rowley. A mere forgery, Sir Peter! laid in your way on purpose. This is one of the points which I intend Snake shall give you conviction on.

Sir Peter. I wish I were once satisfied of that. She looks this way. What a remarkably elegant turn of the head she has! Rowley, I'll go to her.

Rowley. Certainly.

Sir Peter. Though, when it is known that we are reconciled, people will laugh at me ten times more!

Rowley. Let them laugh, and retort their malice only by showing them you are happy in spite of it.

Sir Peter. I'faith, so I will! and, if I'm not mistaken, we may yet be the happiest couple in the country.

Rowley. Nay, Sir Peter–he who once lays aside suspicion–

Sir Peter. Hold, my dear Rowley! if you have any regard for me, never let me hear you utter anything like a sentiment–I have had enough of them to serve me the rest of my life. (*Exeunt.*)

SCENE III–*The library in* JOSEPH SURFACE'S *house.*

JOSEPH SURFACE *and* LADY SNEERWELL.

Lady Sneerwell. Impossible! Will not Sir Peter immediately be reconciled to Charles, and of consequence no longer oppose his union with Maria? The thought is distraction to me!

Joseph Surface. Can passion furnish a remedy?

Lady Sneerwell. No, nor cunning either. Oh, I was a fool, an idiot, to league with such a blunderer!

Joseph Surface. Sure, Lady Sneerwell, *I* am the greatest sufferer; yet you see I bear the accident with calmness.

Lady Sneerwell. Because the disappointment doesn't reach your *heart;* your *interest* only attached you to Maria. Had you felt for *her* what *I* have for that ungrateful libertine, neither your temper nor hypocrisy could prevent your showing the sharpness of your vexation.

Joseph Surface. But why should your reproaches fall on *me* for this disappointment?

Lady Sneerwell Are you not the cause of it? What had you to do to bate

in your pursuit of Maria to pervert Lady Teazle by the way? Had you not a sufficient field for your roguery in blinding Sir Peter, and supplanting your brother? I hate such an avarice of crimes; 'tis an unfair monopoly, and never prospers.

Joseph Surface. Well, I admit I have been to blame. I confess I deviated from the direct road of wrong, but I don't think we're so totally defeated neither.

Lady Sneerwell. No!

Joseph Surface. You tell me you have made a trial of Snake since we met, and that you still believe him faithful to us–

Lady Sneerwell. I do believe so.

Joseph Surface. And that he has undertaken, should it be necessary, to swear and prove that Charles is at this time contracted by vows and honour to your ladyship–which some of his former letters to you will serve to support?

Lady Sneerwell. This, indeed, might have assisted.

Joseph Surface. Come, come; it is not too late yet–(*Knocking at the door.*) But hark! this is probably my uncle, Sir Oliver: retire to that room; we'll consult farther when he's gone.

Lady Sneerwell. Well! but if *he* should find you out too–

Joseph Surface. Oh, I have no fear of that. Sir Peter will hold his tongue for his own credit's sake–and you may depend on't I shall soon discover Sir Oliver's weak side!

Lady Sneerwell. I have no diffidence of your abilities–only be constant to one roguery at a time. (*Exit.*)

Joseph Surface. I will, I will! So! 'tis confounded hard, after such bad fortune, to be baited by one's confederate in evil. Well, at all events, my character is so much better than Charles's, that I certainly–hey!–what!–this is not *Sir Oliver*, but old *Stanley* again! Plague on't! that he should return to tease me just now! We shall have Sir Oliver come and find him here–and–

Enter SIR OLIVER SURFACE.

Gad's life, Mr. Stanley, why have you come back to plague me just at this time? You must not stay now, upon my word.

Sir Oliver. Sir, I hear your uncle Oliver is expected here, and though he has been so penurious to *you*, I'll try what he'll do for *me*.

Joseph Surface. Sir, 'tis impossible for you to stay now, so I must beg–Come any other time, and I promise you, you shall be assisted.

Sir Oliver. No: Sir Oliver and I must be acquainted.

Joseph Surface. Zounds, sir! then I insist on your quitting the room directly.

Sir Oliver. Nay, sir!

Joseph Surface. Sir, I insist on't!–Here, William! show this gentleman out. Since you compel me, sir–not one moment–this is such insolence!

(*Going to push him out*.)

Enter CHARLES SURFACE.

Charles Surface. Heyday! what's the matter now? What the devil, have you got hold of my little broker here? Zounds, brother, don't hurt little Premium. What's the matter, my little fellow?

Joseph Surface. So! he has been with you, too, has he?

Charles Surface. To be sure he has! Why, 'tis as honest a little–But sure, Joseph, you have not been borrowing money too, have you?

Joseph Surface. Borrowing! no! But, brother, you know here we expect Sir Oliver every–

Charles Surface. O gad, that's true! Noll mustn't find the little broker here, to be sure.

Joseph Surface. Yet, Mr. *Stanley* insists–

Charles Surface. Stanley! why his name is *Premium*.

Joseph Surface. No, no, *Stanley*.

Charles Surface. No, no, *Premium*.

Joseph Surface. Well, no matter which–but–

Charles Surface. Aye, aye, Stanley or Premium, 'tis the same thing, as you say; for I suppose he goes by half a hundred names, besides A.B.'s [35] at the coffee-houses.

Joseph Surface. Death! here's Sir Oliver at the door. (*Knocking again*.) Now I beg, Mr. Stanley–

Charles Surface. Aye, and I beg, Mr. Premium–

Sir Oliver. Gentlemen–

Joseph Surface. Sir, by heaven you shall go!

Charles Surface. Aye, out with him, certainly.

Sir Oliver. This violence–

Joseph Surface. 'Tis your own fault.

Charles Surface. Out with him, to be sure. (*Both forcing* SIR OLIVER *out*.)

Enter SIR PETER *and* LADY TEAZLE, MARIA, *and* ROWLEY.

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35. A reference to appointments at the coffee-houses made under concealed names.

Sir Peter. My old friend, Sir Oliver–hey! What in the name of wonder!–Here are dutiful nephews!–assault their uncle at the first visit!

Lady Teazle. Indeed, Sir Oliver, 'twas well we came in to rescue you.

Rowley. Truly it was; for I perceive, Sir Oliver, the character of old Stanley was no protection to you.

Sir Oliver. Nor of Premium either: the necessities of the *former* could not extort a shilling from *that* benevolent gentleman; and now, egad, I stood a chance of faring worse than my ancestors, and being knocked down without being bid for.

After a pause, JOSEPH *and* CHARLES *turning to each other.*

Joseph Surface. Charles!

Charles Surface. Joseph!

Joseph Surface. 'Tis now complete!

Charles Surface. Very!

Sir Oliver. Sir Peter, my friend, and Rowley too–look on that elder nephew of mine. You know what he has already received from my bounty; and you know also how gladly I would have regarded half my fortune as held in trust for him–judge, then, my disappointment in discovering him to be destitute of truth–charity–and gratitude!

Sir Peter. Sir Oliver, I should be more surprised at this declaration, if I had not myself found him selfish, treacherous, and hypocritical!

Lady Teazle. And if the gentleman pleads not guilty to these, pray let him call *me* to his character.

Sir Peter. Then, I believe, we need add no more. If he knows himself, he will consider it as the most perfect punishment that he is known to the world.

Charles Surface (*aside*). If they talk this way to *Honesty,* what will they say to *me,* by and by?

(SIR PETER, LADY TEAZLE, *and* MARIA *retire.*)

Sir Oliver. As for that prodigal, his brother, there–

Charles Surface (*aside*). Aye, now comes my turn: the damned family pictures will ruin me!

Joseph Surface. Sir Oliver!–uncle!–will you honour me with a hearing?

Charles Surface (*aside*). Now if Joseph would make one of his long speeches, I might recollect myself a little.

Sir Oliver (*to* JOSEPH SURFACE). I suppose you would undertake to justify yourself entirely?

Joseph Surface. I trust I could.

Sir Oliver. Pshaw!–Well, sir! and *you* (*to* CHARLES) could justify yourself too, I suppose?

Charles Surface. Not that I know of, Sir Oliver.

Sir Oliver. What! Little Premium has been let too much into the secret, I presume?

Charles Surface. True, sir; but they were family secrets, and should never be mentioned again, you know.

Rowley. Come, Sir Oliver, I know you cannot speak of Charles's follies with anger.

Sir Oliver. Odd's heart, no more I can–nor with gravity either. Sir Peter, do you know the rogue bargained with me for all his ancestors–sold me judges and generals by the foot–and maiden aunts as cheap as broken china.

Charles Surface. To be sure, Sir Oliver, I did make a little free with the family canvas, that's the truth on't. My ancestors may certainly rise in evidence against me, there's no denying it; but believe me sincere when I tell you–and upon my soul I would not say it if I was not–that if I do not appear mortified at the exposure of my follies, it is because I feel at this moment the warmest satisfaction in seeing you, my liberal benefactor.

Sir Oliver. Charles, I believe you. Give me your hand again; the ill-looking little fellow over the settee has made your peace.

Charles Surface. Then, sir, my gratitude to the original is still increased.

Lady Teazle (*pointing to* MARIA). Yet, I believe, Sir Oliver, here is one whom Charles is still more anxious to be reconciled to.

Sir Oliver. Oh, I have heard of his attachment there; and, with the young lady's pardon, if I construe right–that blush–

Sir Peter. Well, child, speak your sentiments.

Maria. Sir, I have little to say, but that I shall rejoice to hear that he is happy; for me, whatever claim I had to his affection, I willingly resign it to one who has a better title.

Charles Surface. How, Maria!

Sir Peter. Heyday! what's the mystery now? While he appeared an incorrigible rake, you would give your hand to no one else; and now that he is likely to reform, I warrant you won't have him.

Maria. His own heart–and Lady Sneerwell know the cause.

Charles Surface. Lady Sneerwell!

Joseph Surface. Brother, it is with great concern I am obliged to speak on this point, but my regard to justice compels me, and Lady Sneerwell's injuries can no longer be concealed. (*Goes to the door.*)

Enter LADY SNEERWELL.

Sir Peter. So! another French milliner! Egad, he has one in every room in the house, I suppose!

Lady Sneerwell. Ungrateful Charles! Well may you be surprised, and feel for the indelicate situation which your perfidy has forced me into.

Charles Surface. Pray, uncle, is this another plot of yours? For, as I have life, I don't understand it.

Joseph Surface. I believe, sir, there is but the evidence of one person more necessary to make it extremely clear.

Sir Peter. And that person, I imagine, is Mr. Snake.–Rowley, you were perfectly right to bring him with us, and pray let him appear.

Rowley. Walk in, Mr. Snake.

Enter SNAKE.

I thought his testimony might be wanted; however, it happens unluckily, that he comes to confront Lady Sneerwell, and not to support her.

Lady Sneerwell Villain! Treacherous to me at last! (*Aside.*)–Speak, fellow, have *you* too conspired against me?

Snake. I beg your ladyship ten thousand pardons: you paid me extremely liberally for the lie in question; but I have unfortunately been offered double to speak the truth.

Sir Peter. Plot and counterplot, egad–I wish your ladyship joy of the success of your negotiation.

Lady Sneerwell. The torments of shame and disappointment on you all!

Lady Teazle. Hold, Lady Sneerwell–before you go, let me thank you for the trouble you and that gentleman have taken, in writing letters to me from Charles, and answering them yourself; and let me also request you to make my respects to the Scandalous College, of which you are president, and inform them, that Lady Teazle, licentiate, begs leave to return the diploma they granted her, as she leaves off practice, and kills characters no longer.

Lady Sneerwell. You too, madam!–provoking–insolent! May your husband live these fifty years! (*Exit.*)

Sir Peter. Oons! what a fury!

Lady Teazle. A malicious creature, indeed!

Sir Peter. Hey! not for her last wish?

Lady Teazle. Oh, no!

Sir Oliver. Well, sir, and what have you to say now?

Joseph Surface. Sir, I am so confounded, to find that Lady Sneerwell could be guilty of suborning Mr. Snake in this manner, to impose on us all, that I know not what to say; however, lest her revengeful spirit should prompt her to injure my brother, I had certainly better follow her directly. (*Exit*.)

Sir Peter. Moral to the last drop!

Sir Oliver. Aye, and marry her, Joseph, if you can.–Oil and vinegar, egad! you'll do very well together.

Rowley. I believe we have no more occasion for Mr. Snake at present.

Snake. Before I go, I beg pardon once for all, for whatever uneasiness I have been the humble instrument of causing to the parties present.

Sir Peter. Well, well, you have made atonement by a good deed at last.

Snake. But I must request of the company, that it shall never be known.

Sir Peter. Hey! what the plague! are you ashamed of having done a right thing once in your life?

Snake. Ah, sir–consider I live by the badness of my character–I have nothing but my infamy to depend on! and, if it were once known that I had been betrayed into an honest action, I should lose every friend I have in the world.

Sir Oliver. Well, well–we'll not traduce you by saying anything in your praise, never fear. (*Exit* SNAKE.)

Sir Peter. There's a precious rogue! yet that fellow is a writer and a critic!

Lady Teazle. See, Sir Oliver, there needs no persuasion now to reconcile your nephew and Maria. (CHARLES *and* MARIA *apart*.)

Sir Oliver. Aye, aye, that's as it should be, and, egad, we'll have the wedding to-morrow morning.

Charles Surface. Thank you, my dear uncle.

Sir Peter. What, you rogue! don't you ask the girl's consent first?

Charles Surface. Oh, I have done that a long time–above a minute ago–and she has looked yes.

Maria. For shame, Charles!–I protest, Sir Peter, there has not been a word–

Sir Oliver. Well, then, the fewer the better–may your love for each other never know abatement.

Sir Peter. And may you live as happily together as Lady Teazle and I–intend to do!

Charles Surface. Rowley, my old friend, I am sure you congratulate me; and I suspect that I owe you much.

Sir Oliver. You do, indeed, Charles.

Rowley. If my efforts to serve you had not succeeded you would have been in my debt for the attempt–but deserve to be happy–and you overpay me.

Sir Peter. Aye, honest Rowley always said you would reform.

Charles Surface. Why as to reforming, Sir Peter, I'll make no promises, and that I take to be a proof that I intend to set about it.–But here shall be my monitor–my gentle guide.–Ah! can I leave the virtuous path those eyes illumine?

> Though thou, dear maid, shouldst waive thy *beauty's* sway,
> Thou still must rule, because I *will* obey:
> An humbled fugitive from Folly view,
> No sanctuary near but *Love* and–YOU;
>
> (*To the audience*.)
>
> *You* can, indeed, each anxious fear remove,
> For even *Scandal* dies, if *you* approve.

Henrik Ibsen

1828–1906

The Norwegian poet and dramatist Henrik Johan Ibsen was born at Skien, March 20, 1828. His father, Knud Henriksen Ibsen, was a merchant whose business failed when Henrik was eight years old.

In 1844 the boy left home to be apprenticed to a druggist in the small town of Grimstad. He hated the work, and spent his spare time writing poetry and reading. He wrote his first play, *Cataline,* in the winter of 1848–49. He left Grimstad for Christiania (Oslo) in 1850 to begin his literary career. He worked as a journalist, then was appointed assistant stage manager at a theater in Bergen, where he served until 1857. In that year he was appointed director of the National Theater in Christiania.

During these years Ibsen gained experience in the theater and, at the same time, became interested in social questions. He continued to write plays, into which he began to interject psychological analysis. He took many of his themes from old Norwegian sagas and folk ballads.

Ibsen applied for a writer's pension but was denied it, and in 1864 he went to Italy. There he wrote his first masterpieces, *Brand* (1866) and *Peer Gynt* (1867). From this time on his fame was assured. The government finally granted him a poet's pension, and he no longer had to fear poverty. After living for a while in Germany,

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Notes from the artist: "The portrait of Ibsen is executed in a decorative technique suggested by Nordic folk art of the sixteenth century. The scene below is from the story of Peer Gynt, a folk tale used by Ibsen in one of his early plays."

Henrik Ibsen.
Peer Gynt

he returned in 1891 to Christiania, where he died on May 23, 1906.

Ibsen was one of the most influential dramatists of our time. He brought realism to the stage, and dealt with controversial social and philosophical questions. His work earned for him the reputation of "father of modern drama." Post-Ibsen theater throughout Europe was radically different from what it had been before. George Bernard Shaw, to name only one playwright, was profoundly affected by Ibsen.

Through all Ibsen's work runs the thread of one great idea–the supreme importance of the individual. He saw the individual oppressed, and threatened, by many forms of tyranny; and he spent his dramatic strength protesting all forms of despotism. That he proposed no ideal system of government to obviate tyranny shows only that he was an artist, not a politician. That his shout of protest is still valid is proved by the fact that it rings as true today, in any part of the world, as it did in nineteenth-century Norway.

Most people would agree with Ibsen that tyranny is evil; but not everyone recognizes as plainly as he did its many forms. People customarily think of tyranny as the rule by force of one man over an unwilling populace. Ibsen, however, saw and abhorred another form of tyranny as well–that of the majority.

Ibsen was an eloquent, though by no means the first, spokesman for this point of view. Madison in *The Federalist* included the accumulation of power by the "many" in his definition of tyranny; John Stuart Mill and Tocqueville were both concerned with the tyranny of the majority.

In Ibsen's A*n Enemy of the People,* the hero, Dr. Stockmann, struggles against the "compact majority" which insists on imposing its will on him. The majority, in his town, prefers to live a lie rather than sacrifice its own interest.

By the end of the play, all of the doctor's supporters have deserted him, and he has failed in his efforts to have the germ-filled baths of the town condemned. What is more, Ibsen appears to portray Dr. Stockmann as a sort of modern-day Don Quixote. The doctor is faintly ridiculous in his ponderous statements and in his naïve certainty that he will be acclaimed a hero for taking away the town's source of income. And his determination, at the end of the play, to

create a new breed of men by educating ignorant street urchins seems foolish.

Perhaps this determination is not so much foolish as it is improbable of success. It appears to be Ibsen's way of saying that idealism alone has little chance to defeat the tyranny of the masses.

Though Ibsen is thus proposing no practical solution–solutions, in fact, are not his business–he may be pointing the way to the only effective defense against tyranny of any kind. "The strongest man in the world is he who stands most alone," says Dr. Stockmann–these are his last words. The lone man standing, with justice on his side, against the tyrant is a familiar, and powerful, figure in drama. But he occurs in real life, too. He often suffers personal defeat, even death. But his heroic action does not die with him. It endures and makes life more just and livable for the rest of us. Idealism, instead of being foolish and impractical, may in the end be the *only* practical course.

An Enemy of the People

CAST OF CHARACTERS

DR. THOMAS STOCKMANN, *Medical Officer of the Municipal Baths.*
MRS. STOCKMANN, *his wife.*
PETRA, *their daughter, a teacher.*
EJLIF, MORTEN } *their sons (aged 13 and 10 respectively).*
PETER STOCKMANN, *the Doctor's elder brother; Mayor of the Town and Chief Constable, Chairman of the Baths' Committee, etc., etc.*
MORTEN KIIL, *a tanner (Mrs. Stockmann's adoptive father).*
HOVSTAD, *editor of the* "People's Messenger."
BILLING, *sub-editor.*
CAPTAIN HORSTER.
ASLAKSEN, *a printer.*

Men of various conditions and occupations, some few women, and a troop of schoolboys—the audience at a public meeting.

The action takes place in a coast town in southern Norway.

ACT I

SCENE. DR. STOCKMANN'S *sitting room. It is evening. The room is plainly but neatly appointed and furnished. In the right-hand wall are two doors; the farther leads out to the hall, the nearer to the doctors study. In the left-hand wall, opposite the door leading to the hall, is a door leading to the other rooms occupied by the family. In the middle of the same wall stands the stove, and, further forward, a couch with a looking glass hanging over it and an oval table in front of it. On the table, a lighted lamp, with a lamp shade. At the back of the room, an open door leads to the dining room.* BILLING *is seen sitting at the dining table, on which a lamp is burning. He has a napkin tucked under his chin, and* MRS. STOCKMANN *is standing by the table handing him a large plateful of roast beef. The other places at the table are empty, and the table somewhat in disorder, a meal having evidently recently been finished.*

Mrs. Stockmann. You see, if you come an hour late, Mr. Billing, you have to put up with cold meat.

Billing (*as he eats*). It is uncommonly good, thank you–remarkably good.

Mrs. Stockmann. My husband makes such a point of having his meals punctually, you know–

Billing. That doesn't affect me a bit. Indeed, I almost think I enjoy a meal all the better when I can sit down and eat all by myself and undisturbed.

Mrs. Stockmann. Oh well, as long as you are enjoying it–. (*Turns to the hall door, listening.*) I expect that is Mr. Hovstad coming too.

Billing. Very likely.

PETER STOCKMANN *comes in. He wears an overcoat and his official hat, and carries a stick.*

Peter Stockmann. Good evening, Katherine.

Mrs. Stockmann (*coming forward into the sitting room*). Ah, good evening–is it you? How good of you to come up and see us!

Peter Stockmann. I happened to be passing, and so–(*looks into the dining room*). But you have company with you, I see.

Mrs. Stockmann (*a little embarrassed*). Oh, no–it was quite by chance

he came in. (*Hurriedly.*) Won't you come in and have something, too?

Peter Stockmann. I! No, thank you. Good gracious–hot meat at night! Not with my digestion.

Mrs. Stockmann. Oh, but just once in a way–

Peter Stockmann. No, no, my dear lady; I stick to my tea and bread and butter. It is much more wholesome in the long run–and a little more economical, too.

Mrs. Stockmann (*smiling*). Now you mustn't think that Thomas and I are spendthrifts.

Peter Stockmann. Not you, my dear; I would never think that of you. (*Points to the* DOCTOR'S *study.*) Is he not at home?

Mrs. Stockmann. No, he went out for a little turn after supper–he and the boys.

Peter Stockmann. I doubt if that is a wise thing to do. (*Listens.*) I fancy I hear him coming now.

Mrs. Stockmann. No, I don't think it is he. (*A knock is heard at the door.*) Come in! (HOVSTAD *comes in from the hall.*) Oh, it is you, Mr. Hovstad!

Hovstad. Yes, I hope you will forgive me, but I was delayed at the printer's. Good evening, Mr. Mayor.

Peter Stockmann (*bowing a little distantly*). Good evening. You have come on business, no doubt.

Hovstad. Partly. It's about an article for the paper.

Peter Stockmann. So I imagined. I hear my brother has become a prolific contributor to the "People's Messenger."

Hovstad. Yes, he is good enough to write in the "People's Messenger" when he has any home truths to tell.

Mrs. Stockmann (*to* HOVSTAD). But won't you–? (*Points to the dining room.*)

Peter Stockmann. Quite so, quite so. I don't blame him in the least, as a writer, for addressing himself to the quarters where he will find the readiest sympathy. And, besides that, I personally have no reason to bear any ill will to your paper, Mr. Hovstad.

Hovstad. I quite agree with you.

Peter Stockmann. Taking one thing with another, there is an excellent spirit of toleration in the town–an admirable municipal spirit. And it all springs from the fact of our having a great common interest to unite us–an interest that is in an equally high degree the concern of every right-minded citizen–

Hovstad. The Baths, yes.

Peter Stockmann. Exactly—our fine, new, handsome Baths. Mark my words, Mr. Hovstad—the Baths will become the focus of our municipal life! Not a doubt of it!

Mrs. Stockmann. That is just what Thomas says.

Peter Stockmann. Think how extraordinarily the place has developed within the last year or two! Money has been flowing in, and there is some life and some business doing in the town. Houses and landed property are rising in value every day.

Hovstad. And unemployment is diminishing.

Peter Stockmann. Yes, that is another thing. The burden of the poor rates has been lightened, to the great relief of the propertied classes; and that relief will be even greater if only we get a really good summer this year, and lots of visitors—plenty of invalids, who will make the Baths talked about.

Hovstad. And there is a good prospect of that, I hear.

Peter Stockmann. It looks very promising. Inquiries about apartments and that sort of thing are reaching us every day.

Hovstad. Well, the doctor's article will come in very suitably.

Peter Stockmann. Has he been writing something just lately?

Hovstad. This is something he wrote in the winter; a recommendation of the Baths—an account of the excellent sanitary conditions here. But I held the article over, temporarily.

Peter Stockmann. Ah—some little difficulty about it, I suppose?

Hovstad. No, not at all; I thought it would be better to wait till the spring, because it is just at this time that people begin to think seriously about their summer quarters.

Peter Stockmann. Quite right; you were perfectly right, Mr. Hovstad.

Hovstad. Yes, Thomas is really indefatigable when it is a question of the Baths.

Peter Stockmann. Well—remember, he is the Medical Officer to the Baths.

Hovstad. Yes, and what is more, they owe their existence to him.

Peter Stockmann. To him? Indeed! It is true I have heard from time to time that some people are of that opinion. At the same time I must say I imagined that I took a modest part in the enterprise.

Mrs. Stockmann. Yes, that is what Thomas is always saying.

Hovstad. But who denies it, Mr. Stockmann? You set the thing going and made a practical concern of it; we all know that. I only meant that the idea of it came first from the doctor.

Peter Stockmann. Oh, ideas—yes! My brother has had plenty of them in

his time–unfortunately. But when it is a question of putting an idea into practical shape, you have to apply to a man of different mettle, Mr. Hovstad. And I certainly should have thought that in this house at least–

Mrs. Stockmann. My dear Peter–

Hovstad. How can you think that–?

Mrs. Stockmann. Won't you go in and have something, Mr. Hovstad? My husband is sure to be back directly.

Hovstad. Thank you, perhaps just a morsel. (*Goes into the dining room.*)

Peter Stockmann (*lowering his voice a little*). It is a curious thing that these farmers' sons never seem to lose their want of tact.

Mrs. Stockmann. Surely it is not worth bothering about! Cannot you and Thomas share the credit as brothers?

Peter Stockmann. I should have thought so; but apparently some people are not satisfied with a share.

Mrs. Stockmann. What nonsense! You and Thomas get on so capitally together. (*Listens.*) There he is at last, I think. (*Goes out and opens the door leading to the hall.*)

Dr. Stockmann (*laughing and talking outside*). Look here–here is another guest for you, Katherine. Isn't that jolly! Come in, Captain Horster; hang your coat up on this peg. Ah, you don't wear an overcoat. Just think, Katherine; I met him in the street and could hardly persuade him to come up! (CAPTAIN HORSTER *comes into the room and greets* MRS. STOCKMANN. *He is followed by* DR. STOCKMANN.) Come along in, boys. They are ravenously hungry again, you know. Come along, Captain Horster; you must have a slice of beef. (*Pushes* HORSTER *into the dining room.* EJLIF *and* MORTEN *go in after them.*)

Mrs. Stockmann. But, Thomas, don't you see–?

Dr. Stockmann (*turning in the doorway*). Oh, is it you, Peter? (*Shakes hands with him.*) Now that is very delightful.

Peter Stockmann. Unfortunately I must go in a moment–

Dr. Stockmann. Rubbish! There is some toddy just coming in. You haven't forgotten the toddy, Katherine?

Mrs. Stockmann. Of course not; the water is boiling now. (*Goes into the dining room.*)

Peter Stockmann. Toddy too!

Dr. Stockmann. Yes, sit down and we will have it comfortably.

Peter Stockmann. Thanks, I never care about an evening's drinking.

Dr. Stockmann. But this isn't an evening's drinking.

Peter Stockmann. It seems to me–. (*Looks towards the dining room.*) It is extraordinary how they can put away all that food.

Dr. Stockmann (*rubbing his hands*). Yes, isn't it splendid to see young people eat? They have always got an appetite, you know! That's as it should be. Lots of food–to build up their strength! They are the people who are going to stir up the fermenting forces of the future, Peter.

Peter Stockmann. May I ask what they will find here to "stir up," as you put it?

Dr. Stockmann. Ah, you must ask the young people that–when the time comes. We shan't be able to see it, of course. That stands to reason–two old fogies, like us–

Peter Stockmann. Really, really! I must say that is an extremely odd expression to–

Dr. Stockmann. Oh, you mustn't take me too literally, Peter. I am so heartily happy and contented, you know. I think it is such an extraordinary piece of good fortune to be in the middle of all this growing, germinating life. It is a splendid time to live in! It is as if a whole new world were being created around one.

Peter Stockmann. Do you really think so?

Dr. Stockmann. Ah, naturally you can't appreciate it as keenly as I. You have lived all your life in these surroundings, and your impressions have got blunted. But I, who have been buried all these years in my little corner up north, almost without ever seeing a stranger who might bring new ideas with him–well, in my case it has just the same effect as if I had been transported into the middle of a crowded city.

Peter Stockmann. Oh, a city–!

Dr. Stockmann. I know, I know; it is all cramped enough here, compared with many other places. But there is life here–there is promise–there are innumerable things to work for and fight for; and that is the main thing. (*Calls*.) Katherine, hasn't the postman been here?

Mrs. Stockmann (*from the dining room*). No.

Dr. Stockmann. And then to be comfortably off, Peter! That is something one learns to value, when one has been on the brink of starvation, as we have.

Peter Stockmann. Oh, surely–

Dr. Stockmann. Indeed I can assure you we have often been very hard put to it, up there. And now to be able to live like a lord! Today, for instance, we had roast beef for dinner–and, what is more, for supper too. Won't you come and have a little bit? Or let me show it you, at any rate? Come here–

Peter Stockmann. No, no–not for worlds!

Dr. Stockmann. Well, but just come here then. Do you see, we have got a table cover?

Peter Stockmann. Yes, I noticed it.

Dr. Stockmann. And we have got a lamp shade too. Do you see? All out of Katherine's savings! It makes the room so cosy. Don't you think so? Just stand here for moment–no, no, not there–just here, that's it! Look now, when you get the light on it altogether–I really think it looks very nice, doesn't it?

Peter Stockmann. Oh, if you can afford luxuries of this kind–

Dr. Stockmann. Yes, I can afford it now. Katherine tells me I earn almost as much as we spend.

Peter Stockmann. Almost–yes!

Dr. Stockmann. But a scientific man must live in a little bit of style. I am quite sure an ordinary civil servant spends more in a year than I do.

Peter Stockmann. I daresay. A civil servant–a man in a well-paid position–

Dr. Stockmann. Well, any ordinary merchant, then! A man in that position spends two or three times as much as–

Peter Stockmann. It just depends on circumstances.

Dr. Stockmann. At all events I assure you I don't waste money unprofitably. But I can't find it in my heart to deny myself the pleasure of entertaining my friends. I need that sort of thing, you know. I have lived for so long shut out of it all, that it is a necessity of life to me to mix with young, eager, ambitious men, men of liberal and active minds; and that describes every one of those fellows who are enjoying their supper in there. I wish you knew more of Hovstad–

Peter Stockmann. By the way, Hovstad was telling me he was going to print another article of yours.

Dr. Stockmann. An article of mine?

Peter Stockmann. Yes, about the Baths. An article you wrote in the winter.

Dr. Stockmann. Oh, that one! No, I don't intend that to appear just for the present.

Peter Stockmann. Why not? It seems to me that this would be the most opportune moment.

Dr. Stockmann. Yes, very likely–under normal conditions. (*Crosses the room.*)

Peter Stockmann (*following him with his eyes*). Is there anything abnormal about the present conditions?

Dr. Stockmann (*standing still*). To tell you the truth, Peter, I can't say just at this moment–at all events not tonight. There may be much that is very abnormal about the present conditions–and it is possi-

ble there may be nothing abnormal about them at all. It is quite possible it may be merely my imagination.

Peter Stockmann. I must say it all sounds most mysterious. Is there something going on that I am to be kept in ignorance of? I should have imagined that I, as Chairman of the governing body of the Baths–

Dr. Stockmann. And I should have imagined that I–. Oh, come, don't let us fly out at one another, Peter.

Peter Stockmann. Heaven forbid! I am not in the habit of flying out at people, as you call it. But I am entitled to request most emphatically that all arrangements shall be made in a businesslike manner, through the proper channels, and shall be dealt with by the legally constituted authorities. I can allow no going behind our backs by any roundabout means.

Dr. Stockmann. Have I ever at any time tried to go behind your backs!

Peter Stockmann. You have an ingrained tendency to take your own way, at all events; and that is almost equally inadmissible in a wellordered community. The individual ought undoubtedly to acquiesce in subordinating himself to the community–or, to speak more accurately, to the authorities who have the care of the community's welfare.

Dr. Stockmann. Very likely. But what the deuce has all this got to do with me?

Peter Stockmann. That is exactly what you never appear to be willing to learn, my dear Thomas. But, mark my words, some day you will have to suffer for it–sooner or later. Now I have told you. Good-by.

Dr. Stockmann. Have you taken leave of your senses? You are on the wrong scent altogether.

Peter Stockmann. I am not usually that. You must excuse me now if I–(*calls into the dining room*). Good night, Katherine. Good night, gentlemen. (*Goes out*.)

Mrs. Stockmann (*coming from the dining room*). Has he gone?

Dr. Stockmann. Yes, and in such a bad temper.

Mrs. Stockmann. But, dear Thomas, what have you been doing to him again?

Dr. Stockmann. Nothing at all. And, anyhow, he can't oblige me to make my report before the proper time.

Mrs. Stockmann. What have you got to make a report to him about?

Dr. Stockmann. Hm! Leave that to me, Katherine. It is an extraordinary thing that the postman doesn't come.

HOVSTAD, BILLING *and* HORSTER *have got up from the table and come into the sitting room.* EJLIF *and* MORTEN *come in after them.*

Billing (*stretching himself*). Ah!—one feels a new man after a meal like that.

Hovstad. The mayor wasn't in a very sweet temper tonight, then.

Dr. Stockmann. It is his stomach; he has a wretched digestion.

Hovstad. I rather think it was us two of the "People's Messenger" that he couldn't digest.

Mrs. Stockmann. I thought you came out of it pretty well with him.

Hovstad. Oh yes; but it isn't anything more than a sort of truce.

Billing. That is just what it is! That word sums up the situation.

Dr. Stockmann. We must remember that Peter is a lonely man, poor chap. He has no home comforts of any kind; nothing but everlasting business. And all that infernal weak tea wash that he pours into himself! Now then, my boys, bring chairs up to the table. Aren't we going to have that toddy, Katherine?

Mrs. Stockmann (*going into the dining room*). I am just getting it.

Dr. Stockmann. Sit down here on the couch beside me, Captain Horster. We so seldom see you. Please sit down, my friends. (*They sit down at the table.* MRS. STOCKMANN *brings a tray, with a spirit lamp, glasses, bottles, etc., upon it.*)

Mrs. Stockmann. There you are! This is arrack, and this is rum, and this one is the brandy. Now every one must help himself.

Dr. Stockmann (*taking a glass*). We will. (*They all mix themselves some toddy.*) And let us have the cigars. Ejlif, you know where the box is. And you, Morten, can fetch my pipe. (*The two boys go into the room on the right.*) I have a suspicion that Ejlif pockets a cigar now and then!—but I take no notice of it. (*Calls out.*) And my smoking cap too, Morten. Katherine, you can tell him where I left it. Ah, he has got it. (*The boys bring the various things.*) Now, my friends. I stick to my pipe, you know. This one has seen plenty of bad weather with me up north. (*Touches glasses with them.*) Your good health! Ah, it is good to be sitting snug and warm here.

Mrs. Stockmann (*who sits knitting*). Do you sail soon, Captain Horster?

Horster. I expect to be ready to sail next week.

Mrs. Stockmann. I suppose you are going to America?

Horster. Yes, that is the plan.

Mrs. Stockmann. Then you won't be able to take part in the coming election.

Horster. Is there going to be an election?

Billing. Didn't you know?
Horster. No, I don't mix myself up with those things.
Billing. But do you not take an interest in public affairs?
Horster. No, I don't know anything about politics.
Billing. All the same, one ought to vote, at any rate.
Horster. Even if one doesn't know anything about what is going on?
Billing. Doesn't know! What do you mean by that? A community is like a ship; every one ought to be prepared to take the helm.
Horster. Maybe that is all very well on shore; but on board ship it wouldn't work.
Hovstad. It is astonishing how little most sailors care about what goes on on shore.
Billing. Very extraordinary.
Dr. Stockmann. Sailors are like birds of passage; they feel equally at home in any latitude. And that is only an additional reason for our being all the more keen, Hovstad. Is there to be anything of public interest in tomorrow's "Messenger"?
Hovstad. Nothing about municipal affairs. But the day after tomorrow I was thinking of printing your article–
Dr. Stockmann. Ah, devil take it–my article! Look here, that must wait a bit.
Hovstad. Really? We had just got convenient space for it, and I thought it was just the opportune moment–
Dr. Stockmann. Yes, yes, very likely you are right; but it must wait all the same. I will explain to you later.

PETRA *comes in from the hall, in hat and cloak and with a bundle of exercise books under her arm.*

Petra. Good evening.
Dr. Stockmann. Good evening, Petra; come along.

Mutual greetings; PETRA *takes off her things and puts them down on a chair by the door.*

Petra. And you have all been sitting here enjoying yourselves, while I have been out slaving!
Dr. Stockmann. Well, come and enjoy yourself too!
Billing. May I mix a glass for you?
Petra (*coming to the table*). Thanks, I would rather do it; you always mix it too strong. But I forgot, father–I have a letter for you. (*Goes to the chair where she has laid her things*.)

Dr. Stockmann. A letter? From whom?
Petra (*looking in her coat pocket*). The postman gave it to me just as I was going out–
Dr. Stockmann (*getting up and going to her*). And you only give it to me now!
Petra. I really had not time to run up again. There it is!
Dr. Stockmann (*seizing the letter*). Let's see, let's see, child! (*Looks at the address.*) Yes, that's all right!
Mrs. Stockmann. Is it the one you have been expecting so anxiously, Thomas?
Dr. Stockmann. Yes, it is. I must go to my room now and–. Where shall I get a light, Katherine? Is there no lamp in my room again?
Mrs. Stockmann. Yes, your lamp is already lit on your desk.
Dr. Stockmann. Good, good. Excuse me for a moment–(*Goes into his study.*)
Petra. What do you suppose it is, mother?
Mrs. Stockmann. I don't know; for the last day or two he has always been asking if the postman has not been.
Billing. Probably some country patient.
Petra. Poor old dad!–he will overwork himself soon. (*Mixes a glass for herself.*) There, that will taste good!
Hovstad. Have you been teaching in the evening school again today?
Petra (*sipping from her glass*). Two hours.
Billing. And four hours of school in the morning–
Petra. Five hours.
Mrs. Stockmann. And you have still got exercises to correct, I see.
Petra. A whole heap, yes.
Horster. You are pretty full up with work too, it seems to me.
Petra. Yes–but that is good. One is so delightfully tired after it.
Billing. Do you like that?
Petra. Yes, because one sleeps so well, then.
Morten. You must be dreadfully wicked, Petra.
Petra. Wicked?
Morten. Yes, because you work so much. Mr. Rörlund says work is a punishment for our sins.
Ejlif. Pooh, what a duffer you are, to believe a thing like that!
Mrs. Stockmann. Come, come, Ejlif!
Billing (*laughing*). That's capital!
Hovstad. Don't you want to work as hard as that, Morten?
Morten. No, indeed I don't.

Hovstad. What do you want to be, then?
Morten. I should like best to be a Viking.
Ejlif. You would have to be a pagan then.
Morten. Well, I could become a pagan, couldn't I?
Billing. I agree with you, Morten! My sentiments, exactly.
Mrs. Stockmann (*signaling to him*). I am sure that is not true, Mr. Billing.
Billing. Yes, I swear it is! I am a pagan, and I am proud of it. Believe me, before long we shall all be pagans.
Morten. And then shall be allowed to do anything we like?
Billing. Well, you see, Morten–.
Mrs. Stockmann. You must go to your room now, boys; I am sure you have some lessons to learn for tomorrow.
Ejlif. I should like so much to stay a little longer–
Mrs. Stockmann. No, no; away you go, both of you.

The boys say good night and go into the room on the left.

Hovstad. Do you really think it can do the boys any harm to hear such things?
Mrs. Stockmann. I don't know, but I don't like it.
Petra. But you know, mother, I think you really are wrong about it.
Mrs. Stockmann. Maybe, but I don't like it–not in our own home.
Petra. There is so much falsehood both at home and at school. At home one must not speak, and at school we have to stand and tell lies to the children.
Horster. Tell lies?
Petra. Yes, don't you suppose we have to teach them all sorts of things that we don't believe?
Billing. That is perfectly true.
Petra. If only I had the means I would start a school of my own, and it would be conducted on very different lines.
Billing. Oh, bother the means–!
Horster. Well, if you are thinking of that, Miss Stockmann, I shall be delighted to provide you with a schoolroom. The great big old house my father left me is standing almost empty; there is an immense dining room downstairs–
Petra (*laughing*). Thank you very much; but I am afraid nothing will come of it.
Hovstad. No, Miss Petra is much more likely to take to journalism, I expect. By the way, have you had time to do anything with that English story you promised to translate for us?

Petra. No, not yet; but you shall have it in good time.

DR. STOCKMANN *comes in from his room with an open letter in his hand.*

Dr. Stockmann (*waving the letter*). Well, now the town will have something new to talk about, I can tell you!

Billing. Something new?

Mrs. Stockmann. What is this?

Dr. Stockmann. A great discovery, Katherine.

Hovstad. Really?

Mrs. Stockmann. A discovery of yours?

Dr. Stockmann. A discovery of mine. (*Walks up and down.*) Just let them come saying, as usual, that it is all fancy and a crazy man's imagination! But they will be careful what they say this time, I can tell you!

Petra. But, father, tell us what it is.

Dr. Stockmann. Yes, yes—only give me time, and you shall know all about it. If only I had Peter here now! It just shows how we men can go about forming our judgments, when in reality we are as blind as any moles—

Hovstad. What are you driving at, Doctor?

Dr. Stockmann (*standing still by the table*). Isn't it the universal opinion that our town is a healthy spot?

Hovstad. Certainly.

Dr. Stockmann. Quite an unusually healthy spot, in fact—a place that deserves to be recommended in the warmest possible manner either for invalids or for people who are well—

Mrs. Stockmann. Yes, but my dear Thomas—

Dr. Stockmann. And we have been recommending it and praising it—I have written and written, both in the "Messenger" and in pamphlets—

Hovstad. Well, what then?

Dr. Stockmann. And the Baths—we have called them the "main artery of the town's lifeblood," the "nerve center of our town," and the devil knows what else—

Billing. "The town's pulsating heart" was the expression I once used on an important occasion—

Dr. Stockmann. Quite so. Well, do you know what they really are, these great, splendid, much-praised Baths, that have cost so much money—do you know what they are?

Hovstad. No, what are they?
Mrs. Stockmann. Yes, what are they?
Dr. Stockmann. The whole place is a pesthouse!
Petra. The Baths, father?
Mrs. Stockmann (*at the same time*). Our Baths!
Hovstad. But, Doctor–
Billing. Absolutely incredible!
Dr. Stockmann. The whole Bath establishment is a whited, poisoned sepulcher, I tell you–the gravest possible danger to the public health! All the nastiness up at Mölledal, all that stinking filth, is infecting the water in the conduit pipes leading to the reservoir; and the same cursed, filthy poison oozes out on the shore too–
Horster. Where the bathing place is?
Dr. Stockmann. Just there.
Hovstad. How do you come to be so certain of all this, Doctor?
Dr. Stockmann. I have investigated the matter most conscientiously. For a long time past I have suspected something of the kind. Last year we had some very strange cases of illness among the visitors–typhoid cases, and cases of gastric fever–
Mrs. Stockmann. Yes, that is quite true.
Dr. Stockmann. At the time, we supposed the visitors had been infected before they came; but later on, in the winter, I began to have a different opinion; and so I set myself to examine the water, as well as I could.
Mrs. Stockmann. Then that is what you have been so busy with?
Dr. Stockmann. Indeed I have been busy, Katherine. But here I had none of the necessary scientific apparatus; so I sent samples, both of the drinking water and of the sea water, up to the University, to have an accurate analysis made by a chemist.
Hovstad. And have you got that?
Dr. Stockmann (*showing him the letter*). Here it is! It proves the presence of decomposing organic matter in the water–it is full of Infusoria. The water is absolutely dangerous to use, either internally or externally.
Mrs. Stockmann. What a mercy you discovered it in time.
Dr. Stockmann. You may well say so.
Hovstad. And what do you propose to do now, Doctor?
Dr. Stockmann. To see the matter put right–naturally.
Hovstad. Can that be done?
Dr. Stockmann. It must be done. Otherwise the Baths will be absolutely

useless and wasted. But we need not anticipate that; I have a very clear idea what we shall have to do.

Mrs. Stockmann. But why have you kept this all so secret, dear?

Dr. Stockmann. Do you suppose I was going to run about the town gossiping about it, before I had absolute proof? No, thank you. I am not such a fool.

Petra. Still, you might have told us–

Dr. Stockmann. Not a living soul. But tomorrow you may run round to the old "Badger"–

Mrs. Stockmann. Oh, Thomas! Thomas!

Dr. Stockmann. Well, to your grandfather, then. The old boy will have something to be astonished at! I know he thinks I am cracked–and there are lots of other people think so too, I have noticed. But now these good folks shall see–they shall just see–! (*Walks about, rubbing his hands*.) There will be a nice upset in the town, Katherine; you can't imagine what it will be. All the conduit pipes will have to be relaid.

Hovstad (*getting up*). All the conduit pipes–?

Dr. Stockmann. Yes, of course. The intake is too low down; it will have to be lifted to a position much higher up.

Petra. Then you were right after all.

Dr. Stockmann. Ah, you remember, Petra–I wrote opposing the plans before the work was begun. But at that time no one would listen to me. Well, I am going to let them have it, now! Of course I have prepared a report for the Baths Committee; I have had it ready for a week, and was only waiting for this to come. (*Shows the letter*.) Now it shall go off at once. (*Goes into his room and comes back with some papers*.) Look at that! Four closely written sheets!–and the letter shall go with them. Give me a bit of paper, Katherine–something to wrap them up in. That will do! Now give it to–to–(*stamps his foot*)–what the deuce is her name?–give it to the maid, and tell her to take it at once to the Mayor.

MRS. STOCKMANN *takes the packet and goes out through the dining room*.

Petra. What do you think uncle Peter will say, father?

Dr. Stockmann. What is there for him to say? I should think he would be very glad that such an important truth has been brought to light.

Hovstad. Will you let me print a short note about your discovery in the "Messenger"?

Dr. Stockmann. I shall be very much obliged if you will.

Hovstad. It is very desirable that the public should be informed of it without delay.

Dr. Stockmann. Certainly.

Mrs. Stockmann (*coming back*). She has just gone with it.

Billing. Upon my soul, Doctor, you are going to be the foremost man in the town!

Dr. Stockmann (*walking about happily*). Nonsense! As a matter of fact I have done nothing more than my duty. I have only made a lucky find– that's all. Still, all the same–

Billing. Hovstad, don't you think the town ought to give Dr. Stockmann some sort of testimonial?

Hovstad. I will suggest it, anyway.

Billing. And I will speak to Aslaksen about it.

Dr. Stockmann. No, my good friends, don't let us have any of that nonsense. I won't hear of anything of the kind. And if the Baths Committee should think of voting me an increase of salary, I will not accept it. Do you hear, Katherine?–I won't accept it.

Mrs. Stockmann. You are quite right, Thomas.

Petra (*lifting her glass*). Your health, father!

Hovstad and Billing. Your health, Doctor! Good health!

Horster (*touches glasses with* DR. STOCKMANN). I hope it will bring you nothing but good luck.

Dr. Stockmann. Thank you, thank you, my dear fellows! I feel tremendously happy! It is a splendid thing for a man to be able to feel that he has done a service to his native town and to his fellow citizens. Hurrah, Katherine!

He puts his arms round her and whirls her round and round, while she protests with laughing cries. They all laugh, clap their hands, and cheer the DOCTOR. *The boys put their heads in at the door to see what is going on.*

ACT II

SCENE. *The same. The door into the dining room is shut. It is morning.* MRS. STOCKMANN, *with a sealed letter in her hand, comes in from the dining room, goes to the door of the* DOCTOR'S *study, and peeps in.*

Mrs. Stockmann. Are you in, Thomas?

Dr. Stockmann (*from within his room*). Yes, I have just come in. (*Comes into the room.*) What is it?
Mrs. Stockmann. A letter from your brother.
Dr. Stockmann. Aha, let us see! (*Opens the letter and reads:*) "I return herewith the manuscript you sent me"–(*Reads on in a low murmur.*) Hm!–
Mrs. Stockmann. What does he say?
Dr. Stockmann (*putting the papers in his pocket*). Oh, he only writes that he will come up here himself about midday.
Mrs. Stockmann. Well, try and remember to be at home this time.
Dr. Stockmann. That will be all right; I have got through all my morning visits.
Mrs. Stockmann. I am extremely curious to know how he takes it.
Dr. Stockmann. You will see he won't like its having been I, and not he, that made the discovery.
Mrs. Stockmann. Aren't you a little nervous about that?
Dr. Stockmann. Oh, he really will be pleased enough, you know. But, at the same time, Peter is so confoundedly afraid of anyone's doing any service to the town except himself.
Mrs. Stockmann. I will tell you what, Thomas–you should be good natured, and share the credit of this with him. Couldn't you make out that it was he who set you on the scent of this discovery?
Dr. Stockmann. I am quite willing. If only I can get the thing set right. I–

MORTEN KIIL *puts his head in through the door leading from the hall, looks round in an inquiring manner, and chuckles.*

Morten Kiil (*slyly*). Is it–is it true?
Mrs. Stockmann (*going to the door*). Father!–is it you?
Dr. Stockmann. Ah, Mr. Kiil–good morning, good morning!
Mrs. Stockmann. But come along in.
Morten Kiil. If it is true, I will; if not, I am off.
Dr. Stockmann. If what is true?
Morten Kiil. This tale about the water supply. Is it true?
Dr. Stockmann. Certainly it is true. But how did you come to hear it?
Morten Kiil (*coming in*). Petra ran in on her way to the school–
Dr. Stockmann. Did she?
Morten Kiil. Yes; and she declares that–. I thought she was only making a fool of me, but it isn't like Petra to do that.

Dr. Stockmann. Of course not. How could you imagine such a thing!

Morten Kiil. Oh well, it is better never to trust anybody; you may find you have been made a fool of before you know where you are. But it is really true, all the same?

Dr. Stockmann. You can depend upon it that it is true. Won't you sit down? (*Settles him on the couch*.) Isn't it a real bit of luck for the town–

Morten Kiil (*suppressing his laughter*). A bit of luck for the town?

Dr. Stockmann. Yes, that I made the discovery in good time.

Morten Kiil (*as before*). Yes, yes, yes!–But I should never have thought you the sort of man to pull your own brother's leg like this!

Dr. Stockmann. Pull his leg!

Mrs. Stockmann. Really, father dear–

Morten Kiil (*resting his hands and his chin on the handle of his stick and winking slyly at the* DOCTOR). Let me see, what was the story? Some kind of beast that had got into the water pipes, wasn't it?

Dr. Stockmann. Infusoria–yes.

Morten Kiil. And a lot of these beasts had got in, according to Petra–a tremendous lot.

Dr. Stockmann. Certainly; hundreds of thousands of them, probably.

Morten Kiil. But no one can see them–isn't that so?

Dr. Stockmann. Yes; you can't see them.

Morten Kiil (*with a quiet chuckle*). Damme–it's the finest story I have ever heard!

Dr. Stockmann. What do you mean?

Morten Kiil. But you will never get the Mayor to believe a thing like that.

Dr. Stockmann. We shall see.

Morten Kiil. Do you think he will be fool enough to–?

Dr. Stockmann. I hope the whole town will be fools enough.

Morten Kiil. The whole town! Well, it wouldn't be a bad thing. It would just serve them right, and teach them a lesson. They think themselves so much cleverer than we old fellows. They hounded me out of the council; they did, I tell you–they hounded me out. Now they shall pay for it. You pull their legs too, Thomas!

Dr. Stockmann. Really, I–

Morten Kiil. You pull their legs! (*Gets up*.) If you can work it so that the Mayor and his friends all swallow the same bait, I will give ten pounds to a charity–like a shot!

Dr. Stockmann. That is very kind of you.

Morten Kiil. Yes, I haven't got much money to throw away, I can tell you; but if you can work this, I will give five pounds to a charity at Christmas.

HOVSTAD *comes in by the hall door.*

Hovstad. Good morning! (*Stops.*) Oh, I beg your pardon–
Dr. Stockmann. Not at all; come in.
Morten Kiil (*with another chuckle*). Oho!–is he in this too?
Hovstad. What do you mean?
Dr. Stockmann. Certainly he is.
Morten Kiil. I might have known it! It must get into the papers. You know how to do it, Thomas! Set your wits to work. Now I must go.
Dr. Stockmann. Won't you stay a little while?
Morten Kiil. No, I must be off now. You keep up this game for all it is worth; you won't repent it, I'm damned if you will!

He goes out; MRS. STOCKMANN *follows him into the hall.*

Dr. Stockmann (*laughing*). Just imagine–the old chap doesn't believe a word of all this about the water supply.
Hovstad. Oh, that was it, then?
Dr. Stockmann. Yes, that was what we were talking about. Perhaps it is the same thing that brings you here?
Hovstad. Yes, it is. Can you spare me a few minutes, Doctor?
Dr. Stockmann. As long as you like, my dear fellow.
Hovstad. Have you heard from the Mayor yet?
Dr. Stockmann. Not yet. He is coming here later.
Hovstad. I have given the matter a great deal of thought since last night.
Dr. Stockmann. Well?
Hovstad. From your point of view, as a doctor and a man of science, this affair of the water supply is an isolated matter. I mean, you do not realize that it involves a great many other things.
Dr. Stockmann. How do you mean? Let us sit down, my dear fellow. No, sit here on the couch. (HOVSTAD *sits down on the couch,* DR. STOCKMANN *on a chair on the other side of the table.*) Now then. You mean that–?
Hovstad. You said yesterday that the pollution of the water was due to impurities in the soil.
Dr. Stockmann. Yes, unquestionably it is due to that poisonous morass up at Mölledal.

Hovstad. Begging your pardon, Doctor, I fancy it is due to quite another morass altogether.

Dr. Stockmann. What morass?

Hovstad. The morass that the whole life of our town is built on and is rotting in.

Dr. Stockmann. What the deuce are you driving at, Hovstad?

Hovstad. The whole of the town's interests have, little by little, got into the hands of a pack of officials.

Dr. Stockmann. Oh, come!–they are not all officials.

Hovstad. No, but those that are not officials are at any rate the officials' friends and adherents; it is the wealthy folk, the old families in the town, that have got us entirely in their hands.

Dr. Stockmann. Yes, but after all they are men of ability and knowledge.

Hovstad. Did they show any ability or knowledge when they laid the conduit pipes where they are now?

Dr. Stockmann. No, of course that was a great piece of stupidity on their part. But that is going to be set right now.

Hovstad. Do you think that will be all such plain sailing?

Dr. Stockmann. Plain sailing or no, it has got to be done, anyway.

Hovstad. Yes, provided the press takes up the question.

Dr. Stockmann. I don't think that will be necessary, my dear fellow, I am certain my brother–

Hovstad. Excuse me, Doctor; I feel bound to tell you I am inclined to take the matter up.

Dr. Stockmann. In the paper?

Hovstad. Yes. When I took over the "People's Messenger" my idea was to break up this ring of self-opinionated old fossils who had got hold of all the influence.

Dr. Stockmann. But you know you told me yourself what the result had been; you nearly ruined your paper.

Hovstad. Yes, at the time we were obliged to climb down a peg or two, it is quite true; because there was a danger of the whole project of the Baths coming to nothing if they failed us. But now the scheme has been carried through, and we can dispense with these grand gentlemen.

Dr. Stockmann. Dispense with them, yes; but we owe them a great debt of gratitude.

Hovstad. That shall be recognized ungrudgingly. But a journalist of my democratic tendencies cannot let such an opportunity as this slip. The bubble of official infallibility must be pricked. This superstition must be destroyed, like any other.

Dr. Stockmann. I am whole heartedly with you in that, Mr. Hovstad; if it is a superstition, away with it!

Hovstad. I should be very reluctant to bring the Mayor into it, because he is your brother. But I am sure you will agree with me that truth should be the first consideration.

Dr. Stockmann. That goes without saying. (*With sudden emphasis*.) Yes, but–but–

Hovstad. You must not misjudge me. I am neither more self-interested nor more ambitious than most men.

Dr. Stockmann. My dear fellow–who suggests anything of the kind?

Hovstad. I am of humble origin, as you know; and that has given me opportunities of knowing what is the most crying need in the humbler ranks of life. It is that they should be allowed some part in the direction of public affairs, Doctor. That is what will develop their faculties and intelligence and self-respect–

Dr. Stockmann. I quite appreciate that.

Hovstad. Yes–and in my opinion a journalist incurs a heavy responsibility if he neglects a favorable opportunity of emancipating the masses–the humble and oppressed. I know well enough that in exalted circles I shall be called an agitator, and all that sort of thing; but they may call what they like. If only my conscience doesn't reproach me, then–

Dr. Stockmann. Quite right! Quite right, Mr. Hovstad. But all the same–devil take it! (*A knock is heard at the door.*) Come in!

ASLAKSEN *appears at the door. He is poorly but decently dressed, in black, with a slightly crumpled white neckcloth; he wears gloves and has a felt hat in his hand.*

Aslaksen (*bowing*). Excuse my taking the liberty, Doctor–

Dr. Stockmann (*getting up*). Ah, it is you, Aslaksen!

Aslaksen. Yes, Doctor.

Hovstad (*standing up*). Is it me you want, Aslaksen?

Aslaksen. No; I didn't know I should find you here. No, it was the Doctor I–

Dr. Stockmann. I am quite at your service. What is it?

Aslaksen. Is what I heard from Mr. Billing true, sir–that you mean to improve our water supply?

Dr. Stockmann. Yes, for the Baths.

Aslaksen. Quite so, I understand. Well, I have come to say that I will back that up by every means in my power.

Hovstad (*to the* DOCTOR). You see!

Dr. Stockmann. I shall be very grateful to you, but–

Aslaksen. Because it may be no bad thing to have us small tradesmen at your back. We form, as it were, a compact majority in the town–if we choose. And it is always a good thing to have the majority with you, Doctor.

Dr. Stockmann. That is undeniably true; but I confess I don't see why such unusual precautions should be necessary in this case. It seems to me that such a plain, straightforward thing–

Aslaksen. Oh, it may be very desirable, all the same. I know our local authorities so well; officials are not generally very ready to act on proposals that come from other people. That is why I think it would not be at all amiss if we made a little demonstration.

Hovstad. That's right.

Dr. Stockmann. Demonstration, did you say? What on earth are you going to make a demonstration about?

Aslaksen. We shall proceed with the greatest moderation, Doctor. Moderation is always my aim; it is the greatest virtue in a citizen–at least, I think so.

Dr. Stockmann. It is well known to be a characteristic of yours, Mr. Aslaksen.

Aslaksen. Yes, I think I may pride myself on that. And this matter of the water supply is of the greatest importance to us small tradesmen. The Baths promise to be a regular gold mine for the town. We shall all make our living out of them, especially those of us who are householders. That is why we will back up the project as strongly as possible. And as I am at present Chairman of the Householders' Association–

Dr. Stockmann. Yes–?

Aslaksen. And, what is more, local secretary of the Temperance Society–you know, sir, I suppose, that I am a worker in the temperance cause?

Dr. Stockmann. Of course, of course.

Aslaksen. Well, you can understand that I come into contact with a great many people. And as I have the reputation of a temperate and law-abiding citizen–like yourself Doctor–I have a certain influence in the town, a little bit of power, if I may be allowed to say so.

Dr. Stockmann. I know that quite well, Mr. Aslaksen.

Aslaksen. So you see it would be an easy matter for me to set on foot some testimonial, if necessary.

Dr. Stockmann. A testimonial?

Aslaksen. Yes, some kind of an address of thanks from the townsmen for your share in a matter of such importance to the community. I need scarcely say that it would have to be drawn up with the greatest regard to moderation, so as not to offend the authorities—who, after all, have the reins in their hands. If we pay strict attention to that, no one can take it amiss, I should think!

Hovstad. Well, and even supposing they didn't like it—

Aslaksen. No, no, no; there must be no discourtesy to the authorities, Mr. Hovstad. It is no use falling foul of those upon whom our welfare so closely depends. I have done that in my time, and no good ever comes of it. But no one can take exception to a reasonable and frank expression of a citizen's views.

Dr. Stockmann (*shaking him by the hand*). I can't tell you, dear Mr. Aslaksen, how extremely pleased I am to find such hearty support among my fellow citizens. I am delighted—delighted! Now, you will take a small glass of sherry, eh?

Aslaksen. No, thank you; I never drink alcohol of that kind.

Dr. Stockmann. Well, what do you say to a glass of beer, then?

Aslaksen. Nor that either, thank you, Doctor. I never drink anything as early as this. I am going into town now to talk this over with one or two householders, and prepare the ground.

Dr. Stockmann. It is tremendously kind of you, Mr. Aslaksen; but I really cannot understand the necessity for all these precautions. It seems to me that the thing should go of itself.

Aslaksen. The authorities are somewhat slow to move, Doctor. Far be it from me to seem to blame them—

Hovstad. We are going to stir them up in the paper tomorrow, Aslaksen.

Aslaksen. But not violently, I trust, Mr. Hovstad. Proceed with moderation, or you will do nothing with them. You may take my advice; I have gathered my experience in the school of life. Well, I must say good-by, Doctor. You know now that we small tradesmen are at your back at all events, like a solid wall. You have the compact majority on your side, Doctor.

Dr. Stockmann. I am very much obliged, dear Mr. Aslaksen. (*Shakes hands with him.*) Good-by, good-by.

Aslaksen. Are you going my way, towards the printing office, Mr. Hovstad?

Hovstad. I will come later; I have something to settle up first.

Aslaksen. Very well. (*Bows and goes out;* STOCKMANN *follows him into the hall.*)

Hovstad (*as* STOCKMANN *comes in again*). Well, what do you think of

that, Doctor? Don't you think it is high time we stirred a little life into all this slackness and vacillation and cowardice?

Dr. Stockmann. Are you referring to Aslaksen?

Hovstad. Yes, I am. He is one of those who are floundering in a bog–decent enough fellow though he may be, otherwise. And most of the people here are in just the same case–seesawing and edging first to one side and then to the other, so overcome with caution and scruple that they never dare to take any decided step.

Dr. Stockmann. Yes, but Aslaksen seemed to me so thoroughly well intentioned.

Hovstad. There is one thing I esteem higher than that; and that is for a man to be self-reliant and sure of himself.

Dr. Stockmann. I think you are perfectly right there.

Hovstad. That is why I want to seize this opportunity, and try if I cannot manage to put a little virility into these well-intentioned people for once. The idol of Authority must be shattered in this town. This gross and inexcusable blunder about the water supply must be brought home to the mind of every municipal voter.

Dr. Stockmann. Very well; if you are of opinion that it is for the good of the community, so be it. But not until I have had a talk with my brother.

Hovstad. Anyway, I will get a leading article ready; and if the Mayor refuses to take the matter up–

Dr. Stockmann. How can you suppose such a thing possible?

Hovstad. It is conceivable. And in that case–

Dr. Stockmann. In that case I promise you–. Look here, in that case you may print my report–every word of it.

Hovstad. May I? Have I your word for it?

Dr. Stockmann (*giving him the manuscript*). Here it is; take it with you. It can do no harm for you to read it through, and you can give it me back later on.

Hovstad. Good, good! That is what I will do. And now good-by, Doctor.

Dr. Stockmann. Good-by, good-by. You will see everything will run quite smoothly, Mr. Hovstad–quite smoothly.

Hovstad. Hm!–we shall see. (*Bows and goes out*.)

Dr. Stockmann (*opens the dining room door and looks in*). Katherine! Oh, you are back, Petra?

Petra (*coming in*). Yes, I have just come from the school.

Mrs. Stockmann (*coming in*). Has he not been here yet?

Dr. Stockmann. Peter? No. But I have had a long talk with Hovstad. He is quite excited about my discovery. I find it has a much wider bear-

ing than I at first imagined. And he has put his paper at my disposal if necessity should arise.

Mrs. Stockmann. Do you think it will?

Dr. Stockmann. Not for a moment. But at all events it makes me feel proud to know that I have the liberal-minded independent press on my side. Yes, and–just imagine–I have had a visit from the Chairman of the Householders' Association!

Mrs. Stockmann. Oh! What did he want?

Dr. Stockmann. To offer me his support too. They will support me in a body if it should be necessary. Katherine–do you know what I have got behind me?

Mrs. Stockmann. Behind you? No, what have you got behind you?

Dr. Stockmann. The compact majority.

Mrs. Stockmann. Really? Is that a good thing for you, Thomas?

Dr. Stockmann. I should think it was a good thing. (*Walks up and down rubbing his hands.*) By Jove, it's a fine thing to feel this bond of brotherhood between oneself and one's fellow citizens!

Petra. And to be able to do so much that is good and useful, father!

Dr. Stockmann. And for one's own native town into the bargain, my child!

Mrs. Stockmann. That was a ring at the bell.

Dr. Stockmann. It must be he, then. (*A knock is heard at the door.*) Come in!

Peter Stockmann (*comes in from the hall*). Good morning.

Dr. Stockmann. Glad to see you, Peter!

Mrs. Stockmann. Good morning, Peter. How are you?

Peter Stockmann. So so, thank you. (*To* DR. STOCKMANN.) I received from you yesterday, after office hours, a report dealing with the condition of the water at the Baths.

Dr. Stockmann. Yes. Have you read it?

Peter Stockmann. Yes, I have.

Dr. Stockmann. And what have you to say to it?

Peter Stockmann (*with a sidelong glance*). Hm!–

Mrs. Stockmann. Come along, Petra. (*She and* PETRA *go into the room on the left.*)

Peter Stockmann (*after a pause*). Was it necessary to make all these investigations behind my back?

Dr. Stockmann. Yes, because until I was absolutely certain about it–

Peter Stockmann. Then you mean that you are absolutely certain now?

Dr. Stockmann. Surely you are convinced of that.

Peter Stockmann. Is it your intention to bring this document before the Baths Committee as a sort of official communication?

Dr. Stockmann. Certainly. Something must be done in the matter—and that quickly.

Peter Stockmann. As usual, you employ violent expressions in your report. You say, among other things, that what we offer visitors in our Baths is a permanent supply of poison.

Dr. Stockmann. Well, can you describe it any other way, Peter! Just think—water that is poisonous, whether you drink it or bathe in it! And this we offer to the poor sick folk who come to us trustfully and pay us at an exorbitant rate to be made well again!

Peter Stockmann. And your reasoning leads you to this conclusion, that we must build a sewer to draw off the alleged impurities from Mölledal and must relay the water conduits.

Dr. Stockmann. Yes. Do you see any other way out of it? I don't.

Peter Stockmann. I made a pretext this morning to go and see the town engineer, and, as if only half seriously, broached the subject of these proposals as a thing we might perhaps have to take under consideration some time later on.

Dr. Stockmann. Some time later on!

Peter Stockmann. He smiled at what he considered to be my extravagance, naturally. Have you taken the trouble to consider what your proposed alterations would cost? According to the information I obtained, the expenses would probably mount up to fifteen or twenty thousand pounds.

Dr. Stockmann. Would it cost so much?

Peter Stockmann. Yes; and the worst part of it would be that the work would take at least two years.

Dr. Stockmann. Two years? Two whole years?

Peter Stockmann. At least. And what are we to do with the Baths in the meantime? Close them? Indeed we should be obliged to. And do you suppose anyone would come near the place after it had got about that the water was dangerous?

Dr. Stockmann. Yes, but, Peter, that is what it is.

Peter Stockmann. And all this at this juncture—just as the Baths are beginning to be known. There are other towns in the neighborhood with qualifications to attract visitors for bathing purposes. Don't you suppose they would immediately strain every nerve to divert the entire stream of strangers to themselves? Unquestionably they would; and then where should we be? We should probably have to abandon

the whole thing, which has cost us so much money—and then you would have ruined your native town.

Dr. Stockmann. I—should have ruined—!

Peter Stockmann. It is simply and solely through the Baths that the town has before it any future worth mentioning. You know that just as well as I.

Dr. Stockmann. But what do you think ought to be done, then?

Peter Stockmann. Your report has not convinced me that the condition of the water at the Baths is as bad as you represent it to be.

Dr. Stockmann. I tell you it is even worse!—or at all events it will be in summer, when the warm weather comes.

Peter Stockmann. As I said, I believe you exaggerate the matter considerably. A capable physician ought to know what measures to take—he ought to be capable of preventing injurious influences or of remedying them if they become obviously persistent.

Dr. Stockmann. Well? What more?

Peter Stockmann. The water supply for the Baths is now an established fact, and in consequence must be treated as such. But probably the Committee, at its discretion, will not be disinclined to consider the question of how far it might be possible to introduce certain improvements consistently with a reasonable expenditure.

Dr. Stockmann. And do you suppose that I will have anything to do with such a piece of trickery as that?

Peter Stockmann. Trickery!!

Dr. Stockmann. Yes, it would be a trick—a fraud, a lie, a downright crime towards the public, towards the whole community!

Peter Stockmann. I have not, as I remarked before, been able to convince myself that there is actually any imminent danger.

Dr. Stockmann. You have! It is impossible that you should not be convinced. I know I have represented the facts absolutely truthfully and fairly. And you know it very well, Peter, only you won't acknowledge it. It was owing to your action that both the Baths and the water conduits were built where they are; and that is what you won't acknowledge—that damnable blunder of yours. Pooh!—do you suppose I don't see through you?

Peter Stockmann. And even if that were true? If I perhaps guard my reputation somewhat anxiously, it is in the interests of the town. Without moral authority I am powerless to direct public affairs as seems, to my judgment, to be best for the common good. And on that account—and for various other reasons too—it appears to me to be a matter

of importance that your report should not be delivered to the Committee. In the interests of the public, you must withhold it. Then, later on, I will raise the question and we will do our best, privately; but nothing of this unfortunate affair—not a single word of it—must come to the ears of the public.

Dr. Stockmann. I am afraid you will not be able to prevent that now, my dear Peter.

Peter Stockmann. It must and shall be prevented.

Dr. Stockmann. It is no use, I tell you. There are too many people that know about it.

Peter Stockmann. That know about it? Who? Surely you don't mean those fellows on the "People's Messenger"?

Dr. Stockmann. Yes, they know. The liberal-minded independent press is going to see that you do your duty.

Peter Stockmann (*after a short pause*). You are an extraordinarily independent man, Thomas. Have you given no thought to the consequences this may have for yourself?

Dr. Stockmann. Consequences?—for me?

Peter Stockmann. For you and yours, yes.

Dr. Stockmann. What the deuce do you mean?

Peter Stockmann. I believe I have always behaved in a brotherly way to you—have always been ready to oblige or to help you?

Dr. Stockmann. Yes, you have, and I am grateful to you for it.

Peter Stockmann. There is no need. Indeed, to some extent I was forced to do so—for my own sake. I always hoped that, if I helped to improve your financial position, I should be able to keep some check on you.

Dr. Stockmann. What!! Then it was only for your own sake—!

Peter Stockmann. Up to a certain point, yes. It is painful for a man in an official position to have his nearest relative compromising himself time after time.

Dr. Stockmann. And do you consider that I do that?

Peter Stockmann. Yes, unfortunately, you do, without even being aware of it. You have a restless, pugnacious, rebellious disposition. And then there is that disastrous propensity of yours to want to write about every sort of possible and impossible thing. The moment an idea comes into your head, you must needs go and write a newspaper article or a whole pamphlet about it.

Dr. Stockmann. Well, but is it not the duty of a citizen to let the public share in any new ideas he may have?

Peter Stockmann. Oh, the public doesn't require any new ideas. The public is best served by the good, old-established ideas it already has.

Dr. Stockmann. And that is your honest opinion?

Peter Stockmann. Yes, and for once I must talk frankly to you. Hitherto I have tried to avoid doing so, because I know how irritable you are; but now I must tell you the truth, Thomas. You have no conception what an amount of harm you do yourself by your impetuosity. You complain of the authorities, you even complain of the government–you are always pulling them to pieces; you insist that you have been neglected and persecuted. But what else can such a cantankerous man as you expect?

Dr. Stockmann. What next! Cantankerous, am I?

Peter Stockmann. Yes, Thomas, you are an extremely cantankerous man to work with–I know that to my cost. You disregard everything that you ought to have consideration for. You seem completely to forget that it is me you have to thank for your appointment here as medical officer to the Baths–

Dr. Stockmann. I was entitled to it as a matter of course!–I and nobody else! I was the first person to see that the town could be made into a flourishing watering place, and I was the only one who saw it at that time. I had to fight singlehanded in support of the idea for many years; and I wrote and wrote–

Peter Stockmann. Undoubtedly. But things were not ripe for the scheme then–though, of course, you could not judge of that in your out-of-the-way corner up north. But as soon as the opportune moment came I–and the others–took the matter into our hands–

Dr. Stockmann. Yes, and made this mess of all my beautiful plan. It is pretty obvious now what clever fellows you were!

Peter Stockmann. To my mind the whole thing only seems to mean that you are seeking another outlet for your combativeness. You want to pick a quarrel with your superiors–an old habit of yours. You cannot put up with any authority over you. You look askance at anyone who occupies a superior official position; you regard him as a personal enemy, and then any stick is good enough to beat him with. But now I have called your attention to the fact that the town's interests are at stake–and, incidentally, my own too. And therefore I must tell you, Thomas, that you will find me inexorable with regard to what I am about to require you to do.

Dr. Stockmann. And what is that?

Peter Stockmann. As you have been so indiscreet as to speak of this delicate matter to outsiders, despite the fact that you ought to have

treated it as entirely official and confidential, it is obviously impossible to hush it up now. All sorts of rumors will get about directly, and everybody who has a grudge against us will take care to embellish these rumors. So it will be necessary for you to refute them publicly.

Dr. Stockmann. I! How? I don't understand.

Peter Stockmann. What we shall expect is that, after making further investigations, you will come to the conclusion that the matter is not by any means as dangerous or as critical as you imagined in the first instance.

Dr. Stockmann. Oho!–so that is what you expect!

Peter Stockmann. And, what is more, we shall expect you to make public profession of your confidence in the Committee and in their readiness to consider fully and conscientiously what steps may be necessary to remedy any possible defects.

Dr. Stockmann. But you will never be able to do that by patching and tinkering at it–never! Take my word for it, Peter; I mean what I say, as deliberately and emphatically as possible.

Peter Stockmann. As an officer under the Committee, you have no right to any individual opinion.

Dr. Stockmann (*amazed*). No right?

Peter Stockmann. In your official capacity, no. As a private person, it is quite another matter. But as a subordinate member of the staff of the Baths, you have no right to express any opinion which runs contrary to that of your superiors.

Dr. Stockmann. This is too much! I, a doctor, a man of science, have no right to–!

Peter Stockmann. The matter in hand is not simply a scientific one. It is a complicated matter, and has its economic as well as its technical side.

Dr. Stockmann. I don't care what it is! I intend to be free to express my opinion on any subject under the sun.

Peter Stockmann. As you please–but not on any subject concerning the Baths. That we forbid.

Dr. Stockmann (*shouting*). You forbid–! You! A pack of–

Peter Stockmann. *I* forbid it–I, your chief; and if I forbid it, you have to obey.

Dr. Stockmann (*controlling himself*). Peter–if you were not my brother–

Petra (*throwing open the door*). Father, you shan't stand this!

Mrs. Stockmann (*coming in after her*). Petra, Petra!

Peter Stockmann. Oh, so you have been eavesdropping.

Mrs. Stockmann. You were talking so loud, we couldn't help–

Petra. Yes, I was listening.

Peter Stockmann. Well, after all, I am very glad–

Dr. Stockmann (*going up to him*). You were saying something about forbidding and obeying?

Peter Stockmann. You obliged me to take that tone with you.

Dr. Stockmann. And so I am to give myself the lie, publicly?

Peter Stockmann. We consider it absolutely necessary that you should make some such public statement as I have asked for.

Dr. Stockmann. And if I do not–obey?

Peter Stockmann. Then we shall publish a statement ourselves to reassure the public.

Dr. Stockmann. Very well; but in that case I shall use my pen against you. I stick to what I have said; I will show that I am right and that you are wrong. And what will you do then?

Peter Stockmann. Then I shall not be able to prevent your being dismissed.

Dr. Stockmann. What–?

Petra. Father–dismissed!

Mrs. Stockmann. Dismissed!

Peter Stockmann. Dismissed from the staff of the Baths. I shall be obliged to propose that you shall immediately be given notice, and shall not be allowed any further participation in the Baths' affairs.

Dr. Stockmann. You would dare to do that!

Peter Stockmann. It is you that are playing the daring game.

Petra. Uncle, that is a shameful way to treat a man like father!

Mrs. Stockmann. Do hold your tongue, Petra!

Peter Stockmann (*looking at* PETRA). Oh, so we volunteer our opinions already, do we? Of course. (*To* MRS. STOCKMANN.) Katherine, I imagine you are the most sensible person in this house. Use any influence you may have over your husband, and make him see what this will entail for his family as well as–

Dr. Stockmann. My family is my own concern and nobody else's!

Peter Stockmann. –for his own family, as I was saying, as well as for the town he lives in.

Dr. Stockmann. It is I who have the real good of the town at heart! I want to lay bare the defects that sooner or later must come to the light of day. I will show whether I love my native town.

Peter Stockmann. You, who in your blind obstinacy want to cut off the most important source of the town's welfare?

Dr. Stockmann. The source is poisoned, man! Are you mad? We are mak-

ing our living by retailing filth and corruption! The whole of our flourishing municipal life derives its sustenance from a lie!

Peter Stockmann. All imagination—or something even worse. The man who can throw out such offensive insinuations about his native town must be an enemy to our community.

Dr. Stockmann (*going up to him*). Do you dare to—!

Mrs. Stockmann (*throwing herself between them*). Thomas!

Petra (*catching her father by the arm*). Don't lose your temper, father!

Peter Stockmann. I will not expose myself to violence. Now you have had a warning; so reflect on what you owe to yourself and your family. Good-by. (*Goes out.*)

Dr. Stockmann (*walking up and down*). Am I to put up with such treatment as this? In my own house, Katherine! What do you think of that!

Mrs. Stockmann. Indeed it is both shameful and absurd. Thomas—

Petra. If only I could give uncle a piece of my mind—

Dr. Stockmann. It is my own fault. I ought to have flown out at him long ago!—shown my teeth!—bitten! To hear him call me an enemy to our community! Me! *I* shall not take that lying down, upon my soul!

Mrs. Stockmann. But, dear Thomas, your brother has power on his side—

Dr. Stockmann. Yes, but I have right on mine, I tell you.

Mrs. Stockmann. Oh yes, right—right. What is the use of having right on your side if you have not got might?

Petra. Oh, mother!—how can you say such a thing!

Dr. Stockmann. Do you imagine that in a free country it is no use having right on your side? You are absurd, Katherine. Besides, haven't I got the liberal-minded, independent press to lead the way, and the compact majority behind me? That is might enough, I should think!

Mrs. Stockmann. But, good heavens, Thomas, you don't mean to—?

Dr. Stockmann. Don't mean to what?

Mrs. Stockmann. To set yourself up in opposition to your brother.

Dr. Stockmann. In God's name, what else do you suppose I should do but take my stand on right and truth?

Petra. Yes, I was just going to say that.

Mrs. Stockmann. But it won't do you any earthly good. If they won't do it, they won't.

Dr. Stockmann. Oho, Katherine! Just give me time, and you will see how I will carry the war into their camp.

Mrs. Stockmann. Yes, you carry the war into their camp, and you get your dismissal—that is what you will do.

Dr. Stockmann. In any case I shall have done my duty towards the public–towards the community. I, who am called its enemy!

Mrs. Stockmann. But towards your family, Thomas? Towards your own home! Do you think that is doing your duty towards those you have to provide for?

Petra. Ah, don't think always first of us, mother.

Mrs. Stockmann. Oh, it is easy for you to talk; you are able to shift for yourself, if need be. But remember the boys, Thomas; and think a little too of yourself, and of me–

Dr. Stockmann. I think you are out of your senses, Katherine! If I were to be such a miserable coward as to go on my knees to Peter and his damned crew, do you suppose I should ever know an hour's peace of mind all my life afterwards?

Mrs. Stockmann. I don't know anything about that; but God preserve us from the peace of mind we shall have, all the same, if you go on defying him! You will find yourself again without the means of subsistence, with no income to count upon. I should think we had had enough of that in the old days. Remember that, Thomas; think what that means.

Dr. Stockmann (*collecting himself with a struggle and clenching his fists*). And this is what this slavery can bring upon a free, honorable man! Isn't it horrible, Katherine?

Mrs. Stockmann. Yes, it is sinful to treat you so, it is perfectly true. But, good heavens, one has to put up with so much injustice in this world. There are the boys, Thomas! Look at them! What is to become of them? Oh, no, no, you can never have the heart–.

EJLIF *and* MORTEN *have come in while she was speaking, with their school books in their hands.*

Dr. Stockmann. The boys–! (*Recovers himself suddenly.*) No, even if the whole world goes to pieces, I will never bow my neck to this yoke! (*Goes towards his room.*)

Mrs. Stockmann (*following him*). Thomas–what are you going to do!

Dr. Stockmann (*at his door*). I mean to have the right to look my sons in the face when they are grown men. (*Goes into his room.*)

Mrs. Stockmann (*bursting into tears*). God help us all!

Petra. Father is splendid! He will not give in.

The boys look on in amazement; PETRA *signs to them not to speak.*

ACT III

SCENE. *The editorial office of the "People's Messenger." The entrance door is on the left-hand side of the back wall; on the right-hand side is another door with glass panels through which the printing room can be seen. Another door in the right-hand wall. In the middle of the room is a large table covered with papers, newspapers and books. In the foreground on the left a window, before which stand a desk and a high stool. There are a couple of easy chairs by the table, and other chairs standing along the wall. The room is dingy and uncomfortable; the furniture is old, the chairs stained and torn. In the printing room the compositors are seen at work, and a printer is working a hand press.* HOVSTAD *is sitting at the desk, writing.* BILLING *comes in from the right with* DR. STOCKMANN'S *manuscript in his hand.*

Billing. Well, I must say!

Hovstad (*still writing*). Have you read it through?

Billing (*laying the manuscript on the desk*). Yes, indeed I have.

Hovstad. Don't you think the Doctor hits them pretty hard?

Billing. Hard? Bless my soul, he's crushing! Every word falls like–how shall I put it?–like the blow of a sledge hammer.

Hovstad. Yes, but they are not the people to throw up the sponge at the first blow.

Billing. That is true; and for that reason we must strike blow upon blow until the whole of this aristocracy tumbles to pieces. As I sat in there reading this, I almost seemed to see a revolution in being.

Hovstad (*turning round*). Hush! Speak so that Aslaksen cannot hear you.

Billing (*lowering his voice*). Aslaksen is a chicken-hearted chap, a coward; there is nothing of the man in him. But this time you will insist on your own way, won't you? You will put the Doctor's article in?

Hovstad. Yes, and if the Mayor doesn't like it–

Billing. That will be the devil of a nuisance.

Hovstad. Well, fortunately we can turn the situation to good account, whatever happens. If the Mayor will not fall in with the Doctor's project, he will have all the small tradesmen down on him–the whole of the Householders' Association and the rest of them. And if he does fall in with it, he will fall out with the whole crowd of large shareholders in the Baths, who up to now have been his most valuable supporters–

Billing. Yes, because they will certainly have to fork out a pretty penny–

Hovstad. Yes, you may be sure they will. And in this way the ring will be broken up, you see, and then in every issue of the paper we will enlighten the public on the Mayor's incapability on one point and another, and make it clear that all the positions of trust in the town, the whole control of municipal affairs, ought to be put in the hands of the Liberals.

Billing. That is perfectly true! I see it coming–I see it coming; we are on the threshold of a revolution!

A knock is heard at the door.

Hovstad. Hush! (*Calls out.*) Come in! (DR. STOCKMANN *comes in by the street door*. HOVSTAD *goes to meet him.*) Ah, it is you, Doctor! Well?

Dr. Stockmann. You may set to work and print it, Mr. Hovstad!

Hovstad. Has it come to that, then?

Billing. Hurrah!

Dr. Stockmann. Yes, print away. Undoubtedly it has come to that. Now they must take what they get. There is going to be a fight in the town, Mr. Billing!

Billing. War to the knife, I hope! We will get our knives to their throats, Doctor!

Dr. Stockmann. This article is only a beginning. I have already got four or five more sketched out in my head. Where is Aslaksen?

Billing (*calls into the printing room*). Aslaksen, just come here for a minute!

Hovstad. Four or five more articles, did you say? On the same subject?

Dr. Stockmann. No–far from it, my dear fellow. No, they are about quite another matter. But they all spring from the question of the water supply and the drainage. One thing leads to another, you know. It is like beginning to pull down an old house, exactly.

Billing. Upon my soul, it's true; you find you are not done till you have pulled all the old rubbish down.

Aslaksen (*coming in*). Pulled down? You are not thinking of pulling down the Baths surely, Doctor?

Hovstad. Far from it, don't be afraid.

Dr. Stockmann. No, we meant something quite different. Well, what do you think of my article, Mr. Hovstad?

Hovstad. I think it is simply a masterpiece–

Dr. Stockmann. Do you really think so? Well, I am very pleased, very pleased.

Hovstad. It is so clear and intelligible. One need have no special knowl-

edge to understand the bearing of it. You will have every enlightened man on your side.

Aslaksen. And every prudent man too, I hope?

Billing. The prudent and the imprudent–almost the whole town.

Aslaksen. In that case we may venture to print it.

Dr. Stockmann. I should think so!

Hovstad. We will put it in tomorrow morning.

Dr. Stockmann. Of course–you must not lose a single day. What I wanted to ask you, Mr. Aslaksen, was if you would supervise the printing of it yourself.

Aslaksen. With pleasure.

Dr. Stockmann. Take care of it as if it were a treasure! No misprints–every word is important. I will look in again a little later; perhaps you will be able to let me see a proof. I can't tell you how eager I am to see it in print, and see it burst upon the public–

Billing. Burst upon them–yes, like a flash of lightning!

Dr. Stockmann. –and to have it submitted to the judgment of my intelligent fellow townsmen. You cannot imagine what I have gone through today. I have been threatened first with one thing and then with another; they have tried to rob me of my most elementary rights as a man–

Billing. What! Your rights as a man!

Dr. Stockmann. –they have tried to degrade me, to make a coward of me, to force me to put personal interests before my most sacred convictions–

Billing. That is too much–I'm damned if it isn't.

Hovstad. Oh, you mustn't be surprised at anything from that quarter.

Dr. Stockmann. Well, they will get the worst of it with me; they may assure themselves of that. I shall consider the "People's Messenger" my sheet anchor now, and every single day I will bombard them with one article after another, like bombshells–

Aslaksen. Yes, but–

Billing. Hurrah!–it is war, it is war!

Dr. Stockmann. I shall smite them to the ground–I shall crush them–I shall break down all their defenses, before the eyes of the honest public! That is what I shall do!

Aslaksen. Yes, but in moderation, Doctor–proceed with moderation–

Billing. Not a bit of it, not a bit of it! Don't spare the dynamite!

Dr. Stockmann. Because it is not merely a question of water supply and drains now, you know. No–it is the whole of our social life that we have got to purify and disinfect–

Billing. Spoken like a deliverer!

Dr. Stockmann. All the incapables must be turned out, you understand—and that in every walk of life! Endless vistas have opened themselves to my mind's eye today. I cannot see it all quite clearly yet, but I shall in time. Young and vigorous standard-bearers—those are what we need and must seek, my friends; we must have new men in command at all our outposts.

Billing. Hear, hear!

Dr. Stockmann. We only need to stand by one another, and it will all be perfectly easy. The revolution will be launched like a ship that runs smoothly off the stocks. Don't you think so?

Hovstad. For my part I think we have now a prospect of getting the municipal authority into the hands where it should lie.

Aslaksen. And if only we proceed with moderation, I cannot imagine that there will be any risk.

Dr. Stockmann. Who the devil cares whether there is any risk or not! What I am doing, I am doing in the name of truth and for the sake of my conscience.

Hovstad. You are a man who deserves to be supported, Doctor.

Aslaksen. Yes, there is no denying that the Doctor is a true friend to the town—a real friend to the community, that he is.

Billing. Take my word for it, Aslaksen, Dr. Stockmann is a friend of the people.

Aslaksen. I fancy the Householders' Association will make use of that expression before long.

Dr. Stockmann (*affected, grasps their hands*). Thank you, thank you, my dear staunch friends. It is very refreshing to me to hear you say that; my brother called me something quite different. By Jove, he shall have it back, with interest! But now I must be off to see a poor devil—. I will come back, as I said. Keep a very careful eye on the manuscript, Aslaksen, and don't for worlds leave out any of my notes of exclamation! Rather put one or two more in! Capital, capital! Well, good-by for the present—good-by, good-by!

They show him to the door, and bow him out.

Hovstad. He may prove an invaluably useful man to us.

Aslaksen. Yes, so long as he confines himself to this matter of the Baths. But if he goes farther afield, I don't think it would be advisable to follow him.

Hovstad. Hm!—that all depends—

Billing. You are so infernally timid, Aslaksen!

Aslaksen. Timid? Yes, when it is a question of the local authorities, I am timid, Mr. Billing; it is a lesson I have learned in the school of experience, let me tell you. But try me in higher politics in matters that concern the government itself, and then see if I am timid.

Billing. No, you aren't, I admit. But this is simply contradicting yourself.

Aslaksen. I am a man with a conscience, and that is the whole matter. If you attack the government, you don't do the community any harm, anyway; those fellows pay no attention to attacks, you see—they go on just as they are, in spite of them. But *local* authorities are different; they *can* be turned out, and then perhaps you may get an ignorant lot into office who may do irreparable harm to the householders and everybody else.

Hovstad. But what of the education of citizens by self-government—don't you attach any importance to that?

Aslaksen. When a man has interests of his own to protect, he cannot think of everything, Mr. Hovstad.

Hovstad. Then I hope I shall never have interests of my own to protect!

Billing. Hear, hear!

Aslaksen (*with a smile*). Hm! (*Points to the desk*.) Mr. Sheriff Stensgaard was your predecessor at that editorial desk.

Billing (*spitting*). Bah! That turncoat.

Hovstad. I am not a weathercock—and never will be.

Aslaksen. A politician should never be too certain of anything, Mr. Hovstad. And as for you, Mr. Billing, I should think it is time for you to be taking in a reef or two in your sails, seeing that you are applying for the post of secretary to the Bench.

Billing. I—!

Hovstad. Are you, Billing?

Billing. Well, yes—but you must clearly understand I am doing it only to annoy the bigwigs.

Aslaksen. Anyhow, it is no business of mine. But if I am to be accused of timidity and of inconsistency in my principles, this is what I want to point out: my political past is an open book. I have never changed, except perhaps to become a little more moderate, you see. My heart is still with the people; but I don't deny that my reason has a certain bias towards the authorities—the local ones, I mean. (*Goes into the printing room*.)

Billing. Oughtn't we to try and get rid of him, Hovstad?

Hovstad. Do you know anyone else who will advance the money for our paper and printing bill?

Billing. It is an infernal nuisance that we don't possess some capital to trade on.

Hovstad (s*itting down at his desk*). Yes, if we only had that, then–

Billing. Suppose you were to apply to Dr. Stockmann?

Hovstad (*turning over some papers*). What is the use? He has got nothing.

Billing. No, but he has got a warm man in the background, old Morten Kiil–"the Badger," as they call him.

Hovstad (*writing*). Are you so sure *he* has got anything?

Billing. Good Lord, of course he has! And some of it must come to the Stockmanns. Most probably he will do something for the children, at all events.

Hovstad (*turning half round*). Are you counting on that?

Billing. Counting on it? Of course I am not counting on anything.

Hovstad. That is right. And I should not count on the secretaryship to the Bench either, if I were you; for I can assure you–you won't get it.

Billing. Do you think I am not quite aware of that? My object is precisely *not* to get it. A slight of that kind stimulates a man's fighting power–it is like getting a supply of fresh bile–and I am sure one needs that badly enough in a hole-and-corner place like this, where it is so seldom anything happens to stir one up.

Hovstad (*writing*). Quite so, quite so.

Billing. Ah, I shall be heard of yet!–Now I shall go and write the appeal to the Householders' Association. (*Goes into the room on the right.*)

Hovstad (*sitting at his desk, biting his penholder, says slowly*). Hm!–that's it, is it? (*A knock is heard.*) Come in! (PETRA *comes in by the outer door.* HOVSTAD *gets up.*) What, you!–here?

Petra. Yes, you must forgive me–

Hovstad (*pulling a chair forward*). Won't you sit down?

Petra. No, thank you; I must go again in a moment.

Hovstad. Have you come with a message from your father, by any chance?

Petra. No, I have come on my own account. (*Takes a book out of her coat pocket.*) Here is the English story.

Hovstad. Why have you brought it back?

Petra. Because I am not going to translate it.

Hovstad. But you promised me faithfully–

Petra. Yes, but then I had not read it. I don't suppose you have read it either?

Hovstad. No, you know quite well I don't understand English; but–

Petra. Quite so. That is why I wanted to tell you that you must find something else. (*Lays the book on the table*.) You can't use this for the "People's Messenger."

Hovstad. Why not?

Petra. Because it conflicts with all your opinions.

Hovstad. Oh, for that matter–

Petra. You don't understand me. The burden of this story is that there is a supernatural power that looks after the so-called good people in this world and makes everything happen for the best in their case–while all the so-called bad people are punished.

Hovstad. Well, but that is all right. That is just what our readers want.

Petra. And are you going to be the one to give it to them? For myself, I do not believe a word of it. You know quite well that things do not happen so in reality.

Hovstad. You are perfectly right; but an editor cannot always act as he would prefer. He is often obliged to bow to the wishes of the public in unimportant matters. Politics are the most important thing in life–for a newspaper, anyway; and if I want to carry my public with me on the path that leads to liberty and progress, I must not frighten them away. If they find a moral tale of this sort in the serial at the bottom of the page, they will be all the more ready to read what is printed above it; they feel more secure, as it were.

Petra. For shame! You would never go and set a snare like that for your readers; you are not a spider!

Hovstad (*smiling*). Thank you for having such a good opinion of me. No; as a matter of fact that is Billing's idea and not mine.

Petra. Billing's!

Hovstad. Yes; anyway he propounded that theory here one day. And it is Billing who is so anxious to have that story in the paper; I don't know anything about the book.

Petra. But how can Billing, with his emancipated views–

Hovstad. Oh, Billing is a many-sided man. He is applying for the post of secretary to the Bench, too, I hear.

Petra. I don't believe it, Mr. Hovstad. How could he possibly bring himself to do such a thing?

Hovstad. Ah, you must ask him that.

Petra. I should never have thought it of him.

Hovstad (*looking more closely at her*). No? Does it really surprise you so much?

Petra. Yes. Or perhaps not altogether. Really, I don't quite know–

Hovstad. We journalists are not much worth, Miss Stockmann.

Petra. Do you really mean that?

Hovstad. I think so sometimes.

Petra. Yes, in the ordinary affairs of everyday life, perhaps; I can understand that. But now, when you have taken a weighty matter in hand–

Hovstad. This matter of your father's, you mean?

Petra. Exactly. It seems to me that now you must feel you are a man worth more than most.

Hovstad. Yes, today I do feel something of that sort.

Petra. Of course you do, don't you? It is a splendid vocation you have chosen–to smooth the way for the march of unappreciated truths, and new and courageous lines of thought. If it were nothing more than because you stand fearlessly in the open and take up the cause of an injured man–

Hovstad. Especially when that injured man is–ahem!–I don't rightly know how to–

Petra. When that man is so upright and so honest, you mean?

Hovstad (*more gently*). Especially when he is your father, I meant.

Petra (*suddenly checked*). *That?*

Hovstad. Yes, Petra–Miss Petra.

Petra. Is it *that*, that is first and foremost with you? Not the matter itself? Not the truth?–not my father's big generous heart?

Hovstad. Certainly–of course–that too.

Petra. No, thank you; you have betrayed yourself, Mr. Hovstad, and now I shall never trust you again in anything.

Hovstad. Can you really take it so amiss in me that it is mostly for your sake–?

Petra. What I am angry with you for is for not having been honest with my father. You talked to him as if the truth and the good of the community were what lay nearest to your heart. You have made fools of both my father and me. You are not the man you made yourself out to be. And that I shall never forgive you–never!

Hovstad. You ought not to speak so bitterly, Miss Petra–least of all now.

Petra. Why not now, especially?

Hovstad. Because your father cannot do without my help.

Petra (*looking him up and down*). Are you that sort of man too? For shame!

Hovstad. No, no, I am not. This came upon me so unexpectedly–you must believe that.

Petra. I know what to believe. Good-by.

Aslaksen (*coming from the printing room, hurriedly and with an air of mystery*). Damnation, Hovstad!–(*Sees Petra.*) Oh, this is awkward–

Petra. There is the book; you must give it to some one else. (*Goes towards the door.*)

Hovstad (*following her*). But, Miss Stockmann–

Petra. Good-by. (*Goes out.*)

Aslaksen. I say–Mr. Hovstad–

Hovstad. Well, well!–what is it?

Aslaksen. The Mayor is outside in the printing room.

Hovstad. The Mayor, did you say?

Aslaksen. Yes, he wants to speak to you. He came in by the back door–didn't want to be seen, you understand.

Hovstad. What can he want? Wait a bit–I will go myself. (*Goes to the door of the printing room, opens it, bows and invites* PETER STOCKMANN *in.*) Just see, Aslaksen, that no one–

Aslaksen. Quite so. (*Goes into the printing room.*)

Peter Stockmann. You did not expect to see me here, Mr. Hovstad?

Hovstad. No, I confess I did not.

Peter Stockmann (*looking round*). You are very snug in here–very nice indeed.

Hovstad. Oh–

Peter Stockmann. And here I come, without any notice, to take up your time!

Hovstad. By all means, Mr. Mayor. I am at your service. But let me relieve you of your–(*takes* STOCKMANN'S *hat and stick and puts them on a chair*). Won't you sit down?

Peter Stockmann (*sitting down by the table*). Thank you. (HOVSTAD *sits down.*) I have had an extremely annoying experience today, Mr. Hovstad.

Hovstad. Really? Ah well, I expect with all the various business you have to attend to–

Peter Stockmann. The Medical Officer of the Baths is responsible for what happened today.

Hovstad. Indeed? The Doctor?

Peter Stockmann. He has addressed a kind of report to the Baths Committee on the subject of certain supposed defects in the Baths.

Hovstad. Has he indeed?

Peter Stockmann. Yes–has he not told you? I thought he said–

Hovstad. Ah, yes–it is true he did mention something about–
Aslaksen (*coming from the printing room*). I ought to have that copy–
Hovstad (*angrily*). Ahem!–there it is on the desk.
Aslaksen (*taking it*). Right.
Peter Stockmann. But look there–that is the thing I was speaking of!
Aslaksen. Yes, that is the Doctor's article, Mr. Mayor.
Hovstad. Oh, is *that* what you were speaking about?
Peter Stockmann. Yes, that is it. What do you think of it?
Hovstad. Oh, I am only a layman–and I have only taken a very cursory glance at it.
Peter Stockmann. But you are going to print it?
Hovstad. I cannot very well refuse a distinguished man–
Aslaksen. I have nothing to do with editing the paper, Mr. Mayor–
Peter Stockmann. I understand.
Aslaksen. I merely print what is put into my hands.
Peter Stockmann. Quite so.
Aslaksen. And so I must–(*moves off towards the printing room*).
Peter Stockmann. No, but wait a moment, Mr. Aslaksen. You will allow me, Mr. Hovstad?
Hovstad. If you please, Mr. Mayor.
Peter Stockmann. You are a discreet and thoughtful man, Mr. Aslaksen.
Aslaksen. I am delighted to hear you think so, sir.
Peter Stockmann. And a man of very considerable influence.
Aslaksen. Chiefly among the small tradesmen, sir.
Peter Stockmann. The small taxpayers are the majority–here as everywhere else.
Aslaksen. That is true.
Peter Stockmann. And I have no doubt you know the general trend of opinion among them, don't you?
Aslaksen. Yes, I think I may say I do, Mr. Mayor.
Peter Stockmann. Yes. Well, since there is such a praiseworthy spirit of self-sacrifice among the less wealthy citizens of our town–
Aslaksen. What?
Hovstad. Self-sacrifice?
Peter Stockmann. It is pleasing evidence of a public-spirited feeling, extremely pleasing evidence. I might almost say I hardly expected it. But you have a closer knowledge of public opinion than I.
Aslaksen. But, Mr. Mayor–
Peter Stockmann. And indeed it is no small sacrifice that the town is going to make.

Hovstad. The town?

Aslaksen. But I don't understand. Is it the Baths–?

Peter Stockmann. At a provisional estimate, the alterations that the Medical Officer asserts to be desirable will cost somewhere about twenty thousand pounds.

Aslaksen. That is a lot of money, but–

Peter Stockmann. Of course it will be necessary to raise a municipal loan.

Hovstad (*getting up*). Surely you never mean that the town must pay–?

Aslaksen. Do you mean that it must come out of the municipal funds?–out of the ill-filled pockets of the small tradesmen?

Peter Stockmann. Well, my dear Mr. Aslaksen, where else is the money to come from?

Aslaksen. The gentlemen who own the Baths ought to provide that.

Peter Stockmann. The proprietors of the Baths are not in a position to incur any further expense.

Aslaksen. Is that absolutely certain, Mr. Mayor?

Peter Stockmann. I have satisfied myself that it is so. If the town wants these very extensive alterations, it will have to pay for them.

Aslaksen. But, damn it all–I beg your pardon–this is quite another matter, Mr. Hovstad!

Hovstad. It is, indeed.

Peter Stockmann. The most fatal part of it is that we shall be obliged to shut the Baths for a couple of years.

Hovstad. Shut them? Shut them altogether?

Aslaksen. For two years?

Peter Stockmann. Yes, the work will take as long as that–at least.

Aslaksen. I'm damned if we will stand that, Mr. Mayor! What are we householders to live upon in the meantime?

Peter Stockmann. Unfortunately that is an extremely difficult question to answer, Mr. Aslaksen. But what would you have us do? Do you suppose we shall have a single visitor in the town, if we go about proclaiming that our water is polluted, that we are living over a plague spot, that the entire town–

Aslaksen. And the whole thing is merely imagination?

Peter Stockmann. With the best will in the world, I have not been able to come to any other conclusion.

Aslaksen. Well then I must say it is absolutely unjustifiable of Dr. Stockmann–I beg your pardon, Mr. Mayor–

Peter Stockmann. What you say is lamentably true, Mr. Aslaksen. My brother has unfortunately always been a headstrong man.

Aslaksen. After this, do you mean to give him your support, Mr. Hovstad?

Hovstad. Can you suppose for a moment that I–?

Peter Stockmann. I have drawn up a short résumé of the situation as it appears from a reasonable man's point of view. In it I have indicated how certain possible defects might suitably be remedied without outrunning the resources of the Baths Committee.

Hovstad. Have you got it with you, Mr. Mayor?

Peter Stockmann (*fumbling in his pocket*). Yes, I brought it with me in case you should–

Aslaksen. Good Lord, there he is!

Peter Stockmann. Who? My brother?

Hovstad. Where? Where?

Aslaksen. He has just gone through the printing room.

Peter Stockmann. How unlucky! I don't want to meet him here, and I had still several things to speak to you about.

Hovstad (*pointing to the door on the right*). Go in there for the present.

Peter Stockmann. But–?

Hovstad. You will only find Billing in there.

Aslaksen. Quick, quick, Mr. Mayor–he is just coming.

Peter Stockmann. Yes, very well; but see that you get rid of him quickly. (*Goes out through the door on the right, which* ASLAKSEN *opens for him and shuts after him.*)

Hovstad. Pretend to be doing something, Aslaksen. (*Sits down and writes.* ASLAKSEN *begins foraging among a heap of newspapers that are lying on a chair.*)

Dr. Stockmann (*coming in from the printing room*). Here I am again. (*Puts down his hat and stick.*)

Hovstad (*writing*). Already, Doctor? Hurry up with what we were speaking about, Aslaksen. We are very pressed for time today.

Dr. Stockmann (*to* ASLAKSEN). No proof for me to see yet, I hear.

Aslaksen (*without turning round*). You couldn't expect it yet, Doctor.

Dr. Stockmann. No, no; but I am impatient, as you can understand. I shall not know a moment's peace of mind till I see it in print.

Hovstad. H'm!–It will take a good while yet, won't it, Aslaksen?

Aslaksen. Yes, I am almost afraid it will.

Dr. Stockmann. All right, my dear friends; I will come back. I do not mind coming back twice if necessary. A matter of such great importance–the welfare of the town at stake–it is no time to shirk trouble. (*Is just going, but stops and comes back.*) Look here–there is one thing more I want to speak to you about.

Hovstad. Excuse me, but could it not wait till some other time?

Dr. Stockmann. I can tell you in half a dozen words. It is only this. When my article is read tomorrow and it is realized that I have been quietly working the whole winter for the welfare of the town–

Hovstad. Yes, but, Doctor–

Dr. Stockmann. I know what you are going to say. You don't see how on earth it was any more than my duty–my obvious duty as a citizen. Of course it wasn't; I know that as well as you. But my fellow citizens, you know–! Good Lord, think of all the good souls who think so highly of me–!

Aslaksen. Yes, our townsfolk have had a very high opinion of you so far, Doctor.

Dr. Stockmann. Yes, and that is just why I am afraid they–. Well, this is the point; when this reaches them, especially the poorer classes, and sounds in their ears like a summons to take the town's affairs into their own hands for the future–

Hovstad (*getting up*). Ahem! Doctor, I won't conceal from you the fact–

Dr. Stockmann. Ah!–I knew there was something in the wind! But I won't hear a word of it. If anything of that sort is being set on foot–

Hovstad. Of what sort?

Dr. Stockmann. Well, whatever it is–whether it is a demonstration in my honor, or a banquet, or a subscription list for some presentation to me–whatever it is, you must promise me solemnly and faithfully to put a stop to it. You too, Mr. Aslaksen; do you understand?

Hovstad. You must forgive me, Doctor, but sooner or later we must tell you the plain truth–

He is interrupted by the entrance of MRS. STOCKMANN, *who comes in from the street door*.

Mrs. Stockmann (*seeing her husband*). Just as I thought!

Hovstad (*going towards her*). You too, Mrs. Stockmann?

Dr. Stockmann. What on earth do *you* want here, Katherine?

Mrs. Stockmann. I should think you know very well what I want.

Hovstad. Won't you sit down? Or perhaps–

Mrs. Stockmann. No, thank you; don't trouble. And you must not be offended at my coming to fetch my husband; I am the mother of three children, you know.

Dr. Stockmann. Nonsense!–we know all about that.

Mrs. Stockmann. Well, one would not give you credit for much thought for your wife and children today; if you had had that, you would not have gone and dragged us all into misfortune.

Dr. Stockmann. Are you out of your senses, Katherine! Because a man

has a wife and children, is he not to be allowed to proclaim the truth–is he not to be allowed to be an actively useful citizen–is he not to be allowed to do a service to his native town!

Mrs. Stockmann. Yes, Thomas–in reason.

Aslaksen. Just what I say. Moderation is everything.

Mrs. Stockmann. And that is why you wrong us, Mr. Hovstad, in enticing my husband away from his home and making a dupe of him in all this.

Hovstad. I certainly am making a dupe of no one–

Dr. Stockmann. Making a dupe of me! Do you suppose *I* should allow myself to be duped!

Mrs. Stockmann. It is just what you do. I know quite well you have more brains than anyone in the town, but you are extremely easily duped, Thomas. (*To* HOVSTAD.) Please to realize that he loses his post at the Baths if you print what he has written–

Aslaksen. What!

Hovstad. Look here, Doctor–

Dr. Stockmann (*laughing*). Ha–ha!–just let them try! No, no–they will take good care not to. I have got the compact majority behind me, let me tell you!

Mrs. Stockmann. Yes, that is just the worst of it–your having any such horrid thing behind you.

Dr. Stockmann. Rubbish, Katherine!–Go home and look after your house and leave me to look after the community. How can you be so afraid, when I am so confident and happy? (*Walks up and down, rubbing his hands*.) Truth and the People will win the fight, you may be certain! I see the whole of the broadminded middle class marching like a victorious army–! (*Stops beside a chair*.) What the deuce is that lying there?

Aslaksen. Good Lord!

Hovstad. Ahem!

Dr. Stockmann. Here we have the topmost pinnacle of authority! (*Takes the Mayor's official hat carefully between his finger tips and holds it up in the air*.)

Mrs. Stockmann. The Mayor's hat!

Dr. Stockmann. And here is the staff of office too. How in the name of all that's wonderful–?

Hovstad. Well, you see–

Dr. Stockmann. Oh, I understand. He has been here trying to talk you over. Ha–ha!–he made rather a mistake there! And as soon as he

caught sight of me in the printing room–. (*Bursts out laughing.*) Did he run away, Mr. Aslaksen?

Aslaksen (*hurriedly*). Yes, he ran away, Doctor.

Dr. Stockmann. Ran away without his stick or his– Fiddlesticks! Peter doesn't run away and leave his belongings behind him. But what the deuce have you done with him? Ah!–in there, of course. Now you shall see, Katherine!

Mrs. Stockmann. Thomas–please don't–!

Aslaksen. Don't be rash, Doctor.

DR. STOCKMANN *has put on the Mayor's hat and taken his stick in his hand. He goes up to the door, opens it, and stands with his hand to his hat at the salute*. PETER STOCKMANN *comes in, red with anger*. BILLING *follows him*.

Peter Stockmann. What does this tomfoolery mean?

Dr. Stockmann. Be respectful, my good Peter. I am the chief authority in the town now. (*Walks up and down.*)

Mrs. Stockmann (*almost in tears*). Really, Thomas!

Peter Stockmann (*following him about*). Give me my hat and stick.

Dr. Stockmann (*in the same tone as before*). If you are chief constable, let me tell you that I am the Mayor–I am the master of the whole town, please understand!

Peter Stockmann. Take off my hat, I tell you. Remember it is part of an official uniform.

Dr. Stockmann. Pooh! Do you think the newly awakened lionhearted people are going to be frightened by an official hat? There is going to be a revolution in the town tomorrow, let me tell you. You thought you could turn me out; but now I shall turn you out–turn you out of all your various offices. Do you think I cannot? Listen to me. I have triumphant social forces behind me. Hovstad and Billing will thunder in the "People's Messenger," and Aslaksen will take the field at the head of the whole Householders' Association–

Aslaksen. That I won't, Doctor.

Dr. Stockmann. Of course you will–

Peter Stockmann. Ah!–may I ask then if Mr. Hovstad intends to join this agitation?

Hovstad. No, Mr. Mayor.

Aslaksen. No, Mr. Hovstad is not such a fool as to go and ruin his paper and himself for the sake of an imaginary grievance.

Dr. Stockmann (*looking round him*). What does this mean?

Hovstad. You have represented your case in a false light, Doctor, and therefore I am unable to give you my support.

Billing. And after what the Mayor was so kind as to tell me just now, I–

Dr. Stockmann. A false light! Leave that part of it to me. Only print my article; I am quite capable of defending it.

Hovstad. I am not going to print it. I cannot and will not and dare not print it.

Dr. Stockmann. You dare not? What nonsense!–you are the editor; and an editor controls his paper, I suppose!

Aslaksen. No, it is the subscribers, Doctor.

Peter Stockmann. Fortunately, yes.

Aslaksen. It is public opinion–the enlightened public–householders and people of that kind; they control the newspapers.

Dr. Stockmann (*composedly*). And I have all these influences against me?

Aslaksen. Yes, you have. It would mean the absolute ruin of the community if your article were to appear.

Dr. Stockmann. Indeed.

Peter Stockmann. My hat and stick, if you please. (DR. STOCKMANN *takes off the hat and lays it on the table with the stick.* PETER STOCKMANN *takes them up.*) Your authority as mayor has come to an untimely end.

Dr. Stockmann. We have not got to the end yet. (*To* HOVSTAD.) Then it is quite impossible for you to print my article in the "People's Messenger"?

Hovstad. Quite impossible–out of regard for your family as well.

Mrs. Stockmann. You need not concern yourself about his family, thank you, Mr. Hovstad.

Peter Stockmann (*taking a paper from his pocket*). It will be sufficient, for the guidance of the public, if this appears. It is an official statement. May I trouble you?

Hovstad (*taking the paper*). Certainly; I will see that it is printed.

Dr. Stockmann. But not mine. Do you imagine that you can silence me and stifle the truth! You will not find it so easy as you suppose. Mr. Aslaksen, kindly take my manuscript at once and print it as a pamphlet–at my expense. I will have four hundred copies–no, five–six hundred.

Aslaksen. If you offered me its weight in gold, I could not lend my press for any such purpose, Doctor. It would be flying in the face of public opinion. You will not get it printed anywhere in the town.

Dr. Stockmann. Then give it me back.

Hovstad (*giving him the manuscript*). Here it is.

Dr. Stockmann (*taking his hat and stick*). It shall be made public all the same. I will read it out at a mass meeting of the townspeople. All my fellow citizens shall hear the voice of truth!

Peter Stockmann. You will not find any public body in the town that will give you the use of their hall for such a purpose.

Aslaksen. Not a single one, I am certain.

Billing. No, I'm damned if you will find one.

Mrs. Stockmann. But this is too shameful! Why should every one turn against you like that?

Dr. Stockmann (*angrily*). I will tell you why. It is because all the men in this town are old women–like you; they all think of nothing but their families, and never of the community.

Mrs. Stockmann (*putting her arm into his*). Then I will show them that an–an old woman can be a man for once. I am going to stand by you, Thomas!

Dr. Stockmann. Bravely said, Katherine! It shall be made public–as I am a living soul! If I can't hire a hall, I shall hire a drum, and parade the town with it and read it at every street corner.

Peter Stockmann. You are surely not such an arrant fool as that!

Dr. Stockmann. Yes, I am.

Aslaksen. You won't find a single man in the whole town to go with you.

Billing. No, I'm damned if you will.

Mrs. Stockmann. Don't give in, Thomas. I will tell the boys to go with you.

Dr. Stockmann. That is a splendid idea!

Mrs. Stockmann. Morten will be delighted; and Ejlif will do whatever he does.

Dr. Stockmann. Yes, and Petra!–and you too, Katherine!

Mrs. Stockmann. No, I won't do that; but I will stand at the window and watch you, that's what I will do.

Dr. Stockmann (*puts his arms round her and kisses her*). Thank you, my dear! Now you and I are going to try a fall, my fine gentlemen! I am going to see whether a pack of cowards can succeed in gagging a patriot who wants to purify society! (*He and his wife go out by the street door.*)

Peter Stockmann (*shaking his head seriously*). Now he has sent *her* out of her senses, too.

ACT IV

SCENE. *A big old-fashioned room in* CAPTAIN HORSTER'S *house. At the back folding doors, which are standing open, lead to an anteroom. Three windows in the left-hand wall. In the middle of the opposite wall a platform has been erected. On this is a small table with two candles, a water bottle and glass, and a bell. The room is lit by lamps placed between the windows. In the foreground on the left there is a table with candles and a chair. To the right is a door and some chairs standing near it. The room is nearly filled with a crowd of towns-people of all sorts, a few women and schoolboys being among them. People are still streaming in from the back, and the room is soon filled.*

1st Citizen (*meeting another*). Hullo, Lamstad! You here too?

2nd Citizen. I go to every public meeting, I do.

3rd Citizen. Brought your whistle too, I expect!

2nd Citizen. I should think so. Haven't you?

3rd Citizen. Rather! And old Evensen said he was going to bring a cowhorn, he did.

2nd Citizen. Good old Evensen! (*Laughter among the crowd.*)

4th Citizen (*coming up to them*). I say, tell me what is going on here tonight.

2nd Citizen. Dr. Stockmann is going to deliver an address attacking the Mayor.

4th Citizen. But the Mayor is his brother.

1st Citizen. That doesn't matter; Dr. Stockmann's not the chap to be afraid.

3rd Citizen. But he is in the wrong; it said so in the "People's Messenger."

2nd Citizen. Yes, I expect he must be in the wrong this time, because neither the Householders' Association nor the Citizens' Club would lend him their hall for his meeting.

1st Citizen. He couldn't even get the loan of the hall at the Baths.

2nd Citizen. No, I should think not.

A Man in another part of the crowd. I say—who are we to back up in this?

Another Man, beside him. Watch Aslaksen, and do as he does.

Billing (*pushing his way through the crowd, with a writing case under*

his arm). Excuse me, gentlemen–do you mind letting me through? I am reporting for the "People's Messenger." Thank you very much! (*He sits down at the table on the left.*)

A Workman. Who was that?

Second Workman. Don't you know him? It's Billing, who writes for Aslaksen's paper.

CAPTAIN HORSTER *brings in* MRS. STOCKMANN *and* PETRA *through the door on the right*. EJLIF *and* MORTEN *follow them in*.

Horster. I thought you might all sit here; you can slip out easily from here, if things get too lively.

Mrs. Stockmann. Do you think there will be a disturbance?

Horster. One can never tell–with such a crowd. But sit down, and don't be uneasy.

Mrs. Stockmann (*sitting down*). It was extremely kind of you to offer my husband the room.

Horster. Well, if nobody else would–

Petra (*who has sat down beside her mother*). And it was a plucky thing to do, Captain Horster.

Horster. Oh, it is not such a great matter as all that.

HOVSTAD *and* ASLAKSEN *make their way through the crowd*.

Aslaksen. (*going up to* HORSTER). Has the Doctor not come yet?

Horster. He is waiting in the next room.

Movement in the crowd by the door at the back.

Hovstad. Look–here comes the Mayor!

Billing. Yes, I'm damned if he hasn't come after all!

PETER STOCKMANN *makes his way gradually through the crowd, bows courteously, and takes up a position by the wall on the left. Shortly afterwards* DR. STOCKMANN *comes in by the right-hand door. He is dressed in a black frock coat, with a white tie. There is a little feeble applause, which is hushed down. Silence is obtained*.

Dr. Stockmann (*in an undertone*). How do you feel, Katherine?

Mrs. Stockmann. All right, thank you. (*Lowering her voice*.) Be sure not to lose your temper, Thomas.

Dr. Stockmann. Oh, I know how to control myself. (*Looks at his watch, steps on to the platform, and bows*.) It is a quarter past–so I will begin. (*Takes his manuscript out of his pocket*.)

Aslaksen. I think we ought to elect a chairman first.
Dr. Stockmann. No, it is quite unnecessary.
Some of the Crowd. Yes–yes!
Peter Stockmann. I certainly think too that we ought to have a chairman.
Dr. Stockmann. But I have called this meeting to deliver a lecture, Peter.
Peter Stockmann. Dr. Stockmann's lecture may possibly lead to a considerable conflict of opinion.
Voices in the Crowd. A chairman! A chairman!
Hovstad. The general wish of the meeting seems to be that a chairman should be elected.
Dr. Stockmann (*restraining himself*). Very well–let the meeting have its way.
Aslaksen. Will the Mayor be good enough to undertake the task?
Three Men (*clapping their hands*). Bravo! Bravo!
Peter Stockmann. For various reasons, which you will easily understand, I must beg to be excused. But fortunately we have among us a man who I think will be acceptable to you all. I refer to the President of the Householders' Association, Mr. Aslaksen.
Several Voices. Yes–Aslaksen! Bravo Aslaksen!

DR. STOCKMANN *takes up his manuscript and walks up and down the platform*.

Aslaksen. Since my fellow citizens choose to entrust me with this duty, I cannot refuse.

Loud applause. ASLAKSEN *mounts the platform*.

Billing (*writing*). "Mr. Aslaksen was elected with enthusiasm."
Aslaksen. And now, as I am in this position, I should like to say a few brief words. I am a quiet and peaceable man, who believes in discreet moderation, and–and–in moderate discretion. All my friends can bear witness to that.
Several Voices. That's right! That's right, Aslaksen!
Aslaksen. I have learned in the school of life and experience that moderation is the most valuable virtue a citizen can possess–
Peter Stockmann. Hear, hear!
Aslaksen.–And moreover that discretion and moderation are what enable a man to be of most service to the community. I would therefore suggest to our esteemed fellow citizen, who has called this meeting,

that he should strive to keep strictly within the bounds of moderation.

A Man by the door. Three cheers for the Moderation Society!

A Voice. Shame!

Several Voices. Sh!–Sh!

Aslaksen. No interruptions, gentlemen, please! Does anyone wish to make any remarks?

Peter Stockmann. Mr. Chairman.

Aslaksen. The Mayor will address the meeting.

Peter Stockmann. In consideration of the close relationship in which, as you all know, I stand to the present Medical Officer of the Baths, I should have preferred not to speak this evening. But my official position with regard to the Baths and my solicitude for the vital interests of the town compel me to bring forward a motion. I venture to presume that there is not a single one of our citizens present who considers it desirable that unreliable and exaggerated accounts of the sanitary condition of the Baths and the town should be spread abroad.

Several Voices. No, no! Certainly not! We protest against it!

Peter Stockmann. Therefore I should like to propose that the meeting should not permit the Medical Officer either to read or to comment on his proposed lecture.

Dr. Stockmann (*impatiently*). Not permit–! What the devil–!

Mrs. Stockmann (*coughing*). Ahem!–ahem!

Dr. Stockmann (*collecting himself*). Very well. Go ahead!

Peter Stockmann. In my communication to the "People's Messenger," I have put the essential facts before the public in such a way that every fair-minded citizen can easily form his own opinion. From it you will see that the main result of the Medical Officer's proposals–apart from their constituting a vote of censure on the leading men of the town–would be to saddle the ratepayers with an unnecessary expenditure of at least some thousands of pounds.

Sounds of disapproval among the audience, and some catcalls.

Aslaksen (*ringing his bell*). Silence, please, gentlemen! I beg to support the Mayor's motion. I quite agree with him that there is something behind this agitation started by the Doctor. He talks about the Baths; but it is a revolution he is aiming at–he wants to get the administration of the town put into new hands. No one doubts the honesty of the Doctor's intentions–no one will suggest that there can

be any two opinions as to that. I myself am a believer in self-government for the people, provided it does not fall too heavily on the ratepayers. But that would be the case here; and that is why I will see Dr. Stockmann damned–I beg your pardon–before I go with him in the matter. You can pay too dearly for a thing sometimes; that is my opinion.

Loud applause on all sides.

Hovstad. I, too, feel called upon to explain my position. Dr. Stockmann's agitation appeared to be gaining a certain amount of sympathy at first, so I supported it as impartially as I could. But presently we had reason to suspect that we had allowed ourselves to be misled by misrepresentation of the state of affairs–

Dr. Stockmann. Misrepresentation–!

Hovstad. Well, let us say a not entirely trustworthy representation. The Mayor's statement has proved that. I hope no one here has any doubt as to my liberal principles; the attitude of the "People's Messenger" towards important political questions is well known to everyone. But the advice of experienced and thoughtful men has convinced me that in purely local matters a newspaper ought to proceed with a certain caution.

Aslaksen. I entirely agree with the speaker.

Hovstad. And, in the matter before us, it is now an undoubted fact that Dr. Stockmann has public opinion against him. Now, what is an editor's first and most obvious duty, gentlemen? Is it not to work in harmony with his readers? Has he not received a sort of tacit mandate to work persistently and assiduously for the welfare of those whose opinions he represents? Or is it possible I am mistaken in that?

Voices from the crowd. No, no! You are quite right!

Hovstad. It has cost me a severe struggle to break with a man in whose house I have been lately a frequent guest–a man who till today has been able to pride himself on the undivided good will of his fellow citizens–a man whose only, or at all events whose essential, failing is that he is swayed by his heart rather than his head.

A few scattered voices. That is true! Bravo, Stockmann!

Hovstad. But my duty to the community obliged me to break with him. And there is another consideration that impels me to oppose him, and, as far as possible, to arrest him on the perilous course he has adopted; that is, consideration for his family–

Dr. Stockmann. Please stick to the water supply and drainage!

Hovstad.–consideration, I repeat, for his wife and his children for whom he has made no provision.

Morten. Is that us, mother?

Mrs. Stockmann. Hush!

Aslaksen. I will now put the Mayor's proposition to the vote.

Dr. Stockmann. There is no necessity! Tonight I have no intention of dealing with all that filth down at the Baths. No; I have something quite different to say to you.

Peter Stockmann (*aside*). What is coming now?

A Drunken Man (*by the entrance door*). I am a ratepayer! And therefore I have a right to speak too! And my entire–firm–inconceivable opinion is–

A number of voices. Be quiet, at the back there!

Others. He is drunk! Turn him out! (*They turn him out*.)

Dr. Stockmann. Am I allowed to speak?

Aslaksen (*ringing his bell*). Dr. Stockmann will address the meeting.

Dr. Stockmann. I should like to have seen anyone, a few days ago, dare to attempt to silence me as has been done tonight! I would have defended my sacred rights as a man, like a lion! But now it is all one to me; I have something of even weightier importance to say to you.

The crowd presses nearer to him, MORTEN KIIL *conspicuous among them*.

Dr. Stockmann (*continuing*). I have thought and pondered a great deal, these last few days–pondered over such a variety of things that in the end my head seemed too full to hold them–

Peter Stockmann (*with a cough*). Ahem!

Dr. Stockmann.–but I got them clear in my mind at last, and then I saw the whole situation lucidly. And that is why I am standing here tonight. I have a great revelation to make to you, my fellow citizens! I will impart to you a discovery of a far wider scope than the trifling matter that our water supply is poisoned and our medicinal Baths are standing on pestiferous soil.

A number of voices (*shouting*). Don't talk about the Baths! We won't hear you! None of that!

Dr. Stockmann. I have already told you that what I want to speak about is the great discovery I have made lately–the discovery that all the sources of our *moral* life are poisoned and that the whole fabric of our civic community is founded on the pestiferous soil of falsehood.

Voices of disconcerted Citizens. What is that he says?

Peter Stockmann. Such an insinuation–!

Aslaksen (*with his hand on his bell*). I call upon the speaker to moderate his language.

Dr. Stockmann. I have always loved my native town as a man only can love the home of his youthful days. I was not old when I went away from here; and exile, longing and memories cast as it were an additional halo over both the town and its inhabitants. (*Some clapping and applause*.) And there I stayed, for many years, in a horrible hole far away up north. When I came into contact with some of the people that lived scattered about among the rocks, I often thought it would of been more service to the poor half-starved creatures if a veterinary doctor had been sent up there, instead of a man like me. (*Murmurs among the crowd*.)

Billing (*laying down his pen*). I'm damned if I have ever heard–!

Hovstad. It is an insult to a respectable population!

Dr. Stockmann. Wait a bit! I do not think anyone will charge me with having forgotten my native town up there. I was like one of the eider ducks brooding on its nest, and what I hatched was–the plans for these Baths. (*Applause and protests*.) And then when fate at last decreed for me the great happiness of coming home again–I assure you, gentlemen, I thought I had nothing more in the world to wish for. Or rather, there was one thing I wished for–eagerly, untiringly, ardently–and that was to be able to be of service to my native town and the good of the community.

Peter Stockmann (*looking at the ceiling*). You chose a strange way of doing it–ahem!

Dr. Stockmann. And so, with my eyes blinded to the real facts, I reveled in happiness. But yesterday morning–no, to be precise, it was yesterday afternoon–the eyes of my mind were opened wide, and the first thing I realized was the colossal stupidity of the authorities–. (*Uproar, shouts and laughter.* MRS. STOCKMANN *coughs persistently*.)

Peter Stockmann. Mr. Chairman!

Aslaksen (*ringing his bell*). By virtue of my authority–!

Dr. Stockmann. It is a petty thing to catch me up on a word, Mr. Aslaksen. What I mean is only that I got scent of the unbelievable piggishness our leading men had been responsible for down at the Baths. I can't stand leading men at any price!–I have had enough of such people in my time. They are like billy goats in a young plantation; they do mischief everywhere. They stand in a free man's way, which-

ever way he turns, and what I should like best would be up to see them exterminated like any other vermin–. (*Uproar.*)

Peter Stockmann. Mr. Chairman, can we allow such expressions to pass?

Aslaksen (*with his hand on his bell*). Doctor–!

Dr. Stockmann. I cannot understand how it is that I have only now acquired a clear conception of what these gentry are, when I had almost daily before my eyes in this town such an excellent specimen of them–my brother Peter–slow-witted and hidebound in prejudice–.

Laughter, uproar and hisses. MRS. STOCKMANN *sits coughing assiduously*. ASLAKSEN *rings his bell violently*.

The Drunken Man (*who has got in again*). Is it me he is talking about? My name's Petersen, all right–but devil take me if I–

Angry Voices. Turn out that drunken man! Turn him out. (*He is turned out again.*)

Peter Stockmann. Who was that person?

1st Citizen. I don't know who he is, Mr. Mayor.

2nd Citizen. He doesn't belong here.

3rd Citizen. I expect he is a navvy from over at (*the rest is inaudible*).

Aslaksen. He had obviously had too much beer. Proceed, Doctor; but please strive to be moderate in your language.

Dr. Stockmann. Very well, gentlemen, I will say no more about our leading men. And if anyone imagines, from what I have just said, that my object is to attack these people this evening, he is wrong–absolutely wide of the mark. For I cherish the comforting conviction that these parasites–all these venerable relics of a dying school of thought–are most admirably paving the way for their own extinction; they need no doctor's help to hasten their end. Nor is it folk of that kind who constitute the most pressing danger to the community. It is not they who are most instrumental in poisoning the sources of our moral life and infecting the ground on which we stand. It is not they who are the most dangerous enemies of truth and freedom among us.

Shouts from all sides. Who then? Who is it? Name! Name!

Dr. Stockmann. You may depend upon it I shall name them! That is precisely the great discovery I made yesterday. (*Raises his voice.*) The most dangerous enemy of truth and freedom among us is the compact majority–yes, the damned compact Liberal majority–that is it! Now you know!

Tremendous uproar. Most of the crowd are shouting, stamping and hissing. Some of the older men among them exchange stolen glances

and seem to be enjoying themselves. MRS. STOCKMANN *gets up, looking anxious.* EJLIF *and* MORTEN *advance threateningly upon some schoolboys who are playing pranks.* ASLAKSEN *rings his bell and begs for silence.* HOVSTAD *and* BILLING *both talk at once, but are inaudible. At last quiet is restored.*

Aslaksen. As chairman, I call upon the speaker to withdraw the ill-considered expressions he has just used.

Dr. Stockmann. Never, Mr. Aslaksen! It is the majority in our community that denies me my freedom and seeks to prevent my speaking the truth.

Hovstad. The majority always has right on its side.

Billing. And truth too, by God!

Dr. Stockmann. The majority *never* has right on its side. Never, I say! That is one of these social lies against which an independent, intelligent man must wage war. Who is it that constitute the majority of the population in a country? Is it the clever folk or the stupid? I don't imagine you will dispute the fact that at present the stupid people are in an absolutely overwhelming majority all the world over. But, good Lord!—you can never pretend that it is right that the stupid folk should govern the clever ones! (*Uproar and cries.*) Oh, yes—you can shout me down, I know! but you cannot answer me. The majority has *might* on its side—unfortunately; but *right* it has *not.* I am in the right—I and a few other scattered individuals. The minority is always in the right. (*Renewed uproar.*)

Hovstad. Aha!—so Dr. Stockmann has become an aristocrat since the day before yesterday!

Dr. Stockmann. I have already said that I don't intend to waste a word on the puny, narrow-chested, short-winded crew whom we are leaving astern. Pulsating life no longer concerns itself with them. I am thinking of the few, the scattered few among us, who have absorbed new and vigorous truths. Such men stand, as it were, at the outposts, so far ahead that the compact majority has not yet been able to come up with them; and there they are fighting for truths that are too newly born into the world of consciousness to have any considerable number of people on their side as yet.

Hovstad. So the Doctor is a revolutionary now!

Dr. Stockmann. Good heavens—of course I am, Mr. Hovstad! I propose to raise a revolution against the lie that the majority has the monopoly of the truth. What sort of truths are they that the majority usually

supports? They are truths that are of such advanced age that they are beginning to break up. And if a truth is as old as that, it is also in a fair way to become a lie, gentlemen. (*Laughter and mocking cries.*) Yes, believe me or not, as you like; but truths are by no means as long-lived as Methuselah–as some folk imagine. A normally constituted truth lives, let us say, as a rule seventeen or eighteen, or at most twenty years; seldom longer. But truths as aged as that are always worn frightfully thin, and nevertheless it is only then that the majority recognizes them and recommends them to the community as wholesome moral nourishment. There is no great nutritive value in that sort of fare, I can assure you; and, as a doctor, I ought to know. These "majority truths" are like last year's cured meat–like rancid, tainted ham; and they are the origin of the moral scurvy that is rampant in our communities.

Aslaksen. It appears to me that the speaker is wandering a long way from his subject.

Peter Stockmann. I quite agree with the Chairman.

Dr. Stockmann. Have you gone clean out of your senses, Peter? I am sticking as closely to my subject as I can; for my subject is precisely this, that it is the masses, the majority–this infernal compact majority–that poisons the sources of our moral life and infects the ground we stand on.

Hovstad. And all this because the great, broad-minded majority of the people is prudent enough to show deference only to well-ascertained and well-approved truths?

Dr. Stockmann. Ah, my good Mr. Hovstad, don't talk nonsense about well-ascertained truths! The truths of which the masses now approve are the very truths that the fighters at the outposts held to in the days of our grandfathers. We fighters at the outposts nowadays no longer approve of them; and I do not believe there is any other well-ascertained truth except this, that no community can live a healthy life if it is nourished only on such old marrowless truths.

Hovstad. But instead of standing there using vague generalities, it would be interesting if you would tell us what these old marrowless truths are, that we are nourished on.

Applause from many quarters.

Dr. Stockmann. Oh, I could give you a whole string of such abominations; but to begin with I will confine myself to one well-approved truth, which at bottom is a foul lie, but upon which nevertheless

Mr. Hovstad and the "People's Messenger" and all the "Messenger's" supporters are nourished.

Hovstad. And that is–?

Dr. Stockmann. That is, the doctrine you have inherited from your forefathers and proclaim thoughtlessly far and wide–the doctrine that the public, the crowd, the masses, are the essential part of the population–that they constitute the People–that the common folk, the ignorant and incomplete element in the community, have the same right to pronounce judgment and to approve, to direct and to govern, as the isolated, intellectually superior personalities in it.

Billing. Well, damn me if ever I–

Hovstad (*at the same time, shouting out*). Fellow citizens, take good note of that!

A number of voices (*angrily*). Oho!–we are not the People! Only the superior folk are to govern, are they!

A Workman. Turn the fellow out, for talking such rubbish!

Another. Out with him!

Another (*calling out*). Blow your horn, Evensen!

A horn is blown loudly, amidst hisses and an angry uproar.

Dr. Stockmann (*when the noise has somewhat abated*). Be reasonable! Can't you stand hearing the voice of truth for once? I don't in the least expect you to agree with me all at once; but I must say I did expect Mr. Hovstad to admit I was right, when he had recovered his composure a little. He claims to be a freethinker–

Voices (*in murmurs of astonishment*). Freethinker, did he say? Is Hovstad a freethinker?

Hovstad (*shouting*). Prove it, Dr. Stockmann! When have I said so in print?

Dr. Stockmann (*reflecting*). No, confound it, you are right!–you have never had the courage to. Well, I won't put you in a hole, Mr. Hovstad. Let us say it is I that am the freethinker, then. I am going to prove to you, scientifically, that the "People's Messenger" leads you by the nose in a shameful manner when it tells you that you–that the common people, the crowd, the masses, are the real essence of the People. That is only a newspaper lie, I tell you! The common people are nothing more than the raw material of which a People is made. (*Groans, laughter and uproar.*) Well, isn't that the case? Isn't there an enormous difference between a well-bred and an ill-bred strain of animals? Take, for instance, a common barn-door hen. What sort of

eating do you get from a shrivelled up old scrag of a fowl like that? Not much, do you! And what sort of eggs does it lay? A fairly good crow or a raven can lay pretty nearly as good an egg. But take a well-bred Spanish or Japanese hen, or a good pheasant or a turkey—then you will see the difference. Or take the case of dogs, with whom we humans are on such intimate terms. Think first of an ordinary common cur—I mean one of the horrible, coarse-haired, low-bred curs that do nothing but run about the streets and befoul the walls of the houses. Compare one of these curs with a poodle whose sires for many generations have been bred in a gentleman's house, where they have had the best of food and had the opportunity of hearing soft voices and music. Do you not think that the poodle's brain is developed to quite a different degree from that of the cur? Of course it is. It is puppies of well-bred poodles like that, that showmen train to do incredibly clever tricks—things that a common cur could never learn to do even if it stood on its head. (*Uproar and mocking cries*.)

A Citizen (*calls out*). Are you going to make out we are dogs, now?

Another Citizen. We are not animals, Doctor!

Dr. Stockmann. Yes, but, bless my soul, we *are*, my friend! It is true we are the finest animals anyone could wish for; but, even among us, exceptionally fine animals are rare. There is a tremendous difference between poodle-men and cur-men. And the amusing part of it is, that Mr. Hovstad quite agrees with me as long as it is a question of four-footed animals—

Hovstad. Yes, it is true enough as far as they are concerned.

Dr. Stockmann. Very well. But as soon as I extend the principle and apply it to two-legged animals, Mr. Hovstad stops short. He no longer dares to think independently, or to pursue his ideas to their logical conclusion; so he turns the whole theory upside down and proclaims in the "People's Messenger" that it is the barn-door hens and street curs that are the finest specimens in the menagerie. But that is always the way, as long as a man retains the traces of common origin and has not worked his way up to intellectual distinction.

Hovstad. I lay no claim to any sort of distinction. I am the son of humble countryfolk, and I am proud that the stock I come from is rooted deep among the common people he insults!

Voices. Bravo, Hovstad! Bravo! Bravo!

Dr. Stockmann. The kind of common people I mean are not only to be found low down in the social scale; they crawl and swarm all around us—even in the highest social positions. You have only to look at your

own fine, distinguished Mayor! My brother Peter is every bit as plebeian as anyone that walks in two shoes–(*laughter and hisses*).

Peter Stockmann. I protest against personal allusions of this kind.

Dr. Stockmann (*imperturbably*). –and that, not because he is, like myself, descended from some old rascal of a pirate from Pomerania or thereabouts–because that is who we are descended from–

Peter Stockmann. An absurd legend. I deny it!

Dr. Stockmann. –but because he thinks what his superiors think and holds the same opinions as they. People who do that are, intellectually speaking, common people; and that is why my magnificent brother Peter is in reality so very far from any distinction–and consequently also so far from being liberal-minded.

Peter Stockmann. Mr. Chairman–!

Hovstad. So it is only the distinguished men that are liberal-minded in this country? We are learning something quite new! (*Laughter.*)

Dr. Stockmann. Yes, that is part of my new discovery too. And another part of it is that broad-mindedness is almost precisely the same thing as morality. That is why I maintain that it is absolutely inexcusable in the "People's Messenger" to proclaim, day in and day out, the false doctrine that it is the masses, the crowd, the compact majority, that have the monopoly of broad-mindedness and morality–and that vice and corruption and every kind of intellectual depravity are the result of culture, just as all the filth that is draining into our Baths is the result of the tanneries up at Mölledal! (*Uproar and interruptions.* DR. STOCKMANN *is undisturbed, and goes on, carried away by his ardor, with a smile.*) And yet this same "People's Messenger" can go on preaching that the masses ought to be elevated to higher conditions of life! But, bless my soul, if the "Messenger's" teaching is to be depended upon, this very raising up the masses would mean nothing more or less than setting them straightway upon the paths of depravity! Happily the theory that culture demoralizes is only an old falsehood that our forefathers believed in and we have inherited. No, it is ignorance, poverty, ugly conditions of life, that do the devil's work! In a house which does not get aired and swept every day–my wife Katherine maintains that the floor ought to be scrubbed as well, but that is a debatable question–in such a house, let me tell you, people will lose within two or three years the power of thinking or acting in a moral manner. Lack of oxygen weakens the conscience. And there must be a plentiful lack

of oxygen in very many houses in this town, I should think, judging from the fact that the whole compact majority can be unconscientious enough to wish to build the town's prosperity on a quagmire of falsehood and deceit.

Aslaksen. We cannot allow such a grave accusation to be flung at a citizen community.

A Citizen. I move that the Chairman direct the speaker to sit down.

Voices (*angrily*). Hear, hear! Quite right! Make him sit down!

Dr. Stockmann (*losing his self-control*). Then I will go and shout the truth at every street corner! I will write it in other towns' newspapers! The whole country shall know what is going on here!

Hovstad. It almost seems as if Dr. Stockmann's intention were to ruin the town.

Dr. Stockmann. Yes, my native town is so dear to me that I would rather ruin it than see it flourishing upon a lie.

Aslaksen. This is really serious.

Uproar and catcalls. MRS. STOCKMANN *coughs, but to no purpose; her husband does not listen to her any longer.*

Hovstad (*shouting above the din*). A man must be a public enemy to wish to ruin a whole community!

Dr. Stockmann (*with growing fervor*). What does the destruction of a community matter, if it lives on lies! It ought to be razed to the ground, I tell you! All who live by lies ought to be exterminated like vermin! You will end by infecting the whole country; you will bring about such a state of things that the whole country will deserve to be ruined. And if things come to that pass, I shall say from the bottom of my heart: Let the whole country perish, let all these people be exterminated!

Voices from the crowd. That is talking like an out-and-out enemy of the people!

Billing. There sounded the voice of the people, by all that's holy!

The whole crowd (*shouting*). Yes, yes! He is an enemy of the people! He hates his country! He hates his own people!

Aslaksen. Both as a citizen and as an individual, I am profoundly disturbed by what we have had to listen to. Dr. Stockmann has shown himself in a light I should never have dreamed of. I am unhappily obliged to subscribe to the opinion which I have just heard my estimable fellow citizens utter; and I propose that we should give ex-

pression to that opinion in a resolution. I propose a resolution as follows: "This meeting declares that it considers Dr. Thomas Stockmann, Medical Officer of the Baths, to be an enemy of the people."

A storm of cheers and applause. A number of men surround the DOCTOR *and hiss him.* MRS. STOCKMANN *and* PETRA *have got up from their seats.* MORTEN *and* EJLIF *are fighting the other schoolboys for hissing; some of their elders separate them.*

Dr. Stockmann (*to the men who are hissing him*). Oh, you fools! I tell you that–

Aslaksen (*ringing his bell*). We cannot hear you now, Doctor. A formal vote is about to be taken; but, out of regard for personal feelings, it shall be by ballot and not verbal. Have you any clean paper, Mr. Billing?

Billing. I have both blue and white here.

Aslaksen (*going to him*). That will do nicely; we shall get on more quickly that way. Cut it up into small strips–yes, that's it. (*To the meeting.*) Blue means no; white means yes. I will come round myself and collect votes.

PETER STOCKMANN *leaves the hall.* ASLAKSEN *and one or two others go round the room with the slips of paper in their hats.*

1st Citizen (*to* HOVSTAD). I say, what has come to the Doctor? What are we to think of it?

Hovstad. Oh, you know how headstrong he is.

2nd Citizen (*to* BILLING). Billing, you go to their house–have you ever noticed if the fellow drinks?

Billing. Well, I'm hanged if I know what to say. There are always spirits on the table when you go.

3rd Citizen. I rather think he goes quite off his head sometimes.

1st Citizen. I wonder if there is any madness in his family?

Billing. I shouldn't wonder if there were.

4th Citizen. No, it is nothing more than sheer malice; he wants to get even with somebody for something or other.

Billing. Well, certainly he suggested a rise in his salary on one occasion lately, and did not get it.

The Citizens (*together*). Ah!–then it is easy to understand how it is!

The Drunken Man (*who has got amongst the audience again*). I want a blue one, I do! And I want a white one too!

Voices. It's that drunken chap again! Turn him out!

Morten Kiil (*going up to* DR. STOCKMANN). Well, Stockmann, do you see what these monkey tricks of yours lead to?

Dr. Stockmann. I have done my duty.

Morten Kiil. What was that you said about the tanneries at Mölledal?

Dr. Stockmann. You heard well enough. I said they were the source of all the filth.

Morten Kiil. My tannery too?

Dr. Stockmann. Unfortunately your tannery is by far the worst.

Morten Kiil. Are you going to put that in the papers?

Dr. Stockmann. I shall conceal nothing.

Morten Kiil. That may cost you dear, Stockmann. (*Goes out*.)

A Stout Man (*going up to* CAPTAIN HORSTER, *without taking any notice of the ladies*). Well, Captain, so you lend your house to enemies of the people?

Horster. I imagine I can do what I like with my own possessions, Mr. Vik.

The Stout Man. Then you can have no objection to my doing the same with mine.

Horster. What do you mean, sir?

The Stout Man. You shall hear from me in the morning. (*Turns his back on him and moves off*.)

Petra. Was that not your owner, Captain Horster?

Horster. Yes, that was Mr. Vik the shipowner.

Aslaksen (*with the voting papers in his hands, gets up on to the platform and rings his bell*). Gentlemen, allow me to announce the result. By the votes of every one here except one person–

A Young Man. That is the drunk chap!

Aslaksen. By the votes of every one here except a tipsy man, this meeting of citizens declares Dr. Thomas Stockmann to be an enemy of the people. (*Shouts and applause*.) Three cheers for our ancient and honorable citizen community! (*Renewed applause*.) Three cheers for our able and energetic Mayor, who has so loyally suppressed the promptings of family feeling! (*Cheers*.) The meeting is dissolved. (*Gets down*.)

Billing. Three cheers for the Chairman!

The whole crowd. Three cheers for Aslaksen! Hurrah!

Dr. Stockmann. My hat and coat, Petra! Captain, have you room on your ship for passengers to the New World?

Horster. For you and yours we will make room, Doctor.

Dr. Stockmann (*as* PETRA *helps him into his coat*). Good. Come, Katherine! Come, boys!

Mrs. Stockmann (*in an undertone*). Thomas, dear, let us go out by the back way.

Dr. Stockmann. No back ways for me, Katherine. (*Raising his voice.*) You will hear more of this enemy of the people, before he shakes the dust off his shoes upon you! I am not so forgiving as a certain Person; I do not say: "I forgive you, for ye know not what ye do."

Aslaksen (*shouting*). That is a blasphemous comparison, Dr. Stockmann!

Billing. It is, by God! It's dreadful for an earnest man to listen to.

A Coarse Voice. Threatens us now, does he!

Other Voices (*excitedly*). Let's go and break his windows! Duck him in the fjord!

Another Voice. Blow your horn, Evensen. Pip, pip!

Horn-blowing, hisses, and wild cries. DR. STOCKMANN *goes out through the hall with his family,* HORSTER *elbowing a way for them.*

The Whole Crowd (*howling after them as they go*). Enemy of the People! Enemy of the People!

Billing (*as he puts his papers together*). Well, I'm damned if I go and drink toddy with the Stockmanns tonight!

The crowd press towards the exit. The uproar continues outside; shouts of "Enemy of the People!" *are heard from without.*

ACT V

SCENE. DR. STOCKMANN'S *study. Bookcases, and cabinets containing specimens, line the walls. At the back is a door leading to the hall; in the foreground on the left, a door leading to the sitting room. In the right-hand wall are two windows, of which all the panes are broken. The* DOCTOR'S *desk, littered with books and papers, stands in the middle of the room, which is in disorder. It is morning.* DR. STOCKMANN *in dressing gown, slippers and a smoking cap, is bending down and raking with an umbrella under one of the cabinets. After a little while he rakes out a stone.*

Dr. Stockmann (*calling through the open sitting room door*). Katherine, I have found another one.

Mrs. Stockmann (*from the sitting room*). Oh, you will find a lot more yet, I expect.

Dr. Stockmann (*adding the stone to a heap of others on the table*). I shall

treasure these stones as relics. Ejlif and Morten shall look at them every day, and when they are grown up they shall inherit them as heirlooms. (*Rakes about under a bookcase*.) Hasn't–what the deuce is her name?–the girl, you know–hasn't she been to fetch the glazier, yet?

Mrs. Stockmann (*coming in*). Yes, but he said he didn't know if he would be able to come today.

Dr. Stockmann. You will see he won't dare to come.

Mrs. Stockmann. Well, that is just what Randine thought–that he didn't dare to, on account of the neighbors. (*Calls into the sitting room*.) What is it you want, Randine? Give it to me. (*Goes in, and comes out again directly*.) Here is a letter for you, Thomas.

Dr. Stockmann. Let me see it. (*Opens and reads it*.) Ah!–of course.

Mrs. Stockmann. Who is it from?

Dr. Stockmann. From the landlord. Notice to quit.

Mrs. Stockmann. Is it possible? Such a nice man–

Dr. Stockmann (*looking at the letter*). Does not dare do otherwise, he says. Doesn't like doing it, but dare not do otherwise–on account of his fellow citizens–out of regard for public opinion. Is in a dependent position–dare not offend certain influential men–

Mrs. Stockmann. There, you see, Thomas!

Dr. Stockmann. Yes, yes, I see well enough; the whole lot of them in the town are cowards; not a man among them dares do anything for fear of the others. (*Throws the letter on to the table*.) But it doesn't matter to us, Katherine. We are going to sail away to the New World, and–

Mrs. Stockmann. But, Thomas, are you sure we are well advised to take this step?

Dr. Stockmann. Are you suggesting that I should stay here, where they have pilloried me as an enemy of the people–branded me–broken my windows! And just look here, Katherine–they have torn a great rent in my black trousers too!

Mrs. Stockmann. Oh, dear!–and they are the best pair you have got!

Dr. Stockmann. You should never wear your best trousers when you go out to fight for freedom and truth. It is not that I care so much about the trousers, you know; you can always sew them up again for me. But that the common herd should dare to make this attack on me, as if they were my equals–that is what I cannot, for the life of me, swallow!

Mrs. Stockmann. There is no doubt they have behaved very ill to you,

Thomas; but is that sufficient reason for our leaving our native country for good and all?

Dr. Stockmann. If we went to another town, do you suppose we should not find the common people just as insolent as they are here? Depend upon it, there is not much to choose between them. Oh, well, let the curs snap—that is not the worst part of it. The worst is that, from one end of this country to the other, every man is the slave of his Party. Although, as far as that goes, I dare say it is not much better in the free West either; the compact majority, and liberal public opinion, and all that infernal old bag of tricks are probably rampant there too. But there things are done on a larger scale, you see. They may kill you, but they won't put you to death by slow torture. They don't squeeze a free man's soul in a vise, as they do here. And, if need be, one can live in solitude. (*Walks up and down*.) If only I knew where there was a virgin forest or a small South Sea island for sale, cheap—

Mrs. Stockmann. But think of the boys, Thomas.

Dr. Stockmann (*standing still*). What a strange woman you are, Katherine! Would you prefer to have the boys grow up in a society like this? You saw for yourself last night that half the population are out of their minds; and if the other half have not lost their senses, it is because they are mere brutes, with no sense to lose.

Mrs. Stockmann. But, Thomas dear, the imprudent things you said had something to do with it, you know.

Dr. Stockmann. Well, isn't what I said perfectly true? Don't they turn every idea topsy-turvy? Don't they make a regular hotchpotch of right and wrong? Don't they say that the things I know are true, are lies? The craziest part of it all is the fact of these "liberals," men of full age, going about in crowds imagining that they are the broadminded party! Did you ever hear anything like it, Katherine!

Mrs. Stockmann. Yes, yes, it's mad enough of them, certainly; but—(PETRA *comes in from the sitting room*). Back from school already?

Petra. Yes. I have been given notice of dismissal.

Mrs. Stockmann. Dismissal?

Dr. Stockmann. You too?

Petra. Mrs. Busk gave me my notice; so I thought it was best to go at once.

Dr. Stockmann. You were perfectly right, too!

Mrs. Stockmann. Who would have thought Mrs. Busk was a woman like that!

Petra. Mrs. Busk isn't a bit like that, mother; I saw quite plainly how it

hurt her to do it. But she didn't dare do otherwise, she said; and so I got my notice.

Dr. Stockmann (*laughing and rubbing his hands*). She didn't dare do otherwise, either! It's delicious!

Mrs. Stockmann. Well, after the dreadful scenes last night–

Petra. It was not only that. Just listen to this, father!

Dr. Stockmann. Well?

Petra. Mrs. Busk showed me no less than three letters she received this morning–

Dr. Stockmann. Anonymous, I suppose?

Petra. Yes.

Dr. Stockmann. Yes, because they didn't dare to risk signing their names, Katherine!

Petra. And two of them were to the effect that a man, who has been our guest here, was declaring last night at the Club that my views on various subjects are extremely emancipated–

Dr. Stockmann. You did not deny that, I hope?

Petra. No, you know I wouldn't. Mrs. Busk's own views are tolerably emancipated, when we are alone together; but now that this report about me is being spread, she dare not keep me on any longer.

Mrs. Stockmann. And some one who had been a guest of ours! That shows you the return you get for your hospitality Thomas!

Dr. Stockmann. We won't live in such a disgusting hole any longer. Pack up as quickly as you can, Katherine; the sooner we can get away, the better.

Mrs. Stockmann. Be quiet–I think I hear someone in the hall. See who it is, Petra.

Petra (*opening the door*). Oh, it's you, Captain Horster! Do come in.

Horster (*coming in*). Good morning. I thought I would just come in and see how you were.

Dr. Stockmann (*shaking his hand*). Thanks–that is really kind of you.

Mrs. Stockmann. And thank you, too, for helping us through the crowd, Captain Horster.

Petra. How did you manage to get home again?

Horster. Oh, somehow or other. I am fairly strong, and there is more sound than fury about these folk.

Dr. Stockmann. Yes, isn't their swinish cowardice astonishing? Look here, I will show you something! There are all the stones they have thrown through my windows. Just look at them! I'm hanged if there are more than two decently large bits of hardstone in the whole heap; the rest

are nothing but gravel–wretched little things. And yet they stood out there bawling and swearing that they would do me some violence; but as for *doing* anything–you don't see much of that in this town.

Horster. Just as well for you this time, doctor!

Dr. Stockmann. True enough. But it makes one angry all the same; because if some day it should be a question of a national fight in real earnest, you will see that public opinion will be in favor of taking to one's heels, and the compact majority will turn tail like a flock of sheep, Captain Horster. That is what is so mournful to think of; it gives me so much concern, that–. No, devil take it, it is ridiculous to care about it! They have called me an enemy of the people, so an enemy of the people let me be!

Mrs. Stockmann. You will never be that, Thomas.

Dr. Stockmann. Don't swear to that, Katherine. To be called an ugly name may have the same effect as a pin scratch in the lung. And that hateful name–I can't get quit of it. It is sticking here in the pit of my stomach, eating into me like a corrosive acid. And no magnesia will remove it.

Petra. Bah!–you should only laugh at them, father.

Horster. They will change their minds some day, Doctor.

Mrs. Stockmann. Yes, Thomas, as sure as you are standing here.

Dr. Stockmann. Perhaps, when it is too late. Much good may it do them! They may wallow in their filth then and rue the day when they drove a patriot into exile. When do you sail, Captain Horster?

Horster. Hm!–that was just what I had come to speak about–

Dr. Stockmann. Why, has anything gone wrong with the ship?

Horster. No; but what has happened is that I am not to sail in it.

Petra. Do you mean that you have been dismissed from your command?

Horster (*smiling*). Yes, that's just it.

Petra. You too.

Mrs. Stockmann. There, you see, Thomas!

Dr. Stockmann. And that for the truth's sake! Oh, if I had thought such a thing possible–

Horster. You mustn't take it to heart; I shall be sure to find a job with some shipowner or other, elsewhere.

Dr. Stockmann. And that is this man Vik–a wealthy man, independent of everyone and everything–! Shame on him!

Horster. He is quite an excellent fellow otherwise; he told me himself he would willingly have kept me on, if only he had dared–

Dr. Stockmann. But he didn't dare? No, of course not.

Horster. It is not such an easy matter, he said, for a party man–

Dr. Stockmann. The worthy man spoke the truth. A party is like a sausage machine; it mashes up all sorts of heads together into the same mincemeat–fatheads and blockheads, all in one mash!

Mrs. Stockmann. Come, come, Thomas dear!

Petra (*to* HORSTER). If only you had not come home with us, things might not have come to this pass.

Horster. I do not regret it.

Petra (*holding out her hand to him*). Thank you for that!

Horster (*to* DR. STOCKMANN). And so what I came to say was that if you are determined to go away, I have thought of another plan–

Dr. Stockmann. That's splendid!–if only we can get away at once.

Mrs. Stockmann. Hush!–wasn't that some one knocking?

Petra. That is uncle, surely.

Dr. Stockmann. Aha! (*Calls out.*) Come in!

Mrs. Stockmann. Dear Thomas, promise me definitely–

PETER STOCKMANN *comes in from the hall.*

Peter Stockmann. Oh, you are engaged. In that case, I will–

Dr. Stockmann. No, no, come in.

Peter Stockmann. But I wanted to speak to you alone.

Mrs. Stockmann. We will go into the sitting room in the meanwhile.

Horster. And I will look in again later.

Dr. Stockmann. No, go in there with them, Captain Horster; I want to hear more about–

Horster. Very well, I will wait, then. (*He follows* MRS. STOCKMANN *and* PETRA *into the sitting room.*)

Dr. Stockmann. I daresay you find it rather drafty here today. Put your hat on.

Peter Stockmann. Thank you, if I may. (*Does so.*) I think I caught cold last night; I stood and shivered–

Dr. Stockmann. Really? I found it warm enough.

Peter Stockmann. I regret that it was not in my power to prevent those excesses last night.

Dr. Stockmann. Have you anything particular to say to me besides that?

Peter Stockmann (*taking a big letter from his pocket*). I have this document for you, from the Baths Committee.

Dr. Stockmann. My dismissal?

Peter Stockmann. Yes, dating from today. (*Lays the letter on the table.*) It gives us pain to do it; but, to speak frankly, we dared not do otherwise on account of public opinion.

Dr. Stockmann (*smiling*). Dared not? I seem to have heard that word before, today.

Peter Stockmann. I must beg you to understand your position clearly. For the future you must not count on any practice whatever in the town.

Dr. Stockmann. Devil take the practice! But why are you so sure of that?

Peter Stockmann. The Householders' Association is circulating a list from house to house. All right-minded citizens are being called upon to give up employing you; and I can assure you that not a single head of a family will risk refusing his signature. They simply dare not.

Dr. Stockmann. No, no; I don't doubt it. But what then?

Peter Stockmann. If I might advise you, it would be best to leave the place for a little while–

Dr. Stockmann. Yes, the propriety of leaving the place *has* occurred to me.

Peter Stockmann. Good. And then, when you have had six months to think things over, if, after mature consideration, you can persuade yourself to write a few words of regret, acknowledging your error–

Dr. Stockmann. I might have my appointment restored to me, do you mean?

Peter Stockmann. Perhaps. It is not at all impossible.

Dr. Stockmann. But what about public opinion, then? Surely you would not dare to do it on account of public feeling.

Peter Stockmann. Public opinion is an extremely mutable thing. And, to be quite candid with you, it is a matter of great importance to us to have some admission of that sort from you in writing.

Dr. Stockmann. Oh, that's what you are after, is it! I will just trouble you to remember what I said to you lately about foxy tricks of that sort!

Peter Stockmann. Your position was quite different then. At that time you had reason to suppose you had the whole town at your back–

Dr. Stockmann. Yes, and now I feel I have the whole town *on* my back–(*flaring up*). I would not do it if I had the devil and his dam on my back–! Never–never, I tell you!

Peter Stockmann. A man with a family has no right to behave as you do. You have no right to do it, Thomas.

Dr. Stockmann. I have no right! There is only one single thing in the world a free man has no right to do. Do you know what that is?

Peter Stockmann. No.

Dr. Stockmann. Of course you don't, but I will tell you. A free man has no right to soil himself with filth; he has no right to behave in a way that would justify his spitting in his own face.

Peter Stockmann. This sort of thing sounds extremely plausible, of course; and if there were no other explanation for your obstinacy–. But as it happens that there is–

Dr. Stockmann. What do you mean?

Peter Stockmann. You understand very well what I mean. But, as your brother and as a man of discretion, I advise you not to build too much upon expectations and prospects that may so very easily fail you.

Dr. Stockmann. What in the world is all this about?

Peter Stockmann. Do you really ask me to believe that you are ignorant of the terms of Mr. Kiil's will?

Dr. Stockmann. I know that the small amount he possesses is to go to an institution for indigent old workpeople. How does that concern me?

Peter Stockmann. In the first place, it is by no means a small amount that is in question. Mr. Kiil is a fairly wealthy man.

Dr. Stockmann. I had no notion of that!

Peter Stockmann. Hm!–hadn't you really? Then I suppose you had no notion, either, that a considerable portion of his wealth will come to your children, you and your wife having a liferent of the capital. Has he never told you so?

Dr. Stockmann. Never, on my honor! Quite the reverse; he has consistently done nothing but fume at being so unconscionably heavily taxed. But are you perfectly certain of this, Peter?

Peter Stockmann. I have it from an absolutely reliable source.

Dr. Stockmann. Then, thank God, Katherine is provided for–and the children too! I must tell her this at once–(*calls out*) Katherine, Katherine!

Peter Stockmann (*restraining him*). Hush, don't say a word yet!

Mrs. Stockmann (*opening the door*). What is the matter?

Dr. Stockmann. Oh, nothing, nothing; you can go back. (*She shuts the door.* DR. STOCKMANN *walks up and down in his excitement.*) Provided for!–Just think of it, we are all provided for. And for life! What a blessed feeling it is to know one is provided for!

Peter Stockmann. Yes, but that is just exactly what you are not. Mr. Kiil can alter his will any day he likes.

Dr. Stockmann. But he won't do that, my dear Peter. "The Badger" is much too delighted at my attack on you and your wise friends.

Peter Stockmann (*starts and looks intently at him*). Ah, that throws a light on various things.

Dr. Stockmann. What things?

Peter Stockmann. I see that the whole thing was a combined maneuver on

your part and his. These violent, reckless attacks that you have made against the leading men of the town, under the pretense that it was in the name of truth–

Dr. Stockmann. What about them?

Peter Stockmann. I see that they were nothing else than the stipulated price for that vindictive old man's will.

Dr. Stockmann (*almost speechless*). Peter–you are the most disgusting plebeian I have ever met in all my life.

Peter Stockmann. All is over between us. Your dismissal is irrevocable–we have a weapon against you now. (*Goes out.*)

Dr. Stockmann. For shame! For shame! (*Calls out.*) Katherine, you must have the floor scrubbed after him! Let–what's her name–devil take it, the girl who has always got soot on her nose–

Mrs. Stockmann (*in the sitting room*). Hush, Thomas, be quiet!

Petra (*coming to the door*). Father, grandfather is here, asking if he may speak to you alone.

Dr. Stockmann. Certainly he may. (*Going to the door.*) Come in, Mr. Kiil. (MORTEN KIIL *comes in.* DR. STOCKMANN *shuts the door after him.*) What can I do for you? Won't you sit down?

Morten Kiil. I won't sit. (*Looks around.*) You look very comfortable here today, Thomas.

Dr. Stockmann. Yes, don't we!

Morten Kiil. Very comfortable–plenty of fresh air. I should think you have got enough today of that oxygen you were talking about yesterday. Your conscience must be in splendid order today, I should think.

Dr. Stockmann. It is.

Morten Kiil So I should think. (*Taps his chest.*) Do you know what I have got here?

Dr. Stockmann. A good conscience, too, I hope.

Morten Kiil. Bah! No, it is something better than that. (*He takes a thick pocketbook from his breast pocket, opens it and displays a packet of papers.*)

Dr. Stockmann (*looking at him in astonishment*). Shares in the Baths?

Morten Kiil They were not difficult to get today.

Dr. Stockmann. And you have been buying–?

Morten Kiil. As many as I could pay for.

Dr. Stockmann. But, my dear Mr. Kiil–consider the state of the Baths' affairs!

Morten Kiil. If you behave like a reasonable man, you can soon set the Baths on their feet again.

Dr. Stockmann. Well, you can see for yourself that I have done all I can, but–. They are all mad in this town!

Morten Kiil. You said yesterday that the worst of this pollution came from my tannery. If that is true, then my grandfather and my father before me, and I myself, for many years past, have been poisoning the town like three destroying angels. Do you think I am going to sit quiet under that reproach?

Dr. Stockmann. Unfortunately I am afraid you will have to.

Morten Kiil. No, thank you. I am jealous of my name and reputation. They call me "the Badger," I am told. A badger is a kind of pig, I believe; but I am not going to give them the right to call me that. I mean to live and die a clean man.

Dr. Stockmann. And how are you going to set about it?

Morten Kiil. You shall cleanse me, Thomas.

Dr. Stockmann. I!

Morten Kiil. Do you know what money I have bought these shares with? No, of course you can't know–but I will tell you. It is the money that Katherine and Petra and the boys will have when I am gone. Because I have been able to save a little bit after all, you know.

Dr. Stockmann (*flaring up*). And you have gone and taken Katherine's money for *this!*

Morten Kiil. Yes, the whole of the money is invested in the Baths now. And now I just want to see whether you are quite stark, staring mad, Thomas! If you still make out that these animals and other nasty things of that sort come from my tannery, it will be exactly as if you were to flay broad strips of skin from Katherine's body, and Petra's, and the boys'; and no decent man would do that–unless he were mad.

Dr. Stockmann (*walking up and down*). Yes, but I *am* mad; I *am* mad!

Morten Kiil. You cannot be so absurdly mad as all that, when it is a question of your wife and children.

Dr. Stockmann (*standing still in front of him*). Why couldn't you consult me about it, before you went and bought all that trash?

Morten Kiil. What is done cannot be undone.

Dr. Stockmann (*walks about uneasily*). If only I were not so certain about it–! But I am absolutely convinced that I am right.

Morten Kiil (*weighing the pocketbook in his hand*). If you stick to your mad idea, this won't be worth much, you know. (*Puts the pocketbook in his pocket.*)

Dr. Stockmann. But, hang it all! it might be possible for science to dis-

cover some prophylactic, I should think–or some antidote of some kind–

Morten Kiil. To kill these animals, do you mean?

Dr. Stockmann. Yes, or to make them innocuous.

Morten Kiil. Couldn't you try some ratsbane?

Dr. Stockmann. Don't talk nonsense! They all say it is only imagination, you know. Well, let it go at that! Let them have their own way about it! Haven't the ignorant, narrow-minded curs reviled me as an enemy of the people?–and haven't they been ready to tear the clothes off my back too?

Morten Kiil. And broken all your windows to pieces!

Dr. Stockmann. And then there is my duty to my family. I must talk it over with Katherine; she is great on those things.

Morten Kiil. That is right; be guided by a reasonable woman's advice.

Dr. Stockmann (*advancing towards him*). To think you could do such a preposterous thing! Risking Katherine's money in this way, and putting me in such a horribly painful dilemma! When I look at you, I think I see the devil himself–.

Morten Kiil. Then I had better go. But I must have an answer from you before two o'clock–yes or no. If it is no, the shares go to a charity, and that this very day.

Dr. Stockmann. And what does Katherine get?

Morten Kiil. Not a halfpenny. (*The door leading to the hall opens and* HOVSTAD *and* ASLAKSEN *make their appearance.*) Look at those two!

Dr. Stockmann (*staring at them*). What the devil!–have *you* actually the face to come into my house?

Hovstad. Certainly.

Aslaksen. We have something to say to you, you see.

Morten Kiil (*in a whisper*). Yes or no–before two o'clock.

Aslaksen (*glancing at* HOVSTAD). Aha! (MORTEN KIIL *goes out.*)

Dr. Stockmann. Well, what do you want with me? Be brief.

Hovstad. I can quite understand that you are annoyed with us for our attitude at the meeting yesterday–

Dr. Stockmann. Attitude, do you call it? Yes, it was a charming attitude! I call it weak, womanish–damnably shameful!

Hovstad. Call it what you like, we could not do otherwise.

Dr. Stockmann. You *dared* not do otherwise–isn't that it?

Hovstad. Well, if you like to put it that way.

Aslaksen. But why did you not let us have word of it beforehand?–just a hint to Mr. Hovstad or to me?

Dr. Stockmann. A hint? Of what?
Aslaksen. Of what was behind it all.
Dr. Stockmann. I don't understand you in the least.
Aslaksen (*with a confidential nod*). Oh yes, you do, Dr. Stockmann.
Hovstad. It is no good making a mystery of it any longer.
Dr. Stockmann (*looking first at one of them and then at the other*). What the devil do you both mean?
Aslaksen. May I ask if your father-in-law is not going round the town buying up all the shares in the Baths?
Dr. Stockmann. Yes, he has been buying Bath shares today; but–
Aslaksen. It would have been more prudent to get some one else to do it– some one less nearly related to you.
Hovstad. And you should not have let your name appear in the affair. There was no need for anyone to know that the attack on the Baths came from you. You ought to have consulted me, Dr. Stockmann.
Dr. Stockmann (*looks in front of him; then a light seems to dawn on him and he says in amazement*): Are such things conceivable? Are such things possible?
Aslaksen (*with a smile*). Evidently they are. But it is better to use a little finesse, you know.
Hovstad. And it is much better to have several persons in a thing of that sort; because the responsibility of each individual is lessened, when there are others with him.
Dr. Stockmann (*composedly*). Come to the point, gentlemen. What do you want?
Aslaksen. Perhaps Mr. Hovstad had better–
Hovstad. No, you tell him, Aslaksen.
Aslaksen. Well, the fact is that, now we know the bearings of the whole affair, we think we might venture to put the "People's Messenger" at your disposal.
Dr. Stockmann. Do you dare do that now? What about public opinion? Are you not afraid of a storm breaking upon our heads?
Hovstad. We will try to weather it.
Aslaksen. And you must be ready to go off quickly on a new tack, Doctor. As soon as your invective has done its work–
Dr. Stockmann. Do you mean, as soon as my father-in-law and I have got hold of the shares at a low figure?
Hovstad. Your reasons for wishing to get the control of the Baths are mainly scientific, I take it.
Dr. Stockmann. Of course; it was for scientific reasons that I persuaded

the old "Badger" to stand in with me in the matter. So we will tinker at the conduit pipes a little, and dig up a little bit of the shore, and it shan't cost the town a sixpence. That will be all right–eh?

Hovstad. I think so–if you have the "People's Messenger" behind you.

Aslaksen. The Press is a power in a free community, Doctor.

Dr. Stockmann. Quite so. And so is public opinion. And you, Mr. Aslaksen–I suppose you will be answerable for the Householders' Association?

Aslaksen. Yes, and for the Temperance Society. You may rely on that.

Dr. Stockmann. But, gentlemen–I really am ashamed to ask the question–but, what return do you–?

Hovstad. We should prefer to help you without any return whatever, believe me. But the "People's Messenger" is in rather a shaky condition; it doesn't go really well; and I should be very unwilling to suspend the paper now, when there is so much work to do here in the political way.

Dr. Stockmann. Quite so; that would be a great trial to such a friend of the people as you are. (*Flares up*.) But I am an enemy of the people, remember! (*Walks about the room*.) Where have I put my stick? Where the devil is my stick?

Hovstad. What's that?

Aslaksen. Surely you never mean–?

Dr. Stockmann (*standing still*). And suppose I don't give you a single penny of all I get out of it? Money is not very easy to get out of us rich folk, please to remember!

Hovstad. And you please to remember that this affair of the shares can be represented in two ways!

Dr. Stockmann. Yes, and you are just the man to do it. If I don't come to the rescue of the "People's Messenger," you will certainly take an evil view of the affair; you will hunt me down, I can well imagine–pursue me–try to throttle me as a dog does a hare.

Hovstad. It is a natural law; every animal must fight for its own livelihood.

Aslaksen. And get its food where it can, you know.

Dr. Stockmann (*walking about the room*). Then you go and look for yours in the gutter; because I am going to show you which is the strongest animal of us three! (*Finds an umbrella and brandishes it above his head*.) Ah, now–!

Hovstad. You are surely not going to use violence!

Aslaksen. Take care what you are doing with that umbrella.

Dr. Stockmann. Out of the window with you, Mr. Hovstad!
Hovstad (*edging to the door*). Are you quite mad!
Dr. Stockmann. Out of the window, Mr. Aslaksen! Jump, I tell you! You will have to do it, sooner or later.
Aslaksen (*running round the writing table*). Moderation, Doctor–I am a delicate man–I can stand so little–(*calls out*) help, help!

MRS. STOCKMANN, PETRA *and* HORSTER *come in from the sitting room*.

Mrs. Stockmann. Good gracious, Thomas! What is happening?
Dr. Stockmann (*brandishing the umbrella*). Jump out, I tell you! Out into the gutter!
Hovstad. An assault on an unoffending man! I call you to witness, Captain Horster. (*Hurries out through the hall.*)
Aslaksen (*irresolutely*). If only I knew the way about here–. (*Steals out through the sitting room.*)
Mrs. Stockmann (*holding her husband back*). Control yourself, Thomas!
Dr. Stockmann (*throwing down the umbrella*). Upon my soul, they have escaped after all.
Mrs. Stockmann. What did they want you to do?
Dr. Stockmann. I will tell you later on; I have something else to think about now. (*Goes to the table and writes something on a calling card.*) Look there, Katherine; what is written there?
Mrs. Stockmann. Three big No's; what does that mean?
Dr. Stockmann. I will tell you that too, later on. (*Holds out the card to* PETRA.) There, Petra; tell sooty-face to run over to "the Badger's" with that, as quickly as she can. Hurry up! (PETRA *takes the card and goes out to the hall.*)
Dr. Stockmann. Well, I think I have had a visit from every one of the devil's messengers today! But now I am going to sharpen my pen till they can feel its point; I shall dip it in venom and gall; I shall hurl my inkpot at their heads!
Mrs. Stockmann. Yes, but we are going away, you know, Thomas.

PETRA *comes back*.

Dr. Stockmann. Well?
Petra. She has gone with it.
Dr. Stockmann. Good. Going away, did you say? No, I'll be hanged if we are going away! We are going to stay where we are, Katherine!

Petra. Stay here?

Mrs. Stockmann. Here, in the town?

Dr. Stockmann. Yes, here. This is the field of battle—this is where the fight will be. This is where I shall triumph! As soon as I have had my trousers sewn up I shall go out and look for another house. We must have a roof over our heads for the winter.

Horster. That you shall have in my house.

Dr. Stockmann. Can I?

Horster. Yes, quite well. I have plenty of room, and I am almost never at home.

Mrs. Stockmann. How good of you, Captain Horster!

Petra. Thank you!

Dr. Stockmann (*grasping his hand*). Thank you, thank you! That is one trouble over! Now I can set to work in earnest at once. There is an endless amount of things to look through here, Katherine! Luckily I shall have all my time at my disposal; because I have been dismissed from the Baths, you know.

Mrs. Stockmann (*with a sigh*). Oh yes, I expected that.

Dr. Stockmann. And they want to take my practice away from me too. Let them! I have got the poor people to fall back upon, anyway—those that don't pay anything; and, after all, they need me most, too. But, by Jove, they will have to listen to me; I shall preach to them in season and out of season, as it says somewhere.

Mrs. Stockmann. But, dear Thomas, I should have thought events had showed you what use it is to preach.

Dr. Stockmann. You are really ridiculous, Katherine. Do you want me to let myself be beaten off the field by public opinion and the compact majority and all that devilry? No, thank you! And what I want to do is so simple and clear and straightforward. I only want to drum into the heads of these curs the fact that the liberals are the most insidious enemies of freedom—that party programs strangle every young and vigorous truth—that considerations of expediency turn morality and justice upside down—and that they will end by making lif e here unbearable. Don't you think, Captain Horster, that I ought to be able to make people understand that?

Horster. Very likely; I don't know much about such things myself.

Dr. Stockmann. Well, look here—I will explain! It is the party leaders that must be exterminated. A party leader is like a wolf, you see—like a voracious wolf. He requires a certain number of smaller victims to prey upon every year, if he is to live. Just look at Hovstad and Aslak-

sen! How many smaller victims have they not put an end to–or at any rate maimed and mangled until they are fit for nothing except to be householders or subscribers to the "People's Messenger"! (*Sits down on the edge of the table.*) Come here, Katherine–look how beautifully the sun shines today! And this lovely spring air I am drinking in!

Mrs. Stockmann. Yes, if only we could live on sunshine and spring air, Thomas.

Dr. Stockmann. Oh, you will have to pinch and save a bit–then we shall get along. That gives me very little concern. What is much worse is, that I know of no one who is liberal-minded and high-minded enough to venture to take up my work after me.

Petra. Don't think about that, father; you have plenty of time before you. Hullo, here are the boys already!

EJLIF *and* MORTEN *come in from the sitting room.*

Mrs. Stockmann. Have you got a holiday?

Morten. No; but we were fighting with the other boys between lessons–

Ejlif. That isn't true; it was the other boys were fighting with us.

Morten. Well, and then Mr. Rörlund said we had better stay at home for a day or two.

Dr. Stockmann (*snapping his fingers and getting up from the table*). I have it! I have it, by Jove! You shall never set foot in the school again!

The Boys. No more school!

Mrs. Stockmann. But, Thomas–

Dr. Stockmann. Never, I say. I will educate you myself; that is to say, you shan't learn a blessed thing–

Morten. Hooray!

Dr. Stockmann.–but I will make liberal-minded and high-minded men of you. You must help me with that, Petra.

Petra. Yes, father, you may be sure I will.

Dr. Stockmann. And my school shall be in the room where they insulted me and called me an enemy of the people. But we are too few as we are; I must have at least twelve boys to begin with.

Mrs. Stockmann. You will certainly never get them in this town.

Dr. Stockmann. We shall. (*To the boys.*) Don't you know any street urchins–regular ragamuffins–?

Morten. Yes, father, I know lots!

Dr. Stockmann. That's capital! Bring me some specimens of them. I am

going to experiment with curs, just for once; there may be some exceptional heads among them.

Morten. And what are we going to do, when you have made liberalminded and high-minded men of us?

Dr. Stockmann. Then you shall drive all the wolves out of the country, my boys!

EJLIF *looks rather doubtful about it;* MORTEN *jumps about crying "Hurrah!"*

Mrs. Stockmann. Let us hope it won't be the wolves that will drive you out of the country, Thomas.

Dr. Stockmann. Are you out of your mind, Katherine? Drive me out! Now—when I am the strongest man in the town!

Mrs. Stockmann. The strongest—now?

Dr. Stockmann. Yes, and I will go so far as to say that now I am the strongest man in the whole world.

Morten. I say!

Dr. Stockmann (*lowering his voice*). Hush! You mustn't say anything about it yet; but I have made a great discovery.

Mrs. Stockmann. Another one?

Dr. Stockmann. Yes. (*Gathers them round him, and says confidentially*): It is this, let me tell you—that the strongest man in the world is he who stands most alone.

Mrs. Stockmann (*smiling and shaking her head*). Oh, Thomas, Thomas!

Petra (*encouragingly, as she grasps her father's hands*). Father!

Anton Chekhov[1]

1860–1904

Like Synge, Chekhov wrote plays more of mood than of action. Like Ibsen, he used symbols to convey psychological states. But where Synge was thoroughly Irish and Ibsen typically Norwegian, Chekhov was a spokesman for the Russia of his time. Through his greatest plays runs one recurring theme. That theme is change, and the tragedy of people who cannot adapt to it.

Chekhov's Russia was in a state of social flux. The old aristocracy was doomed, and the traditional class distinctions were soon to be broken down. These alterations in the social structure were inevitable, the dramatist saw, and his tragedies are those of people caught in the tide and unable to ride with it.

There is poignancy in Chekhov's tragic characters. They do not passively accept being submerged. They reach out toward their dreams; they hope for something better. Chekhov's dramatic moods alternate between hope and despair.

The cherry orchard in Chekhov's play is a symbol of an old, outdated way of life. Once productive and world-famous, the grandest possession of a proud family, the orchard has become a useless luxury which must be sold to pay heavy debts.

Madame Ranevskaya brought about the family calamity by her generous, foolish, spendthrift behavior. Yet she cannot face the need to turn the cherry orchard into a summer resort, which would be profitable. Her adopted daughter Varya tries to run the household economically, but her small efforts are useless. Madame Ranevskaya, accustomed to a life of extravagant ease, cannot change; and the estate is auctioned off. It is bought by a former serf who begins im-

[1] For a biography of Anton Chekhov, see Vol. 3, pp. 448–450, in this set.

mediately to have the cherry trees cut down. The family leaves, cheerfully dreaming of an untroubled life ahead, just as they had formerly dreamed that they could return to the happy past. Despite their optimism, however, one has the sense that they are really trapped, as much by their own shortcomings as by their social situation.

The servants, too, are unable to adapt to the new order. Old Firs cannot accept freedom after his long years of service; at the play's end, when he is forgotten and left behind, he lies down almost certainly to die. *The Cherry Orchard* ends with the sound of a snapping violin string which signals the end of a lovely but outmoded way of life.

Russian though it is in atmosphere, nineteenth-century though it is in setting, Chekhov's masterpiece is timeless. Today's world, too, is changing, and thinking people are forced to re-evaluate their ideas and attitudes. Chekhov saw the great danger in grasping thoughtlessly at panaceas. He longed to better the conditions in Russia under the czars, but he distrusted generalized solutions. He saw no practical answer to Russia's problems in Tolstoy's dreams of mankind's perfectibility, nor in Dostoevsky's Christianity, nor in communism. Chekhov wrote: "God preserve us from generalizations. There are a great many opinions in this world, and a good half of them are professed by people who have never been in trouble."

Chekhov makes no generalizations and no judgments. He gives no hint, in *The Cherry Orchard,* that he believes the new way of life will necessarily be better; nor does he condemn the old way as altogether bad.

Like the characters in Synge's play,[2] Chekhov's people are caught in a tragic dilemma. Like Synge, Chekhov has us believe that they will endure because of their humanity. The strength of Chekhov's people is their unquenchable hope. They cannot change the world to suit their weaknesses. When they cannot alter themselves to fit the world, they must simply endure. Their hope, their perseverance are remarkable. We cannot pity them. We admire them. This was Chekhov's message, as pertinent today as ever, and seldom so powerfully stated.

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[2] See *Riders to the Sea,* Vol. 4, pp. 342–352 in this set.

The Cherry Orchard

CAST OF CHARACTERS

LUBOV ANDREYEVNA RANEVSKAYA, *a landowner.*
ANYA, *her seventeen-year-old daughter.*
VARYA, *her adopted daughter,*
twenty-two years old.
LEONID ANDREYEVICH GAYEV,
MME. RANEVSKAYA'S *brother.*
YERMOLAY ALEXEYEVICH LOPAHIN, *a merchant.*
PYOTR SERGEYEVICH TROFIMOV, *a student.*
SIMEONOV-PISHCHIK, *a landowner.*
CHARLOTTA IVANOVNA, *a governess.*
SEMYON YEPIHODOV, *a clerk.*
DUNYASHA, *a maid.*
FIRS [*pronounced* "fierce"], *a man servant,*
aged eighty-seven.
YASHA, *a young valet.*
A TRAMP.
STATIONMASTER, POST-OFFICE CLERK,
GUESTS, SERVANTS.

The action takes place on Mme. Ranevskaya's estate.

ACT I

A room that is still called the nursery. One of the doors leads into ANYA'S *room. Dawn, the sun will soon rise. It is May, the cherry trees are in blossom, but it is cold in the orchard; there is a morning frost. The windows are shut. Enter* DUNYASHA *with a candle, and* LOPAHIN *with a book in his hand.*

Lopahin. The train is in, thank God. What time is it?

Dunyasha. Nearly two. (*Puts out the candle.*) It's light already.

Lopahin. How late is the train, anyway? Two hours at least. (*Yawns and stretches.*) I'm a fine one! What a fool I've made of myself! I came here on purpose to meet them at the station, and then I went and overslept. I fell asleep in my chair. How annoying! You might have waked me . . .

Dunyasha. I thought you'd left. (*Listens.*) I think they're coming!

Lopahin (*listens*). No, they've got to get the luggage, and one thing and another . . . (*Pause.*) Lubov Andreyevna spent five years abroad, I don't know what she's like now . . . She's a fine person–light-hearted, simple. I remember when I was a boy of fifteen, my poor father–he had a shop here in the village then–punched me in the face with his fist and made my nose bleed. We'd come into the yard, I don't know what for, and he'd had a drop too much. Lubov Andreyevna, I remember her as if it were yesterday–she was still young and so slim–led me to the washbasin, in this very room . . . in the nursery. "Don't cry, little peasant," she said, "it'll heal in time for your wedding. . . ." (*Pause.*) Little peasant . . . my father was a peasant, it's true, and here I am in a white waistcoat and yellow shoes. A pig in a pastry shop, you might say. It's true I'm rich, I've got a lot of money. . . . But when you look at it closely, I'm a peasant through and through. (*Pages the book.*) Here I've been reading this book and I didn't understand a word of it. . . . I was reading it and fell asleep. . . . (*Pause.*)

Dunyasha. And the dogs were awake all night, they feel that their masters are coming.

Lopahin. Dunyasha, why are you so–

Dunyasha. My hands are trembling. I'm going to faint.

Lopahin. You're too soft, Dunyasha. You dress like a lady, and look at the way you do your hair. That's not right. One should remember one's place.

Enter YEPIHODOV *with a bouquet; he wears a jacket and highly polished boots that squeak badly. He drops the bouquet as he comes in.*

Yepihodov (*picking up the bouquet*). Here, the gardener sent these, said you're to put them in the dining room. (*Hands the bouquet to* DUNYASHA.)

Lopahin. And bring me some *kvass*.

Dunyasha. Yes, Sir. (*Exits*.)

Yepihodov. There's a frost this morning—three degrees below—and yet the cherries are all in blossom. I cannot approve of our climate. (*Sighs*.) I cannot. Our climate does not activate properly. And, Yermolay Alexeyevich, allow me to make a further remark. The other day I bought myself a pair of boots, and I make bold to assure you, they squeak so that it is really intolerable. What should I grease them with?

Lopahin. Oh, get out! I'm fed up with you.

Yepihodov. Every day I meet with misfortune. And I don't complain, I've got used to it, I even smile.

DUNYASHA *enters*, *hands* LOPAHIN *the kvass.*

Yepihodov. I am leaving. (*Stumbles against a chair, which falls over.*) There! (*Triumphantly, as it were*.) There again, you see what sort of circumstance, pardon the expression. . . . It is absolutely phenomenal! (*Exits*.)

Dunyasha. You know, Yermolay Alexeyevich, I must tell you, Yepihodov has proposed to me.

Lopahin. Ah!

Dunyasha. I simply don't know . . . he's a quiet man, but sometimes when he starts talking, you can't make out what he means. He speaks nicely—and it's touching—but you can't understand it. I sort of like him though, and he is crazy about me. He's an unlucky man . . . every day something happens to him. They tease him about it here . . . they call him Two-and-Twenty Troubles.

Lopahin (*listening*). There! I think they're coming.

Dunyasha. They *are* coming! What's the matter with me? I feel cold all over.

Lopahin. They really are coming. Let's go and meet them. Will she recognize me? We haven't seen each other for five years.

Dunyasha (*in a flutter*). I'm going to faint this minute. . . . Oh, I'm going to faint!

Two carriages are heard driving up to the house. LOPAHIN *and* DUNYASHA *go out quickly. The stage is left empty. There is a noise in the adjoining rooms.* FIRS*, who had driven to the station to meet* LUBOV ANDREYEVNA RANEVSKAYA*, crosses the stage hurriedly, leaning on a stick. He is wearing an old-fashioned livery and a tall hat. He mutters to himself indistinctly. The hubbub off stage increases.* A VOICE*: "Come, let's go this way." Enter* LUBOV ANDREYEVNA, ANYA *and* CHARLOTTA IVANOVNA, *with a pet dog on a leash, all in traveling dresses;* VARYA, *wearing a coat and kerchief;* GAYEV, SIMEONOVPISHCHIK, LOPAHIN, DUNYASHA *with a bag and an umbrella, servants with luggage. All walk across the room.*

Anya. Let's go this way. Do you remember what room this is, Mamma?

Mme. Ranevskaya (*joyfully, through her tears*). The nursery!

Varya. How cold it is! My hands are numb. (*To* MME. RANEVSKAYA.) Your rooms are just the same as they were Mamma, the white one and the violet.

Mme. Ranevskaya. The nursery! My darling, lovely room! I slept here when I was a child . . . (*Cries.*) And here I am, like a child again! (*Kisses her brother and* VARYA, *and then her brother again.*) Varya's just the same as ever, like a nun. And I recognized Dunyasha. (*Kisses* DUNYASHA.)

Gayev. The train was two hours late. What do you think of that? What a way to manage things!

Charlotta (*to* PISHCHIK). My dog eats nuts, too.

Pishchik (*in amazement*). You don't say so!

All go out, except ANYA and DUNYASHA.

Dunyasha. We've been waiting for you for hours. (*Takes* ANYA'S *hat and coat.*)

Anya. I didn't sleep on the train for four nights and now I'm frozen . . .

Dunyasha. It was Lent when you left; there was snow and frost, and now . . . My darling! (*Laughs and kisses her.*) I have been waiting for you, my sweet, my darling! But I must tell you something . . . I can't put it off another minute . . .

Anya (*listlessly*). What now?

Dunyasha. The clerk, Yepihodov, proposed to me, just after Easter.

Anya. There you are, at it again . . . (*Straightening her hair.*) I've lost all my hairpins . . . (*She is staggering with exhaustion.*)

Dunyasha. Really, I don't know what to think. He loves me–he loves me so!

Anya (*looking towards the door of her room, tenderly*). My own room, my windows, just as though I'd never been away. I'm home! Tomorrow morning I'll get up and run into the orchard. Oh, if I could only get some sleep. I didn't close my eyes during the whole journey–I was so anxious.

Dunyasha. Pyotr Sergeyevich came the day before yesterday.

Anya (*joyfully*). Petya!

Dunyasha. He's asleep in the bathhouse. He has settled there. He said he was afraid of being in the way. (*Looks at her watch.*) I should wake him, but Miss Varya told me not to. "Don't you wake him," she said.

Enter VARYA *with a bunch of keys at her belt*.

Varya. Dunyasha, coffee, and be quick . . . Mamma's asking for coffee.

Dunyasha. In a minute. (*Exits.*)

Varya. Well, thank God, you've come. You're home again. (*Fondling* ANYA.) My darling is here again. My pretty one is back.

Anya. Oh, what I've been through!

Varya. I can imagine.

Anya. When we left, it was Holy Week, it was cold then, and all the way Charlotta chattered and did her tricks. Why did you have to saddle me with Charlotta?

Varya. You couldn't have traveled all alone, darling–at seventeen!

Anya. We got to Paris, it was cold there, snowing. My French is dreadful. Mamma lived on the fifth floor; I went up there, and found all kinds of Frenchmen, ladies, an old priest with a book. The place was full of tobacco smoke, and so bleak. Suddenly I felt sorry for Mamma, so sorry, I took her head in my arms and hugged her and couldn't let go of her. Afterwards Mamma kept fondling me and crying . . .

Varya (*through tears*). Don't speak of it . . . don't.

Anya. She had already sold her villa at Mentone, she had nothing left, nothing. I hadn't a kopeck left either, we had only just enough to get home. And Mamma wouldn't understand! When we had dinner at the stations, she always ordered the most expensive dishes, and tipped the waiters a whole ruble. Charlotta, too. And Yasha kept ordering, too–it was simply awful. You know Yasha's Mamma's footman now, we brought him here with us.

Varya. Yes, I've seen the blackguard.

Anya. Well, tell me–have you paid the interest?

Varya. How could we?

Anya. Good heavens, good heavens!

Varya. In August the estate will be put up for sale.
Anya. My God!

LOPAHIN *peeps in at the door and bleats*.

Lopahin. Meh-h-h. (*Disappears*.)
Varya (*through tears*). What I couldn't do to him! (*Shakes her fist threateningly*.)
Anya (*embracing* VARYA, *gently*). Varya, has he proposed to you? (VARYA *shakes her head*.) But he loves you. Why don't you come to an understanding? What are you waiting for?
Varya. Oh, I don't think anything will ever come of it. He's too busy, he has no time for me . . . pays no attention to me. I've washed my hands of him–I can't bear the sight of him. They all talk about our getting married, they all congratulate me–and all the time there's really nothing to it–it's all like a dream. (*In another tone*.) You have a new brooch–like a bee.
Anya (*sadly*). Mamma bought it. (*She goes into her own room and speaks gaily like a child*.) And you know, in Paris I went up in a balloon.
Varya. My darling's home, my pretty one is back! (DUNYASHA *returns with the coffeepot and prepares coffee*. VARYA *stands at the door of* ANYA'S *room*.) All day long, darling, as I go about the house, I keep dreaming. If only we could marry you off to a rich man, I should feel at ease. Then I would go into a convent, and afterwards to Kiev, to Moscow . . . I would spend my life going from one holy place to another . . . I'd go on and on . . . What a blessing that would be!
Anya. The birds are singing in the orchard. What time is it?
Varya. It must be after two. Time you were asleep, darling. (*Goes into* ANYA'S *room*.) What a blessing that would be!

YASHA *enters with a plaid and a traveling bag, crosses the stage*.

Yasha (*finically*). May I pass this way, please?
Dunyasha. A person could hardly recognize you, Yasha. Your stay abroad has certainly done wonders for you.
Yasha. Hm-m . . . and who are you?
Dunyasha. When you went away I was that high–(*Indicating with her hand*.) I'm Dunyasha–Fyodor Kozoyedev's daughter. Don't you remember?
Yasha. Hm! What a peach! (*He looks round and embraces her. She cries out and drops a saucer.* YASHA *leaves quickly*.)
Varya (*in the doorway, in a tone of annoyance*). What's going on here?

Dunyasha (*through tears*). I've broken a saucer.

Varya. Well, that's good luck.

Anya (*coming out of her room*). We ought to warn Mamma that Petya's here.

Varya. I left orders not to wake him.

Anya (*musingly*). Six years ago father died. A month later brother Grisha was drowned in the river. . . . Such a pretty little boy he was—only seven. It was more than Mamma could bear, so she went away, went away without looking back . . . (*Shudders.*) How well I understand her, if she only knew! (*Pauses.*) And Petya Trofimov was Grisha's tutor, he may remind her of it all . . .

Enter FIRS, *wearing a jacket and a white waistcoat. He goes up to the coffeepot.*

Firs (*anxiously*). The mistress will have her coffee here. (*Puts on white gloves.*) Is the coffee ready? (*Sternly, to* DUNYASHA.) Here, you! And where's the cream?

Dunyasha. Oh, my God! (*Exits quickly.*)

Firs (*fussing over the coffeepot*). Hah! the addlehead! (*Mutters to himself.*) Home from Paris. And the old master used to go to Paris too . . . by carriage. (*Laughs.*)

Varya. What is it, Firs?

Firs. What is your pleasure, Miss? (*Joyfully.*) My mistress has come home, and I've seen her at last! Now I can die. (*Weeps with joy.*)

Enter MME. RANEVSKAYA, GAYEV, *and* SIMEONOV-PISHCHIK. *The latter is wearing a tight-waisted, pleated coat of fine cloth, and full trousers.* GAYEV, *as he comes in, goes through the motions of a billiard player with his arms and body.*

Mme. Ranevskaya. Let's see, how does it go? Yellow ball in the corner! Bank shot in the side pocket!

Gayev. I'll tip it in the corner! There was a time, sister, when you and I used to sleep in this very room, and now I'm fifty-one, strange as it may seem.

Lopahin. Yes, time flies.

Gayev. Who?

Lopahin. I say, time flies.

Gayev. It smells of patchouli here.

Anya. I'm going to bed. Good night, Mamma. (*Kisses her mother.*)

Mme. Ranevskaya. My darling child! (*Kisses her hands.*) Are you happy to be home? I can't come to my senses.

Anya. Good night, Uncle.

Gayev (*kissing her face and hands*). God bless you, how like your mother you are! (*To his sister.*) At her age, Luba, you were just like her.

ANYA *shakes hands with* LOPAHIN *and* PISHCHIK, *then goes out, shutting the door behind her.*

Mme. Ranevskaya. She's very tired.

Pishchik. Well, it was a long journey.

Varya (*to* LOPAHIN *and* PISHCHIK). How about it, gentlemen? It's past two o'clock—isn't it time for you to go?

Mme. Ranevskaya (*laughs*). You're just the same as ever, Varya. (*Draws her close and kisses her.*) I'll have my coffee and then we'll all go. (FIRS *puts a small cushion under her feet.*) Thank you, my dear. I've got used to coffee. I drink it day and night. Thanks, my dear old man. (*Kisses him.*)

Varya. I'd better see if all the luggage has been brought in. (*Exits.*)

Mme. Ranevskaya. Can it really be I sitting here? (*Laughs.*) I feel like dancing, waving my arms about. (*Covers her face with her hands.*) But maybe I am dreaming! God knows I love my country, I love it tenderly; I couldn't look out of the window in the train, I kept crying so. (*Through tears.*) But I must have my coffee. Thank you, Firs, thank you, dear old man. I'm so happy that you're still alive.

Firs. Day before yesterday.

Gayev. He's hard of hearing.

Lopahin. I must go soon, I'm leaving for Kharkov about five o'clock. How annoying! I'd like to have a good look at you, talk to you . . . You're just as splendid as ever.

Pishchik (*breathing heavily*). She's even better looking. . . . Dressed in the latest Paris fashion. . . . Perish my carriage and all its four wheels. . . .

Lopahin. Your brother, Leonid Andreyevich, says I'm a vulgarian and an exploiter. But it's all the same to me—let him talk. I only want you to trust me as you used to. I want you to look at me with your touching, wonderful eyes, as you used to. Dear God! My father was a serf of your father's and grandfather's, but you, you yourself, did so much for me once . . . so much . . . that I've forgotten all about that; I love you as though you were my sister—even more.

Mme. Ranevskaya. I can't sit still, I simply can't. (*Jumps up and walks about in violent agitation.*) This joy is too much for me. . . . Laugh at me, I'm silly! My own darling bookcase! My darling table! (*Kisses it.*)

Gayev. While you were away, nurse died.

Mme. Ranevskaya (*sits down and takes her coffee*). Yes, God rest her soul; they wrote me about it.

Gayev. And Anastasy is dead. Petrushka Kossoy has left me and has gone into town to work for the police inspector. (*Takes a box of sweets out of his pocket and begins to suck one.*)

Pishchik. My daughter Dashenka sends her regards.

Lopahin. I'd like to tell you something very pleasant–cheering. (*Glancing at his watch.*) I am leaving directly. There isn't much time to talk. But I will put it in a few words. As you know, your cherry orchard is to be sold to pay your debts. The sale is to be on the twenty-second of August; but don't you worry, my dear, you may sleep in peace; there is a way out. Here is my plan. Give me your attention! Your estate is only fifteen miles from the town; the railway runs close by it; and if the cherry orchard and the land along the river bank were cut up into lots and these leased for summer cottages, you would have an income of at least 25,000 rubles a year out of it.

Gayev. Excuse me. . . . What nonsense.

Mme. Ranevskaya. I don't quite understand you, Yermolay Alexeyevich.

Lopahin. You will get an annual rent of at least ten rubles per acre, and if you advertise at once, I'll give you any guarantee you like that you won't have a square foot of ground left by autumn, all the lots will be snapped up. In short, congratulations, you're saved. The location is splendid–by that deep river. . . . Only, of course, the ground must be cleared . . . all the old buildings, for instance, must be torn down, and this house, too, which is useless, and, of course, the old cherry orchard must be cut down.

Mme. Ranevskaya. Cut down? My dear, forgive me, but you don't know what you're talking about. If there's one thing that's interesting–indeed, remarkable–in the whole province, it's precisely our cherry orchard.

Lopahin. The only remarkable thing about this orchard is that it's a very large one. There's a crop of cherries every other year, and you can't do anything with them; no one buys them.

Gayev. This orchard is even mentioned in the Encyclopedia.

Lopahin (*glancing at his watch*). If we can't think of a way out, if we don't come to a decision, on the twenty-second of August the cherry orchard and the whole estate will be sold at auction. Make up your minds! There's no other way out–I swear. None, none.

Firs. In the old days, forty or fifty years ago, the cherries were dried, soaked, pickled, and made into jam, and we used to–

Gayev. Keep still, Firs.

Firs. And the dried cherries would be shipped by the cartload. It meant a lot of money! And in those days the dried cherries were soft and juicy, sweet, fragrant. . . . They knew the way to do it, then.

Mme. Ranevskaya. And why don't they do it that way now?

Firs. They've forgotten. Nobody remembers it.

Pishchik (*to* MME. RANEVSKAYA). What's doing in Paris? Eh? Did you eat frogs there?

Mme. Ranevskaya. I ate crocodiles.

Pishchik. Just imagine!

Lopahin. There used to be only landowners and peasants in the country, but now these summer people have appeared on the scene. . . . All the towns, even the small ones, are surrounded by these summer cottages; and in another twenty years, no doubt, the summer population will have grown enormously. Now the summer resident only drinks tea on his porch, but maybe he'll take to working his acre, too, and then your cherry orchard will be a rich, happy, luxuriant place.

Gayev (*indignantly*). Poppycock!

Enter VARYA *and* YASHA.

Varya. There are two telegrams for you, Mamma dear. (*Picks a key from the bunch at her belt and noisily opens an old-fashioned bookcase.*) Here they are.

Mme. Ranevskaya. They're from Paris. (*Tears them up without reading them.*) I'm through with Paris.

Gayev. Do you know, Luba, how old this bookcase is? Last week I pulled out the bottom drawer and there I found the date burned in it. It was made exactly a hundred years ago. Think of that! We could celebrate its centenary. True, it's an inanimate object, but nevertheless, a bookcase . . .

Pishchik (*amazed*). A hundred years! Just imagine!

Gayev. Yes. (*Tapping it.*) That's something. . . . Dear, honored bookcase, hail to you who for more than a century have served the glorious ideals of goodness and justice! Your silent summons to fruitful toil has never weakened in all those hundred years (*through tears*), sustaining, through successive generations of our family, courage and faith in a better future, and fostering in us ideals of goodness and social consciousness. . . . (*Pauses.*)

Lopahin. Yes . . .

Mme. Ranevskaya. You haven't changed a bit, Leonid.

Gayev (*somewhat embarrassed*). I'll play it off the red in the corner! Tip it in the side pocket!

Lopahin (*looking at his watch*). Well, it's time for me to go . . .

Yasha (*handing a pillbox to* MME. RANEVSKAYA). Perhaps you'll take your pills now.

Pishchik. One shouldn't take medicines, dearest lady, they do neither harm nor good. . . . Give them here, my valued friend. (*Takes the pillbox, pours the pills into his palm, blows on them, puts them in his mouth, and washes them down with some kvass*.) There!

Mme. Ranevskaya (*frightened*). You must be mad!

Pishchik. I've taken all the pills.

Lopahin. What a glutton!

All laugh.

Firs. The gentleman visited us in Easter week, ate half a bucket of pickles, he did . . . (*Mumbles*.)

Mme. Ranevskaya. What's he saying?

Varya. He's been mumbling like that for the last three years—we're used to it.

Yasha. His declining years!

CHARLOTTA IVANOVNA, *very thin, tightly laced, dressed in white, a lorgnette at her waist, crosses the stage*.

Lopahin. Forgive me, Charlotta Ivanovna, I've not had time to greet you. (*Tries to kiss her hand*.)

Charlotta (*pulling away her hand*). If I let you kiss my hand, you'll be wanting to kiss my elbow next, and then my shoulder.

Lopahin. I've no luck today. (*All laugh*.) Charlotta Ivanovna, show us a trick.

Mme. Ranevskaya. Yes, Charlotta, do a trick for us.

Charlotta. I don't see the need. I want to sleep. (*Exits*.)

Lopahin. In three weeks we'll meet again. (*Kisses* MME. RANEVSKAYA'S *hand*.) Good-by till then. Time's up. (*To* GAYEV) Bye-bye. (*Kisses* PISHCHIK.) Bye-bye. (*Shakes hands with* VARYA, *then with* FIRS *and* YASHA.) I hate to leave. (*To* MME. RANEVSKAYA) If you make up your mind about the cottages, let me know; I'll get you a loan of 50,000 rubles. Think it over seriously.

Varya (*crossly*). Will you never go!

Lopahin. I'm going, I'm going. (*Exits*.)

Gayev. The vulgarian. But, excuse me . . . Varya's going to marry him, he's Varya's fiancé.

Varya. You talk too much, Uncle dear.

Mme. Ranevskaya. Well, Varya, it would make me happy. He's a good man.

Pishchik. Yes, one must admit, he's a most estimable man. And my Dashenka . . . she too says that . . . she says . . . lots of things (*Snores; but wakes up at once.*) All the same, my valued friend, could you oblige me . . . with a loan of 240 rubles? I must pay the interest on the mortgage tomorrow.

Varya (*alarmed*). We can't, we can't!

Mme. Ranevskaya. I really haven't any money.

Pishchik. It'll turn up. (*Laughs.*) I never lose hope, I thought everything was lost, that I was done for, when lo and behold, the railway ran through my land . . . and I was paid for it. . . . And something else will turn up again, if not today, then tomorrow . . . Dashenka will win two hundred thousand . . . she's got a lottery ticket.

Mme. Ranevskaya. I've had my coffee, now let's go to bed.

Firs (*brushes off* GAYEV; *admonishingly*). You've got the wrong trousers on again. What am I to do with you?

Varya (*softly*). Anya's asleep. (*Gently opens the window.*) The sun's up now, it's not a bit cold. Look, Mamma dear, what wonderful trees. And heavens, what air! The starlings are singing!

Gayev (*opens the other window*). The orchard is all white. You've not forgotten it? Luba? That's the long alley that runs straight, straight as an arrow; how it shines on moonlight nights, do you remember? You've not forgotten?

Mme. Ranevskaya (*looking out of the window into the orchard*). Oh, my childhood, my innocent childhood. I used to sleep in this nursery– I used to look out into the orchard, happiness waked with me every morning, the orchard was just the same then . . . nothing has changed. (*Laughs with joy.*) All, all white! Oh, my orchard! After the dark, rainy autumn and the cold winter, you are young again, and full of happiness, the heavenly angels have not left you . . . If I could free my chest and my shoulders from this rock that weighs on me, if I could only forget the past!

Gayev. Yes, and the orchard will be sold to pay our debts, strange as it may seem. . . .

Mme. Ranevskaya. Look! There is our poor mother walking in the orchard . . . all in white . . . (*Laughs with joy.*) It is she!

Gayev. Where?

Varya. What are you saying, Mamma dear!

Mme. Ranevskaya. There's no one there, I just imagined it. To the right, where the path turns towards the arbor, there's a little white tree, leaning over, that looks like a woman. . . .

TROFIMOV *enters, wearing a shabby student's uniform and spectacles.*

Mme. Ranevskaya. What an amazing orchard! White masses of blossom, the blue sky . . .

Trofimov. Lubov Andreyevna! (*She looks round at him.*) I just want to pay my respects to you, then I'll leave at once. (*Kisses her hand ardently.*) I was told to wait until morning, but I hadn't the patience . . . (MME. RANEVSKAYA *looks at him, perplexed.*)

Varya (*through tears*). This is Petya Trofimov.

Trofimov. Petya Trofimov, formerly your Grisha's tutor. . . . Can I have changed so much? (MME. RANEVSKAYA *embraces him and weeps quietly.*)

Gayev (*embarrassed*). Don't, don't, Luba.

Varya (*crying*). I told you, Petya, to wait until tomorrow.

Mme. Ranevskaya. My Grisha . . . my little boy . . . Grisha . . . my son.

Varya. What can one do, Mamma dear, it's God's will.

Trofimov (*softly, through tears*). There . . . there.

Mme. Ranevskaya (*weeping quietly*). My little boy was lost . . . drowned. Why? Why, my friend? (*More quietly.*) Anya's asleep in there, and here I am talking so loudly . . . making all this noise. . . . But tell me, Petya, why do you look so badly? Why have you aged so?

Trofimov. A mangy master, a peasant woman in the train called me.

Mme. Ranevskaya. You were just a boy then, a dear little student, and now your hair's thin–and you're wearing glasses! Is it possible you're still a student? (*Goes toward the door.*)

Trofimov. I suppose I'm a perpetual student.

Mme. Ranevskaya (*kisses her brother, then* VARYA). Now, go to bed . . . You have aged, too, Leonid.

Pishchik (*follows her*). So now we turn in. Oh, my gout! I'm staying the night here . . . Lubov Andreyevna, my angel, tomorrow morning. . . . I do need 240 rubles.

Gayev. He keeps at it.

Pishchik. I'll pay it back, dear . . . it's a trifling sum.

Mme. Ranevskaya. All right, Leonid will give it to you. Give it to him, Leonid.

Gayev. Me give it to him! That's a good one!

Mme. Ranevskaya. It can't be helped. Give it to him! He needs it. He'll pay it back.

MME. RANEVSKAYA, TROFIMOV, PISHCHIK, *and* FIRS *go out;* GAYEV, VARYA, *and* YASHA *remain.*

Gayev. Sister hasn't got out of the habit of throwing money around. (*To* YASHA.) Go away, my good fellow, you smell of the barnyard.

Yasha (*with a grin*). And you, Leonid Andreyevich, are just the same as ever.

Gayev. Who? (*To* VARYA) What did he say?

Varya (*to* YASHA). Your mother's come from the village; she's been sitting in the servants' room since yesterday, waiting to see you.

Yasha. Botheration!

Varya. You should be ashamed of yourself!

Yasha. She's all I needed! She could have come tomorrow. (*Exits.*)

Varya. Mamma is just the same as ever; she hasn't changed a bit. If she had her own way, she'd keep nothing for herself.

Gayev. Yes . . . (*Pauses.*) If a great many remedies are offered for some disease, it means it is incurable; I keep thinking and racking my brains; I have many remedies, ever so many, and that really means none. It would be fine if we came in for a legacy; it would be fine if we married off our Anya to a very rich man; or we might go to Yaroslavl and try our luck with our aunt, the Countess. She's very, very rich, you know. . . .

Varya (*weeping*). If only God would help us!

Gayev. Stop bawling. Aunt's very rich, but she doesn't like us. In the first place, Sister married a lawyer who was no nobleman . . . (ANYA *appears in the doorway.*) She married beneath her, and it can't be said that her behavior has been very exemplary. She's good, kind, sweet, and I love her, but no matter what extenuating circumstances you may adduce, there's no denying that she has no morals. You sense it in her least gesture.

Varya (*in a whisper*). Anya's in the doorway.

Gayev. Who? (*Pauses.*) It's queer, something got into my right eye—my eyes are going back on me. . . . And on Thursday, when I was in the circuit court—

Enter ANYA.

Varya. Why aren't you asleep, Anya?

Anya. I can't get to sleep, I just can't.

Gayev. My little pet! (*Kisses* ANYA'S *face and hands.*) My child! (*Weeps.*) You are not my niece, you're my angel! You're everything to me. Believe me, believe–

Anya. I believe you, Uncle. Everyone loves you and respects you . . . but, Uncle dear, you must keep still. . . . You must. What were you saying just now about my mother? Your own sister? What made you say that?

Gayev. Yes, yes . . . (*Covers his face with her hand.*) Really, that was awful! Good God! Heaven help me! Just now I made a speech to the bookcase . . . so stupid! And only after I was through, I saw how stupid it was.

Varya. It's true, Uncle dear, you ought to keep still. Just don't talk, that's all.

Anya. If you could only keep still, it would make things easier for you too.

Gayev. I'll keep still. (*Kisses* ANYA'S *and* VARYA'S *hands.*) I will. But now about business. On Thursday I was in court; well, there were a number of us there, and we began talking of one thing and another, and this and that, and do you know, I believe it will be possible to raise a loan on a promissory note, to pay the interest at the bank.

Varya. If only God would help us!

Gayev. On Tuesday I'll go and see about it again. (*To* VARYA.) Stop bawling. (*To* ANYA.) Your mamma will talk to Lopahin, and he, of course, will not refuse her . . . and as soon as you're rested, you'll go to Yaroslavl to the Countess, your great-aunt. So we'll be working in three directions at once, and the thing is in the bag. We'll pay the interest–I'm sure of it. (*Puts a candy in his mouth.*) I swear on my honor, I swear by anything you like, the estate shan't be sold. (*Excitedly.*) I swear by my own happiness! Here's my hand on it, you can call me a swindler and a scoundrel if I let it come to an auction! I swear by my whole being.

Anya (*relieved and quite happy again*). How good you are, Uncle, and how clever! (*Embraces him.*) Now I'm at peace, quite at peace, I'm happy.

Enter FIRS.

Firs (*reproachfully*). Leonid Andreyevich, have you no fear of God? When are you going to bed?

Gayev. Directly, directly. Go away, Firs, I'll . . . yes, I will undress myself. Now, children, 'nightie-'nightie. We'll consider details tomorrow, but now go to sleep. (*Kisses* ANYA *and* VARYA.) I am a man of the

eighties; they have nothing good to say of that period nowadays. Nevertheless, in the course of my life I have suffered not a little for my convictions. It's not for nothing that the peasant loves me; one should know the peasant; one should know from which–

Anya. There you go again, Uncle.

Varya. Uncle dear, be quiet.

Firs (*angrily*). Leonid Andreyevich!

Gayev. I'm coming, I'm coming! Go to bed! Double bank shot in the side pocket! Here goes a clean shot . . .

Exits, FIRS *hobbling after him.*

Anya. I am at peace now. I don't want to go to Yaroslavl–I don't like my great-aunt, but still, I am at peace, thanks to Uncle. (*Sits down*.)

Varya. We must get some sleep. I'm going now. While you were away something unpleasant happened. In the old servants' quarters there are only the old people, as you know; Yefim, Polya, Yevstigney, and Karp, too. They began letting all sorts of rascals in to spend the night. . . . I didn't say anything. Then I heard they'd been spreading a report that I gave them nothing but dried peas to eat–out of stinginess, you know . . . and it was all Yevstigney's doing. . . . All right, I thought, if that's how it is, I thought, just wait. I sent for Yevstigney. . . . (*Yawns*.) He comes. . . . "How's this, Yevstigney?" I say, "You fool . . ." (*Looking at* ANYA.) Anichka! (*Pauses*.) She's asleep. (*Puts her arm around* ANYA.) Come to your little bed. . . . Come . . . (*Leads her*.) My darling has fallen asleep. . . . Come.

They go out. Far away beyond the orchard a shepherd is piping. TROFIMOV *crosses the stage and, seeing* VARYA *and* ANYA, *stands still.*

Varya. Sh! She's asleep . . . asleep . . . Come, darling.

Anya (*softly, half-asleep*). I'm so tired. Those bells . . . uncle . . . dear. . . . Mamma and Uncle . . .

Varya. Come, my precious, come along. (*They go into* ANYA'S *room*.)

Trofimov (*with emotion*). My sunshine, my spring!

ACT II

A meadow. An old, long-abandoned, lopsided little chapel; near it, a well, large slabs, which had apparently once served as tombstones, and an old bench. In the background, the road to the Gayev estate. To one side poplars loom darkly, where the cherry orchard begins.

In the distance a row of telegraph poles, and far off, on the horizon, the faint outline of a large city which is seen only in fine, clear weather. The sun will soon be setting. CHARLOTTA, YASHA, *and* DUNYASHA *are seated on the bench.* YEPIHODOV *stands near and plays a guitar. All are pensive.* CHARLOTTA *wears an old peaked cap. She has taken a gun from her shoulder and is straightening the buckle on the strap.*

Charlotta (*musingly*). I haven't a real passport, I don't know how old I am, and I always feel that I am very young. When I was a little girl, my father and mother used to go from fair to fair and give performances, very good ones. And I used to do the *salto mortale,* and all sorts of other tricks. And when Papa and Mamma died, a German lady adopted me and began to educate me. Very good. I grew up and became a governess. But where I come from and who I am, I don't know. . . . Who were my parents? Perhaps they weren't even married. . . . I don't know. . . . (*Takes a cucumber out of her pocket and eats it.*) I don't know a thing. (*Pause.*) One wants so much to talk, and there isn't anyone to talk to. . . . I haven't anybody.

Yepihodov (*plays the guitar and sings*). "What care I for the jarring world? What's friend or foe to me? . . ." How agreeable it is to play the mandolin.

Dunyasha. That's a guitar, not a mandolin. (*Looks in a hand mirror and powders her face.*)

Yepihodov. To a madman in love it's a mandolin. (*Sings*) "Would that the heart were warmed by the fire of mutual love!" (YASHA *joins in.*)

Charlotta. How abominably these people sing. Pfui! Like jackals!

Dunyasha (*to* YASHA). How wonderful it must be though to have stayed abroad!

Yasha. Ah, yes, of course, I cannot but agree with you there. (*Yawns and lights a cigar.*)

Yepihodov. Naturally. Abroad, everything has long since achieved full perplexion.

Yasha. That goes without saying.

Yepihodov. I'm a cultivated man, I read all kinds of remarkable books. And yet I can never make out what direction I should take, what it is that I want, properly speaking. Should I live, or should I shoot myself, properly speaking? Nevertheless, I always carry a revolver about me. . . . Here it is . . . (*Shows revolver*).

Charlotta. I've finished. I'm going. (*Puts the gun over her shoulder.*) You

are a very clever man, Yepihodov, and a very terrible one; women must be crazy about you. Br-r-r! (*Starts to go.*) These clever men are all so stupid; there's no one for me to talk to . . . always alone, alone, I haven't a soul . . . and who I am, and why I am, nobody knows. (*Exits unhurriedly.*)

Yepihodov. Properly speaking and letting other subjects alone, I must say regarding myself, among other things, that fate treats me mercilessly, like a storm treats a small boat. If I am mistaken, let us say, why then do I wake up this morning, and there on my chest is a spider of enormous dimensions . . . like this . . . (*indicates with both hands.*) Again, I take up a pitcher of kvass to have a drink, and in it there is something unseemly to the highest degree, something like a cockroach. (*Pause.*) Have you read Buckle? (*Pause.*) I wish to have a word with you, Avdotya Fyodorovna, if I may trouble you.

Dunyasha. Well, go ahead.

Yepihodov. I wish to speak with you alone. (*Sighs.*)

Dunyasha (*embarrassed*). Very well. Only first bring me my little cape. You'll find it near the wardrobe. It's rather damp here.

Yepihodov. Certainly, ma'am; I will fetch it, ma'am. Now I know what to do with my revolver. (*Takes the guitar and goes off playing it.*)

Yasha. Two-and-Twenty Troubles! An awful fool, between you and me. (*Yawns.*)

Dunyasha. I hope to God he doesn't shoot himself! (*Pause.*) I've become so nervous, I'm always fretting. I was still a little girl when I was taken into the big house, I am quite unused to the simple life now, and my hands are white, as white as a lady's. I've become so soft, so delicate, so refined, I'm afraid of everything. It's so terrifying; and if you deceive me, Yasha, I don't know what will happen to my nerves. (YASHA *kisses her.*)

Yasha. You're a peach! Of course, a girl should never forget herself; and what I dislike more than anything is when a girl don't behave properly.

Dunyasha. I've fallen passionately in love with you; you're educated—you have something to say about everything. (*Pause.*)

Yasha (*yawns*). Yes, Ma'am. Now the way I look at it, if a girl loves someone, it means she is immoral. (*Pause.*) It's agreeable smoking a cigar in the fresh air. (*Listens.*) Someone's coming this way . . . It's our madam and the others. (DUNYASHA *embraces him impulsively.*) You go home, as though you'd been to the river to bathe; go by the little

path, or else they'll run into you and suspect me of having arranged to meet you here. I can't stand that sort of thing.

Dunyasha (*coughing softly*). Your cigar's made my head ache. (*Exits.* YASHA *remains standing near the chapel. Enter* MME. RANEVSKAYA, GAYEV, *and* LOPAHIN.)

Lopahin. You must make up your mind once and for all–there's no time to lose. It's quite a simple question, you know. Do you agree to lease your land for summer cottages or not? Answer in one word, yes or no; only one word!

Mme. Ranevskaya. Who's been smoking such abominable cigars here? (*Sits down.*)

Gayev. Now that the railway line is so near, it's made things very convenient. (*Sits down.*) Here we've been able to have lunch in town. Yellow ball in the side pocket! I feel like going into the house and playing just one game.

Mme. Ranevskaya. You can do that later.

Lopahin. Only one word! (*Imploringly.*) Do give me an answer!

Gayev (*yawning*). Who?

Mme. Ranevskaya (*looks into her purse*). Yesterday I had a lot of money and now my purse is almost empty. My poor Varya tries to economize by feeding us just milk soup; in the kitchen the old people get nothing but dried peas to eat, while I squander money thoughtlessly. (*Drops the purse, scattering gold pieces.*) You see there they go . . . (*Shows vexation.*)

Yasha. Allow me–I'll pick them up. (*Picks up the money.*)

Mme. Ranevskaya. Be so kind, Yasha. And why did I go to lunch in town? That nasty restaurant, with its music and the tablecloth smelling of soap . . . Why drink so much, Leonid? Why eat so much? Why talk so much? Today again you talked a lot, and all so inappropriately about the seventies, about the decadents. And to whom? Talking to waiters about decadents!

Lopahin. Yes.

Gayev (*waving his hand*). I'm incorrigible; that's obvious. (*Irritably, to* YASHA.) Why do you keep dancing about in front of me?

Yasha (*laughs*). I can't hear your voice without laughing–

Gayev. Either he or I–

Mme. Ranevskaya. Go away, Yasha; run along.

Yasha (*handing* MME. RANEVSKAYA *her purse*). I'm going, at once. (*Hardly able to suppress his laughter.*) This minute. (*Exits.*)

Lopahin. That rich man, Deriganov, wants to buy your estate. They say he's coming to the auction himself.

Mme. Ranevskaya. Where did you hear that?

Lopahin. That's what they are saying in town.

Gayev. Our aunt in Yaroslavl has promised to help; but when she will send the money, and how much, no one knows.

Lopahin. How much will she send? A hundred thousand? Two hundred?

Mme. Ranevskaya. Oh, well, ten or fifteen thousand; and we'll have to be grateful for that.

Lopahin. Forgive me, but such frivolous people as you are, so queer and unbusinesslike–I never met in my life. One tells you in plain language that your estate is up for sale, and you don't seem to take it in.

Mme. Ranevskaya. What are we to do? Tell us what to do.

Lopahin. I do tell you, every day; every day I say the same thing! You must lease the cherry orchard and the land for summer cottages, you must do it and as soon as possible–right away. The auction is close at hand. Please understand! Once you've decided to have the cottages, you can raise as much money as you like, and you're saved.

Mme. Ranevskaya. Cottages–summer people–forgive me, but it's all so vulgar.

Gayev. I agree with you absolutely.

Lopahin. I shall either burst into tears or scream or faint! I can't stand it! You've worn me out! (*To* GAYEV.) You're an old woman!

Gayev. Who?

Lopahin. An old woman! (*Gets up to go.*)

Mme. Ranevskaya (*alarmed*). No, don't go! Please stay, I beg you, my dear. Perhaps we shall think of something.

Lopahin. What is there to think of?

Mme. Ranevskaya. Don't go, I beg you. With you here it's more cheerful anyway. (*Pause.*) I keep expecting something to happen, it's as though the house were going to crash about our ears.

Gayev (*in deep thought*). Bank shot in the corner. . . . Three cushions in the side pocket. . . .

Mme. Ranevskaya. We have been great sinners . . .

Lopahin. What sins could you have committed?

Gayev (*putting a candy in his mouth*). They say I've eaten up my fortune in candy! (*Laughs.*)

Mme. Ranevskaya. Oh, my sins! I've squandered money away recklessly, like a lunatic, and I married a man who made nothing but debts. My husband drank himself to death on champagne, he was a terrific

drinker. And then, to my sorrow, I fell in love with another man, and I lived with him. And just then–that was my first punishment–a blow on the head: my little boy was drowned here in the river. And I went abroad, went away forever . . . never to come back, never to see this river again . . . I closed my eyes and ran, out of my mind. . . . But he followed me, pitiless, brutal. I bought a villa near Mentone, because he fell ill there; and for three years, day and night, I knew no peace, no rest. The sick man wore me out, he sucked my soul dry. Then last year, when the villa was sold to pay my debts, I went to Paris, and there he robbed me, abandoned me, took up with another woman, I tried to poison myself–it was stupid, so shameful–and then suddenly I felt drawn back to Russia, back to my own country, to my little girl. (*Wipes her tears away.*) Lord, Lord! Be merciful, forgive me my sins–don't punish me any more! (*Takes a telegram out of her pocket.*) This came today from Paris–he begs me to forgive him, implores me to go back . . . (*Tears up the telegram.*) Do I hear music? (*Listens.*)

Gayev. That's our famous Jewish band, you remember? Four violins, a flute, and a double bass.

Mme. Ranevskaya. Does it still exist? We ought to send for them some evening and have a party.

Lopahin (*listens*). I don't hear anything. (*Hums softly*) "The Germans for a fee will Frenchify a Russian." (*Laughs.*) I saw a play at the theater yesterday–awfully funny.

Mme. Ranevskaya. There was probably nothing funny about it. You shouldn't go to see plays, you should look at yourselves more often. How drab your lives are–how full of unnecessary talk.

Lopahin. That's true; come to think of it, we do live like fools. (*Pause.*) My pop was a peasant, an idiot; he understood nothing, never taught me anything, all he did was beat me when he was drunk, and always with a stick. Fundamentally, I'm just the same kind of blockhead and idiot. I was never taught anything–I have a terrible handwriting, I write so that I feel ashamed before people, like a pig.

Mme. Ranevskaya. You should get married, my friend.

Lopahin. Yes . . . that's true.

Mme. Ranevskaya. To our Varya, she's a good girl.

Lopahin. Yes.

Mme. Ranevskaya. She's a girl who comes of simple people, she works all day long; and above all, she loves you. Besides, you've liked her for a long time now.

Lopahin. Well, I've nothing against it. She's a good girl. (*Pause*.)
Gayev. I've been offered a place in the bank–6,000 a year. Have you heard?
Mme. Ranevskaya. You're not up to it. Stay where you are.

FIRS *enters, carrying an overcoat.*

Firs (*to* GAYEV). Please put this on, Sir, it's damp.
Gayev (*putting it on*). I'm fed up with you, Brother.
Firs. Never mind. This morning you drove off without saying a word. (*Looks him over*.)
Mme. Ranevskaya. How you've aged, Firs.
Firs. I beg your pardon?
Lopahin. The lady says you've aged.
Firs. I've lived a long time; they were arranging my wedding and your papa wasn't born yet. (*Laughs*.) When freedom came I was already head footman. I wouldn't consent to be set free then; I stayed on with the master . . . (*Pause*.) I remember they were all very happy, but why they were happy, they didn't know themselves.
Lopahin. It was fine in the old days! At least there was flogging!
Firs (*not hearing*). Of course. The peasants kept to the masters, the masters kept to the peasants; but now they've all gone their own ways, and there's no making out anything.
Gayev. Be quiet, Firs. I must go to town tomorrow. They've promised to introduce me to a general who might let us have a loan.
Lopahin. Nothing will come of that. You won't even be able to pay the interest, you can be certain of that.
Mme. Ranevskaya. He's raving, there isn't any general. (*Enter* TROFIMOV, ANYA, *and* VARYA.)
Gayev. Here come our young people.
Anya. There's Mamma, on the bench.
Mme. Ranevskaya (*tenderly*). Come here, come along, my darlings. (*Embraces* ANYA *and* VARYA.) If you only knew how I love you both! Sit beside me–there, like that. (*All sit down*.)
Lopahin. Our perpetual student is always with the young ladies.
Trofimov. That's not any of your business.
Lopahin. He'll soon be fifty, and he's still a student!
Trofimov. Stop your silly jokes.
Lopahin. What are you so cross about, you queer bird?
Trofimov. Oh, leave me alone.
Lopahin (*laughs*). Allow me to ask you, what do you think of me?

Trofimov. What I think of you, Yermolay Alexeyevich, is this: you are a rich man who will soon be a millionaire. Well, just as a beast of prey, which devours everything that comes in its way, is necessary for the process of metabolism to go on, so you too are necessary. (*All laugh.*)

Varya. Better tell us something about the planets, Petya.

Mme. Ranevskaya. No, let's go on with yesterday's conversation.

Trofimov. What was it about?

Gayev. About man's pride.

Trofimov. Yesterday we talked a long time, but we came to no conclusion. There is something mystical about man's pride in your sense of the word. Perhaps you're right, from your own point of view. But if you reason simply, without going into subtleties, then what call is there for pride? Is there any sense in it, if man is so poor a thing physiologically, and if, in the great majority of cases, he is coarse, stupid, and profoundly unhappy? We should stop admiring ourselves. We should work, and that's all.

Gayev. You die, anyway.

Trofimov. Who knows? And what does it mean—to die? Perhaps man has a hundred senses, and at his death only the five we know perish, while the other ninety-five remain alive.

Mme. Ranevskaya. How clever you are, Petya!

Lopahin (*ironically*). Awfully clever!

Trofimov. Mankind goes forward, developing its powers. Everything that is now unattainable for it will one day come within man's reach and be clear to him; only we must work, helping with all our might those who seek the truth. Here among us in Russia only the very few work as yet. The great majority of the intelligentsia, as far as I can see, seek nothing, do nothing, are totally unfit for work of any kind. They call themselves the intelligentsia, yet they are uncivil to their servants, treat the peasants like animals, are poor students, never read anything serious, do absolutely nothing at all, only talk about science, and have little appreciation of the arts. They are all solemn, have grim faces, they all philosophize and talk of weighty matters. And meanwhile the vast majority of us, ninety-nine out of a hundred, live like savages. At the least provocation—a punch in the jaw, and curses. They eat disgustingly, sleep in filth and stuffiness, bedbugs everywhere, stench and damp and moral slovenliness. And obviously, the only purpose of all our fine talk is to hoodwink ourselves and others. Show me where the public nurseries are that we've heard so much about, and the libraries. We read about them in novels, but in

reality they don't exist, there is nothing but dirt, vulgarity, and Asiatic backwardness. I don't like very solemn faces, I'm afraid of them, I'm afraid of serious conversations. We'd do better to keep quiet for a while.

Lopahin. Do you know, I get up at five o'clock in the morning, and I work from morning till night; and I'm always handling money, my own and other people's, and I see what people around me are really like. You've only to start doing anything to see how few honest, decent people there are. Sometimes when I lie awake at night, I think: "Oh, Lord, thou hast given us immense forests, boundless fields, the widest horizons, and living in their midst, we ourselves ought really to be giants."

Mme. Ranevskaya. Now you want giants! They're only good in fairy tales; otherwise they're frightening.

YEPIHODOV *crosses the stage at the rear, playing the guitar.*

Mme. Ranevskaya (*pensively*). There goes Yepihodov.

Anya (*pensively*). There goes Yepihodov.

Gayev. Ladies and gentlemen, the sun has set.

Trofimov. Yes.

Gayev (*in a low voice, declaiming as it were*). Oh, Nature, wondrous Nature, you shine with eternal radiance, beautiful and indifferent! You, whom we call our mother, unite within yourself life and death! You animate and destroy!

Varya (*pleadingly*). Uncle dear!

Anya. Uncle, again!

Trofimov. You'd better bank the yellow ball in the side pocket.

Gayev. I'm silent, I'm silent . . .

All sit plunged in thought. Stillness reigns. Only FIRS'S *muttering is audible. Suddenly a distant sound is heard, coming from the sky as it were, the sound of a snapping string, mournfully dying away.*

Mme. Ranevskaya. What was that?

Lopahin. I don't know. Somewhere far away, in the pits, a bucket's broken loose; but somewhere very far away.

Gayev. Or it might be some sort of bird, perhaps a heron.

Trofimov. Or an owl . . .

Mme. Ranevskaya (*shudders*). It's weird, somehow. (*Pause.*)

Firs. Before the calamity the same thing happened–the owl screeched, and the samovar hummed all the time.

Gayev. Before what calamity?

Firs. Before the Freedom. (*Pause*.)

Mme. Ranevskaya. Come, my friends, let's be going. It's getting dark. (*To* ANYA.) You have tears in your eyes. What is it, my little one? (*Embraces her*.)

Anya. I don't know, Mamma; it's nothing.

Trofimov. Somebody's coming.

A TRAMP *appears, wearing a shabby white cap and an overcoat. He is slightly drunk*.

Tramp. Allow me to inquire, will this short cut take me to the station?

Gayev. It will. Just follow that road.

Tramp. My heartfelt thanks. (*Coughing*.) The weather is glorious. (*Recites*) "My brother, my suffering brother . . . Go down to the Volga! Whose groans . . . ?" (*To* VARYA.) Mademoiselle, won't you spare 30 kopecks for a hungry Russian?

VARYA, *frightened, cries out*.

Lopahin (*angrily*). Even panhandling has its proprieties.

Mme. Ranevskaya (*scared*). Here, take this. (*Fumbles in her purse*.) I haven't any silver . . . never mind, here's a gold piece.

Tramp. My heartfelt thanks. (*Exits. Laughter*.)

Varya (*frightened*). I'm leaving, I'm leaving . . . Oh, Mamma dear, at home the servants have nothing to eat, and you gave him a gold piece!

Mme. Ranevskaya. What are you going to do with me? I'm such a fool. When we get home, I'll give you everything I have. Yermolay Alexeyevich, you'll lend me some more . . .

Lopahin. Yes, Ma'am.

Mme. Ranevskaya. Come, ladies and gentlemen, it's time to be going. Oh! Varya, we've settled all about your marriage. Congratulations!

Varya (*through tears*). Really, Mamma, that's not a joking matter.

Lopahin. "Aurelia, get thee to a nunnery, go . . ."

Gayev. And do you know, my hands are trembling: I haven't played billiards in a long time.

Lopahin. "Aurelia, nymph, in your orisons, remember me!"

Mme. Ranevskaya. Let's go, it's almost suppertime.

Varya. He frightened me! My heart's pounding.

Lopahin. Let me remind you, ladies and gentlemen, on the 22nd of August the cherry orchard will be up for sale. Think about that! Think!

All except TROFIMOV *and* ANYA *go out*.

Anya (*laughs*). I'm grateful to that tramp, he frightened Varya and so we're alone.

Trofimov. Varya's afraid we'll fall in love with each other all of a sudden. She hasn't left us alone for days. Her narrow mind can't grasp that we're above love. To avoid the petty and illusory, everything that prevents us from being free and happy—that is the goal and meaning of our life. Forward! Do not fall behind, friends!

Anya (*strikes her hands together*). How well you speak! (*Pause.*) It's wonderful here today.

Trofimov. Yes, the weather's glorious.

Anya. What have you done to me, Petya? Why don't I love the cherry orchard as I used to? I loved it so tenderly. It seemed to me there was no spot on earth lovelier than our orchard.

Trofimov. All Russia is our orchard. Our land is vast and beautiful, there are many wonderful places in it. (*Pause.*) Think of it, Anya, your grandfather, your great-grandfather and all your ancestors were serf owners, owners of living souls, and aren't human beings looking at you from every tree in the orchard, from every leaf, from every trunk? Don't you hear voices? Oh, it's terrifying! Your orchard is a fearful place, and when you pass through it in the evening or at night, the old bark on the trees gleams faintly, and the cherry trees seem to be dreaming of things that happened a hundred, two hundred years ago and to be tormented by painful visions. What is there to say? We're at least two hundred years behind, we've really achieved nothing yet, we have no definite attitude to the past, we only philosophize, complain of the blues, or drink vodka. It's all so clear: in order to live in the present, we should first redeem our past, finish with it, and we can expiate it only by suffering, only by extraordinary, unceasing labor. Realize that, Anya.

Anya. The house in which we live has long ceased to be our own, and I will leave it, I give you my word.

Trofimov. If you have the keys, fling them into the well and go away. Be free as the wind.

Anya (*in ecstasy*). How well you put that!

Trofimov. Believe me, Anya, believe me! I'm not yet thirty, I'm young, I'm still a student—but I've already suffered so much. In winter I'm hungry, sick, harassed, poor as a beggar, and where hasn't Fate driven me? Where haven't I been? And yet always, every moment of the day and night, my soul is filled with inexplicable premonitions. . . . I have a premonition of happiness, Anya. . . . I see it already!

Anya (*pensively*). The moon is rising.

YEPIHODOV *is heard playing the same mournful tune on the guitar. The moon rises. Somewhere near the poplars* VARYA *is looking for* ANYA *and calling* "Anya, where are you?"

Trofimov. Yes, the moon is rising. (*Pause.*) There it is, happiness, it's approaching, it's coming nearer and nearer, I can already hear its footsteps. And if we don't see it, if we don't know it, what does it matter? Others will!

Varya's voice. "Anya! Where are you?"

Trofimov. That Varya again! (*Angrily.*) It's revolting!

Anya. Never mind, let's go down to the river. It's lovely there.

Trofimov. Come on. (*They go.*)

Varya's voice. "Anya! Anya!"

ACT III

A drawing room separated by an arch from a ballroom. Evening. Chandelier burning. The Jewish band is heard playing in the anteroom. In the ballroom they are dancing the Grand Rond. PISHCHIK *is heard calling,* "Promenade à une paire." PISHCHIK *and* CHARLOTTA, TROFIMOV *and* MME. RANEVSKAYA, ANYA *and the* POST-OFFICE CLERK, VARYA *and the* STATIONMASTER, *and others, enter the drawing room in couples.* DUNYASHA *is in the last couple.* VARYA *weeps quietly, wiping her tears as she dances. All parade through drawing room.* PISHCHIK *calling* "Grand rond, balancez!" *and* "Les cavaliers à genoux et remerciez vos dames!" FIRS *wearing a dress coat, brings in soda water on a tray.* PISHCHIK *and* TROFIMOV *enter the drawing room.*

Pishchik. I'm a full-blooded man; I've already had two strokes. Dancing's hard work for me; but as they say, "If you run with the pack, you can bark or not, but at least wag your tail." Still, I'm as strong as a horse. My late lamented father, who would have his joke, God rest his soul, used to say, talking about our origin, that the ancient line of the Simeonov-Pishchiks was descended from the very horse that Caligula had made a senator. (*Sits down.*) But the trouble is, I have no money. A hungry dog believes in nothing but meat. (*Snores and wakes up at once.*) It's the same with me–I can think of nothing but money.

Trofimov. You know, there *is* something equine about your figure.

Pishchik. Well, a horse is a fine animal–one can sell a horse.

Sound of billiards being played in an adjoining room. VARYA *appears in the archway.*

Trofimov (*teasing her*). Madam Lopahina! Madam Lopahina!

Varya (*angrily*). Mangy master!

Trofimov. Yes, I am a mangy master and I'm proud of it.

Varya (*reflecting bitterly*). Here we've hired musicians, and what shall we pay them with? (*Exits.*)

Trofimov (*to* PISHCHIK). If the energy you have spent during your lifetime looking for money to pay interest had gone into something else, in the end you could have turned the world upside down.

Pishchik. Nietzsche, the philosopher, the greatest, most famous of men, that colossal intellect, says in his works that it is permissible to forge bank notes.

Trofimov. Have you read Nietzsche?

Pishchik. Well . . . Dashenka told me . . . And now I've got to the point where forging banknotes is about the only way out for me. . . . The day after tomorrow I have to pay 310 rubles–I already have 130 . . . (*Feels in his pockets. In alarm.*) The money's gone! I've lost my money! (*Through tears.*) Where's my money? (*Joyfully.*) Here it is! Inside the lining. . . I'm all in a sweat. . . .

Enter MME. RANEVSKAYA *and* CHARLOTTA.

Mme. Ranevskaya (*hums the "Lezginka"*). Why isn't Leonid back yet? What is he doing in town? (*To* DUNYASHA.) Dunyasha, offer the musicians tea.

Trofimov. The auction hasn't taken place, most likely.

Mme. Ranevskaya. It's the wrong time to have the band, and the wrong time to give a dance. Well, never mind. (*Sits down and hums softly.*)

Charlotta (*hands* PISHCHIK *a pack of cards*). Here is a pack of cards. Think of any card you like.

Pishchik. I've thought of one.

Charlotta. Shuffle the pack now. That's right. Give it here, my dear Mr. Pishchik. *Ein, zwei, drei!* Now look for it–it's in your side pocket.

Pishchik (*taking the card out of his pocket*). The eight of spades! Perfectly right! Just imagine!

Charlotta (*holding pack of cards in her hands. To* TROFIMOV). Quickly, name the top card.

Trofimov. Well, let's see–the queen of spades.

Charlotta. Right! (*To* PISHCHIK.) Now name the top card.

Pishchik. The ace of hearts.

Charlotta. Right! (*Claps her hands and the pack of cards disappears*.) Ah, what lovely weather it is today! (*A mysterious feminine voice which seems to come from under the floor answers her*) "Oh, yes, it's magnificent weather, Madam."

Charlotta. You are my best ideal.

Voice. And I find you pleasing too, Madam.

Stationmaster (*applauding*). The lady ventriloquist, bravo!

Pishchik (*amazed*). Just imagine! Enchanting Charlotta Ivanovna, I'm simply in love with you.

Charlotta. In love? (*Shrugs her shoulders*.) Are you capable of love? *Guter Mensch, aber schlechter Musikant* [A good man but a bad musician]!

Trofimov (*claps* PISHCHIK *on the shoulder*). You old horse, you!

Charlotta. Attention please! One more trick! (*Takes a plaid from a chair*.) Here is a very good plaid; I want to sell it. (*Shaking it out*.) Does anyone want to buy it?

Pishchik (*in amazement*). Just imagine!

Charlotta. *Ein, zwei, drei!* (*Raises the plaid quickly, behind it stands* ANYA. *She curtsies, runs to her mother, embraces her, and runs back into the ballroom, amidst general enthusiasm*.)

Mme. Ranevskaya (*applauds*). Bravo! Bravo!

Charlotta. Now again! *Ein, zwei, drei!* (*Lifts the plaid; behind it stands* VARYA *bowing*.)

Pishchik (*running after her*). The rascal! What a woman, what a woman! (*Exits*.)

Mme. Ranevskaya. And Leonid still isn't here. What is he doing in town so long? I don't understand. It must be all over by now. Either the estate has been sold, or the auction hasn't taken place. Why keep us in suspense so long?

Varya (*trying to console her*). Uncle's bought it, I feel sure of that.

Trofimov (*mockingly*). Oh, yes!

Varya. Great-aunt sent him an authorization to buy it in her name, and to transfer the debt. She's doing it for Anya's sake. And I'm sure that God will help us, and Uncle will buy it.

Mme. Ranevskaya. Great-aunt sent fifteen thousand to buy the estate in her name, she doesn't trust us, but that's not even enough to pay the interest. (*Covers her face with her hands*.) Today my fate will be decided, my fate–

Trofimov (*teasing* VARYA). Madam Lopahina!

Varya (*angrily*). Perpetual student! Twice already you've been expelled from the university.

Mme. Ranevskaya. Why are you so cross, Varya? He's teasing you about Lopahin. Well, what of it? If you want to marry Lopahin, go ahead. He's a good man, and interesting, if you don't want to, don't. Nobody's compelling you, my pet!

Varya. Frankly, Mamma dear, I take this thing seriously; he's a good man and I like him.

Mme. Ranevskaya. All right then, marry him. I don't know what you're waiting for.

Varya. But, Mamma, I can't propose to him myself. For the last two years everyone's been talking to me about him—talking. But he either keeps silent, or else cracks jokes. I understand; he's growing rich, he's absorbed in business—he has no time for me. If I had money, even a little, say, 100 rubles, I'd throw everything up and go far away—I'd go into a nunnery.

Trofimov. What a blessing . . .

Varya. A student ought to be intelligent. (*Softly, with tears in her voice.*) How homely you've grown, Petya! How old you look! (*To* MME. RANEVSKAYA, *with dry eyes.*) But I can't live without work, Mamma dear; I must keep busy every minute.

Enter YASHA.

Yasha (*hardly restraining his laughter*). Yepihodov has broken a billiard cue! (*Exits.*)

Varya. Why is Yepihodov here? Who allowed him to play billiards? I don't understand these people! (*Exits.*)

Mme. Ranevskaya. Don't tease her, Petya. She's unhappy enough without that.

Trofimov. She bustles so—and meddles in other people's business. All summer long she's given Anya and me no peace. She's afraid of a love affair between us. What business is it of hers? Besides, I've given no grounds for it, and I'm far from such vulgarity. We are above love.

Mme. Ranevskaya. And I suppose I'm beneath love? (*Anxiously.*) What can be keeping Leonid? If I only knew whether the estate has been sold or not. Such a calamity seems so incredible to me that I don't know what to think—I feel lost. . . . I could scream. . . . I could do something stupid. . . . Save me, Petya, tell me something, talk to me!

Trofimov. Whether the estate is sold today or not, isn't it all one? That's all done with long ago–there's no turning back, the path is overgrown. Calm yourself, my dear. You mustn't deceive yourself. For once in your life you must face the truth.

Mme. Ranevskaya. What truth? You can see the truth, you can tell it from falsehood, but I seem to have lost my eyesight, I see nothing. You settle every great problem so boldly, but tell me, my dear boy, isn't it because you're young, because you don't yet know what one of your problems means in terms of suffering? You look ahead fearlessly, but isn't it because you don't see and don't expect anything dreadful, because life is still hidden from your young eyes? You're bolder, more honest, more profound than we are, but think hard, show just a bit of magnanimity, spare me. After all, I was born here, my father and mother lived here, and my grandfather; I love this house. Without the cherry orchard, my life has no meaning for me, and if it really must be sold, then sell me with the orchard. (*Embraces* TROFIMOV, *kisses him on the forehead.*) My son was drowned here. (*Weeps.*) Pity me, you good, kind fellow!

Trofimov. You know, I feel for you with all my heart.

Mme. Ranevskaya. But that should have been said differently, so differently! (*Takes out her handkerchief–a telegram falls on the floor.*) My heart is so heavy today–you can't imagine! The noise here upsets me–my inmost being trembles at every sound–I'm shaking all over. But I can't go into my own room; I'm afraid to be alone. Don't condemn me, Petya. . . . I love you as though you were one of us, I would gladly let you marry Anya–I swear I would–only, my dear boy, you must study–you must take your degree–you do nothing, you let yourself be tossed by Fate from place to place–it's so strange. It's true, isn't it? And you should do something about your beard, to make it grow somehow! (*Laughs.*) You're so funny!

Trofimov (*picks up the telegram*). I've no wish to be a dandy.

Mme. Ranevskaya. That's a telegram from Paris. I get one every day. One yesterday and one today. That savage is ill again–he's in trouble again. He begs forgiveness, implores me to go to him, and really I ought to go to Paris to be near him. Your face is stern, Petya; but what is there to do, my dear boy? What am I to do? He's ill, he's alone and unhappy, and who is to look after him, who is to keep him from doing the wrong thing, who is to give him his medicine on time? And why hide it or keep still about it–I love him! That's clear. I love him, love him! He's a millstone round my neck, he'll drag me to the bottom,

but I love that stone, I can't live without it. (*Presses* TROFIMOV'S *hand.*) Don't think badly of me, Petya, and don't say anything, don't say . . .

Trofimov (*through tears*). Forgive me my frankness in heaven's name; but, you know, he robbed you!

Mme. Ranevskaya. No, no, no, you mustn't say such things! (*Covers her ears.*)

Trofimov. But he's a scoundrel! You're the only one who doesn't know it. He's a petty scoundrel–a nonentity!

Mme. Ranevskaya (*controlling her anger*). You are twenty-six or twenty-seven years old, but you're still a schoolboy.

Trofimov. That may be.

Mme. Ranevskaya. You should be a man at your age. You should understand people who love–and ought to be in love yourself. You ought to fall in love! (*Angrily.*) Yes, yes! And it's not purity in you, it's prudishness, you're simply a queer fish, a comical freak!

Trofimov (*horrified*). What is she saying?

Mme. Ranevskaya. "I am above love!" You're not above love, but simply, as our Firs says, you're an addlehead. At your age not to have a mistress!

Trofimov (*horrified*). This is frightful! What is she saying! (*Goes rapidly into the ballroom, clutching his head.*) It's frightful–I can't stand it, I won't stay! (*Exits, but returns at once.*) All is over between us! (*Exits into anteroom.*)

Mme. Ranevskaya (*shouts after him*). Petya! Wait! You absurd fellow, I was joking. Petya!

Sound of somebody running quickly downstairs and suddenly falling down with a crash. ANYA *and* VARYA *scream. Sound of laughter a moment later.*

Mme. Ranevskaya. What's happened?

ANYA *runs in.*

Anya (*laughing*). Petya's fallen downstairs! (*Runs out.*)

Mme. Ranevskaya. What a queer bird that Petya is!

STATIONMASTER, *standing in the middle of the ballroom, recites Alexey Tolstoy's "Magdalene" to which all listen, but after a few lines, the sound of a waltz is heard from the anteroom and the reading breaks off. All dance.* TROFIMOV, ANYA, VARYA, *and* MME. RANEVSKAYA *enter from the anteroom.*

Mme. Ranevskaya. Petya, you pure soul, please forgive me. . . . Let's dance.

Dances with PETYA. ANYA *and* VARYA *dance.* FIRS *enters, puts his stick down by the side door.* YASHA *enters from the drawing room and watches the dancers.*

Yasha. Well, grandfather?

Firs. I'm not feeling well. In the old days it was generals, barons, and admirals that were dancing at our balls, and now we have to send for the Post Office clerk and the Stationmaster, and even they aren't too glad to come. I feel kind of shaky. The old master that's gone, their grandfather, dosed everyone with sealing wax, whatever ailed 'em. I've been taking sealing wax every day for twenty years or more. Perhaps that's what's kept me alive.

Yasha. I'm fed up with you, Grandpop. (*Yawns.*) It's time you croaked.

Firs. Oh, you addlehead! (*Mumbles.*)

TROFIMOV *and* MME. RANEVSKAYA *dance from the ballroom into the drawing room.*

Mme. Ranevskaya. Merci. I'll sit down a while. (*Sits down.*) I'm tired. *Enter* ANYA.

Anya (*excitedly*). There was a man in the kitchen just now who said the cherry orchard was sold today.

Mme. Ranevskaya. Sold to whom?

Anya. He didn't say. He's gone. (*Dances off with* TROFIMOV.)

Yasha. It was some old man gabbing, a stranger.

Firs. And Leonid Andreyevich isn't back yet, he hasn't come. And he's wearing his lightweight between-season overcoat; like enough, he'll catch cold. Ah, when they're young they're green.

Mme. Ranevskaya. This is killing me. Go, Yasha, find out to whom it has been sold.

Yasha. But the old man left long ago. (*Laughs.*)

Mme. Ranevskaya. What are you laughing at? What are you pleased about?

Yasha. That Yepihodov is such a funny one. A funny fellow, Two-and-Twenty Troubles!

Mme. Ranevskaya. Firs, if the estate is sold, where will you go?

Firs. I'll go where you tell me.

Mme. Ranevskaya. Why do you look like that? Are you ill? You ought to go to bed.

Firs. Yes! (*With a snigger.*) Me go to bed, and who's to hand things round? Who's to see to things? I'm the only one in the whole house.

Yasha (*to* MME. RANEVSKAYA). Lubov Andreyevna, allow me to ask a favor of you, be so kind! If you go back to Paris, take me with you, I beg you. It's positively impossible for me to stay here. (*Looking around;* sotto voce.) What's the use of talking? You see for yourself, it's an uncivilized country, the people have no morals, and then the boredom! The food in the kitchen's revolting, and besides there's this Firs wanders about mumbling all sorts of inappropriate words. Take me with you, be so kind!

Enter PISHCHIK.

Pishchik. May I have the pleasure of a waltz with you, charming lady? (MME. RANEVSKAYA *accepts*.) All the same, enchanting lady, you must let me have 180 rubles. . . . You must let me have (*dancing*) just one hundred and eighty rubles. (*They pass into the ballroom.*)

Yasha (*hums softly*). "Oh, wilt thou understand the tumult in my soul?"

In the ballroom a figure in a gray top hat and checked trousers is jumping about and waving its arms; shouts: "Bravo, Charlotta Ivanovna!"

Dunyasha (*stopping to powder her face; to* FIRS). The young Miss has ordered me to dance. There are so many gentlemen and not enough ladies. But dancing makes me dizzy, my heart begins to beat fast, Firs Nikolayevich. The Post Office clerk said something to me just now that quite took my breath away. (*Music stops.*)

Firs. What did he say?

Dunyasha. "You're like a flower," he said.

Yasha (*yawns*). What ignorance. (*Exits.*)

Dunyasha. "Like a flower!" I'm such a delicate girl. I simply adore pretty speeches.

Firs. You'll come to a bad end.

Enter YEPIHODOV.

Yepihodov (*to* DUNYASHA). You have no wish to see me, Avdotya Fyodorovna . . . as though I was some sort of insect. (*Sighs.*) Ah, life!

Dunyasha. What is it you want?

Yepihodov. Indubitably you may be right. (*Sighs.*) But of course, if one looks at it from the point of view, if I may be allowed to say so, and apologizing for my frankness, you have completely reduced me to a

state of mind. I know my fate. Every day some calamity befalls me, and I grew used to it long ago, so that I look upon my fate with a smile. You gave me your word, and though I–

Dunyasha. Let's talk about it later, please. But just now leave me alone, I am daydreaming. (*Plays with a fan.*)

Yepihodov. A misfortune befalls me every day; and if I may be allowed to say so, I merely smile, I even laugh.

Enter VARYA.

Varya (*to* YEPIHODOV). Are you still here? What an impertinent fellow you are really! Run along, Dunyasha. (*To* YEPIHODOV.) Either you're playing billiards and breaking a cue, or you're wandering about the drawing room as though you were a guest.

Yepihodov. You cannot, permit me to remark, penalize me.

Varya. I'm not penalizing you; I'm just telling you. You merely wander from place to place, and don't do your work. We keep you as a clerk, but Heaven knows what for.

Yepihodov (*offended*). Whether I work or whether I walk, whether I eat or whether I play billiards, is a matter to be discussed only by persons of understanding and of mature years.

Varya (*enraged*). You dare say that to me–you dare? You mean to say I've no understanding? Get out of here at once! This minute!

Yepihodov (*scared*). I beg you to express yourself delicately.

Varya (*beside herself*). Clear out this minute! Out with you!

YEPIHODOV *goes towards the door,* VARYA *following.*

Varya. Two-and-Twenty Troubles! Get out–don't let me set eyes on you!

Exit YEPIHODOV. *His voice is heard behind the door:* "I shall lodge a complaint against you!"

Varya. Oh, you're coming back? (*She seizes the stick left near door by* FIRS.) Well, come then . . . come . . . I'll show you . . . Ah, you're coming? You're coming? . . . Come . . . (*Swings the stick just as* LOPAHIN *enters.*)

Lopahin. Thank you kindly.

Varya (*angrily and mockingly*). I'm sorry.

Lopahin. It's nothing. Thank you kindly for your charming reception.

Varya. Don't mention it. (*Walks away, looks back and asks softly.*) I didn't hurt you, did I?

Lopahin. Oh, no, not at all. I shall have a large bump, though.

Voices from the ballroom. Lopahin is here! Lopahin!

Enter PISHCHIK.

Pishchik. My eyes do see, my ears do hear! (*Kisses* LOPAHIN.)

Lopahin. You smell of cognac, my dear friends. And we've been celebrating here, too.

Enter MME. RANEVSKAYA.

Mme. Ranevskaya. Is that you, Yermolay Alexeyevich? What kept you so long? Where's Leonid?

Lopahin. Leonid Andreyevich arrived with me. He's coming.

Mme. Ranevskaya. Well, what happened? Did the sale take place? Speak!

Lopahin (*embarrassed, fearful of revealing his joy*). The sale was over at four o'clock. We missed the train–had to wait till half past nine. (*Sighing heavily.*) Ugh. I'm a little dizzy.

Enter GAYEV. *In his right hand he holds parcels, with his left he is wiping away his tears*.

Mme. Ranevskaya. Well, Leonid? What news? (*Impatiently, through tears.*) Be quick, for God's sake!

Gayev (*not answering, simply waves his hand. Weeping, to* FIRS). Here, take these; anchovies, Kerch herrings . . . I haven't eaten all day. What I've been through! (*The click of billiard balls comes through the open door of the billiard room and* YASHA'S *voice is heard:* "Seven and eighteen!" GAYEV'S *expression changes, he no longer weeps*.) I'm terribly tired. Firs, help me change. (*Exits, followed by* FIRS.)

Pishchik. How about the sale? Tell us what happened.

Mme. Ranevskaya. Is the cherry orchard sold?

Lopahin. Sold.

Mme. Ranevskaya. Who bought it?

Lopahin. I bought it.

Pause. MME. RANEVSKAYA *is overcome. She would fall to the floor were it not for the chair and table near which she stands*. VARYA *takes the keys from her belt, flings them on the floor in the middle of the drawing room and goes out*.

Lopahin. I bought it. Wait a bit, ladies and gentlemen, please, my head is swimming, I can't talk. (*Laughs.*) We got to the auction and Deriganov was there already. Leonid Andreyevich had only 15,000 and straight off Deriganov bid 30,000 over and above the mortgage. I saw how the land lay, got into the fight, bid 40,000. He bid 45,000. I bid fifty-five. He kept adding five thousands, I ten. Well . . . it came to

an end. I bid ninety above the mortgage and the estate was knocked down to me. Now the cherry orchard's mine! Mine! (*Laughs uproariously.*) Lord! God in Heaven! The cherry orchard's mine! Tell me that I'm drunk–out of my mind–that it's all a dream. (*Stamps his feet.*) Don't laugh at me! If my father and my grandfather could rise from their graves and see all that has happened–how their Yermolay, who used to be flogged, their half-literate Yermolay, who used to run about barefoot in winter, how that very Yermolay has bought the most magnificent estate in the world. I bought the estate where my father and grandfather were slaves, where they weren't even allowed to enter the kitchen. I'm asleep–it's only a dream–I only imagine it. . . . It's the fruit of your imagination, wrapped in the darkness of the unknown! (*Picks up the keys, smiling genially.*) She threw down the keys, wants to show she's no longer mistress here. (*Jingles keys.*) Well, no matter. (*The band is heard tuning up.*) Hey, musicians! Strike up! I want to hear you! Come, everybody, and see how Yermolay Lopahin will lay the ax to the cherry orchard and how the trees will fall to the ground. We will build summer cottages there, and our grandsons and great-grandsons will see a new life here. Music! Strike up!

The band starts to play. MME. RANEVSKAYA *has sunk into a chair and is weeping bitterly.*

Lopahin (*reproachfully*). Why, why didn't you listen to me? My dear friend, my poor friend, you can't bring it back now. (*Tearfully.*) Oh, if only this were over quickly! Oh, if only our wretched, disordered life were changed!

Pishchik (*takes him by the arm;* sotto voce). She's crying. Let's go into the ballroom. Let her be alone. Come. (*Takes his arm and leads him into the ballroom.*)

Lopahin. What's the matter? Musicians, play so I can hear you! Let me have things the way I want them. (*Ironically.*) Here comes the new master, the owner of the cherry orchard. (*Accidentally he trips over a little table, almost upsetting the candelabra.*) I can pay for everything. (*Exits with* PISHCHIK. MME. RANEVSKAYA, *alone, sits huddled up, weeping bitterly. Music plays softly. Enter* ANYA *and* TROFIMOV *quickly,* ANYA *goes to her mother and falls on her knees before her.* TROFIMOV *stands in the doorway.*)

Anya. Mamma, Mamma, you're crying! Dear, kind, good Mamma, my precious, I love you, I bless you! The cherry orchard is sold, it's gone,

that's true, quite true. But don't cry, Mamma, life is still before you, you still have your kind, pure heart. Let us go, let us go away from here, darling. We will plant a new orchard, even more luxuriant than this one. You will see it, you will understand, and like the sun at evening, joy–deep, tranquil joy–will sink into your soul, and you will smile, Mamma. Come, darling, let us go.

ACT IV

Scene as in Act I. No window curtains or pictures, only a little furniture, piled up in a corner, as if for sale. A sense of emptiness. Near the outer door and at the back, suitcases, bundles, etc., are piled up. A door open on the left and the voices of VARYA *and* ANYA *are heard.* LOPAHIN *stands waiting.* YASHA *holds a tray with glasses full of champagne.* YEPIHODOV *in the anteroom is tying up a box. Behind the scene a hum of voices: peasants have come to say good-by. Voice of* GAYEV: *"Thanks, brothers, thank you."*

Yasha. The country folk have come to say good-by. In my opinion, Yermolay Alexeyevich, they are kindly souls, but there's nothing in their heads. (*The hum dies away. Enter* MME. RANEVSKAYA *and* GAYEV. *She is not crying, but is pale, her face twitches and she cannot speak.*)

Gayev. You gave them your purse, Luba. That won't do! That won't do!

Mme. Ranevskaya. I couldn't help it! I couldn't! (*They go out.*)

Lopahin (*calls after them*). Please, I beg you, have a glass at parting. I didn't think of bringing any champagne from town and at the station I could find only one bottle. Please, won't you? (*Pause.*) What's the matter, ladies and gentlemen, don't you want any? (*Moves away from the door.*) If I'd known, I wouldn't have bought it. Well, then I won't drink any, either. (YASHA *carefully sets the tray down on a chair.*) At least you have a glass, Yasha.

Yasha. Here's to the travelers! And good luck to those that stay! (*Drinks.*) This champagne isn't the real stuff, I can assure you.

Lopahin. Eight rubles a bottle. (*Pause.*) It's devilishly cold here.

Yasha. They didn't light the stoves today–it wasn't worth it, since we're leaving. (*Laughs.*)

Lopahin. Why are you laughing?

Yasha. It's just that I'm pleased.

Lopahin. It's October, yet it's as still and sunny as though it were summer. Good weather for building. (*Looks at his watch, and speaks off.*)

Bear in mind, ladies and gentlemen, the train goes in forty-seven minutes, so you ought to start for the station in twenty minutes. Better hurry up!

Enter TROFIMOV *wearing an overcoat.*

Trofimov. I think it's time to start. The carriages are at the door. The devil only knows what's become of my rubbers; they've disappeared. (*Calling off.*) Anya! My rubbers are gone. I can't find them.

Lopahin. I've got to go to Kharkov. I'll take the same train you do. I'll spend the winter in Kharkov. I've been hanging round here with you, till I'm worn out with loafing. I can't live without work–I don't know what to do with my hands, they dangle as if they didn't belong to me.

Trofimov. Well, we'll soon be gone, then you can go on with your useful labors again.

Lopahin. Have a glass.

Trofimov. No, I won't.

Lopahin. So you're going to Moscow now?

Trofimov. Yes. I'll see them into town, and tomorrow I'll go on to Moscow.

Lopahin. Well, I'll wager the professors aren't giving any lectures, they're waiting for you to come.

Trofimov. That's none of your business.

Lopahin. Just how many years have you been at the university?

Trofimov. Can't you think of something new? Your joke's stale and flat. (*Looking for his rubbers.*) We'll probably never see each other again, so allow me to give you a piece of advice at parting: don't wave your hands about! Get out of the habit. And another thing: building bungalows, figuring that summer residents will eventually become small farmers, figuring like that is just another form of waving your hands about. . . . Never mind, I love you anyway; you have fine, delicate fingers, like an artist; you have a fine, delicate soul.

Lopahin (*embracing him*). Good-by, my dear fellow. Thank you for everything. Let me give you some money for the journey, if you need it.

Trofimov. What for? I don't need it.

Lopahin. But you haven't any.

Trofimov. Yes, I have, thank you. I got some money for a translation–here it is in my pocket. (*Anxiously.*) But where are my rubbers?

Varya (*from the next room*). Here! Take the nasty things. (*Flings a pair of rubbers onto the stage.*)

Trofimov. What are you so cross about, Varya? Hm . . . and these are not my rubbers.

Lopahin. I sowed three thousand acres of poppies in the spring, and now I've made 40,000 on them, clear profit; and when my poppies were in bloom, what a picture it was! So, as I say, I made 40,000; and I am offering you a loan because I can afford it. Why turn up your nose at it? I'm a peasant–I speak bluntly.

Trofimov. Your father was a peasant, mine was a druggist–that proves absolutely nothing whatever. (LOPAHIN *takes out his wallet*.) Don't, put that away! If you were to offer me two hundred thousand I wouldn't take it. I'm a free man. And everything that all of you, rich and poor alike, value so highly and hold so dear hasn't the slightest power over me. It's like so much fluff floating in the air. I can get on without you, I can pass you by, I'm strong and proud. Mankind is moving towards the highest truth, towards the highest happiness possible on earth, and I am in the front ranks.

Lopahin. Will you get there?

Trofimov. I will. (*Pause*.) I will get there, or I will show others the way to get there.

The sound of axes chopping down trees is heard in the distance.

Lopahin. Well, good-by, my dear fellow. It's time to leave. We turn up our noses at one another, but life goes on just the same. When I'm working hard, without resting, my mind is easier, and it seems to me that I too know why I exist. But how many people are there in Russia, brother, who exist nobody knows why? Well, it doesn't matter. That's not what makes the wheels go round. They say Leonid Andreyevich has taken a position in the bank, 6,000 rubles a year. Only, of course, he won't stick to it, he's too lazy. . . .

Anya (*in the doorway*). Mamma begs you not to start cutting down the cherry trees until she's gone.

Trofimov. Really, you should have more tact! (*Exits*.)

Lopahin. Right away–right away! Those men . . . (*Exits*.)

Anya. Has Firs been taken to the hospital?

Yasha. I told them this morning. They must have taken him.

Anya (*to* YEPIHODOV *who crosses the room*). Yepihodov, please find out if Firs has been taken to the hospital.

Yasha (*offended*). I told Yegor this morning. Why ask a dozen times?

Yepihodov. The aged Firs, in my definitive opinion, is beyond mending. It's time he was gathered to his fathers. And I can only envy him. (*Puts a suitcase down on a hatbox and crushes it*.) There now, of course. I knew it! (*Exits*.)

Yasha (*mockingly*). Two-and-Twenty Troubles!

Varya (*through the door*). Has Firs been taken to the hospital?
Anya. Yes.
Varya. Then why wasn't the note for the doctor taken too?
Anya. Oh! Then someone must take it to him. (*Exits.*)
Varya (*from adjoining room*). Where's Yasha? Tell him his mother's come and wants to say good-by.
Yasha (*waves his hand*). She tries my patience.

DUNYASHA *has been occupied with the luggage. Seeing* YASHA *alone, she goes up to him.*

Dunyasha. You might just give me one little look, Yasha. You're going away. . . . You're leaving me . . . (*Weeps and throws herself on his neck.*)
Yasha. What's there to cry about? (*Drinks champagne.*) In six days I shall be in Paris again. Tomorrow we get into an express train and off we go, that's the last you'll see of us. . . . I can scarcely believe it. *Vive la France!* It don't suit me here, I just can't live here. That's all there is to it. I'm fed up with the ignorance here, I've had enough of it. (*Drinks champagne.*) What's there to cry about? Behave yourself properly, and you'll have no cause to cry.
Dunyasha (*powders her face, looking in pocket mirror*). Do send me a letter from Paris. You know I loved you, Yasha, how I loved you! I'm a delicate creature, Yasha.
Yasha. Somebody's coming! (*Busies himself with the luggage; hums softly.*)

Enter MME. RANEVSKAYA, GAYEV, ANYA, *and* CHARLOTTA.

Gayev. We ought to be leaving. We haven't much time. (*Looks at* YASHA.) Who smells of herring?
Mme. Ranevskaya. In about ten minutes we should be getting into the carriages. (*Looks around the room.*) Good-by, dear old home, good-by, grandfather. Winter will pass, spring will come, you will no longer be here, they will have torn you down. How much these walls have seen! (*Kisses* ANYA *warmly.*) My treasure, how radiant you look! Your eyes are sparkling like diamonds. Are you glad? Very?
Anya (*gaily*). Very glad. A new life is beginning, Mamma.
Gayev. Well, really, everything is all right now. Before the cherry orchard was sold, we all fretted and suffered; but afterwards, when the question was settled finally and irrevocably, we all calmed down, and even felt quite cheerful. I'm a bank employee now, a financier. The yellow ball in the side pocket! And anyhow, you are looking better, Luba, there's no doubt of that.

Mme. Ranevskaya. Yes, my nerves are better, that's true. (*She is handed her hat and coat.*) I sleep well. Carry out my things, Yasha. It's time. (*To* ANYA.) We shall soon see each other again, my little girl. I'm going to Paris, I'll live there on the money your great-aunt sent us to buy the estate with—long live Auntie! But that money won't last long.

Anya. You'll come back soon, soon, Mamma, won't you? Meanwhile I'll study, I'll pass my high school examination, and then I'll go to work and help you. We'll read all kinds of books together, Mamma, won't we? (*Kisses her mother's hands.*) We'll read in the autumn evenings, we'll read lots of books, and a new wonderful world will open up before us. (*Falls into a reverie.*) Mamma, do come back.

Mme. Ranevskaya. I will come back, my precious. (*Embraces her daughter. Enter* LOPAHIN *and* CHARLOTTA, *who is humming softly.*)

Gayev. Charlotta's happy: she's singing.

Charlotta (*picks up a bundle and holds it like a baby in swaddling clothes*). Bye, baby, bye. (*A baby is heard crying* "Wah! Wah!") Hush, hush, my pet, my little one. "Wah! Wah!" I'm so sorry for you! (*Throws the bundle down.*) You will find me a position, won't you? I can't go on like this.

Lopahin. We'll find one for you, Charlotta Ivanovna, don't worry.

Gayev. Everyone's leaving us. Varya's going away. We've suddenly become of no use.

Charlotta. There's no place for me to live in town, I must go away. (*Hums.*)

Enter PISHCHIK.

Lopahin. There's nature's masterpiece!

Pishchik (*gasping*). Oh . . . let me get my breath . . . I'm in agony. . . . Esteemed friends . . . Give me a drink of water. . . .

Gayev. Wants some money, I suppose. No, thank you . . . I'll keep out of harm's way. (*Exits.*)

Pishchik. It's a long while since I've been to see you, most charming lady. (*To* LOPAHIN.) So you are here . . . glad to see you, you intellectual giant . . . There . . . (*Gives* LOPAHIN *money.*) Here's 400 rubles, and I still owe you 840.

Lopahin (*shrugging his shoulders in bewilderment*). I must be dreaming . . . Where did you get it?

Pishchik. Wait a minute . . . It's hot . . . A most extraordinary event! Some Englishmen came to my place and found some sort of white clay on my land . . . (*To* MME. RANEVSKAYA.) And 400 for you . . .

most lovely . . . most wonderful . . . (*Hands her the money.*) The rest later. (*Drinks water.*) A young man in the train was telling me just now that a great philosopher recommends jumping off roofs. "Jump!" says he; "that's the long and the short of it!" (*In amazement.*) Just imagine! Some more water!

Lopahin. What Englishmen?

Pishchik. I leased them the tract with the clay on it for twenty-four years. . . . And now, forgive me, I can't stay. . . . I must be dashing on. . . . I'm going over to Znoikov. . . to Kardamanov . . . I owe them all money . . . (*Drinks water.*) Good-by, everybody . . . I'll look in on Thursday. . . .

Mme. Ranevskaya. We're just moving into town; and tomorrow I go abroad.

Pishchik (*upset*). What? Why into town? That's why the furniture is like that . . . and the suitcases . . . Well, never mind! (*Through tears.*) Never mind . . . Men of colossal intellect, these Englishmen . . . Never mind . . . Be happy. God will come to your help . . . Never mind . . . Everything in this world comes to an end. (*Kisses* MME. RANEVSKAYA'S *hand.*) If the rumor reaches you that it's all up with me, remember this old . . . horse, and say: Once there lived a certain . . . Simeonov-Pishchik . . . the kingdom of Heaven be his . . . Glorious weather! . . . Yes . . . (*Exits, in great confusion, but at once returns and says in the doorway*) My daughter Dashenka sends her regards. (*Exits.*)

Mme. Ranevskaya. Now we can go. I leave with two cares weighing on me. The first is poor old Firs. (*Glancing at her watch.*) We still have about five minutes.

Anya. Mamma, Firs has already been taken to the hospital. Yasha sent him there this morning.

Mme. Ranevskaya. My other worry is Varya. She's used to getting up early and working; and now, with no work to do, she is like a fish out of water. She has grown thin and pale, and keeps crying, poor soul. (*Pause.*) You know this very well, Yermolay Alexeyevich; I dreamed of seeing her married to you, and it looked as though that's how it would be. (*Whispers to* ANYA, *who nods to* CHARLOTTA *and both go out.*) She loves you. You find her attractive. I don't know, I don't know why it is you seem to avoid each other; I can't understand it.

Lopahin. To tell you the truth, I don't understand it myself. It's all a puzzle. If there's still time, I'm ready now, at once. Let's settle it straight off, and have done with it! Without you, I feel I'll never be able to propose.

Mme. Ranevskaya. That's splendid. After all, it will only take a minute. I'll call her at once. . . .

Lopahin. And luckily, here's champagne too. (*Looks at the glasses*.) Empty! Somebody's drunk it all. (YASHA *coughs*.) That's what you might call guzzling . . .

Mme. Ranevskaya (*animatedly*). Excellent! We'll go and leave you alone. Yasha, *allez!* I'll call her. (*At the door*.) Varya, leave everything and come here. Come! (*Exits with* YASHA.)

Lopahin (*looking at his watch*). Yes . . . (*Pause behind the door, smothered laughter and whispering; at last, enter* VARYA.)

Varya (*looking over the luggage in leisurely fashion*). Strange, I can't find it . . .

Lopahin. What are you looking for?

Varya. Packed it myself, and I don't remember . . . (*Pause*.)

Lopahin. Where are you going now, Varya?

Varya. I? To the Ragulins'. I've arranged to take charge there–as housekeeper, if you like.

Lopahin. At Yashnevo? About fifty miles from here. (*Pause*.) Well, life in this house is ended!

Varya (*examining luggage*). Where is it? Perhaps I put it in the chest. Yes, life in this house is ended . . . There will be no more of it.

Lopahin. And I'm just off to Kharkov–by this next train. I've a lot to do there. I'm leaving Yepihodov here . . . I've taken him on.

Varya. Oh!

Lopahin. Last year at this time it was snowing, if you remember, but now it's sunny and there's no wind. It's cold, though . . . It must be three below.

Varya. I didn't look. (*Pause*.) And besides, our thermometer's broken. (*Pause. Voice from the yard:* "Yermolay Alexeyevich!")

Lopahin (*as if he had been waiting for the call*). This minute! (*Exits quickly.* VARYA *sits on the floor and sobs quietly, her head on a bundle of clothes. Enter* MME. RANEVSKAYA *cautiously*.)

Mme. Ranevskaya. Well? (*Pause*.) We must be going.

Varya (*wiping her eyes*). Yes, it's time, Mamma dear. I'll be able to get to the Ragulins' today, if only we don't miss the train.

Mme. Ranevskaya (*at the door*). Anya, put your things on. (*Enter* ANYA, GAYEV, CHARLOTTA. GAYEV *wears a heavy overcoat with a hood. Enter servants and coachmen.* YEPIHODOV *bustles about the luggage*.)

Mme. Ranevskaya. Now we can start on our journey.

Anya (*joyfully*). On our journey!

Gayev. My friends, my dear, cherished friends, leaving this house forever,

can I be silent? Can I at leave-taking refrain from giving utterance to those emotions that now fill my being?

Anya (*imploringly*). Uncle!

Varya. Uncle, Uncle dear, don't.

Gayev (*forlornly*). I'll bank the yellow in the side pocket . . . I'll be silent . . .

Enter TROFIMOV, *then* LOPAHIN.

Trofimov. Well, ladies and gentlemen, it's time to leave.

Lopahin. Yepihodov, my coat.

Mme. Ranevskaya. I'll sit down just a minute. It seems as though I'd never before seen what the walls of this house were like, the ceilings, and now I look at them hungrily, with such tender affection.

Gayev. I remember when I was six years old sitting on that window sill on Whitsunday, watching my father going to church.

Mme. Ranevskaya. Has everything been taken?

Lopahin. I think so. (*Putting on his overcoat*.) Yepihodov, see that everything's in order.

Yepihodov (*in a husky voice*). You needn't worry, Yermolay Alexeyevich.

Lopahin. What's the matter with your voice?

Yepihodov. I just had a drink of water. I must have swallowed something.

Yasha (*contemptuously*). What ignorance!

Mme. Ranevskaya. When we're gone, not a soul will be left here.

Lopahin. Until the spring.

VARYA *pulls an umbrella out of a bundle, as though about to hit someone with it*. LOPAHIN *pretends to be frightened*.

Varya. Come, come, I had no such idea!

Trofimov. Ladies and gentlemen, let's get into the carriages–it's time. The train will be in directly.

Varya. Petya, there they are, your rubbers, by that trunk. (*Tearfully*) And what dirty old things they are!

Trofimov (*puts on rubbers*). Let's go, ladies and gentlemen.

Gayev (*greatly upset, afraid of breaking down*). The train . . . the station . . . Three cushions in the side pocket, I'll bank this one in the corner . . .

Mme. Ranevskaya. Let's go.

Lopahin. Are we all here? No one in there? (*Locks the side door on the left*.) There are some things stored here, better lock up. Let us go!

Anya. Good-by, old house! Good-by, old life!

Trofimov. Hail to you, new life!

Exit with ANYA. VARYA *looks round the room and goes out slowly.* YASHA *and* CHARLOTTA *with her dog go out.*

Lopahin. And so, until the spring. Go along, friends . . . Bye-bye! (*Exits.*)

MME. RANEVSKAYA *and* GAYEV *remain alone. As though they had been waiting for this, they throw themselves on each other's necks, and break into subdued, restrained sobs, afraid of being overheard.*

Gayev (*in despair*). My sister! My sister!

Mme. Ranevskaya. Oh, my orchard–my dear, sweet, beautiful orchard! My life, my youth, my happiness–good-by! Good-by! (*Voice of* ANYA, *gay and summoning:* "Mamma!" *Voice of* TROFIMOV, *gay and excited:* "Halloo!")

Mme. Ranevskaya. One last look at the walls, at the windows . . . Our poor mother loved to walk about this room . . .

Gayev. My sister, my sister! (*Voice of* ANYA: "Mamma!" *Voice of* TROFIMOV: "Halloo!")

Mme. Ranevskaya. We're coming.

They go out. The stage is empty. The sound of doors being locked, of carriages driving away. Then silence. In the stillness is heard the muffled sound of the ax striking a tree, a mournful, lonely sound. Footsteps are heard. FIRS *appears in the doorway on the right. He is dressed as usual in a jacket and white waistcoat and wears slippers. He is ill.*

Firs (*goes to the door, tries the handle*). Locked! They've gone . . . (*Sits down on the sofa.*) They've forgotten me . . . Never mind . . . I'll sit here a bit . . . I'll wager Leonid Andreyevich hasn't put his fur coat on, he's gone off in his light overcoat . . . (*Sighs anxiously.*) I didn't keep an eye on him . . . Ah, when they're young, they're green . . . (*Mumbles something indistinguishable.*) Life has gone by as if I had never lived. (*Lies down.*) I'll lie down a while . . . There's no strength left in you, old fellow; nothing is left, nothing. Ah, you addlehead! (*Lies motionless. A distant sound is heard coming from the sky as it were, the sound of a snapping string mournfully dying away. All is still again, and nothing is heard but the strokes of the ax against a tree far away in the orchard.*)

Translated by Avrahm Yarmolinsky.

George Bernard Shaw

1856–1950

George Bernard Shaw was born in Dublin, on July 26, 1856. His father, George Carr Shaw, was an unsuccessful corn merchant and an alcoholic. His mother was a talented musician, who taught Shaw, at an early age, to love and understand music.

Shaw had very little formal education. When he was ten he went to Wesleyan Connexional School, later Wesley College, in Dublin; four years later, he began work as a clerk in a land agent's office. He hated the work as much as he had previously hated school, and in 1876 he left Dublin for London. There his mother supported him by giving music lessons while Shaw wrote five novels which for some time he could not get published.

In 1885 Shaw began to write criticism, reviewing books and later music and drama for periodicals. His opinions were often startling to his readers. He championed Wagner, who was then new and unpopular. He attacked Shakespeare, partly for the shock value of it, and partly to gain recognition of Ibsen, whose work he admired. Shaw's *The Quintessence of Ibsenism* was published in 1891.

When he was twenty-six, Shaw became a socialist. He later said that the reading of Marx's *Capital* was the turning point in his life. Shaw joined the Fabian Society in 1884 and was soon a popular speaker on socialism.

Shaw's socialist opinions formed the basis for several of his plays, including the first one, *Widower's Houses*, produced in 1892. It dealt with the evils of slum landlords. This play encountered violent criticism which, typically, convinced Shaw that he was meant to be a dramatist.

His first critical success was *Candida*, produced in 1897. With the money *The Devil's Disciple* made in the United States in 1900, Shaw

was freed from the necessity of writing criticism for a living. In 1898 he married Charlotte Payne-Townshend, a wealthy Irish woman and a fellow Fabian.

Shaw had many unusual convictions, and he delighted in championing causes that were unpopular in his time, such as socialism and feminism. He was a life-long vegetarian and an anti-vivisectionist. He attacked compulsory vaccination and was scornful of doctors. He advocated the acceptance of a new alphabet.

Shaw presented many of his controversial ideas in his plays and the sometimes lengthy introductions to them. He was awarded the Nobel Prize for literature in 1925. With the prize money he set up the Anglo-Swedish Literary Alliance. He refused both a knighthood and the Order of Merit. In his long lifetime he wrote more than fifty plays. He died November 2, 1950, at his home at Ayot St. Lawrence, Hertfordshire, England.

G. B. S. (as he was often called) was, among other things, an enemy of complacency. He delighted in shocking people, in stinging them out of their calmly accepted, conventional ideas. Few controversial subjects escaped the sharp attack of his wit. Religion, war, evolution, philanthropy–these are only a few of the topics on which he turned the bright light of his attention.

His greatest delight was to shock the English. He loved to take one of their common prejudices and turn it upside down. In his battle against English complacency, he used three powerful weapons–paradox, irony, and humor. All are evident in the drama that is reprinted here.

The Man of Destiny was first produced in 1897. Think back to that time. It is before World War I, before Mussolini, Hitler, and Stalin, before World War II and the Cold War. For most Englishmen the embodiment of all political evil was Napoleon. He had been dead for seventy-five years, but he was still the arch villain. He was the epitome of violence, of autocracy, of treachery. He was all that is

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Notes from the artist: ". . . *Shaw, dressed in his favorite suit, swinging an ax, considered by some to be his characteristic manner of approaching moral and social issues! In the background is the heroine of his play* Saint Joan, *and the quotation is from* Man and Superman."

The true artist will let his wife starve, his children go barefoot, his mother drudge for his living at seventy, sooner than work at anything but his art.

un-English. He was a figure to frighten children and foreign offices. He was as close to being the devil incarnate as anyone ever was.

Yet Shaw, for an English audience, makes Napoleon the hero of his play. Here is the young leader, only two days after the Battle of Lodi. It was at Lodi that Napoleon first caught the attention of Europe. Overnight his name became one to conjure with. Shaw depicts him, indeed, as ruthless, ambitious, cruel. But there is no doubt that he is a hero.

What kind of man is Shaw's Napoleon? He is more than ambitious and cruel. He is also cunning, shrewd, and intelligent. Shaw would not permit the arch villain to appear stupid. It is the English, Shaw seems to be saying, who are the dull, stupid ones. Yet the English, he also is saying, finally defeated Napoleon. How could that be?

Napoleon himself, in the play, explains this. "The English are a race apart," he says. When an Englishman "wants a thing, he never tells himself that he wants it. He waits patiently until there comes into his mind, no one knows how, a burning conviction that it is his moral and religious duty to conquer those who possess the thing he wants. Then he becomes irresistible." The Englishman, Napoleon adds, "is never at a loss for an effective moral attitude." And he goes on to recount all the hypocrisies that underlie English life and opinion.

Paradox is piled on paradox in this play. Napoleon comes close to outwitting himself with his own cunning. The Lady is equally shrewd, but she too is defeated in the end. Only the English, with their invulnerable "effective moral attitude," are victorious.

Thus the play attacks not only English complacency with respect to Napoleon, but also English hypocrisy. The English never see anything clearly, Shaw appears to be saying. They are constantly fooling themselves. At heart, they are exactly what they say Napoleon is; that is, ruthless, grasping, and ambitious. Napoleon in the play, on the other hand, has some of the virtues the English claim to have but really do not: chivalry toward women, for instance. Above all, Shaw's Napoleon delights in conversation. He delights to match verbal wits with people. The Lieutenant, who may stand in the play for the English, cannot keep up with him. His ignorance is invincible. The Lady pleases Napoleon because she tries to outwit him. The English never tried to outwit Napoleon; they simply defeated him.

"It is even now impossible to live in England without sometimes feeling how much that country lost in not being conquered by him,"

says Shaw in his introduction to the play. The English, in other words, could have learned something from Napoleon, but they refused to do so. They thought they knew everything already.

Shaw admired strong men–what some of his contemporaries called "supermen." He wrote a play about Julius Caesar that portrayed him as having many of the characteristics that Napoleon has in this play: wit, cunning, a knowledge of human nature. But Shaw admired the English, too, even though he never stopped making fun of them. He decried their moral denseness, their hypocrisy, their pompous conceit. Yet they were, for Shaw, a nation to be reckoned with. They were "a race apart." In his heart he loved them.

It should be remembered that Shaw himself was not English but Irish. England was his adopted country, but he never ceased to view it with the wry understanding of his native land. And Napoleon says one thing that may be the key to Shaw's view of the English. The Lady admits that her grandmother was Irish. "Yes: I forgot the Irish," Napoleon replies. "An English army led by an Irish general: that might be a match for a French army led by an Italian general." The Duke of Wellington, who defeated Napoleon at Waterloo, was, in fact, an Irishman. But the impression we have is that Shaw is here talking about himself. And that is the most delicate, and delicious, irony of all.

The Man of Destiny

CAST OF CHARACTERS

NAPOLEON
A LIEUTENANT
GIUSEPPE
A STRANGE LADY

The twelfth of May, 1796, in north Italy, at Tavazzano, on the road from Lodi to Milan. The afternoon sun is blazing serenely over the plains of Lombardy, treating the Alps with respect and the anthills with indulgence, neither disgusted by the basking of the swine in the villages nor hurt by its cool reception in the churches, but ruthlessly disdainful of two hordes of mischievous insects which are the French and Austrian armies. Two days before, at Lodi, the Austrians tried to prevent the French from crossing the river by the narrow bridge there; but the French, commanded by a general aged 27, NAPOLEON BONAPARTE, *who does not respect the rules of war, rushed the fireswept bridge, supported by a tremendous cannonade in which the young general assisted with his own hands. Cannonading is his technical specialty: he has been trained in the artillery under the old régime, and made perfect in the military arts of shirking his duties, swindling the paymaster over travelling expenses, and dignifying war with the noise and smoke of cannon, as depicted in all military portraits. He is, however, an original observer, and has perceived, for the first time since the invention of gunpowder, that a cannon ball, if it strikes a man, will kill him. To a thorough grasp of this remarkable discovery he adds a highly evolved faculty for physical geography and for the calculation of times and distances. He has*

prodigious powers of work, and a clear realistic knowledge of human nature in public affairs, having seen it exhaustively tested in that department during the French Revolution. He is imaginative without illusions, and creative without religion, loyalty, patriotism, or any of the common ideals. Not that he is incapable of these ideals: on the contrary, he has swallowed them all in his boyhood, and now, having a keen dramatic faculty, is extremely clever at playing upon them by the arts of the actor and stage manager. Withal, he is no spoiled child. Poverty, ill luck, the shifts of impecunious shabby-gentility, repeated failure as a would-be author, humiliation as a rebuffed time server, reproof and punishment as an incompetent and dishonest officer, an escape from dismissal from the service so narrow that if the emigration of the nobles had not raised the value of even the most rascally lieutenant to the famine price of a general he would have been swept contemptuously from the army: these trials have ground his conceit out of him, and forced him to be self-sufficient and to understand that to such men as he is the world will give nothing that he cannot take from it by force. In this the world is not free from cowardice and folly; for NAPOLEON, *as a merciless cannonader of political rubbish, is making himself useful: indeed, it is even now impossible to live in England without sometimes feeling how much that country lost in not being conquered by him as well as by Julius Caesar.*

However, on this May afternoon in 1796, it is early days with him. He has but recently been promoted general, partly by using his wife to seduce the Directory (then governing France); partly by the scarcity of officers caused by the emigration as aforesaid; partly by his faculty of knowing a country, with all its roads, rivers, hills, and valleys, as he knows the palm of his hand; and largely by that new faith of his in the efficacy of firing cannons at people. His army is, as to discipline, in a state which has so greatly shocked some modern writers before whom the following story has been enacted that they, impressed with the later glory of "L'Empereur," have altogether refused to credit it. But NAPOLEON *is not L'Empereur yet: his men call him Le Petit Caporal, as he is still in the stage of gaining influence over them by displays of pluck. He is not in a position to force his will on them in orthodox military fashion by the cat-o'-nine-tails. The French Revolution, which has escaped suppression solely through, the monarchy's habit of being at least four years in arrear with its soldiers in the matter of pay, has substituted for that habit, as far as*

possible, the habit of not paying at all, except in promises and patriotic flatteries which are not compatible with martial law of the Prussian type. NAPOLEON *has therefore approached the Alps in command of men without money, in rags, and consequently indisposed to stand much discipline, especially from upstart generals. This circumstance, which would have embarrassed an idealist soldier, has been worth a thousand cannon to* NAPOLEON. *He has said to his army, "You have patriotism and courage; but you have no money, no clothes, and hardly anything to eat. In Italy there are all these things, and glory as well, to be gained by a devoted army led by a general who regards loot as the natural right of the soldier. I am such a general.* En avant, mes enfants!" *The result has entirely justified him. The army conquers Italy as the locusts conquered Cyprus. They fight all day and march all night, covering impossible distances and appearing in incredible places, not because every soldier carries a field marshal's baton in his knapsack, but because he hopes to carry at least half a dozen silver forks there next day.*

It must be understood, by the way, that the French Army does not make war on the Italians. It is there to rescue them from the tyranny of their Austrian conquerors, and confer republican institutions on them; so that in incidentally looting them it merely makes free with the property of its friends, who ought to be grateful to it, and perhaps would be if ingratitude were not the proverbial failing of their country. The Austrians, whom it fights, are a thoroughly respectable regular army, well disciplined, commanded by gentlemen versed in orthodox campaigning: at the head of them Beaulieu, practising the classic art of war under orders from Vienna, and getting horribly beaten by NAPOLEON, *who acts on his own responsibility in defiance of professional precedents or orders from Paris. Even when the Austrians win a battle, all that is necessary is to wait until their routine obliges them to return to their quarters for afternoon tea, so to speak, and win it back again from them: a course pursued later on with brilliant success at Marengo. On the whole, with his foe handicapped by Austrian statesmanship, classic generalship, and the exigencies of the aristocratic social structure of Viennese society,* NAPOLEON *finds it possible to be irresistible without working heroic miracles. The world, however, likes miracles and heroes, and is quite incapable of conceiving the action of such forces as academic militarism or Viennese drawing-roomism. Hence it has already begun to manufacture "L'Empereur," and thus to make it difficult for*

the romanticists of a hundred years later to credit the hitherto unrecorded little scene now in question at Tavazzano.

The best quarters in Tavazzano are at a little inn, the first house reached by travellers passing through the place from Milan to Lodi. It stands in a vineyard; and its principal room, a pleasant refuge from the summer heat, is open so widely at the back to this vineyard that it is almost a large veranda. The bolder children, much excited by the alarums and excursions of the past few days, and by an irruption of French troops at six o'clock, know that the French commander has quartered himself in this room, and are divided between a craving to peep in at the front windows, and a mortal dread of the sentinel, a young gentleman-soldier who, having no natural moustache, has had a most ferocious one painted on his face with boot blacking by his sergeant. As his heavy uniform, like all the uniforms of that day, is designed for parade without the least reference to his health or comfort, he perspires profusely in the sun; and his painted moustache has run in little streaks down his chin and round his neck, except where it has dried in stiff japanned flakes and had its sweeping outline chipped off in grotesque little bays and headlands, making him unspeakably ridiculous in the eye of History a hundred years later, but monstrous and horrible to the contemporary north Italian infant, to whom nothing would seem more natural than that he should relieve the monotony of his guard by pitchforking a stray child up on his bayonet, and eating it uncooked. Nevertheless one girl of bad character, in whom an instinct of privilege with soldiers is already stirring, does peep in at the safest window for a moment before a glance and a clink from the sentinel sends her flying. Most of what she sees she has seen before: the vineyard at the back, with the old wine-press and a cart among the vines; the door close on her right leading to the street entry; the landlord's best sideboard, now in full action for dinner, further back on the same side; the fireplace on the other side with a couch near it; another door, leading to the inner rooms, between it and the vineyard; and the table in the middle set out with a repast of Milanese risotto, cheese, grapes, bread, olives, and a big wickered flask of red wine.

The landlord, GIUSEPPE GRANDI, *she knows well. He is a swarthy vivacious shrewdly cheerful black-curled bullet-headed grinning little innkeeper of 40. Naturally an excellent host, he is in the highest spirits this evening at his good fortune in having as his guest the French commander to protect him against the license of the troops.*

He actually sports a pair of gold earrings which would otherwise have been hidden carefully under the wine-press with his little equipment of silver plate.

NAPOLEON, *sitting facing her on the further side of the table, she sees for the first time. He is working hard, partly at his meal, which he has discovered how to dispatch in ten minutes by attacking all the courses simultaneously* (*this practice is the beginning of his downfall*), *and partly at a military map on which he from time to time marks the position of the forces by taking a grape skin from his mouth and planting it on the map with his thumb like a wafer. There is no revolutionary untidiness about his dress or person; but his elbow has displaced most of the dishes and glasses; and his long hair trails into the risotto when he forgets it and leans more intently over the map.*

Giuseppe. Will your excellency–

Napoleon (*intent on his map, but cramming himself mechanically with his left hand*). Don't talk. I'm busy.

Giuseppe (*with perfect good humour*). Excellency: I obey.

Napoleon. Some red ink.

Giuseppe. Alas! excellency, there is none.

Napoleon (*with Corsican facetiousness*). Kill something and bring me its blood.

Giuseppe (*grinning*). There is nothing but your excellency's horse, the sentinel, the lady upstairs, and my wife.

Napoleon. Kill your wife.

Giuseppe. Willingly, your excellency; but unhappily I am not strong enough. She would kill me.

Napoleon. That will do equally well.

Giuseppe. Your excellency does me too much honour. (*Stretching his hand towards the flask*) Perhaps some wine will answer your excellency's purpose.

Napoleon (*hastily protecting the flask, and becoming quite serious*). Wine! No: that would be waste. You are all the same: waste! waste! waste! (*He marks the map with gravy, using his fork as a pen.*) Clear away. (*He finishes his wine; pushes back his chair; and uses his napkin, stretching his legs and leaning back, but still frowning and thinking.*)

Giuseppe (*clearing the table and removing the things to a tray on the sideboard*). Every man to his trade, excellency. We innkeepers have

plenty of cheap wine: we think nothing of spilling it. You great generals have plenty of cheap blood: you think nothing of spilling it. Is it not so, excellency?

Napoleon. Blood costs nothing: wine costs money. (*He rises and goes to the fireplace*.)

Giuseppe. They say you are careful of everything except human life, excellency.

Napoleon. Human life, my friend, is the only thing that takes care of itself. (*He throws himself at his ease on the couch*.)

Giuseppe (*admiring him*). Ah, excellency, what fools we all are beside you! If I could only find out the secret of your success!

Napoleon. You would make yourself Emperor of Italy, eh?

Giuseppe. Too troublesome, excellency: I leave all that to you. Besides, what would become of my inn if I were Emperor? See how you enjoy looking on at me whilst I keep the inn for you and wait on you! Well, I shall enjoy looking on at you whilst you become Emperor of Europe, and govern the country for me. (*As he chatters, he takes the cloth off deftly without removing the map, and finally takes the corners in his hands and the middle in his mouth, to fold it up*.)

Napoleon. Emperor of Europe, eh? Why only Europe?

Giuseppe. Why, indeed? Emperor of the world, excellency! Why not? (*He folds and rolls up the cloth, emphasizing his phrase by the steps of the process*.) One man is like another (*fold*): one country is like another (*fold*): one battle is like another. (*At the last fold, he slaps the cloth on the table and deftly rolls it up, adding, by way of peroration*) Conquer one: conquer all. (*He takes the cloth to the sideboard, and puts it in a drawer*.)

Napoleon. And govern for all; fight for all; be everybody's servant under cover of being everybody's master. Giuseppe.

Giuseppe (*at the sideboard*). Excellency?

Napoleon. I forbid you to talk to me about myself.

Giuseppe (*coming to the foot of the couch*). Pardon. Your excellency is so unlike other great men. It is the subject they like best.

Napoleon. Well, talk to me about the subject they like next best, whatever that may be.

Giuseppe (*unabashed*). Willingly, your excellency. Has your excellency by any chance caught a glimpse of the lady upstairs?

Napoleon (*sitting up promptly*). How old is she?

Giuseppe. The right age, excellency.

Napoleon. Do you mean seventeen or thirty?

Giuseppe. Thirty, excellency.

Napoleon. Good-looking?

Giuseppe. I cannot see with your excellency's eyes: every man must judge that for himself. In my opinion, excellency, a fine figure of a lady. (*Slyly*) Shall I lay the table for her collation here?

Napoleon (*brusquely, rising*). No: lay nothing here until the officer for whom I am waiting comes back. (*He looks at his watch, and takes to walking to and fro between the fireplace and the vineyard.*)

Giuseppe (*with conviction*). Excellency: believe me, he has been captured by the accursed Austrians. He dare not keep you waiting if he were at liberty.

Napoleon (*turning at the edge of the shadow of the veranda*). Giuseppe: if that turns out to be true, it will put me into such a temper that nothing short of hanging you and your whole household, including the lady upstairs, will satisfy me.

Giuseppe. We are all cheerfully at your excellency's disposal, except the lady. I cannot answer for her; but no lady could resist you, General.

Napoleon (*sourly, resuming his march*). Hm! You will never be hanged. There is no satisfaction in hanging a man who does not object to it.

Giuseppe (*sympathetically*). Not the least in the world, excellency: is there? (NAPOLEON *again looks at his watch, evidently growing anxious.*) Ah, one can see that you are a great man, General: you know how to wait. If it were a corporal now, or a sub-lieutenant, at the end of three minutes he would be swearing, fuming, threatening, pulling the house about our ears.

Napoleon. Giuseppe: your flatteries are insufferable. Go and talk outside. (*He sits down again at the table, with his jaws in his hands, and his elbows propped on the map, poring over it with a troubled expression.*)

Giuseppe. Willingly, your excellency. You shall not be disturbed. (*He takes up the tray and prepares to withdraw.*)

Napoleon. The moment he comes back, send him to me.

Giuseppe. Instantaneously, your excellency.

A Lady's Voice (*calling from some distant part of the inn*). Giusep-pe! (*The voice is very musical, and the two final notes make an ascending interval.*)

Napoleon (*startled*). Who's that?

Giuseppe. The lady, excellency.

Napoleon. The lady upstairs?

Giuseppe. Yes, excellency. The strange lady.

Napoleon. Strange? Where does she come from?

Giuseppe (*with a shrug*). Who knows? She arrived here just before your excellency in a hired carriage belonging to the Golden Eagle at Borghetto. By herself, excellency. No servants. A dressing-bag and a trunk: that is all. The postillion says she left a horse at the Golden Eagle. A charger, with military trappings.

Napoleon. A woman with a charger! French or Austrian?

Giuseppe. French, excellency.

Napoleon. Her husband's charger, no doubt. Killed at Lodi, poor fellow.

The Lady's Voice (*the two final notes now making a peremptory descending interval*). Giuseppe!

Napoleon (*rising to listen*). That's not the voice of a woman whose husband was killed yesterday.

Giuseppe. Husbands are not always regretted, excellency. (*Calling*) Coming, lady, coming. (*He makes for the inner door.*)

Napoleon (*arresting him with a strong hand on his shoulder*). Stop. Let her come.

Voice. Giuseppe!! (*Impatiently.*)

Giuseppe. Let me go, excellency. It is my point of honour as an innkeeper to come when I am called. I appeal to you as a soldier.

A Man's Voice (*outside, at the inn door, shouting*). Here, someone. Hollo! Landlord! Where are you? (*Somebody raps vigorously with a whip handle on a bench in the passage.*)

Napoleon (*suddenly becoming the commanding officer again and throwing* GIUSEPPE off). My man at last. (*Pointing to the inner door*) Go. Attend to your business: the lady is calling you. (*He goes to the fireplace and stands with his back to it with a determined military air.*)

Giuseppe (*with bated breath, snatching up his tray*). Certainly, excellency. (*He hurries out by the inner door.*)

The Man's Voice (*impatiently*). Are you all asleep here?

The other door is kicked rudely open. A dusty sub-lieutenant bursts into the room. He is a tall chuckle-headed young man of 24, with the complexion and style of a man of rank, and a self-assurance on that ground which the French Revolution has failed to shake in the smallest degree. He has a thick silly lip, an eager credulous eye, an obstinate nose, and a loud confident voice. A young man without fear, without reverence, without imagination, without sense, hopelessly insusceptible to the Napoleonic or any other idea, stupendously egotistical, eminently qualified to rush in where angels fear to

tread, yet of a vigorous babbling vitality which bustles him into the thick of things. He is just now boiling with vexation, attributable by a superficial observer to his impatience at not being promptly attended to by the staff of the inn, but in which a more discerning eye can perceive a certain moral depth, indicating a more permanent and momentous grievance. On seeing NAPOLEON, *he is sufficiently taken aback to check himself and salute; but he does not betray by his manner any of that prophetic consciousness of Marengo and Austerlitz, Waterloo and St. Helena, or the Napoleonic pictures of Delaroche and Meissonier, which later ages expect from him.*

Napoleon (*watch in hand*). Well, sir, you have come at last. Your instructions were that I should arrive here at six, and find you waiting for me with my mail from Paris and with despatches. It is now twenty minutes to eight. You were sent on this service as a hard rider with the fastest horse in the camp. You arrive a hundred minutes late, on foot. Where is your horse?

The Lieutenant (*moodily pulling of his gloves and dashing them with his cap and whip on the table*). Ah! where indeed? That's just what I should like to know, General. (*With emotion*) You don't know how fond I was of that horse.

Napoleon (*angrily sarcastic*). Indeed! (*With sudden misgiving*) Where are the letters and despatches?

The Lieutenant (*importantly, rather pleased than otherwise at having some remarkable news)*. I don't know.

Napoleon (*unable to believe his ears*). You don't know!

Lieutenant. No more than you do, General. Now I suppose I shall be court-martialled. Well, I don't mind being court-martialled; but (*with solemn determination*) I tell you, General, if ever I catch that innocent-looking youth, I'll spoil his beauty, the slimy little liar! I'll make a picture of him. I'll–

Napoleon (*advancing from the hearth to the table*). What innocent-looking youth? Pull yourself together, sir, will you; and give an account of yourself.

Lieutenant (*facing him at the opposite side of the table, leaning on it with his fists*). Oh, I'm all right, General: I'm perfectly ready to give an account of myself. I shall make the court-martial thoroughly understand that the fault was not mine. Advantage has been taken of the better side of my nature; and I'm not ashamed of it. But with all respect to you as my commanding officer, General, I say again that if ever I set eyes on that son of Satan, I'll–

Napoleon (*angrily*). So you said before.

Lieutenant (*drawing himself upright*). I say it again. Just wait until I catch him. Just wait: that's all. (*He folds his arms resolutely, and breathes hard, with compressed lips.*)

Napoleon. I am waiting, sir. For your explanation.

Lieutenant (*confidently*). You'll change your tone, General, when you hear what has happened to me.

Napoleon. Nothing has happened to you, sir: you are alive and not disabled. Where are the papers entrusted to you?

Lieutenant. Nothing happened to me! Nothing!! He swore eternal brotherhood with me. Was that nothing? He said my eyes reminded him of his sister's eyes. Was that nothing? He cried—actually cried—over the story of my separation from Angelica. Was that nothing? He paid for both bottles of wine, though he only ate bread and grapes himself. Perhaps you call that nothing. He gave me his pistols and his horse and his despatches—most important despatches—and let me go away with them. (*Triumphantly, seeing that he has reduced* NAPOLEON *to blank stupefaction*) Was that nothing?

Napoleon (*enfeebled by astonishment*). What did he do that for?

Lieutenant (*as if the reason were obvious*). To show his confidence in me, of course. (NAPOLEON'S *jaw does not exactly drop; but its hinges become nerveless.*) And I was worthy of his confidence: I brought them all back honourably. But would you believe it? when I trusted him with my pistols, and my horse, and my despatches—

Napoleon. What the devil did you do that for?

Lieutenant. I'm telling you: to show my confidence in him. And he betrayed it! abused it! never came back again! The thief! the swindler! the heartless treacherous little blackguard! You call that nothing, I suppose. But look here, General (*again resorting to the table with his fists for greater emphasis*): you may put up with this outrage from the Austrians if you like; but speaking for myself personally, I tell you that if ever I catch—

Napoleon (*turning on his heel in disgust and irritably resuming his march to and fro*). Yes: you have said that more than once already.

Lieutenant (*excitedly*). More than once! I'll say it fifty times; and what's more, I'll do it. You'll see, General. I'll show my confidence in him, so I will. I'll—

Napoleon. Yes, yes, sir: no doubt you will. What kind of man was he?

Lieutenant. Well, I should think you ought to be able to tell from his conduct the kind of man he was.

Napoleon. Psha! What was he like?

Lieutenant. Like! He was like–well, you ought to have just seen the fellow: that will give you a notion of what he was like. He won't be like it five minutes after I catch him; for I tell you that if ever–

Napoleon (*shouting furiously for the innkeeper*). Giuseppe! (*To the* LIEUTENANT, *out of all patience*) Hold your tongue, sir, if you can.

Lieutenant (*plaintively*). I warn you it's no use trying to put the blame on me. How was I to know the sort of fellow he was? (*He takes a chair from between the sideboard and the outer door; places it near the table; and sits down.*) If you only knew how hungry and tired I am, you'd have more consideration.

Giuseppe (*returning*). What is it, excellency?

Napoleon (*struggling with his temper*). Take this–this officer. Feed him; and put him to bed, if necessary. When he is in his right mind again, find out what has happened to him and bring me word. (*To the* LIEUTENANT) Consider yourself under arrest, sir.

Lieutenant (*with sulky stiffness*). I was prepared for that. It takes a gentleman to understand a gentleman. (*He throws his sword on the table.*)

Giuseppe (*with sympathetic concern*). Have you been attacked by the Austrians, Lieutenant? Dear! dear! dear!

Lieutenant (*contemptuously*). Attacked! I could have broken his back between my finger and thumb. I wish I had, now. No: it was by appealing to the better side of my nature: that's what I can't get over. He said he'd never met a man he liked so much as me. He put his handkerchief round my neck because a gnat bit me, and my stock was chafing it. Look! (*He pulls a handkerchief from his stock.* GIUSEPPE *takes it and examines it.*)

Giuseppe (*to* NAPOLEON). A lady's handkerchief, excellency. (*He smells it.*) Perfumed.

Napoleon. Eh? (*He takes it and looks at it attentively.*) Hm! (*He smells it.*) Ha! (*He walks thoughtfully across the room, looking at the hankkerchief, which he finally sticks in the breast of his coat.*)

Lieutenant. Good enough for him, anyhow. I noticed that he had a woman's hands when he touched my neck, with his coaxing fawning ways, the mean effeminate little hound. (*Lowering his voice with thrilling intensity*) But mark my words, General. If ever–

The Lady's Voice (*outside, as before*). Giuseppe!

Lieutenant (*petrified*). What was that?

Giuseppe. Only a lady upstairs, Lieutenant, calling me.

Lieutenant. Lady!

Voice. Giuseppe, Giuseppe: where are you?

Lieutenant (*murderously*). Give me that sword. (*He snatches up the sword and draws it.*)

Giuseppe (rushing forward and seizing his right arm). What are you thinking of, Lieutenant? It's a lady: don't you hear? It's a woman's voice.

Lieutenant. It's his voice, I tell you. Let me go. (*He breaks away, and rushes to the edge of the veranda, where he posts himself, sword in hand, watching the door like a cat watching a mousehole.*)

It opens; and the STRANGE LADY *steps in. She is tall and extraordinarily graceful, with a delicately intelligent, apprehensive, questioning face: perception in the brow, sensitiveness in the nostrils, character in the chin: all keen, refined, and original. She is very feminine, but by no means weak: the lithe tender figure is hung on a strong frame: the hands and feet, neck and shoulders, are useful vigorous members, of full size in proportion to her stature, which perceptibly exceeds that of* NAPOLEON *and the innkeeper, and leaves her at no disadvantage with the* LIEUTENANT. *Only, her elegance and radiant charm keep the secret of her size and strength. She is not, judging by her dress, an admirer of the latest fashions of the Directory; or perhaps she uses up her old dresses for travelling. At all events she wears no jacket with extravagant lapels, no Graeco-Tallien sham chiton, nothing, indeed, that the Princesse de Lamballe might not have worn. Her dress of flowered silk is long-waisted, with a Watteau pleat behind, but with the panniers reduced to mere rudiments, as she is too tall for them. It is cut low in the neck, where it is eked out by a creamy fichu. She is fair, with golden-brown hair and grey eyes.*

She enters with the self-possession of a woman accustomed to the privileges of rank and beauty. The innkeeper, who has excellent natural manners, is highly appreciative of her. NAPOLEON *is smitten self-conscious. His colour deepens: he becomes stiffer and less at ease than before. She is advancing in an infinitely well-bred manner to pay her respects to him when the* LIEUTENANT *pounces on her and seizes her right wrist. As she recognizes him, she becomes deadly pale. There is no mistaking her expression: a revelation of some fatal error, utterly unexpected, has suddenly appalled her in the midst of tranquillity, security, and victory. The next moment a wave of angry colour rushes up from beneath the creamy fichu and drowns her*

whole face. One can see that she is blushing all over her body. Even the LIEUTENANT, *ordinarily incapable of observation, can see a thing when it is painted red for him. Interpreting the blush as the involuntary confession of black deceit confronted with its victim, he addresses her in a loud crow of retributive triumph.*

Lieutenant. So I've got you, my lad. So you've disguised yourself, have you? (*In a voice of thunder, releasing her wrist*) Take off that skirt.

Giuseppe (*remonstrating*). Oh, Lieutenant!

Lady (*affrighted, but highly indignant at his having dared to touch her*). Gentlemen: I appeal to you. (*To* NAPOLEON) You, sir, are an officer: a general. You will protect me, will you not?

Lieutenant. Never you mind him, General. Leave me to deal with him.

Napoleon. With him! With whom, sir? Why do you treat this lady in such a fashion?

Lieutenant. Lady! He's a man! the man I showed my confidence in. (*Raising his sword*) Here, you–

Lady (*running behind* NAPOLEON *and in her agitation clasping to her breast the arm which he extends before her as a fortification*). Oh, thank you, General. Keep him away.

Napoleon. Nonsense, sir. This is certainly a lady (*she suddenly drops his arm and blushes again*)*;* and you are under arrest. Put down your sword, sir, instantly.

Lieutenant. General: I tell you he's an Austrian spy. He passed himself off on me as one of General Masséna's staff this afternoon; and now he's passing himself off on you as a woman. Am I to believe my own eyes or not?

Lady. General: it must be my brother. He is on General Masséna's staff. He is very like me.

Lieutenant (*his mind giving way*). Do you mean to say that you're not your brother, but your sister? the sister who was so like me? who had my beautiful blue eyes? It's a lie: your eyes are not like mine: they're exactly like your own.

Napoleon (*with contained exasperation*). Lieutenant: will you obey my orders and leave the room, since you are convinced at last that this is no gentleman?

Lieutenant. Gentleman! I should think not. No gentleman would have abused my confid–

Napoleon (*out of all patience*). That will do, sir: do you hear? Will you leave the room? I order you to leave the room.

Lady. Oh pray let me go instead.

Napoleon (*dryly*). Excuse me, madam. With all possible respect for your brother, I do not yet understand what an officer on General Masséna's staff wants with my letters. I have some questions to put to you.

Giuseppe (*discreetly*). Come, Lieutenant. (*He opens the door.*)

Lieutenant. I'm off. General: take warning by me: be on your guard against the better side of your nature. (*To the lady*) Madam: my apologies. I thought you were the same person, only of the opposite sex; and that naturally misled me.

Lady (*recovering her good humour*). It was not your fault, was it? I'm so glad you're not angry with me any longer, Lieutenant. (*She offers her hand.*)

Lieutenant (*bending gallantly to kiss it*). Oh, madam, not the lea–(*Checking himself and looking at it*) You have your brother's hand.

And the same sort of ring!

Lady (*sweetly*). We are twins.

Lieutenant. That accounts for it. (*He kisses her hand.*) A thousand pardons. I didn't mind about the despatches at all: that's more the General's affair than mine: it was the abuse of my confidence through the better side of my nature. (*Taking his cap, gloves, and whip from the table and going*) You'll excuse my leaving you, General, I hope. Very sorry, I'm sure. (*He talks himself out of the room.* GIUSEPPE *follows him and shuts the door.*)

Napoleon (*looking after them with concentrated irritation*). Idiot!

The STRANGE LADY *smiles sympathetically. He comes frowning down the room between the table and the fireplace, all his awkwardness gone now that he is alone with her.*

Lady. How can I thank you, General, for your protection?

Napoleon (*turning on her suddenly*). My despatches: come! (*He puts out his hand for them.*)

Lady. General! (*She involuntarily puts her hands on her fichu as if to protect something there.*)

Napoleon. You tricked that blockhead out of them. You disguised yourself as a man. I want my despatches. They are there in the bosom of your dress, under your hands.

Lady (*quickly removing her hands*). Oh, how unkindly you are speaking to me! (*She takes her handkerchief from her fichu*) You frighten me. (*She touches her eyes as if to wipe away a tear.*)

Napoleon. I see you don't know me, madam, or you would save yourself the trouble of pretending to cry.

Lady (*producing an effect of smiling through her tears*). Yes, I do know you. You are the famous General Buonaparte. (*She gives the name a marked Italian pronunciation: Bwauma-parr-te.*)

Napoleon (*angrily, with the French pronunciation*). Bonaparte, madam, Bonaparte. The papers, if you please.

Lady. But I assure you–(*He snatches the handkerchief rudely.*) General! (*Indignantly.*)

Napoleon (*taking the other handkerchief from his breast*). You lent one of your handkerchiefs to my lieutenant when you robbed him. (*He looks at the two handkerchiefs.*) They match one another. (*He smells them.*) The same scent. (*He flings them down on the table.*) I am waiting for my despatches. I shall take them, if necessary, with as little ceremony as I took the handkerchief.

Lady (*in dignified reproof*). General: do you threaten women?

Napoleon (*bluntly*). Yes.

Lady (*disconcerted, trying to gain time*). But I don't understand. I–

Napoleon. You understand perfectly. You came here because your Austrian employers calculated that I was six leagues away. I am always to be found where my enemies don't expect me. You have walked into the lion's den. Come! you are a brave woman. Be a sensible one: I have no time to waste. The papers. (*He advances a step ominously.*)

Lady (*breaking down in the childish rage of impotence, and throwing herself in tears on the chair left beside the table by the* LIEUTENANT). I brave! How little you know! I have spent the day in an agony of fear. I have a pain here from the tightening of my heart at every suspicious look, every threatening movement. Do you think everyone is as brave as you? Oh, why will not you brave people do the brave things? Why do you leave them to us, who have no courage at all? I'm not brave: I shrink from violence: danger makes me miserable.

Napoleon (*interested*). Then why have you thrust yourself into danger?

Lady. Because there is no other way: I can trust nobody else. And now it is all useless: all because of you, who have no fear because you have no heart, no feeling, no–(*She breaks off, and throws herself on her knees.*) Ah, General, let me go: let me go without asking any questions. You shall have your despatches and letters: I swear it.

Napoleon (*holding out his hand*). Yes: I am waiting for them.

She gasps, daunted by his ruthless promptitude into despair of moving him by cajolery. She looks up perplexedly at him, racking her

brains for some device to outwit him. He meets her regard inflexibly.

Lady (*rising at last with a quiet little sigh*). I will get them for you. They are in my room. (*She turns to the door.*)

Napoleon. I shall accompany you, madam.

Lady (*drawing herself up with a noble air of offended delicacy*). I cannot permit you, General, to enter my chamber.

Napoleon. Then you shall stay here, madam, whilst I have your chamber searched for my papers.

Lady (*spitefully, openly giving up her plan*). You may save yourself the trouble. They are not there.

Napoleon. No: I have already told you where they are (*pointing to her breast*).

Lady (*with pretty piteousness*). General: I only want to keep one little private letter. Only one. Let me have it.

Napoleon (*cold and stern*). Is that a reasonable demand, madam?

Lady (*encouraged by his not refusing point-blank*). No; but that is why you must grant it. Are your own demands reasonable? thousands of lives for the sake of your victories, your ambitions, your destiny! And what I ask is such a little thing. And I am only a weak woman, and you a brave man. (*She looks at him with her eyes full of tender pleading, and is about to kneel to him again.*)

Napoleon (*brusquely*). Get up, get up. (*He turns moodily away and takes a turn across the room, pausing for a moment to say, over his shoulder*) You're talking nonsense; and you know it. (*She sits down submissively on the couch. When he turns and sees her despair, he feels that his victory is complete, and that he may now indulge in a little play with his victim. He comes back and sits beside her. She looks alarmed and moves a little away from him; but a ray of rallying hope beams from her eye. He begins like a man enjoying some secret joke.*) How do you know I am a brave man?

Lady (*amazed*). You! General Buonaparte (*Italian pronunciation*).

Napoleon. Yes, I, General Bonaparte (*emphasizing the French pronunciation*).

Lady. Oh, how can you ask such a question? you! who stood only two days ago at the bridge at Lodi, with the air full of death, fighting a duel with cannons across the river! (*Shuddering.*) Oh, you do brave things.

Napoleon. So do you.

Lady. I! (*With a sudden odd thought*) Oh! Are you a coward?

Napoleon (*laughing grimly and slapping his knees*). That is the one question you must never ask a soldier. The sergeant asks after the recruit's height, his age, his wind, his limb, but never after his courage.

Lady (*as if she had found it no laughing matter*). Ah, you can laugh at fear. Then you don't know what fear is.

Napoleon. Tell me this. Suppose you could have got that letter by coining to me over the bridge at Lodi the day before yesterday! Suppose there had been no other way, and that this was a sure way–if only you escaped the cannon! (*She shudders and covers her eyes for a moment with her hands*.) Would you have been afraid?

Lady. Oh, horribly afraid, agonizingly afraid. (*She presses her hands on her heart*.) It hurts only to imagine it.

Napoleon (*inflexibly*). Would you have come for the despatches?

Lady (*overcome by the imagined horror*). Don't ask me. I must have come.

Napoleon. Why?

Lady. Because I must. Because there would have been no other way.

Napoleon (*with conviction*). Because you would have wanted my letter enough to bear your fear. (*He rises suddenly, and deliberately poses for an oration*.) There is only one universal passion: fear. Of all the thousand qualities a man may have, the only one you will find as certainly in the youngest drummer boy in my army as in me is fear. It is fear that makes men fight: it is indifference that makes them run away: fear is the mainspring of war. Fear! I know fear well, better than you, better than any woman. I once saw a regiment of good Swiss soldiers massacred by a mob in Paris because I was afraid to interfere: I felt myself a coward to the tips of my toes as I looked on at it. Seven months ago I revenged my shame by pounding that mob to death with cannon balls. Well, what of that? Has fear ever held a man back from anything he really wanted–or a woman either? Never. Come with me; and I will show you twenty thousand cowards who will risk death every day for the price of a glass of brandy. And do you think there are no women in the army braver than the men, though their lives are worth more? Psha! I think nothing of your fear or your bravery. If you had had to come across to me at Lodi, you would not have been afraid: once on the bridge, every other feeling would have gone down before the necessity–the necessity–for making your way to my side and getting what you wanted.

And now, suppose you had done all this! suppose you had come safely out with that letter in your hand, knowing that when the hour

came, your fear had tightened, not your heart, but your grip of your own purpose! that it had ceased to be fear, and had become strength, penetration, vigilance, iron resolution! how would you answer then if you were asked whether you were a coward?

Lady (*rising*). Ah, you are a hero, a real hero.

Napoleon. Pooh! there's no such thing as a real hero. (*He strolls about the room, making light of her enthusiasm, but by no means displeased with himself for having evoked it.*)

Lady. Ah yes, there is. There is a difference between what you call my bravery and yours. You wanted to win the Battle of Lodi for yourself and not for anyone else, didn't you?

Napoleon. Of course. (*Suddenly recollecting himself*) Stop: no (*He pulls himself piously together, and says, like a man conducting a religious service*) I am only the servant of the French Republic, following humbly in the footsteps of the heroes of classical antiquity. I win battles for humanity: for my country, not for myself.

Lady (*disappointed*). Oh, then you are only a womanish hero after all. (*She sits down again, all her enthusiasm gone.*)

Napoleon (*greatly astonished*). Womanish!

Lady (*listlessly*). Yes, like me. (*With deep melancholy*) Do you think that if I wanted those despatches only for myself, I dare venture into a battle for them? No: if that were all, I should not have the courage to ask to see you at your hotel, even. My courage is mere slavishness: it is of no use to me for my own purposes. It is only through love, through pity, through the instinct to save and protect someone else that I can do the things that terrify me.

Napoleon (*contemptuously*). Pshaw! (*He turns slightingly away from her.*)

Lady. Aha! now you see that I'm not really brave. (*Relapsing into petulant listlessness*) But what right have you to despise me if you only win your battles for others? for your country! through patriotism! That is what I call womanish: it is so like a Frenchman!

Napoleon (*furiously*). I am no Frenchman.

Lady (*innocently*). I thought you said you won the Battle of Lodi for your country, General Bu–shall I pronounce it in Italian or French?

Napoleon. You are presuming on my patience, madam. I was born a French subject, but not in France.

Lady (*affecting a marked access of interest in him*). You were not born a subject at all, I think.

Napoleon (*greatly pleased*). Eh? Eh? You think not.

Lady. I am sure of it.

Napoleon. Well, well, perhaps not. (*The self-complacency of his assent catches his own ear. He stops short, reddening. Then, composing himself into a solemn attitude, modelled on the heroes of classical antiquity, he takes a high moral tone*.) But we must not live for ourselves alone, little one. Never forget that we should always think of others, and work for others, and lead and govern them for their own good. Self-sacrifice is the foundation of all true nobility of character.

Lady (*again relaxing her attitude with a sigh*). Ah, it is easy to see that you have never tried it, General.

Napoleon (*indignantly, forgetting all about Brutus and Scipio*). What do you mean by that speech, madam?

Lady. Haven't you noticed that people always exaggerate the value of the things they haven't got? The poor think they need nothing but riches to be quite happy and good. Everybody worships truth, purity, unselfishness, for the same reason: because they have no experience of them. Oh, if they only knew!

Napoleon (*with angry derision*). If they only knew! Pray do you know?

Lady. Yes. I had the misfortune to be born good. (*Glancing up at him for a moment*) And it is a misfortune, I can tell you, General. I really am truthful and unselfish and all the rest of it; and it's nothing but cowardice; want of character; want of being really, strongly, positively oneself.

Napoleon. Ha? (*Turning to her quickly with a flash of strong interest*.)

Lady (*earnestly, with rising enthusiasm*). What is the secret of your power? Only that you believe in yourself. You can fight and conquer for yourself and for nobody else. You are not afraid of your own destiny. You teach us what we all might be if we had the will and courage; and that (*suddenly sinking on her knees before him*) is why we all begin to worship you. (*She kisses his hands*.)

Napoleon (*embarrassed*). Tut! tut! Pray rise, madam.

Lady. Do not refuse my homage: it is your right. You will be Emperor of France–

Napoleon (*hurriedly*). Take care. Treason!

Lady (*insisting*). Yes, Emperor of France; then of Europe; perhaps of the world. I am only the first subject to swear allegiance. (*Again kissing his hand*) My Emperor!

Napoleon (*overcome, raising her*). Pray! pray! No, no: this is folly. Come: be calm, be calm. (*Petting her*) There! there! my girl.

Lady (*struggling with happy tears*). Yes, I know it is an impertinence in me to tell you what you must know far better than I do. But you are not angry with me, are you?

Napoleon. Angry! No, no: not a bit, not a bit. Come: you are a very clever and sensible and interesting woman. (*He pats her on the cheek*.) Shall we be friends?

Lady (*enraptured*). Your friend! You will let me be your friend! Oh! (*She offers him both her hands with a radiant smile*.) You see: I show my confidence in you.

This incautious echo of the LIEUTENANT *undoes her.* NAPOLEON *starts: his eyes flash: he utters a yell of rage*.

Napoleon. What!!!

Lady. What's the matter?

Napoleon. Show your confidence in me! So that I may show my confidence in you in return by letting you give me the slip with the despatches, eh? Ah, Dalila, Dalila, you have been trying your tricks on me; and I have been as gross a gull as my jackass of a lieutenant. (*Menacingly*) Come: the despatches. Quick: I am not to be trifled with now.

Lady (*flying round the couch*). General–

Napoleon. Quick, I tell you. (*He passes swiftly up the middle of the room and intercepts her as she makes for the vineyard*.)

Lady (*at bay, confronting him and giving way to her temper*). You dare address me in that tone.

Napoleon. Dare!

Lady. Yes, dare. Who are you that you should presume to speak to me in that coarse way. Oh, the vile, vulgar Corsican adventurer comes out in you very easily.

Napoleon (*beside himself*). You she devil! (*Savagely*) Once more, and only once, will you give me those papers or shall I tear them from you?– by force!

Lady. Tear them from me: by force!

As he glares at her like a tiger about to spring, she crosses her arms on her breast in the attitude of a martyr. The gesture and pose instantly awaken his theatrical instinct: he forgets his rage in the desire to show her that in acting, too, she has met her match. He keeps her a moment in suspense; then suddenly clears up his countenance; puts his hands behind him with provoking coolness; looks at her up and down a couple of times; takes a pinch of snuff; wipes his

fingers carefully and puts up his handkerchief, her heroic pose becoming more and more ridiculous all the time.

Napoleon (*at last*). Well?

Lady (*disconcerted, but with her arms still crossed devotedly*). Well: what are you going to do?

Napoleon. Spoil your attitude.

Lady. You brute! (*Abandoning the attitude, she comes to the end of the couch, where she turns with her back to it, leaning against it and facing him with her hands behind her.*)

Napoleon. Ah, that's better. Now listen to me. I like you. What's more, I value your respect.

Lady. You value what you have not got, then.

Napoleon. I shall have it presently. Now attend to me. Suppose I were to allow myself to be abashed by the respect due to your sex, your beauty, your heroism, and all the rest of it! Suppose I, with nothing but such sentimental stuff to stand between these muscles of mine and those papers which you have about you, and which I want and mean to have! suppose I, with the prize within my grasp, were to falter and sneak away with my hands empty; or, what would be worse, cover up my weakness by playing the magnanimous hero, and sparing you the violence I dared not use! would you not despise me from the depths of your woman's soul? Would any woman be such a fool? Well, Bonaparte can rise to the situation and act like a woman when it is necessary. Do you understand?

The LADY, *without speaking, stands upright, and takes a packet of papers from her bosom. For a moment she has an intense impulse to dash them in his face. But her good breeding cuts her off from any vulgar method of relief. She hands them to him politely, only averting her head. The moment he takes them, she hurries across to the other side of the room; sits down; and covers her face with her hands.*

Napoleon (*gloating over the papers*). Aha! That's right. That's right. (*Before he opens them, he looks at her and says*) Excuse me. (*He sees that she is hiding her face.*) Very angry with me, eh? (*He unties the packet, the seal of which is already broken, and puts it on the table to examine its contents.*)

Lady (*quietly, taking down her hands and showing that she is not crying, but only thinking*). No. You were right. But I am sorry for you.

Napoleon (*pausing in the act of taking the uppermost paper from the packet*). Sorry for me! Why?

Lady. I am going to see you lose your honour.

Napoleon. Hm! Nothing worse than that? (*He takes up the paper*.)

Lady. And your happiness.

Napoleon. Happiness! Happiness is the most tedious thing in the world to me. Should I be what I am if I cared for happiness? Anything else?

Lady. Nothing.

Napoleon. Good.

Lady. Except that you will cut a very foolish figure in the eyes of France.

Napoleon (*quickly*). What? (*The hand unfolding the paper involuntarily stops. The* LADY *looks at him enigmatically, in tranquil silence. He throws the letter down and breaks out into a torrent of scolding*.) What do you mean? Eh? Are you at your tricks again? Do you think I don't know what these papers contain? I'll tell you, First, my information as to Beaulieu's retreat. There are only two things he can do–leather-brained idiot that he is!–shut himself up in Mantua or violate the neutrality of Venice by taking Peschiera. You are one of old Leatherbrain's spies: he has discovered that he has been betrayed, and has sent you to intercept the information at all hazards. As if that could save him from me, the old fool! The other papers are only my private letters from Paris, of which you know nothing.

Lady (*prompt and businesslike*). General: let us make a fair division. Take the information your spies have sent you about the Austrian army; and give me the Paris correspondence. That will content me.

Napoleon (*his breath taken away by the coolness of the proposal*). A fair di–(*he gasps*). It seems to me, madam, that you have come to regard my letters as your own property, of which I am trying to rob you.

Lady (*earnestly*). No: on my honour I ask for no letter of yours: not a word that has been written by you or to you. That packet contains a stolen letter: a letter written by a woman to a man: a man not her husband: a letter that means disgrace, infamy–

Napoleon. A love letter?

Lady (*bitter-sweetly*). What else but a love letter could stir up so much hate?

Napoleon. Why is it sent to me? To put the husband in my power, eh?

Lady. No, no: it can be of no use to you: I swear that it will cost you nothing to give it to me. It has been sent to you out of sheer malice: solely to injure the woman who wrote it.

Napoleon. Then why not send it to her husband instead of to me?

Lady (*completely taken aback*). Oh! (*Sinking back into the chair*) I–I don't know. (*She breaks down.*)

Napoleon. Aha! I thought so: a little romance to get the papers back. Per Bacco, I can't help admiring you. I wish I could lie like that. It would save me a great deal of trouble.

Lady (*wringing her hands*). Oh, how *I* wish I really had told you some lie! You would have believed me then. The truth is the one thing nobody will believe.

Napoleon (*with coarse familiarity, treating her as if she were a vivandière*). Capital! Capital! (*He puts his hands behind him on the table, and lifts himself on to it, sitting with his arms akimbo and his legs wide apart*) Come: I am a true Corsican in my love for stories. But I could tell them better than you if I set my mind to it. Next time you are asked why a letter compromising a wife should not be sent to her husband, answer simply that the husband wouldn't read it. Do you suppose, you goose, that a man wants to be compelled by public opinion to make a scene, to fight a duel, to break up his household, to injure his career by a scandal, when he can avoid it all by taking care not to know?

Lady (*revolted*). Suppose that packet contained a letter about your own wife?

Napoleon (*offended, coming off the table*). You are impertinent, madam.

Lady (*humbly*). I beg your pardon. Caesar's wife is above suspicion.

Napoleon (*with a deliberate assumption of superiority*). You have committed an indiscretion. I pardon you. In future, do not permit yourself to introduce real persons in your romances.

Lady (*politely ignoring a speech which is to her only a breach of good manners*). General: there really is a woman's letter there. (*Pointing to the packet*) Give it to me.

Napoleon (*with brute conciseness*). Why?

Lady. She is an old friend: we were at school together. She has written to me imploring me to prevent the letter falling into your hands.

Napoleon. Why has it been sent to me?

Lady. Because it compromises the director Barras.

Napoleon (*frowning, evidently startled*). Barras! (*Haughtily*) Take care, madam. The director Barras is my attached personal friend.

Lady (*nodding placidly*). Yes. You became friends through your wife.

Napoleon. Again! Have I not forbidden you to speak of my wife? (*She keeps looking curiously at him, taking no account of the rebuke. More and more irritated, he drops his haughty manner, of which he*

is himself somewhat impatient, and says suspiciously, lowering his voice) Who is this woman with whom you sympathize so deeply?

Lady. Oh, General! How could I tell you that?

Napoleon (*ill-humouredly, beginning to walk about again in angry perplexity*). Ay, ay: stand by one another. You are all the same, you women.

Lady (*indignantly*). We are not all the same, any more than you are. Do you think that if *I* loved another man, I should pretend to go on loving my husband, or be afraid to tell him or all the world? But this woman is not made that way. She governs men by cheating them; and they like it, and let her govern them. (*She turns her back to him in disdain.*)

Napoleon (*not attending to her*). Barras? Barras? (*Very threateningly, his face darkening*) Take care. Take care: do you hear? You may go too far.

Lady (*innocently turning her face to him*). What's the matter?

Napoleon. What are you hinting at? Who is this woman?

Lady (*meeting his angry searching gaze with tranquil indifference as she sits looking up at him*). A vain, silly, extravagant creature, with a very able and ambitious husband who knows her through and through: knows that she has lied to him about her age, her income, her social position, about everything that silly women lie about: knows that she is incapable of fidelity to any principle or any person; and yet cannot help loving her—cannot help his man's instinct to make use of her for his own advancement with Barras.

Napoleon (*in a stealthy coldly furious whisper*). This is your revenge, you she cat, for having had to give me the letters.

Lady. Nonsense! Or do you mean that you are that sort of man?

Napoleon (*exasperated, clasps his hands behind him, his fingers twitching, and says, as he walks irritably away from her to the fireplace*). This woman will drive me out of my senses. (*To her*) Begone.

Lady (*seated immovably*). Not without that letter.

Napoleon. Begone, I tell you. (*Walking from the fireplace to the vineyard and back to the table*) You shall have no letter. I don't like you. You're a detestable woman, and as ugly as Satan. I don't choose to be pestered by strange women. Be off. (*He turns his back on her. In quiet amusement, she leans her cheek on her hand and laughs at him. He turns again, angrily mocking her.*) Ha! ha! ha! What are you laughing at?

Lady. At you, General. I have often seen persons of your sex getting into

a pet and behaving like children; but I never saw a really great man do it before.

Napoleon (*brutally, flinging the words in her face*). Psha! Flattery! Flattery! Coarse, impudent flattery!

Lady (*springing up with a bright flush in her cheeks*). Oh, you are too bad. Keep your letters. Read the story of your own dishonour in them; and much good may they do you. Good-bye. (*She goes indignantly towards the inner door.*)

Napoleon. My own–! Stop. Come back. Come back, I order you. (*She proudly disregards his savagely peremptory tone and continues on her way to the door. He rushes at her; seizes her by the arm; and drags her back.*) Now, what do you mean? Explain. Explain. I tell you, or– (*Threatening her. She looks at him with unflinching defiance.*) Rrrr! you obstinate devil, you. (*Throwing her arm away*) Why can't you answer a civil question?

Lady (*deeply offended by his violence*). Why do you ask me? You have the explanation.

Napoleon. Where?

Lady (*pointing to the letters on the table*). There. You have only to read it.

He snatches the packet up; hesitates; looks at her suspiciously; and throws it down again.

Napoleon. You seem to have forgotten your solicitude for the honour of your old friend.

Lady. I do not think she runs any risk now. She does not quite understand her husband.

Napoleon. I am to read the letter, then? (*He stretches out his hand as if to take up the packet again, with his eye on her.*)

Lady. I do not see how you can very well avoid doing so now. (*He instantly withdraws his hand.*) Oh, don't be afraid. You will find many interesting things in it.

Napoleon. For instance?

Lady. For instance, a duel with Barras, a domestic scene, a broken household, a public scandal, a checked career, all sorts of things.

Napoleon. Hm! (*He looks at her; takes up the packet and looks at it, pursing his lips and balancing it in his hands; looks at her again; passes the packet into his left hand and puts it behind his back, raising his right to scratch the back of his head as he turns and goes up to the edge of the vineyard, where he stands for a moment look-*

ing out into the vines, deep in thought. The LADY *watches him in silence, somewhat slightingly. Suddenly he turns and comes back again, full of force and decision.*) I grant your request, madam. Your courage and resolution deserve to succeed. Take the letters for which you have fought so well; and remember henceforth that you found the vile vulgar Corsican adventurer as generous to the vanquished after the battle as he was resolute in the face of the enemy before it. (*He offers her the packet.*)

Lady (*without taking it, looking hard at him*). What are you at now, I wonder? (*He dashes the packet furiously to the floor.*) Aha! I've spoilt that attitude, I think. (*She makes him a pretty mocking curtsey.*)

Napoleon (*snatching it up again*). Will you take the letters and begone (*advancing and thrusting them upon her*)?

Lady (*escaping around the table*). No: I don't want your letters.

Napoleon. Ten minutes ago, nothing else would satisfy you.

Lady (*keeping the table carefully between them*). Ten minutes ago you had not insulted me beyond all bearing.

Napoleon. I–(*swallowing his spleen*) I apologize.

Lady (*coolly*). Thanks. (*With forced politeness he offers her the packet across the table. She retreats a step out of its reach and says*) But don't you want to know whether the Austrians are at Mantua or Peschiera?

Napoleon. I have already told you that I can conquer my enemies without the aid of spies, madam.

Lady. And the letter? don't you want to read that?

Napoleon. You have said that it is not addressed to me. I am not in the habit of reading other people's letters. (*He again offers the packet.*)

Lady. In that case there can be no objection to your keeping it. All I wanted was to prevent your reading it. (*Cheerfully*) Good afternoon, General. (*She turns coolly towards the inner door.*)

Napoleon (*angrily flinging the packet on the couch*). Heaven grant me patience! (*He goes determinedly to the door, and places himself before it.*) Have you any sense of personal danger? Or are you one of those women who like to be beaten black and blue?

Lady. Thank you, General: I have no doubt the sensation is very voluptuous; but I had rather not. I simply want to go home: that's all. I was wicked enough to steal your despatches; but you have got them back; and you have forgiven me, because (*delicately reproducing his rhetorical cadence*) you are as generous to the vanquished after

the battle as you are resolute in the face of the enemy before it. Won't you say good-bye to me? (*She offers her hand sweetly.*)

Napoleon (*repulsing the advance with a gesture of concentrated rage, and opening the door to call fiercely*). Giuseppe! (*Louder*) Giuseppe! (*He bangs the door to, and comes to the middle of the room. The* LADY *goes a little way into the vineyard to avoid him.*)

Giuseppe (*appearing at the door*). Excellency?

Napoleon. Where is that fool?

Giuseppe. He has had a good dinner, according to your instructions, excellency, and is now doing me the honour to gamble with me to pass the time.

Napoleon. Send him here. Bring him here. Come with him. (GIUSEPPE, *with unruffled readiness, hurries off.* NAPOLEON *turns curtly to the* LADY, *saying*) I must trouble you to remain some moments longer, madam. (*He comes to the couch.*)

She comes from the vineyard along the opposite side of the room to the sideboard, and posts herself there, leaning against it, watching him. He takes the packet from the couch and deliberately buttons it carefully into his breast pocket, looking at her meanwhile with an expression which suggests that she will soon find out the meaning of his proceedings, and will not like it. Nothing more is said until the LIEUTENANT *arrives followed by* GIUSEPPE, *who stands modestly in attendance at the table. The* LIEUTENANT, *without cap, sword, or gloves, and much improved in temper and spirits by his meal, chooses the* LADY'S *side of the room, and waits, much at his ease, for* NAPOLEON *to begin.*

Napoleon. Lieutenant.

Lieutenant (*encouragingly*). General.

Napoleon. I cannot persuade this lady to give me much information; but there can be no doubt that the man who tricked you out of your charge was, as she admitted to you, her brother.

Lieutenant (*triumphantly*). What did I tell you, General! What did I tell you!

Napoleon. You must find that man. Your honour is at stake; and the fate of the campaign, the destiny of France, of Europe, of humanity, perhaps, may depend on the information those despatches contain.

Lieutenant. Yes, I suppose they really are rather serious (*as if this had hardly occurred to him before*).

Napoleon (*energetically*). They are so serious, sir, that if you do not re-

cover them, you will be degraded in the presence of your regiment.

Lieutenant. Whew! The regiment won't like that, I can tell you.

Napoleon. Personally I am sorry for you. I would willingly hush up the affair if it were possible. But I shall be called to account for not acting on the despatches. I shall have to prove to all the world that I never received them, no matter what the consequences may be to you. I am sorry; but you see that I cannot help myself.

Lieutenant (*good-naturedly*). Oh, don't take it to heart, General: it's really very good of you. Never mind what happens to me: I shall scrape through somehow; and we'll beat the Austrians for you, despatches or no despatches. I hope you won't insist on my starting off on a wild goose chase after the fellow now. I haven't a notion where to look for him.

Giuseppe (*deferentially*). You forget, Lieutenant: he has your horse.

Lieutenant (*starting*). I forgot that. (*Resolutely*) I'll go after him, General: I'll find that horse if it's alive anywhere in Italy. And I shan't forget the despatches: never fear. Giuseppe: go and saddle one of those mangy old post-horses of yours while I get my cap and sword and things. Quick march. Off with you (*bustling him*).

Giuseppe. Instantly, Lieutenant, instantly. (*He disappears in the vineyard, where the light is now reddening with the sunset.*)

Lieutenant (*looking about him on his way to the inner door*). By the way, General, did I give you my sword or did I not? Oh, I remember now. (*Fretfully*) It's all that nonsense about putting a man under arrest: one never knows where to find—(*he talks himself out of the room*).

Lady (*still at the sideboard*). What does all this mean, General?

Napoleon. He will not find your brother.

Lady. Of course not. There's no such person.

Napoleon. The despatches will be irrecoverably lost.

Lady. Nonsense! They are inside your coat.

Napoleon. You will find it hard, I think, to prove that wild statement. (*The* LADY *starts. He adds, with clinching emphasis*) Those papers are lost.

Lady (*anxiously, advancing to the corner of the table*). And that unfortunate young man's career will be sacrificed?

Napoleon. His career! The fellow is not worth the gunpowder it would cost to have him shot. (*He turns contemptuously and goes to the hearth, where he stands with his back to her.*)

Lady (*wistfully*). You are very hard. Men and women are nothing to you but things to be used, even if they are broken in the use.

Napoleon (*turning on her*). Which of us has broken this fellow? I or you? Who tricked him out of the despatches? Did you think of his career then?

Lady (*conscience-stricken*). Oh, I never thought of that. It was wicked of me; but I couldn't help it, could I? How else could I have got the papers? (*Supplicating*) General: you will save him from disgrace.

Napoleon (*laughing sourly*). Save him yourself, since you are so clever: it was you who ruined him. (*With savage intensity*) I hate a bad soldier.

He goes out determinedly through the vineyard. She follows him a few steps with an appealing gesture, but is interrupted by the return of the LIEUTENANT, *gloved and capped, with his sword on, ready for the road. He is crossing to the outer door when she intercepts him.*

Lady. Lieutenant.

Lieutenant (*importantly*). You mustn't delay me, you know. Duty, madam, duty.

Lady (*imploringly*). Oh, sir, what are you going to do to my poor brother?

Lieutenant. Are you very fond of him?

Lady. I should die if anything happened to him. You must spare him. (*The* LIEUTENANT *shakes his head gloomily.*) Yes, yes: you must: you shall: he is not fit to die. Listen to me. If I tell you where to find him–if I undertake to place him in your hands a prisoner, to be delivered up by you to General Bonaparte–will you promise me on your honour as an officer and a gentleman not to fight with him or treat him unkindly in any way?

Lieutenant. But suppose he attacks me. He has my pistols.

Lady. He is too great a coward.

Lieutenant. I don't feel so sure about that. He's capable of anything.

Lady. If he attacks you, or resists you in any way, I release you from your promise.

Lieutenant. My promise! I didn't mean to promise. Look here: you're as bad as he is: you've taken an advantage of me through the better side of my nature. What about my horse?

Lady. It is part of the bargain that you are to have your horse and pistols back.

Lieutenant. Honour bright?

Lady. Honour bright. (*She offers her hand.*)

Lieutenant (*taking it and holding it*). All right: I'll be as gentle as a lamb with him. His sister's a very pretty woman. (*He attempts to kiss her.*)

Lady (*slipping away from him*). Oh, Lieutenant! You forget: your career is at stake—the destiny of Europe—of humanity.

Lieutenant. Oh, bother the destiny of humanity! (*Making for her*) Only a kiss.

Lady (*retreating round the table*). Not until you have regained your honour as an officer. Remember: you have not captured my brother yet.

Lieutenant (*seductively*). You'll tell me where he is, won't you?

Lady. I have only to send him a certain signal; and he will be here in quarter of an hour.

Lieutenant. He's not far off, then.

Lady. No: quite close. Wait here for him: when he gets my message he will come here at once and surrender himself to you. You understand?

Lieutenant (*intellectually overtaxed*). Well, it's a little complicated; but I daresay it will be all right.

Lady. And now, whilst you're waiting, don't you think you had better make terms with the General?

Lieutenant. Oh, look here: this is getting frightfully complicated. What terms?

Lady. Make him promise that if you catch my brother he will consider that you have cleared your character as a soldier. He will promise anything you ask on that condition.

Lieutenant. That's not a bad idea. Thank you: I think I'll try it.

Lady. Do. And mind, above all things, don't let him see how clever you are.

Lieutenant. I understand. He'd be jealous.

Lady. Don't tell him anything except that you are resolved to capture my brother or perish in the attempt. He won't believe you. Then you will produce my brother—

Lieutenant (*interrupting as he masters the plot*). And have the laugh at him! I say: what a jolly clever woman you are! (*Shouting*) Giuseppe!

Lady. Sh! Not a word to Giuseppe about me. (*She puts her finger on her lips. He does the same. They look at one another warningly. Then, with a ravishing smile, she changes the gesture into wafting him a kiss, and runs out through the inner door. Electrified, he bursts into a volley of chuckles.*)

GIUSEPPE *comes back by the outer door.*

Giuseppe. The horse is ready, Lieutenant.

Lieutenant. I'm not going just yet. Go and find the General and tell him I want to speak to him.

Giuseppe (*shaking his head*). That will never do, Lieutenant.

Lieutenant. Why not?

Giuseppe. In this wicked world a general may send for a lieutenant; but a lieutenant must not send for a general.

Lieutenant. Oh, you think he wouldn't like it. Well, perhaps you're right: one has to be awfully particular about that sort of thing now we're a republic.

NAPOLEON *reappears, advancing from the vineyard, buttoning the breast of his coat, pale and full of gnawing thoughts*.

Giuseppe (*unconscious of* NAPOLEON'S *approach*). Quite true, Lieutenant, quite true. You are all like innkeepers now in France: you have to be polite to everybody.

Napoleon (*putting his hand on* GIUSEPPE'S *shoulder*). And that destroys the whole value of politeness, eh?

Lieutenant. The very man I wanted! See here, General: suppose I catch that fellow for you!

Napoleon (*with ironical gravity*). You will not catch him, my friend.

Lieutenant. Aha! you think so; but you'll see. Just wait. Only, if I do catch him and hand him over to you, will you cry quits? Will you drop all this about degrading me in the presence of my regiment? Not that *I* mind, you know; but still no regiment likes to have all the other regiments laughing at it.

Napoleon (*a cold ray of humour striking pallidly across his gloom*). What shall we do with this officer, Giuseppe? Everything he says is wrong.

Giuseppe (*promptly*). Make him a general, excellency; and then everything he says will be right.

Lieutenant (*crowing*). Haw-aw! (*He throws himself ecstatically on the couch to enjoy the joke*.)

Napoleon (*laughing and pinching* GIUSEPPE'S *ear*). You are thrown away in this inn, Giuseppe. (*He sits down and places* GIUSEPPE *before him like a schoolmaster with a pupil*.) Shall I take you away with me and make a man of you?

Giuseppe (*shaking his head rapidly and repeatedly*). No no no no no no no. All my life long people have wanted to make a man of me. When I was a boy, our good priest wanted to make a man of me by teaching me to read and write. Then the organist at Melegnano wanted to make a man of me by teaching me to read music. The

recruiting sergeant would have made a man of me if I had been a few inches taller. But it always meant making me work; and I am too lazy for that, thank Heaven! So I taught myself to cook and became an innkeeper; and now I keep servants to do the work, and have nothing to do myself except talk, which suits me perfectly.

Napoleon (*looking at him thoughtfully*). You are satisfied?

Giuseppe (*with cheerful conviction*). Quite, excellency.

Napoleon. And you have no devouring devil inside you who must be fed with action and victory: gorged with them night and day: who makes you pay, with the sweat of your brain and body, weeks of Herculean toil for ten minutes of enjoyment: who is at once your slave and your tyrant, your genius and your doom: who brings you a crown in one hand and the oar of a galley slave in the other: who shows you all the kingdoms of the earth and offers to make you their master on condition that you become their servant! have you nothing of that in you?

Giuseppe. Nothing of it! Oh, I assure you, excellency, my devouring devil is far worse than that. He offers me no crowns and kingdoms: he expects to get everything for nothing: sausages! omelettes! grapes! cheese! polenta! wine! three times a day, excellency: nothing less will content him.

Lieutenant. Come: drop it, Giuseppe: you're making me feel hungry again.

GIUSEPPE, *with an apologetic shrug, retires from the conversation.*

Napoleon (*turning to the* LIEUTENANT *with sardonic politeness*). I hope *I* have not been making you feel ambitious.

Lieutenant. Not at all: I don't fly so high. Besides, I'm better as I am: men like me are wanted in the army just now. The fact is, the Revolution was all very well for civilians; but it won't work in the army. You know what soldiers are, General: they will have men of family for their officers. A subaltern must be a gentleman, because he's so much in contact with the men. But a general, or even a colonel, may be any sort of riff-raff if he understands his job well enough. A lieutenant is a gentleman: all the rest is chance. Why, who do you suppose won the Battle of Lodi? I'll tell you. My horse did.

Napoleon (*rising*). Your folly is carrying you too far, sir. Take care.

Lieutenant. Not a bit of it. You remember all that red-hot cannonade across the river: the Austrians blazing away at you to keep you from crossing, and you blazing away at them to keep them from

setting the bridge on fire? Did you notice where I was then?

Napoleon. I am sorry. I am afraid I was rather occupied at the moment.

Giuseppe (*with eager admiration*). They say you jumped off your horse and worked the big guns with your own hands, General.

Lieutenant. That was a mistake: an officer should never let himself down to the level of his men. (NAPOLEON *looks at him dangerously, and begins to walk tigerishly to and fro*.) But you might have been firing away at the Austrians still if we cavalry fellows hadn't found the ford and got across and turned old Beaulieu's flank for you. You know you didn't dare give the order to charge the bridge until you saw us on the other side. Consequently, I say that whoever found that ford won the Battle of Lodi. Well, who found it? I was the first man to cross; and I know. It was my horse that found it. (*With conviction, as he rises from the couch*) That horse is the true conqueror of the Austrians.

Napoleon (*passionately*). You idiot: I'll have you shot for losing those despatches: I'll have you blown from the mouth of a cannon: nothing less could make any impression on you. (*Baying at him*) Do you hear? Do you understand?

A French officer enters unobserved, carrying his sheathed sabre in his hand.

Lieutenant (*unabashed*). If I don't capture him, General. Remember the if.

Napoleon. If!! Ass: there is no such man.

The Officer (*suddenly stepping between them and speaking in the unmistakable voice of the* STRANGE LADY). Lieutenant: I am your prisoner. (*She offers him her sabre*.)

NAPOLEON *gazes at her for a moment thunderstruck; then seizes her by the wrist and drags her roughly to him, looking closely and fiercely at her to satisfy himself as to her identity; for it now begins to darken rapidly into night, the red glow over the vineyard giving way to clear starlight.*

Napoleon. Pah! (*He flings her hand away with an exclamation of disgust, and turns his back on them with his hand in his breast, his brow lowering, and his toes twitching*.)

Lieutenant (*triumphantly, taking the sabre*). No such man! eh, General? (*To the* LADY) I say: where's my horse?

Lady. Safe at Borghetto, waiting for you, Lieutenant.

Napoleon (*turning on them*). Where are the despatches?

Lady. You would never guess. They are in the most unlikely place in the world. Did you meet my sister here, any of you?

Lieutenant. Yes. Very nice woman. She's wonderfully like you; but of course she's better looking.

Lady (*mysteriously*). Well, do you know that she is a witch?

Giuseppe (*in terror, crossing himself*). Oh, no, no, no. It is not safe to jest about such things. I cannot have it in my house, excellency.

Lieutenant. Yes, drop it. You're my prisoner, you know. Of course I don't believe in any such rubbish; but still it's not a proper subject for joking.

Lady. But this is very serious. My sister has bewitched the General. (GIUSEPPE *and the* LIEUTENANT *recoil from* NAPOLEON.) General: open your coat: you will find the despatches in the breast of it. (*She puts her hand quickly on his breast*.) Yes: there they are: I can feel them. Eh? (*She looks up into his face half coaxingly, half mockingly*.) Will you allow me, General? (*She takes a button as if to unbutton his coat, and pauses for permission*.)

Napoleon (*inscrutably*). If you dare.

Lady. Thank you. (*She opens his coat and takes out the despatches*.) There! (*To* GIUSEPPE, *showing him the despatches*) See!

Giuseppe (*flying to the outer door*). No, in heaven's name! They're bewitched.

Lady (*turning to the* LIEUTENANT). Here, Lieutenant: you are not afraid of them.

Lieutenant (*retreating*). Keep off. (*Seizing the hilt of the sabre*) Keep off, I tell you.

Lady (*to* NAPOLEON). They belong to you, General. Take them.

Giuseppe. Don't touch them, excellency. Have nothing to do with them.

Lieutenant. Be careful, General: be careful.

Giuseppe. Burn them. And burn the witch too.

Lady (*to* NAPOLEON). Shall I burn them?

Napoleon (*thoughtfully*). Yes, burn them. Giuseppe: go and fetch a light.

Giuseppe (*trembling and stammering*). Do you mean go alone? in the dark? with a witch in the house?

Napoleon. Psha! You're a poltroon. (*To the* LIEUTENANT) Oblige me by going, Lieutenant.

Lieutenant (*remonstrating*). Oh, I say, General! No, look here, you know: nobody can say I'm a coward after Lodi. But to ask me to go into the dark by myself without a candle after such an awful conversation is a little too much. How would you like to do it yourself?

Napoleon (*irritably*). You refuse to obey my order?

Lieutenant (*resolutely*). Yes I do. It's not reasonable. But I'll tell you what I'll do. If Giuseppe goes, I'll go with him and protect him.

Napoleon (*to* GIUSEPPE). There! will that satisfy you? Be off, both of you.

Giuseppe (*humbly, his lips trembling*). W-willingly, your excellency. (*He goes reluctantly towards the inner door.*) Heaven protect me! (*To the* LIEUTENANT) After you, Lieutenant.

Lieutenant. You'd better go first: I don't know the way.

Giuseppe. You can't miss it. Besides (*imploringly, laying his hand on his sleeve*) I am only a poor innkeeper: you are a man of family.

Lieutenant. There's something in that. Here: you needn't be in such a fright. Take my arm. (GIUSEPPE *does so.*) That's the way. (*They go out, arm in arm.*)

It is now starry night. The LADY *throws the packet on the table and seats herself at her ease on the couch, enjoying the sensation of freedom from petticoats.*

Lady. Well, General: I've beaten you.

Napoleon (walking about). You are guilty of indelicacy: of unwomanliness. Is that costume proper?

Lady. It seems to me much the same as yours.

Napoleon. Psha! I blush for you.

Lady (*naïvely*). Yes: soldiers blush so easily. (*He growls and turns away. She looks mischievously at him, balancing the despatches in her hand.*) Wouldn't you like to read these before they're burnt, General? You must be dying with curiosity. Take a peep. (*She throws the packet on the table, and turns her face away from it.*) I won't look.

Napoleon. I have no curiosity whatever, madam. But since you are evidently burning to read them, I give you leave to do so.

Lady. Oh, I've read them already.

Napoleon (*starting*). What!

Lady. I read them the first thing after I rode away on that poor lieutenant's horse. So you see I know what's in them; and you don't.

Napoleon. Excuse me: I read them when I was out there in the vineyard ten minutes ago.

Lady. Oh! (*Jumping up*) Oh, General: I've not beaten you after all. I do admire you so. (*He laughs and pats her cheek.*) This time, really and truly without shamming, I do you homage (*kissing his hand*).

Napoleon (*quickly withdrawing it*). Brr! Don't do that. No more witchcraft.

Lady. I want to say something to you; only you would misunderstand it.

Napoleon. Need that stop you?

Lady. Well, it is this. I adore a man who is not afraid to be mean and selfish.

Napoleon (*indignantly*). I am neither mean nor selfish.

Lady. Oh, you don't appreciate yourself. Besides, I don't really mean meanness and selfishness.

Napoleon. Thank you. I thought perhaps you did.

Lady. Well, of course I do. But what I mean is a certain strong simplicity about you.

Napoleon. That's better.

Lady. You didn't want to read the letters; but you were curious about what was in them. So you went into the garden and read them when no one was looking, and then came back and pretended you hadn't. That's the meanest thing I ever knew any man do; but it exactly fulfilled your purpose; and so you weren't a bit afraid or ashamed to do it.

Napoleon (*abruptly*). Where did you pick up all these vulgar scruples? this (*with contemptuous emphasis*) conscience of yours? I took you for a lady: an aristocrat. Was your grandfather a shopkeeper, pray?

Lady. No: he was an Englishman.

Napoleon. That accounts for it. The English are a nation of shopkeepers. Now I understand why you've beaten me.

Lady. Oh, I haven't beaten you. And I'm not English.

Napoleon. Yes you are: English to the backbone. Listen to me: I will explain the English to you.

Lady (*eagerly*). Do. (*With a lively air of anticipating an intellectual treat, she sits down on the couch and composes herself to listen to him. Secure of his audience, he at once nerves himself for a performance. He considers a little before he begins; so as to fix her attention by a moment of suspense. His style is at first modelled on Talma's in Corneille's* Cinna; *but it is somewhat lost in the darkness, and Talma presently gives way to* NAPOLEON, *the voice coming through the gloom with startling intensity.*)

Napoleon. There are three sorts of people in the world: the low people, the middle people, and the high people. The low people and the high people are alike in one thing: they have no scruples, no morality. The low are beneath morality, the high above it. I am not afraid of either of them; for the low are unscrupulous without knowledge, so that they make an idol of me; whilst the high are unscrupulous with-

out purpose, so that they go down before my will. Look you: I shall go over all the mobs and all the courts of Europe as a plough goes over a field. It is the middle people who are dangerous: they have both knowledge and purpose. But they, too, have their weak point. They are full of scruples: chained hand and foot by their morality and respectability.

Lady. Then you will beat the English; for all shopkeepers are middle people.

Napoleon. No, because the English are a race apart. No Englishman is too low to have scruples: no Englishman is high enough to be free from their tyranny. But every Englishman is born with a certain miraculous power that makes him master of the world. When he wants a thing, he never tells himself that he wants it. He waits patiently until there comes into his mind, no one knows how, a burning conviction that it is his moral and religious duty to conquer those who possess the thing he wants. Then he becomes irresistible. Like the aristocrat, he does what pleases him and grabs what he covets: like the shopkeeper, he pursues his purpose with the industry and steadfastness that come from strong religious conviction and deep sense of moral responsibility. He is never at a loss for an effective moral attitude. As the great champion of freedom and national independence, he conquers and annexes half the world, and calls it Colonization. When he wants a new market for his adulterated Manchester goods, he sends a missionary to teach the natives the Gospel of Peace. The natives kill the missionary: he flies to arms in defence of Christianity; fights for it; conquers for it; and takes the market as a reward from heaven. In defence of his island shores, he puts a chaplain on board his ship; nails a flag with a cross on it to his topgallant mast; and sails to the end of the earth, sinking, burning, and destroying all who dispute the empire of the seas with him. He boasts that a slave is free the moment his foot touches British soil; and he sells the children of his poor at six years of age to work under the lash in his factories for sixteen hours a day. He makes two revolutions, and then declares war on our one in the name of law and order. There is nothing so bad or so good that you will not find Englishmen doing it; but you will never find an Englishman in the wrong. He does everything on principle. He fights you on patriotic principles; he robs you on business principles; he enslaves you on imperial principles; he bullies you on manly principles; he supports his king on loyal principles and cuts off his king's head on republican principles. His watchword is always

Duty; and he never forgets that the nation which lets its duty get on the opposite side to its interest is lost. He–

Lady. W-w-w-w-w-wh! Do stop a moment. I want to know how you make me out to be English at this rate.

Napoleon (*dropping his rhetorical style*). It's plain enough. You wanted some letters that belonged to me. You have spent the morning in stealing them: yes, stealing them, by highway robbery. And you have spent the afternoon in putting me in the wrong about them: in assuming that it was *I* who wanted to steal your letters: in explaining that it all came about through my meanness and selfishness, and your goodness, your devotion, your self-sacrifice. That's English.

Lady. Nonsense! I am sure I am not a bit English. The English are a very stupid people.

Napoleon. Yes, too stupid sometimes to know when they're beaten. But I grant that your brains are not English. You see, though your grandfather was an Englishman, your grandmother was–what? A Frenchwoman?

Lady. Oh no. An Irishwoman.

Napoleon (*quickly*). Irish! (*Thoughtfully*) Yes: I forgot the Irish. An English army led by an Irish general: that might be a match for a French army led by an Italian general. (*He pauses, and adds, half jestingly, half moodily*) At all events, you have beaten me; and what beats a man first will beat him last. (*He goes meditatively into the moonlit vineyard and looks up.*)

She steals out after him. She ventures to rest her hand on his shoulder, overcome by the beauty of the night and emboldened by its obscurity.

Lady (*softly*). What are you looking at?

Napoleon (*pointing up*). My star.

Lady. You believe in that?

Napoleon. I do.

They look at it for a moment, she leaning a little on his shoulder.

Lady. Do you know that the English say that a man's star is not complete without a woman's garter?

Napoleon (*scandalized: abruptly shaking her off and coming back into the room*). Pah! The hypocrites! If the French said that, how they would hold up their hands in pious horror! (*He goes to the inner door and holds it open, shouting*) Hallo! Giuseppe! Where's that light, man? (*He comes between the table and the sideboard, and moves*

the second chair to the table, beside his own.) We have still to burn the letter. (*He takes up the packet.*)

GIUSEPPE *comes back, pale and still trembling, carrying in one hand a branched candlestick with a couple of candles alight, and a broad snuffers tray in the other.*

Giuseppe (*piteously, as he places the light on the table*). Excellency: what were you looking up at just now? Out there! (*He points across his shoulder to the vineyard, but is afraid to look round.*)

Napoleon (*unfolding the packet*). What is that to you?

Giuseppe. Because the witch is gone: vanished; and no one saw her go out.

Lady (*coming behind him from the vineyard*). We were watching her riding up to the moon on your broomstick, Giuseppe. You will never see her again.

Giuseppe. Gesu Maria! (*He crosses himself and hurries out.*)

Napoleon (*throwing down the letters in a heap on the table)*. Now! (*He sits down at the table in the chair which he has just placed.*)

Lady. Yes; but you know you have THE letter in your pocket. (*He smiles; takes a letter from his pocket; and tosses it on top of the heap. She holds it up and looks at him, saying*) About Caesar's wife.

Napoleon. Caesar's wife is above suspicion. Burn it.

Lady (*taking up the snuffers and holding the letter to the candle flame with them*). I wonder would Caesar's wife be above suspicion if she saw us here together!

Napoleon (*echoing her, with his elbows on the table and his cheeks on his hands, looking at the letter*). I wonder!

The STRANGE LADY *puts the letter down alight on the snuffers tray, and sits down beside* NAPOLEON, *in the same attitude, elbows on table, cheeks on hands, watching it burn. When it is burnt, they simultaneously turn their eyes and look at one another. The curtain steals down and hides them.*

John M. Synge

1871–1909

John Millington Synge was born near Dublin, on April 16, 1871. He was educated at Trinity College, Dublin, and went to Germany, where he studied music. Later he settled in Paris with the young writers there and eked out a living writing literary criticism.

The turning point in Synge's life came when he met a fellow Irishman, William Butler Yeats, in Paris. Yeats took an interest in the young man, and became convinced that he would be a better writer if he gave up imitating the Paris literary fashions and became a truly Irish author. Yeats persuaded Synge, in 1893, to leave Paris and go to the Aran Islands to live the simple life of the Irish peasants there. This he did, soaking up the sound of the islanders' speech and the substance of their legends.

Yeats describes the young writer: "He was a solitary, undemonstrative man, never asking pity, nor complaining, nor seeking sympathy . . . all folded up in brooding intellect, knowing nothing of new books and newspapers, reading the great masters alone."

Synge's sketches about the islanders were collected in *The Aran Islands* (1907). He spent the rest of his short life writing the plays of Irish peasant life for which he has become famous. His first two, *The Shadow of the Glen* (1903) and *Riders to the Sea* (1904), were produced by the Irish National Theatre Society. This group organized the famous Abbey Theatre in 1904. Synge, Yeats, and Lady Gregory were the directors. When Synge's *The Playboy of the Western World* was presented there, the audience rioted in anger at what they understood to be Synge's criticism of Ireland. The play later helped make the Abbey Theatre world renowned.

Synge's poetry was collected in *Poems and Translations* (1909),

and he had nearly completed his last play, *Deirdre of the Sorrows,* when he died in Dublin on March 24, 1909.

Yeats wrote that Synge, like Shakespeare and other great playwrights, had a delight in language and a preoccupation with individual life. Another way of putting it is that Synge's plays are, at the same time, poetic and realistic. These traits were the ones most highly valued in the Irish dramatic renaissance that was inspired and promoted by Yeats and the Irish Literary Theatre. Other Irish writers, including Yeats himself, had one or the other characteristic to a high degree. Synge mastered and mingled the two.

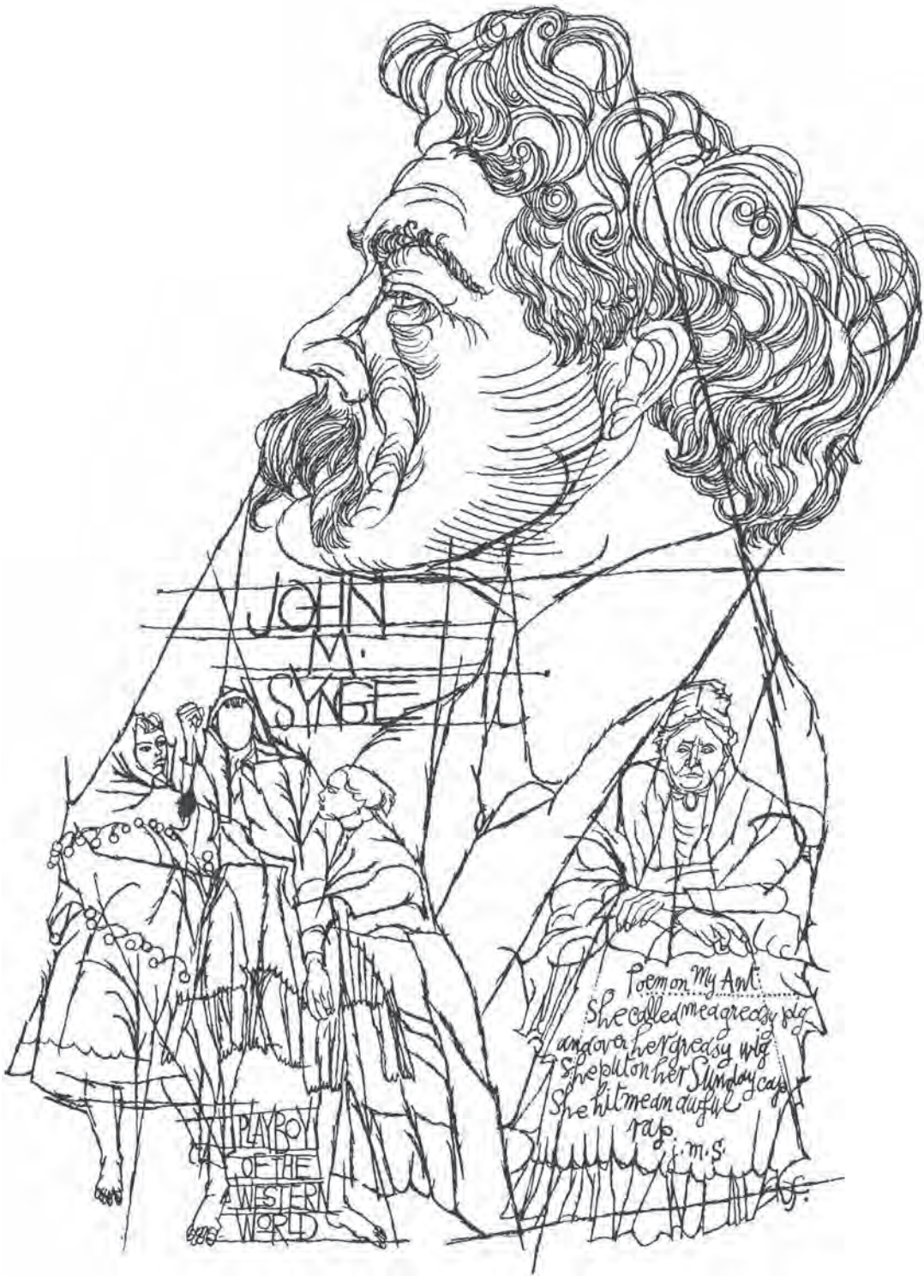
Synge was a painstaking observer and listener. Not an inflection of Irish peasant speech nor a habit of body or thought escaped his notice. He did not judge his people nor fight for their causes. Rather, he accepted and understood them with compassion and respect.

The Irish playwright was no mere reporter, however. He was a poet, with a poet's ear for the music of speech and a poet's grasp of symbolic meanings. He criticized Ibsen, whose realism he respected, for writing "in joyless and pallid words." The rhythm of Synge's beautiful Irish dialogue stays with us long after we have read his plays. Yeats said of Synge's language: "It makes the people of his imagination disembodied; it gives them a kind of innocence even in their anger and cursing."

Riders to the Sea shows Synge at his best. His perfect little oneact play is a moving tribute to the power of humanity to endure even the greatest hardships. When Maurya mourns for her six fine sons, the lament is also for all beauty and strength that must die.

After her last son has ridden away on the gray pony, death, to the sea's oblivion, after her "crying and keening" are done, the old woman speaks in her wisdom to the young people who cannot understand their misfortune: "What more can we want than that? No man at all can be living for ever, and we must be satisfied."

Notes from the artist: ". . . *a scene from* The Playboy of the Western World *is shown at the left below the profile of Synge, while on the right is a facsimile of a poem written by Synge to his Aunt Jane when he was nine years old.*"


JOHN
M.
SYNGE
PLAYBOY
OF THE
WESTERN
WORLD
Poem on My Aunt
She called me a greasy pig
and over her greasy wig
She pulled her Sunday cap
She hit me an awful
rap.
J. M. S.

Riders to the Sea

CAST OF CHARACTERS

MAURYA, *an old woman*
BARTLEY, *her son*
CATHLEEN, *her daughter*
NORA, *a younger daughter*
MEN and WOMEN

SCENE. *An island of the west of Ireland.*

Cottage kitchen, with nets, oilskins, spinning-wheel, some new boards standing by the wall, etc. CATHLEEN, *a girl of about twenty, finishes kneading cake, and puts it down in the pot-oven by the fire; then wipes her hands, and begins to spin at the wheel.* NORA, *a young girl, puts her head in at the door.*

Nora (*in a low voice*). Where is she?
Cathleen. She's lying down, God help her, and may be sleeping, if she's able.

NORA *comes in softly, and takes a bundle from under her shawl.*

Cathleen (*spinning the wheel rapidly*). What is it you have?
Nora. The young priest is after bringing them. It's a shirt and a plain stocking were got off a drowned man in Donegal.

CATHLEEN *stops her wheel with a sudden movement, and leans out to listen.*

Nora. We're to find out if it's Michael's they are, some time herself will be down looking by the sea.

Cathleen. How would they be Michael's, Nora? How would he go the length of that way to the far north?

Nora. The young priest says he's known the like of it. "If it's Michael's they are," says he, "you can tell herself he's got a clean burial by the grace of God, and if they're not his, let no one say a word about them, for she'll be getting her death," says he, "with crying and lamenting."

The door which NORA *half closed is blown open by a gust of wind.*

Cathleen (*looking out anxiously*). Did you ask him would he stop Bartley going this day with the horses to the Galway fair?

Nora. "I won't stop him," says he, "but let you not be afraid. Herself does be saying prayers half through the night, and the Almighty God won't leave her destitute," says he, "with no son living."

Cathleen. Is the sea bad by the white rocks, Nora?

Nora. Middling bad, God help us. There's a great roaring in the west, and it's worse it'll be getting when the tide's turned to the wind.

She goes over to the table with the bundle.

Shall I open it now?

Cathleen. Maybe she'd wake up on us, and come in before we'd done. (*Coming to the table.*) It's a long time we'll be, and the two of us crying.

Nora (*goes to the inner door and listens*). She's moving about on the bed. She'll be coming in a minute.

Cathleen. Give me the ladder, and I'll put them up in the turf-loft, the way she won't know of them at all, and maybe when the tide turns she'll be going down to see would he be floating from the east.

They put the ladder against the gable of the chimney; CATHLEEN *goes up a few steps and hides the bundle in the turf-loft.* MAURYA *comes from the inner room.*

Maurya (*looking up at* CATHLEEN *and speaking querulously*). Isn't it turf enough you have for this day and evening?

Cathleen. There's a cake baking at the fire for a short space (*throwing down the turf*) and Bartley will want it when the tide turns if he goes to Connemara.

NORA *picks up the turf and puts it round the pot-oven.*

Maurya (*sitting down on a stool at the fire*). He won't go this day with the wind rising from the south and west. He won't go this day, for the young priest will stop him surely.

Nora. He'll not stop him, mother, and I heard Eamon Simon and Stephen Pheety and Colum Shawn saying he would go.

Maurya. Where is he itself?

Nora. He went down to see would there be another boat sailing in the week, and I'm thinking it won't be long till he's here now, for the tide's turning at the green head, and the hooker's tacking from the east.

Cathleen. I hear some one passing the big stones.

Nora (*looking out*). He's coming now, and he in a hurry.

Bartley (*comes in and looks round the room. Speaking sadly and quietly*). Where is the bit of new rope, Cathleen, was bought in Connemara?

Cathleen (*coming down*). Give it to him, Nora; it's on a nail by the white boards. I hung it up this morning, for the pig with the black feet was eating it.

Nora (*giving him a rope*). Is that it, Bartley?

Maurya. You'd do right to leave that rope, Bartley, hanging by the boards. (BARTLEY *takes the rope*.) It will be wanting in this place, I'm telling you, if Michael is washed up to-morrow morning, or the next morning, or any morning in the week, for it's a deep grave we'll make him by the grace of God.

Bartley (*beginning to work with the rope*). I've no halter the way I can ride down on the mare, and I must go now quickly. This is the one boat going for two weeks or beyond it, and the fair will be a good fair for horses I heard them saying below.

Maurya. It's a hard thing they'll be saying below if the body is washed up and there's no man in it to make the coffin, and I after giving a big price for the finest white boards you'd find in Connemara.

She looks round at the boards.

Bartley. How would it be washed up, and we after looking each day for nine days, and a strong wind blowing a while back from the west and south?

Maurya. If it wasn't found itself, that wind is raising the sea, and there was a star up against the moon, and it rising in the night. If it was a hundred horses, or a thousand horses you had itself, what is the price of a thousand horses against a son where there is one son only?

Bartley (*working at the halter, to* CATHLEEN). Let you go down each

day, and see the sheep aren't jumping in on the rye, and if the jobber comes you can sell the pig with the black feet if there is a good price going.

Maurya. How would the like of her get a good price for a pig?

Bartley (*to* CATHLEEN). If the west wind holds with the last bit of the moon let you and Nora get up weed enough for another cock for the kelp. It's hard set we'll be from this day with no one in it but one man to work.

Maurya. It's hard set we'll be surely the day you're drownd'd with the rest. What way will I live and the girls with me, and I an old woman looking for the grave?

BARTLEY *lays down the halter, takes off his old coat, and puts on a newer one of the same flannel.*

Bartley (*to* NORA). Is she coming to the pier?

Nora (*looking out*). She's passing the green head and letting fall her sails.

Bartley (*getting his purse and tobacco*). I'll have half an hour to go down, and you'll see me coming again in two days, or in three days, or maybe in four days if the wind is bad.

Maurya (*turning round to the fire, and putting her shawl over her head*). Isn't it a hard and cruel man won't hear a word from an old woman, and she holding him from the sea?

Cathleen. It's the life of a young man to be going on the sea, and who would listen to an old woman with one thing and she saying it over?

Bartley (*taking the halter*). I must go now quickly. I'll ride down on the red mare, and the gray pony 'll run behind me. . . . The blessing of God on you.

He goes out.

Maurya (*crying out as he is in the door*). He's gone now, God spare us, and we'll not see him again. He's gone now, and when the black night is falling I'll have no son left me in the world.

Cathleen. Why wouldn't you give him your blessing and he looking round in the door? Isn't it sorrow enough is on every one in this house without your sending him out with an unlucky word behind him, and a hard word in his ear?

MAURYA *takes up the tongs and begins raking the fire aimlessly without looking round.*

Nora (*turning towards her*). You're taking away the turf from the cake.

Cathleen (*crying out*). The Son of God forgive us, Nora, we're after forgetting his bit of bread.

She comes over to the fire.

Nora. And it's destroyed he'll be going till dark night, and he after eating nothing since the sun went up.

Cathleen (*turning the cake out of the oven*). It's destroyed he'll be, surely. There's no sense left on any person in a house where an old woman will be talking for ever.

MAURYA *sways herself on her stool.*

Cathleen (*cutting off some of the bread and rolling it in a cloth; to* MAURYA). Let you go down now to the spring well and give him this and he passing. You'll see him then and the dark word will be broken, and you can say "God speed you," the way he'll be easy in his mind.

Maurya (*taking the bread*). Will I be in it as soon as himself?

Cathleen. If you go now quickly.

Maurya (*standing up unsteadily*). It's hard set I am to walk.

Cathleen (*looking at her anxiously*). Give her the stick, Nora, or maybe she'll slip on the big stones.

Nora. What stick?

Cathleen. The stick Michael brought from Connemara.

Maurya (*taking a stick* NORA *gives her*). In the big world the old people do be leaving things after them for their sons and children, but in this place it is the young men do be leaving things behind for them that do be old.

She goes out slowly. NORA *goes over to the ladder.*

Cathleen. Wait, Nora, maybe she'd turn back quickly. She's that sorry, God help her, you wouldn't know the thing she'd do.

Nora. Is she gone round by the bush?

Cathleen (*looking out*). She's gone now. Throw it down quickly, for the Lord knows when she'll be out of it again.

Nora (*getting the bundle from the loft*). The young priest said he'd be passing to-morrow, and we might go down and speak to him below if it's Michael's they are surely.

Cathleen (*taking the bundle*). Did he say what way they were found?

Nora (*coming down*). "There were two men," says he, "and they rowing round with poteen before the cocks crowed, and the oar of one of them caught the body, and they passing the black cliffs of the north."

Cathleen (*trying to open the bundle*). Give me a knife, Nora, the string's perished with the salt water, and there's a black knot on it you wouldn't loosen in a week.

Nora (*giving her a knife*). I've heard tell it was a long way to Donegal.

Cathleen (*cutting the string*). It is surely. There was a man in here a while ago–the man sold us that knife–and he said if you set off walking from the rocks beyond, it would be seven days you'd be in Donegal.

Nora. And what time would a man take, and he floating?

CATHLEEN *opens the bundle and takes out a bit of a stocking. They look at them eagerly.*

Cathleen (*in a low voice*). The Lord spare us, Nora! isn't it a queer hard thing to say if it's his they are surely?

Nora. I'll get his shirt off the hook the way we can put the one flannel on the other. (*She looks through some clothes hanging in the corner.*) It's not with them, Cathleen, and where will it be?

Cathleen. I'm thinking Bartley put it on him in the morning, for his own shirt was heavy with the salt in it (*pointing to the corner*). There's a bit of a sleeve was of the same stuff. Give me that and it will do.

NORA *brings it to her and they compare the flannel.*

Cathleen. It's the same stuff, Nora; but if it is itself aren't there great rolls of it in the shops of Galway, and isn't it many another man may have a shirt of it as well as Michael himself?

Nora (*who has taken up the stocking and counted the stitches, crying out*). It's Michael, Cathleen, it's Michael; God spare his soul, and what will herself say when she hears this story, and Bartley on the sea?

Cathleen (*taking the stocking*). It's a plain stocking.

Nora. It's the second one of the third pair I knitted, and I put up three score stitches, and I dropped four of them.

Cathleen (*counts the stitches*). It's that number is in it (*crying out*). Ah, Nora, isn't it a bitter thing to think of him floating that way to the far north, and no one to keen him but the black hags that do be flying on the sea?

Nora (*swinging herself round, and throwing out her arms on the clothes*). And isn't it a pitiful thing when there is nothing left of a man who was a great rower and fisher, but a bit of an old shirt and a plain stocking?

Cathleen (*after an instant*). Tell me is herself coming, Nora? I hear a little sound on the path.

Nora (*looking out*). She is, Cathleen. She's coming up to the door.

Cathleen. Put these things away before she'll come in. Maybe it's easier she'll be after giving her blessing to Hartley, and we won't let on we've heard anything the time he's on the sea.

Nora (*helping* CATHLEEN *to close the bundle*). We'll put them here in the corner.

They put them into a hole in the chimney corner. CATHLEEN *goes back to the spinning-wheel.*

Nora. Will she see it was crying I was?

Cathleen. Keep your back to the door the way the light'll not be on you.

NORA *sits down at the chimney corner, with her back to the door.* MAURYA *comes in very slowly, without looking at the girls, and goes over to her stool at the other side of the fire. The cloth with the bread is still in her hand. The girls look at each other, and* NORA *points to the bundle of bread.*

Cathleen (*after spinning for a moment*). You didn't give him his bit of bread?

MAURYA *begins to keen softly, without turning round.*

Cathleen. Did you see him riding down?

MAURYA *goes on keening.*

Cathleen (*a little impatiently*). God forgive you; isn't it a better thing to raise your voice and tell what you seen, than to be making lamentation for a thing that's done? Did you see Bartley, I'm saying to you.

Maurya (*with a weak voice*). My heart's broken from this day.

Cathleen (*as before*). Did you see Bartley?

Maurya. I seen the fearfulest thing.

Cathleen (*leaves her wheel and looks out*). God forgive you; he's riding the mare now over the green head, and the gray pony behind him.

Maurya (*starts, so that her shawl falls back from her head and shows her white tossed hair. With a frightened voice*). The gray pony behind him.

Cathleen (*coming to the fire*). What is it ails you, at all?

Maurya (*speaking very slowly*). I've seen the fearfulest thing any person

has seen, since the day Bride Dara seen the dead man with the child in his arms.

Cathleen and Nora. Uah.

They crouch down in front of the old woman at the fire.

Nora. Tell us what it is you seen.

Maurya. I went down to the spring well, and I stood there saying a prayer to myself. Then Bartley came along, and he riding on the red mare with the gray pony behind him. (*She puts up her hands, as if to hide something from her eyes*.) The Son of God spare us, Nora!

Cathleen. What is it you seen?

Maurya. I seen Michael himself.

Cathleen (*speaking softly*). You did not, mother; It wasn't Michael you seen, for his body is after being found in the far north, and he's got a clean burial by the grace of God.

Maurya (*a little defiantly*). I'm after seeing him this day, and he riding and galloping. Bartley came first on the red mare; and I tried to say "God speed you," but something choked the words in my throat. He went by quickly; and "the blessing of God on you," says he, and I could say nothing. I looked up then, and I crying, at the gray pony, and there was Michael upon it—with fine clothes on him, and new shoes on his feet.

Cathleen (*begins to keen*). It's destroyed we are from this day. It's destroyed, surely.

Nora. Didn't the young priest say the Almighty God wouldn't leave her destitute with no son living?

Maurya (*in a low voice, but clearly*). It's little the like of him knows of the sea. . . . Bartley will be lost now, and let you call in Eamon and make me a good coffin out of the white boards, for I won't live after them. I've had a husband, and a husband's father, and six sons in this house—six fine men, though it was a hard birth I had with every one of them and they coming to the world—and some of them were found and some of them were not found, but they're gone now the lot of them. . . . There were Stephen, and Shawn, were lost in the great wind, and found after in the Bay of Gregory of the Golden Mouth, and carried up the two of them on the one plank, and in by that door.

She pauses for a moment; the girls start as if they heard something through the door that is half open behind them.

Nora (*in a whisper*). Did you hear that, Cathleen? Did you hear a noise in the north-east?

Cathleen (*in a whisper*). There's some one after crying out by the seashore.

Maurya (*continues without hearing anything*). There was Sheamus and his father, and his own father again, were lost in a dark night, and not a stick or sign was seen of them when the sun went up. There was Patch after was drowned out of a curagh that turned over. I was sitting here with Bartley, and he a baby, lying on my two knees, and I seen two women, and three women, and four women coming in, and they crossing themselves, and not saying a word. I looked out then, and there were men coming after them, and they holding a thing in the half of a red sail, and water dripping out of it–it was a dry day, Nora–and leaving a track to the door.

She pauses again with her hand stretched out towards the door. It opens softly and old women begin to come in, crossing themselves on the threshold, and kneeling down in front of the stage with red petticoats over their heads.

Maurya (*half in a dream, to* CATHLEEN). Is it Patch, or Michael, or what is it at all?

Cathleen. Michael is after being found in the far north, and when he is found there how could he be here in this place?

Maurya. There does be a power of young men floating round in the sea, and what way would they know if it was Michael they had, or another man like him, for when a man is nine days in the sea, and the wind blowing, it's hard set his own mother would be to say what man was it.

Cathleen. It's Michael, God spare him, for they're after sending us a bit of his clothes from the far north.

She reaches out and hands MAURYA *the clothes that belonged to* MICHAEL. MAURYA *stands up slowly and takes them in her hands.* NORA *looks out.*

Nora. They're carrying a thing among them and there's water dripping out of it and leaving a track by the big stones.

Cathleen (*in a whisper to the women who have come in*). Is it Bartley it is?

One of the Women. It is surely, God rest his soul.

Two younger women come in and pull out the table. Then men carry in the body of BARTLEY, *laid on a plank, with a bit of a sail over it, and lay it on the table.*

Cathleen (*to the women, as they are doing so*). What way was he drowned?

One of the Women. The gray pony knocked him into the sea, and he was washed out where there is a great surf on the white rocks.

MAURYA *has gone over and knelt down at the head of the table. The women are keening softly and swaying themselves with a slow movement.* CATHLEEN *and* NORA *kneel at the other end of the table. The men kneel near the door.*

Maurya (*raising her head and speaking as if she did not see the people around her*). They're all gone now, and there isn't anything more the sea can do to me. . . . I'll have no call now to be up crying and praying when the wind breaks from the south, and you can hear the surf is in the east, and the surf is in the west, making a great stir with the two noises, and they hitting one on the other. I'll have no call now to be going down and getting Holy Water in the dark nights after Samhain, and I won't care what way the sea is when the other women will be keening. (*To* NORA.) Give me the Holy Water, Nora, there's a small sup still on the dresser.

NORA *gives it to her.*

Maurya (*drops* MICHAEL'S *clothes across* BARTLEY'S *feet, and sprinkles the Holy Water over him*). It isn't that I haven't prayed for you, Bartley, to the Almighty God. It isn't that I haven't said prayers in the dark night till you wouldn't know what I'ld be saying; but it's a great rest I'll have now, and it's time surely. It's a great rest I'll have now, and great sleeping in the long nights after Samhain, if it's only a bit of wet flour we do have to eat, and maybe a fish that would be stinking.

She kneels down again, crossing herself, and saying prayers under her breath.

Cathleen (*to an old man*). Maybe yourself and Eamon would make a coffin when the sun rises. We have fine white boards herself bought, God help her, thinking Michael would be found, and I have a new cake you can eat while you'll be working.

The Old Man (*looking at the boards*). Are there nails with them?

Cathleen. There are not, Colum; we didn't think of the nails.

Another Man. It's a great wonder she wouldn't think of the nails, and all the coffins she's seen made already.

Cathleen. It's getting old she is, and broken.

MAURYA *stands up again very slowly and spreads out the pieces of* MICHAEL'S *clothes beside the body, sprinkling them with the last of the Holy Water.*

Nora (*in a whisper to* CATHLEEN). She's quiet now and easy; but the day Michael was drowned you could hear her crying out from this to the spring well. It's fonder she was of Michael, and would any one have thought that?

Cathleen (*slowly and clearly*). An old woman will be soon tired with anything she will do, and isn't it nine days herself is after crying and keening, and making great sorrow in the house?

Maurya (*puts the empty cup mouth downwards on the table, and lays her hands together on* BARTLEY'S *feet*). They're all together this time, and the end is come. May the Almighty God have mercy on Bartley's soul, and on Michael's soul, and on the souls of Sheamus and Patch, and Stephen and Shawn (*bending her head*); and may He have mercy on my soul, Nora, and on the soul of every one is left living in the world.

She pauses, and the keen rises a little more loudly from the women, then sinks away.

Maurya (*continuing*). Michael has a clean burial in the far north, by the grace of the Almighty God. Bartley will have a fine coffin out of the white boards, and a deep grave surely. What more can we want than that? No man at all can be living for ever, and we must be satisfied.

She kneels down again and the curtain falls slowly.

Eugene O'Neill

1888–1953

Eugene Gladstone O'Neill was born on October 16, 1888, in a Broadway hotel in New York City. His father, James O'Neill, was a popular melodramatic actor who made a fortune by playing for almost twenty years in *The Count of Monte Cristo*. His mother, Ella Quinlan O'Neill, was addicted to drugs. His older brother was an alcoholic failure. The O'Neills, like characters in Eugene's plays, were sensitive people in torment.

As a boy, Eugene O'Neill was sometimes taken on road tours with his parents, sometimes put in Roman Catholic boarding schools. He enrolled in Princeton in 1906, but was expelled after one year and spent the next few years drifting from one job and one country to another. He shipped as a sailor to South America and Europe.

In 1912 came the turning point of his life. O'Neill entered a Connecticut sanatorium as a tuberculosis patient. There he had time both to consider his life and to read many books. From Strindberg he learned to appreciate dramatic realism. From Marx he gained a political philosophy. From Freud he learned of the dramas played out in the depths of each man's unconscious. O'Neill determined to become a playwright.

After he left the sanatorium he spent some months at Harvard as a student in Professor George Pierce Baker's famous 47 Workshop. In 1916 the newly organized Provincetown Players gave the first public performance of an O'Neill play, *Bound East for Cardiff.* The Players moved to a New York theater where they presented more of O'Neill's dramas. Then, in 1920, his success was secured when his first full-length play, *Beyond the Horizon,* won the Pulitzer Prize for Drama. Two other plays were later awarded Pulitzer Prizes–*Anna Christie* (1922) and *Strange Interlude* (1928). In 1936 O'Neill became the first American playwright to receive the Nobel Prize.

About 1947 O'Neill was stricken with Parkinson's disease, a palsy which made it impossible for him to write. He died on November 27, 1953, in Boston of pneumonia. He had been married three times and had three children.

A prolific writer, O'Neill turned out many plays, apparently on a great variety of subjects. With the exception of his one comedy, *Ah, Wilderness!,* however, his dramas all deal with the same general problem—the terrible predicament of man struggling against unseen forces for his place in a universe that is essentially alien to him. Although O'Neill was a talented innovator, bringing many new methods and effects to the stage, his importance as a dramatist rests mainly on the power with which he played variations on his huge theme.

Like the ancient writers of Greek tragedy, O'Neill saw man as the victim and plaything of forces which he could neither understand nor control. For the Greeks these influences were the gods. But for O'Neill they were the powerful forces of the unconscious. They were within man himself.

The Emperor Jones was produced in 1920. Its hero, Brutus Jones, an ex-Pullman porter, has fled to the West Indies to escape punishment for murder. At first he is very successful in the new life he makes for himself. In a mere two years he manages to have himself made Emperor. He rules his subjects with a ruthless and iron hand.

As the play begins, his reign is coming to an end. Jones tries to escape, but he finds himself trapped between civilization and the jungle—between his deepest desires and the guilt he feels. He is unable to throw off his superstition and primitive fear, yet he is equally unable to make a place for himself in modern society.

Tom-toms pound offstage throughout the last two-thirds of the play. This device, an example of O'Neill's theatrical imagination, is extremely powerful. The beat grows louder and faster as Jones races

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Notes from the artist: ". . . O'Neill as a boy, suggesting some of the heroes of his plays, who have been described as wandering 'like eternally lost children through a haunted wood.' . . . The other figures are Death, with the ice tongs, from The Iceman Cometh, *and a portrait of* The Emperor Jones *based on a primitive painting of King Christophe of Haiti."*

THE ICE MAN COMETH
EMPEROR JONES
eugene oneill

helplessly toward his doom. We have the impression that it is the drum that "cotches" Jones, not his rebellious subjects. The tom-toms symbolize his guilt and fear.

In his nightmare dash through the jungle, Jones fires his precious gunshots, one by one, at ghosts, wasting his strength in combating illusions. But the ghosts are in his own mind; he cannot escape them. As he stumbles through the wilderness he discards, piece by piece, the trappings of emperor, of civilization, that he had so proudly collected. He is left naked and alone with himself.

The Emperor Jones was the first modern drama to feature a Negro as a tragic hero. But the basic human situation that the play is about does not depend on its hero being a Negro. All men, O'Neill seems to be saying, are both emperors and fugitives. All men are trapped between civilization and the jungle. All men have guilts and fears, and cannot bear to be alone with their own "ghosts." When Jones is finally brought down by the enemy it is with a silver bullet–in the " 'eighth o' style," as Smithers, the cockney trader, says. The Emperor Jones has been defeated by forces stronger than he, but there is great dignity in the defeat.

The Emperor Jones

CAST OF CHARACTERS

Brutus Jones, *Emperor.*
Henry Smithers, *a cockney trader.*
An Old Native Woman.
Lem, *a native chief.*
Soldiers, *adherents of Lem.*
The Little Formless Fears; Jeff;
The Negro Convicts; The Prison Guard; The Planters;
The Auctioneer; The Slaves;
The Congo Witch Doctor; The Crocodile God.

The action of the play takes place on an island in the West Indies as yet not self-determined by white Marines. The form of native government is, for the time being, an empire.

SCENES

Scene i: *In the palace of the Emperor Jones. Afternoon.*
Scene ii: *The edge of the Great Forest. Dusk.*
Scene iii: *In the Forest. Night.*
Scene iv: *In the Forest. Night.*
Scene v: *In the Forest. Night.*
Scene vi: *In the Forest. Night.*
Scene vii: *In the Forest. Night.*
Scene viii: *Same as Scene II—the edge of the Great Forest. Dawn.*

SCENE I

The audience chamber in the palace of the Emperor—a spacious, high-ceilinged room with bare, whitewashed walls. The floor is of white tiles. In the rear, to the left of center, a wide archway giving out on a portico with white pillars. The palace is evidently situated on high ground for beyond the portico nothing can be seen but a vista of distant hills, their summits crowned with thick groves of palm trees. In the right wall, center, a smaller arched doorway leading to the living quarters of the palace. The room is bare of furniture with the exception of one huge chair made of uncut wood which stands at center, its back to rear. This is very apparently the Emperor's throne. It is painted a dazzling, eye-smiting scarlet. There is a brilliant orange cushion on the seat and another smaller one is placed on the floor to serve as a footstool. Strips of matting, dyed scarlet, lead from the foot of the throne to the two entrances. It is late afternoon but the sunlight still blazes yellowly beyond the portico and there is an oppressive burden of exhausting heat in the air.

As the curtain rises, a native Negro WOMAN *sneaks in cautiously from the entrance on the right. She is very old, dressed in cheap calico, barefooted, a red bandana handkerchief covering all but a few stray wisps of white hair. A bundle bound in colored cloth is carried over her shoulder on the end of a stick. She hesitates beside the doorway, peering back as if in extreme dread of being discovered. Then she begins to glide noiselessly, a step at a time, toward the doorway in the rear. At this moment,* SMITHERS *appears beneath the portico.*

SMITHERS *is a tall, stoop-shouldered man about forty. His bald head, perched on a long neck with an enormous Adam's apple, looks like an egg. The tropics have tanned his naturally pasty face with its small, sharp features to a sickly yellow, and native rum has painted his pointed nose to a startling red. His little, washy-blue eyes are red rimmed and dart about him like a ferret's. His expression is one of unscrupulous meanness, cowardly and dangerous. He is dressed in a worn riding suit of dirty white drill, puttees, spurs, and wears a white cork helmet. A cartridge belt with an automatic revolver is*

around his waist. He carries a riding whip in his hand. He sees the WOMAN *and stops to watch her suspiciously. Then, making up his mind, he steps quickly on tiptoe into the room. The* WOMAN, *looking back over her shoulder continually, does not see him until it is too late. When she does* SMITHERS *springs forward and grabs her firmly by the shoulder. She struggles to get away, fiercely but silently.*

Smithers (*tightening his grasp—roughly*). Easy! None o' that, me birdie. You can't wiggle out, now I got me 'ooks on yer.

Woman (*seeing the uselessness of struggling, gives way to frantic terror, and sinks to the ground, embracing his knees supplicatingly*). No tell him! No tell him, Mister!

Smithers (*with great curiosity*). Tell 'im? (*Then scornfully*) Oh, you mean 'is bloomin' Majesty. What's the gaime, any'ow? What are you sneakin' away for? Been stealin' a bit, I s'pose. (*He taps her bundle with his riding whip significantly.*)

Woman (*shaking her head vehemently*). No, me no steal.

Smithers. Bloody liar! But tell me what's up. There's somethin' funny goin' on. I smelled it in the air first thing I got up this mornin'. You blacks are up to some devilment. This palace of 'is is like a bleedin' tomb. Where's all the 'ands? (*The* WOMAN *keeps sullenly silent.* SMITHERS *raises his whip threateningly)* Ow, yer won't, won't yer? I'll show yer what's what.

Woman (*coweringly*). I tell, Mister. You no hit. They go—all go. (*She makes a sweeping gesture toward the hills in the distance.*)

Smithers. Run away—to the 'ills?

Woman. Yes, Mister. Him Emperor—Great Father (*she touches her forehead to the floor with a quick mechanical jerk*) Him sleep after eat. Then they go—all go. Me old woman. Me left only. Now me go too.

Smithers (*his astonishment giving way to an immense, mean satisfaction*). Ow! So that's the ticket! Well, I know bloody well wot's in the air—when they runs orf to the 'ills. The tom-tom 'll be thumping out there bloomin' soon. (*With extreme vindictiveness*) And I'm bloody glad of it, for one! Serve 'im right! Puttin' on airs, the stinkin' nigger! 'Is Majesty! Gawd blimey! I only 'opes I'm there when they takes 'im out to shoot 'im. (*Suddenly*) 'E's still 'ere all right, ain't 'e?

Woman. Him sleep.

Smithers. 'E's bound to find out soon as 'e wakes up. 'E's cunnin' enough to know when 'is time's come. (*He goes to the doorway on right and whistles shrilly with his fingers in his mouth. The old* WOMAN *springs to her feet and runs out of the doorway, rear.* SMITHERS *goes after*

her, reaching for his revolver) Stop or I'll shoot! (*Then stopping—indifferently*) Pop orf then, if yer like, yer black cow. (*He stands in the doorway, looking after her.*)

JONES *enters from the right. He is a tall, powerfully built, full-blooded Negro of middle age. His features are typically Negroid, yet there is something decidedly distinctive about his face—an underlying strength of will, a hardy, self-reliant confidence in himself that inspires respect. His eyes are alive with a keen, cunning intelligence. In manner he is shrewd, suspicious, evasive. He wears a light blue uniform coat, sprayed with brass buttons, heavy gold chevrons on his shoulders, gold braid on the collar, cuffs, etc. His pants are bright red with a light blue stripe down the side. Patent leather laced boots with brass spurs, and a belt with a long-barreled, pearl-handled revolver in a holster complete his make up. Yet there is something not altogether ridiculous about his grandeur. He has a way of carrying it off.*

Jones (*not seeing anyone—greatly irritated and blinking sleepily—shouts*). Who dare whistle dat way in my palace? Who dare wake up de Emperor? I'll git de hide frayled off some o' you niggers sho'!

Smithers (*showing himself—in a manner half-afraid and half-defiant*). It was me whistled to yer. (*As* JONES *frowns angrily)* I got news for yer.

Jones (*putting on his suavest manner, which fails to cover up his contempt for the white man*). Oh, it's you, Mister Smithers. (*He sits down on his throne with easy dignity*) What news you got to tell me?

Smithers (*coming close to enjoy his discomfiture).* Don't yer notice nothin' funny today?

Jones (*coldly*). Funny? No. I ain't perceived nothin' of de kind!

Smithers. Then yer ain't so foxy as I thought yer was. Where's all your court? (*Sarcastically*) The Generals and the Cabinet Ministers and all?

Jones (*imperturbably*). Where dey mostly runs to minute I closes my eyes—drinkin' rum and talkin' big down in de town. (*Sarcastically*) How come you don't know dat? Ain't you sousin' with 'em most every day?

Smithers (*stung but pretending indifference—with a wink*). That's part of the day's work. I got ter—ain't I—in my business?

Jones (*contemptuously*). Yo' business!

Smithers (*imprudently enraged*). Gawd blimey, you was glad enough

for me ter take yer in on it when you landed here first. You didn' 'ave no 'igh and mighty airs in them days!

Jones (*his hand going to his revolver like a flash—menacingly*). Talk polite, white man! Talk polite, you heah me! I'm boss heah now, is you fergettin'? (*The* COCKNEY *seems about to challenge this last statement with the facts but something in the other's eyes holds and cows him.*)

Smithers (*in a cowardly whine*). No 'arm meant, old top.

Jones (*condescendingly*). I accepts yo' apology. (*Lets his hand fall from his revolver*) No use'n you rakin' up ole times. What I was den is one thing. What I is now 's another. You didn't let me in on yo' crooked work out o' no kind feelin's dat time. I done de dirty work fo' you—and most o' de brainwork, too, fo' dat matter—and I was wu'th money to you, dat's de reason.

Smithers. Well, blimey, I give yer a start, didn't I?—when no one else would. I wasn't afraid to 'ire you like the rest was—'count of the story about your breakin' jail back in the States.

Jones. No, you didn't have no s'cuse to look down on me fo' dat. You been in jail you'self more'n once.

Smithers (*furiously*). It's a lie! (*Then trying to pass it off by an attempt at scorn*) Garn! Who told yer that fairy tale?

Jones. Dey's some tings I ain't got to be tole. I kin see 'em in folk's eyes. (*Then after a pause—meditatively*) Yes, you sho' give me a start. And it didn't take long from dat time to git dese fool, woods' niggers right where I wanted dem. (*With pride*) From stowaway to Emperor in two years! Dat's goin' some!

Smithers (*with curiosity*). And I bet you got yer pile o' money 'id safe some place.

Jones (*with satisfaction*). I sho' has! And it's in a foreign bank where no pusson don't ever git it out but me no matter what come. You didn't s'pose I was holdin' down dis Emperor job for de glory in it, did you? Sho'! De fuss and glory part of it, dat's only to turn de heads o' de low-flung, bush niggers dat's here. Dey wants de big circus show for deir money. I gives it to 'em an' I gits de money. (*With a grin*) De long green, dat's me every time! (*Then rebukingly*) But you ain't got no kick agin me, Smithers. I'se paid you back all you done for me many times. Ain't I pertected you and winked at all de crooked tradin' you been doin' right out in de broad day? Sho' I has—and me makin' laws to stop it at de same time! (*He chuckles.*)

Smithers (*grinning*). But, meanin' no 'arm, you been grabbin' right and

left yourself, ain't yer? Look at the taxes you've put on 'em! Blimey! You've squeezed 'em dry!

Jones (*chuckling*). No, dey ain't *all* dry yet. I'se still heah, ain't I?

Smithers (*smiling at his secret thought*). They're dry right now, you'll find out. (*Changing the subject abruptly*) And as for me breakin' laws, you've broke 'em all yerself just as fast as yer made 'em.

Jones. Ain't I de Emperor? De laws don't go for him. (*Judicially*) You heah what I tells you, Smithers. Dere's little stealin' like you does, and dere's big stealin' like I does. For de little stealin' dey gits you in jail soon or late. For de big stealin' dey makes you Emperor and puts you in de Hall o' Fame when you croaks. (*Reminiscently*) If dey's one thing I learns in ten years on de Pullman ca's listenin' to de white quality talk, it's dat same fact. And when I gits a chance to use it I winds up Emperor in two years.

Smithers (*unable to repress the genuine admiration of the small fry for the large*). Yes, yer turned the bleedin' trick, all right. Blimey, I never seen a bloke 'as 'ad the bloomin' luck you 'as.

Jones (*severely*). Luck? What you mean–luck?

Smithers. I suppose you'll say as that swank about the silver bullet ain't luck–and that was what first got the fool blacks on yer side the time of the revolution, wasn't it?

Jones (*with a laugh*). Oh, dat silver bullet! Sho' was luck. But I makes dat luck, you heah? I loads de dice! Yessuh! When dat murderin' nigger ole Lem hired to kill me takes aim ten feet away and his gun misses fire and I shoots him dead, what you heah me say?

Smithers. You said yer'd got a charm so's no lead bullet'd kill yer. You was so strong only a silver bullet could kill yer, you told 'em. Blimey, wasn't that swank for yer–and plain, fat-'eaded luck?

Jones (*proudly*). I got brains and I uses 'em quick. Dat ain't luck.

Smithers. Yer know they wasn't 'ardly liable to get no silver bullets. And it was luck 'e didn't 'it you that time.

Jones (*laughing*). And dere all dem fool bush niggers was kneelin' down and bumpin' deir heads on de ground like I was a miracle out o' de Bible. Oh, Lawd, from dat time on I has dem all eatin' out of my hand. I cracks de whip and dey jumps through.

Smithers (*with a sniff*) Yankee bluff done it.

Jones. Ain't a man's talkin' big what makes him big–long as he makes folks believe it? Sho', I talks large when I ain't got nothin' to back it up, but I ain't talkin' wild just de same. I knows I kin fool 'em–I

knows it—and dat's backin' enough fo' my game. And ain't I got to learn deir lingo and teach some of dem English befo' I kin talk to 'em? Ain't dat wuk? You ain't never learned ary word er it, Smithers, in de ten years you been heah, dough you knows it's money in yo' pocket tradin' wid 'em if you does. But you'se too shiftless to take de trouble.

Smithers (*flushing*). Never mind about me. What's this I've 'eard about yer really 'avin' a silver bullet moulded for yourself?

Jones. It's playin' out my bluff. I has de silver bullet moulded and I tells 'em when de time comes I kills myself wid it. I tells 'em dat's 'cause I'm de on'y man in de world big enuff to git me. No use'n deir tryin'. And dey falls down and bumps deir heads. (*He laughs*) I does dat so's I kin take a walk in peace widout no jealous nigger gunnin' at me from behind de trees.

Smithers (*astonished*). Then you 'ad it made—'onest?

Jones. Sho' did. Heah she be. (*He takes out his revolver, breaks it, and takes the silver bullet out of one chamber*) Five lead an' dis silver baby at de last. Don't she shine pretty? (*He holds it in his hand, looking at it admiringly, as if strangely fascinated.*)

Smithers. Let me see. (*Reaches out his hand for it.*)

Jones (*harshly*). Keep yo' hands whar dey b'long, white man. (*He replaces it in the chamber and puts the revolver back on his hip.*)

Smithers (*snarling*). Gawd blimey! Think I'm a bleedin' thief, you would.

Jones. No, 'tain't dat. I knows you'se scared to steal from me. On'y I ain't 'lowin' nary body to touch dis baby. She's my rabbit's foot.

Smithers (*sneering*). A bloomin' charm, wot? (*Venomously*) Well, you'll need all the bloody charms you 'as before long, s' 'elp me!

Jones (*judicially*). Oh, I'se good for six months yit 'fore dey gits sick o' my game. Den, when I sees trouble comin', I makes my getaway.

Smithers. Ho! You got it all planned, ain't yer?

Jones. I ain't no fool. I knows dis Emperor's time is sho't. Dat why I make hay when de sun shine. Was you thinkin' I'se aimin' to hold down dis job for life? No, suh! What good is gittin' money if you stays back in dis raggedy country? I wants action when I spends. And when I sees dese niggers gittin' up deir nerve to tu'n me out, and I'se got all de money in sight, I resigns on de spot and beats it quick.

Smithers. Where to?

Jones. None o' yo' business.

Smithers. Not back to the bloody States, I'll lay my oath.

Jones (*suspiciously*). Why don't I? (*Then with an easy laugh*) You mean 'count of dat story 'bout me breakin' from jail back dere? Dat's all talk.

Smithers (*skeptically*). Ho, yes!

Jones (*sharply*). You ain't 'sinuatin' I'se a liar, is you?

Smithers (*hastily*). No, Gawd strike me! I was only thinkin' o' the bloody lies you told the blacks 'ere about killin' white men in the States.

Jones (*angered*). How come dey're lies?

Smithers. You'd 'ave been in jail if you 'ad, wouldn't yer then? (*With venom*) And from what I've 'eard, it ain't 'ealthy for a black to kill a white man in the States. They burns 'em in oil, don't they?

Jones (*with cool deadliness*). You mean lynchin' 'd scare me? Well, I tells you, Smithers, maybe I does kill one white man back dere. Maybe I does. And maybe I kills another right heah 'fore long if he don't look out.

Smithers (*trying to force a laugh*). I was on'y spoofin' yer. Can't yer take a joke? And you was just sayin' you'd never been in jail.

Jones (*in the same tone—slightly boastful*). Maybe I goes to jail dere for gettin' in an argument wid razors ovah a crap game. Maybe I gits twenty years when dat colored man die. Maybe I gits in 'nother argument wid de prison guard was overseer ovah us when we're wukin' de road. Maybe he hits me wid a whip and I splits his head wid a shovel and runs away and files de chain off my leg and gits away safe. Maybe I does all dat an' maybe I don't. It's a story I tells you so's you knows I'se de kind of man dat if you evah repeats one word of it, I ends yo' stealin' on dis yearth mighty damn quick!

Smithers (*terrified*). Think I'd peach on yer? Not me! Ain't I always been yer friend?

Jones (*suddenly relaxing*). Sho' you has—and you better be.

Smithers (*recovering his composure—and with it his malice*). And just to show yer I'm yer friend, I'll tell yer that bit o' news I was goin' to.

Jones. Go ahead! Shoot de piece. Must be bad news from de happy way you look.

Smithers (*warningly*). Maybe it's gettin' time for you to resign—with that bloomin' silver bullet, wot? (*He finishes with a mocking grin.*)

Jones (*puzzled*). What's dat you say? Talk plain.

Smithers. Ain't noticed any of the guards or servants about the place today, I 'aven't.

Jones (*carelessly*). Dey're all out in de garden sleepin' under de trees.

When I sleeps, dey sneaks a sleep, too, and I pretends I never suspicions it. All I got to do is to ring de bell and dey come flyin', makin' a bluff dey was wukin' all de time.

Smithers (*in the same mocking tone*). Ring the bell now an' you'll bloody well see what I means.

Jones (*startled to alertness, but preserving the same careless tone*). Sho' I rings. (*He reaches below the throne and pulls out a big, common dinner bell which is painted the same vivid scarlet as the throne. He rings this vigorously—then stops to listen. Then he goes to both doors, rings again, and looks out.*)

Smithers (*watching him with malicious satisfaction, after a pause—mockingly*). The bloody ship is sinkin' an' the bleedin' rats 'as slung their 'ooks.

Jones (*in a sudden fit of anger flings the bell clattering into a corner*). Low-flung, woods' niggers! (*Then catching* SMITHERS' *eye on him, he controls himself and suddenly bursts into a low chuckling laugh*). Reckon I overplays my hand dis once! A man can't take de pot on a bobtailed flush all de time. Was I sayin' I'd sit in six months mo'? Well, I'se changed my mind den. I cashes in and resigns de job of Emperor right dis minute.

Smithers (*with real admiration*). Blimey, but you're a cool bird, and no mistake.

Jones. No use'n fussin'. When I knows de game's up I kisses it good-by widout no long waits. Dey've all run off to de hills, ain't dey?

Smithers. Yes—every bleedin' man jack of 'em.

Jones. Den de revolution is at de post. And de Emperor better git his feet smokin' up de trail. (*He starts for the door in rear.*)

Smithers. Goin' out to look for your 'orse? Yer won't find any. They steals the 'orses first thing. Mine was gone when I went for 'im this mornin'. That's wot first give me a suspicion of wot was up.

Jones (*alarmed for a second, scratches his head, then philosophically*). Well, den I hoofs it. Feet, do yo' duty! (*He pulls out a gold watch and looks at it*) Three-thuty. Sundown's at six-thuty or dereabouts. (*Puts his watch back—with cool confidence*) I got plenty o' time to make it easy.

Smithers. Don't be so bloomin' sure of it. They'll be after you 'ot and 'eavy. Ole Lem is at the bottom o' this business an' 'e 'ates you like 'ell. 'E'd rather do for you than eat 'is dinner, 'e would!

Jones (*scornfully*). Dat fool no-count nigger! Does you think I'se scared o'

him? I stands him on his thick head more'n once befo' dis, and I does it again if he comes in my way—(*Fiercely*) And dis time I leave him a dead nigger fo' sho'!

Smithers. You'll 'ave to cut through the big forest—an' these blacks 'ere can sniff and follow a trail in the dark like 'ounds. You'd 'ave to 'ustle to get through that forest in twelve hours even if you knew all the bloomin' trails like a native.

Jones (*with indignant scorn*). Look-a-heah, white man! Does you think I'se a natural bo'n fool? Give me credit fo' havin' some sense, fo' Lawd's sake! Don't you s'pose I'se looked ahead and made sho' of all de chances? I'se gone out in dat big forest, pretendin' to hunt, so many times dat I knows it high an' low like a book. I could go through on dem trails wid my eyes shut. (*With great contempt*) Think dese ign'rent bush niggers dat ain't got brains enuff to know deir own names even can catch Brutus Jones? Huh, I s'pects not! Not on yo' life! Why, man, de white men went after me wid blood-hounds where I come from an' I jes' laughs at 'em. It's a shame to fool dese black trash around heah, dey're so easy. You watch me, man. I'll make dem look sick, I will. I'll be 'cross de plain to de edge of de forest by time dark comes. Once in de woods in de night dey got a swell chance o' findin' dis baby! Dawn tomorrow I'll be out at de oder side and on de coast whar dat French gunboat is stayin'. She picks me up, takes me to Martinique when she go dar, and dere I is safe wid a mighty big bank roll in my jeans. It's easy as rollin' off a log.

Smithers (*maliciously*). But s'posin' somethin' 'appens wrong an' they do nab yer?

Jones (*decisively*). Dey don't—dat's de answer.

Smithers. But, just for argyment's sake—what'd you do?

Jones (*frowning*). I'se got five lead bullets in dis gun good enuff fo' common bush niggers—and after dat I got de silver bullet left to cheat 'em out o' gittin' me.

Smithers (*feelingly*). Ho, I was fergettin' that silver bullet. You'll bump yourself orf in style, won't yer? Blimey!

Jones (*gloomily*). You kin bet yo' whole roll on one thing, white man. Dis baby plays out his string to de end and when he quits, he quits wid a bang de way he ought. Silver bullet ain't none too good for him when he go, dat's a fac'! (*Then shaking off his nervousness—with a confident laugh*) Sho'! What is I talkin' about? Ain't come to dat yit and I never will—not wid trash niggers like

dese yere. (*Boastfully*) Silver bullet bring me luck anyway. I kin outguess, outrun, outfight, an'outplay de whole lot o' dem all ovah de board any time o' de day er night! You watch me! (*From the distant hills comes the faint, steady thump of a tom-tom, low and vibrating. It starts at a rate exactly corresponding to normal pulse beat—72 to the minute—and continues at a gradually accelerating rate from this point uninterruptedly to the very end of the play*).

JONES (*starts at the sound. A strange look of apprehension creeps into his face for a moment as he listens. Then he asks, with an attempt to regain his most casual manner*). What's dat drum beatin' fo'?

Smithers (*with a mean grin*). For you. That means the bleedin' ceremony 'as started. I've 'eard it before and I knows.

Jones. Cer'mony? What cer'mony?

Smithers. The blacks is 'oldin' a bloody meetin', 'avin' a war dance, gettin' their courage worked up b'fore they starts after you.

Jones. Let dem! Dey'll sho' need it!

Smithers. And they're there 'oldin' their 'eathen religious service—makin' no end of devil spells and charms to 'elp 'em against yer silver bullet. (*He guffaws loudly*) Blimey, but they're balmy as 'ell!

Jones (*a tiny bit awed and shaken in spite of himself*). Huh! Takes more'n dat to scare dis chicken!

Smithers (*scenting the other's feeling—maliciously*). Ternight when it's pitch black in the forest, they'll 'ave their pet devils and ghosts 'oundin' after you. You'll find yer bloody 'air 'll be standin' on end before termorrow mornin'. (*Seriously*) It's a bleedin' queer place, that stinkin' forest, even in daylight. Yer don't know what might 'appen in there, it's that rotten still. Always sends the cold shivers down my back minute I gets in it.

Jones (*with a contemptuous sniff*). I ain't no chicken liver like you is. Trees an' me, we'se friends, and dar's a full moon comin' bring me light. And let dem po' niggers make all de fool spells dey'se a min' to. Does yo' s'pect I'se silly enuff to b'lieve in ghosts an' ha'nts an' all dat ole woman's talk? G'long, white man! You ain't talkin' to me. (*With a chuckle*) Doesn't you know dey's got to do wid a man was member in good standin' o' de Baptist Church? Sho' I was dat when I was porter on de Pullmans, befo' I gits into my little trouble. Let dem try deir heathen tricks. De Baptist Church done pertect me and land dem all in hell. (*Then with more confident satisfaction*) And I'se got little silver bullet o' my own, don't forgit!

Smithers. Ho! You 'aven't give much 'eed to your Baptist Church since

you been down 'ere. I've 'eard myself you 'ad turned yer coat an' was takin' up with their blarsted witch doctors, or whatever the 'ell yer calls the swine.

Jones (*vehemently*). I pretends to! Sho' I pretends! Dat's part o' my game from de fust. If I finds out dem niggers believes dat black is white, den I yells it out louder 'n deir loudest. It don't git me nothin' to do missionary work for de Baptist Church. I'se after de coin, an' I lays my Jesus on de shelf for de time bein'. (*Stops abruptly to look at his watch—alertly*) But I ain't got de time to waste on no more fool talk wid you. I'se gwine away from heah dis secon'. (*He reaches in under the throne and pulls out an expensive Panama hat with a bright multicolored band and sets it jauntily on his head*) So long, white man! (*With a grin*) See you in jail sometime, maybe!

Smithers. Not me, you won't. Well, I wouldn't be in yer bloody boots for no bloomin' money, but 'ere's wishin' yer luck just the same.

Jones (*contemptuously*). You're de frightenedest man evah I see! I tells you I'se safe's 'f I was in New York City. It takes dem niggers from now to dark to git up de nerve to start somethin'. By dat time, I'se got a head start dey never kotch up wid.

Smithers (*maliciously*). Give my regards to any ghosts yer meets up with.

Jones (*grinning*). If dat ghost got money, I'll tell him never ha'nt you less'n he wants to lose it.

Smithers (*flattered*). Garn! (*Then curiously*) Ain't yer takin' no luggage with yer?

Jones. I travels light when I wants to move fast. And I got tinned grub buried on de edge o' de forest. (*Boastfully*) Now say dat I don't look ahead an' use my brains! (*With a wide, liberal gesture*) I will all dat's left in de palace to you—and you better grab all you kin sneak away wid befo' dey gits here.

Smithers (*gratefully*). Righto—and thanks ter yer. (*As* JONES *walks toward the door in rear—cautioningly*) Say! Look 'ere, you ain't goin' out that way, are yer?

Jones. Does you think I'd slink out de back door like a common nigger? I'se Emperor yit, ain't I? And de Emperor Jones leaves de way he comes, and dat black trash don't dare stop him—not yit, leastways. (*He stops for a moment in the doorway, listening to the far-off but insistent beat of the tom-tom*) Listen to dat roll call, will you? Must be mighty big drum carry dat far. (*Then with a laugh*) Well, if dey ain't no whole brass band to see me off, I sho' got de drum part of it. So long, white man. (*He puts his hands in his pockets and with*

studied carelessness, whistling a tune, he saunters out of the doorway and off to the left.)

Smithers (*looks after him with a puzzled admiration*). 'E's got 'is bloomin' nerve with 'im, s'elp me! (*Then angrily*) Ho–the bleedin' nigger–puttin' on 'is bloody airs! I 'opes they nabs 'im an' gives 'im what's what!

SCENE II

The end of the plain where the Great Forest begins. The foreground is sandy, level ground dotted by a few stones and clumps of stunted bushes cowering close against the earth to escape the buffeting of the trade wind. In the rear the forest is a wall of darkness dividing the world. Only when the eye becomes accustomed to the gloom can the outlines of separate trunks of the nearest trees be made out, enormous pillars of deeper blackness. A somber monotone of wind lost in the leaves moans in the air. Yet this sound serves but to intensify the impression of the forest's relentless immobility, to form a background throwing into relief its brooding, implacable silence.

JONES *enters from the left, walking rapidly. He stops as he nears the edge of the forest, looks around him quickly, peering into the dark as if searching for some familiar landmark. Then, apparently satisfied that he is where he ought to be, he throws himself on the ground, dog-tired.*

Well, heah I is. In de nick o' time, too! Little mo' an' it'd be blacker'n de ace of spades heahabouts. (*He pulls a bandana handkerchief from his hip pocket and mops off his perspiring face*) Sho'! Gimme air! I'se tuckered out sho' 'nuff. Dat soft Emperor job ain't no trainin' fo' a long hike ovah dat plain in de brilin' sun. (*Then with a chuckle*) Cheer up, nigger, de worst is yet to come. (*He lifts his head and stares at the forest. His chuckle peters out abruptly. In a tone of awe*) My goodness, look at dem woods, will you? Dat no-count Smithers said dey'd be black an' he sho' called de turn. (*Turning away from them quickly and looking down at his feet, he snatches at a chance to change the subject–solicitously*) Feet, you is holdin' up yo' end fine an' I sutinly hopes you ain't blisterin' none. It's time you git a rest. (*He takes off his shoes, his eyes studiously avoiding the forest. He feels of the soles of his feet gingerly*) You is still in de pink–on'y a little mite feverish. Cool yo'selfs. Remember you done got a long journey yit befo' you. (*He sits in a weary attitude, listening to the*

rhythmic beating of the tom-tom. He grumbles in a loud tone to cover up a growing uneasiness) Bush niggers! Wonder dey wouldn't git sick o' beatin' dat drum. Sound louder, seem like. I wonder if dey's startin' after me? (*He scrambles to his feet, looking back across the plain*) Couldn't see dem now, nohow, if dey was hundred feet away. (*Then shaking himself like a wet dog to get rid of these depressing thoughts*) Sho', dey's miles an' miles behind. What you gittin' fidgety about? (*But he sits down and begins to lace up his shoes in great haste, all the time muttering reassuringly*) You know what? Yo' belly is empty, dat's what's de matter wid you. Come time to eat! Wid nothin' but wind on yo' stumach, o' course you feels jiggedy. Well, we eats right heah an' now soon's I gits dese pesky shoes laced up. (*He finishes lacing up his shoes*) Dere! Now le's see! (*Gets on his hands and knees and searches the ground around him with his eyes*) White stone, white stone, where is you? (*He sees the first white stone and crawls to it—with satisfaction*) Heah you is! I knowed dis was de right place. Box of grub, come to me. (*He turns over the stone and feels in under it—in a tone of dismay*) Ain't heah! Gorry, is I in de right place or isn't I? Dere's 'nother stone. Guess dat's it. (*He scrambles to the next stone and turns it over*) Ain't heah, neither! Grub, whar is you? Ain't heah. Gorry, has I got to go hungry into dem woods—all de night? (*While he is talking he scrambles from one stone to another, turning them over in frantic haste. Finally, he jumps to his feet excitedly*) Is I lost de place? Must have! But how dat happen when I was followin' de trail across de plain in broad daylight? (*Almost plaintively*) I'se hungry, I is! I gotta git my feed. Whar's my strength gonna come from if I doesn't? Gorry, I gotta find dat grub high an' low somehow! Why it come dark so quick like dat? Can't see nothin'. (*He scratches a match on his trousers and peers about him. The rate of the beat of the far-off tom-tom increases perceptibly as he does so. He mutters in a bewildered voice*) How come all dese white stones come heah when I only remembers one? (*Suddenly, with a frightened gasp, he flings the match on the ground and stamps on it*) Nigger, is you gone crazy mad? Is you lightin' matches to show dem whar you is? Fo' Lawd's sake, use yo' haid. Gorry, I'se got to be careful! (*He stares at the plain behind him apprehensively, his hand on his revolver*) But how come all dese white stones? And whar's dat tin box o' grub I hid all wrapped up in oilcloth?

While his back is turned, the LITTLE FORMLESS FEARS *creep out from the deeper blackness of the forest. They are black, shapeless, only*

their glittering little eyes can be seen. If they have any describable form at all it is that of a grubworm about the size of a creeping child. They move noiselessly, but with deliberate, painful effort, striving to raise themselves on end, failing and sinking prone again. JONES *turns about to face the forest. He stares up at the tops of the trees, seeking vainly to discover his whereabouts by their conformation.*

Can't tell nothin' from dem trees! Gorry, no thin' 'round heah looks like I evah seed it befo'. I'se done lost de place sho' 'nuff! (*With mournful foreboding*) It's mighty queer! It's mighty queer! (*With sudden forced defiance—in an angry tone*) Woods, is you tryin' to put somethin' ovah on me? (*From the formless creatures on the ground in front of him comes a tiny gale of low mocking laughter like a rustling of leaves. They squirm upward toward him in twisted attitudes.* JONES *looks down, leaps backward with a yell of terror, yanking out his revolver as he does so—in a quavering voice*) What's dat? Who's dar? What is you? Git away from me befo' I shoots you up! You don't?—

He fires. There is a flash, a loud report, then silence broken only by the far-off, quickened throb of the tom-tom. The formless creatures have scurried back into the forest. JONES *remains fixed in his position, listening intently. The sound of the shot, the reassuring feel of the revolver in his hand, have somewhat restored his shaken nerve. He addresses himself with renewed confidence.*

Dey're gone. Dat shot fix 'em. Dey was only little animals—little wild pigs, I reckon. Dey've maybe rooted out yo' grub an' eat it. Sho', you fool nigger, what you think dey is—ha'nts? (*Excitedly*) Gorry, you give de game away when you fire dat shot. Dem niggers heah dat fo' su'tin! Time you beat it in de woods widout no long waits. (*He starts for the forest—hesitates before the plunge—then urging himself in with manful resolution*) Git in, nigger! What you skeered at? Ain't nothin' dere but de trees! Git in! (*He plunges boldly into the forest.*)

SCENE III

In the forest. The moon has just risen. Its beams, drifting through the canopy of leaves, make a barely perceptible, suffused, eerie glow. A dense low wall of underbrush and creepers is in the nearer foreground, fencing in a small triangular clearing. Beyond this is the massed blackness of the forest like an encompassing barrier. A path

is dimly discerned leading down to the clearing from left, rear, and winding away from it again toward the right. As the scene opens nothing can be distinctly made out. Except for the beating of the tom-tom, which is a trifle louder and quicker than at the close of the previous scene, there is silence, broken every few seconds by a queer, clicking sound. Then gradually the figure of the Negro JEFF *can be discerned crouching on his haunches at the rear of the triangle. He is middle aged, thin, brown in color, is dressed in a Pullman porter's uniform and cap. He is throwing a pair of dice on the ground before him, picking them up, shaking them, casting them out with the regular, rigid, mechanical movements of an automaton. The heavy, plodding footsteps of someone approaching along the trail from the left are heard and* JONES' *voice, pitched on a slightly higher key and strained in a cheery effort to overcome its own tremors.*

De moon's rizen. Does you heah dat, nigger? You gits more light from dis out. No mo' buttin' yo' fool head agin' de trunks an' scratchin' de hide off yo' legs in de bushes. Now you sees whar yo'se gwine. So cheer up! From now on you has a snap. (*He steps just to the rear of the triangular clearing and mops of his face on his sleeve. He has lost his Panama hat. His face is scratched, his brilliant uniform shows several large rents*) What time's it gittin' to be, I wonder? I dassent light no match to find out. Phoo'. It's wa'm an' dat's a fac'! (*Wearily*) How long I been makin' tracks in dese woods? Must be hours an' hours. Seems like fo'evah! Yit can't be, when de moon's jes' riz. Dis am a long night fo' yo', yo' Majesty! (*With a mournful chuckle*) Majesty! Der ain't much majesty 'bout dis baby now. (*With attempted cheerfulness*) Never min'. It's all part o' de game. Dis night come to an end like everything else. And when you gits dar safe and has dat bank roll in yo' hands you laughs at all dis. (*He starts to whistle but checks himself abruptly*) What yo' whistlin' for, you po'dope! Want all de worl' to heah you? (*He stops talking to listen*) Heah dat ole drum! Sho' gits nearer from de sound. Dey's packin' it along wid 'em. Time fo' me to move. (*He takes a step forward, then stops—worriedly*) What's dat odder queer clickety sound I heah? Dere it is! Sound close! Sound like—sound like— Fo' God sake, sound like some nigger was shootin' crap! (*Frightenedly*) I better beat it quick when I gits dem notions. (*He walks quickly into the clear space—then stands transfixed as he sees* JEFF—*in a terrified gasp*) Who dar? Who dat? Is dat you, Jeff? (*Starting toward the other, forgetful for a moment of his*

surroundings and really believing it is a living man that he sees—in a tone of happy relief) Jeff! I'se sho' mighty glad to see you! Dey tol' me you done died from dat razor cut I gives you. (*Stopping suddenly, bewilderedly*) But how you come to be heah, nigger? (*He stares fascinatedly at the other who continues his mechanical play with the dice.* JONES' *eyes begin to roll wildly. He stutters*) Ain't you gwine—look up—can't you speak to me? Is you—is you—a ha'nt? (*He jerks out his revolver in a frenzy of terrified rage*) Nigger, I kills you dead once. Has I got to kill you ag'in? You take it den. (*He fires. When the smoke clears away* JEFF *has disappeared.* JONES *stands trembling—then with a certain reassurance*) He's gone, anyway. Ha'nt or not ha'nt, dat shot fix him. (*The beat of the far-off tom-tom is perceptibly louder and more rapid.* JONES *becomes conscious of it—with a start, looking back over his shoulder*) Dey's gittin' near! Dey's comin' fast! And heah I is shootin' shots to let 'em know jes' whar I is! Oh, Gorry, I'se got to run. (*Forgetting the path he plunges wildly into the underbrush in the rear and disappears in the shadow.*)

SCENE IV

In the forest. A wide dirt road runs diagonally from right, front, to left, rear. Rising sheer on both sides the forest walls it in. The moon is now up. Under its light the road glimmers ghastly and unreal. It is as if the forest had stood aside momentarily to let the road pass through and accomplish its veiled purpose. This done, the forest will fold in upon itself again and the road will be no more. JONES *stumbles in from the forest on the right. His uniform is ragged and torn. He looks about him with numbed surprise when he sees the road, his eyes blinking in the bright moonlight. He flops down eshaustedly and pants heavily for a while. Then with sudden anger.*

I'm meltin' wid heat! Runnin' an' runnin' an' runnin'! Damn dis heah coat! Like a strait jacket! (*He tears off his coat and flings it away from him, revealing himself stripped to the waist*) Dere! Dat's better! Now I kin breathe! (*Looking down at his feet, the spurs catch his eye*) And to hell wid dese high-fangled spurs. Dey're what's been a-trippin' me up an' breakin' my neck. (*He unstraps them and flings them away disgustedly*) Dere! I gits rid o' dem frippety Emperor trappin's an' I travels lighter. Lawd! I'se tired! (*After a pause, listening to the insistent beat of the tom-tom in the distance*) I must 'a' put some distance between my-

self an' dem–runnin' like dat–and yit–dat damn drum sounds jes' de same–nearer, even. Well, I guess I a'most holds my lead anyhow. Dey won't never catch up. (*With a sigh*) If on'y my fool legs stands up. Oh, I'se sorry I evah went in for dis. Dat Emperor job is sho' hard to shake. (*He looks around him suspiciously*) How'd dis road evah git heah? Good level road, too. I never remembers seein' it befo'. (*Shaking his head apprehensively*) Dese woods is sho' full o' de queerest things at night. (*With a sudden terror*) Lawd God, don't let me see no more o' dem ha'nts! Dey gits my goat! (*Then trying to talk himself into confidence*) Ha'nts! You fool nigger, dey ain't no such things! Don't de Baptist parson tell you dat many time? Is you civilized, or is you like dese ign'rent black niggers heah? Sho'! Dat was all in yo' own head. Wasn't nothin' dere. Wasn't no Jeff! Know what? You jus' get seein' dem things 'cause yo' belly's empty and you's sick wid hunger inside. Hunger 'fects yo' head and yo' eyes. Any fool know dat. (*Then pleading fervently*) But bless God, I don't come across no more o' dem, whatever dey is! (*Then cautiously*) Rest! Don't talk! Rest! You needs it. Den you gits on yo' way again. (*Looking at the moon*) Night's half gone a'most. You hits de coast in de mawning! Den you's all safe.

From the right forward a small gang of Negroes enter. They are dressed in striped convict suits, their heads are shaven, one leg drags limpingly, shackled to a heavy ball and chain. Some carry picks, the others shovels. They are followed by a white man dressed in the uniform of a prison guard. A Winchester rifle is slung across his shoulders and he carries a heavy whip. At a signal from the GUARD *they stop on the road opposite where* JONES *is sitting.* JONES, *who has been staring up at the sky, unmindful of their noiseless approach, suddenly looks down and sees them. His eyes pop out, he tries to get to his feet and fly, but sinks back, too numbed by fright to move. His voice catches in a choking prayer.*

Lawd Jesus!

The PRISON GUARD *cracks his whip–noiselessly–and at that signal all the convicts start to work on the road. They swing their picks, they shovel, but not a sound comes from their labor. Their movements, like those of* JEFF *in the preceding scene, are those of automatons–rigid, slow, and mechanical. The* PRISON GUARD *points sternly at* JONES *with his whip, motions him to take his place among the other shovelers.* JONES *gets to his feet in a hypnotized stupor. He mumbles subserviently.*

Yes, suh! Yes, suh! I'se comin'.

As he shuffles, dragging one foot, over to his place, he curses under his breath with rage and hatred.

God damn yo' soul, I gits even wid you yit, sometime.

As if there were a shovel in his hands he goes through weary, mechanical gestures of digging up dirt, and throwing it to the roadside. Suddenly the GUARD *approaches him angrily, threateningly. He raises his whip and lashes* JONES *viciously across the shoulders with it.* JONES *winces with pain and cowers abjectly. The* GUARD *turns his back on him and walks away contemptuously. Instantly* JONES *straightens up. With arms upraised as if his shovel were a club in his hands he springs murderously at the unsuspecting* GUARD. *In the act of crashing down his shovel on the white man's skull,* JONES *suddenly becomes aware that his hands are empty. He cries despairingly.*

Whar's my shovel? Gimme my shovel 'til I splits his damn head! (*Appealing to his fellow convicts*) Gimme a shovel, one o' you, fo' God's sake!

They stand fixed in motionless attitudes, their eyes on the ground. The GUARD *seems to wait expectantly, his back turned to the attacker.* JONES *bellows with baffled, terrified rage, tugging frantically at his revolver.*

I kills you, you white debil, if it's de last thing I evah does! Ghost or debil, I kill you agin!

He frees the revolver and fires point blank at the GUARD'S *back. Instantly the walls of the forest close in from both sides, the road and the figures of the convict gang are blotted out in an enshrouding darkness. The only sounds are a crashing in the underbrush as* JONES *leaps away in mad flight and the throbbing of the tom-tom still far distant, but increased in volume of sound and rapidity of beat.*

SCENE V

A large circular clearing, enclosed by the serried ranks of gigantic trunks of tall trees whose tops are lost to view. In the center is a big dead stump worn by time into a curious resemblance to an auction block. The moon floods the clearing with a clear light. JONES *forces his way in through the forest on the left. He looks wildly about the*

clearing with hunted, fearful glances. His pants are in tatters, his shoes cut and misshapen, flapping about his feet. He slinks cautiously to the stump in the center and sits down in a tense position, ready for instant flight. Then he holds his head in his hands and rocks back and forth, moaning to himself miserably.

Oh, Lawd, Lawd! Oh, Lawd, Lawd! (*Suddenly he throws himself on his knees and raises his clasped hands to the sky—in a voice of agonized pleading*) Lawd Jesus, heah my prayer! I'se a po' sinner, a po' sinner! I knows I done wrong, I knows it! When I cotches Jeff cheatin' wid loaded dice my anger overcomes me and I kills him dead! Lawd, I done wrong! When dat guard hits me wid de whip, my anger overcomes me, and I kills him dead. Lawd, I done wrong! And down heah whar dese fool bush niggers raises me up to the seat o' de mighty, I steals all I could grab. Lawd, I done wrong! I knows it! I'se sorry! Forgive me, Lawd! Forgive dis po' sinner! (*Then beseeching terrifiedly*) And keep dem away, Lawd! Keep dem away from me! And stop dat drum soundin' in my ears! Dat begin to sound ha'nted, too. (*He gets to his feet, evidently slightly reassured by his prayer—with attempted confidence*) De Lawd'll preserve me from dem ha'nts after dis. (*Sits down on the stump again*) I ain't skeered o' real men. Let dem come. But dem odders— (*He shudders—then looks down at his feet, working his toes inside the shoes—with a groan*) Oh, my po' feet! Dem shoes ain't no use no more 'ceptin' to hurt. I'se better off widout dem. (*He unlaces them and pulls them off—holds the wrecks of the shoes in his hands and regards them mournfully*) You was real, A-one patin' leather, too. Look at you now. Emperor, you'se gittin' mighty low!

He sighs dejectedly and remains with bowed shoulders, staring down at the shoes in his hands as if reluctant to throw them away. While his attention is thus occupied, a crowd of figures silently enter the clearing from all sides. All are dressed in Southern costumes of the period of the fifties of the last century. There are middle-aged men who are evidently well-to-do planters. There is one spruce, authoritative individual—the AUCTIONEER. *There is a crowd of curious spectators, chiefly young belles and dandies who have come to the slave market for diversion. All exchange courtly greetings in dumb show and chat silently together. There is something stiff, rigid, unreal, marionettish about their movements. They group themselves about the stump. Finally a batch of slaves is led in from the left by an at-*

tendant—three men of different ages, two women, one with a baby in her arms, nursing. They are placed to the left of the stump, beside JONES.

The white planters look them over appraisingly as if they were cattle, and exchange judgments on each. The dandies point with their fingers and make witty remarks. The belles titter bewitchingly. All this in silence save for the ominous throb of the tom-tom. The AUCTIONEER *holds up his hand, taking his place at the stump. The groups strain forward attentively. He touches* JONES *on the shoulder peremptorily, motioning for him to stand on the stump—the auction block.*

JONES *looks up, sees the figures on all sides, looks wildly for some opening to escape, sees none, screams and leaps madly to the top of the stump to get as far away from them as possible. He stands there, cowering, paralyzed with horror. The* AUCTIONEER *begins his silent spiel. He points to* JONES, *appeals to the planters to see for themselves. Here is a good field hand, sound in wind and limb as they can see. Very strong still in spite of his being middle aged. Look at that back. Look at those shoulders. Look at the muscles in his arms and his sturdy legs. Capable of any amount of hard labor. Moreover, of a good disposition, intelligent and tractable. Will any gentleman start the bidding? The* PLANTERS *raise their fingers, make their bids. They are apparently all eager to possess* JONES. *The bidding is lively, the crowd interested. While this has been going on,* JONES *has been seized by the courage of desperation. He dares to look down and around him. Over his face abject terror gives way to mystification, to gradual realization—stutteringly.*

What you all doin', white folks? What's all dis? What you all lookin' at me fo'? What you doin' wid me, anyhow? (*Suddenly convulsed with raging hatred and fear*) Is dis a auction? Is you sellin' me like dey uster befo' de war? (*Jerking out his revolver just as the* AUCTIONEER *knocks him down to one of the planters—glaring from him to the purchaser*) And *you* sells me? And *you* buys me? I shows you I'se a free nigger, damn yo' souls! (*He fires at the* AUCTIONEER *and at the* PLANTER *with such rapidity that the two shots are almost simultaneous. As if this were a signal the walls of the forest fold in. Only blackness remains and silence broken by* JONES *as he rushes off, crying with fear—and by the quickened, ever louder beat of the tom-tom.*)

SCENE VI

A cleared space in the forest. The limbs of the trees meet over it forming a low ceiling about five feet from the ground. The interlocked ropes of creepers reaching upward to entwine the tree trunks give an arched appearance to the sides. The space thus enclosed is like the dark, noisome hold of some ancient vessel. The moonlight is almost completely shut out and only a vague wan light filters through. There is the noise of someone approaching from the left, stumbling and crawling through the undergrowth. JONES' *voice is heard between chattering moans.*

Oh, Lawd, what I gwine do now? Ain't got no bullet left on'y de silver one. If mo' o' dem ha'nts come after me, how I gwine skeer dem away? Oh, Lawd, on'y de silver one left–an' I gotta save dat fo' luck. If I shoots dat one I'm a goner sho'! Lawd, it's black heah! Whar's de moon? Oh, Lawd, don't dis night evah come to an end! (*By the sounds, he is feeling his way cautiously forward*) Dere! Dis feels like a clear space. I gotta lie down an' rest. I don't care if dem niggers does cotch me. I gotta rest.

He is well forward now where his figure can be dimly made out. His pants have been so torn away that what is left of them is no better than a breech cloth. He flings himself full length, face downward on the ground, panting with exhaustion. Gradually it seems to grow lighter in the enclosed space and two rows of seated figures can be seen behind JONES. *They are sitting in crumpled, despairing attitudes, hunched, facing one another with their backs touching the forest walls as if they were shackled to them. All are Negroes, naked save for loin cloths. At first they are silent and motionless. Then they begin to sway slowly forward toward each other and back again in unison, as if they were laxly letting themselves follow the long roll of a ship at sea. At the same time, a low, melancholy murmur rises among them, increasing gradually by rhythmic degrees, which seem to be directed and controlled by the throb of the tom-tom in the distance, to a long, tremulous wail of despair that reaches a certain pitch, unbearably acute, then falls by slow gradations of tone into silence and is taken up again.* JONES *starts, looks up, sees the figures, and throws himself down again to shut out the sight. A shudder of terror shakes his whole body as the wail rises up about him*

again. But the next time, his voice, as if under some uncanny compulsion, starts with the others. As their chorus lifts he rises to a sitting posture similar to the others, swaying back and forth. His voice reaches the highest pitch of sorrow, of desolation. The light fades out, the other voices cease, and only darkness is left. JONES *can be heard scrambling to his feet and running off, his voice sinking down the scale and receding as he moves farther and farther away in the forest. The tom-tom beats louder, quicker, with a more insistent, triumphant pulsation.*

SCENE VII

The foot of a gigantic tree by the edge of a great river. A rough structure of boulders, like an altar, is by the tree. The raised riverbank is in the nearer background. Beyond this the surface of the river spreads out, brilliant and unruffled in the moonlight, blotted out and merged into a veil of bluish mist in the distance. JONES' *voice is heard from the left rising and falling in the long, despairing wail of the chained slaves, to the rhythmic beat of the tom-tom. As his voice sinks into silence, he enters the open space. The expression of his face is fixed and stony, his eyes have an obsessed glare, he moves with a strange deliberation like a sleepwalker or one in a trance. He looks around at the tree, the rough stone altar, the moonlit surface of the river beyond, and passes his hand over his head with a vague gesture of puzzled bewilderment. Then, as if in obedience to some obscure impulse, he sinks into a kneeling, devotional posture before the altar. Then he seems to come to himself partly, to have an uncertain realization of what he is doing, for he straightens up and stares about him horrifiedly—in an incoherent mumble.*

What—what is I doin'? What is—dis place? Seems like I know dat tree—an' dem stones—an' de river. I remember—seems like I been heah befo'. (*Tremblingly*) Oh, Gorry, I'se skeered in dis place! I'se skeered. Oh, Lawd, pertect dis sinner!

Crawling away from the altar, he cowers close to the ground, his face hidden, his shoulders heaving with sobs of hysterical fright. From behind the trunk of the tree, as if he had sprung out of it, the figure of the CONGO WITCH DOCTOR *appears. He is wizened and old, naked except for the fur of some small animal tied about his waist, its bushy tail hanging down in front. His body is stained all*

over a bright red. Antelope horns are on each side of his head, branching upward. In one hand he carries a bone rattle, in the other a charm stick with a bunch of white cockatoo feathers tied to the end. A great number of glass beads and bone ornaments are about his neck, ears, wrists, and ankles. He struts noiselessly with a queer prancing step to a position in the clear ground between JONES *and the altar. Then with a preliminary, summoning stamp of his foot on the earth, he begins to dance and to chant. As if in response to his summons the beating of the tom-tom grows to a fierce, exultant boom whose throbs seem to fill the air with vibrating rhythm.* JONES *looks up, starts to spring to his feet, reaches a half-kneeling, half-squatting position and remains rigidly fixed there, paralyzed with awed fascination by this new apparition. The* WITCH DOCTOR *sways, stamping with his foot, his bone rattle clicking the time. His voice rises and falls in a weird, monotonous croon, without articulate word divisions. Gradually his dance becomes clearly one of a narrative in pantomime, his croon is an incantation, a charm to allay the fierceness of some implacable deity demanding sacrifice. He flees, he is pursued by devils, he hides, he flees again. Ever wilder and wilder becomes his flight, nearer and nearer draws the pursuing evil, more and more the spirit of terror gains possession of him. His croon, rising to intensity, is punctuated by shrill cries.* JONES *has become completely hypnotized. His voice joins in the incantation, in the cries, he beats time with his hands and sways his body to and fro from the waist. The whole spirit and meaning of the dance has entered into him, has become his spirit. Finally the theme of the pantomime halts on a howl of despair, and is taken up again in a note of savage hope. There is a salvation. The forces of evil demand sacrifice. They must be appeased. The* WITCH DOCTOR *points with his wand to the sacred tree, to the river beyond, to the altar, and finally to* JONES *with a ferocious command.* JONES *seems to sense the meaning of this. It is he who must offer himself for sacrifice. He beats his forehead abjectly to the ground, moaning hysterically.*

Mercy, Oh, Lawd! Mercy! Mercy on dis po' sinner.

The WITCH DOCTOR *springs to the riverbank. He stretches out his arms and calls to some* GOD *within its depths. Then he starts backward slowly, his arms remaining out. A huge head of a* CROCODILE *appears over the bank and its eyes, glittering greenly, fasten upon* JONES. *He stares into them fascinatedly. The* WITCH DOCTOR *prances up to him, touches him with his wand, motions with hideous com-*

mand toward the waiting monster. JONES *squirms on his belly nearer and nearer, moaning continually.*

Mercy, Lawd! Mercy!

The CROCODILE *heaves more of his enormous hulk onto the land.* JONES *squirms toward him. The* WITCH DOCTOR'S *voice shrills out in furious exultation, the tom-tom beats madly.* JONES *cries out in a fierce, exhausted spasm of anguished pleading.*

Lawd, save me! Lawd Jesus, heah my prayer!

Immediately, in answer to his prayer, comes the thought of the one bullet left him. He snatches at his hip, shouting defiantly.

De silver bullet! You don't git me yit!

He fires at the green eyes in front of him. The head of the CROCODILE *sinks back behind the riverbank, the* WITCH DOCTOR *springs behind the sacred tree and disappears.* JONES *lies with his face to the ground, his arms outstretched, whimpering with fear as the throb of the tom-tom fills the silence about him with a somber pulsation, a baffled but revengeful power.*

SCENE VIII

Dawn. Same as Scene II, the dividing line of forest and plain. The nearest tree trunks are dimly revealed but the forest behind them is still a mass of glooming shadow. The tom-tom seems on the very spot, so loud and continuously vibrating are its beats. LEM *enters from the left, followed by a small squad of his soldiers, and by the cockney trader,* SMITHERS. LEM *is a heavy-set, ape-faced old savage of the extreme African type, dressed only in a loincloth. A revolver and cartridge belt are about his waist. His soldiers are in different degrees of rag-concealed nakedness. All wear broad palm-leaf hats. Each one carries a rifle.* SMITHERS *is the same as in Scene I. One of the soldiers, evidently a tracker, is peering about keenly on the ground. He points to the spot where* JONES *entered the forest.* LEM *and* SMITHERS *come to look.*

Smithers (*after a glance, turns away in disgust*). That's where 'e went in right enough. Much good it'll do yer. 'E's miles orf by this an' safe to the Coast, damn 's 'ide! I tole yer yer'd lose im, didn't I?—wastin' the 'ole bloomin' night beatin' yer bloody drum and castin' yer silly spells! Gawd blimey, wot a pack!

Lem (*gutturally*). We cotch him. (*He makes a motion to his soldiers who squat down on their haunches in a semicircle.*)

Smithers (*exasperatedly*). Well, ain't yer goin' in an' 'unt 'im in the woods? What the 'ell's the good of waitin'?

Lem (*imperturbably—squatting down himself*). We cotch him.

Smithers (*turning away from him contemptuously*). Aw! Garn! 'E's a better man than the lot o' you put together. I 'ates the sight o' 'im but I'll say that for 'im. (*A sound comes from the forest. The soldiers jump to their feet, cocking their rifles alertly.* LEM *remains sitting with an imperturbable expression, but listening intently. He makes a quick signal with his hand. His followers creep quickly into the forest, scattering so that each enters at a different spot.*)

Smithers. You ain't thinkin' that would be 'im, I 'ope?

Lem (*calmly*). We cotch him.

Smithers. Blarsted fat 'eads! (*Then after a second's thought—wonderingly*) Still an' all, it might 'appen. If 'e lost 'is bloody way in these stinkin' woods 'e'd likely turn in a circle without 'is knowin' it.

Lem (*peremptorily*). Sssh! (*The reports of several rifles sound from the forest, followed a second later by savage, exultant yells. The beating of the tom-tom abruptly ceases.* LEM *looks up at the white man with a grin of satisfaction*) We cotch him. Him dead.

Smithers (*with a snarl*). 'Ow d'yer know it's 'im an' 'ow d'yer know 'e's dead?

Lem. My mens dey got um silver bullets. Lead bullet no kill him. He got um strong charm. I cook um money, make um silver bullet, make um strong charm, too.

Smithers (*astonished*). So that's wot you was up to all night, wot? You was scared to put after 'im till you'd moulded silver bullets, eh?

Lem (*simply stating a fact*). Yes. Him got strong charm. Lead no good.

Smithers (*slapping his thigh and guffawing*). Haw-haw! If yer don't beat all 'ell! (*Then recovering himself—scornfully*) I'll bet yer it ain't 'im they shot at all, yer bleedin' looney!

Lem (*calmly*). Dey come bring him now. (*The soldiers come out of the forest, carrying* JONES' *limp body. He is dead. They carry him to* LEM, *who examines his body with great satisfaction.*)

Smithers (*leans over his shoulder—in a tone of frightened awe*). Well, they did for yer right enough, Jonesey, me lad! Dead as a 'erring! (*Mockingly*) Where's yer 'igh an' mighty airs now, yer bloomin' Majesty? (*Then with a grin*) Silver bullets! Gawd blimey, but yer died in the 'eighth o' style, any'ow!

Gateway to the Great Books

5

Critical Essays

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GATEWAY TO THE GREAT BOOKS

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5

CRITICAL ESSAYS

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Virginia Woolf

1882–1941

Virginia Woolf was born at Kensington, January 25, 1882. She was the second daughter of Sir Leslie Stephen and his second wife. Sir Leslie was a well-known essayist and editor of the *Dictionary of National Biography*. Virginia Woolf was related to several famous Victorian families, including the Darwins. During her childhood many literary men of the day came to visit her father. Ruskin was one of these early acquaintances.

Delicate health kept Virginia from attending school, and her father educated her. He allowed her free run of his library; and, despite her lack of formal schooling, she was much better read than most women of her time.

In 1905, shortly after her father's death, Virginia, with her sister Vanessa and her brothers Adrian and Thoby, moved to a section of London called Bloomsbury. Their house was a popular meeting place for young writers and artists, who came to be known as the Bloomsbury Group.

In 1912 she married Leonard Sidney Woolf. Together they founded the Hogarth Press in 1917. Between periods of deep depression Virginia Woolf wrote novels and critical essays. Her first two novels, *The Voyage Out*, in 1915, and *Night and Day*, in 1919, were traditional in form. In her later novels, such as *Mrs. Dalloway*, in 1925, and *To the Lighthouse*, in 1927, she developed a characteristic style and experimented with various methods of representing the unspoken thoughts and feelings of her characters. *The Waves* was published in 1931.

Many of Virginia Woolf's critical essays were first published in the *Times Literary Supplement*. Two collections, *The Common Reader* and *The Common Reader, Second Series*, were published during

her lifetime. *How Should One Read a Book?* is from the second series.

On March 28, 1941, Virginia Woolf drowned herself in a river near the Woolfs' wartime home in Sussex.

The Bloomsbury Group was made up of young British intellectuals. The members prized wit and good manners and were strongly opposed to the utilitarianism which their Victorian parents had valued. They attached considerable importance to a delicate appreciation of art.

Many contemporary writers were critical of the group's aristocratic attitudes. D. H. Lawrence, for example, described the members as "beetles that sting like scorpions." But they also had many staunch defenders, including T.S.Eliot.

In her essays, Virginia Woolf appears to be addressing a larger Bloomsbury. She speaks to us as intellectual equals who share her passion for books and who are, or want to be, "creative readers" like herself.

The following essay, as noted above, is taken from *The Common Reader, Second Series*. The title comes from Samuel Johnson's *Life of Gray*. "I rejoice to concur with the common reader," says Dr. Johnson, "for by the common sense of readers . . . must be generally decided all claim to poetical honours."

Some critics have suggested that Mrs. Woolf's ideal reader is far from common. In a sense, this is true. She was herself an omnivorous and demanding reader, devouring and digesting hundreds of books, and bringing to the art of reading an uncommonly acute mind. But she was always concerned to discover and state those elements of the art which good readers have in common. In this sense, her essays are true to the title. And it is in this sense that the essay reprinted here must be understood.

She begins by pointing out that there can be no hard and fast

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Notes from the artist: "Virginia Woolf seated before a window with a view of a lighthouse, a symbol in one of her most important novels . . . while the three 'footprints' across the page recall her fictional biography of 'Flush,' Elizabeth Barrett Browning's spaniel."

VIRGINIA
WOOLF
BLOOMSBURY

rules for reading, but she quickly goes on to say that liberty must not be interpreted as license. If reading is an art, it has principles. These are of particular importance, she suggests, in an age in which there are many books. You *cannot* read everything. What *should* you read?

Like many of the authors in this volume, she concludes that only the best books should be read. But how are we to discover them? One way is to write, she says. "Perhaps the quickest way to understand the elements of what a novelist is doing is not to read, but to write." Only then can you discover how difficult, and how magical, good writing is. It follows, too, that "you must be capable not only of great finesse of perception, but of great boldness of imagination if you are going to make use of all that the novelist–the great artist–gives." Reading is not a passive activity. One cannot do it, as it were, lying down. It is work.

It is rewarding. Nothing, Mrs. Woolf suggests, is more so. From novels we learn what it means to "be wrenched and uprooted." A great novel creates the world anew for a good reader. Biographies people the familiar world with characters who are more interesting than most of the people we know. When we read poetry, "our being for the moment is centred and constricted, as in any violent shock of personal emotion." Books, for the good reader, have a tremendous effect.

But, Mrs. Woolf says, "the first process, to receive impressions with the utmost understanding, is only half the process of reading; it must be completed, if we are to get the whole pleasure from the book, by another. We must pass judgment upon these multitudinous impressions." In other words, the good reader is a critic, too. His standards, she insists, must be very high.

These two points make the heart of the essay. The good reader must receive everything which the book gives him, and he must judge its worth. If he fails to do either–particularly, if he judges without first understanding–he has failed to do his best. The punishment is harsh and automatic. The bad reader is lost among good books. He lacks the highest pleasure available to man, according to Mrs. Woolf. If she is right, none but a fool would refuse to learn to read as well as he can.

How Should One Read a Book?

In the first place, I want to emphasize the note of interrogation at the end of my title. Even if I could answer the question for myself, the answer would apply only to me and not to you. The only advice, indeed, that one person can give another about reading is to take no advice, to follow your own instincts, to use your own reason, to come to your own conclusions. If this is agreed between us, then I feel at liberty to put forward a few ideas and suggestions because you will not allow them to fetter that independence which is the most important quality that a reader can possess. After all, what laws can be laid down about books? The battle of Waterloo was certainly fought on a certain day; but is *Hamlet* a better play than *Lear*? Nobody can say. Each must decide that question for himself. To admit authorities, however heavily furred and gowned, into our libraries and let them tell us how to read, what to read, what value to place upon what we read, is to destroy the spirit of freedom which is the breath of those sanctuaries. Everywhere else we may be bound by laws and conventions—there we have none.

But to enjoy freedom, if the platitude is pardonable, we have of course to control ourselves. We must not squander our powers, helplessly and ignorantly, squirting half the house in order to water a single rosebush; we must train them, exactly and powerfully, here on the very spot. This, it may be, is one of the first difficulties that faces us in a library. What is "the very spot"? There may well seem to be nothing but a conglomeration and huddle of confusion. Poems and novels, histories and memoirs, dictionaries and bluebooks; books written in all languages by men and women of all tempers, races, and ages jostle each other on the shelf. And outside the donkey brays, the women gossip at the pump, the colts gallop across the fields. Where are we to begin? How are we to bring

order into this multitudinous chaos and get the deepest and widest pleasure from what we read?

It is simple enough to say that since books have classes–fiction, biography, poetry–we should separate them and take from each what it is right that each should give us. Yet few people ask from books what books can give us. Most commonly we come to books with blurred and divided minds, asking of fiction that it shall be true, of poetry that it shall be false, of biography that it shall be flattering, of history that it shall enforce our own prejudices. If we could banish all such preconceptions when we read, that would be an admirable beginning. Do not dictate to your author; try to become him. Be his fellow-worker and accomplice. If you hang back, and reserve and criticize at first, you are preventing yourself from getting the fullest possible value from what you read. But if you open your mind as widely as possible, then signs and hints of almost imperceptible fineness, from the twist and turn of the first sentences, will bring you into the presence of a human being unlike any other. Steep yourself in this, acquaint yourself with this, and soon you will find that your author is giving you, or attempting to give you, something far more definite. The thirty-two chapters of a novel–if we consider how to read a novel first–are an attempt to make something as formed and controlled as a building: but words are more impalpable than bricks; reading is a longer and more complicated process than seeing. Perhaps the quickest way to understand the elements of what a novelist is doing is not to read, but to write; to make your own experiment with the dangers and difficulties of words. Recall, then, some event that has left a distinct impression on you–how at the corner of the street, perhaps, you passed two people talking. A tree shook; an electric light danced; the tone of the talk was comic, but also tragic; a whole vision, an entire conception, seemed contained in that moment.

But when you attempt to reconstruct it in words, you will find that it breaks into a thousand conflicting impressions. Some must be subdued; others emphasized; in the process you will lose, probably, all grasp upon the emotion itself. Then turn from your blurred and littered pages to the opening pages of some great novelist–Defoe, Jane Austen, Hardy. Now you will be better able to appreciate their mastery. It is not merely that we are in the presence of a different person–Defoe, Jane Austen, or Thomas Hardy–but that we are living in a different world. Here, in *Robinson Crusoe*, we are trudging a plain high road; one thing happens after another; the fact and the order of the fact is enough. But if the open air and adventure mean everything to Defoe they mean nothing to Jane

Austen. Hers is the drawing-room, and people talking, and by the many mirrors of their talk revealing their characters. And if, when we have accustomed ourselves to the drawing-room and its reflections, we turn to Hardy, we are once more spun around. The moors are round us and the stars are above our heads. The other side of the mind is now exposed–the dark side that comes uppermost in solitude, not the light side that shows in company. Our relations are not towards people, but towards Nature and destiny. Yet different as these worlds are, each is consistent with itself. The maker of each is careful to observe the laws of his own perspective, and however great a strain they may put upon us they will never confuse us, as lesser writers so frequently do, by introducing two different kinds of reality into the same book. Thus to go from one great novelist to another–from Jane Austen to Hardy, from Peacock to Trollope, from Scott to Meredith–is to be wrenched and uprooted; to be thrown this way and then that. To read a novel is a difficult and complex art. You must be capable not only of great finesse of perception, but of great boldness of imagination if you are going to make use of all that the novelist–the great artist–gives you.

But a glance at the heterogeneous company on the shelf will show you that writers are very seldom "great artists"; far more often a book makes no claim to be a work of art at all. These biographies and autobiographies, for example, lives of great men, of men long dead and forgotten, that stand cheek by jowl with the novels and poems, are we to refuse to read them because they are not "art"? Or shall we read them, but read them in a different way, with a different aim? Shall we read them in the first place to satisfy that curiosity which possesses us sometimes when in the evening we linger in front of a house where the lights are lit and the blinds not yet drawn, and each floor of the house shows us a different section of human life in being? Then we are consumed with curiosity about the lives of these people–the servants gossiping, the gentlemen dining, the girl dressing for a party, the old woman at the window with her knitting. Who are they, what are they, what are their names, their occupations, their thoughts, and adventures?

Biographies and memoirs answer such questions, light up innumerable such houses; they show us people going about their daily affairs, toiling, failing, succeeding, eating, hating, loving, until they die. And sometimes as we watch, the house fades and the iron railings vanish and we are out at sea; we are hunting, sailing, fighting; we are among savages and soldiers; we are taking part in great campaigns. Or if we like to stay here in England, in London, still the scene changes; the street narrows; the house

becomes small, cramped, diamond-paned, and malodorous. We see a poet, Donne, driven from such a house because the walls were so thin that when the children cried their voices cut through them. We can follow him, through the paths that lie in the pages of books, to Twickenham; to Lady Bedford's Park, a famous meeting-ground for nobles and poets; and then turn our steps to Wilton, the great house under the downs, and hear Sidney read the *Arcadia* to his sister; and ramble among the very marshes and see the very herons that figure in that famous romance; and then again travel north with that other Lady Pembroke, Anne Clifford, to her wild moors, or plunge into the city and control our merriment at the sight of Gabriel Harvey in his black velvet suit arguing about poetry with Spenser. Nothing is more fascinating than to grope and stumble in the alternate darkness and splendour of Elizabethan London. But there is no staying there. The Temples and the Swifts, the Harleys and the St. Johns beckon us on; hour upon hour can be spent disentangling their quarrels and deciphering their characters; and when we tire of them we can stroll on, past a lady in black wearing diamonds, to Samuel Johnson and Goldsmith and Garrick; or cross the channel, if we like, and meet Voltaire and Diderot, Madame du Deffand; and so back to England and Twickenham—how certain places repeat themselves and certain names!—where Lady Bedford had her Park once and Pope lived later, to Walpole's home at Strawberry Hill. But Walpole introduces us to such a swarm of new acquaintances, there are so many houses to visit and bells to ring that we may well hesitate for a moment, on the Miss Berrys' doorstep, for example, when behold, up comes Thackeray; he is the friend of the woman whom Walpole loved; so that merely by going from friend to friend, from garden to garden, from house to house, we have passed from one end of English literature to another and wake to find ourselves here again in the present, if we can so differentiate this moment from all that have gone before. This, then, is one of the ways in which we can read these lives and letters; we can make them light up the many windows of the past; we can watch the famous dead in their familiar habits and fancy sometimes that we are very close and can surprise their secrets, and sometimes we may pull out a play or a poem that they have written and see whether it reads differently in the presence of the author. But this again rouses other questions. How far, we must ask ourselves, is a book influenced by its writer's life—how far is it safe to let the man interpret the writer? How far shall we resist or give way to the sympathies and antipathies that the man himself rouses in us—so sensitive are words, so receptive of the character of the author?

These are questions that press upon us when we read lives and letters, and we must answer them for ourselves, for nothing can be more fatal than to be guided by the preferences of others in a matter so personal.

But also we can read such books with another aim, not to throw light on literature, not to become familiar with famous people, but to refresh and exercise our own creative powers. Is there not an open window on the right hand of the bookcase? How delightful to stop reading and look out! How stimulating the scene is, in its unconsciousness, its irrelevance, its perpetual movement—the colts galloping round the field, the woman filling her pail at the well, the donkey throwing back his head and emitting his long, acrid moan. The greater part of any library is nothing but the record of such fleeting moments in the lives of men, women, and donkeys. Every literature, as it grows old, has its rubbish-heap, its records of vanished moments and forgotten lives told in faltering and feeble accents that have perished. But if you give yourself up to the delight of rubbish-reading you will be surprised, indeed you will be overcome, by the relics of human life that have been cast out to moulder. It may be one letter—but what a vision it gives! It may be a few sentences—but what vistas they suggest! Sometimes a whole story will come together with such beautiful humour and pathos and completeness that it seems as if a great novelist had been at work, yet it is only an old actor, Tate Wilkinson, remembering the strange story of Captain Jones; it is only a young subaltern serving under Arthur Wellesley and falling in love with a pretty girl at Lisbon; it is only Maria Allen letting fall her sewing in the empty drawing-room and sighing how she wishes she had taken Dr. Burney's good advice and had never eloped with her Rishy. None of this has any value; it is negligible in the extreme; yet how absorbing it is now and again to go through the rubbish-heaps and find rings and scissors and broken noses buried in the huge past and try to piece them together while the colt gallops round the field, the woman fills her pail at the well, and the donkey brays.

But we tire of rubbish-reading in the long run. We tire of searching for what is needed to complete the half-truth which is all that the Wilkinsons, the Bunburys, and the Maria Allens are able to offer us. They had not the artist's power of mastering and eliminating; they could not tell the whole truth even about their own lives; they have disfigured the story that might have been so shapely. Facts are all that they can offer us, and facts are a very inferior form of fiction. Thus the desire grows upon us to have done with half-statements and approximations; to cease from searching out the minute shades of human character, to enjoy the greater

abstractness, the purer truth of fiction. Thus we create the mood, intense and generalized, unaware of detail, but stressed by some regular, recurrent beat, whose natural expression is poetry; and that is the time to read poetry when we are almost able to write it.

> Western wind, when wilt thou blow?
> The small rain down can rain.
> Christ, if my love were in my arms,
> And I in my bed again!

The impact of poetry is so hard and direct that for the moment there is no other sensation except that of the poem itself. What profound depths we visit then–how sudden and complete is our immersion! There is nothing here to catch hold of; nothing to stay us in our flight. The illusion of fiction is gradual; its effects are prepared; but who when they read these four lines stops to ask who wrote them, or conjures up the thought of Donne's house or Sidney's secretary; or enmeshes them in the intricacy of the past and the succession of generations? The poet is always our contemporary. Our being for the moment is centred and constricted, as in any violent shock of personal emotion. Afterwards, it is true, the sensation begins to spread in wider rings through our minds; remoter senses are reached; these begin to sound and to comment and we are aware of echoes and reflections. The intensity of poetry covers an immense range of emotion. We have only to compare the force and directness of

> I shall fall like a tree, and find my grave
> Only remembering that I grieve,

with the wavering modulation of

> Minutes are numbered by the fall of sands,
> As by an hour glass; the span of time
> Doth waste us to our graves, and we look on it;
> An age of pleasure, revelled out, comes home
> At last and ends in sorrow; but the life,
> Weary of riot, numbers every sand,
> Wailing in sighs, until the last drop down,
> So to conclude calamity in rest,

or place the meditative calm of

> whether we be young or old,
> Our destiny, our being's heart and home,

Is with infinitude, and only there;
With hope it is, hope that can never die,
Effort, and expectation, and desire,
And something evermore about to be,

beside the complete and inexhaustible loveliness of

The moving Moon went up the sky,
And no where did abide:
Softly she was going up,
And a star or two beside–

or the splendid fantasy of

And the woodland haunter
Shall not cease to saunter
When, far down some glade,
Of the great world's burning,
One soft flame upturning
Seems, to his discerning,
Crocus in the shade.

to bethink us of the varied art of the poet; his power to make us at once actors and spectators; his power to run his hand into character as if it were a glove, and be Falstaff or Lear; his power to condense, to widen, to state, once and for ever.

"We have only to compare"–with those words the cat is out of the bag, and the true complexity of reading is admitted. The first process, to receive impressions with the utmost understanding, is only half the process of reading; it must be completed, if we are to get the whole pleasure from a book, by another. We must pass judgment upon these multitudinous impressions; we must make of these fleeting shapes one that is hard and lasting. But not directly. Wait for the dust of reading to settle; for the conflict and the questioning to die down; walk, talk, pull the dead petals from a rose, or fall asleep. Then suddenly without our willing it, for it is thus that Nature undertakes these transitions, the book will return, but differently. It will float to the top of the mind as a whole. And the book as a whole is different from the book received currently in separate phrases. Details now fit themselves into their places. We see the shape from start to finish; it is a barn, a pigsty, or a cathedral. Now then we can compare book with book as we compare building with building. But this act of comparison means that our attitude has changed; we are no longer the friends of the writer, but his judges; and just as we cannot be too sympathetic as friends, so as judges we cannot be too severe. Are

they not criminals, books that have wasted our time and sympathy; are they not the most insidious enemies of society, corrupters, defilers, the writers of false books, faked books, books that fill the air with decay and disease? Let us then be severe in our judgments; let us compare each book with the greatest of its kind. There they hang in the mind the shapes of the books we have read solidified by the judgments we have passed on them–*Robinson Crusoe*, *Emma*, *The Return of the Native*. Compare the novels with these–even the latest and least of novels has a right to be judged with the best. And so with poetry–when the intoxication of rhythm has died down and the splendour of words has faded a visionary shape will return to us and this must be compared with *Lear*, with *Phèdre*, with *The Prelude;* or if not with these, with whatever is the best or seems to us to be the best in its own kind. And we may be sure that the newness of new poetry and fiction is its most superficial quality and that we have only to alter slightly, not to recast, the standards by which we have judged the old.

It would be foolish, then, to pretend that the second part of reading, to judge, to compare, is as simple as the first–to open the mind wide to the fast flocking of innumerable impressions. To continue reading without the book before you, to hold one shadow-shape against another, to have read widely enough and with enough understanding to make such comparisons alive and illuminating–that is difficult; it is still more difficult to press further and to say, "Not only is the book of this sort, but it is of this value; here it fails; here it succeeds; this is bad; that is good." To carry out this part of a reader's duty needs such imagination, insight, and learning that it is hard to conceive any one mind sufficiently endowed; impossible for the most self-confident to find more than the seeds of such powers in himself. Would it not be wiser, then, to remit this part of reading and to allow the critics, the gowned and furred authorities of the library, to decide the question of the book's absolute value for us? Yet how impossible! We may stress the value of sympathy; we may try to sink our own identity as we read. But we know that we cannot sympathize wholly or immerse ourselves wholly; there is always a demon in us who whispers, "I hate, I love," and we cannot silence him. Indeed, it is precisely because we hate and we love that our relation with the poets and novelists is so intimate that we find the presence of another person intolerable. And even if the results are abhorrent and our judgments are wrong, still our taste, the nerve of sensation that sends shocks through us, is our chief illuminant; we learn through feeling; we cannot suppress our own idiosyncrasy without impoverishing it. But as time goes on perhaps we can train our taste; perhaps we can make it submit to some con-

trol. When it has fed greedily and lavishly upon books of all sorts–poetry, fiction, history, biography–and has stopped reading and looked for long spaces upon the variety, the incongruity of the living world, we shall find that it is changing a little; it is not so greedy, it is more reflective. It will begin to bring us not merely judgments on particular books, but it will tell us that there is a quality common to certain books. Listen, it will say, what shall we call *this?* And it will read us perhaps *Lear* and then perhaps *Agamemnon* in order to bring out that common quality. Thus, with our taste to guide us, we shall venture beyond the particular book in search of qualities that group books together; we shall give them names and thus frame a rule that brings order into our perceptions. We shall gain a further and a rarer pleasure from that discrimination. But as a rule only lives when it is perpetually broken by contact with the books themselves–nothing is easier and more stultifying than to make rules which exist out of touch with facts, in a vacuum–now at least, in order to steady ourselves in this difficult attempt, it may be well to turn to the very rare writers who are able to enlighten us upon literature as an art. Coleridge and Dryden and Johnson, in their considered criticism, the poets and novelists themselves in their unconsidered sayings, are often surprisingly relevant; they light up and solidify the vague ideas that have been tumbling in the misty depths of our minds. But they are only able to help us if we come to them laden with questions and suggestions won honestly in the course of our own reading. They can do nothing for us if we herd ourselves under their authority and lie down like sheep in the shade of a hedge. We can only understand their ruling when it comes in conflict with our own and vanquishes it.

If this is so, if to read a book as it should be read calls for the rarest qualities of imagination, insight, and judgment, you may perhaps conclude that literature is a very complex art and that it is unlikely that we shall be able, even after a lifetime of reading, to make any valuable contribution to its criticism. We must remain readers; we shall not put on the further glory that belongs to those rare beings who are also critics. But still we have our responsibilities as readers and even our importance. The standards we raise and the judgments we pass steal into the air and become part of the atmosphere which writers breathe as they work. An influence is created which tells upon them even if it never finds its way into print. And that influence, if it were well instructed, vigorous and individual and sincere, might be of great value now when criticism is necessarily in abeyance; when books pass in review like the procession of animals in a shooting gallery, and the critic has only one second in which to load and aim and shoot and may well be pardoned if

he mistakes rabbits for tigers, eagles for barn-door fowls, or misses altogether and wastes his shot upon some peaceful sow grazing in a further field. If behind the erratic gunfire of the press the author felt that there was another kind of criticism, the opinion of people reading for the love of reading, slowly and unprofessionally, and judging with great sympathy and yet with great severity, might this not improve the quality of his work? And if by our means books were to become stronger, richer, and more varied, that would be an end worth reaching.

Yet who reads to bring about an end however desirable? Are there not some pursuits that we practise because they are good in themselves, and some pleasures that are final? And is not this among them? I have sometimes dreamt, at least, that when the Day of Judgment dawns and the great conquerors and lawyers and statesmen come to receive their rewards—their crowns, their laurels, their names carved indelibly upon imperishable marble—the Almighty will turn to Peter and will say, not without a certain envy when He sees us coming with our books under our arms, "Look, these need no reward. We have nothing to give them here. They have loved reading."

Matthew Arnold

1822–1888

Matthew Arnold was born in Middlesex, England, December 24, 1822. His father was the noted Dr. Thomas Arnold, headmaster of Rugby. Young Arnold went to Rugby and Balliol College, Oxford, where he took the Newdigate Prize for poetry. In the Lake District he walked, skated, and sailed a boat. He had "Olympian manners." When he visited the novelist George Sand in France, she said that he gave "the effect of a young Milton on his travels."

In 1847 he became private secretary to Lord Lansdowne. His first collection of verse, *The Strayed Reveller and Other Poems,* in 1849, and a second three years later, were published under the initial "A." He married Frances Lucy Wightman in 1851. Lansdowne had arranged an appointment for Arnold as an Inspector of Schools. He served in that department for thirty-five years. His work required almost continual travel in England, plus frequent inspection tours in Holland, Germany, Austria, Italy, and France.

Under his own name he published *Poems* in 1853 and *Poems: Second Series* two years later. The tragedy *Merope* appeared in 1858. Except for *New Poems* in 1867, most of his later work was devoted to the literature of ideas, criticism in particular. Much of this came out of his election in 1857 as professor of poetry at Oxford, a post he held for ten years. His inaugural address, *On the Modern Element in Literature,* and such lectures as *The Study of Poetry* (see below) and *On Translating Homer* belong among his most famous essays.

In 1868 the Arnold family moved to Harrow and in 1873 to Cobham, Surrey, Arnold's home for the rest of his life. *Culture and Anarchy* was much talked about, but *Literature and Dogma,* published in 1873, became his first best seller of sorts. His 1883–84 lecture

tour in the United States was mildly successful. He made another visit two years later. As early as 1885 he had been troubled with angina pectoris. He continued to walk and skate a little. In the spring of 1888, he traveled to Liverpool to meet his daughter Lucy and his grandchild, inbound from America. Joyful at the reunion to come, he ran for a tram, leaped over a low fence, and fell dead. The date was April 15, 1888.

The Study of Poetry was first published in 1880 as an introduction to T. H. Ward's anthology, *The English Poets*. Like *Sweetness and Light,* its companion piece here, it shows us what a broad focus Arnold opened out on his time. At bottom, he was a poet-critic. Deliberately, he enlarged his viewpoint to take in the whole of society. He meant to deal with it in terms of those ideas–science, government, culture, history–by which, he felt, society was ordered; and this in turn required an expanded view of literature and of culture in general.

But he did not stop there. He was a reformer, at the topmost level. We recall his division of Englishmen into Barbarians (the upper class), Philistines (the middle class), and Populace (the working class). His mission, he felt, was to convert the heathen of the new middle class, swollen with industrial and financial power, and all but indifferent to any cultural demand that did not serve such power.

Thus he became a missionary politician of ideas, and most of his essays need to be understood first of all in that light. They are Epistles to the Philistines. He believed, as Lewis Mumford wrote nearly a hundred years later, that "an economy of abundance brings with it, not the duty to consume, but the readiness to create." And what was to be created was nothing less than the well-rounded and harmonious personality of man. Have we reached that goal yet? Insofar as we have not, and in the ways that we have not, Arnold still speaks to us as directly as he spoke to his contemporaries.

Notes from the artist: "*Suggestions of two of his major poems are woven into the portrait of Matthew Arnold . . . at the left are shells and sea life recalling* '*Dover Beach*,' *while above his head the protagonists of* '*Sohrab and Rustum*' *are shown in combat.*"

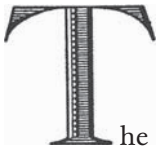
Almost a century later, the first pages of *The Study of Poetry* can still shock us a little. "Without poetry," Arnold writes, "our science will appear incomplete; and most of what now passes with us for religion and philosophy will be replaced by poetry." But only "the best poetry" will do. And how shall we recognize and define "the best poetry"? This last question alone has occupied many minds for a score of centuries. Arnold makes it his principal subject.

Except as data, science leaves out the life of feeling that gives tone to everything we do. But feeling is the medium and combining agent in poetry. Thus the idea that science will "appear incomplete" without poetry and the other arts becomes an ordinary fact. But what are we to make of the prediction that much of Victorian religion and philosophy would be "replaced by poetry"? We know, at least, that it has not happened. Poetry can hardly be said to have taken the place of religion and philosophy in any significant way. And we gather from Arnold's other essays that he was a religious reformer rather than an agnostic.

But he makes an excellent case for the possible uses of poetry as a cultural agent. He begins by trying to tell us how to read poetry, and how to tell the good from the bad. This involves a revaluation of English poets from the beginning–rather too much for one essay. He quotes examples, to *show* us, rather than attempt to explain what good poetry is. (This approach, expanded to take in the whole poem as text, became the principal method of the American New Critics in the mid-twentieth century.) He takes his examples, not from English poetry alone, but from what he knows of European poetry in general.

Our second essay, *Sweetness and Light*, shows us Arnold as the missionary of culture marching boldly into the enemy camp. Armed with such slogans as "To make reason and the will of God prevail!" and "Perfection . . . consists in becoming something rather than in having something," he sets up his ideal of the harmonious man. Then, one by one, he attacks the enemy idols: wealth, the cult of bodily vigor and large families, Puritan religion, machinery, Bentham's utilitarianism and the rest. Culture, he asserts, is a democratic idea. It must be diffused "from one end of society to the other."

The Study of Poetry



he future of poetry is immense, because in poetry, where it is worthy of its high destinies, our race, as time goes on, will find an ever surer and surer stay. There is not a creed which is not shaken, not an accredited dogma which is not shown to be questionable, not a received tradition which does not threaten to dissolve. Our religion has materialized itself in the fact, in the supposed fact; it has attached its emotion to the fact, and now the fact is failing it. But for poetry the idea is everything; the rest is a world of illusion, of divine illusion. Poetry attaches its emotion to the idea; the idea *is* the fact. The strongest part of our religion to-day is its unconscious poetry."

Let me be permitted to quote these words of my own, as uttering the thought which should, in my opinion, go with us and govern us in all our study of poetry. In the present work it is the course of one great contributory stream to the world-river of poetry that we are invited to follow. We are here invited to trace the stream of English poetry. But whether we set ourselves, as here, to follow only one of the several streams that make the mighty river of poetry, or whether we seek to know them all, our governing thought should be the same. We should conceive of poetry worthily, and more highly than it has been the custom to conceive of it. We should conceive of it as capable of higher uses, and called to higher destinies, than those which in general men have assigned to it hitherto. More and more mankind will discover that we have to turn to poetry to interpret life for us, to console us, to sustain us. Without poetry, our science will appear incomplete; and most of what now passes with us for religion and philosophy will be replaced by poetry. Science, I say, will appear incomplete without it. For finely and truly does Wordsworth call poetry "the impassioned expression which is in the countenance of all science"; and what is a countenance without its expression? Again,

Wordsworth finely and truly calls poetry "the breath and finer spirit of all knowledge": our religion, parading evidences such as those on which the popular mind relies now; our philosophy, pluming itself on its reasonings about causation and finite and infinite being; what are they but the shadows and dreams and false shows of knowledge? The day will come when we shall wonder at ourselves for having trusted to them, for having taken them seriously; and the more we perceive their hollowness, the more we shall prize "the breath and finer spirit of knowledge" offered to us by poetry.

But if we conceive thus highly of the destinies of poetry, we must also set our standard for poetry high, since poetry, to be capable of fulfilling such high destinies, must be poetry of a high order of excellence. We must accustom ourselves to a high standard and to a strict judgment. Sainte-Beuve relates that Napoleon one day said, when somebody was spoken of in his presence as a charlatan: "Charlatan as much as you please; but where is there *not* charlatanism?"—"Yes," answers Sainte-Beuve, "in politics, in the art of governing mankind, that is perhaps true. But in the order of thought, in art, the glory, the eternal honour is that charlatanism shall find no entrance; herein lies the inviolableness of that noble portion of man's being." It is admirably said, and let us hold fast to it. In poetry, which is thought and art in one, it is the glory, the eternal honour, that charlatanism shall find no entrance; that this noble sphere be kept inviolate and inviolable. Charlatanism is for confusing or obliterating the distinctions between excellent and inferior, sound and unsound or only half-sound, true and untrue or only half-true. It is charlatanism, conscious or unconscious, whenever we confuse or obliterate these. And in poetry, more than anywhere else, it is unpermissible to confuse or obliterate them. For in poetry the distinction between excellent and inferior, sound and unsound or only half-sound, true and untrue or only half-true, is of paramount importance. It is of paramount importance because of the high destinies of poetry. In poetry, as a criticism of life under the conditions fixed for such a criticism by the laws of poetic truth and poetic beauty, the spirit of our race will find, we have said, as time goes on and as other helps fail, its consolation and stay. But the consolation and stay will be of power in proportion to the power of the criticism of life. And the criticism of life will be of power in proportion as the poetry conveying it is excellent rather than inferior, sound rather than unsound or half-sound, true rather than untrue or half-true.

The best poetry is what we want; the best poetry will be found to have a power of forming, sustaining, and delighting us, as nothing else can.

A clearer, deeper sense of the best in poetry, and of the strength and joy to be drawn from it, is the most precious benefit which we can gather from a poetical collection such as the present. And yet in the very nature and conduct of such a collection there is inevitably something which tends to obscure in us the consciousness of what our benefit should be, and to distract us from the pursuit of it. We should therefore steadily set it before our minds at the outset, and should compel ourselves to revert constantly to the thought of it as we proceed.

Yes; constantly in reading poetry, a sense for the best, the really excellent, and of the strength and joy to be drawn from it should be present in our minds and should govern our estimate of what we read. But this real estimate, the only true one, is liable to be superseded, if we are not watchful, by two other kinds of estimate, the historic estimate and the personal estimate, both of which are fallacious. A poet or a poem may count to us historically, they may count to us on grounds personal to ourselves, and they may count to us really. They may count to us historically. The course of development of a nation's language, thought, and poetry is profoundly interesting; and by regarding a poet's work as a stage in this course of development we may easily bring ourselves to make it of more importance as poetry than in itself it really is, we may come to use a language of quite exaggerated praise in criticizing it; in short, to overrate it. So arises in our poetic judgments the fallacy caused by the estimate which we may call historic. Then, again, a poet or a poem may count to us on grounds personal to ourselves. Our personal affinities, likings, and circumstances have great power to sway our estimate of this or that poet's work, and to make us attach more importance to it as poetry than in itself it really possesses, because to us it is, or has been, of high importance. Here also we overrate the object of our interest, and apply to it a language of praise which is quite exaggerated. And thus we get the source of a second fallacy in our poetic judgments–the fallacy caused by an estimate which we may call personal.

Both fallacies are natural. It is evident how naturally the study of the history and development of a poetry may incline a man to pause over reputations and works once conspicuous but now obscure, and to quarrel with a careless public for skipping, in obedience to mere tradition and habit, from one famous name or work in its national poetry to another, ignorant of what it misses, and of the reason for keeping what it keeps, and of the whole process of growth in its poetry. The French have become diligent students of their own early poetry, which they long neglected; the study makes many of them dissatisfied with their so-called

classical poetry, the court-tragedy of the seventeenth century, a poetry which Pellisson long ago reproached with its want of the true poetic stamp, with its *politesse stérile et rampante* [rampant and sterile polish], but which nevertheless has reigned in France as absolutely as if it had been the perfection of classical poetry indeed. The dissatisfaction is natural; yet a lively and accomplished critic, M. Charles d'Héricault, the editor of Clément Marot, goes too far when he says that "the cloud of glory playing round a classic is a mist as dangerous to the future of a literature as it is intolerable for the purposes of history." "It hinders," he goes on, "it hinders us from seeing more than one single point, the culminating and exceptional point; the summary, fictitious and arbitrary, of a thought and of a work. It substitutes a halo for a physiognomy, it puts a statue where there was once a man, and hiding from us all trace of the labour, the attempts, the weaknesses, the failures, it claims not study but veneration; it does not show us how the thing is done, it imposes upon us a model. Above all, for the historian this creation of classic personages is inadmissible; for it withdraws the poet from his time, from his proper life, it breaks historical relationships, it blinds criticism by conventional admiration, and renders the investigation of literary origins unacceptable. It gives us a human personage no longer, but a God seated immovable amidst His perfect work, like Jupiter on Olympus; and hardly will it be possible for the young student, to whom such work is exhibited at such a distance from him, to believe that it did not issue ready made from that divine head."

All this is brilliantly and tellingly said, but we must plead for a distinction. Everything depends on the reality of a poet's classic character. If he is a dubious classic, let us sift him; if he is a false classic, let us explode him. But if he is a real classic, if his work belongs to the class of the very best (for this is the true and right meaning of the word *classic*, *classical*), then the great thing for us is to feel and enjoy his work as deeply as ever we can, and to appreciate the wide difference between it and all work which has not the same high character. This is what is salutary, this is what is formative; this is the great benefit to be got from the study of poetry. Everything which interferes with it, which hinders it, is injurious. True, we must read our classic with open eyes, and not with eyes blinded with superstition; we must perceive when his work comes short, when it drops out of the class of the very best, and we must rate it, in such cases, at its proper value. But the use of this negative criticism is not in itself; it is entirely in its enabling us to have a clearer sense and a deeper enjoyment of what is truly excellent. To trace the labour, the attempts, the weaknesses, the failures of a genuine classic, to acquaint oneself with his

time and his life and his historical relationships, is mere literary dilettantism unless it has that clear sense and deeper enjoyment for its end. It may be said that the more we know about a classic the better we shall enjoy him; and, if we lived as long as Methuselah and had all of us heads of perfect clearness and wills of perfect steadfastness, this might be true in fact as it is plausible in theory. But the case here is much the same as the case with the Greek and Latin studies of our schoolboys. The elaborate philological groundwork which we require them to lay is in theory an admirable preparation for appreciating the Greek and Latin authors worthily. The more thoroughly we lay the groundwork, the better we shall be able, it may be said, to enjoy the authors. True, if time were not so short, and schoolboys' wits not so soon tired and their power of attention exhausted; only, as it is, the elaborate philological preparation goes on, but the authors are little known and less enjoyed. So with the investigator of "historic origins" in poetry. He ought to enjoy the true classic all the better for his investigations; he often is distracted from the enjoyment of the best, and with the less good he overbusies himself, and is prone to overrate it in proportion to the trouble which it has cost him.

The idea of tracing historic origins and historical relationships cannot be absent from a compilation like the present. And naturally the poets to be exhibited in it will be assigned to those persons for exhibition who are known to prize them highly, rather than to those who have no special inclination towards them. Moreover the very occupation with an author, and the business of exhibiting him, disposes us to affirm and amplify his importance. In the present work, therefore, we are sure of frequent temptation to adopt the historic estimate, or the personal estimate, and to forget the real estimate; which latter, nevertheless, we must employ if we are to make poetry yield us its full benefit. So high is that benefit, the benefit of clearly feeling and of deeply enjoying the really excellent, the truly classic in poetry, that we do well, I say, to set it fixedly before our minds as our object in studying poets and poetry, and to make the desire of attaining it the one principle to which, as the *Imitation* says, whatever we may read or come to know, we always return. *Cum multa legeris et cognoveris, ad unum semper oportet redire principium.*

The historic estimate is likely in especial to affect our judgment and our language when we are dealing with ancient poets; the personal estimate when we are dealing with poets our contemporaries, or at any rate modern. The exaggerations due to the historic estimate are not in themselves, perhaps, of very much gravity. Their report hardly enters the general ear; probably they do not always impose even on the literary men who adopt them. But they lead to a dangerous abuse of language.

So we hear Caedmon, amongst our own poets, compared to Milton. I have already noticed the enthusiasm of one accomplished French critic for "historic origins." Another eminent French critic, M. Vitet, comments upon that famous document of the early poetry of his nation, the *Chanson de Roland*. It is indeed a most interesting document. The joculator or jongleur Taillefer, who was with William the Conqueror's army at Hastings, marched before the Norman troops, so said the tradition, singing "of Charlemagne and of Roland and of Oliver, and of the vassals who died at Roncevaux"; and it is suggested that in the *Chanson de Roland* by one Turoldus or Théroulde, a poem preserved in a manuscript of the twelfth century in the Bodleian Library at Oxford, we have certainly the matter, perhaps even some of the words, of the chant which Taillefer sang. The poem has vigour and freshness; it is not without pathos. But M. Vitet is not satisfied with seeing in it a document of some poetic value, and of very high historic and linguistic value; he sees in it a grand and beautiful work, a monument of epic genius. In its general design he finds the grandiose conception, in its details he finds the constant union of simplicity with greatness, which are the marks, he truly says, of the genuine epic, and distinguish it from the artificial epic of literary ages. One thinks of Homer; this is the sort of praise which is given to Homer, and justly given. Higher praise there cannot well be, and it is the praise due to epic poetry of the highest order only, and to no other. Let us try, then, the *Chanson de Roland* at its best. Roland, mortally wounded, lays himself down under a pine-tree, with his face turned towards Spain and the enemy–

> *De plusurs choses à remembrer li prist,*
> *De tantes teres cume li bers cunquist,*
> *De dulce France, des humes de sun lign,*
> *De Charlemagne sun seignor ki l'nurrit.*[1]

That is primitive work, I repeat, with an undeniable poetic quality of its own. It deserves such praise, and such praise is sufficient for it. But now turn to Homer–

> [*Hos photo; tous d'ede katechen physizoös aia*
> *en Lakedaimoni authi, phile en patridi gaie.*[2]]

1. "Then began he to call many things to remembrance–all the lands which his valour conquered, and pleasant France, and the men of his lineage, and Charlemagne his liege lord who nourished him."–*Chanson de Roland,* iii, 939–42.
2. So said she; they long since in Earth's soft arms were reposing,
   There, in their own dear land, their fatherland, Lacedaemon.
   –*Iliad,* iii, 243, 244 (translated by Dr. Hawtrey). [Cf. *Great Books of the Western World* (Ed.).]

We are here in another world, another order of poetry altogether; here is rightly due such supreme praise as that which M. Vitet gives to the *Chanson de Roland*. If our words are to have any meaning, if our judgments are to have any solidity, we must not heap that supreme praise upon poetry of an order immeasurably inferior.

Indeed there can be no more useful help for discovering what poetry belongs to the class of the truly excellent, and can therefore do us most good, than to have always in one's mind lines and expressions of the great masters, and to apply them as a touchstone to other poetry. Of course we are not to require this other poetry to resemble them; it may be very dissimilar. But if we have any tact we shall find them, when we have lodged them well in our minds, an infallible touchstone for detecting the presence or absence of high poetic quality, and also the degree of this quality, in all other poetry which we may place beside them. Short passages, even single lines, will serve our turn quite sufficiently. Take the two lines which I have just quoted from Homer, the poet's comment on Helen's mention of her brothers; or take his

> [*Ha deilo, ti sphoi domen Pelei anakti thneta?*
> *Humeis d'eston agero t'athanato te.*
> *E hina dystinoisi met' andrasiv alge echeton?*[3]]

the address of Zeus to the horses of Peleus; or take finally his

> [*Kai se, geron, to prin men akoumen olbion einai* [4]]

the words of Achilles to Priam, a suppliant before him. Take that incomparable line and a half of Dante, Ugolino's tremendous words–

> *Io no piangeva; sì dentro impietrai.*
> *Piangevan elli . . .*[5]

take the lovely words of Beatrice to Virgil–

> *Io son fatta da Dio, sua mercè, tale,*
> *Che la vostra miseria non mi tange,*
> *Nè fiamma d'esto incendio non m'assale . . .*[6]

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3. Ah, unhappy pair, why gave we you to King Peleus, to a mortal? but ye are without old age, and immortal. Was it that with men born to misery ye might have sorrow?–*Iliad*, xvii, 443–45. [Cf. *Great Books of the Western World* (Ed.).]
4. "Nay, and thou too, old man, in former days wast, as we hear, happy."–*Iliad*, xxiv, 543. [Cf. *Great Books of the Western World* (Ed.).]
5. "I wailed not, so of stone grew I within;–*they* wailed."–*Inferno*, xxxiii, 39, 40. [Cf. *Great Books of the Western World* (Ed.).]
6. "Of such sort hath God, thanked be His mercy, made me, that your misery toucheth me not, neither doth the flame of this fire strike me."–*Inferno*, ii, 91–93. [Cf. *Great Books of the Western World* (Ed.).]

take the simple, but perfect, single line–

In la sua volontade è nostra pace.[7]

Take of Shakespeare a line or two of Henry the Fourth's expostulation with sleep–

> Wilt thou upon the high and giddy mast
> Seal up the ship-boy's eyes, and rock his brains
> In cradle of the rude imperious surge . . .

and take, as well, Hamlet's dying request to Horatio–

> If thou didst ever hold me in thy heart,
> Absent thee from felicity awhile,
> And in this harsh world draw thy breath in pain
> To tell my story . . .

Take of Milton that Miltonic passage–

> Darken'd so, yet shone
> Above them all the archangel; but his face
> Deep scars of thunder had intrench'd, and care
> Sat on his faded cheek . . .

add two such lines as–

> And courage never to submit or yield
> And what is else not to be overcome . . .

and finish with the exquisite close to the loss of Proserpine, the loss

> . . . which cost Ceres all that pain
> To seek her through the world.

These few lines, if we have tact and can use them, are enough even of themselves to keep clear and sound our judgments about poetry, to save us from fallacious estimates of it, to conduct us to a real estimate.

The specimens I have quoted differ widely from one another, but they have in common this: the possession of the very highest poetical quality. If we are thoroughly penetrated by their power, we shall find that we have acquired a sense enabling us, whatever poetry may be laid before us, to feel the degree in which a high poetical quality is present or wanting there. Critics give themselves great labour to draw out what in the abstract constitutes the characters of a high quality of poetry. It is much

7. "In His will is our peace."–*Paradiso,* iii, 85. [Cf. *Great Books of the Western World* (Ed.).]

better simply to have recourse to concrete examples—to take specimens of poetry of the high, the very highest quality, and to say: The characters of a high quality of poetry are what is expressed *there*. They are far better recognized by being felt in the verse of the master, than by being perused in the prose of the critic. Nevertheless if we are urgently pressed to give some critical account of them, we may safely, perhaps, venture on laying down, not indeed how and why the characters arise, but where and in what they arise. They are in the matter and substance of the poetry, and they are in its manner and style. Both of these, the substance and matter on the one hand, the style and manner on the other, have a mark, an accent, of high beauty, worth, and power. But if we are asked to define this mark and accent in the abstract, our answer must be: No, for we should thereby be darkening the question, not clearing it. The mark and accent are as given by the substance and matter of that poetry, by the style and manner of that poetry, and of all other poetry which is akin to it in quality.

Only one thing we may add as to the substance and matter of poetry, guiding ourselves by Aristotle's profound observation that the superiority of poetry over history consists in its possessing a higher truth and a higher seriousness [*philosophoteron kai spoudaioteron*]. Let us add, therefore, to what we have said, this: that the substance and matter of the best poetry acquire their special character from possessing, in an eminent degree, truth and seriousness. We may add yet further, what is in itself evident, that to the style and manner of the best poetry their special character, their accent, is given by their diction, and, even yet more, by their movement. And though we distinguish between the two characters, the two accents, of superiority, yet they are nevertheless vitally connected one with the other. The superior character of truth and seriousness, in the matter and substance of the best poetry, is inseparable from the superiority of diction and movement marking its style and manner. The two superiorities are closely related, and are in steadfast proportion one to the other. So far as high poetic truth and seriousness are wanting to a poet's matter and substance, so far also, we may be sure, will a high poetic stamp of diction and movement be wanting to his style and manner. In proportion as this high stamp of diction and movement, again, is absent from a poet's style and manner, we shall find, also, that high poetic truth and seriousness are absent from his substance and matter.

So stated, these are but dry generalities; their whole force lies in their application. And I could wish every student of poetry to make the application of them for himself. Made by himself, the application would im-

press itself upon his mind far more deeply than made by me. Neither will my limits allow me to make any full application of the generalities above propounded; but in the hope of bringing out, at any rate, some significance in them, and of establishing an important principle more firmly by their means, I will, in the space which remains to me, follow rapidly from the commencement the course of our English poetry with them in my view.

Once more I return to the early poetry of France, with which our own poetry, in its origins, is indissolubly connected. In the twelfth and thirteenth centuries, that seed-time of all modern language and literature, the poetry of France had a clear predominance in Europe. Of the two divisions of that poetry, its productions in the *langue d'oïl* and its productions in the *langue d'oc,* the poetry of the *langue d'oc*, of southern France, of the troubadours, is of importance because of its effect on Italian literature–the first literature of modern Europe to strike the true and grand note, and to bring forth, as in Dante and Petrarch it brought forth, classics. But the predominance of French poetry in Europe, during the twelfth and thirteenth centuries, is due to its poetry of the *langue d'oïl,* the poetry of northern France and of the tongue which is now the French language. In the twelfth century the bloom of this romance-poetry was earlier and stronger in England, at the court of our Anglo-Norman kings, than in France itself. But it was a bloom of French poetry; and as our native poetry formed itself, it formed itself out of this. The romance-poems which took possession of the heart and imagination of Europe in the twelfth and thirteenth centuries are French; "they are," as Southey justly says, "the pride of French literature, nor have we anything which can be placed in competition with them." Themes were supplied from all quarters; but the romance-setting which was common to them all, and which gained the ear of Europe, was French. This constituted for the French poetry, literature, and language, at the height of the Middle Ages, an unchallenged predominance. The Italian Brunetto Latini, the master of Dante, wrote his *Treasure* in French because, he says, *"la parleure en est plus délitable et plus commune à toutes gens"* [their speech is more charming and more commonly shared by the whole people]. In the same century, the thirteenth, the French romance-writer, Christian of Troyes, formulates the claims, in chivalry and letters, of France, his native country, as follows:

Or vous ert par ce livre apris,
Que Gresse ot de chevalerie
Le premier los et de clergie;

Puis vint chevalerie à Rome,
Et de la clergie la some,
Qui ore est en France venue.
Diex doinst qu'ele i soit retenue,
Et que li lius li abelisse
Tant que de France n'isse
L'onor qui s'i est arestée!

> Now by this book you will learn that first Greece had the renown for chivalry and letters; then chivalry and the primacy in letters passed to Rome, and now it is come to France. God grant it may be kept there; and that the place may please it so well, that the honour which has come to make stay in France may never depart thence!

Yet it is now all gone, this French romance-poetry, of which the weight of substance and the power of style are not unfairly represented by this extract from Christian of Troyes. Only by means of the historic estimate can we persuade ourselves now to think that any of it is of poetical importance.

But in the fourteenth century there comes an Englishman nourished on this poetry, taught his trade by this poetry, getting words, rhyme, metre from this poetry; for even of that stanza which the Italians used, and which Chaucer derived immediately from the Italians, the basis and suggestion was probably given in France. Chaucer (I have already named him) fascinated his contemporaries, but so too did Christian of Troyes and Wolfram of Eschenbach. Chaucer's power of fascination, however, is enduring; his poetical importance does not need the assistance of the historic estimate; it is real. He is a genuine source of joy and strength, which is flowing still for us and will flow always. He will be read, as time goes on, far more generally than he is read now. His language is a cause of difficulty for us; but so also, and I think in quite as great a degree, is the language of Burns. In Chaucer's case, as in that of Burns, it is a difficulty to be unhesitatingly accepted and overcome.

If we ask ourselves wherein consists the immense superiority of Chaucer's poetry over the romance-poetry—why it is that in passing from this to Chaucer we suddenly feel ourselves to be in another world, we shall find that his superiority is both in the substance of his poetry and in the style of his poetry. His superiority in substance is given by his large, free, simple, clear yet kindly view of human life—so unlike the total want, in the romance-poets, of all intelligent command of it. Chaucer has not their helplessness; he has gained the power to survey the world from a central, a truly human point of view. We have only to call to mind

the Prologue to *The Canterbury Tales*. The right comment upon it is Dryden's: "It is sufficient to say, according to the proverb, that *here is God's plenty*." And again: "He is a perpetual fountain of good sense." It is by a large, free, sound representation of things that poetry, this high criticism of life, has truth of substance; and Chaucer's poetry has truth of substance.

Of his style and manner, if we think first of the romance-poetry and then of Chaucer's divine liquidness of diction, his divine fluidity of movement, it is difficult to speak temperately. They are irresistible, and justify all the rapture with which his successors speak of his "gold dew-drops of speech." Johnson misses the point entirely when he finds fault with Dryden for ascribing to Chaucer the first refinement of our numbers, and says that Gower also can show smooth numbers and easy rhymes. The refinement of our numbers means something far more than this. A nation may have versifiers with smooth numbers and easy rhymes, and yet may have no real poetry at all. Chaucer is the father of our splendid English poetry; he is our "well of English undefiled," because by the lovely charm of his diction, the lovely charm of his movement, he makes an epoch and founds a tradition. In Spenser, Shakespeare, Milton, Keats, we can follow the tradition of the liquid diction, the fluid movement, of Chaucer; at one time it is his liquid diction of which in these poets we feel the virtue, and at another time it is his fluid movement. And the virtue is irresistible.

Bounded as is my space, I must yet find room for an example of Chaucer's virtue, as I have given examples to show the virtue of the great classics. I feel disposed to say that a single line is enough to show the charm of Chaucer's verse; that merely one line like this–

O martyr souded [8] in virginitee!

has a virtue of manner and movement such as we shall not find in all the verse of romance-poetry; but this is saying nothing. The virtue is such as we shall not find, perhaps, in all English poetry, outside the poets whom I have named as the special inheritors of Chaucer's tradition. A single line, however, is too little if we have not the strain of Chaucer's verse well in our memory; let us take a stanza. It is from *The Prioress's Tale,* the story of the Christian child murdered in a Jewry–

My throte is cut unto my nekke-bone
Saidè this child, and as by way of kinde
I should have deyd, yea, longè time agone;

8. The French *soudé;* soldered, fixed fast.

> But Jesu Christ, as ye in bookès finde,
> Will that his glory last and be in minde,
> And for the worship of his mother dere
> Yet may I sing *O Alma* loud and clere.

Wordsworth has modernized this Tale, and to feel how delicate and evanescent is the charm of verse, we have only to read Wordsworth's first three lines of this stanza after Chaucer's–

> My throat is cut unto the bone, I trow,
> Said this young child, and by the law of kind
> I should have died, yea, many hours ago.

The charm is departed. It is often said that the power of liquidness and fluidity in Chaucer's verse was dependent upon a free, a licentious dealing with language, such as is now impossible; upon a liberty, such as Burns too enjoyed, of making words like *neck*, *bird*, into a dissyllable by adding to them, and words like *cause*, *rhyme*, into a dissyllable by sounding the *e* mute. It is true that Chaucer's fluidity is conjoined with this liberty, and is admirably served by it; but we ought not to say that it was dependent upon it. It was dependent upon his talent. Other poets with a like liberty do not attain to the fluidity of Chaucer; Burns himself does not attain to it. Poets, again, who have a talent akin to Chaucer's, such as Shakespeare or Keats, have known how to attain to his fluidity without the like liberty.

And yet Chaucer is not one of the great classics. His poetry transcends and effaces, easily and without effort, all the romance-poetry of Catholic Christendom; it transcends and effaces all the English poetry contemporary with it, it transcends and effaces all the English poetry subsequent to it down to the age of Elizabeth. Of such avail is poetic truth of substance, in its natural and necessary union with poetic truth of style. And yet, I say, Chaucer is not one of the great classics. He has not their accent. What is wanting to him is suggested by the mere mention of the name of the first great classic of Christendom, the immortal poet who died eighty years before Chaucer–Dante. The accent of such verse as

> *In la sua volontade è nostra pace . . .*

is altogether beyond Chaucer's reach; we praise him, but we feel that this accent is out of the question for him. It may be said that it was necessarily out of the reach of any poet in the England of that stage of growth. Possibly; but we are to adopt a real, not a historic, estimate of poetry. However we may account for its absence, something is wanting, then, to the poetry of Chaucer, which poetry must have before it can be placed

in the glorious class of the best. And there is no doubt what that something is. It is the σπουδαιότης [*spoudaiotes;* seriousness] the high and excellent seriousness, which Aristotle assigns as one of the grand virtues of poetry. The substance of Chaucer's poetry, his view of things and his criticism of life, has largeness, freedom, shrewdness, benignity; but it has not this high seriousness. Homer's criticism of life has it, Dante's has it, Shakespeare's has it. It is this chiefly which gives to our spirits what they can rest upon; and with the increasing demands of our modern ages upon poetry, this virtue of giving us what we can rest upon will be more and more highly esteemed. A voice from the slums of Paris, fifty or sixty years after Chaucer, the voice of poor Villon out of his life of riot and crime, has at its happy moments (as, for instance, in the last stanza of "La Belle Heaulmière" [9]) more of this important poetic virtue of seriousness than all the productions of Chaucer. But its apparition in Villon, and in men like Villon, is fitful; the greatness of the great poets, the power of their criticism of life, is that their virtue is sustained.

To our praise, therefore, of Chaucer as a poet there must be this limitation; he lacks the high seriousness of the great classics, and therewith an important part of their virtue. Still, the main fact for us to bear in mind about Chaucer is his sterling value according to that real estimate which we firmly adopt for all poets. He has poetic truth of substance, though he has not high poetic seriousness, and corresponding to his truth of substance he has an exquisite virtue of style and manner. With him is born our real poetry.

For my present purpose I need not dwell on our Elizabethan poetry, or on the continuation and close of this poetry in Milton. We all of us profess to be agreed in the estimate of this poetry; we all of us recognize

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9. The name *Heaulmière* is said to be derived from a headdress (helm) worn as a mark by courtesans. In Villon's ballad, a poor old creature of this class laments her days of youth and beauty. The last stanza of the ballad runs thus–

Ainsi le bon temps regretons
Entre nous, pauvres vieilles sottes,
Assises bas, à croppetons,
Tout en ung tas comme pelottes;
A petit feu de chenevottes
Tost allumées, tost estainctes.
Et jadis fusmes si mignottes!
Ainsi en prend à maintz et maintes.

Thus amongst ourselves we regret the good time, poor silly old things, low-seated on our heels, all in a heap like so many balls; by a little fire of hemp-stalks, soon lighted, soon spent. And once we were such darlings! So fares it with many and many a one.

it as great poetry, our greatest, and Shakespeare and Milton as our poetical classics. The real estimate, here, has universal currency. With the next age of our poetry divergency and difficulty begin. An historic estimate of that poetry has established itself; and the question is, whether it will be found to coincide with the real estimate.

The age of Dryden, together with our whole eighteenth century which followed it, sincerely believed itself to have produced poetical classics of its own, and even to have made advance, in poetry, beyond all its predecessors. Dryden regards as not seriously disputable the opinion "that the sweetness of English verse was never understood or practised by our fathers." Cowley could see nothing at all in Chaucer's poetry. Dryden heartily admired it, and, as we have seen, praised its matter admirably; but of its exquisite manner and movement all he can find to say is that "there is the rude sweetness of a Scotch tune in it, which is natural and pleasing, though not perfect." Addison, wishing to praise Chaucer's numbers, compares them with Dryden's own. And all through the eighteenth century, and down even into our own times, the stereotyped phrase of approbation for good verse found in our early poetry has been, that it even approached the verse of Dryden, Addison, Pope, and Johnson.

Are Dryden and Pope poetical classics? Is the historic estimate, which represents them as such, and which has been so long established that it cannot easily give way, the real estimate? Wordsworth and Coleridge, as is well known, denied it; but the authority of Wordsworth and Coleridge does not weigh much with the young generation, and there are many signs to show that the eighteenth century and its judgments are coming into favour again. Are the favourite poets of the eighteenth century classics?

It is impossible within my present limits to discuss the question fully. And what man of letters would not shrink from seeming to dispose dictatorially of the claims of two men who are, at any rate, such masters in letters as Dryden and Pope; two men of such admirable talent, both of them, and one of them, Dryden, a man, on all sides, of such energetic and genial power? And yet, if we are to gain the full benefit from poetry, we must have the real estimate of it. I cast about for some mode of arriving, in the present case, at such an estimate without offence. And perhaps the best way is to begin, as it is easy to begin, with cordial praise.

When we find Chapman, the Elizabethan translator of Homer, expressing himself in his preface thus: "Though truth in her very nakedness sits in so deep a pit, that from Gades to Aurora and Ganges few eyes can sound her, I hope yet those few here will so discover and confirm that, the date

being out of her darkness in this morning of our poet, he shall now gird his temples with the sun," we pronounce that such a prose is intolerable. When we find Milton writing: "And long it was not after, when I was confirmed in this opinion, that he, who would not be frustrate of his hope to write well hereafter in laudable things, ought himself to be a true poem," we pronounce that such a prose has its own grandeur, but that it is obsolete and inconvenient. But when we find Dryden telling us: "What Virgil wrote in the vigour of his age, in plenty and at ease, I have undertaken to translate in my declining years; struggling with wants, oppressed with sickness, curbed in my genius, liable to be misconstrued in all I write," then we exclaim that here at last we have the true English prose, a prose such as we would all gladly use if we only knew how. Yet Dryden was Milton's contemporary.

But after the Restoration the time had come when our nation felt the imperious need of a fit prose. So, too, the time had likewise come when our nation felt the imperious need of freeing itself from the absorbing preoccupation which religion in the Puritan age had exercised. It was impossible that this freedom should be brought about without some negative excess, without some neglect and impairment of the religious life of the soul; and the spiritual history of the eighteenth century shows us that the freedom was not achieved without them. Still, the freedom was achieved; the preoccupation, an undoubtedly baneful and retarding one if it had continued, was got rid of. And as with religion amongst us at that period, so it was also with letters. A fit prose was a necessity; but it was impossible that a fit prose should establish itself amongst us without some touch of frost to the imaginative life of the soul. The needful qualities for a fit prose are regularity, uniformity, precision, balance. The men of letters, whose destiny it may be to bring their nation to the attainment of a fit prose, must of necessity, whether they work in prose or in verse, give a predominating, an almost exclusive attention to the qualities of regularity, uniformity, precision, balance. But an almost exclusive attention to these qualities involves some repression and silencing of poetry.

We are to regard Dryden as the puissant and glorious founder, Pope as the splendid high priest, of our age of prose and reason, of our excellent and indispensable eighteenth century. For the purposes of their mission and destiny their poetry, like their prose, is admirable. Do you ask me whether Dryden's verse, take it almost where you will, is not good?

> A milk-white Hind, immortal and unchanged,
> Fed on the lawns and in the forest ranged.

I answer: Admirable for the purposes of the inaugurator of an age of prose and reason. Do you ask me whether Pope's verse, take it almost where you will, is not good?

> To Hounslow Heath I point, and Banstead Down;
> Thence comes your mutton, and these chicks my own.

I answer: Admirable for the purposes of the high priest of an age of prose and reason. But do you ask me whether such verse proceeds from men with an adequate poetic criticism of life, from men whose criticism of life has a high seriousness, or even, without that high seriousness, has poetic largeness, freedom, insight, benignity? Do you ask me whether the application of ideas to life in the verse of these men, often a powerful application, no doubt, is a powerful *poetic* application? Do you ask me whether the poetry of these men has either the matter or the inseparable manner of such an adequate poetic criticism; whether it has the accent of

> Absent thee from felicity awhile . . .

or of

> And what is else not to be overcome . . .

or of

> O martyr souded in virginitee!

I answer: It has not and cannot have them; it is the poetry of the builders of an age of prose and reason. Though they may write in verse, though they may in a certain sense be masters of the art of versification, Dryden and Pope are not classics of our poetry, they are classics of our prose.

Gray is our poetical classic of that literature and age; the position of Gray is singular, and demands a word of notice here. He has not the volume or the power of poets who, coming in times more favourable, have attained to an independent criticism of life. But he lived with the great poets, he lived, above all, with the Greeks, through perpetually studying and enjoying them; and he caught their poetic point of view for regarding life, caught their poetic manner. The point of view and the manner are not self-sprung in him, he caught them of others; and he had not the free and abundant use of them. But whereas Addison and Pope never had the use of them, Gray had the use of them at times. He is the scantiest and frailest of classics in our poetry, but he is a classic.

And now, after Gray, we are met, as we draw towards the end of the eighteenth century, we are met by the great name of Burns. We enter

now on times where the personal estimate of poets begins to be rife, and where the real estimate of them is not reached without difficulty. But in spite of the disturbing pressures of personal partiality, of national partiality, let us try to reach a real estimate of the poetry of Burns.

By his English poetry Burns in general belongs to the eighteenth century, and has little importance for us.

> Mark ruffian Violence, distain'd with crimes,
> Rousing elate in these degenerate times;
> View unsuspecting Innocence a prey,
> As guileful Fraud points out the erring way;
> While subtle Litigation's pliant tongue
> The life-blood equal sucks of Right and Wrong!

Evidently this is not the real Burns, or his name and fame would have disappeared long ago. Nor is Clarinda's love-poet, Sylvander, the real Burns either. But he tells us himself: "These English songs gravel me to death. I have not the command of the language that I have of my native tongue. In fact, I think that my ideas are more barren in English than in Scotch. I have been at 'Duncan Gray' to dress it in English, but all I can do is desperately stupid." We English turn naturally, in Burns, to the poems in our own language, because we can read them easily; but in those poems we have not the real Burns.

The real Burns is of course in his Scotch poems. Let us boldly say that of much of this poetry, a poetry dealing perpetually with Scotch drink, Scotch religion, and Scotch manners, a Scotchman's estimate is apt to be personal. A Scotchman is used to this world of Scotch drink, Scotch religion, and Scotch manners; he has a tenderness for it; he meets its poet half-way. In this tender mood he reads pieces like the "Holy Fair" or "Halloween." But this world of Scotch drink, Scotch religion, and Scotch manners is against a poet, not for him, when it is not a partial countryman who reads him; for in itself it is not a beautiful world, and no one can deny that it is of advantage to a poet to deal with a beautiful world. Burns's world of Scotch drink, Scotch religion, and Scotch manners is often a harsh, a sordid, a repulsive world; even the world of his "Cotter's Saturday Night" is not a beautiful world. No doubt a poet's criticism of life may have such truth and power that it triumphs over its world and delights us. Burns may triumph over his world, often he does triumph over his world, but let us observe how and where. Burns is the first case we have had where the bias of the personal estimate tends to mislead; let us look at him closely, he can bear it.

Many of his admirers will tell us that we have Burns, convivial, genuine, delightful, here–

Leeze me on drink! it gies us mair
Than either school or college;
It kindles wit, it waukens lair,
It pangs us fou o' knowledge.
Be 't whisky gill or penny wheep
Or ony stronger potion,
It never fails, on drinking deep,
To kittle up our notion
By night or day.

There is a great deal of that sort of thing in Burns, and it is unsatisfactory, not because it is bacchanalian poetry, but because it has not that accent of sincerity which bacchanalian poetry, to do it justice, very often has. There is something in it of bravado, something which makes us feel that we have not the man speaking to us with his real voice; something, therefore, poetically unsound.

With still more confidence will his admirers tell us that we have the genuine Burns, the great poet, when his strain asserts the independence, equality, dignity, of men, as in the famous song "For a' that and a' that"–

A prince can mak' a belted knight,
A marquis, duke, and a' that;
But an honest man's aboon his might,
Guid faith he mauna fa' that!
For a' that, and a' that,
Their dignities, and a' that,
The pith o' sense, and pride o' worth,
Are higher rank than a' that.

Here they find his grand, genuine touches; and still more, when this puissant genius, who so often set morality at defiance, falls moralizing–

The sacred lowe o' weel-placed love
Luxuriantly indulge it;
But never tempt th' illicit rove,
Tho' naething should divulge it.
I waive the quantum o' the sin,
The hazard o' concealing,
But och! it hardens a' within,
And petrifies the feeling.

Or in a higher strain–

Who made the heart, 'tis He alone
Decidedly can try us;
He knows each chord, its various tone;
Each spring, its various bias.
Then at the balance let's be mute,
We never can adjust it;
What's *done* we partly may compute,
But know not what's resisted.

Or in a better strain yet, a strain, his admirers will say, unsurpassable–

To make a happy fireside clime
To weans and wife,
That's the true pathos and sublime
Of human life.

There is a criticism of life for you, the admirers of Burns will say to us; there is the application of ideas to life! There is, undoubtedly. The doctrine of the last-quoted lines coincides almost exactly with what was the aim and end, Xenophon tells us, of all the teaching of Socrates. And the application is a powerful one; made by a man of vigorous understanding, and (need I say?) a master of language.

But for supreme poetical success more is required than the powerful application of ideas to life; it must be an application under the conditions fixed by the laws of poetic truth and poetic beauty. Those laws fix as an essential condition, in the poet's treatment of such matters as are here in question, high seriousness–the high seriousness which comes from absolute sincerity. The accent of high seriousness, born of absolute sincerity, is what gives to such verse as

In la sua volontade è nostra pace . . .

to such criticism of life as Dante's, its power. Is this accent felt in the passages which I have been quoting from Burns? Surely not; surely, if our sense is quick, we must perceive that we have not in those passages a voice from the very inmost soul of the genuine Burns; he is not speaking to us from these depths, he is more or less preaching. And the compensation for admiring such passages less, from missing the perfect poetic accent in them, will be that we shall admire more the poetry where that accent is found.

No; Burns, like Chaucer, comes short of the high seriousness of the great classics, and the virtue of matter and manner which goes with that high seriousness is wanting to his work. At moments he touches it in a pro-

found and passionate melancholy, as in those four immortal lines taken by Byron as a motto for *The Bride of Abydos*, but which have in them a depth of poetic quality such as resides in no verse of Byron's own–

> Had we never loved sae kindly,
> Had we never loved sae blindly,
> Never met, or never parted,
> We had ne'er been broken-hearted.

But a whole poem of that quality Burns cannot make; the rest, in the "Farewell to Nancy," is verbiage.

We arrive best at the real estimate of Burns, I think, by conceiving his work as having truth of matter and truth of manner, but not the accent or the poetic virtue of the highest masters. His genuine criticism of life, when the sheer poet in him speaks, is ironic; it is not–

> Thou Power Supreme, whose mighty scheme
> These woes of mine fulfil,
> Here firm I rest, they must be best
> Because they are Thy will!

It is far rather: "Whistle owre the lave o't!" Yet we may say of him as of Chaucer, that of life and the world, as they come before him, his view is large, free, shrewd, benignant–truly poetic, therefore; and his manner of rendering what he sees is to match. But we must note, at the same time, his great difference from Chaucer. The freedom of Chaucer is heightened, in Burns, by a fiery, reckless energy; the benignity of Chaucer deepens, in Burns, into an overwhelming sense of the pathos of things–of the pathos of human nature, the pathos, also, of non-human nature. Instead of the fluidity of Chaucer's manner, the manner of Burns has spring, bounding swiftness. Burns is by far the greater force, though he has perhaps less charm. The world of Chaucer is fairer, richer, more significant than that of Burns; but when the largeness and freedom of Burns get full sweep, as in *Tam o' Shanter*, or still more in that puissant and splendid production, *The Jolly Beggars*, his world may be what it will, his poetic genius triumphs over it. In the world of *The Jolly Beggars* there is more than hideousness and squalor, there is bestiality; yet the piece is a superb poetic success. It has a breadth, truth, and power which make the famous scene in Auerbach's Cellar, of Goethe's *Faust,* seem artificial and tame beside it, and which are only matched by Shakespeare and Aristophanes.

Here, where his largeness and freedom serve him so admirably, and also in those poems and songs where to shrewdness he adds infinite arch-

ness and wit, and to benignity infinite pathos, where his manner is flawless, and a perfect poetic whole is the result–in things like the address to the mouse whose home he had ruined, in things like "Duncan Gray," "Tam Glen," "Whistle and I'll come to you my Lad," "Auld Lang Syne" (this list might be made much longer)–here we have the genuine Burns, of whom the real estimate must be high indeed. Not a classic, nor with the excellent σπουδαιότης [spoudaiotes] of the great classics, nor with a verse rising to a criticism of life and a virtue like theirs; but a poet with thorough truth of substance and an answering truth of style, giving us a poetry sound to the core. We all of us have a leaning towards the pathetic, and may be inclined perhaps to prize Burns most for his touches of piercing, sometimes almost intolerable, pathos; for verse like–

> We twa hae paidl't i' the burn
> From mornin' sun till dine;
> But seas between us braid hae roar'd
> Sin auld lang syne . . .

where he is as lovely as he is sound. But perhaps it is by the perfection of soundness of his lighter and archer masterpieces that he is poetically most wholesome for us. For the votary misled by a personal estimate of Shelley, as so many of us have been, are, and will be–of that beautiful spirit building his many-coloured haze of words and images

> Pinnacled dim in the intense inane–

no contact can be wholesomer than the contact with Burns at his archest and soundest. Side by side with the

> On the brink of the night and the morning
> My coursers are wont to respire,
> But the Earth has just whispered a warning
> That their flight must be swifter than fire . . .

of *Prometheus Unbound*, how salutary, how very salutary, to place this from "Tam Glen"–

> My minnie does constantly deave me
> And bids me beware o' young men;
> They flatter, she says, to deceive me;
> But wha can think sae o' Tam Glen?

But we enter on burning ground as we approach the poetry of times so near to us–poetry like that of Byron, Shelley, and Wordsworth–of which the estimates are so often not only personal, but personal with

passion. For my purpose, it is enough to have taken the single case of Burns, the first poet we come to of whose work the estimate formed is evidently apt to be personal, and to have suggested how we may proceed, using the poetry of the great classics as a sort of touchstone, to correct this estimate, as we had previously corrected by the same means the historic estimate where we met with it. A collection like the present, with its succession of celebrated names and celebrated poems, offers a good opportunity to us for resolutely endeavouring to make our estimates of poetry real. I have sought to point out a method which will help us in making them so, and to exhibit it in use so far as to put any one who likes in a way of applying it for himself.

At any rate the end to which the method and the estimate are designed to lead, and from leading to which, if they do lead to it, they get their whole value—the benefit of being able clearly to feel and deeply to enjoy the best, the truly classic, in poetry—is an end, let me say it once more at parting, of supreme importance. We are often told that an era is opening in which we are to see multitudes of a common sort of readers, and masses of a common sort of literature; that such readers do not want and could not relish anything better than such literature, and that to provide it is becoming a vast and profitable industry. Even if good literature entirely lost currency with the world, it would still be abundantly worth-while to continue to enjoy it by oneself. But it never will lose currency with the world, in spite of momentary appearances; it never will lose supremacy. Currency and supremacy are insured to it, not indeed by the world's delicate and conscious choice, but by something far deeper—by the instinct of self-preservation in humanity.

Sweetness and Light

The disparagers of culture make its motive curiosity; sometimes, indeed, they make its motive mere exclusiveness and vanity. The culture which is supposed to plume itself on a smattering of Greek and Latin is a culture which is begotten by nothing so intellectual as curiosity; it is valued either out of sheer vanity and ignorance, or else as an engine of social and class distinction, separating its holder, like a badge or title, from other people who have not got it. No serious man would call this *culture*, or attach any value to it, as culture, at all. To find the real ground for the very differing estimate which serious people will set upon culture, we must find some motive for culture in the terms of which may lie a real ambiguity; and such a motive the word *curiosity* gives us.

I have before now pointed out that we English do not, like the foreigners, use this word in a good sense as well as in a bad sense. With us the word is always used in a somewhat disapproving sense. A liberal and intelligent eagerness about the things of the mind may be meant by a foreigner when he speaks of curiosity, but with us the word always conveys a certain notion of frivolous and unedifying activity. In the *Quarterly Review*, some little time ago, was an estimate of the celebrated French critic, M. Sainte-Beuve, and a very inadequate estimate it in my judgment was. And its inadequacy consisted chiefly in this: that in our English way it left out of sight the double sense really involved in the word *curiosity*, thinking enough was said to stamp M. Sainte-Beuve with blame if it was said that he was impelled in his operations as a critic by curiosity, and omitting either to perceive that M. Sainte-Beuve himself, and many other people with him, would consider that this was praiseworthy and not blameworthy, or to point out why it ought really to be accounted worthy of blame and not of praise. For as there is a curiosity about intellectual matters which is futile, and merely a disease, so there

is certainly a curiosity—a desire after the things of the mind simply for their own sakes and for the pleasure of seeing them as they are—which is, in an intelligent being, natural and laudable. Nay, and the very desire to see things as they are implies a balance and regulation of mind which is not often attained without fruitful effort, and which is the very opposite of the blind and diseased impulse of mind which is what we mean to blame when we blame curiosity. Montesquieu says: "The first motive which ought to impel us to study is the desire to augment the excellence of our nature, and to render an intelligent being yet more intelligent." This is the true ground to assign for the genuine scientific passion, however manifested, and for culture, viewed simply as a fruit of this passion; and it is a worthy ground, even though we let the term *curiosity* stand to describe it.

But there is of culture another view, in which not solely the scientific passion, the sheer desire to see things as they are, natural and proper in an intelligent being, appears as the ground of it. There is a view in which all the love of our neighbour, the impulses towards action, help, and beneficence, the desire for removing human error, clearing human confusion, and diminishing human misery, the noble aspiration to leave the world better and happier than we found it—motives eminently such as are called social—come in as part of the grounds of culture, and the main and pre-eminent part. Culture is then properly described not as having its origin in curiosity, but as having its origin in the love of perfection; it is *a study of perfection*. It moves by the force, not merely or primarily of the scientific passion for pure knowledge, but also of the moral and social passion for doing good. As, in the first view of it, we took for its worthy motto Montesquieu's words: "To render an intelligent being yet more intelligent!" so, in the second view of it, there is no better motto which it can have than these words of Bishop Wilson: "To make reason and the will of God prevail!"

Only, whereas the passion for doing good is apt to be over-hasty in determining what reason and the will of God say, because its turn is for acting rather than thinking, and it wants to be beginning to act; and whereas it is apt to take its own conceptions, which proceed from its own state of development and share in all the imperfections and immaturities of this, for a basis of action; what distinguishes culture is that it is possessed by the scientific passion as well as by the passion of doing good; that it demands worthy notions of reason and the will of God, and does not readily suffer its own crude conceptions to substitute themselves for them. And knowing that no action or institution can be salutary and

stable which is not based on reason and the will of God, it is not so bent on acting and instituting, even with the great aim of diminishing human error and misery ever before its thoughts, but that it can remember that acting and instituting are of little use, unless we know how and what we ought to act and to institute.

This culture is more interesting and more far-reaching than that other, which is founded solely on the scientific passion for knowing. But it needs times of faith and ardour, times when the intellectual horizon is opening and widening all round us, to flourish in. And is not the close and bounded intellectual horizon within which we have long lived and moved now lifting up, and are not new lights finding free passage to shine in upon us? For a long time there was no passage for them to make their way in upon us, and then it was of no use to think of adapting the world's action to them. Where was the hope of making reason and the will of God prevail among people who had a routine which they had christened reason and the will of God, in which they were inextricably bound, and beyond which they had no power of looking? But now the iron force of adhesion to the old routine–social, political, religious–has wonderfully yielded; the iron force of exclusion of all which is new has wonderfully yielded. The danger now is, not that people should obstinately refuse to allow anything but their old routine to pass for reason and the will of God, but either that they should allow some novelty or other to pass for these too easily, or else that they should underrate the importance of them altogether, and think it enough to follow action for its own sake, without troubling themselves to make reason and the will of God prevail therein. Now, then, is the moment for culture to be of service, culture which believes in making reason and the will of God prevail, believes in perfection, is the study and pursuit of perfection, and is no longer debarred, by a rigid invincible exclusion of whatever is new, from getting acceptance for its ideas, simply because they are new.

The moment this view of culture is seized, the moment it is regarded not solely as the endeavour to see things as they are, to draw towards a knowledge of the universal order which seems to be intended and aimed at in the world, and which it is a man's happiness to go along with or his misery to go counter to–to learn, in short, the will of God–the moment, I say, culture is considered not merely as the endeavour to *see* and *learn* this, but as the endeavour, also, to make it *prevail*, the moral, social, and beneficent character of culture becomes manifest. The mere endeavour to see and learn the truth for our own personal satisfaction is indeed

a commencement for making it prevail, a preparing the way for this, which always serves this, and is wrongly, therefore, stamped with blame absolutely in itself and not only in its caricature and degeneration. But perhaps it has got stamped with blame, and disparaged with the dubious title of curiosity, because in comparison with this wider endeavour of such great and plain utility it looks selfish, petty, and unprofitable.

And religion, the greatest and most important of the efforts by which the human race has manifested its impulse to perfect itself–religion, that voice of the deepest human experience–does not only enjoin and sanction the aim which is the great aim of culture, the aim of setting ourselves to ascertain what perfection is and to make it prevail; but also, in determining generally in what human perfection consists, religion comes to a conclusion identical with that which culture–culture seeking the determination of this question through *all* the voices of human experience which have been heard upon it, of art, science, poetry, philosophy, history, as well as of religion, in order to give a greater fullness and certainty to its solution–likewise reaches. Religion says: *The kingdom of God is within you;* and culture, in like manner, places human perfection in an *internal* condition, in the growth and predominance of our humanity proper, as distinguished from our animality. It places it in the ever-increasing efficacy and in the general harmonious expansion of those gifts of thought and feeling which make the peculiar dignity, wealth, and happiness of human nature. As I have said on a former occasion: "It is in making endless additions to itself, in the endless expansion of its powers, in endless growth in wisdom and beauty, that the spirit of the human race finds its ideal. To reach this ideal, culture is an indispensable aid, and that is the true value of culture." Not a having and a resting, but a growing and a becoming, is the character of perfection as culture conceives it; and here, too, it coincides with religion.

And because men are all members of one great whole, and the sympathy which is in human nature will not allow one member to be indifferent to the rest or to have a perfect welfare independent of the rest, the expansion of our humanity, to suit the idea of perfection which culture forms, must be a *general* expansion. Perfection, as culture conceives it, is not possible while the individual remains isolated. The individual is required, under pain of being stunted and enfeebled in his own development if he disobeys, to carry others along with him in his march towards perfection, to be continually doing all he can to enlarge and increase the volume of the human stream sweeping thitherward. And here, once

more, culture lays on us the same obligation as religion, which says, as Bishop Wilson has admirably put it, that "to promote the kingdom of God is to increase and hasten one's own happiness."

But, finally, perfection—as culture, from a thorough disinterested study of human nature and human experience learns to conceive it—is a harmonious expansion of *all* the powers which make the beauty and worth of human nature, and is not consistent with the over-development of any one power at the expense of the rest. Here culture goes beyond religion, as religion is generally conceived by us.

If culture, then, is a study of perfection, and of harmonious perfection, general perfection, and perfection which consists in becoming something rather than in having something, in an inward condition of the mind and spirit, not in an outward set of circumstances, it is clear that culture, instead of being the frivolous and useless thing which Mr. Bright, and Mr. Frederic Harrison, and many other Liberals are apt to call it, has a very important function to fulfil for mankind. And this function is particularly important in our modern world, of which the whole civilization is, to a much greater degree than the civilization of Greece and Rome, mechanical and external, and tends constantly to become more so. But above all in our own country has culture a weighty part to perform, because here that mechanical character, which civilization tends to take everywhere, is shown in the most eminent degree. Indeed nearly all the characters of perfection, as culture teaches us to fix them, meet in this country with some powerful tendency which thwarts them and sets them at defiance. The idea of perfection as an *inward* condition of the mind and spirit is at variance with the mechanical and material civilization in esteem with us, and nowhere, as I have said, so much in esteem as with us. The idea of perfection as a *general* expansion of the human family is at variance with our strong individualism, our hatred of all limits to the unrestrained swing of the individual's personality, our maxim of "every man for himself." Above all the idea of perfection as a *harmonious* expansion of human nature is at variance with our want of flexibility, with our inaptitude for seeing more than one side of a thing, with our intense energetic absorption in the particular pursuit we happen to be following. So culture has a rough task to achieve in this country. Its preachers have, and are likely long to have, a hard time of it, and they will much oftener be regarded, for a great while to come, as elegant or spurious Jeremiahs, than as friends and benefactors. That, however, will not prevent their doing in the end good service if they persevere. And meanwhile, the mode of action they have to pursue, and the sort of habits they

must fight against, ought to be made quite clear for every one to see who may be willing to look at the matter attentively and dispassionately.

Faith in machinery is, I said, our besetting danger; often in machinery most absurdly disporportioned to the end which this machinery, if it is to do any good at all, is to serve; but always in machinery, as if it had a value in and for itself. What is freedom but machinery? What is population but machinery? What is coal but machinery? What are railroads but machinery? What is wealth but machinery? What are, even, religious organizations but machinery? Now almost every voice in England is accustomed to speak of these things as if they were precious ends in themselves, and therefore had some of the characters of perfection indisputably joined to them. I have before now noticed Mr. Roebuck's stock argument for proving the greatness and happiness of England as she is, and for quite stopping the mouths of all gainsayers. Mr. Roebuck is never weary of reiterating this argument of his, so I do not know why I should be weary of noticing it. "May not every man in England say what he likes?" Mr. Roebuck perpetually asks; and that, he thinks, is quite sufficient, and when every man may say what he likes, our aspirations ought to be satisfied. But the aspirations of culture, which is the study of perfection, are not satisfied, unless what men say, when they may say what they like, is worth saying–has good in it, and more good than bad. In the same way the *Times*, replying to some foreign strictures on the dress, looks, and behaviour of the English abroad, urges that the English ideal is that every one should be free to do and to look just as he likes. But culture indefatigably tries, not to make what each raw person may like, the rule by which he fashions himself; but to draw ever nearer to a sense of what is indeed beautiful, graceful, and becoming, and to get the raw person to like that.

And in the same way with respect to railroads and coal. Every one must have observed the strange language current during the late discussions as to the possible failure of our supplies of coal. Our coal, thousands of people were saying, is the real basis of our national greatness; if our coal runs short, there is an end of the greatness of England. But what *is* greatness?–culture makes us ask. Greatness is a spiritual condition worthy to excite love, interest, and admiration; and the outward proof of possessing greatness is that we excite love, interest, and admiration. If England were swallowed up by the sea to-morrow, which of the two, a hundred years hence, would most excite the love, interest, and admiration of mankind–would most, therefore, show the evidences of having possessed greatness–the England of the last twenty years, or the Eng-

land of Elizabeth, of a time of splendid spiritual effort, but when our coal, and our industrial operations depending on coal, were very little developed? Well, then, what an unsound habit of mind it must be which makes us talk of things like coal or iron as constituting the greatness of England, and how salutary a friend is culture, bent on seeing things as they are, and thus dissipating delusions of this kind and fixing standards of perfection that are real!

Wealth, again, that end to which our prodigious works for material advantage are directed–the commonest of commonplaces tells us how men are always apt to regard wealth as a precious end in itself; and certainly they have never been so apt thus to regard it as they are in England at the present time. Never did people believe anything more firmly, than nine Englishmen out of ten at the present day believe that our greatness and welfare are proved by our being so very rich. Now, the use of culture is that it helps us, by means of its spiritual standard of perfection, to regard wealth as but machinery, and not only to say as a matter of words that we regard wealth as but machinery, but really to perceive and feel that it is so. If it were not for this purging effect wrought upon our minds by culture, the whole world, the future as well as the present, would inevitably belong to the Philistines. The people who believe most that our greatness and welfare are proved by our being very rich, and who most give their lives and thoughts to becoming rich, are just the very people whom we call Philistines. Culture says: "Consider these people, then, their way of life, their habits, their manners, the very tones of their voice; look at them attentively; observe the literature they read, the things which give them pleasure, the words which come forth out of their mouths, the thoughts which make the furniture of their minds; would any amount of wealth be worth having with the condition that one was to become just like these people by having it?" And thus culture begets a dissatisfaction which is of the highest possible value in stemming the common tide of men's thoughts in a wealthy and industrial community, and which saves the future, as one may hope, from being vulgarized, even if it cannot save the present.

Population, again, and bodily health and vigour, are things which are nowhere treated in such an unintelligent, misleading, exaggerated way as in England. Both are really machinery; yet how many people all around us do we see rest in them and fail to look beyond them! Why, one has heard people, fresh from reading certain articles of the *Times* on the Registrar-General's returns of marriages and births in this country, who would talk of our large English families in quite a solemn strain, as if they

had something in itself beautiful, elevating, and meritorious in them; as if the British Philistine would have only to present himself before the Great Judge with his twelve children, in order to be received among the sheep as a matter of right!

But bodily health and vigour, it may be said, are not to be classed with wealth and population as mere machinery; they have a more real and essential value. True; but only as they are more intimately connected with a perfect spiritual condition than wealth or population are. The moment we disjoin them from the idea of a perfect spiritual condition, and pursue them, as we do pursue them, for their own sake and as ends in themselves, our worship of them becomes as mere worship of machinery, as our worship of wealth or population, and as unintelligent and vulgarizing a worship as that is. Every one with anything like an adequate idea of human perfection has distinctly marked this subordination to higher and spiritual ends of the cultivation of bodily vigour and activity. "Bodily exercise profiteth little; but godliness is profitable unto all things," says the author of the Epistle to Timothy. And the utilitarian Franklin says just as explicitly: "Eat and drink such an exact quantity as suits the constitution of thy body, *in reference to the services of the mind*." But the point of view of culture, keeping the mark of human perfection simply and broadly in view, and not assigning to this perfection, as religion or utilitarianism assign to it, a special and limited character—this point of view, I say, of culture is best given by these words of Epictetus: "It is a sign of *aphuia*," says he, that is, of a nature not finely tempered, "to give yourselves up to things which relate to the body; to make, for instance, a great fuss about exercise, a great fuss about eating, a great fuss about drinking, a great fuss about walking, a great fuss about riding. All these things ought to be done merely by the way: the formation of the spirit and character must be our real concern." This is admirable; and, indeed, the Greek word *euphuia*, a finely tempered nature, gives exactly the notion of perfection as culture brings us to conceive it: a harmonious perfection, a perfection in which the characters of beauty and intelligence are both present, which unites "the two noblest of things," as Swift, who of one of the two, at any rate, had himself all too little, most happily calls them in his *Battle of the Books*, "the two noblest of things, *sweetness and light*." The *euphues* is the man who tends towards sweetness and light; the *aphues,* on the other hand, is our Philistine. The immense spiritual significance of the Greeks is due to their having been inspired with this central and happy idea of the essential character of human perfection; and Mr. Bright's misconception of culture, as a

smattering of Greek and Latin, comes itself, after all, from this wonderful significance of the Greeks having affected the very machinery of our education, and is in itself a kind of homage to it.

In thus making sweetness and light to be characters of perfection, culture is of like spirit with poetry, follows one law with poetry. Far more than on our freedom, our population, and our industrialism, many amongst us rely upon our religious organizations to save us. I have called religion a yet more important manifestation of human nature than poetry, because it has worked on a broader scale for perfection, and with greater masses of men. But the idea of beauty and of a human nature perfect on all its sides, which is the dominant idea of poetry, is a true and invaluable idea, though it has not yet had the success that the idea of conquering the obvious faults of our animality, and of a human nature perfect on the moral side—which is the dominant idea of religion—has been enabled to have; and it is destined, adding to itself the religious idea of a devout energy, to transform and govern the other.

The best art and poetry of the Greeks, in which religion and poetry are one, in which the idea of beauty and of a human nature perfect on all sides adds to itself a religious and devout energy, and works in the strength of that, is on this account of such surpassing interest and instructiveness for us, though it was—as, having regard to the human race in general, and, indeed, having regard to the Greeks themselves, we must own—a premature attempt, an attempt which for success needed the moral and religious fibre in humanity to be more braced and developed than it had yet been. But Greece did not err in having the idea of beauty, harmony, and complete human perfection, so present and paramount. It is impossible to have this idea too present and paramount; only, the moral fibre must be braced too. And we, because we have braced the moral fibre, are not on that account in the right way, if at the same time the idea of beauty, harmony, and complete human perfection is wanting or misapprehended amongst us; and evidently it *is* wanting or misapprehended at present. And when we rely as we do on our religious organizations, which in themselves do not and cannot give us this idea, and think we have done enough if we make them spread and prevail, then, I say, we fall into our common fault of overvaluing machinery.

Nothing is more common than for people to confound the inward peace and satisfaction which follows the subduing of the obvious faults of our animality with what I may call absolute inward peace and satisfaction—the peace and satisfaction which are reached as we draw near to complete spiritual perfection, and not merely to moral perfection, or rather

to relative moral perfection. No people in the world have done more and struggled more to attain this relative moral perfection than our English race has. For no people in the world has the command to *resist the devil*, to *overcome the wicked one*, in the nearest and most obvious sense of those words, had such a pressing force and reality. And we have had our reward, not only in the great worldly prosperity which our obedience to this command has brought us, but also, and far more, in great inward peace and satisfaction. But to me few things are more pathetic than to see people, on the strength of the inward peace and satisfaction which their rudimentary efforts towards perfection have brought them, employ, concerning their incomplete perfection and the religious organizations within which they have found it, language which properly applies only to complete perfection, and is a far-off echo of the human soul's prophecy of it. Religion itself, I need hardly say, supplies them in abundance with this grand language. And very freely do they use it; yet it is really the severest criticism of such an incomplete perfection as alone we have yet reached through our religious organizations.

The impulse of the English race towards moral development and self-conquest has nowhere so powerfully manifested itself as in Puritanism. Nowhere has Puritanism found so adequate an expression as in the religious organization of the Independents. The modern Independents have a newspaper, the *Nonconformist*, written with great sincerity and ability. The motto, the standard, the profession of faith which this organ of theirs carries aloft, is: "The Dissidence of Dissent and the Protestantism of the Protestant religion." There is sweetness and light, and an ideal of complete harmonious human perfection! One need not go to culture and poetry to find language to judge it. Religion, with its instinct for perfection, supplies language to judge it, language too which is in our mouths every day. "Finally, be of one mind, united in feeling," says St. Peter. There is an ideal which judges the Puritan ideal: "The Dissidence of Dissent and the Protestantism of the Protestant religion!" And religious organizations like this are what people believe in, rest in, would give their lives for! Such, I say, is the wonderful virtue of even the beginnings of perfection, of having conquered even the plain faults of our animality, that the religious organization which has helped us to do it can seem to us something precious, salutary, and to be propagated, even when it wears such a brand of imperfection on its forehead as this. And men have got such a habit of giving to the language of religion a special application, of making it a mere jargon, that for the condemnation which religion itself passes on the shortcomings of their religious organizations they

have no ear; they are sure to cheat themselves and to explain this condemnation away. They can only be reached by the criticism which culture, like poetry, speaking a language not to be sophisticated, and resolutely testing these organizations by the ideal of a human perfection complete on all sides, applies to them.

But men of culture and poetry, it will be said, are again and again failing, and failing conspicuously, in the necessary first stage to a harmonious perfection, in the subduing of the great obvious faults of our animality, which it is the glory of these religious organizations to have helped us to subdue. True, they do often so fail. They have often been without the virtues as well as the faults of the Puritan; it has been one of their dangers that they so felt the Puritan's faults that they too much neglected the practice of his virtues. I will not, however, exculpate them at the Puritan's expense. They have often failed in morality, and morality is indispensable. And they have been punished for their failure, as the Puritan has been rewarded for his performance. They have been punished wherein they erred; but their ideal of beauty, of sweetness and light, and a human nature complete on all its sides, remains the true ideal of perfection still; just as the Puritan's ideal of perfection remains narrow and inadequate, although for what he did well he has been richly rewarded. Notwithstanding the mighty results of the Pilgrim Fathers' voyage, they and their standard of perfection are rightly judged when we figure to ourselves Shakespeare or Virgil—souls in whom sweetness and light, and all that in human nature is most humane, were eminent—accompanying them on their voyage, and think what intolerable company Shakespeare and Virgil would have found them! In the same way let us judge the religious organizations which we see all around us. Do not let us deny the good and the happiness which they have accomplished; but do not let us fail to see clearly that their idea of human perfection is narrow and inadequate, and that the Dissidence of Dissent and the Protestantism of the Protestant religion will never bring humanity to its true goal. As I said with regard to wealth: Let us look at the life of those who live in and for it—so I say with regard to the religious organizations. Look at the life imaged in such a newspaper as the *Nonconformist*—a life of jealousy of the Establishment, disputes, tea-meetings, openings of chapels, sermons; and then think of it as an ideal of a human life completing itself on all sides, and aspiring with all its organs after sweetness, light, and perfection!

Another newspaper, representing, like the *Nonconformist,* one of the

religious organizations of this country, was a short time ago giving an account of the crowd at Epsom on the Derby day, and of all the vice and hideousness which was to be seen in that crowd; and then the writer turned suddenly round upon Professor Huxley, and asked him how he proposed to cure all this vice and hideousness without religion. I confess I felt disposed to ask the asker this question: and how do you propose to cure it with such a religion as yours? How is the ideal of a life so unlovely, so unattractive, so incomplete, so narrow, so far removed from a true and satisfying ideal of human perfection, as is the life of your religious organization as you yourself reflect it, to conquer and transform all this vice and hideousness? Indeed, the strongest plea for the study of perfection as pursued by culture, the clearest proof of the actual inadequacy of the idea of perfection held by the religious organizations—expressing, as I have said, the most wide-spread effort which the human race has yet made after perfection—is to be found in the state of our life and society with these in possession of it, and having been in possession of it I know not how many hundred years. We are all of us included in some religious organization or other; we all call ourselves, in the sublime and aspiring language of religion which I have before noticed, *children of God*. Children of God;—it is an immense pretension!—and how are we to justify it? By the works which we do, and the words which we speak. And the work which we collective children of God do, our grand centre of life, our *city* which we have builded for us to dwell in, is London! London, with its unutterable external hideousness, and with its internal canker of *publicè egestas*, *privatim opulentia* [public want, private opulence]—to use the words which Sallust puts into Cato's mouth about Rome—unequalled in the world! The word, again, which we children of God speak, the voice which most hits our collective thought, the newspaper with the largest circulation in England, nay, with the largest circulation in the whole world, is the *Daily Telegraph!* I say that when our religious organizations—which I admit to express the most considerable effort after perfection that our race has yet made—land us in no better result than this, it is high time to examine carefully their idea of perfection, to see whether it does not leave out of account sides and forces of human nature which we might turn to great use; whether it would not be more operative if it were more complete. And I say that the English reliance on our religious organizations and on their ideas of human perfection just as they stand is like our reliance on freedom, on muscular Christianity, on population, on coal, on wealth—mere belief in machin-

ery, and unfruitful; and that it is wholesomely counteracted by culture, bent on seeing things as they are, and on drawing the human race onwards to a more complete, a harmonious perfection.

Culture, however, shows its single-minded love of perfection, its desire simply to make reason and the will of God prevail, its freedom from fanaticism, by its attitude towards all this machinery, even while it insists that it *is* machinery. Fanatics, seeing the mischief men do themselves by their blind belief in some machinery or other—whether it is wealth and industrialism, or whether it is the cultivation of bodily strength and activity, or whether it is a political organization—or whether it is a religious organization—oppose with might and main the tendency to this or that political and religious organization, or to games and athletic exercises, or to wealth and industrialism, and try violently to stop it. But the flexibility which sweetness and light give, and which is one of the rewards of culture pursued in good faith, enables a man to see that a tendency may be necessary, and even, as a preparation for something in the future, salutary, and yet that the generations or individuals who obey this tendency are sacrificed to it, that they fall short of the hope of perfection by following it; and that its mischiefs are to be criticized, lest it should take too firm a hold and last after it has served its purpose.

Mr. Gladstone well pointed out, in a speech at Paris—and others have pointed out the same thing—how necessary is the present great movement towards wealth and industrialism, in order to lay broad foundations of material well-being for the society of the future. The worst of these justifications is, that they are generally addressed to the very people engaged, body and soul, in the movement in question; at all events, that they are always seized with the greatest avidity by these people, and taken by them as quite justifying their life; and that thus they tend to harden them in their sins. Now, culture admits the necessity of the movement towards fortune-making and exaggerated industrialism, readily allows that the future may derive benefit from it; but insists, at the same time, that the passing generations of industrialists—forming, for the most part, the stout main body of Philistinism—are sacrificed to it. In the same way, the result of all the games and sports which occupy the passing generation of boys and young men may be the establishment of a better and sounder physical type for the future to work with. Culture does not set itself against the games and sports; it congratulates the future, and hopes it will make a good use of its improved physical basis; but it points out that our passing generation of boys and young men is, meantime, sacrificed. Puritanism was perhaps necessary to develop the moral

fibre of the English race, Nonconformity to break the yoke of ecclesiastical domination over men's minds and to prepare the way for freedom of thought in the distant future; still, culture points out that the harmonious perfection of generations of Puritans and Nonconformists has been, in consequence, sacrificed. Freedom of speech may be necessary for the society of the future, but the young lions of the *Daily Telegraph* in the meanwhile are sacrificed. A voice for every man in his country's government may be necessary for the society of the future, but meanwhile Mr. Beales and Mr. Bradlaugh are sacrificed.

Oxford, the Oxford of the past, has many faults; and she has heavily paid for them in defeat, in isolation, in want of hold upon the modern world. Yet we in Oxford, brought up amidst the beauty and sweetness of that beautiful place, have not failed to seize one truth: the truth that beauty and sweetness are essential characters of a complete human perfection. When I insist on this, I am all in the faith and tradition of Oxford. I say boldly that this our sentiment for beauty and sweetness, our sentiment against hideousness and rawness, has been at the bottom of our attachment to so many beaten causes, of our opposition to so many triumphant movements. And the sentiment is true, and has never been wholly defeated, and has shown its power even in its defeat. We have not won our political battles, we have not carried our main points, we have not stopped our adversaries' advance, we have not marched victoriously with the modern world; but we have told silently upon the mind of the country, we have prepared currents of feeling which sap our adversaries' position when it seems gained, we have kept up our own communications with the future. Look at the course of the great movement which shook Oxford to its centre some thirty years ago! It was directed, as any one who reads Dr. Newman's *Apology* may see, against what in one word may be called "Liberalism." Liberalism prevailed; it was the appointed force to do the work of the hour; it was necessary, it was inevitable that it should prevail. The Oxford movement was broken, it failed; our wrecks are scattered on every shore:

Quæ regio in terris nostri non plena laboris?

[What place on earth is not full of our labours?]

But what was it, this Liberalism, as Dr. Newman saw it, and as it really broke the Oxford movement? It was the great middle-class Liberalism, which had for the cardinal points of its belief the Reform Bill of 1832, and local self-government, in politics; in the social sphere, free trade, unre-

stricted competition, and the making of large industrial fortunes; in the religious sphere, the Dissidence of Dissent and the Protestantism of the Protestant religion. I do not say that other and more intelligent forces than this were not opposed to the Oxford movement: but this was the force which really beat it; this was the force which Dr. Newman felt himself fighting with; this was the force which till only the other day seemed to be the paramount force in this country, and to be in possession of the future; this was the force whose achievements fill Mr. Lowe with such inexpressible admiration, and whose rule he was so horror-struck to see threatened. And where is this great force of Philistinism now? It is thrust into the second rank, it is become a power of yesterday, it has lost the future. A new power has suddenly appeared, a power which it is impossible yet to judge fully, but which is certainly a wholly different force from middle-class Liberalism; different in its cardinal points of belief, different in its tendencies in every sphere. It loves and admires neither the legislation of middle-class Parliaments, nor the local self-government of middle-class vestries, nor the unrestricted competition of middle-class industrialists, nor the dissidence of middle-class Dissent and the Protestantism of middle-class Protestant religion. I am not now praising this new force, or saying that its own ideals are better; all I say is, that they are wholly different. And who will estimate how much the currents of feeling created by Dr. Newman's movement, the keen desire for beauty and sweetness which it nourished, the deep aversion it manifested to the hardness and vulgarity of middle-class Liberalism, the strong light it turned on the hideous and grotesque illusions of middle-class Protestantism—who will estimate how much all these contributed to swell the tide of secret dissatisfaction which has mined the ground under the self-confident Liberalism of the last thirty years, and has prepared the way for its sudden collapse and supersession? It is in this manner that the sentiment of Oxford for beauty and sweetness conquers, and in this manner long may it continue to conquer!

In this manner it works to the same end as culture, and there is plenty of work for it yet to do. I have said that the new and more democratic force which is now superseding our old middle-class Liberalism cannot yet be rightly judged. It has its main tendencies still to form. We hear promises of its giving us administrative reform, law reform, reform of education, and I know not what; but those promises come rather from its advocates, wishing to make a good plea for it and to justify it for superseding middle-class Liberalism, than from clear tendencies which it has itself yet developed. But meanwhile it has plenty of well-intentioned friends against whom culture may with advantage continue to uphold

steadily its ideal of human perfection; that this is *an inward spiritual activity, having for its characters increased sweetness, increased light, increased life, increased sympathy*. Mr. Bright, who has a foot in both worlds, the world of middle-class Liberalism and the world of democracy, but who brings most of his ideas from the world of middle-class Liberalism in which he was bred, always inclines to inculcate that faith in machinery to which, as we have seen, Englishmen are so prone, and which has been the bane of middle-class Liberalism. He complains with a sorrowful indignation of people who "appear to have no proper estimate of the value of the franchise"; he leads his disciples to believe—what the Englishman is always too ready to believe—that the having a vote, like the having a large family, or a large business, or large muscles, has in itself some edifying and perfecting effect upon human nature. Or else he cries out to the democracy—"the men," as he calls them, "upon whose shoulders the greatness of England rests"—he cries out to them: "See what you have done! I look over this country and see the cities you have built, the railroads you have made, the manufactures you have produced, the cargoes which freight the ships of the greatest mercantile navy the world has ever seen! I see that you have converted by your labours what was once a wilderness, these islands, into a fruitful garden; I know that you have created this wealth, and are a nation whose name is a word of power throughout all the world." Why, this is just the very style of laudation with which Mr. Roebuck or Mr. Lowe debauch the minds of the middle classes, and make such Philistines of them. It is the same fashion of teaching a man to value himself not on what he *is*, not on his progress in sweetness and light, but on the number of the railroads he has constructed, or the bigness of the tabernacle he has built. Only the middle classes are told they have done it all with their energy, self-reliance, and capital, and the democracy are told they have done it all with their hands and sinews. But teaching the democracy to put its trust in achievements of this kind is merely training them to be Philistines to take the place of the Philistines whom they are superseding; and they too, like the middle class, will be encouraged to sit down at the banquet of the future without having on a wedding garment, and nothing excellent can then come from them. Those who know their besetting faults, those who have watched them and listened to them, or those who will read the instructive account recently given of them by one of themselves, the *Journeyman Engineer*, will agree that the idea which culture sets before us of perfection—an increased spiritual activity, having for its characters increased sweetness, increased light, increased life, increased sympathy—is an idea which the new democracy needs far more than the idea

of the blessedness of the franchise, or the wonderfulness of its own industrial performances.

Other well-meaning friends of this new power are for leading it, not in the old ruts of middle-class Philistinism, but in ways which are naturally alluring to the feet of democracy, though in this country they are novel and untried ways. I may call them the ways of Jacobinism. Violent indignation with the past, abstract systems of renovation applied wholesale, a new doctrine drawn up in black and white for elaborating down to the very smallest details a rational society for the future—these are the ways of Jacobinism. Mr. Frederic Harrison and other disciples of Comte—one of them, Mr. Congreve, is an old friend of mine, and I am glad to have an opportunity of publicly expressing my respect for his talents and character—are among the friends of democracy who are for leading it in paths of this kind. Mr. Frederic Harrison is very hostile to culture, and from a natural enough motive; for culture is the eternal opponent of the two things which are the signal marks of Jacobinism—its fierceness, and its addiction to an abstract system. Culture is always assigning to system-makers and systems a smaller share in the bent of human destiny than their friends like. A current in people's minds sets towards new ideas; people are dissatisfied with their old narrow stock of Philistine ideas, Anglo-Saxon ideas, or any other; and some man, some Bentham or Comte, who has the real merit of having early and strongly felt and helped the new current, but who brings plenty of narrowness and mistakes of his own into his feeling and help of it, is credited with being the author of the whole current, the fit person to be entrusted with its regulation and to guide the human race.

The excellent German historian of the mythology of Rome, Preller, relating the introduction at Rome under the Tarquins of the worship of Apollo, the god of light, healing, and reconciliation, will have us observe that it was not so much the Tarquins who brought to Rome the new worship of Apollo, as a current in the mind of the Roman people which set powerfully at that time towards a new worship of this kind, and away from the old run of Latin and Sabine religious ideas. In a similar way, culture directs our attention to the natural current there is in human affairs, and to its continual working, and will not let us rivet our faith upon any one man and his doings. It makes us see, not only his good side, but also how much in him was of necessity limited and transient; nay, it even feels a pleasure, a sense of an increased freedom and of an ampler future, in so doing.

I remember, when I was under the influence of a mind to which I feel the greatest obligations, the mind of a man who was the very incarnation

of sanity and clear sense, a man the most considerable, it seems to me, whom America has yet produced–Benjamin Franklin–I remember the relief with which, after long feeling the sway of Franklin's imperturbable common sense, I came upon a project of his for a new version of the Book of Job, to replace the old version, the style of which, says Franklin, has become obsolete, and thence less agreeable. "I give," he continues, "a few verses, which may serve as a sample of the kind of version I would recommend." We all recollect the famous verse in our translation: "Then Satan answered the Lord and said: 'Doth Job fear God for nought?'" Franklin makes this: "Does Your Majesty imagine that Job's good conduct is the effect of mere personal attachment and affection?" I well remember how when first I read that, I drew a deep breath of relief, and said to myself: "After all, there is a stretch of humanity beyond Franklin's victorious good sense!" So, after hearing Bentham cried loudly up as the renovator of modern society, and Bentham's mind and ideas proposed as the rulers of our future, I open the *Deontology*. There I read: "While Xenophon was writing his history and Euclid teaching geometry, Socrates and Plato were talking nonsense under pretence of talking wisdom and morality. This morality of theirs consisted in words; this wisdom of theirs was the denial of matters known to every man's experience." From the moment of reading that, I am delivered from the bondage of Bentham! the fanaticism of his adherents can touch me no longer; I feel the inadequacy of his mind and ideas for supplying the rule of human society, for perfection.

Culture tends always thus to deal with the men of a system, of disciples, of a school; with men like Comte or, the late Mr. Buckle, or Mr. Mill. However much it may find to admire in these personages, or in some of them, it nevertheless remembers the text: "Be not ye called Rabbi!" and it soon passes on from any Rabbi. But Jacobinism loves a Rabbi; it does not want to pass on from its Rabbi in pursuit of a future and still unreached perfection; it wants its Rabbi and his ideas to stand for perfection, that they may with the more authority recast the world; and for Jacobinism, therefore, culture, eternally passing onwards and seeking, is an impertinence and an offence. But culture, just because it resists this tendency of Jacobinism to impose on us a man with limitations and errors of his own along with the true ideas of which he is the organ, really does the world and Jacobinism itself a service.

So, too, Jacobinism, in its fierce hatred of the past and of those whom it makes liable for the sins of the past, cannot away with the inexhaustible indulgence proper to culture, the consideration of circumstances, the severe judgment of actions joined to the merciful judgment of persons.

"The man of culture is in politics," cries Mr. Frederic Harrison, "one of the poorest mortals alive!" Mr. Frederic Harrison wants to be doing business, and he complains that the man of culture stops him with a "turn for small fault-finding, love of selfish ease, and indecision in action." Of what use is culture, he asks, except for "a critic of new books or a professor of *belles lettres*?" Why, it is of use because, in presence of the fierce exasperation which breathes, or rather, I may say, hisses, through the whole production in which Mr. Frederic Harrison asks that question, it reminds us that the perfection of human nature is sweetness and light. It is of use because, like religion, that other effort after perfection, it testifies that, where bitter envying and strife are, there is confusion and every evil work.

The pursuit of perfection, then, is the pursuit of sweetness and light. He who works for sweetness works in the end for light also; he who works for light works in the end for sweetness also. But he who works for sweetness and light united works to make reason and the will of God prevail. He who works for machinery, he who works for hatred, works only for confusion. Culture looks beyond machinery, culture hates hatred; culture has one great passion, the passion for sweetness and light. It has one even yet greater! the passion for making them *prevail*. It is not satisfied till we *all* come to a perfect man; it knows that the sweetness and light of the few must be imperfect until the raw and unkindled masses of humanity are touched with sweetness and light. If I have not shrunk from saying that we must work for sweetness and light, so neither have I shrunk from saying that we must have a broad basis, must have sweetness and light for as many as possible. Again and again I have insisted how those are the happy moments of humanity, how those are the marking epochs of a people's life, how those are the flowering times for literature and art and all the creative power of genius, when there is a *national* glow of life and thought, when the whole of society is in the fullest measure permeated by thought, sensible to beauty, intelligent and alive. Only it must be *real* thought and *real* beauty; *real* sweetness and *real* light. Plenty of people will try to give the masses, as they call them, an intellectual food prepared and adapted in the way they think proper for the actual condition of the masses. The ordinary popular literature is an example of this way of working on the masses. Plenty of people will try to indoctrinate the masses with the set of ideas and judgments constituting the creed of their own profession or party. Our religious and political organizations give an example of this way of working on the masses. I condemn neither way; but culture works differently. It does not try to teach down to the level of inferior classes; it does not try to win them

for this or that sect of its own, with ready-made judgments and watchwords. It seeks to do away with classes; to make the best that has been thought and known in the world current everywhere; to make all men live in an atmosphere of sweetness and light, where they may use ideas, as it uses them itself, freely—nourished and not bound by them.

This is the *social idea;* and the men of culture are the true apostles of equality. The great men of culture are those who have had a passion for diffusing, for making prevail, for carrying from one end of society to the other, the best knowledge, the best ideas of their time; who have laboured to divest knowledge of all that was harsh, uncouth, difficult, abstract, professional, exclusive; to humanize it, to make it efficient outside the clique of the cultivated and learned, yet still remaining the *best* knowledge and thought of the time, and a true source, therefore, of sweetness and light. Such a man was Abelard in the Middle Ages, in spite of all his imperfections; and thence the boundless emotion and enthusiasm which Abelard excited. Such were Lessing and Herder in Germany, at the end of the last century; and their services to Germany were in this way inestimably precious. Generations will pass, and literary monuments will accumulate, and works far more perfect than the works of Lessing and Herder will be produced in Germany; and yet the names of these two men will fill a German with a reverence and enthusiasm such as the names of the most gifted masters will hardly awaken. And why? Because they *humanized* knowledge; because they broadened the basis of life and intelligence; because they worked powerfully to diffuse sweetness and light, to make reason and the will of God prevail. With Saint Augustine they said: "Let us not leave Thee alone to make in the secret of thy knowledge, as thou didst before the creation of the firmament, the division of light from darkness; let the children of thy spirit, placed in their firmament, make their light shine upon the earth, mark the division of night and day, and announce the revolution of the times; for the old order is passed, and the new arises; the night is spent, the day is come forth; and thou shalt crown the year with thy blessing, when thou shalt send forth labourers into thy harvest sown by other hands than theirs; when thou shalt send forth new labourers to new seed-times, whereof the harvest shall be not yet."

The foregoing consists of Chapter I of Arnold's CULTURE AND ANARCHY.

Sainte-Beuve

1804–1869

Charles Augustin Sainte-Beuve was born on December 23, 1804, at Boulogne-sur-Mer, France. His father, a commissioner of taxes, died before Charles's birth, leaving his mother little money. Until the boy was fourteen, he was educated at Boulogne. Then he went to the Collège Charlemagne in Paris.

In 1823 Sainte-Beuve began to study medicine, but from 1824 on he combined literary journalism with his medical studies. After 1827 he gave up medicine altogether and devoted all his time to literature. He became a regular critic for several Paris reviews.

Sainte-Beuve's essays were sympathetic to the writers of his own generation. These young Frenchmen–Flaubert, Mérimée, and others–had been fired by the ideas of Schiller, Goethe, and the English Romantic poets. Sainte-Beuve was one of their earliest champions.

Sainte-Beuve was especially friendly with Victor Hugo and his wife, until he fell passionately in love with Mme Hugo. This brought an end to the friendship and marked the beginning of deep spiritual and intellectual unrest for Sainte-Beuve.

In addition to literary criticism, he wrote poems and one novel, *Volupté*. Sainte-Beuve was elected to the French Academy in 1844. He lectured at Lausanne and at Liège, where he was professor of French literature for a time. In 1854 he was appointed professor of Latin poetry at the Collège de France; but, because of his progovernment political beliefs, the students refused to hear his lectures and he was forced to resign the post.

Sainte-Beuve was appointed a member of the Senate in 1865. He died in Paris on October 13, 1869. On his instructions, he was buried without any religious ceremony.

Sainte-Beuve has been called the father of modern criticism. He believed that criticism was itself an art rather than simply a means of commenting on art.

Two ideas characterize Sainte-Beuve's view of criticism. Both place him as an articulate spokesman of his time. He held that because literature reflects its time and place, the evaluation of any work necessarily varies according to the reader's background. He championed the "romantic" literature of his age against the "classical" style favored by older critics.

But even though he was, on the whole, a defender of the "romantics" against the "classical" writers, his definition of a classic work includes both. "A true classic," he writes, ". . . is an author who has enriched the human mind, increased its treasure, and caused it to advance a step; who has discovered some moral and not equivocal truth, or revealed some eternal passion in that heart where all seemed known and discovered." The emphasis is thus on the classic author's knowledge and insight, not on his style. A classic can be expressed, he says, "in no matter what form, only provided it be broad and great, refined and sensible, sane and beautiful in itself." It speaks "to all in (its) own peculiar style, a style which is found to be also that of the whole world, a style new without neologism, new and old, easily contemporary with all time."

This definition, which contains much food for thought, is clearly very far from being applicable only to the writers of one or another epoch. It does not exalt Wordsworth and Coleridge (typical "romantics") above Pope and Dr. Johnson (typical "classical" writers). It includes all great authors. It demands only that they be great.

"There is no receipt for making classics," Sainte-Beuve writes. "With regard to classics the least expected prove the best and greatest." He does not mean that originality is the highest virtue of great literature. Virgil "imitated" Homer; yet both are classics. And Dante imitated Virgil. Their spontaneity lies in the freshness of what they added. Though Virgil and Dante had models which they followed, they are at the same time always new. Classics are always new; but they are also deeply bedded in the common stock of human knowledge and experience. A work that was entirely new could hardly be a classic. It would share nothing of importance with its readers.

Sainte-Beuve peoples an imaginary "temple of taste" with writers

whom he believes to be classics. The immense variety in his choices proves that there is no one characteristic or set of characteristics which makes a classic. The only true test is whether a book gives us "that sensation of serenity and amenity . . . which reconciles us with mankind and with ourselves." The best books, he says, are our best friends.

Montaigne was, for Sainte-Beuve, a classic author. In the second essay reprinted below, we see Sainte-Beuve's philosophy of criticism put into practice. Following his tenet that a book should be studied at least partly through its author, he tells us a good deal about Montaigne and leaves the judgment of individual works to us.

Both in Montaigne's time and in Sainte-Beuve's, France was in political turmoil. The critic, writing three hundred years after the essayist, admires the personal traits that served Montaigne so well in time of crisis. Montaigne was moderate, orderly, witty, optimistic, fair, humble, and courageous, says Sainte-Beuve. Such a man is good to have around in time of trouble.

As to trouble itself, Sainte-Beuve concludes that Montaigne's most pertinent advice may be not to anticipate it. The man who looks for trouble does not generally have to look far.

Sainte-Beuve's essays were titled, in the original, *Causeries*. The French word means "talks" or "chats." There is no question that the tone of the following essays is chatty and informal. This is one of the best things about them. Sainte-Beuve is a critic who is easy to read. He is entertaining. But that, he says, is one of the criteria of a classic author—that he entertain. By this token, Sainte-Beuve is himself a classic.

What Is a Classic?

delicate question, to which somewhat diverse solutions might be given according to times and seasons. An intelligent man suggests it to me, and I intend to try, if not to solve it, at least to examine and discuss it face to face with my readers, were it only to persuade them to answer it for themselves, and, if I can, to make their opinion and mine on the point clear. And why, in criticism, should we not, from time to time, venture to treat some of those subjects which are not personal, in which we no longer speak of some one but of some thing? Our neighbours, the English, have well succeeded in making of it a special division of literature under the modest title of "Essays." It is true that in writing of such subjects, always slightly abstract and moral, it is advisable to speak of them in a season of quiet, to make sure of our own attention and of that of others, to seize one of those moments of calm moderation and leisure seldom granted our amiable France; even when she is desirous of being wise and is not making revolutions, her brilliant genius can scarcely tolerate them.

A classic, according to the usual definition, is an old author canonized by admiration, and an authority in his particular style. The word *classic* was first used in this sense by the Romans. With them not all the citizens of the different classes were properly called *classici*, but only those of the chief class, those who possessed an income of a certain fixed sum. Those who possessed a smaller income were described by the term *infra classem*, below the pre-eminent class. The word *classicus* was used in a figurative sense by Aulus Gellius, and applied to writers: a writer of worth and distinction, *classicus assiduusque scriptor*, a writer who is of account, has real property, and is not lost in the proletariate crowd. Such an expression implies an age sufficiently advanced to have already made some sort of valuation and classification of literature.

At first the only true classics for the moderns were the ancients. The Greeks, by peculiar good fortune and natural enlightenment of mind, had

no classics but themselves. They were at first the only classical authors for the Romans, who strove and contrived to imitate them. After the great periods of Roman literature, after Cicero and Virgil, the Romans in their turn had their classics, who became almost exclusively the classical authors of the centuries which followed. The Middle Ages, which were less ignorant of Latin antiquity than is believed, but which lacked proportion and taste, confused the ranks and orders. Ovid was placed above Homer, and Boetius seemed a classic equal to Plato. The revival of learning in the fifteenth and sixteenth centuries helped to bring this long chaos to order, and then only was admiration rightly proportioned. Thenceforth the true classical authors of Greek and Latin antiquity stood out in a luminous background, and were harmoniously grouped on their two heights.

Meanwhile modern literatures were born, and some of the more precocious, like the Italian, already possessed the style of antiquity. Dante appeared, and, from the very first, posterity greeted him as a classic. Italian poetry has since shrunk into far narrower bounds; but, whenever it desired to do so, it always found again and preserved the impulse and echo of its lofty origin. It is no indifferent matter for a poetry to derive its point of departure and classical source in high places; for example, to spring from Dante rather than to issue laboriously from Malherbe.

Modern Italy had her classical authors, and Spain had every right to believe that she also had hers at a time when France was yet seeking hers. A few talented writers endowed with originality and exceptional animation, a few brilliant efforts, isolated, without following, interrupted and recommenced, did not suffice to endow a nation with a solid and imposing basis of literary wealth. The idea of a classic implies something that has continuance and consistence, and which produces unity and tradition, fashions and transmits itself, and endures. It was only after the glorious years of Louis XIV that the nation felt with tremor and pride that such good fortune had happened to her. Every voice informed Louis XIV of it with flattery, exaggeration, and emphasis, yet with a certain sentiment of truth. Then arose a singular and striking contradiction: those men of whom Perrault was the chief, the men who were most smitten with the marvels of the age of Louis the Great, who even went the length of sacrificing the ancients to the moderns, aimed at exalting and canonizing even those whom they regarded as inveterate opponents and adversaries. Boileau avenged and angrily upheld the ancients against Perrault, who extolled the moderns—that is to say, Corneille, Molière, Pascal, and the eminent men of his age, Boileau, one of the first, included.

Kindly La Fontaine, taking part in the dispute in behalf of the learned Huet, did not perceive that, in spite of his defects, he was in his turn on the point of being held as a classic himself.

Example is the best definition. From the time France possessed her age of Louis XIV and could contemplate it at a little distance, she knew, better than by any arguments, what to be classical meant. The eighteenth century, even in its medley of things, strengthened this idea through some fine works, due to its four great men. Read Voltaire's *Age of Louis XIV*, Montesquieu's *Greatness and Fall of the Romans*, Buffon's *Epochs of Nature*, the beautiful pages of reverie and natural description of Rousseau's *Savoyard Vicar*, and say if the eighteenth century, in these memorable works, did not understand how to reconcile tradition with freedom of development and independence. But at the beginning of the present century and under the Empire, in sight of the first attempts of a decidedly new and somewhat adventurous literature, the idea of a classic in a few resisting minds, more sorrowful than severe, was strangely narrowed and contracted. The first Dictionary of the Academy (1694) merely defined a classical author as "a much-approved ancient writer, who is an authority as regards the subject he treats." The Dictionary of the Academy of 1835 narrows that definition still more, and gives precision and even limit to its rather vague form. It describes classical authors as those "who have become *models* in any language whatever," and in all the articles which-follow, the expressions, *models*, *fixed rules* for composition and style, *strict rules* of art to which men must conform, continually recur. That definition of *classic* was evidently made by the respectable Academicians, our predecessors, in face and sight of what was then called *romantic*–that is to say, in sight of the enemy. It seems to me time to renounce those timid and restrictive definitions and to free our mind of them.

A true classic, as I should like to hear it defined, is an author who has enriched the human mind, increased its treasure, and caused it to advance a step; who has discovered some moral and not equivocal truth, or revealed some eternal passion in that heart where all seemed known and discovered; who has expressed his thought, observation, or invention, in no matter what form, only provided it be broad and great, refined and sensible, sane and beautiful in itself; who has spoken to all in his own peculiar style, a style which is found to be also that of the whole world, a style new without neologism, new and old, easily contemporary with all time.

Such a classic may for a moment have been revolutionary; it may at

least have seemed so, but it is not; it only lashed and subverted whatever prevented the restoration of the balance of order and beauty.

If it is desired, names may be applied to this definition which I wish to make purposely majestic and fluctuating, or in a word, all-embracing. I should first put there Corneille of the *Polyeucte*, *Cinna*, and *Horace*. I should put Molière there, the fullest and most complete poetic genius we have ever had in France. Goethe, the king of critics, said: "Molière is so great that he astonishes us afresh every time we read him. He is a man apart; his plays border on the tragic, and no one has the courage to try and imitate him. His *Avare*, where vice destroys all affection between father and son, is one of the most sublime works, and dramatic in the highest degree. In a drama every action ought to be important in itself, and to lead to an action greater still. In this respect *Tartuffe* is a model. What a piece of exposition the first scene is! From the beginning everything has an important meaning, and causes something much more important to be foreseen. The exposition in a certain play of Lessing that might be mentioned is very fine, but the world only sees that of *Tartuffe* once. It is the finest of the kind we possess. Every year I read a play of Molière, just as from time to time I contemplate some engraving after the great Italian masters."

I do not conceal from myself that the definition of the classic I have just given somewhat exceeds the notion usually ascribed to the term. It should, above all, include conditions of uniformity, wisdom, moderation, and reason, which dominate and contain all the others. Having to praise M. Royer-Collard, M. de Rémusat said: "If he derives purity of taste, propriety of terms, variety of expression, attentive care in suiting the diction to the thought, from our classics, he owes to himself alone the distinctive character he gives it all." It is here evident that the part allotted to classical qualities seems mostly to depend on harmony and *nuances* of expression, on graceful and temperate style: such is also the most general opinion. In this sense the pre-eminent classics would be writers of a middling order, exact, sensible, elegant, always clear, yet of noble feeling and airily veiled strength. Marie-Joseph Chénier has described the poetics of those temperate and accomplished writers in lines where he shows himself their happy disciple: "It is good sense, reason which does all– virtue, genius, soul, talent, and taste. What is virtue? reason put in practice; talent? reason expressed with brilliance; soul? reason delicately put forth; and genius is sublime reason."

While writing those lines he was evidently thinking of Pope, Boileau, and Horace, the master of them all. The peculiar characteristic of the

theory which subordinated imagination and feeling itself to reason, of which Scaliger perhaps gave the first sign among the moderns, is, properly speaking, the *Latin* theory, and for a long time it was also by preference the *French* theory. If it is used appositely, if the term *reason* is not abused, that theory possesses some truth; but it is evident that it is abused, and that if, for instance, reason can be confounded with poetic genius and make one with it in a moral epistle, it cannot be the same thing as the genius, so varied and so diversely creative in its expression of the passions, of the drama or the epic. Where will you find reason in the fourth book of the *Aeneid* and the transports of Dido? Be that as it may, the spirit which prompted the theory caused writers who ruled their inspiration, rather than those who abandoned themselves to it, to be placed in the first rank of classics; to put Virgil there more surely than Homer, Racine in preference to Corneille. The masterpiece to which the theory likes to point, which in fact brings together all conditions of prudence, strength, tempered boldness, moral elevation, and grandeur, is *Athalie*. Turenne in his two last campaigns and Racine in *Athalie* are the great examples of what wise and prudent men are capable of when they reach the maturity of their genius and attain their supremest boldness.

Buffon, in his *Discourse on Style*, insisting on the unity of design, arrangement, and execution, which are the stamps of true classical works, said: "Every subject is one, *and however vast it is, it can be comprised in a single treatise*. Interruptions, pauses, subdivisions should only be used when many subjects are treated, when, having to speak of great, intricate, and dissimilar things, the march of genius is interrupted by the multiplicity of obstacles, and contracted by the necessity of circumstances: otherwise, far from making a work more solid, a great number of divisions destroys the unity of its parts; the book appears clearer to the view, but the author's design remains obscure." And he continues his criticism, having in view Montesquieu's *Spirit of Laws*, an excellent book at bottom, but subdivided: the famous author, worn out before the end, was unable to infuse inspiration into all his ideas, and to arrange all his matter. However, I can scarcely believe that Buffon was not also thinking, by way of contrast, of Bossuet's *Discourse on Universal History*, a subject vast indeed, and yet of such a unity that the great orator was able to comprise it in a single treatise. When we open the first edition, that of 1681, before the division into chapters, which was introduced later, passed from the margin into the text, everything is developed in a single series, almost in one breath. It might be said that the orator has here acted like the nature of which Buffon speaks, that "he has worked on an eternal plan

from which he has nowhere departed," so deeply does he seem to have entered into the familiar counsels and designs of providence.

Are *Athalie* and the *Discourse on Universal History* the greatest masterpieces that the strict classical theory can present to its friends as well as to its enemies? In spite of the admirable simplicity and dignity in the achievement of such unique productions, we should like, nevertheless, in the interests of art, to expand that theory a little, and to show that it is possible to enlarge it without relaxing the tension. Goethe, whom I like to quote on such a subject, said: "I call the classical *healthy*, and the romantic *sickly*. In my opinion the Nibelungen song is as much a classic as Homer. Both are healthy and vigorous. The works of the day are romantic, not because they are new, but because they are weak, ailing, or sickly. Ancient works are classical not because they are old, but because they are powerful, fresh, and healthy. If we regarded romantic and classical from those two points of view we should soon all agree."

Indeed, before determining and fixing the opinions on that matter, I should like every unbiased mind to take a voyage round the world and devote itself to a survey of different literatures in their primitive vigour and infinite variety. What would be seen? Chief of all a Homer, the father of the classical world, less a single distinct individual than the vast living expression of a whole epoch and a semi-barbarous civilization. In order to make him a true classic, it was necessary to attribute to him later a design, a plan, literary invention, qualities of atticism and urbanity of which he had certainly never dreamed in the luxuriant development of his natural inspirations. And who appear by his side? August, venerable ancients, the Aeschyluses and the Sophocles, mutilated, it is true, and only there to present us with a *débris* of themselves, the survivors of many others as worthy, doubtless, as they to survive, but who have succumbed to the injuries of time. This thought alone would teach a man of impartial mind not to look upon the whole of even classical literatures with a too narrow and restricted view; he would learn that the exact and well-proportioned order which has since so largely prevailed in our admiration of the past was only the outcome of artificial circumstances.

And in reaching the modern world, how would it be? The greatest names to be seen at the beginning of literatures are those which disturb and run counter to certain fixed ideas of what is beautiful and appropriate in poetry. For example, is Shakespeare a classic? Yes, now, for England and the world; but in the time of Pope he was not considered so. Pope and his friends were the only pre-eminent classics; directly after their death they seemed so for ever. At the present time they are still

classics, as they deserve to be, but they are only of the second order, and are forever subordinated and relegated to their rightful place by him who has again come to his own on the height of the horizon.

It is not, however, for me to speak ill of Pope or his great disciples, above all, when they possess pathos and naturalness like Goldsmith: after the greatest they are perhaps the most agreeable writers and the poets best fitted to add charm to life. Once when Lord Bolingbroke was writing to Swift, Pope added a postscript, in which he said, "I think some advantage would result to our age, if we three spent three years together." Men who, without boasting, have the right to say such things must never be spoken of lightly; the fortunate ages, when men of talent could propose such things, then no chimera, are rather to be envied. The ages called by the name of Louis XIV or of Queen Anne are, in the dispassionate sense of the word, the only true classical ages, those which offer protection and a favourable climate to real talent. We know only too well how in our untrammelled times, through the instability and storminess of the age, talents are lost and dissipated. Nevertheless, let us acknowledge our age's part and superiority in greatness. True and sovereign genius triumphs over the very difficulties that cause others to fail: Dante, Shakespeare, and Milton were able to attain their height and produce their imperishable works in spite of obstacles, hardships, and tempests. Byron's opinion of Pope has been much discussed, and the explanation of it sought in the kind of contradiction by which the singer of *Don Juan* and *Childe Harold* extolled the purely classical school and pronounced it the only good one, while himself acting so differently. Goethe spoke the truth on that point when he remarked that Byron, great by the flow and source of poetry, feared that Shakespeare was more powerful than himself in the creation and realization of his characters. "He would have liked to deny it; the elevation so free from egoism irritated him; he felt when near it that he could not display himself at ease. He never denied Pope, because he did not fear him; he knew that Pope was only a *low wall* by his side."

If, as Byron desired, Pope's school had kept the supremacy and a sort of honorary empire in the past, Byron would have been the first and only poet in his particular style; the height of Pope's wall shuts out Shakespeare's great figure from sight, whereas when Shakespeare reigns and rules in all his greatness, Byron is only second.

In France there was no great classic before the age of Louis XIV; the Dantes and Shakespeares, the early authorities to whom, in times of emancipation, men sooner or later return, were wanting. There were

mere sketches of great poets, like Mathurin Régnier, like Rabelais, without any ideal, without the depth of emotion and the seriousness which canonizes. Montaigne was a kind of premature classic, of the family of Horace; but for want of worthy surroundings, like a spoiled child, he gave himself up to the unbridled fancies of his style and humour. Hence it happened that France, less than any other nation, found in her old authors a right to demand vehemently at a certain time literary liberty and freedom, and that it was more difficult for her, in enfranchising herself, to remain classical. However, with Molière and La Fontaine among her classics of the great period, nothing could justly be refused to those who possessed courage and ability.

The important point now seems to me to be to uphold, while extending, the idea and belief. There is no receipt for making classics; this point should be clearly recognized. To believe that an author will become a classic by imitating certain qualities of purity, moderation, accuracy, and elegance, independently of the style and inspiration, is to believe that after Racine the father there is a place for Racine the son; dull and estimable role, the worst in poetry. Further, it is hazardous to take too quickly and without opposition the place of a classic in the sight of one's contemporaries; in that case there is a good chance of not retaining the position with posterity. Fontanes in his day was regarded by his friends as a pure classic; see how at twenty-five years' distance his star has set. How many of these precocious classics are there who do not endure, and who are so only for a while! We turn round one morning and are surprised not to find them standing behind us. Madame de Sévigné would wittily say they possessed but an *evanescent colour*. With regard to classics, the least expected prove the best and greatest: seek them rather in the vigorous genius born immortal and flourishing forever. Apparently the least classical of the four great poets of the age of Louis XIV was Molière; he was then applauded far more than he was esteemed; men took delight in him without understanding his worth. After him, La Fontaine seemed the least classical: observe after two centuries what is the result for both. Far above Boileau, even above Racine, are they not now unanimously considered to possess in the highest degree the characteristics of an all-embracing morality?

Meanwhile there is no question of sacrificing or depreciating anything. I believe the temple of taste is to be rebuilt; but its reconstruction is merely a matter of enlargement, so that it may become the home of all noble human beings, of all who have permanently increased the sum of the mind's delights and possessions. As for me, who cannot, obviously,

in any degree pretend to be the architect or designer of such a temple, I shall confine myself to expressing a few earnest wishes, to submit, as it were, my designs for the edifice. Above all I should desire not to exclude anyone among the worthy, each should be in his place there, from Shakespeare, the freest of creative geniuses, and the greatest of classics without knowing it, to Andrieux, the last of classics in little. "There is more than one chamber in the mansions of my Father"; that should be as true of the kingdom of the beautiful here below, as of the kingdom of Heaven. Homer, as always and everywhere, should be first, likest a god; but behind him, like the procession of the three wise kings of the East, would be seen the three great poets, the three Homers, so long ignored by us, who wrote epics for the use of the old peoples of Asia, the poets Valmiki, Vyasa of the Hindus, and Firdousi of the Persians; in the domain of taste it is well to know that such men exist, and not to divide the human race. Our homage paid to what is recognized as soon as perceived, we must not stray further; the eye should delight in a thousand pleasing or majestic spectacles, should rejoice in a thousand varied and surprising combinations, whose apparent confusion would never be without concord and harmony. The oldest of the wise men and poets, those who put human morality into maxims, and those who in simple fashion sung it, would converse together in rare and gentle speech, and would not be surprised at understanding each other's meaning at the very first word. Solon, Hesiod, Theognis, Job, Solomon, and why not Confucius, would welcome the cleverest moderns, La Rochefoucauld and La Bruyère, who, when listening to them, would say "they knew all that we know, and in repeating life's experiences, we have discovered nothing." On the hill, most easily discernible, and of most accessible ascent, Virgil, surrounded by Menander, Tibullus, Terence, Fénelon, would occupy himself in discoursing with them with great charm and divine enchantment: his gentle countenance would shine with an inner light, and be tinged with modesty; as on the day when entering the theatre at Rome, just as they finished reciting his verses, he saw the people rise with a unanimous movement and pay to him the same homage as to Augustus. Not far from him, regretting the separation from so dear a friend, Horace, in his turn, would preside (as far as so accomplished and wise a poet could preside) over the group of poets of social life who could talk although they sang– Pope, Boileau, the one become less irritable, the other less faultfinding. Montaigne, a true poet, would be among them, and would give the finishing touch that should deprive that delightful corner of the air of a literary school. There would La Fontaine forget himself, and becoming less vola-

tile would wander no more. Voltaire would be attracted by it, but while finding pleasure in it would not have patience to remain. A little lower down, on the same hill as Virgil, Xenophon, with simple bearing, looking in no way like a general, but rather resembling a priest of the Muses, would be seen gathering round him the Attics of every tongue and of every nation, the Addisons, Pellissons, Vauvenargues–all who feel the value of an easy persuasiveness, an exquisite simplicity, and a gentle negligence mingled with ornament. In the centre of the place, in the portico of the principal temple (for there would be several in the enclosure), three great men would like to meet often, and when they were together, no fourth, however great, would dream of joining their discourse or their silence. In them would be seen beauty, proportion in greatness, and that perfect harmony which appears but once in the full youth of the world. Their three names have become the ideal of art–Plato, Sophocles, and Demosthenes. Those demi-gods honoured, we see a numerous and familiar company of choice spirits who follow, the Cervantes and Molières, practical painters of life, indulgent friends who are still the first of benefactors, who laughingly embrace all mankind, turn man's experience to gaiety, and know the powerful workings of a sensible, hearty, and legitimate joy. I do not wish to make this description, which if complete would fill a volume, any longer. In the Middle Ages, believe me, Dante would occupy the sacred heights: at the feet of the singer of Paradise all Italy would be spread out like a garden; Boccaccio and Ariosto would there disport themselves, and Tasso would find again the orange groves of Sorrento. Usually a corner would be reserved for each of the various nations, but the authors would take delight in leaving it, and in their travels would recognize, where we should least expect it, brothers or masters. Lucretius, for example, would enjoy discussing the origin of the world and the reducing of chaos to order with Milton. But both arguing from their own point of view, they would only agree as regards divine pictures of poetry and nature.

Such are our classics; each individual imagination may finish the sketch and choose the group preferred. For it is necessary to make a choice, and the first condition of taste, after obtaining knowledge of all, lies not in continual travel, but in rest and cessation from wandering. Nothing blunts and destroys taste so much as endless journeyings; the poetic spirit is not the Wandering Jew. However, when I speak of resting and making choice, my meaning is not that we are to imitate those who charm us most among our masters in the past. Let us be content to know them, to penetrate them, to admire them; but let us, the late-comers,

endeavour to be ourselves. Let us have the sincerity and naturalness of our own thoughts, of our own feelings; so much is always possible. To that let us add what is more difficult, elevation, an aim, if possible, towards an exalted goal; and while speaking our own language, and submitting to the conditions of the times in which we live, whence we derive our strength and our defects, let us ask from time to time, our brows lifted towards the heights and our eyes fixed on the group of honoured mortals: *what would they say of us?*

But why speak always of authors and writings? Maybe an age is coming when there will be no more writing. Happy those who read and read again, those who in their reading can follow their unrestrained inclination! There comes a time in life when, all our journeys over, our experiences ended, there is no enjoyment more delightful than to study and thoroughly examine the things we know, to take pleasure in what we feel, and in seeing and seeing again the people we love: the pure joys of our maturity. Then it is that the word classic takes its true meaning, and is defined for every man of taste by an irresistible choice. Then taste is formed, it is shaped and definite; then good sense, if we are to possess it at all, is perfected in us. We have neither more time for experiments, nor a desire to go forth in search of pastures new. We cling to our friends, to those proved by a long intercourse. Old wine, old books, old friends. We say to ourselves with Voltaire in these delightful lines: "Let us enjoy, let us write, let us live, my dear Horace! . . . I have lived longer than you: my verse will not last so long. But on the brink of the tomb I shall make it my chief care–to follow the lessons of your philosophy–to despise death in enjoying life–to read your writings full of charm and good sense–as we drink an old wine which revives our senses."

In fact, be it Horace or another who is the author preferred, who reflects our thoughts in all the wealth of their maturity, of some one of those excellent and antique minds shall we request an interview at every moment; of some one of them shall we ask a friendship which never deceives, which could not fail us; to some one of them shall we appeal for that sensation of serenity and amenity (we have often need of it) which reconciles us with mankind and with ourselves.

Montaigne

While the good ship France is taking a somewhat haphazard course, getting into unknown seas, and preparing to double what the pilots (if there is a pilot) call the Stormy Cape, while the look-out at the mast-head thinks he sees the spectre of the giant Adamastor rising on the horizon, many honourable and peaceable men continue their work and studies all the same, and follow out to the end, or as far as they can, their favourite hobbies. I know, at the present time, a learned man who is collating more carefully than has ever yet been done the different early editions of Rabelais—editions, mark you, of which only one copy remains, of which a second is not to be found: from the careful collation of the texts some literary and maybe philosophical result will be derived with regard to the genius of the French Lucian-Aristophanes. I know another scholar whose devotion and worship is given to a very different man—to Bossuet: he is preparing a complete, exact, detailed history of the life and works of the great bishop. And as tastes differ, and "*human fancy is cut* into a thousand shapes" (Montaigne said that), Montaigne also has his devotees, he who, himself, was so little of one: a sect is formed round him. In his lifetime he had Mademoiselle de Gournay, his daughter of *alliance*, who was solemnly devoted to him; and his disciple, Charron, followed him closely, step by step, only striving to arrange his thoughts with more order and method. In our time amateurs, intelligent men, practise the religion under another form: they devote themselves to collecting the smallest traces of the author of the *Essays*, to gathering up the slightest relics, and Dr. Payen may be justly placed at the head of the group. For years he has been preparing a book on Montaigne, of which the title will be: "MICHEL DE MONTAIGNE, a collection of unedited or little known facts about the author of the *Essays*, his book, and his other writings, about his family, his friends, his admirers, his detractors."

While awaiting the conclusion of the book, the occupation and amuse-

ment of a lifetime, Dr. Payen keeps us informed in short pamphlets of the various works and discoveries made about Montaigne.

If we separate the discoveries made during the last five or six years from the jumble of quarrels, disputes, cavilling, quackery, and lawsuits (for there have been all those), they consist in this–

In 1846 M. Macé found in the (then) Royal Library, amongst the "Collection Du Puys," a letter of Montaigne, addressed to the king, Henri IV, September 2, 1590.

In 1847 M. Payen printed a letter, or a fragment of a letter of Montaigne of February 16, 1588, a letter corrupt and incomplete, coming from the collection of the Comtesse Boni de Castellane.

But, most important of all, in 1848, M. Horace de Viel-Castel found in London, at the British Museum, a remarkable letter of Montaigne, May 22, 1585, when Mayor of Bordeaux, addressed to M. de Matignon, the king's lieutenant in the town. The great interest of the letter is that it shows Montaigne for the first time in the full discharge of his office with all the energy and vigilance of which he was capable. The pretended idler was at need much more active than he was ready to own.

M. Detcheverry, keeper of the records to the mayoralty of Bordeaux, found and published (1850) a letter of Montaigne, while mayor, to the jurats, or aldermen of the town, July 30, 1585.

M. Achille Jubinal found among the manuscripts of the National Library, and published (1850), a long, remarkable letter from Montaigne to the king, Henri IV, January 18, 1590, which happily coincides with that already found by M. Macé.

Lastly, to omit nothing and to do justice to all, in a "Visit to Montaigne's Château in Périgord," of which the account appeared in 1850, M. Bertrand de Saint-Germain described the place and pointed out the various Greek and Latin inscriptions that may still be read in Montaigne's tower in the third-story chamber (the ground floor counting as the first), which the philosopher made his library and study.

M. Payen, collecting together and criticizing in his last pamphlet the various notices and discoveries, not all of equal importance, allowed himself to be drawn into some little exaggeration of praise; but we cannot blame him. Admiration, when applied to such noble, perfectly innocent, and disinterested subjects, is truly a spark of the sacred fire: it produces research that a less ardent zeal would quickly leave aside, and sometimes leads to valuable results. However, it would be well for those who, following M. Payen's example, intelligently understand and greatly admire

Montaigne, to remember, even in their ardour, the advice of the wise man and the master. "There is more to do," said he, speaking of the commentators of his time, "in interpreting the interpretations than in interpreting the things themselves; and more books about books than on any other subject. We do nothing, but everything swarms with commentators; of authors there is a great rarity." Authors are of great price and very scarce at all times—that is to say, authors who really increase the sum of human knowledge. I should like all who write on Montaigne, and give us the details of their researches and discoveries, to imagine one thing—Montaigne himself reading and criticizing them. "What would he think of me and of the manner in which I am going to speak of him to the public?" If such a question was put, how greatly it would suppress useless phrases and shorten idle discussions! M. Payen's last pamphlet was dedicated to a man who deserves equally well of Montaigne—M. Gustave Brunet, of Bordeaux. He, speaking of M. Payen, in a work in which he pointed out interesting and various corrections of Montaigne's text, said: "May he soon decide to publish the fruits of his researches: he will have left nothing for future *Montaignologues*." *Montaignologues!* Great Heaven! what would Montaigne say of such a word coined in his honour? You who occupy yourselves so meritoriously with him, but who have, I think, no claim to appropriate him to yourselves, in the name of him whom you love, and whom we all love by a greater or lesser title, never, I beg of you, use such words; they smack of the brotherhood and the sect, of pedantry and of the chatter of the schools—things utterly repugnant to Montaigne.

Montaigne had a simple, natural, affable mind, and a very happy disposition. Sprung from an excellent father, who, though of no great education, entered with real enthusiasm into the movement of the Renaissance and all the *liberal* novelties of his time, the son corrected the excessive enthusiasm, vivacity, and tenderness he inherited by a great refinement and justness of reflection; but he did not abjure the original groundwork. It is scarcely more than thirty years ago that whenever the sixteenth century was mentioned it was spoken of as a barbarous epoch, Montaigne only excepted: therein lay error and ignorance. The sixteenth century was a great century, fertile, powerful, learned, refined in parts, although in some aspects it was rough, violent, and seemingly coarse. What it particularly lacked was taste, if by taste is meant the faculty of clear and perfect selection, the extrication of the elements of the beautiful. But in the succeeding centuries taste quickly became distaste. If, however, in literature it was crude, in the arts properly so-called, in those of

the hand and the chisel, the sixteenth century, even in France, is, in the quality of taste, far greater than the two succeeding centuries: it is neither meagre nor massive, heavy nor distorted. In art its taste is rich and of fine quality—at once unrestrained and complex, ancient and modern, special to itself and original. In the region of morals it is unequal and mixed. It was an age of contrasts, of contrasts in all their crudity, an age of philosophy and fanaticism, of scepticism and strong faith. Everything was at strife and in collision; nothing was blended and united. Everything was in ferment; it was a period of chaos; every ray of light caused a storm. It was not a gentle age, or one we can call an age of light, but an age of struggle and combat. What distinguished Montaigne and made a phenomenon of him was that in such an age he should have possessed moderation, caution, and order.

Born on the last day of February, 1533, taught the ancient languages as a game while still a child, waked even in his cradle by the sound of musical instruments, he seemed less fitted for a rude and violent epoch than for the commerce and *sanctuary of the Muses*. His rare good sense corrected what was too ideal and poetical in his early education; but he preserved the happy faculty of saying everything with freshness and wit. Married, when past thirty, to an estimable woman who was his companion for twenty-eight years, he seems to have put passion only into friendship. He immortalized his love for Étienne de la Boëtie, whom he lost after four years of the sweetest and closest intimacy. For some time counsellor in the Parliament of Bordeaux, Montaigne, before he was forty, retired from public life and flung away ambition to live in his tower of Montaigne, enjoying his own society and his own intellect, entirely given up to his own observations and thoughts, and to the busy idleness of which we know all the sports and fancies. The first edition of the *Essays* appeared in 1580, consisting of only two books, and in a form representing only the first rough draft of what we have in the later editions. The same year Montaigne set out on a voyage to Switzerland and Italy. It was during that voyage that the aldermen of Bordeaux elected him mayor of their town. At first he refused and excused himself, but warned that it would be well to accept, and enjoined by the king, he took the office, "the more beautiful," he said, "that there was neither renunciation nor gain other than the honour of its performance." He filled the office for four years, from July 1582 to July 1586, being re-elected after the first two years. Thus Montaigne, at the age of fifty, and a little against his will, re-entered public life when the country was on the eve of civil disturbances which, quieted and lulled to sleep for a while, broke out

more violently at the cry of the League. Although, as a rule, lessons serve for nothing, since the art of wisdom and happiness cannot be taught, let us not deny ourselves the pleasure of listening to Montaigne; let us look on his wisdom and happiness; let him speak of public affairs, of revolutions and disturbances, and of his way of conducting himself with regard to them. We do not put forward a model, but we offer our readers an agreeable recreation.

Although Montaigne lived in so agitated and stormy a time, a period that a man who had lived through the Terror (M. Daunou) called the *most tragic century in all history*, he by no means regarded his age as the worst of ages. He was not of those prejudiced and afflicted persons, who, measuring everything by their visual horizon, valuing everything according to their present sensations, always declare that the disease they suffer from is worse than any ever before experienced by a human being. He was like Socrates, who did not consider himself a citizen of one city but of the world; with his broad and full imagination he embraced the universality of countries and of ages; he even judged more equitably the very evils of which he was witness and victim. "Who is it," he said, "that, seeing the bloody havoc of these civil wars of ours, does not cry out that the machine of the world is near dissolution, and that the day of judgment is at hand, without considering that many worse revolutions have been seen, and that, in the meantime, people are being merry in a thousand other parts of the earth for all this? For my part, considering the licence and impunity that always attend such commotions, I admire they are so moderate, and that there is not more mischief done. To him who feels the hailstones patter about his ears, the whole hemisphere appears to be in storm and tempest." And raising his thoughts higher and higher, reducing his own suffering to what it was in the immensity of nature, seeing there not only himself but whole kingdoms as mere specks in the infinite, he added in words which foreshadowed Pascal, in words whose outline and salient points Pascal did not disdain to borrow: "But whoever shall represent to his fancy, as in a picture, that great image of our mother nature, portrayed in her full majesty and lustre, whoever in her face shall read so general and so constant a variety, whoever shall observe himself in that figure, and not himself but a whole kingdom, no bigger than the least touch or prick of a pencil in comparison of the whole, that man alone is able to value things according to their true estimate and grandeur."

Thus Montaigne gives us a lesson, a useless lesson, but I state it all the same, because among the many unprofitable ones that have been writ-

ten down, it is perhaps of greater worth than most. I do not mean to underrate the gravity of the circumstances in which France is just now involved, for I believe there is pressing need to bring together all the energy, prudence, and courage she possesses in order that the country may come out with honour. However, let us reflect, and remember that, leaving aside the Empire, which as regards internal affairs was a period of calm, and before 1812 of prosperity, we who utter such loud complaints lived in peace from 1815 to 1830, fifteen long years; that the three days of July only inaugurated another order of things that for eighteen years guaranteed peace and industrial prosperity; in all, thirty-two years of repose. Stormy days came; tempests burst, and will doubtless burst again. Let us learn how to live through them, but do not let us cry out every day, as we are disposed to do, that never under the sun were such storms known as we are enduring. To get away from the present state of feeling, to restore lucidity and proportion to our judgments, let us read every evening a page of Montaigne.

A criticism of Montaigne on the men of his day struck me, and it bears equally well on those of ours. Our philosopher says somewhere that he knows a fair number of men possessing various good qualities—one, intelligence; another, heart; another, address, conscience or knowledge, or skill in languages; each has his share: "but of a great man as a whole, having so many good qualities together, or one with such a degree of excellence that we ought to admire him, or compare him with those we honour in the past, my fortune has never shown me one." He afterwards made an exception in favour of his friend Étienne de la Boëtie, but he belonged to the company of great men dead before attaining maturity, and showing promise without having time to fulfil it. Montaigne's criticism called up a smile. He did not see a true and wholly great man in his time, the age of L'Hôpital, Coligny, and the Guises. Well! How does ours seem to you? We have as many great men as in Montaigne's time, one distinguished for his intellect, another for his heart, a third for skill, some (a rare thing) for conscience, many for knowledge and language. But we too lack the perfect man, and he is greatly to be desired. One of the most intelligent observers of our day recognized and proclaimed it some years ago: "Our age," said M. de Rémusat, "is wanting in great men."

How did Montaigne conduct himself in his duties as first magistrate of a great city? If we take him literally and on a hasty first glance, we should believe he discharged them slackly and languidly. Did not Horace, doing the honours to himself, say that in war he one day let his shield fall (*relicta non bene parmula*)*?* We must not be in too great a hurry to

take too literally the men of taste who have a horror of overestimating themselves. Minds of a fine quality are more given to vigilance and to action than they are apt to confess. The man who boasts and makes a great noise, will, I am almost sure, be less brave in the combat than Horace, and less vigilant at the council board than Montaigne.

On entering office Montaigne was careful to warn the aldermen of Bordeaux not to expect to find in him more than there really was; he presented himself to them without affectation. "I represented to them faithfully and conscientiously all that I felt myself to be–a man without memory, without vigilance, without experience, and without energy; but also, without hate, without ambition, without avarice, and without violence." He should be sorry, while taking the affairs of the town in hand, that his feelings should be so strongly affected as those of his worthy father had been, who in the end had lost his place and health. *The eager and ardent pledge to satisfy an impetuous desire* was not his method. His opinion was "that you must lend yourself to others, and only give yourself to yourself." And repeating his thought, according to his custom in all kinds of metaphors and picturesque forms, he said again that if he sometimes allowed himself to be urged to the management of other men's affairs, he promised to take them in hand, not "into my lungs and liver." We are thus forewarned, we know what to expect. The mayor and Montaigne were two distinct persons; under his role and office he reserved to himself a certain freedom and secret security. He continued to judge things in his own fashion and impartially, although acting loyally for the cause confided to him. He was far from approving or even excusing all he saw in his party, and he could judge his adversaries and say of them: "He did that thing wickedly, and this virtuously." "I would have," he added, "matters go well on our side; but if they do not, I shall not run mad. I am heartily for the right party; but I do not affect to be taken notice of for an especial enemy to others." And he entered into some details and applications which at that time were piquant. Let us remark, however, in order to explain and justify his somewhat extensive profession of impartiality, that the chiefs of the party then in evidence, the three Henris, were famous and considerable men on several counts: Henri, Duke of Guise, head of the League; Henri, King of Navarre, leader of the Opposition; and the King Henri III in whose name Montaigne was mayor, who wavered between the two. When parties have neither chief nor head, when they are known by the body only, that is to say in their hideous and brutal reality, it is more difficult and also more hazardous to be just towards them and to assign to each its share of action.

The principle which guided him in his administration was to look only at the fact, at the result, and to grant nothing to noise and outward show: "How much more a good effect makes a noise, so much I abate of the goodness of it." For it is always to be feared that it was more performed for the sake of the noise than upon the account of goodness: "Being exposed upon the stall, 'tis half sold." That was not Montaigne's way: he made no show; he managed men and affairs as quietly as he could; he employed in a manner useful to all alike the gifts of sincerity and conciliation; the personal attraction with which nature endowed him was a quality of the highest value in the management of men. He preferred to warn men of evil rather than to take on himself the honour of repressing it: "Is there anyone who desires to be sick that he may see his physician's practice? And would not that physician deserve to be whipped who should wish the plague amongst us that he might put his art into practice?" Far from desiring that trouble and disorder in the affairs of the city should rouse and honour his government, he had ever willingly, he said, contributed all he could to their tranquillity and ease. He is not of those whom municipal honours intoxicate and elate, those "dignities of office" as he called them, and of which all the noise "goes from one cross-road to another." If he was a man desirous of fame, he recognized that it was of a kind greater than that. I do not know, however, if even in a vaster field he would have changed his method and manner of proceeding. To do good for the public imperceptibly would always seem to him the ideal of skill and the culminating point of happiness. "He who will not thank me," he said, "for the order and quiet calm that has accompanied my administration, cannot, however, deprive me of the share that belongs to me by the title of my good fortune." And he is inexhaustible in describing in lively and graceful expressions the kinds of effective and imperceptible services he believed he had rendered—services greatly superior to noisy and glorious deeds: "Actions which come from the workman's hand carelessly and noiselessly have most charm, that some honest man chooses later and brings from their obscurity to thrust them into the light for their own sake." Thus fortune served Montaigne to perfection, and even in his administration of affairs, in difficult conjunctures, he never had to belie his maxim, nor to step very far out of the way of life he had planned: "For my part I commend a gliding, solitary, and silent life." He reached the end of his magistracy almost satisfied with himself, having accomplished what he had promised himself, and much more than he had promised others.

The letter lately discovered by M. Horace de Vieil-Castel corroborates

the chapter in which Montaigne exhibits and criticizes himself in the period of his public life. "That letter," says M. Payen, "is entirely on affairs. Montaigne is mayor; Bordeaux, lately disturbed, seems threatened by fresh agitations; the king's lieutenant is away. It is Wednesday, May 22, 1585; it is night, Montaigne is wakeful, and writes to the governor of the province." The letter, which is of too special and local an interest to be inserted here, may be summed up in these words: Montaigne regretted the absence of Marshal de Matignon, and feared the consequences of its prolongation; he was keeping, and would continue to keep, him acquainted with all that was going on, and begged him to return as soon as his circumstances would permit. "We are looking after our gates and guards, and a little more carefully in your absence. . . . If anything important and fresh occurs, I shall send you a messenger immediately, so that if you hear no news from me, you may consider that nothing has happened." He begs M. de Matignon to remember, however, that he might not have time to warn him, "entreating you to consider that such movements are usually so sudden, that if they do occur they will take me by the throat without any warning." Besides, he will do everything to ascertain the march of events beforehand. "I will do what I can to hear news from all parts, and to that end shall visit and observe the inclinations of all sorts of men." Lastly, after keeping the marshal informed of everything, of the least rumours abroad in the city, he pressed him to return, assuring him "that we spare neither our care, nor, if need be, our lives to preserve everything in obedience to the king." Montaigne was never prodigal of protestations and praises, and what with others was a mere form of speech, was with him a real undertaking and the truth.

Things, however, became worse and worse: civil war broke out; friendly or hostile parties (the difference was not great) infested the country. Montaigne, who went to his country house as often as he could, whenever the duties of his office, which was drawing near its term, did not oblige him to be in Bordeaux, was exposed to every sort of insult and outrage. "I underwent," he said, "the inconveniences that moderation brings along with it in such a disease. I was pitied on all hands; to the Ghibelline I was a Guelph, and to the Guelph a Ghibelline." In the midst of his personal grievances he could disengage and raise his thoughts to reflections on the public misfortunes and on the degradation of men's characters. Considering closely the disorder of parties, and all the abject and wretched things which developed so quickly, he was ashamed to see leaders of renown stoop and debase themselves by cowardly complacency; for in those circumstances we know, like him, "that in the word

of command to march, draw up, wheel, and the like, we obey him indeed; but all the rest is dissolute and free." "It pleases me," said Montaigne ironically, "to observe how much pusillanimity and cowardice there is in ambition; by how abject and servile ways it must arrive at its end." Despising ambition as he did, he was not sorry to see it unmasked by such practices and degraded in his sight. However, his goodness of heart overcoming his pride and contempt, he adds sadly, "it displeases me to see good and generous natures, and that are capable of justice, every day corrupted in the management and command of this confusion. . . . We had ill-contrived souls enough without spoiling those that were generous and good." He rather sought in that misfortune an opportunity and motive for fortifying and strengthening himself. Attacked one by one by many disagreeables and evils, which he would have endured more cheerfully in a heap—that is to say, all at once—pursued by war, disease, by all the plagues (July 1585), in the course things were taking, he already asked himself to whom he and his could have recourse, of whom he could ask shelter and subsistence for his old age; and having looked and searched thoroughly all around, he found himself actually destitute and ruined. For, "to let a man's self fall plumb down, and from so great a height, it ought to be in the arms of a solid, vigorous, and fortunate friendship. They are very rare, if there be any." Speaking in such a manner, we perceive that La Boëtie had been some time dead. Then he felt that he must after all rely on himself in his distress, and must gain strength; now or never was the time to put into practice the lofty lessons he spent his life in collecting from the books of the philosophers. He took heart again, and attained all the height of his virtue: "In an ordinary and quiet time, a man prepares himself for moderate and common accidents; but in the confusion wherein we have been for these thirty years, every Frenchman, whether in particular or in general, sees himself every hour upon the point of the total ruin and overthrow of his fortune." And far from being discouraged and cursing fate for causing him to be born in so stormy an age, he suddenly congratulated himself: "Let us thank fortune that has not made us live in an effeminate, idle, and languishing age." Since the curiosity of wise men seeks the past for disturbances in states in order to learn the secrets of history, and, as we should say, the whole physiology of the body social, "so does my curiosity," he declares, "make me in some sort please myself with seeing with my own eyes this notable spectacle of our public death, its forms and symptoms; and, seeing I could not hinder it, am content to be destined to assist in it, and thereby to instruct myself." I shall not suggest

a consolation of that sort to most people; the greater part of mankind does not possess the heroic and eager curiosity of Empedocles and the elder Pliny, the two intrepid men who went straight to the volcanoes and the disturbances of nature to examine them at close quarters, at the risk of destruction and death. But to a man of Montaigne's nature, the thought of that stoical observation gave him consolation even amid real evils. Considering the condition of false peace and doubtful truce, the *régime* of dull and profound corruption which had preceded the last disturbances, he almost congratulated himself on seeing their cessation; for "it was," he said of the *régime* of Henri III, "a universal juncture of particular members, rotten to emulation of one another, and the most of them with inveterate ulcers, that neither required nor admitted of any cure. This conclusion therefore did really more animate than depress me." Note that his health, usually delicate, is here raised to the level of his morality, although what it had suffered through the various disturbances might have been enough to undermine it. He had the satisfaction of feeling that he had some hold against fortune, and that it would take a greater shock still to crush him.

Another consideration, humbler and more humane, upheld him in his troubles, the consolation arising from a common misfortune, a misfortune shared by all, and the sight of the courage of others. The people, especially the real people, they who are victims and not robbers, the peasants of his district, moved him by the manner in which they endured the same, or even worse, troubles than his. The disease or plague which raged at that time in the country pressed chiefly on the poor; Montaigne learned from them resignation and the practice of philosophy. "Let us look down upon the poor people that we see scattered upon the face of the earth, prone and intent upon their business, that neither know Aristotle nor Cato, example nor precept. Even from these does nature every day extract effects of constancy and patience, more pure and manly than those we so inquisitively study in the schools." And he goes on to describe them working to the bitter end, even in their grief, even in disease, until their strength failed them. "He that is now digging in my garden has this morning buried his father, or his son. . . . They never keep their beds but to die." The whole chapter is fine, pathetic, to the point, evincing noble, stoical elevation of mind, and also the cheerful and affable disposition which Montaigne said, with truth, was his by inheritance, and in which he had been nourished. There could be nothing better as regards "consolation in public calamities," except a chapter of some not more human, but of some truly divine, book, in which the hand of God should be

everywhere visible, not perfunctorily, as with Montaigne, but actually and lovingly present. In fact, the consolation Montaigne gives himself and others is perhaps as lofty and beautiful as human consolation without prayer can be.

He wrote the chapter, the twelfth of the third book, in the midst of the evils he described, and before they were ended. He concluded it in his graceful and poetical way with a collection of examples, "a heap of foreign flowers," to which he furnished only the thread for fastening them together.

There is Montaigne to the life; no matter how seriously he spoke, it was always with the utmost charm. To form an opinion on his style you have only to open him indifferently at any page and listen to his talk on any subject; there is none that he did not enliven and make suggestive. In the chapter "Of Liars," for instance, after enlarging on his lack of memory and giving a list of reasons by which he might console himself, he suddenly added this fresh and delightful reason, that, thanks to his faculty for forgetting, "the places I revisit, and the books I read over again, always smile upon me with a fresh novelty." It is thus that on every subject he touched he was continually new, and created sources of freshness.

Montesquieu, in a memorable exclamation, said: "The four great poets, Plato, Malebranche, Shaftesbury, Montaigne!" How true it is of Montaigne! No French writer, including the poets proper, had so lofty an idea of poetry as he had. "From my earliest childhood," he said, "poetry had power over me to transport and transpierce me." He considered, and therein shows penetration, that "we have more poets than judges and interpreters of poetry. It is easier to write than to understand." In itself and its pure beauty his poetry defies definition; whoever desired to recognize it at a glance and discern of what it actually consisted would see no more than "the brilliance of a flash of lightning." In the constitution and continuity of his style, Montaigne is a writer very rich in animated, bold similes, naturally fertile in metaphors that are never detached from the thought, but that seize it in its very centre, in its interior, that join and bind it. In that respect, fully obeying his own genius, he has gone beyond and sometimes exceeded the genius of language. His concise, vigorous, and always forcible style, by its poignancy, emphasizes and repeats the meaning. It may be said of his style that it is a continual epigram, or an ever-renewed metaphor, a style that has only been successfully employed by the French once, by Montaigne himself. If we wanted to imitate him, supposing we had the power and were naturally fitted for it–if we de-

sired to write with his severity, exact proportion, and diverse continuity of figures and turns–it would be necessary to force our language to be more powerful, and poetically more complete, than is usually our custom. Style *à la* Montaigne, consistent, varied in the series and assortment of the metaphors, exacts the creation of a portion of the tissue itself to hold them. It is absolutely necessary that in places the woof should be enlarged and extended, in order to weave into it the metaphor; but in defining him I come almost to write like him. The French language, French prose, which in fact always savours more or less of conversation, does not, naturally, possess the resources and the extent of canvas necessary for a continued picture: by the side of an animated metaphor it will often exhibit a sudden lacuna and some weak places. In filling this by boldness and invention as Montaigne did, in creating, in imagining the expression and locution that is wanting, our prose should appear equally finished. Style *à la* Montaigne would, in many respects, be openly at war with that of Voltaire. It could only come into being and flourish in the full freedom of the sixteenth century, in a frank, ingenious, jovial, keen, brave, and refined mind, of a unique stamp, that even for that time seemed free and somewhat licentious, and that was inspired and emboldened, but not intoxicated by the pure and direct spirit of ancient sources.

Such as he is, Montaigne is the French Horace; he is Horatian in the groundwork, often in the form and expression, although in that he sometimes approaches Seneca. His book is a treasurehouse of moral observations and of experience; at whatever page it is opened, and in whatever condition of mind, some wise thought expressed in a striking and enduring fashion is certain to be found. It will at once detach itself and engrave itself on the mind, a beautiful meaning in full and forcible words, in one vigorous line, familiar or great. The whole of his book, said Étienne Pasquier, is a real *seminary* of beautiful and remarkable sentences, and they come in so much the better that they run and hasten on without thrusting themselves into notice. There is something for every age, for every hour of life: you cannot read in it for any time without having the mind filled and lined as it were, or, to put it better, fully armed and clothed. We have just seen how much useful counsel and actual consolation it contains for an honourable man, born for private life, and fallen on times of disturbance and revolution. To this I shall add the counsel he gave those who, like myself and many men of my acquaintance, suffer from political disturbances without in any way provoking them, or believing ourselves capable of averting them. Montaigne, as Horace would have done, counsels them, while apprehending everything from afar off,

not to be too much preoccupied with such matters in advance; to take advantage to the end of pleasant moments and bright intervals. Stroke on stroke come his piquant and wise similes, and he concludes, to my thinking, with the most delightful one of all, and one, besides, entirely appropriate and seasonable: it is folly and fret, he said, "to take out your furred gown at Saint John because you will want it at Christmas."

The foregoing two essays were translated by Elizabeth Lee.

Sir Francis Bacon

1561–1626

Francis Bacon was born on January 22, 1561, in London, England. His father, Sir Nicholas Bacon, was Lord Keeper of the Seal to Queen Elizabeth I.

In 1573 Bacon entered Trinity College, Cambridge. He left, in 1576, and went abroad with the ambassador to France to learn the arts of diplomacy. When his father died suddenly, in 1579, he returned to England. There he studied law and was admitted to the bar in 1582.

The Earl of Essex befriended Bacon and tried to help him in his career. Later, when Essex was tried for treason, Bacon took a leading role in the prosecution and helped to bring about Essex' execution. This action has never been entirely understood.

When James I came to the throne, Bacon's career advanced rapidly. He became Attorney General in 1613, Lord Keeper of the Seal in 1617, and Lord Chancellor in 1618. He was made Baron Verulam in 1618 and Viscount St. Albans in 1621. Bacon defended the King's policies against Parliament, which brought him into conflict with the great lawyer Sir Edward Coke.

In 1621 Bacon was accused of taking bribes in his position as Lord Chancellor. The practice of receiving gifts was an old one, to which Bacon pleaded guilty. He claimed, however, that his judgment was

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Notes from the artist: "A bold, forceful approach was used to present Bacon as the last of the 'all-round' intellectual giants. . . . In the background, a university; at right, the servant who accompanied Bacon to record his observations and thoughts."

BACON

not swayed by the gifts. Bacon was sentenced to prison, heavily fined, and disqualified from holding office. The prison sentence and fine were not enforced, but Bacon spent the rest of his life in writing and scientific research rather than in public office.

Because of Bacon's insistence that scientists should reach conclusions solely by experiment, he is considered one of the founders of the modern scientific method.

Bacon's philosophical writings are in the two completed parts of what he planned as a huge work, the *Instauratio magna*, or "Great Reconstruction of Philosophy." His *Essays*, published in 1597, are famous for their shrewdness and epigrammatic style. He died on April 9, 1626, after catching a cold while trying to see if meat could be preserved in snow.

Francis Bacon was a master of the aphorism. The first sentences of his essays are often particularly brilliant and memorable. People have been quoting them for three hundred years.

"Virtue is like a rich stone, best plain set," the essay *Of Beauty* begins. It is not only a trenchant phrase. It also sets the tone and makes the point of the entire essay. Physical beauty is, in itself, nothing to be proud of, Bacon is saying. "Beauty is as summer fruits, which are easy to corrupt, and cannot last," he writes. True beauty is inside, where virtue is; true beauty is in action, not in seeming. But Bacon also says that "virtue is best in a body that is comely, though not of delicate features." Virtue and beauty together make a fine package.

The advice Bacon gives in *Of Discourse* is as good as we are likely to find on the subject anywhere. Above all, do not be a bore, he says, and do not be rude. There are some subjects that should not be joked about, especially if it is done only to exhibit our own wit. It is both useful and polite to ask questions, but they should be chosen to put the other person in a good light rather than to expose his lack of knowledge. Perhaps the best advice of all is this: "Speech of a man's self ought to be seldom."

Of Studies contains some of Bacon's most famous sentences. For example: "Crafty men contemn studies, simple men admire them, and wise men use them." There is much truth in that. Again: "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested." This is often quoted without the explanation

that follows. "That is," Bacon says, "some books are to be read only in part; others to be read, but not curiously (*i.e.,* carefully); and some few to be read wholly, and with diligence and attention." [1]

Less famous, but perhaps even more interesting, is the sentence: "Reading maketh a full man; conference a ready man; and writing an exact man." Each part of this statement deserves a full discourse. We do not really know our own thoughts unless we can write them down. Quickness of wit (which Bacon calls readiness) comes from conversation. The silent man is too often slow of mind. And without the ability and willingness to read, we are empty things. So much of the world is closed to us without books.

The style of Bacon's essays is special and quite unique to him, though others have attempted to imitate it. Not a word is wasted. His entire output in the form—some fifty-eight essays—would, if closely printed, fill hardly a hundred pages. Yet those hundred pages would contain as much wisdom as most libraries. The cold, piercing brain of this distant, unknowable man saw through to the realities. We may not always like him and what he says, but we cannot deny that what he says is largely true, and relevant to our own concerns.

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[1] Compare what Virginia Woolf has to say on this point in Vol. 5, pp. 5–14, in this set.

Of Beauty

irtue is like a rich stone, best plain set; and surely virtue is best in a body that is comely, though not of delicate features; and that hath rather dignity of presence, than beauty of aspect. Neither is it almost seen, that very beautiful persons are otherwise of great virtue; as if nature were rather busy not to err, than in labour to produce excellency. And therefore they prove accomplished, but not of great spirit; and study rather behaviour than virtue. But this holds not always: for Augustus Caesar, Titus Vespasianus, Philip le Bel of France, Edward the Fourth of England, Alcibiades of Athens, Ismail the Sophy of Persia were all high and great spirits; and yet the most beautiful men of their times. In beauty, that of favour is more than that of colour; and that of decent and gracious motion more than that of favour. That is the best part of beauty, which a picture cannot express; no nor the first sight of life. There is no excellent beauty that hath not some strangeness in the proportion. A man cannot tell whether Apelles or Albert Dürer were the more trifler; whereof the one would make a personage by geometrical proportions; the other, by taking the best parts out of divers faces, to make one excellent. Such personages, I think, would please nobody but the painter that made them. Not but I think a painter may make a better face than ever was; but he must do it by a kind of felicity (as a musician that maketh an excellent air in music) and not by rule. A man shall see faces, that if you examine them part by part, you shall find never a good; and yet altogether do well.

If it be true that the principal part of beauty is in decent motion, certainly it is no marvel though persons in years seem many times more amiable—*pulchrorum autumnus pulcher* [autumn is the beauty of beauties]—for no youth can be comely but by pardon, and considering the youth as to make up the comeliness. Beauty is as summer fruits, which are easy to corrupt, and cannot last; and for the most part it makes a dissolute youth, and an age a little out of countenance; but yet certainly again, if it light well, it maketh virtue shine, and vices blush.

Of Discourse

Some in their discourse desire rather commendation of wit, in being able to hold all arguments, than of judgment, in discerning what is true; as if it were a praise to know what might be said, and not what should be thought. Some have certain common places and themes wherein they are good, and want variety; which kind of poverty is for the most part tedious, and when it is once perceived, ridiculous. The honourablest part of talk is to give the occasion; and again to moderate and pass to somewhat else; for then a man leads the dance. It is good, in discourse and speech of conversation, to vary and intermingle speech of the present occasion with arguments, tales with reasons, asking of questions with telling of opinions, and jest with earnest: for it is a dull thing to tire, and, as we say now, to jade, any thing too far. As for jest, there be certain things which ought to be privileged from it; namely, religion, matters of state, great persons, any man's present business of importance, and any case that deserveth pity. Yet there be some that think their wits have been asleep, except they dart out somewhat that is piquant, and to the quick. This is a vein which should be bridled: *Parce*, *puer*, *stimulis*, *et fortius utere loris* [Spare the spurs, lad, and more vigorously use the reins]. And generally, men ought to find the difference between saltness and bitterness. Certainly, he that hath a satirical vein, as he maketh others afraid of his wit, so he had need be afraid of others' memory.

He that questioneth much shall learn much, and content much; but especially if he apply his questions to the skill of the persons whom he asketh; for he shall give them occasion to please themselves in speaking, and himself shall continually gather knowledge. But let his questions not be troublesome; for that is fit for a poser. And let him be sure to leave other men their turns to speak. Nay, if there be any that would reign and take up all the time, let him find means to take them off, and to bring

others on; as musicians use to do with those that dance too long galliards. If you dissemble sometimes your knowledge of that you are thought to know, you shall be thought another time to know that you know not.

Speech of a man's self ought to be seldom, and well chosen. I knew one was wont to say in scorn, "He must needs be a wise man, he speaks so much of himself": and there is but one case wherein a man may commend himself with good grace; and that is in commending virtue in another; especially if it be such a virtue whereunto himself pretendeth. Speech of touch towards others should be sparingly used; for discourse ought to be as a field, without coming home to any man. I knew two noblemen, of the west part of England, whereof the one was given to scoff, but kept ever royal cheer in his house; the other would ask of those that had been at the other's table, "Tell truly, was there never a flout or dry blow given?" To which the guest would answer, "Such and such a thing passed." The lord would say, "I thought he would mar a good dinner." Discretion of speech is more than eloquence; and to speak agreeably to him with whom we deal is more than to speak in good words or in good order. A good continued speech, without a good speech of interlocution, shows slowness; and a good reply or second speech, without a good settled speech, showeth shallowness and weakness. As we see in beasts, that those that are weakest in the course are yet nimblest in the turn; as it is betwixt the greyhound and the hare. To use too many circumstances ere one come to the matter is wearisome; to use none at all is blunt.

Of Studies

tudies serve for delight, for ornament, and for ability. Their chief use for delight is in privateness and retiring; for ornament, is in discourse; and for ability, in the judgment and disposition of business. For expert men can execute, and perhaps judge of particulars, one by one; but the general counsels, and the plots and marshalling of affairs, come best from those that are learned. To spend too much time in studies is sloth; to use them too much for ornament is affectation; to make judgment wholly by their rules is the humour of a scholar. They perfect nature, and are perfected by experience: for natural abilities are like natural plants, that need pruning by study; and studies themselves do give forth directions too much at large, except they be bounded in by experience. Crafty men contemn studies, simple men admire them, and wise men use them; for they teach not their own use; but that is a wisdom without them, and above them, won by observation. Read not to contradict and confute; nor to believe and take for granted; nor to find talk and discourse; but to weigh and consider.

Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts; others to be read, but not curiously; and some few to be read wholly, and with diligence and attention. Some books also may be read by deputy, and extracts made of them by others; but that would be only in the less important arguments, and the meaner sort of books; else distilled books are like common distilled waters, flashy things. Reading maketh a full man; conference a ready man; and writing an exact man. And therefore, if a man write little, he had need have a great memory; if he confer little, he had need have a present wit: and if he read little, he had need have much cunning, to seem to know that he doth not. Histories make men wise; poets witty; the mathematics subtile; natural philosophy deep; moral grave; logic and rhetoric able to contend. *Abeunt studia in mores* [studies develop into habits]. Nay there is no stond or

impediment in the wit but may be wrought out by fit studies: like as diseases of the body may have appropriate exercises.

Bowling is good for the stone and reins; shooting for the lungs and breast; gentle walking for the stomach; riding for the head; and the like. So if a man's wit be wandering, let him study the mathematics; for in demonstrations, if his wit be called away never so little, he must begin again. If his wit be not apt to distinguish or find differences, let him study the schoolmen; for they are *cymini sectores* [hairsplitters, literally cumin-seed sorters]. If he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyers' cases. So every defect of the mind may have a special receipt.

The foregoing essays
are from a collection of Bacon's essays entitled
ESSAYS: CIVIL AND MORAL

David Hume

1711–1776

The Homes or Humes were minor Scottish gentry. David Hume was born in Edinburgh, April 26 (Old Style), 1711. He left Edinburgh University about 1726. Like Congreve, Burke, and others, he tried the law and did not like it. A turn at business helped him to work off a slight nervous disorder. He went to France, where he wrote *A Treatise of Human Nature*. The three-volume work was published in England in 1739–40.

It got little notice. The first two volumes of his *Essays Moral and Political* were somewhat better received. He took various positions—tutor to a mad marquess, aide-de-camp to General James Sinclair in Vienna and Turin—in order to earn money for writing. More essays, a rewriting of Book I of the *Treatise* (this later became *Enquiry concerning Human Understanding*), and *An Enquiry concerning the Principles of Morals* were all published in 1751.

The next year he became keeper of the Advocates' Library in Edinburgh. There, by 1762, he had finished the *Four Dissertations* and his six-volume *History of England*. He was famous. How great that fame was he did not know until he went to Paris in 1763 as Acting Secretary of the British Embassy under the Earl of Hertford. The King gave him a reception. The great hostesses fought over him. He became a public idol, as Franklin did later.

Hume returned to London in 1766. He took Jean Jacques Rousseau along and found him a house in Staffordshire. But the disturbed Rousseau imagined a plot and fled back to France, where he accused Hume of betraying him. Hume served a year as Undersecretary of State. Then he retired to the company of Adam Smith and other friends in Edinburgh. Boswell, who had called him "the greatest writer in Britain," visited him just before his death. Would Hume

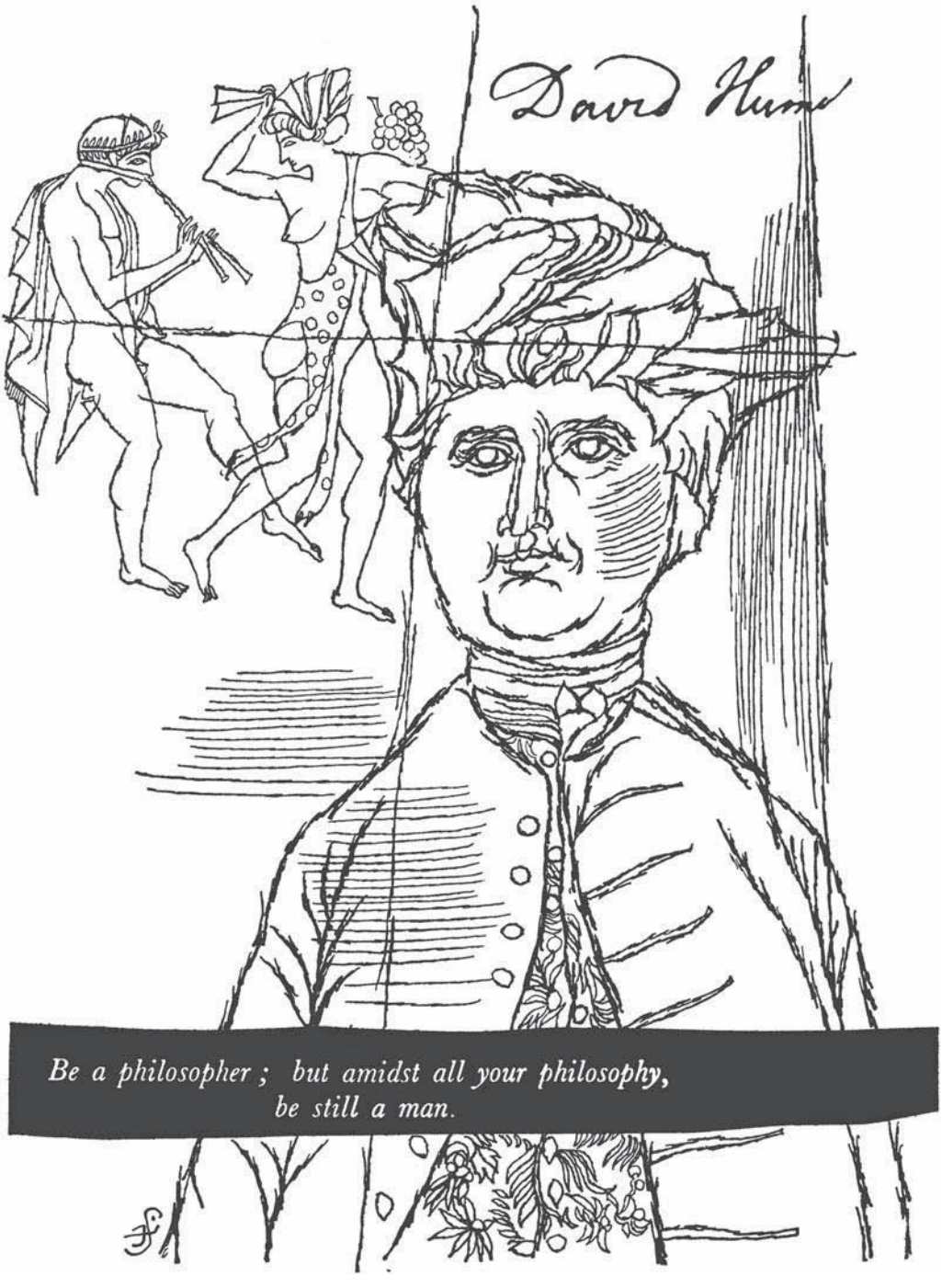
admit to a belief in immortality? No, said Hume, and fended him off with his usual clearheaded good nature. He died on August 25, 1776.

Some writers give us trouble by using too many difficult words. In Hume's case we might almost say that the reverse is true. *Of the Standard of Taste* is a good example. Its very simplicity of statement, on first reading, makes it a little hard to grasp. Hume does not define his terms. What is "taste"? If we are patient, we shall see that the whole essay becomes a definition. And what is a "sentiment"? We go to the dictionary and find a meaning that seems closest to Hume's sense: "mental attitude, thought or judgment permeated or prompted by feeling."

He begins by attacking head-on the main difficulty in regard to taste: its great variety, and the variety of standards and points of view this implies. *Chacun à son goût*, says the French proverb, meaning "everyone to his taste." Is this cynicism, or mere intellectual courtesy, or the final wisdom of the matter? In any case, Hume would not have been content with it. If we understand what he is doing, we shall be well on the way to understanding his argument. He is not defining taste per se, though it comes to that. He is examining the various factors that have a bearing on it in order to set up a standard of taste. He does this by giving us a point-by-point description of the qualities requisite to a man of taste.

Often we are principally conscious of the difference between the standards of his time, in which he shared, and ours. For example, "blame" is a term we might apply to a hunting dog that failed to make a good point, not to a work of art or its creator. The distinction goes beyond vocabulary. The men of the eighteenth century spread moral judgment like a blanket over every aspect of human life. In the same way, Hume extends the operation of taste over theology, philosophy, ethics, science, poetry, and the other arts.

Notes from the artist: "Hume the man, as he saw himself in the quotation from Enquiry concerning Human Understanding, *was the theme of this portrait. The gay figures in the background, suggesting music and dance, are taken from a Greek vase."*


David Hume
Be a philosopher ; but amidst all your philosophy,
be still a man.

Sometimes, as in the discussion of the characters in Homer and Fénelon, we find it difficult to guess whether a moral judgment or a judgment of taste is implied. Perhaps Hume is suggesting that they are close to being the same thing.

But in his discussion of the qualities that distinguish the man of taste, Hume stands on high and solid ground. We may disagree here and there, as, for example, in regard to his view that the object of poetry is "to please, by means of the passions and the imagination." Shelley and Whitman, among others, give it a different character. But we can hardly fail to concur with Hume's requirements for "a true judge in the finer arts." He tells us that "strong sense, united to delicate sentiment, improved by practice, perfected by comparison, and cleared of all prejudice, can alone entitle critics to this valuable character; and the joint verdict of such, wherever they are to be found, is the true standard of taste and beauty." In the two centuries or more since Hume wrote, we have hardly bettered that judgment.

Of the Standard of Taste

The great variety of Taste, as well as of opinion, which prevails in the world, is too obvious not to have fallen under every one's observation. Men of the most confined knowledge are able to remark a difference of taste in the narrow circle of their acquaintance, even where the persons have been educated under the same government, and have early imbibed the same prejudices. But those who can enlarge their view to contemplate distant nations and remote ages, are still more surprised at the great inconsistence and contrariety. We are apt to call barbarous whatever departs widely from our own taste and apprehension; but soon find the epithet of reproach retorted on us. And the highest arrogance and self-conceit is at last startled, on observing an equal assurance on all sides, and scruples, amidst such a contest of sentiment, to pronounce positively in its own favour.

As this variety of taste is obvious to the most careless inquirer, so will it be found, on examination, to be still greater in reality than in appearance. The sentiments of men often differ with regard to beauty and deformity of all kinds, even while their general discourse is the same. There are certain terms in every language which import blame, and others praise; and all men who use the same tongue must agree in their application of them. Every voice is united in applauding elegance, propriety, simplicity, spirit in writing; and in blaming fustian, affectation, coldness, and a false brilliancy. But when critics come to particulars, this seeming unanimity vanishes; and it is found that they had affixed a very different meaning to their expressions. In all matters of opinion and science, the case is opposite; the difference among men is there oftener found to lie in generals than in particulars, and to be less in reality than in appearance. An explanation of the terms commonly ends the controversy: and

the disputants are surprised to find that they had been quarrelling, while at bottom they agreed in their judgment.

Those who found morality on sentiment, more than on reason, are inclined to comprehend ethics under the former observation, and to maintain that, in all questions which regard conduct and manners, the difference among men is really greater than at first sight it appears. It is indeed obvious, that writers of all nations and all ages concur in applauding justice, humanity, magnanimity, prudence, veracity; and in blaming the opposite qualities. Even poets and other authors, whose compositions are chiefly calculated to please the imagination, are yet found, from Homer down to Fénelon, to inculcate the same moral precepts, and to bestow their applause and blame on the same virtues and vices. This great unanimity is usually ascribed to the influence of plain reason, which, in all these cases, maintains similar sentiments in all men, and prevents those controversies to which the abstract sciences are so much exposed. So far as the unanimity is real, this account may be admitted as satisfactory. But we must also allow that some part of the seeming harmony in morals may be accounted for from the very nature of language. The word virtue, with its equivalent in every tongue, implies praise, as that of vice does blame; and no one, without the most obvious and grossest impropriety, could affix reproach to a term, which in general acceptation is understood in a good sense: or bestow applause, where the idiom requires disapprobation. Homer's general precepts, where he delivers any such, will never be controverted; but it is obvious that, when he draws particular pictures of manners, and represents heroism in Achilles, and prudence in Ulysses, he intermixes a much greater degree of ferocity in the former, and of cunning and fraud in the latter, than Fénelon would admit of. The sage Ulysses, in the Greek poet, seems to delight in lies and fictions, and often employs them without any necessity, or even advantage. But his more scrupulous son, in the French epic writer, exposes himself to the most imminent perils, rather than depart from the most exact line of truth and veracity.

The admirers and followers of the Alcoran insist on the excellent moral precepts interspersed throughout that wild and absurd performance. But it is to be supposed, that the Arabic words, which correspond to the English, equity, justice, temperance, meekness, charity, were such as, from the constant use of that tongue, must always be taken in a good sense: and it would have argued the greatest ignorance, not of morals, but of language, to have mentioned them with any epithets, besides those of applause and approbation. But would we know, whether the pretended

prophet had really attained a just sentiment of morals, let us attend to his narration, and we shall soon find, that he bestows praise on such instances of treachery, inhumanity, cruelty, revenge, bigotry, as are utterly incompatible with civilized society. No steady rule of right seems there to be attended to; and every action is blamed or praised, so far only as it is beneficial or hurtful to the true believers.

The merit of delivering true general precepts in ethics is indeed very small. Whoever recommends any moral virtues, really does no more than is implied in the terms themselves. That people who invented the word charity, and used it in a good sense, inculcated more clearly, and much more efficaciously, the precept, Be charitable, than any pretended legislator or prophet who should insert such a maxim in his writings. Of all expressions, those which, together with their other meaning, imply a degree either of blame or approbation, are the least liable to be perverted or mistaken.

It is natural for us to seek a Standard of Taste; a rule by which the various sentiments of men may be reconciled; at least a decision afforded confirming one sentiment, and condemning another.

There is a species of philosophy which cuts off all hopes of success in such an attempt, and represents the impossibility of ever attaining any standard of taste. The difference, it is said, is very wide between judgment and sentiment. All sentiment is right; because sentiment has a reference to nothing beyond itself, and is always real, wherever a man is conscious of it. But all determinations of the understanding are not right; because they have a reference to something beyond themselves, to wit, real matter of fact; and are not always conformable to that standard. Among a thousand different opinions which different men may entertain of the same subject, there is one, and but one, that is just and true: and the only difficulty is to fix and ascertain it. On the contrary, a thousand different sentiments, excited by the same object, are all right; because no sentiment represents what is really in the object. It only marks a certain conformity or relation between the object and the organs or faculties of the mind; and if that conformity did not really exist, the sentiment could never possibly have being. Beauty is no quality in things themselves: it exists merely in the mind which contemplates them; and each mind perceives a different beauty. One person may even perceive deformity, where another is sensible of beauty; and every individual ought to acquiesce in his own sentiment, without pretending to regulate those of others. To seek the real beauty, or real deformity, is as fruitless an inquiry as to pretend to ascertain the real sweet or real bitter. Accord-

ing to the disposition of the organs, the same object may be both sweet and bitter; and the proverb has justly determined it to be fruitless to dispute concerning tastes. It is very natural, and even quite necessary, to extend this axiom to mental, as well as bodily taste; and thus common sense, which is so often at variance with philosophy, especially with the sceptical kind, is found, in one instance at least, to agree in pronouncing the same decision.

But though this axiom, by passing into a proverb, seems to have attained the sanction of common sense, there is certainly a species of common sense which opposes it, at least serves to modify and restrain it. Whoever would assert an equality of genius and elegance between Ogilby and Milton, or Bunyan and Addison, would be thought to defend no less an extravagance, than if he had maintained a mole-hill to be as high as Tenerife, or a pond as extensive as the ocean. Though there may be found persons who give the preference to the former authors, no one pays attention to such a taste; and we pronounce, without scruple, the sentiment of these pretended critics to be absurd and ridiculous. The principle of the natural equality of tastes is then totally forgot, and while we admit it on some occasions, where the objects seem near an equality, it appears an extravagant paradox, or rather a palpable absurdity, where objects so disproportioned are compared together.

It is evident that none of the rules of composition are fixed by reasonings a priori, or can be esteemed abstract conclusions of the understanding, from comparing those habitudes and relations of ideas which are eternal and immutable. Their foundation is the same with that of all the practical sciences, experience; nor are they any thing but general observations, concerning what has been universally found to please in all countries and in all ages. Many of the beauties of poetry, and even of eloquence, are founded on falsehood and fiction, on hyperboles, metaphors, and an abuse or perversion of terms from their natural meaning. To check the sallies of the imagination, and to reduce every expression to geometrical truth and exactness, would be the most contrary to the laws of criticism; because it would produce a work, which, by universal experience, has been found the most insipid and disagreeable. But though poetry can never submit to exact truth, it must be confined by rules of art, discovered to the author either by genius or observation. If some negligent or irregular writers have pleased, they have not pleased by their transgressions of rule or order, but in spite of these transgressions: they have possessed other beauties, which were conformable to just criticism; and the force of these beauties has been able to overpower censure, and

give the mind a satisfaction superior to the disgust arising from the blemishes. Ariosto pleases; but not by his monstrous and improbable fictions, by his bizarre mixture of the serious and comic styles, by the want of coherence in his stories, or by the continual interruptions of his narration. He charms by the force and clearness of his expression, by the readiness and variety of his inventions, and by his natural pictures of the passions, especially those of the gay and amorous kind: and, however his faults may diminish our satisfaction, they are not able entirely to destroy it. Did our pleasure really arise from those parts of his poem which we denominate faults, this would be no objection to criticism in general: it would only be an objection to those particular rules of criticism which would establish such circumstances to be faults, and would represent them as universally blamable. If they are found to please, they cannot be faults, let the pleasure which they produce be ever so unexpected and unaccountable.

But though all the general rules of art are founded only on experience, and on the observation of the common sentiments of human nature, we must not imagine that, on every occasion, the feelings of men will be conformable to these rules. Those finer emotions of the mind are of a very tender and delicate nature, and require the concurrence of many favourable circumstances to make them play with facility and exactness, according to their general and established principles. The least exterior hindrance to such small springs, or the least internal disorder, disturbs their motion, and confounds the operations of the whole machine. When we would make an experiment of this nature, and would try the force of any beauty or deformity, we must choose with care a proper time and place, and bring the fancy to a suitable situation and disposition. A perfect serenity of mind, a recollection of thought, a due attention to the object; if any of these circumstances be wanting, our experiment will be fallacious, and we shall be unable to judge of the catholic and universal beauty. The relation, which nature has placed between the form and the sentiment, will at least be more obscure; and it will require greater accuracy to trace and discern it. We shall be able to ascertain its influence, not so much from the operation of each particular beauty as from the durable admiration which attends those works that have survived all the caprices of mode and fashion, all the mistakes of ignorance and envy.

The same Homer who pleased at Athens and Rome two thousand years ago is still admired at Paris and at London. All the changes of climate, government, religion, and language have not been able to obscure his glory. Authority or prejudice may give a temporary vogue to a

bad poet or orator; but his reputation will never be durable or general. When his compositions are examined by posterity or by foreigners, the enchantment is dissipated, and his faults appear in their true colours. On the contrary, a real genius, the longer his works endure, and the more wide they are spread, the more sincere is the admiration which he meets with. Envy and jealousy have too much place in a narrow circle; and even familiar acquaintance with his person may diminish the applause due to his performances: but when these obstructions are removed, the beauties, which are naturally fitted to excite agreeable sentiments, immediately display their energy; and while the world endures, they maintain their authority over the minds of men.

It appears, then, that amidst all the variety and caprice of taste, there are certain general principles of approbation or blame, whose influence a careful eye may trace in all operations of the mind. Some particular forms or qualities, from the original structure of the internal fabric are calculated to please, and others to displease; and if they fail of their effect in any particular instance, it is from some apparent defect or imperfection in the organ. A man in a fever would not insist on his palate as able to decide concerning flavours; nor would one affected with the jaundice pretend to give a verdict with regard to colours. In each creature there is a sound and a defective state; and the former alone can be supposed to afford us a true standard of taste and sentiment. If, in the sound state of the organ, there be an entire or a considerable uniformity of sentiment among men, we may thence derive an idea of the perfect beauty; in like manner as the appearance of objects in daylight, to the eye of a man in health, is denominated their true and real colour, even while colour is allowed to be merely a phantasm of the senses.

Many and frequent are the defects in the internal organs, which prevent or weaken the influence of those general principles, on which depends our sentiment of beauty or deformity. Though some objects, by the structure of the mind, be naturally calculated to give pleasure, it is not to be expected that in every individual the pleasure will be equally felt. Particular incidents and situations occur, which either throw a false light on the objects, or hinder the true from conveying to the imagination the proper sentiment and perception.

One obvious cause why many feel not the proper sentiment of beauty is the want of that delicacy of imagination which is requisite to convey a sensibility of those finer emotions. This delicacy every one pretends to: every one talks of it; and would reduce every kind of taste or sentiment to its standard. But as our intention in this Essay is to mingle some

light of the understanding with the feelings of sentiment, it will be proper to give a more accurate definition of delicacy than has hitherto been attempted. And not to draw our philosophy from too profound a source, we shall have recourse to a noted story in *Don Quixote*.

It is with good reason, says Sancho to the squire with the great nose, that I pretend to have a judgment in wine: this is a quality hereditary in our family. Two of my kinsmen were once called to give their opinion of a hogshead, which was supposed to be excellent, being old and of a good vintage. One of them tastes it, considers it; and, after mature reflection, pronounces the wine to be good, were it not for a small taste of leather which he perceived in it. The other, after using the same precautions, gives also his verdict in favour of the wine; but with the reserve of a taste of iron, which he could easily distinguish. You cannot imagine how much they were both ridiculed for their judgment. But who laughed in the end? On emptying the hogshead, there was found at the bottom an old key with a leathern thong tied to it.

The great resemblance between mental and bodily taste will easily teach us to apply this story. Though it be certain that beauty and deformity, more than sweet and bitter, are not qualities in objects, but belong entirely to the sentiment, internal or external, it must be allowed, that there are certain qualities in objects which are fitted by nature to produce those particular feelings. Now, as these qualities may be found in a small degree, or may be mixed and confounded with each other, it often happens that the taste is not affected with such minute qualities, or is not able to distinguish all the particular flavours, amidst the disorder in which they are presented. Where the organs are so fine as to allow nothing to escape them, and at the same time so exact as to perceive every ingredient in the composition, this we call delicacy of taste, whether we employ these terms in the literal or metaphorical sense. Here then the general rules of beauty are of use, being drawn from established models, and from the observation of what pleases or displeases, when presented singly and in a high degree; and if the same qualities, in a continued composition, and in a smaller degree, affect not the organs with a sensible delight or uneasiness, we exclude the person from all pretensions to this delicacy. To produce these general rules or avowed patterns of composition is like finding the key with the leathern thong, which justified the verdict of Sancho's kinsmen, and confounded those pretended judges who had condemned them. Though the hogshead had never been emptied, the taste of the one was still equally delicate, and that of the other equally dull and languid; but it would have been more difficult to

have proved the superiority of the former, to the conviction of every bystander. In like manner, though the beauties of writing had never been methodized, or reduced to general principles; though no excellent models had ever been acknowledged, the different degrees of taste would still have subsisted, and the judgment of one man been preferable to that of another; but it would not have been so easy to silence the bad critic, who might always insist upon his particular sentiment, and refuse to submit to his antagonist. But when we show him an avowed principle of art; when we illustrate this principle by examples, whose operation, from his own particular taste, he acknowledges to be conformable to the principle; when we prove that the same principle may be applied to the present case, where he did not perceive or feel its influence: he must conclude, upon the whole, that the fault lies in himself, and that he wants the delicacy which is requisite to make him sensible of every beauty and every blemish in any composition or discourse.

It is acknowledged to be the perfection of every sense or faculty, to perceive with exactness its most minute objects, and allow nothing to escape its notice and observation. The smaller the objects are which become sensible to the eye, the finer is that organ, and the more elaborate its make and composition. A good palate is not tried by strong flavours, but by a mixture of small ingredients, where we are still sensible of each part, notwithstanding its minuteness and its confusion with the rest. In like manner, a quick and acute perception of beauty and deformity must be the perfection of our mental taste; nor can a man be satisfied with himself while he suspects that any excellence or blemish in a discourse has passed him unobserved. In this case, the perfection of the man, and the perfection of the sense of feeling, are found to be united. A very delicate palate, on many occasions, may be a great inconvenience both to a man himself and to his friends. But a delicate taste of wit or beauty must always be a desirable quality, because it is the source of all the finest and most innocent enjoyments of which human nature is susceptible. In this decision the sentiments of all mankind are agreed. Wherever you can ascertain a delicacy of taste, it is sure to meet with approbation; and the best way of ascertaining it is to appeal to those models and principles which have been established by the uniform consent and experience of nations and ages.

But though there be naturally a wide difference, in point of delicacy, between one person and another, nothing tends further to increase and improve this talent, than practice in a particular art, and the frequent survey or contemplation of a particular species of beauty. When objects

of any kind are first presented to the eye or imagination, the sentiment which attends them is obscure and confused; and the mind is, in a great measure, incapable of pronouncing concerning their merits or defects. The taste cannot perceive the several excellences of the performance, much less distinguish the particular character of each excellency and ascertain its quality and degree. If it pronounce the whole in general to be beautiful or deformed, it is the utmost that can be expected; and even this judgment a person so unpractised will be apt to deliver with great hesitation and reserve. But allow him to acquire experience in those objects, his feeling becomes more exact and nice: he not only perceives the beauties and defects of each part, but marks the distinguishing species of each quality, and assigns it suitable praise or blame. A clear and distinct sentiment attends him through the whole survey of the objects; and he discerns that very degree and kind of approbation or displeasure which each part is naturally fitted to produce. The mist dissipates which seemed formerly to hang over the object; the organ acquires greater perfection in its operations, and can pronounce, without danger of mistake, concerning the merits of every performance. In a word, the same address and dexterity which practice gives to the execution of any work, is also acquired by the same means in the judging of it.

So advantageous is practice to the discernment of beauty that, before we can give judgment on any work of importance, it will even be requisite that that very individual performance be more than once perused by us, and be surveyed in different lights with attention and deliberation. There is a flutter or hurry of thought which attends the first perusal of any piece, and which confounds the genuine sentiment of beauty. The relation of the parts is not discerned: the true characters of style are little distinguished. The several perfections and defects seem wrapped up in a species of confusion, and present themselves indistinctly to the imagination. Not to mention that there is a species of beauty, which, as it is florid and superficial, pleases at first, but being found incompatible with a just expression either of reason or passion, soon palls upon the taste, and is then rejected with disdain, at least rated at a much lower value.

It is impossible to continue in the practice of contemplating any order of beauty, without being frequently obliged to form comparisons between the several species and degrees of excellence, and estimating their proportion to each other. A man who has had no opportunity of comparing the different kinds of beauty is indeed totally unqualified to pronounce an opinion with regard to any object presented to him. By comparison

alone we fix the epithets of praise or blame, and learn how to assign the due degree of each. The coarsest daubing contains a certain lustre of colours and exactness of imitation, which are so far beauties, and would affect the mind of a peasant or Indian with the highest admiration. The most vulgar ballads are not entirely destitute of harmony or nature; and none but a person familiarized to superior beauties would pronounce their members harsh, or narration uninteresting. A great inferiority of beauty gives pain to a person conversant in the highest excellence of the kind, and is for that reason pronounced a deformity; as the most finished object with which we are acquainted is naturally supposed to have reached the pinnacle of perfection, and to be entitled to the highest applause. One accustomed to see, and examine, and weigh the several performances, admired in different ages and nations, can alone rate the merits of a work exhibited to his view, and assign its proper rank among the productions of genius.

But to enable a critic the more fully to execute this undertaking, he must preserve his mind free from all prejudice, and allow nothing to enter into his consideration, but the very object which is submitted to his examination. We may observe that every work of art, in order to produce its due effect on the mind, must be surveyed in a certain point of view, and cannot be fully relished by persons whose situation, real or imaginary, is not conformable to that which is required by the performance. An orator addresses himself to a particular audience, and must have a regard to their particular genius, interests, opinions, passions, and prejudices; otherwise he hopes in vain to govern their resolutions, and inflame their affections. Should they even have entertained some prepossessions against him, however unreasonable, he must not overlook this disadvantage: but, before he enters upon the subject, must endeavour to conciliate their affection, and acquire their good graces. A critic of a different age or nation, who should peruse this discourse, must have all these circumstances in his eye, and must place himself in the same situation as the audience, in order to form a true judgment of the oration. In like manner, when any work is addressed to the public, though I should have a friendship or enmity with the author, I must depart from this situation, and, considering myself as a man in general, forget, if possible, my individual being, and my peculiar circumstances. A person influenced by prejudice complies not with this condition, but obstinately maintains his natural position, without placing himself in that point of view which the performance supposes. If the work be addressed to persons of a different age or nation, he makes no allowance for their

peculiar views and prejudices; but, full of the manners of his own age and country, rashly condemns what seemed admirable in the eyes of those for whom alone the discourse was calculated. If the work be executed for the public, he never sufficiently enlarges his comprehension, or forgets his interest as a friend or enemy, as a rival or commentator. By this means his sentiments are perverted; nor have the same beauties and blemishes the same influence upon him, as if he had imposed a proper violence on his imagination, and had forgotten himself for a moment. So far his taste evidently departs from the true standard, and of consequence loses all credit and authority.

It is well known that, in all questions submitted to the understanding, prejudice is destructive of sound judgment, and perverts all operations of the intellectual faculties: it is no less contrary to good taste; nor has it less influence to corrupt our sentiment of beauty. It belongs to good sense to check its influence in both cases; and in this respect, as well as in many others, reason, if not an essential part of taste, is at least requisite to the operations of this latter faculty. In all the nobler productions of genius, there is a mutual relation and correspondence of parts; nor can either the beauties or blemishes be perceived by him whose thought is not capacious enough to comprehend all those parts, and compare them with each other, in order to perceive the consistence and uniformity of the whole. Every work of art has also a certain end or purpose for which it is calculated; and is to be deemed more or less perfect, as it is more or less fitted to attain this end. The object of eloquence is to persuade, of history to instruct, of poetry to please, by means of the passions and the imagination. These ends we must carry constantly in our view when we peruse any performance; and we must be able to judge how far the means employed are adapted to their respective purposes. Besides, every kind of composition, even the most poetical, is nothing but a chain of propositions and reasonings; not always, indeed, the justest and most exact, but still plausible and specious, however disguised by the colouring of the imagination. The persons introduced in tragedy and epic poetry must be represented as reasoning, and thinking, and concluding, and acting, suitably to their character and circumstances; and without judgment, as well as taste and invention, a poet can never hope to succeed in so delicate an undertaking. Not to mention that the same excellence of faculties which contributes to the improvement of reason, the same clearness of conception, the same exactness of distinction, the same vivacity of apprehension, are essential to the operations of true taste, and are its infallible concomitants. It seldom or never happens that a

man of sense, who has experience in any art, cannot judge of its beauty; and it is no less rare to meet with a man who has a just taste without a sound understanding.

Thus, though the principles of taste be universal, and nearly, if not entirely, the same in all men, yet few are qualified to give judgment on any work of art, or establish their own sentiment as the standard of beauty. The organs of internal sensation are seldom so perfect as to allow the general principles their full play, and produce a feeling correspondent to those principles. They either labour under some defect, or are vitiated by some disorder; and by that means excite a sentiment, which may be pronounced erroneous. When the critic has no delicacy, he judges without any distinction, and is only affected by the grosser and more palpable qualities of the object: the finer touches pass unnoticed and disregarded. Where he is not aided by practice, his verdict is attended with confusion and hesitation. Where no comparison has been employed, the most frivolous beauties, such as rather merit the name of defects, are the object of his admiration. Where he lies under the influence of prejudice, all his natural sentiments are perverted. Where good sense is wanting, he is not qualified to discern the beauties of design and reasoning, which are the highest and most excellent. Under some or other of these imperfections, the generality of men labour; and hence a true judge in the finer arts is observed, even during the most polished ages, to be so rare a character: strong sense, united to delicate sentiment, improved by practice, perfected by comparison, and cleared of all prejudice, can alone entitle critics to this valuable character; and the joint verdict of such, wherever they are to be found, is the true standard of taste and beauty.

But where are such critics to be found? By what marks are they to be known? How distinguish them from pretenders? These questions are embarrassing, and seem to throw us back into the same uncertainty from which, during the course of this Essay, we have endeavoured to extricate ourselves.

But if we consider the matter aright, these are questions of fact, not of sentiment. Whether any particular person be endowed with good sense and a delicate imagination, free from prejudice, may often be the subject of dispute, and be liable to great discussion and inquiry: but that such a character is valuable and estimable, will be agreed in by all mankind. Where these doubts occur, men can do no more than in other disputable questions which are submitted to the understanding: they must produce the best arguments that their invention suggests to them; they must acknowledge a true and decisive standard to exist somewhere, to

wit, real existence and matter of fact; and they must have indulgence to such as differ from them in their appeals to this standard. It is sufficient for our present purpose, if we have proved that the taste of all individuals is not upon an equal footing, and that some men in general, however difficult to be particularly pitched upon, will be acknowledged by universal sentiment to have a preference above others.

But, in reality, the difficulty of finding, even in particulars, the standard of taste, is not so great as it is represented. Though in speculation we may readily avow a certain criterion in science, and deny it in sentiment, the matter is found in practice to be much more hard to ascertain in the former case than in the latter. Theories of abstract philosophy, systems of profound theology, have prevailed during one age; in a successive period these have been universally exploded, their absurdity has been detected, other theories and systems have supplied their place, which again gave place to their successors, and nothing has been experienced more liable to the revolutions of chance and fashion than these pretended decisions of science. The case is not the same with the beauties of eloquence and poetry. Just expressions of passion and nature are sure, after a little time, to gain public applause, which they maintain for ever. Aristotle and Plato and Epicurus and Descartes may successively yield to each other: but Terence and Virgil maintain an universal, undisputed empire over the minds of men. The abstract philosophy of Cicero has lost its credit: the vehemence of his oratory is still the object of our admiration.

Though men of delicate taste be rare, they are easily to be distinguished in society by the soundness of their understanding, and the superiority of their faculties above the rest of mankind. The ascendant which they acquire gives a prevalence to that lively approbation with which they receive any productions of genius, and renders it generally predominant. Many men, when left to themselves, have but a faint and dubious perception of beauty, who yet are capable of relishing any fine stroke which is pointed out to them. Every convert to the admiration of the real poet or orator is the cause of some new conversion. And though prejudices may prevail for a time, they never unite in celebrating any rival to the true genius, but yield at last to the force of nature and just sentiment. Thus, though a civilized nation may easily be mistaken in the choice of their admired philosopher, they never have been found long to err in their affection for a favourite epic or tragic author.

But notwithstanding all our endeavours to fix a standard of taste, and reconcile the discordant apprehensions of men, there still remain two sources of variation, which are not sufficient indeed to confound all the

boundaries of beauty and deformity, but will often serve to produce a difference in the degrees of our approbation or blame. The one is the different humours of particular men; the other, the particular manners and opinions of our age and country. The general principles of taste are uniform in human nature: where men vary in their judgments, some defect or perversion in the faculties may commonly be remarked, proceeding either from prejudice, from want of practice, or want of delicacy: and there is just reason for approving one taste, and condemning another. But where there is such a diversity in the internal frame or external situation as is entirely blameless on both sides, and leaves no room to give one the preference above the other; in that case a certain degree of diversity in judgment is unavoidable, and we seek in vain for a standard, by which we can reconcile the contrary sentiments.

A young man, whose passions are warm, will be more sensibly touched with amorous and tender images than a man more advanced in years, who takes pleasure in wise, philosophical reflections, concerning the conduct of life, and moderation of the passions. At twenty, Ovid may be the favourite author, Horace at forty, and perhaps Tacitus at fifty. Vainly would we, in such cases, endeavour to enter into the sentiments of others, and divest ourselves of those propensities which are natural to us. We choose our favourite author as we do our friend, from a conformity of humour and disposition. Mirth or passion, sentiment or reflection, whichever of these most predominates in our temper, it gives us a peculiar sympathy with the writer who resembles us.

One person is more pleased with the sublime, another with the tender, a third with raillery. One has a strong sensibility to blemishes, and is extremely studious of correctness; another has a more lively feeling of beauties, and pardons twenty absurdities and defects for one elevated or pathetic stroke. The ear of this man is entirely turned towards conciseness and energy; that man is delighted with a copious, rich, and harmonious expression. Simplicity is affected by one; ornament by another. Comedy, tragedy, satire, odes, have each its partisans, who prefer that particular species of writing to all others. It is plainly an error in a critic, to confine his approbation to one species or style of writing, and condemn all the rest. But it is almost impossible not to feel a predilection for that which suits our particular turn and disposition. Such performances are innocent and unavoidable, and can never reasonably be the object of dispute, because there is no standard by which they can be decided.

For a like reason, we are more pleased, in the course of our reading,

with pictures and characters that resemble objects which are found in our own age and country, than with those which describe a different set of customs. It is not without some effort that we reconcile ourselves to the simplicity of ancient manners, and behold princesses carrying water from the spring, and kings and heroes dressing their own victuals. We may allow in general, that the representation of such manners is no fault in the author, nor deformity in the piece; but we are not so sensibly touched with them. For this reason, comedy is not easily transferred from one age or nation to another. A Frenchman or Englishman is not pleased with the *Andria* of Terence, or *Clizia* of Machiavelli; where the fine lady, upon whom all the play turns, never once appears to the spectators, but is always kept behind the scenes, suitably to the reserved humour of the ancient Greeks and modern Italians. A man of learning and reflection can make allowance for these peculiarities of manners; but a common audience can never divest themselves so far of their usual ideas and sentiments as to relish pictures which nowise resemble them.

But here there occurs a reflection, which may, perhaps, be useful in examining the celebrated controversy concerning ancient and modern learning; where we often find the one side excusing any seeming absurdity in the ancients from the manners of the age, and the other refusing to admit this excuse, or at least admitting it only as an apology for the author, not for the performance. In my opinion, the proper boundaries in this subject have seldom been fixed between the contending parties. Where any innocent peculiarities of manners are represented, such as those above mentioned, they ought certainly to be admitted; and a man who is shocked with them gives an evident proof of false delicacy and refinement. The poet's "monument more durable than brass," must fall to the ground like common brick or clay, were men to make no allowance for the continual revolutions of manners and customs, and would admit of nothing but what was suitable to the prevailing fashion. Must we throw aside the pictures of our ancestors, because of their ruffs and farthingales? But where the ideas of morality and decency alter from one age to another, and where vicious manners are described, without being marked with the proper characters of blame and disapprobation, this must be allowed to disfigure the poem, and to be a real deformity. I cannot, nor is it proper I should, enter into such sentiments; and however I may excuse the poet, on account of the manners of his age, I can never relish the composition. The want of humanity and of decency, so conspicuous in the characters drawn by several of the ancient poets, even sometimes by Homer and the Greek tragedians, diminishes considerably

the merit of their noble performances, and gives modern authors an advantage over them. We are not interested in the fortunes and sentiments of such rough heroes; we are displeased to find the limits of vice and virtue so much confounded; and whatever indulgence we may give to the writer on account of his prejudices, we cannot prevail on ourselves to enter into his sentiments, or bear an affection to characters which we plainly discover to be blamable.

The case is not the same with moral principles as with speculative opinions of any kind. These are in continual flux and revolution. The son embraces a different system from the father. Nay, there scarcely is any man who can boast of great constancy and uniformity in this particular. Whatever speculative errors may be found in the polite writings of any age or country, they detract but little from the value of those compositions. There needs but a certain turn of thought or imagination to make us enter into all the opinions which then prevailed, and relish the sentiments or conclusions derived from them. But a very violent effort is requisite to change our judgment of manners, and excite sentiments of approbation or blame, love or hatred, different from those to which the mind, from long custom, has been familiarized. And where a man is confident of the rectitude of that moral standard by which he judges, he is justly jealous of it, and will not pervert the sentiments of his heart for a moment in complaisance to any writer whatsoever.

Of all speculative errors, those which regard religion are the most excusable in compositions of genius; nor is it ever permitted to judge of the civility or wisdom of any people, or even of single persons, by the grossness or refinement of their theological principles. The same good sense that directs men in the ordinary occurrences of life is not hearkened to in religious matters, which are supposed to be placed altogether above the cognizance of human reason. On this account, all the absurdities of the pagan system of theology must be overlooked by every critic who would pretend to form a just notion of ancient poetry; and our posterity, in their turn, must have the same indulgence to their forefathers. No religious principles can ever be imputed as a fault to any poet while they remain merely principles, and take not such strong possession of his heart as to lay him under the imputation of bigotry or superstition. Where that happens, they confound the sentiments of morality, and alter the natural boundaries of vice and virtue. They are therefore eternal blemishes, according to the principle above mentioned; nor are the prejudices and false opinions of the age sufficient to justify them.

It is essential to the Roman Catholic religion to inspire a violent hatred

of every other worship, and to represent all pagans, Mohammedans, and heretics as the objects of divine wrath and vengeance. Such sentiments, though they are in reality very blamable, are considered as virtues by the zealots of that communion, and are represented in their tragedies and epic poems as a kind of divine heroism. This bigotry has disfigured two very fine tragedies of the French theatre, *Polyeucte* and *Athalie;* where an intemperate zeal for particular modes of worship is set off with all the pomp imaginable, and forms the predominant character of the heroes. "What is this," says the sublime Joad to Josabeth, finding her in discourse with Mathan the priest of Baal, "Does the daughter of David speak to this traitor? Are you not afraid lest the earth should open, and pour forth flames to devour you both? Or lest these holy walls should fall and crush you together? What is his purpose? Why comes that enemy of God hither to poison the air, which we breathe, with his horrid presence?" Such sentiments are received with great applause on the theatre of Paris; but at London the spectators would be full as much pleased to hear Achilles tell Agamemnon that he was a dog in his forehead, and a deer in his heart; or Jupiter threaten Juno with a sound drubbing, if she will not be quiet.

Religious principles are also a blemish in any polite composition, when they rise up to superstition, and intrude themselves into every sentiment, however remote from any connection with religion. It is no excuse for the poet that the customs of his country had burdened life with so many religious ceremonies and observances, that no part of it was exempt from that yoke. It must for ever be ridiculous in Petrarch to compare his mistress, Laura, to Jesus Christ. Nor is it less ridiculous in that agreeable libertine, Boccaccio, very seriously to give thanks to God Almighty and the ladies, for their assistance in defending him against his enemies.

"Of the Standard of Taste" is from a collection of Hume's essays entitled
ESSAYS MORAL, POLITICAL AND LITERARY.

Arthur Schopenhauer

1788–1860

Arthur Schopenhauer was born in Danzig on February 22, 1788. His father, Heinrich, was a well-to-do merchant who had strongly liberal political opinions and broad cultural interests. His mother, Johanna, was a very intelligent woman and a successful novelist. Heinrich Schopenhauer's dislike of authoritarian government caused him to move the family to Hamburg in 1793 when Danzig surrendered to Prussia.

At an early age young Arthur's exceptional intelligence became evident. He studied at Hamburg, and in England and France, and then went into business at Hamburg. After his father's sudden death, probably by suicide, in 1805, Arthur took up his studies again, concentrating on classical literature, medicine, and philosophy. At the University of Berlin, from 1811 to 1813, he attended lectures by J.G. Fichte, of whose philosophy he became very scornful. He determined to work out his own philosophy, taking off from the ideas of Immanuel Kant.

Schopenhauer's doctoral thesis, *On the Fourfold Root of the Principle of Sufficient Reason,* was published in 1813. He went to live with his mother in Weimar, where, in her salon, he met many stimulating thinkers, including Goethe.

After a quarrel with his mother, Schopenhauer left Weimar for

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Notes from the artist: "Schopenhauer as a young man together with a porcupine, illustrating the quotation from Parerga und Paralipomena, *a remarkably modern parable of coexistence."*

Arthur Schopenhauer.
A company of porcupines crowded themselves very close together one cold winter's day so as to profit by one another's warmth and so save themselves from being frozen to death. But soon they felt one another's quills, which induced them to separate again. And now, when the need for warmth brought them nearer together again, the second evil arose once more. So that they were driven backwards and forwards from one trouble to the other, until they had discovered a mean distance at which they could most tolerably exist.

Dresden in 1814. There he wrote his major work, *The World as Will and Idea*. He expected that this would be immediately accepted as an important, even revolutionary, philosophical work, but what little attention it attracted was unfavorable.

Schopenhauer began lecturing at the University of Berlin in 1820, but here too he failed. Hegel was the most highly thought of philosopher in Berlin at the time, and Schopenhauer's outspoken scorn for him was unpopular. From 1822 to 1831 Schopenhauer went from Italy to Munich and back to Berlin, traveling and living in isolation, a sick and resentful man. Finally, in 1831, he settled in Frankfurt-am-Main, where he lived in bitter solitude, continuing his attack on Hegel in occasional essays.

The apparent pessimism of Schopenhauer's philosophy–based on the idea that will is the foundation of the universe and that will is basically evil–was out of tune with his time. By 1850, however, the world mood had altered somewhat and Schopenhauer began to acquire some fame, especially in England, Russia, and the United States. He died at Frankfurt on September 21, 1860.

There is one aspect of Schopenhauer's personality and writing that most often comes to mind whenever his name is mentioned–his pessimism. It is difficult, however, if not dangerous, to accept such pigeonholing of so complex a person as Schopenhauer. His "pessimism" may be only a matter of point of view. His philosophy admits no possibility of free will. We cannot hope to improve our lot by our own efforts because we have no control over events–that is the province of Will. What we can hope for is not progress but quiet. This may appear a dismal state. But E. F. J. Payne, a translator of Schopenhauer, suggests in an introduction that it is no more pessimistic than the teachings of Brahmanism, Buddhism, and Christianity, which preach that the highest goal is the deliverance from earthly existence. Nietzsche, in an essay about Schopenhauer, goes even further and suggests that the philosopher is actually "joyful" for having faced a somber truth squarely and conquered it.

There is one point, however, on which all readers of Schopenhauer agree, whether or not they find his philosophy congenial. He is a fine writer. The clear beauty of his style makes his work a pleasure to read.

Like many good workmen, Schopenhauer is impatient with people

who abuse his craft. He is as irked as Virginia Woolf with mediocre writing, but he does not use her ladylike restraint in expressing his impatience. In *On Style* he dismisses Fichte and the Hegelians as "miserable dunces." Their complicated style, he says, is only a cover-up for paucity of ideas.

This outspoken, often angry, frankness works on us sometimes as a sudden bang does on a person dropping off to sleep. It startles us to a sharp awareness, sometimes to agree with him, sometimes to argue.

Schopenhauer uses his shock tactics to good advantage in *On Some Forms of Literature*. From the first arbitrary statement that drama is the most perfect reflection of human existence, we know that we are reading a man who has strong opinions and does not hesitate to state them boldly. About the novel he says that insight, not incident, is the important thing. "The business of the novelist," he says, "is not to relate great events, but to make small ones interesting." He lists the four greatest novels. It is interesting to guess what his opinion would be of contemporary novelists. Using his own criteria, would he approve, for example, of Mann, Gide, Joyce, and Virginia Woolf? Would he disapprove of Hemingway?

Dealing a sarcastic blow at conventional historians–"History has always been the favorite study of those who wish to learn something without having to face the effort demanded by any branch of real knowledge, which taxes the intelligence"–he goes on to describe the acceptable historian. After a few additional shocks to complacency, Schopenhauer concludes that "a high degree of culture leads us to seek entertainment almost wholly from books and not from men."

On the Comparative Place of Interest and Beauty in Works of Art has fewer bald statements of opinion presented as inarguable fact, but just as many stimulating ideas. By getting our agreement to a series of carefully reasoned premises, Schopenhauer brings us, as Plato does, to agree in conclusion to a proposition about which we might have argued in the beginning.

On Style

tyle is the physiognomy of the mind, and a safer index to character than the face. To imitate another man's style is like wearing a mask, which, be it never so fine, is not long in arousing disgust and abhorrence, because it is lifeless; so that even the ugliest living face is better. Hence those who write in Latin and copy the manner of ancient authors may be said to speak through a mask; the reader, it is true, hears what they say, but he cannot observe their physiognomy too; he cannot see their *style*. With the Latin works of writers who think for themselves, the case is different, and their style is visible; writers, I mean, who have not condescended to any sort of imitation, such as Scotus Erigena, Petrarch, Bacon, Descartes, Spinoza, and many others. An affectation in style is like making grimaces. Further, the language in which a man writes is the physiognomy of the nation to which he belongs; and here there are many hard and fast differences, beginning from the language of the Greeks down to that of the Caribbean islanders.

To form a provincial estimate of the value of a writer's productions, it is not directly necessary to know the subject on which he has thought, or what it is that he has said about it; that would imply a perusal of all his works. It will be enough, in the main, to know *how* he has thought. This, which means the essential temper or general quality of his mind, may be precisely determined by his style. A man's style shows the formal nature of all his thoughts–the formal nature which can never change, be the subject or the character of his thoughts what it may: it is, as it were, the dough out of which all the contents of his mind are kneaded. When Eulenspiegel was asked how long it would take to walk to the next village, he gave the seemingly incongruous answer: *Walk*. He wanted to find out by the man's pace the distance he would cover in a given time. In the same way, when I have read a few pages of an author, I know fairly well how far he can bring me.

Every mediocre writer tries to mask his own natural style, because in his heart he knows the truth of what I am saying. He is thus forced, at the outset, to give up any attempt at being frank or naïve—a privilege which is thereby reserved for superior minds, conscious of their own worth, and therefore sure of themselves. What I mean is that these everyday writers are absolutely unable to resolve upon writing just as they think; because they have a notion that, were they to do so, their work might possibly look very childish and simple. For all that, it would not be without its value. If they would only go honestly to work, and say, quite simply, the things they have really thought, and just as they have thought them, these writers would be readable and, within their own proper sphere, even instructive.

But instead of that, they try to make the reader believe that their thoughts have gone much further and deeper than is really the case. They say what they have to say in long sentences that wind about in a forced and unnatural way; they coin new words and write prolix periods which go round and round the thought and wrap it up in a sort of disguise. They tremble between the two separate aims of communicating what they want to say and of concealing it. Their object is to dress it up so that it may look learned or deep, in order to give people the impression that there is very much more in it than for the moment meets the eye. They either jot down their thoughts bit by bit, in short, ambiguous, and paradoxical sentences, which apparently mean much more than they say—of this kind of writing Schelling's treatises on natural philosophy are a splendid instance; or else they hold forth with a deluge of words and the most intolerable diffusiveness, as though no end of fuss were necessary to make the reader understand the deep meaning of their sentences, whereas it is some quite simple if not actually trivial idea, examples of which may be found in plenty in the popular works of Fichte, and the philosophical manuals of a hundred other miserable dunces not worth mentioning; or, again, they try to write in some particular style which they have been pleased to take up and think very grand, a style, for example, par excellence profound and scientific, where the reader is tormented to death by the narcotic effect of long-spun periods without a single idea in them—such as are furnished in a special measure by those most impudent of all mortals, the Hegelians; or it may be that it is an intellectual style they have striven after, where it seems as though their object were to go crazy altogether; and so on in many other cases. All these endeavors to put off the *nascetur ridiculus mus* [birth of a ridicu-

lous mouse born of the mountains' labor]–to avoid showing the funny little creature that is born after such mighty throes–often make it difficult to know what it is that they really mean. And then, too, they write down words, nay, even whole sentences, without attaching any meaning to them themselves, but in the hope that someone else will get sense out of them.

And what is at the bottom of all this? Nothing but the untiring effort to sell words for thoughts; a mode of merchandise that is always trying to make fresh openings for itself, and by means of odd expressions, turns of phrase, and combinations of every sort, whether new or used in a new sense, to produce the appearance of intellect in order to make up for the very painfully felt lack of it.

It is amusing to see how writers with this object in view will attempt first one mannerism and then another, as though they were putting on the mask of intellect! This mask may possibly deceive the inexperienced for a while, until it is seen to be a dead thing, with no life in it at all; it is then laughed at and exchanged for another. Such an author will at one moment write in a dithyrambic vein, as though he were tipsy; at another, nay, on the very next page, he will be pompous, severe, profoundly learned and prolix, stumbling on in the most cumbrous way and chopping up everything very small; like the late Christian Wolf, only in a modern dress. Longest of all lasts the mask of unintelligibility; but this is only in Germany, whither it was introduced by Fichte, perfected by Schelling, and carried to its highest pitch in Hegel–always with the best results.

And yet nothing is easier than to write so that no one can understand; just as contrarily, nothing is more difficult than to express deep things in such a way that everyone must necessarily grasp them. All the arts and tricks I have been mentioning are rendered superfluous if the author really has any brains; for that allows him to show himself as he is, and confirms to all time Horace's maxim that good sense is the source and origin of good style:

Scribendi recte sapere est et principium et fons.

[Wisdom is the beginning and source of good writing.]

But those authors I have named are like certain workers in metal, who try a hundred different compounds to take the place of gold–the only metal which can never have any substitute. Rather than do that, there is nothing against which a writer should be more upon his guard than the manifest endeavor to exhibit more intellect than he really has; because this makes the reader suspect that he possesses very little; since it is al-

ways the case that if a man affects anything, whatever it may be, it is just there that he is deficient.

That is why it is praise to an author to say that he is naïve; it means that he need not shrink from showing himself as he is. Generally speaking, to be naïve is to be attractive; while lack of naturalness is everywhere repulsive. As a matter of fact, we find that every really great writer tries to express his thoughts as purely, clearly, definitely and shortly as possible. Simplicity has always been held to be a mark of truth; it is also a mark of genius. Style receives its beauty from the thought it expresses; but with sham-thinkers the thoughts are supposed to be fine because of the style. Style is nothing but the mere silhouette of thought; and an obscure or bad style means a dull or confused brain.

The first rule, then, for a good style is that *the author should have something to say;* nay, this is in itself almost all that is necessary. Ah, how much it means! The neglect of this rule is a fundamental trait in the philosophical writing, and, in fact, in all the reflective literature, of my country, more especially since Fichte. These writers all let it be seen that they want to appear as though they had something to say; whereas they have nothing to say. Writing of this kind was brought in by the pseudo-philosophers at the Universities, and now it is current everywhere, even among the first literary notabilities of the age. It is the mother of that strained and vague style, where there seem to be two or even more meanings in the sentence; also of that prolix and cumbrous manner of expression, called *le style empesé;* again, of that mere waste of words which consists in pouring them out like a flood; finally, of that trick of concealing the direst poverty of thought under a farrago of never-ending chatter, which clacks away like a windmill and quite stupefies one—stuff which a man may read for hours together without getting hold of a single clearly expressed and definite idea. However, people are easygoing, and they have formed the habit of reading page upon page of all sorts of such verbiage, without having any particular idea of what the author really means. They fancy it is all as it should be, and fail to discover that he is writing simply for writing's sake.

On the other hand, a good author, fertile in ideas, soon wins his reader's confidence that, when he writes, he has really and truly *something to say;* and this gives the intelligent reader patience to follow him with attention. Such an author, just because he really has something to say, will never fail to express himself in the simplest and most straightforward manner; because his object is to awake the very same thought in the reader that he has in himself, and no other. So he will be able to af-

firm with Boileau that his thoughts are everywhere open to the light of the day, and that his verse always says something, whether it says it well or ill:

> *Ma pensée au grand jour partout s'offre et s'expose,*
> *Et mon vers, bien ou mal, dit toujours quelque chose:*

while of the writers previously described it may be asserted, in the words of the same poet, that they talk much and never say anything at all–*qui parlant beaucoup ne disent jamais rien*.

Another characteristic of such writers is that they always avoid a positive assertion wherever they can possibly do so, in order to leave a loophole for escape in case of need. Hence they never fail to choose the more *abstract* way of expressing themselves; whereas intelligent people use the more *concrete,* because the latter brings things more within the range of actual demonstration, which is the source of all evidence.

There are many examples proving this preference for abstract expression; and a particularly ridiculous one is afforded by the use of the verb *to condition* in the sense of *to cause* or *to produce*. People say *to condition something* instead of *to cause it,* because being abstract and indefinite it says less; it affirms that *A* cannot happen without *B,* instead of that *A* is caused by *B*. A back door is always left open; and this suits people whose secret knowledge of their own incapacity inspires them with a perpetual terror of all positive assertion; while with other people it is merely the effect of that tendency by which everything that is stupid in literature or bad in life is immediately imitated–a fact proved in either case by the rapid way in which it spreads. The Englishman uses his own judgment in what he writes as well as in what he does; but there is no nation of which this eulogy is less true than of the Germans. The consequence of this state of things is that the word *cause* has of late almost disappeared from the language of literature, and people talk only of *condition*. The fact is worth mentioning because it is so characteristically ridiculous.

The very fact that these commonplace authors are never more than half-conscious when they write would be enough to account for their dullness of mind and the tedious things they produce. I say they are only half-conscious, because they really do not themselves understand the meaning of the words they use: they take words ready-made and commit them to memory. Hence when they write, it is not so much words as whole phrases that they put together–*phrases banales*. This is the explanation of that palpable lack of clearly expressed thought in what they say. The fact is

that they do not possess the die to give this stamp to their writing; clear thought of their own is just what they have not got. And what do we find in its place?—a vague, enigmatical intermixture of words, current phrases, hackneyed terms, and fashionable expressions. The result is that the foggy stuff they write is like a page printed with very old type.

On the other hand, an intelligent author really speaks to us when he writes, and that is why he is able to rouse our interest and commune with us. It is the intelligent author alone who puts individual words together with a full consciousness of their meaning, and chooses them with deliberate design. Consequently, his discourse stands to that of the writer described above, much as a picture that has been really painted, to one that has been produced by the use of a stencil. In the one case, every word, every touch of the brush, has a special purpose; in the other, all is done mechanically. The same distinction may be observed in music. For just as Lichtenberg says that Garrick's soul seemed to be in every muscle in his body, so it is the omnipresence of intellect that always and everywhere characterizes the work of genius.

I have alluded to the tediousness which marks the works of these writers, and in this connection it is to be observed, generally, that tediousness is of two kinds: objective and subjective. A work is objectively tedious when it contains the defect in question; that is to say, when its author has no perfectly clear thought or knowledge to communicate. For if a man has any clear thought or knowledge in him, his aim will be to communicate it, and he will direct his energies to this end; so that the ideas he furnishes are everywhere clearly expressed. The result is that he is neither diffuse, nor unmeaning, nor confused, and consequently not tedious. In such a case, even though the author is at bottom in error, the error is at any rate clearly worked out and well thought over, so that it is at least formally correct; and thus some value always attaches to the work. But for the same reason a work that is objectively tedious is at all times devoid of any value whatever.

The other kind of tediousness is only relative: a reader may find a work dull because he has no interest in the question treated of in it, and this means that his intellect is restricted. The best work may, therefore, be tedious subjectively, tedious, I mean, to this or that particular person; just as, contrarily, the worst work may be subjectively engrossing to this or that particular person who has an interest in the question treated of, or in the writer of the book.

It would generally serve writers in good stead if they would see that, while a man should, if possible, think like a great genius, he should talk

the same language as everyone else. Authors should use common words to say uncommon things. But they do just the opposite. We find them trying to wrap up trivial ideas in grand words, and to clothe their very ordinary thoughts in the most extraordinary phrases, the most farfetched, unnatural, and out-of-the-way expressions. Their sentences perpetually stalk about on stilts. They take so much pleasure in bombast, and write in such a high-flown, bloated, affected, hyperbolical and acrobatic style that their prototype is Ancient Pistol, whom his friend Falstaff once impatiently told to say what he had to say like a man of this world.[1]

There is no expression in any other language exactly answering to the French *style empesé;* but the thing itself exists all the more often. When associated with affectation, it is in literature what assumption of dignity, grand airs and primness are in society, and equally intolerable. Dullness of mind is fond of donning this dress; just as in ordinary life it is stupid people who like being demure and formal.

An author who writes in the prim style resembles a man who dresses himself up in order to avoid being confounded or put on the same level with a mob—a risk never run by the gentleman, even in his worst clothes. The plebeian may be known by a certain showiness of attire and a wish to have everything spick-and-span; and in the same way, the commonplace person is betrayed by his style.

Nevertheless, an author follows a false aim if he tries to write exactly as he speaks. There is no style of writing but should have a certain trace of kinship with the epigraphic or monumental style, which is, indeed, the ancestor of all styles. For an author to write as he speaks is just as reprehensible as the opposite fault, to speak as he writes; for this gives a pedantic effect to what he says, and at the same time makes him hardly intelligible.

An obscure and vague manner of expression is always and everywhere a very bad sign. In ninety-nine cases out of a hundred it comes from vagueness of thought; and this again almost always means that there is something radically wrong and incongruous about the thought itself—in a word, that it is incorrect. When a right thought springs up in the mind, it strives after expression and is not long in reaching it, for clear thought easily finds words to fit it. If a man is capable of thinking anything at all, he is also always able to express it in clear, intelligible, and unambiguous terms. Those writers who construct difficult, obscure, involved,

1. *King Henry IV,* Part II, Act v, Sc. 3. [See *Great Books of the Western World* (Ed.).]

and equivocal sentences most certainly do not know aright what it is that they want to say: they have only a dull consciousness of it, which is still in the stage of struggle to shape itself as thought. Often, indeed, their desire is to conceal from themselves and others that they really have nothing at all to say. They wish to appear to know what they do not know, to think what they do not think, to say what they do not say. If a man has some real communication to make, which will he choose–an indistinct or a clear way of expressing himself? Even Quintilian remarks that things which are said by a highly educated man are often easier to understand and much clearer; and that the less educated a man is, the more obscurely he will write–*plerumque accidit ut faciliora sint ad intelligendum et lucidiora multo quae a doctissimo quoque dicuntur . . . . Erit ergo etiam obscurior quo quisque deterior.*

An author should avoid enigmatical phrases; he should know whether he wants to say a thing or does not want to say it. It is this indecision of style that makes so many writers insipid. The only case that offers an exception to this rule arises when it is necessary to make a remark that is in some way improper.

As exaggeration generally produces an effect the opposite of that aimed at, so words, it is true, serve to make thought intelligible–but only up to a certain point. If words are heaped up beyond it, the thought becomes more and more obscure again. To find where the point lies is the problem of style, and the business of the critical faculty; for a word too much always defeats its purpose. This is what Voltaire means when he says that *the adjective is the enemy of the substantive*. But, as we have seen, many people try to conceal their poverty of thought under a flood of verbiage.

Accordingly let all redundancy be avoided, all stringing together of remarks which have no meaning and are not worth perusal. A writer must make a sparing use of the reader's time, patience and attention, so as to lead him to believe that his author writes what is worth careful study, and will reward the time spent upon it. It is always better to omit something good than to add that which is not worth saying at all. This is the right application of Hesiod's maxim, *pleon hemisy pantos* [2]–the half is more than the whole. *Le secret pour être ennuyeux, c'est de tout dire* [The secret of being tedious is to tell everything]. Therefore, if possible, the quintessence only! Mere leading thoughts! Nothing that the reader would

2. *Works and Days,* 40.

think for himself. To use many words to communicate few thoughts is everywhere the unmistakable sign of mediocrity. To gather much thought into few words stamps the man of genius.

Truth is most beautiful undraped; and the impression it makes is deep in proportion as its expression has been simple. This is so partly because it then takes unobstructed possession of the hearer's whole soul, and leaves him no by-thought to distract him; partly, also, because he feels that here he is not being corrupted or cheated by the arts of rhetoric, but that all the effect of what is said comes from the thing itself. For instance, what declamation on the vanity of human existence could ever be more telling than the words of Job? "Man that is born of a woman hath but a short time to live and is full of misery. He cometh up, and is cut down, like a flower; he fleeth as it were a shadow, and never continueth in one stay."

For the same reason Goethe's naïve poetry is incomparably greater than Schiller's rhetoric. It is this, again, that makes many popular songs so affecting. As in architecture an excess of decoration is to be avoided, so in the art of literature a writer must guard against all rhetorical finery, all useless amplification, and all superfluity of expression in general; in a word, he must strive after chastity of style. Every word that can be spared is hurtful if it remains. The law of simplicity and naïveté holds good of all fine art, for it is quite possible to be at once simple and sublime.

True brevity of expression consists in everywhere saying only what is worth saying, and in avoiding tedious detail about things which everyone can supply for himself. This involves correct discrimination between what is necessary and what is superfluous. A writer should never be brief at the expense of being clear, to say nothing of being grammatical. It shows lamentable want of judgment to weaken the expression of a thought, or to stunt the meaning of a period, for the sake of using a few words less. But this is the precise endeavor of that false brevity nowadays so much in vogue, which proceeds by leaving out useful words and even by sacrificing grammar and logic. It is not only that such writers spare a word by making a single verb or adjective do duty for several different periods, so that the reader, as it were, has to grope his way through them in the dark; they also practice, in many other respects, an unseeming economy of speech in the effort to effect what they foolishly take to be brevity of expression and conciseness of style. By omitting something that might have thrown a light over the whole sentence, they turn it into a conundrum, which the reader tries to solve by going over it again and again.

It is wealth and weight of thought, and nothing else, that gives brevity

to style, and makes it concise and pregnant. If a writer's ideas are important, luminous, and generally worth communicating, they will necessarily furnish matter and substance enough to fill out the periods which give them expression, and make these in all their parts both grammatically and verbally complete; and so much will this be the case that no one will ever find them hollow, empty or feeble. The diction will everywhere be brief and pregnant, and allow the thought to find intelligible and easy expression, and even unfold and move about with grace.

Therefore instead of contracting his words and forms of speech, let a writer enlarge his thoughts. If a man has been thinned by illness and finds his clothes too big, it is not by cutting them down but by recovering his usual bodily condition that he ought to make them fit him again.

Let me here mention an error of style, very prevalent nowadays, and, in the degraded state of literature and the neglect of ancient languages, always on the increase; I mean *subjectivity*. A writer commits this error when he thinks it enough if he himself knows what he means and wants to say, and takes no thought for the reader, who is left to get at the bottom of it as best he can. This is as though the author were holding a monologue, whereas, it ought to be a dialogue; and a dialogue, too, in which he must express himself all the more clearly inasmuch as he cannot hear the questions of his interlocutor.

Style should for this very reason never be subjective, but *objective;* and it will not be objective unless the words are so set down that they directly force the reader to think precisely the same thing as the author thought when he wrote them. Nor will this result be obtained unless the author has always been careful to remember that thought so far follows the law of gravity that it travels from head to paper much more easily than from paper to head; so that he must assist the latter passage by every means in his power. If he does this, a writer's words will have a purely objective effect, like that of a finished picture in oils; while the subjective style is not much more certain in its working than spots on the wall, which look like figures only to one whose phantasy has been accidentally aroused by them; other people see nothing but spots and blurs. The difference in question applies to literary method as a whole; but it is often established also in particular instances. For example, in a recently published work I found the following sentence: "I have not written in order to increase the number of existing books." This means just the opposite of what the writer wanted to say, and is nonsense as well.

He who writes carelessly confesses thereby at the very outset that he does not attach much importance to his own thoughts. For it is only where

a man is convinced of the truth and importance of his thoughts that he feels the enthusiasm necessary for an untiring and assiduous effort to find the clearest, finest, and strongest expression for them, just as for sacred relics or priceless works of art there are provided silver or golden receptacles. It was this feeling that led ancient authors, whose thoughts, expressed in their own words, have lived thousands of years, and therefore bear the honored title of *classics,* always to write with care. Plato, indeed, is said to have written the introduction to his *Republic* seven times over in different ways.[3]

As neglect of dress betrays want of respect for the company a man meets, so a hasty, careless, bad style shows an outrageous lack of regard for the reader, who then rightly punishes it by refusing to read the book. It is especially amusing to see reviewers criticizing the works of others in their own most careless style—the style of a hireling. It is as though a judge were to come into court in dressing gown and slippers! If I see a man badly and dirtily dressed, I feel some hesitation, at first, in entering into conversation with him; and when, on taking up a book, I am struck at once by the negligence of its style, I put it away.

Good writing should be governed by the rule that a man can think only one thing clearly at a time; and, therefore, that he should not be expected to think two or even more things in one and the same moment. But this is what is done when a writer breaks up his principal sentence into little pieces for the purpose of pushing into the gaps thus made two or three other thoughts by way of parenthesis, thereby unnecessarily and wantonly confusing the reader. And here it is again my own countrymen who are chiefly at fault. That German lends itself to this way of writing makes the thing possible, but does not justify it. No prose reads more easily or pleasantly than French, because, as a rule, it is free from the error in question. The Frenchman strings his thoughts together, as far as he can, in the most logical and natural order, and so lays them before his reader one after the other for convenient deliberation, so that every one of them may receive undivided attention. The German, on the other hand, weaves them together into a sentence which he twists and crosses, and crosses and twists again; because he wants to say six things all at once, instead of advancing them one by one. His aim should be to attract and hold the reader's attention; but, above and beyond neglect of this aim, he demands from the reader that he shall set the above-mentioned rule at defiance, and think three or four different thoughts at one and the same time; or since that is

3. *Translator's Note.*—It is a fact worth mentioning that the first twelve words of the *Republic* are placed in the exact order which would be natural in English.

impossible, that his thoughts shall succeed each other as quickly as the vibrations of a cord. In this way an author lays the foundation of his *style empesé,* which is then carried to perfection by the use of high-flown, pompous expressions to communicate the simplest things, and other artifices of the same kind.

In those long sentences rich in involved parenthesis, like a box of boxes one within another, and padded out like roast geese stuffed with apples, it is really the memory that is chiefly taxed; while it is the understanding and the judgment which should be called into play, instead of having their activity thereby actually hindered and weakened. This kind of sentence furnishes the reader with mere half-phrases, which he is then called upon to collect carefully and store up in his memory, as though they were the pieces of a torn letter, afterwards to be completed and made sense of by the other halves to which they respectively belong. He is expected to go on reading for a little without exercising any thought, nay, exerting only his memory, in the hope that, when he comes to the end of the sentence, he may see its meaning and so receive something to think about; and he is thus given a great deal to learn by heart before obtaining anything to understand. This is manifestly wrong and an abuse of the reader's patience.

The ordinary writer has an unmistakable preference for this style, because it causes the reader to spend time and trouble in understanding that which he would have understood in a moment without it; and this makes it look as though the writer had more depth and intelligence than the reader. This is, indeed, one of those artifices referred to above, by means of which mediocre authors unconsciously, and as it were by instinct, strive to conceal their poverty of thought and give an appearance of the opposite. Their ingenuity in this respect is really astounding.

It is manifestly against all sound reason to put one thought obliquely on top of another, as though both together formed a wooden cross. But this is what is done where a writer interrupts what he has begun to say for the purpose of inserting some quite alien matter, thus depositing with the reader a meaningless half-sentence, and bidding him keep it until the completion comes. It is much as though a man were to treat his guests by handing them an empty plate in the hope of something appearing upon it. And commas used for a similar purpose belong to the same family as notes at the foot of the page and parenthesis in the middle of the text; nay, all three differ only in degree. If Demosthenes and Cicero occasionally inserted words by ways of parenthesis, they would have done better to have refrained.

But this style of writing becomes the height of absurdity when the parenthesis are not even fitted into the frame of the sentence but wedged in so as directly to shatter it. If, for instance, it is an impertinent thing to interrupt another person when he is speaking, it is no less impertinent to interrupt oneself. But all bad, careless, and hasty authors, who scribble with the bread actually before their eyes, use this style of writing six times on a page, and rejoice in it. It consists in–it is advisable to give rule and example together, wherever it is possible–breaking up one phrase in order to glue in another. Nor is it merely out of laziness that they write thus. They do it out of stupidity; they think there is a charming *légèreté* about it; that it gives life to what they say. No doubt there are a few rare cases where such a form of sentence may be pardonable.

Few write in the way in which an architect builds, who, before he sets to work, sketches out his plan, and thinks it over down to its smallest details. Nay, most people write only as though they were playing dominoes; and, as in this game, the pieces are arranged half by design, half by chance, so it is with the sequence and connection of their sentences. They only have an idea of what the general shape of their work will be, and of the aim they set before themselves. Many are ignorant even of this, and write as the coral insects build; period joins to period, and the Lord only knows what the author means.

Life nowadays goes at a gallop; and the way in which this affects literature is to make it extremely superficial and slovenly.

On Some Forms of Literature

In the drama, which is the most perfect reflection of human existence, there are three stages in the presentation of the subject, with a corresponding variety in the design and scope of the piece.

At the first, which is also the most common, stage, the drama is never anything more than merely interesting. The persons gain our attention by following their own aims, which resemble ours; the action advances by means of intrigue and the play of character and incident; while wit and raillery season the whole.

At the second stage, the drama becomes *sentimental*. Sympathy is roused with the hero and, indirectly, with ourselves. The action takes a pathetic turn, but the end is peaceful and satisfactory.

The climax is reached with the third stage, which is the most difficult. There the drama aims at being *tragic*. We are brought face to face with great suffering and the storm and stress of existence; and the outcome of it is to show the vanity of all human effort. Deeply moved, we are either directly prompted to disengage our will from the struggle of life, or else a chord is struck in us which echoes a similar feeling.

The beginning, it is said, is always difficult. In the drama it is just the contrary; for these the difficulty always lies in the end. This is proved by countless plays which promise very well for the first act or two, and then become muddled, stick, or falter—notoriously so in the fourth act—and finally conclude in a way that is either forced or unsatisfactory or else long foreseen by everyone. Sometimes, too, the end is positively revolting, as in Lessing's *Emilia Galotti*, which sends the spectators home in a temper.

This difficulty in regard to the end of a play arises partly because it is everywhere easier to get things into a tangle than to get them out again; partly also because at the beginning we give the author carte blanche to

do as he likes, but, at the end, make certain definite demands upon him. Thus we ask for a conclusion that shall be either quite happy or else quite tragic, whereas human affairs do not easily take so decided a turn; and then we expect that it shall be natural, fit and proper, unlabored, and at the same time foreseen by no one.

These remarks are also applicable to an epic and to a novel; but the more compact nature of the drama makes the difficulty plainer by increasing it.

E nihilo nihil fit. That nothing can come from nothing is a maxim true in fine art as elsewhere. In composing an historical picture, a good artist will use living men as a model, and take the groundwork of the faces from life; and then proceed to idealize them in point of beauty or expression. A similar method, I fancy, is adopted by good novelists. In drawing a character they take a general outline of it from some real person of their acquaintance, and then idealize and complete it to suit their purpose.

A novel will be of a high and noble order the more it represents of inner, and the less it represents of outer, life; and the ratio between the two will supply a means of judging any novel, of whatever kind, from *Tristram Shandy* down to the crudest and most sensational tale of knight or robber. *Tristram Shandy* has, indeed, as good as no action at all; and there is not much in *La Nouvelle Héloïse* and *Wilhelm Meister*. Even *Don Quixote* has relatively little, and what there is, very unimportant, and introduced merely for the sake of fun. And these four are the best of all existing novels.

Consider, further, the wonderful romances of Jean Paul, and how much inner life is shown on the narrowest basis of actual event. Even in Walter Scott's novels there is a great preponderance of inner over outer life, and incident is never brought in except for the purpose of giving play to thought and emotion; whereas in bad novels incident is there on its own account. Skill consists in setting the inner life in motion with the smallest possible array of circumstance, for it is this inner life that really excites our interest.

The business of the novelist is not to relate great events, but to make small ones interesting.

History, which I like to think of as the contrary of poetry [*historoumenon* (investigated)—*pepoiemenon* (invented)], is for time what geography is for space; and it is no more to be called a science, in any strict sense of the word, than is geography, because it does not deal with uni-

versal truths but only with particular details. History has always been the favorite study of those who wish to learn something without having to face the effort demanded by any branch of real knowledge, which taxes the intelligence. In our time history is a favorite pursuit, as witness the numerous books upon the subject which appear every year.

If the reader cannot help thinking, with me, that history is merely the constant recurrence of similar things, just as in a kaleidoscope the same bits of glass are represented, but in different combinations, he will not be able to share all this lively interest; nor, however, will he censure it. But there is a ridiculous and absurd claim, made by many people, to regard history as a part of philosophy, nay, as philosophy itself; they imagine that history can take its place.

The preference shown for history by the greater public in all ages may be illustrated by the kind of conversation which is so much in vogue everywhere in society. It generally consists in one person relating something and then another person relating something else; so that in this way everyone is sure of receiving attention. Both here and in the case of history it is plain that the mind is occupied with particular details. But as in science, so also in every worthy conversation, the mind rises to the consideration of some general truth.

This objection does not, however, deprive history of its value. Human life is short and fleeting, and many millions of individuals share in it, who are swallowed by that monster of oblivion which is waiting for them with ever open jaws. It is thus a very thankworthy task to try to rescue something–the memory of interesting and important events, or the leading features and personages of some epoch–from the general shipwreck of the world.

From another point of view, we might look upon history as the sequel to zoology; for while with all other animals it is enough to observe the species, with man individuals, and therefore individual events, have to be studied; because every man possesses a character as an individual. And since individuals and events are without number or end, an essential imperfection attaches to history. In the study of it, all that a man learns never contributes to lessen that which he has still to learn. With any real science, a perfection of knowledge is, at any rate, conceivable.

When we gain access to the histories of China and of India, the endlessness of the subject matter will reveal to us the defects in the study, and force our historians to see that the object of science is to recognize the many in the one, to perceive the rules in any given example, and to apply to the life of nations a knowledge of mankind; not to go on counting up facts ad infinitum.

There are two kinds of history; the history of politics and the history of literature and art. The one is the history of the will; the other, that of the intellect. The first is a tale of woe, even of terror: it is a record of agony, struggle, fraud, and horrible murder en masse. The second is everywhere pleasing and serene, like the intellect when left to itself, even though its path be one of error. Its chief branch is the history of philosophy. This is, in fact, its fundamental bass, and the notes of it are heard even in the other kind of history. These deep tones guide the formation of opinion, and opinion rules the world. Hence philosophy, rightly understood, is a material force of the most powerful kind, though very slow in its working. The philosophy of a period is thus the fundamental base of its history.

The newspaper is the second hand in the clock of history; and it is not only made of baser metal than those which point to the minute and the hour, but it seldom goes right.

The so-called leading article is the chorus to the drama of passing events.

Exaggeration of every kind is as essential to journalism as it is to the dramatic art, for the object of journalism is to make events go as far as possible. Thus it is that all journalists are, in the very nature of their calling, alarmists; and this is their way of giving interest to what they write. Herein they are like little dogs; if anything stirs, they immediately set up a shrill bark.

Therefore, let us carefully regulate the attention to be paid to this trumpet of danger so that it may not disturb our digestion. Let us recognize that a newspaper is at best but a magnifying glass, and very often merely a shadow on the wall.

The pen is to thought what the stick is to walking; but you walk most easily when you have no stick, and you think with the greatest perfection when you have no pen in your hand. It is only when a man begins to be old that he likes to use a stick and is glad to take up his pen.

When a hypothesis has once come to birth in the mind, or gained a footing there, it leads a life so far comparable with the life of an organism, as that it assimilates matter from the outer world only when it is like in kind with it and beneficial; and when, contrarily, such matter is not like in kind but hurtful, the hypothesis, equally with the organism, throws it off, or, if forced to take it, gets rid of it again entire.

To gain immortality an author must possess so many excellences that

while it will not be easy to find anyone to understand and appreciate them all, there will be men in every age who are able to recognize and value some of them. In this way the credit of his book will be maintained throughout the long course of centuries, in spite of the fact that human interests are always changing.

An author like this, who has a claim to the continuance of his life even with posterity, can only be a man who, over the wide earth, will seek his like in vain, and offer a palpable contrast with everyone else in virtue of his unmistakable distinction. Nay, more: were he, like the wandering Jew, to live through several generations, he would still remain in the same superior position. If this were not so, it would be difficult to see why his thoughts should not perish like those of other men.

Metaphors and similes are of great value, in so far as they explain an unknown relation by a known one. Even the more detailed simile which grows into a parable or an allegory is nothing more than the exhibition of some relation in its simplest, most visible and palpable form. The growth of ideas rests, at bottom, upon similes, because ideas arise by a process of combining the similarities and neglecting the differences between things. Further, intelligence, in the strict sense of the word, ultimately consists in a seizing of relations; and a clear and pure grasp of relations is all the more often attained when the comparison is made between cases that lie wide apart from one another, and between things of quite different nature. As long as a relation is known to me as existing only in a single case, I have but an individual idea of it—in other words, only an intuitive knowledge of it; but as soon as I see the same relation in two different cases, I have a general idea of its whole nature, and this is a deeper and more perfect knowledge.

Since, then, similes and metaphors are such a powerful engine of knowledge, it is a sign of great intelligence in a writer if his similes are unusual and, at the same time, to the point. Aristotle also observes that by far the most important thing to a writer is to have this power of metaphor, for it is a gift which cannot be acquired, and it is a mark of genius.

As regards reading, to require that a man shall retain everything he has ever read is like asking him to carry about with him all he has ever eaten. The one kind of food has given him bodily, and the other mental, nourishment; and it is through these two means that he has grown to be what he is. The body assimilates only that which is like it; and so a man retains in his mind only that which interests him, in other words, that which suits his system of thought or his purposes in life.

If a man wants to read good books, he must make a point of avoiding bad ones; for life is short, and time and energy limited.

Repetitio est mater studiorum [Repetition is the mother of learning]. Any book that is at all important ought to be at once read through twice; partly because, on a second reading, the connection of the different portions of the book will be better understood, and the beginning comprehended only when the end is known; and partly because we are not in the same temper and disposition on both readings. On the second perusal we get a new view of every passage and a different impression of the whole book, which then appears in another light.

A man's works are the quintessence of his mind, and even though he may possess very great capacity, they will always be incomparably more valuable than his conversation. Nay, in all essential matters his works will not only make up for the lack of personal intercourse with him, but they will far surpass it in solid advantages. The writings even of a man of moderate genius may be edifying, worth reading, and instructive, because they are his quintessence—the result and fruit of all his thought and study; while conversation with him may be unsatisfactory.

So it is that we can read books by men in whose company we find nothing to please, and that a high degree of culture leads us to seek entertainment almost wholly from books and not from men.

On the Comparative Place of Interest and Beauty in Works of Art

In the productions of poetic genius, especially of the epic and dramatic kind, there is, apart from Beauty, another quality which is attractive: I mean Interest.

The beauty of a work of art consists in the fact that it holds up a clear mirror to certain ideas inherent in the world in general; the beauty of a work of poetic art in particular is that it renders the ideas inherent in mankind, and thereby leads it to a knowledge of these ideas. The means which poetry uses for this end are the exhibition of significant characters and the invention of circumstances which will bring about significant situations, giving occasion to the characters to unfold their peculiarities and show what is in them; so that by some such representation a clearer and fuller knowledge of the many-sided idea of humanity may be attained. Beauty, however, in its general aspect, is the inseparable characteristic of the idea when it has become known. In other words, everything is beautiful in which an idea is revealed, for to be beautiful means no more than clearly to express an idea.

Thus we perceive that beauty is always an affair of knowledge, and that it appeals to the knowing subject and not to the will; nay, it is a fact that the apprehension of beauty on the part of the subject involves a complete suppression of the will.

On the other hand, we call drama or descriptive poetry interesting when it represents events and actions of a kind which necessarily arouse concern or sympathy, like that which we feel in real events involving our own person. The fate of the person represented in them is felt in just the same fashion as our own: we await the development of events with anxiety; we eagerly follow their course; our hearts quicken when the hero is

threatened; our pulse falters as the danger reaches its acme, and throbs again when he is suddenly rescued. Until we reach the end of the story we cannot put the book aside; we lie awake far into the night sympathizing with our hero's troubles as though they were our own. Nay, instead of finding pleasure and recreation in such representations, we should feel all the pain which real life often inflicts upon us, or at least the kind which pursues us in our uneasy dreams, if in the act of reading or looking at the stage we had not the firm ground of reality always beneath our feet. As it is, in the stress of a too violent feeling, we can find relief from the illusion of the moment, and then give way to it again at will. Moreover, we can gain this relief without any such violent transition as occurs in a dream, when we rid ourselves of its terrors only by the act of awaking.

It is obvious that what is affected by poetry of this character is our will, and not merely our intellectual powers pure and simple. The word interest means, therefore, that which arouses the concern of the individual will, *quod nostra interest;* and here it is that beauty is clearly distinguished from interest. The one is an affair of the intellect, and that, too, of the purest and simplest kind. The other works upon the will. Beauty, then, consists in an apprehension of ideas; and knowledge of this character is beyond the range of the principle that nothing happens without a cause. Interest, on the other hand, has its origin nowhere but in the course of events; that is to say, in the complexities which are possible only through the action of this principle in its different forms.

We have now obtained a clear conception of the essential difference between the beauty and the interest of a work of art. We have recognized that beauty is the true end of every art and therefore, also, of the poetic art. It now remains to raise the question whether the interest of a work of art is a second end, or a means to the exhibition of its beauty; or whether the interest of it is produced by its beauty as an essential concomitant, and comes of itself as soon as it is beautiful; or whether interest is at any rate compatible with the main end of art; or, finally whether it is a hindrance to it.

In the first place, it is to be observed that the interest of a work of art is confined to works of poetic art. It does not exist in the case of fine art, or of music or architecture. Nay, with these forms of art it is not even conceivable, unless, indeed, the interest be of an entirely personal character, and confined to one or two spectators; as, for example, where a picture is a portrait of someone whom we love or hate; the building, my house or my prison; the music, my wedding dance, or the tune to which I marched to the war. Interest of this kind is clearly quite foreign to the es-

sence and purpose of art; it disturbs our judgment in so far as it makes the purely artistic attitude impossible. It may be, indeed, that to a smaller extent this is true of all interest.

Now, since the interest of a work of art lies in the fact that we have the same kind of sympathy with a poetic representation as with reality, it is obvious that the representation must deceive us for the moment; and this it can do only by its truth. But truth is an element in perfect art. A picture, a poem, should be as true as nature itself; but at the same time it should lay stress on whatever forms the unique character of its subject by drawing out all its essential manifestations, and by rejecting everything that is unessential and accidental. The picture or the poem will thus emphasize its idea, and give us that ideal truth which is superior to nature.

Truth, then, forms the point that is common both to interest and beauty in a work of art, as it is its truth which produces the illusion. The fact that the truth of which I speak is ideal truth might, indeed, be detrimental to the illusion, since it is just here that we have the general difference between poetry and reality, art and nature. But since it is possible for reality to coincide with the ideal, it is not actually necessary that this difference should destroy the illusion. In the case of fine arts there is, in the range of the means which art adopts, a certain limit, and beyond it illusion is impossible. Sculpture, that is to say, gives us mere colorless form; its figures are without eyes and without movement; and painting provides us with no more than a single view, enclosed within strict limits, which separate the picture from the adjacent reality. Here, then, there is no room for illusion, and consequently none for that interest or sympathy which resembles the interest we have in reality; the will is at once excluded, and the object alone is presented to us in a manner that frees it from any personal concern.

It is a highly remarkable fact that a spurious kind of fine art oversteps these limits, produces an illusion of reality, and arouses our interest; but at the same time it destroys the effect which fine art produces, and serves as nothing but a mere means of exhibiting the beautiful, that is, of communicating a knowledge of the ideas which it embodies. I refer to waxwork. Here, we might say, is the dividing line which separates it from the province of fine art. When waxwork is properly executed, it produces a perfect illusion; but for that very reason we approach a wax figure as we approach a real man, who, as such, is for the moment an object presented to our will. That is to say, he is an object of interest; he arouses the will, and consequently stills the intellect. We come up to a wax figure with the same reserve and caution as a real man would inspire in us: our will is

excited; it waits to see whether he is going to be friendly to us, or the reverse, fly from us, or attack us; in a word, it expects some action of him. But as the figure, nevertheless, shows no sign of life, it produces the impression which is so very disagreeable, namely, of a corpse. This is a case where the interest is of the most complete kind, and yet where there is no work of art at all. In other words, interest is not in itself a real end of art.

The same truth is illustrated by the fact that even in poetry it is only the dramatic and descriptive kind to which interest attaches; for if interest were, with beauty, the aim of art, poetry of the lyrical kind would, for that very reason, not take half so great a position as the other two.

In the second place, if interest were a means in the production of beauty, every interesting work would also be beautiful. That, however, is by no means the case. A drama or a novel may often attract us by its interest, and yet be so utterly deficient in any kind of beauty that we are afterwards ashamed of having wasted our time on it. This applies to many a drama which gives no true picture of the real life of man, which contains characters very superficially drawn, or so distorted as to be actual monstrosities, such as are not to be found in nature; but the course of events and the play of the action are so intricate, and we feel so much for the hero in the situation in which he is placed, that we are not content until we see the knot untangled and the hero rescued. The action is so cleverly governed and guided in its course that we remain in a state of constant curiosity as to what is going to happen, and we are utterly unable to form a guess; so that between eagerness and surprise our interest is kept active; and as we are pleasantly entertained, we do not notice the lapse of time. Most of Kotzebue's plays are of this character. For the mob this is the right thing: it looks for amusement, something to pass the time, not for intellectual perception. Beauty is an affair of such perception; hence sensibility to beauty varies as much as the intellectual faculties themselves. For the inner truth of a representation, and its correspondence with the real nature of humanity, the mob has no sense at all. What is flat and superficial it can grasp, but the depths of human nature are opened to it in vain.

It is also to be observed that dramatic representations which depend for their value on their interest lose by repetition, because they are no longer able to arouse curiosity as to their course, since it is already known. To see them often makes them stale and tedious. On the other hand, works of which the value lies in their beauty gain by repetition, as they are then more and more understood.

Most novels are on the same footing as dramatic representations of this character. They are creatures of the same sort of imagination as we see in the storyteller of Venice and Naples, who lays a hat on the ground and waits until an audience is assembled. Then he spins a tale which so captivates his hearers that, when he gets to the catastrophe, he makes a round of the crowd, hat in hand, for contributions, without the least fear that his hearers will slip away. Similar storytellers ply their trade in this country, though in a less direct fashion. They do it through the agency of publishers and circulating libraries. Thus they can avoid going about in rags, like their colleagues elsewhere; they can offer the children of their imagination to the public under the title of novels, short stories, romantic poems, fairy tales, and so on; and the public, in a dressing gown by the fireside, sits down more at its ease, but also with a greater amount of patience, to the enjoyment of the interest which they provide.

How very little aesthetic value there generally is in productions of this sort is well known; and yet it cannot be denied that many of them are interesting; or else how could they be so popular?

We see, then, in reply to our second question, that interest does not necessarily involve beauty; and, conversely, it is true that beauty does not necessarily involve interest. Significant characters may be represented that open up the depths of human nature, and it may all be expressed in actions and sufferings of an exceptional kind, so that the real nature of humanity and the world may stand forth in the picture in the clearest and most forcible lines; and yet no high degree of interest may be excited in the course of events by the continued progress of the action, or by the complexity and unexpected solution of the plot. The immortal masterpieces of Shakespeare contain little that excites interest; the action does not go forward in one straight line, but falters, as in *Hamlet*, all through the play; or else it spreads out in breadth, as in *The Merchant of Venice*, whereas length is the proper dimension of interest; or the scenes hang loosely together, as in *Henry IV*. Thus it is that Shakespeare's dramas produce no appreciable effect on the mob.

The dramatic requirement stated by Aristotle, and more particularly the unity of action, have in view the interest of the piece rather than its artistic beauty. It may be said, generally, that these requirements are drawn up in accordance with the principle of sufficient reason to which I have referred above. We know, however, that the idea, and, consequently, the beauty of a work of art, exist only for the perceptive intelligence which has freed itself from the domination of that principle. It is just here that we find the distinction between interest and beauty, as it is

obvious that interest is part and parcel of the mental attitude which is governed by the principle, whereas beauty is always beyond its range. The best and most striking refutation of the Aristotelian unities is Manzoni's. It may be found in the preface to his dramas.

What is true of Shakespeare's dramatic works is true also of Goethe's. Even *Egmont* makes little effect on the public, because it contains scarcely any complication or development; and if *Egmont* fails, what are we to say of *Tasso* or *Iphigenia*? That the Greek tragedians did not look to interest as a means of working upon the public is clear from the fact that the material of their masterpieces was almost always known to everyone: they selected events which had often been treated dramatically before. This shows us how sensitive was the Greek public to the beautiful, as it did not require the interest of unexpected events and new stories to season its enjoyment.

Neither does the quality of interest often attach to masterpieces of descriptive poetry. Father Homer lays the world and humanity before us in its true nature, but he takes no trouble to attract our sympathy by a complexity of circumstance, or to surprise us by unexpected entanglements. His pace is lingering; he stops at every scene; he puts one picture after another tranquilly before us, elaborating it with care. We experience no passionate emotion in reading him; our demeanor is one of pure perceptive intelligence; he does not arouse our will, but sings it to rest; and it costs us no effort to break off in our reading, for we are not in condition of eager curiosity. This is all still more true of Dante, whose work is not, in the proper sense of the word, an epic, but a descriptive poem. The same thing may be said of the four immortal romances: *Don Quixote, Tristram Shandy, La Nouvelle Héloïse,* and *Wilhelm Meister*. To arouse our interest is by no means the chief aim of these works; in *Tristram Shandy* the hero, even at the end of the book, is only eight years of age.

On the other hand, we must not venture to assert that the quality of interest is not to be found in masterpieces of literature. We have it in Schiller's dramas in an appreciable degree, and consequently they are popular; also in the *Oedipus Rex* of Sophocles. Among masterpieces of description, we find it in Ariosto's *Orlando Furioso;* nay, an example of a high degree of interest, bound up with the beautiful, is afforded in an excellent novel by Walter Scott—*The Heart of Midlothian*. This is the most interesting work of fiction that I know, where all the effects due to interest, as I have given them generally in the preceding remarks, may be most clearly observed. At the same time it is a very beautiful romance throughout; it shows the most varied pictures of life, drawn with striking

truth; and it exhibits highly different characters with great justice and fidelity.

Interest, then, is certainly compatible with beauty. That was our third question. Nevertheless, a comparatively small admixture of the element of interest may well be found to be most advantageous as far as beauty is concerned; for beauty is and remains the end of art. Beauty is in twofold opposition with interest; firstly, because it lies in the perception of the idea, and such perception takes its object entirely out of the range of the forms enunciated by the principle of sufficient reason; whereas interest has its sphere mainly in circumstance, and it is out of this principle that the complexity of circumstance arises. Secondly, interest works by exciting the will; whereas beauty exists only for the pure perceptive intelligence, which has no will. However, with dramatic and descriptive literature an admixture of interest is necessary, just as a volatile and gaseous substance requires a material basis if it is to be preserved and transferred. The admixture is necessary, partly, indeed, because interest is itself created by the events which have to be devised in order to set the characters in motion; partly because our minds would be weary of watching scene after scene if they had no concern for us, or of passing from one significant picture to enother if we were not drawn on by some secret thread. It is this that we call interest; it is the sympathy which the event in itself forces us to feel, and which, by riveting our attention, makes the mind obedient to the poet, and able to follow him into all the parts of his story.

If the interest of a work of art is sufficient to achieve this result, it does all that can be required of it; for its only service is to connect the pictures by which the poet desires to communicate a knowledge of the idea, as if they were pearls, and interest were the thread that holds them together, and makes an ornament out of the whole. But interest is prejudicial to beauty as soon as it oversteps this limit; and this is the case if we are so led away by the interest of a work that whenever we come to any detailed description in a novel, or any lengthy reflection on the part of a character in a drama, we grow impatient and want to put spurs to our author, so that we may follow the development of events with greater speed. Epic and dramatic writings, where beauty and interest are both present in a high degree, may be compared to the working of a watch, where interest is the spring which keeps all the wheels in motion. If it worked unhindered, the watch would run down in a few minutes. Beauty, holding us in the spell of description and reflection, is like the barrel which checks its movement.

Or we may say that interest is the body of a poetic work, and beauty the soul. In the epic and the drama, interest, as a necessary quality of the action, is the matter; and beauty, the form that requires the matter in order to be visible.

The foregoing three essays were translated by T. Bailey Saunders.

Friedrich Schiller

1759–1805

Johann Christoph Friedrich Schiller was born on November 10, 1759, at Marbach in Württemberg. His mother was the daughter of a small-town innkeeper, his father an army surgeon. Later, however, Schiller's father served as superintendent of forests and nurseries on the estates of the duke Karl Eugen of Württemberg. The Duke entered Friedrich in "Solitude," a military school he had founded. There young Schiller was forced to study law, although he had hoped to prepare for the church. When the school moved to Stuttgart, Schiller was allowed to take up the study of medicine. In 1780 he was appointed by the Duke as a regimental surgeon at Stuttgart.

Schiller was upset by the tyranny of both the school and the Duke and attracted by the revolutionary authors of the period. In 1781 he published a play, *Die Räuber* ("The Robbers"). It was produced the next year at Mannheim, and Schiller stole away to attend the performance. It was so successful that he began to work on another tragedy. The Duke, however, hearing of a second visit by Schiller to Mannheim, had him placed under military arrest. The Duke forbade him to write any more and insisted that he not leave Württemberg. In 1782 Schiller fled from the duchy.

After some weeks of extreme poverty and hunger, he finally found refuge in the home of a mother of a school friend at Bauerbach in Thuringia. Here he finished two plays, *Fiesco* and *Kabale und Liebe* ("Intrigue and Love").

He was appointed dramatist to the Mannheim Theater, but his contract was not renewed and Schiller stayed on in Mannheim for a while. Then, in 1785, he accepted the invitation of some admirers to visit Leipzig. For the next two years he was the guest of one of

them, C. G. Körner, in Leipzig and Dresden. In 1787 he finished *Don Carlos,* written in blank verse. He also, at this time, wrote joyful poems, including *An die Freude* ("Ode to Joy"), the basis of the last movement of Beethoven's Ninth Symphony.

Schiller went to Weimar in 1787. Two years later he was appointed honorary professor of history at Jena–following the publication of the first volume of a history of the revolt of the Netherlands–a position which he held until 1793. During this time he met and married Charlotte von Lengefeld. He became a friend of Goethe, who had an important influence on his thought and work. In 1799 he took up permanent residence in Weimar, partly to be near Goethe. He continued to write very successful historical dramas. During his last years he was plagued with ill-health. Schiller died at Weimar on May 9, 1805.

Schiller was a Romantic. He was a German. In the first role he was a vigorous spokesman for his time. In the second, he was, and has often been since, an inspiration to his fellow nationals.

There were three phases of Schiller's career. At first he wrote *Sturm und Drang* ("Storm and Stress") poetry and plays of social criticism. The ideas of this literary school, largely influenced by Rousseau, were concerned with individual rights and scorn for convention. These ideas had a great appeal to young Schiller, newly out of the clutches of the dictatorial Duke and hence in revolt against authority of all sorts.

In the second stage of his writing life, he concentrated on history and philosophy, largely influenced by Kant. In the third, he wrote poetic dramas which exemplified his aesthetic ideas.

On Simple and Sentimental Poetry is Schiller's definition of his aesthetic principles and at the same time a statement of his ethics.

The several pairs of concepts which Schiller talks of here repre-

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Notes from the artist: "*Schiller contemplating the bust of Goethe, his friend and source of inspiration. On Schiller's head is an apple, nearby the hat of the tyrant Gessler, both suggesting* Wilhelm Tell."

Friedrich Schiller

sent the differences between himself and Goethe–Goethe's classic naïveté and his own Romantic sentimentalism.

Schiller eulogizes the *natural* or *simple*, in typically Rousseau fashion. Children and childlike people (as different from *childish* people) have this simplicity to a high degree, he says–or, as Wordsworth put it, they are "trailing clouds of glory." Further, he says that true genius is necessarily simple–that is, modest rather than decent; intelligent rather than cunning; faithful from natural necessity rather than principles.

Schiller notes the dangers of growing out of this state of childlike simplicity. People may become burdened with troubles. They may become disillusioned "with the artifices, offended by the abuses . . . in social life." Then, he says, the moral man must be careful to remain pure in the midst of impurities. It is fruitless and wrong then to yearn for lost innocence; there is no chance, and no sense in trying, to go back to a state of naïveté. "But when you have consoled yourself for having lost the happiness of nature," he says, "let its perfection be a model to your heart."

Reasonable men have free will, he says. And, in the loss of naïve innocence, they must depend on that free will to be moral persons.

Schiller explains the difference this way: the poet *is* nature, or he *seeks* nature. In the former case, he is a simple poet; in the second case a sentimental poet. The ideal, to Schiller, would be a perfect synthesis, each side keeping the other from excess.

The title of this essay is almost paradoxical in its modesty. For "simple" read "Goethe and classic." For "sentimental" read "Schiller and modern." For "poetry" read "life." Then the scope of the essay begins to be apparent.

On Simple and Sentimental Poetry

There are moments in life when nature inspires us with a sort of love and respectful emotion, not because she is pleasing to our senses or because she satisfies our mind or our taste (it is often the very opposite that happens), but merely because she is nature. This feeling is often elicited when nature is considered in her plants, in the mineral kingdom, in rural districts; also in the case of human nature, in the case of children, and in the manners of country people and of the primitive races. Every man of refined feeling, provided he has a soul, experiences this feeling when he walks out under the open sky, when he lives in the country, or when he stops to contemplate the monuments of early ages; in short, when escaping from factitious situations and relations, he finds himself suddenly face to face with nature. This interest, which is often exalted in us so as to become a want, is the explanation of many of our fancies for flowers and for animals, our preference for gardens laid out in a natural style, our love of walks, of the country and those who live there, of a great number of objects proceeding from a remote antiquity, etc. It is taken for granted that no affectation exists in the matter, and moreover that no accidental interest comes into play. But this sort of interest which we take in nature is only possible under two conditions. First the object that inspires us with this feeling must be really nature, or something we take for nature; secondly, this object must be in the full sense of the word simple, that is, presenting the entire contrast of nature with art, all the advantage remaining on the side of nature. Directly this second condition is united to the first, but no sooner, nature assumes the character of simplicity.

Considered thus, nature is for us nothing but existence in all its freedom; it is the constitution of things taken in themselves; it is existence itself according to its proper and immutable laws.

It is strictly necessary that we should have this idea of nature to take

an interest in phenomena of this kind. If we conceive an artificial flower so perfectly imitated that it has all the appearance of nature and would produce the most complete illusion, or if we imagine the imitation of simplicity carried out to the extremest degree, the instant we discover it is only an imitation, the feeling of which I have been speaking is completely destroyed. It is, therefore, quite evident that this kind of satisfaction which nature causes us to feel is not a satisfaction of the aesthetical taste, but a satisfaction of the moral sense; for it is produced by means of a conception and not immediately by the single fact of intuition: accordingly it is by no means determined by the different degrees of beauty in forms. For, after all, is there anything so specially charming in a flower of common appearance, in a spring, a moss-covered stone, the warbling of birds, or the buzzing of bees, etc.? What is it that can give these objects a claim to our love? It is not these objects in themselves; it is an idea represented by them that we love in them. We love in them life and its latent action, the effects peacefully produced by beings of themselves, existence under its proper laws, the inmost necessity of things, the eternal unity of their nature.

These objects which captivate us are what we were, what we must be again some day. We were nature as they are; and culture, following the way of reason and of liberty, must bring us back to nature. Accordingly these objects are an image of our infancy irrevocably past–of our infancy which will remain eternally very dear to us, and thus they infuse a certain melancholy into us; they are also the image of our highest perfection in the ideal world whence they excite a sublime emotion in us.

But the perfection of these objects is not a merit that belongs to them, because it is not the effect of their free choice. Accordingly they procure quite a peculiar pleasure for us, by being our models without having anything humiliating for us. It is like a constant manifestation of the divinity surrounding us, which refreshes without dazzling us. The very feature that constitutes their character is precisely what is lacking in ours to make it complete; and what distinguishes us from them is precisely what they lack to be divine. We are free and they are necessary; we change, and they remain identical. Now it is only when these two conditions are united, when the will submits freely to the laws of necessity, and when, in the midst of all the changes of which the imagination is susceptible, reason maintains its rule–it is only then that the divine or the ideal is manifested. Thus we perceive eternally in them that which we have not, but which we are continually forced to strive after; that which we can never reach, but which we can hope to approach by continual progress. And

we perceive in ourselves an advantage which they lack, but in which some of them—the beings deprived of reason—cannot absolutely share, and in which the others, such as children, can only one day have a share by following our way. Accordingly, they procure us the most delicious feeling of our human nature, as an idea, though in relation to each determinate state of our nature they cannot fail to humble us.

As this interest in nature is based on an idea, it can only manifest itself in a soul capable of ideas, that is, in a moral soul. For the immense majority it is nothing more than pure affectation; and this taste of sentimentality so widely diffused in our day, manifesting itself, especially since the appearance of certain books, by sentimental excursions and journeys, by sentimental gardens and other fancies akin to these—this taste by no means proves that true refinement of sense has become general. Nevertheless it is certain that nature will always produce something of this impression, even on the most insensible hearts, because all that is required for this is the moral disposition or aptitude, which is common to all men. For all men, however contrary their acts may be to simplicity and to the truth of nature, are brought back to it in their ideas. This sensibility in connection with nature is specially and most strongly manifested, in the greater part of persons, in connection with those sorts of objects which are closely related to us, and which, causing us to look closer into ourselves, show us more clearly what in us departs from nature; for example, in connection with children, or with nations in a state of infancy. It is an error to suppose that it is only the idea of their weakness that, in certain moments, makes us dwell with our eyes on children with so much emotion. This may be true with those who, in the presence of a feeble being, are used to feel nothing but their own superiority. But the feeling of which I speak is only experienced in a very peculiar moral disposition, nor must it be confounded with the feeling awakened in us by the joyous activity of children. The feeling of which I speak is calculated rather to humble than to flatter our self-love; and if it gives us the idea of some advantage, this advantage is at all events not on our side.

We are moved in the presence of childhood, but it is not because from the height of our strength and of our perfection we drop a look of pity on it; it is, on the contrary, because from the depths of our impotence, of which the feeling is inseparable from that of the real and determinate state to which we have arrived, we raise our eyes to the child's determinableness and pure innocence. The feeling we then experience is too evidently mingled with sadness for us to mistake its source. In the child all is disposition and destination; in us all is in the state of a completed,

finished thing, and the completion always remains infinitely below the destination. It follows that the child is to us like a representation of the ideal; not, indeed, of the ideal as we have realized it, but such as our destination admitted; and, consequently, it is not at all the idea of its indigence, of its hindrances, that makes us experience emotion in the child's presence; it is, on the contrary, the idea of its pure and free force, of the integrity, the infinity of its being. This is the reason why, in the sight of every moral and sensible man, the child will always be a sacred thing; I mean an object which, by the grandeur of an idea, reduces to nothingness all grandeur realized by experience; an object which, in spite of all it may lose in the judgment of the understanding, regains largely the advantage before the judgment of reason.

Now it is precisely this contradiction between the judgment of reason and that of the understanding which produces in us this quite special phenomenon, this mixed feeling, called forth in us by the sight of the simple–I mean the simple in the manner of thinking. It is at once the idea of a childlike simplicity and of a childish simplicity. By what it has of childish simplicity it exposes a weak side to the understanding, and provokes in us that smile by which we testify our superiority (an entirely speculative superiority). But directly we have reason to think that childish simplicity is at the same time a childlike simplicity–that it is not consequently a want of intelligence, an infirmity in a theoretical point of view, but a superior force (practically), a heart full of truth and innocence which is its source, a heart that has despised the help of art because it was conscious of its real and internal greatness–directly this is understood, the understanding no longer seeks to triumph. Then raillery, which was directed against simpleness, makes way for the admiration inspired by noble simplicity. We feel ourselves obliged to esteem this object, which at first made us smile, and directing our eye to ourselves, to feel ourselves unhappy in not resembling it. Thus is produced that very special phenomenon of a feeling in which good-natured raillery, respect, and sadness are confounded. It is the condition of the simple that nature should triumph over art, either unconsciously to the individual and against his inclination, or with his full and entire cognizance. In the former case it is simplicity as a surprise, and the impression resulting from it is one of gaiety; in the second case it is simplicity of feeling, and we are moved.

With regard to simplicity as a surprise, the person must be morally capable of denying nature. In simplicity of feeling the person may be morally incapable of this, but we must not think him physically incapable, in order that it may make upon us the impression of the simple. This is

the reason why the acts and words of children only produce the impression of simplicity upon us when we forget that they are physically incapable of artifice, and in general only when we are exclusively impressed by the contrast between their natural character and what is artificial in us. Simplicity is a childlike ingenuousness which is encountered when it is not expected; and it is for this very reason that, taking the word in its strictest sense, simplicity could not be attributed to childhood properly speaking.

But in both cases, in simplicity as a surprise and simplicity as a feeling, nature must always have the upper hand, and art succumb to her.

Until we have established this distinction we can only form an incomplete idea of simplicity. The affections are also something natural, and the rules of decency are artificial; yet the triumph of the affections over decency is anything but simple. But when affection triumphs over artifice, over false decency, over dissimulation we shall have no difficulty in applying the word simple to this. Nature must therefore triumph over art, not by its blind and brutal force as a dynamical power, but in virtue of its form as a moral magnitude; in a word, not as a want, but as an internal necessity. It must not be insufficiency but the inopportune character of the latter that gives nature her victory; for insufficiency is only a want and a defect, and nothing that results from a want or defect could produce esteem. No doubt in the simplicity resulting from surprise, it is always the predominance of affection and a want of reflection that causes us to appear natural. But this want and this predominance do not by any means suffice to constitute simplicity; they merely give occasion to nature to obey without let or hindrance her moral constitution, that is, the law of harmony.

The simplicity resulting from surprise can only be encountered in man, and that only in as far as at the moment he ceases to be a pure and innocent nature. This sort of simplicity implies a will that is not in harmony with that which nature does of her own accord. A person simple after this fashion, when recalled to himself, will be the first to be alarmed at what he is; on the other hand, a person in whom simplicity is found as a feeling will only wonder at one thing, that is, at the way in which men feel astonishment. As it is not the moral subject as a person, but only his natural character set free by affection, that confesses the truth, it follows from this that we shall not attribute this sincerity to man as a merit, and that we shall be entitled to laugh at it, our raillery not being held in check by any personal esteem for his character. Nevertheless, as it is still the sincerity of nature which, even in the simplicity caused by surprise,

pierces suddenly through the veil of dissimulation, a satisfaction of a superior order is mixed with the mischievous joy we feel in having caught any one in the act. This is because nature, opposed to affectation, and truth, opposed to deception, must in every case inspire us with esteem. Thus we experience, even in the presence of simplicity originating in surprise, a really moral pleasure, though it be not in connection with a moral object.

I admit that in simplicity proceeding from surprise, we always experience a feeling of esteem for nature, because we must esteem truth; whereas in the simplicity of feeling we esteem the person himself, enjoying in this way not only a moral satisfaction, but also a satisfaction of which the object is moral. In both cases nature is right, since she speaks the truth; but in the second case not only is nature right, but there is also an act that does honour to the person. In the first case the sincerity of nature always puts the person to the blush, because it is involuntary; in the second it is always a merit which must be placed to the credit of the person, even when what he confesses is of a nature to cause a blush.

We attribute simplicity of feeling to a man when, in the judgments he pronounces on things, he passes without seeing them over all the factitious and artificial sides of an object, to keep exclusively to simple nature. We require of him all the judgments that can be formed of things without departing from a sound nature; and we only hold him entirely free in what presupposes a departure from nature, in his mode of thinking or feeling.

If a father relates to his son that such and such a person is dying of hunger, and if the child goes and carries the purse of his father to this unfortunate being, this is a simple action. It is in fact a healthy nature that acts in the child; and in a world where healthy nature would be the law, he would be perfectly right to act so. He only sees the misery of his neighbour and the speediest means of relieving him. The extension given to the right of property, in consequence of which part of the human race might perish, is not based on mere nature. Thus the act of this child puts to shame real society, and this is acknowledged by our heart in the pleasure it experiences from this action.

If a good-hearted man, inexperienced in the ways of the world, confides his secrets to another, who deceives him, but who is skilful in disguising his perfidy, and if by his very sincerity he furnishes him with the means of doing him injury, we find his conduct simple. We laugh at him, yet we cannot avoid esteeming him, precisely on account of his simplicity. This is because his trust in others proceeds from the rectitude

of his own heart; at all events, there is simplicity here only as far as this is the case.

Simplicity in the mode of thinking cannot then ever be the act of a depraved man; this quality belongs only to children, and to men who are children in heart. It often happens to these in the midst of the artificial relations of the great world to act or to think in a simple manner. Being themselves of a truly good and humane nature, they forget that they have to do with a depraved world; and they act, even in the courts of kings, with an ingenuousness and an innocence that are only found in the world of pastoral idylls.

Nor is it always such an easy matter to distinguish exactly childish candour from childlike candour, for there are actions that are on the skirts of both. Is a certain act foolishly simple, and must we laugh at it? Or is it nobly simple, and must we esteem the actors the higher on that account? It is difficult to know which side to take in some cases. A very remarkable example of this is found in the history of the government of Pope Adrian VI, related by Mr. [J. M.] Schröckh with all the solidity and the spirit of practical truth which distinguish him. Adrian, a Netherlander by birth, exerted the pontifical sway at one of the most critical moments for the hierarchy—at a time when an exasperated party laid bare without any scruple all the weak sides of the Roman Church, while the opposite party was interested in the highest degree in covering them over. I do not entertain the question how a man of a truly simple character ought to act in such a case, if such a character were placed in the papal chair. But, we ask, how could this simplicity of feeling be compatible with the part of a pope? This question gave indeed very little embarrassment to the predecessors and successors of Adrian. They followed uniformly the system adopted once for all by the court of Rome, not to make any concessions anywhere. But Adrian had preserved the upright character of his nation and the innocence of his previous condition. Issuing from the humble sphere of literary men to rise to this eminent position, he did not belie at that elevation the primitive simplicity of his character. He was moved by the abuses of the Roman Church, and he was much too sincere to dissimulate publicly what he confessed privately. It was in consequence of this manner of thinking that, in his instruction to his legate in Germany, he allowed himself to be drawn into avowals hitherto unheard of in a sovereign pontiff, and diametrically contrary to the principles of that court: "We know well," he said among other things, "that for many years many abominable things have taken place in this holy chair; it is not therefore astonishing that the evil has been propagated from the head to

the members, from the pope to the prelates. We have all gone astray from the good road, and for a long time there is none of us, not one, who has done anything good." Elsewhere he orders his legate to declare in his name "that he, Adrian, cannot be blamed for what other popes have done before him; that he himself, when he occupied a comparatively mediocre position, had always condemned these excesses." It may easily be conceived how such simplicity in a pope must have been received by the Roman clergy. The smallest crime of which he was accused was that of betraying the Church and delivering it over to heretics. Now this proceeding, supremely imprudent in a pope, would yet deserve our esteem and admiration if we could believe it was real simplicity; that is that Adrian, without fear of consequences, had made such an avowal, moved by his natural sincerity, and that he would have persisted in acting thus, though he had understood all the drift of his clumsiness. Unhappily we have some reason to believe that he did not consider his conduct as altogether impolitic, and that in his candour he went so far as to flatter himself that he had served very usefully the interests of his Church by his indulgence to his adversaries. He did not even imagine that he ought to act thus in his quality as an honest man, he thought also as a pope to be able to justify himself, and forgetting that the most artificial of structures could only be supported by continuing to deny the truth, he committed the unpardonable fault of having recourse to means of safety, excellent perhaps in a natural situation, but here applied to entirely contrary circumstances. This necessarily modifies our judgment very much, and although we cannot refuse our esteem for the honesty of heart in which the act originates, this esteem is greatly lessened when we reflect that nature on this occasion was too easily mistress of art, and that the heart too easily overruled the head.

True genius is of necessity simple, or it is not genius. Simplicity alone gives it this character, and it cannot belie in the moral order what it is in the intellectual and aesthetical order. It does not know those rules, the crutches of feebleness, those pedagogues which prop up slippery spirits; it is only guided by nature and instinct, its guardian angel; it walks with a firm, calm step across all the snares of false taste, snares in which the man without genius, if he have not the prudence to avoid them the moment he detects them, remains infallibly imbedded. It is therefore the part only of genius to issue from the known without ceasing to be at home, or to enlarge the circle of nature without overstepping it. It does indeed sometimes happen that a great genius oversteps it; but only because geniuses have their moments of frenzy, when nature, their pro-

tector, abandons them, because the force of example impels them, or because the corrupt taste of their age leads them astray.

The most intricate problems must be solved by genius with simplicity, without pretension, with ease; the egg of Christopher Columbus is the emblem of all the discoveries of genius. It only justifies its character as genius by triumphing through simplicity over all the complications of art. It does not proceed according to known principles, but by feelings and inspiration; the sallies of genius are the inspirations of a God (all that healthy nature produces is divine); its feelings are laws for all time, for all human generations.

This childlike character imprinted by genius on its works is also shown by it in its private life and manners. It is modest, because nature is always so; but it is not decent, because corruption alone is decent. It is intelligent, because nature cannot lack intelligence; but it is not cunning, because art only can be cunning. It is faithful to its character and inclinations, but this is not so much because it has principles as because nature, notwithstanding all its oscillations, always returns to its equilibrium, and brings back the same wants. It is modest and even timid, because genius remains always a secret to itself; but it is not anxious, because it does not know the dangers of the road in which it walks. We know little of the private life of the greatest geniuses; but the little that we know of it—what tradition has preserved, for example, of Sophocles, of Archimedes, of Hippocrates, and in modern times of Ariosto, of Dante, of Tasso, of Raphael, of Albrecht Dürer, of Cervantes, of Shakespeare, of Fielding, of Sterne, etc.—confirms this assertion.

Nay, more; though this admission seems more difficult to support, even the greatest philosophers and great commanders, if great by their genius, have simplicity in their character. Among the ancients I need only name Julius Caesar and Epaminondas; among the moderns Henry IV in France, Gustavus Adolphus in Sweden, and the Czar Peter the Great. The Duke of Marlborough, Turenne, and Vendôme all present this character. With regard to the other sex, nature proposes to it simplicity of character as the supreme perfection to which it should reach. Accordingly, the love of pleasing in women strives after nothing so much as the appearance of simplicity; a sufficient proof, if it were the only one, that the greatest power of the sex reposes in this quality. But, as the principles that prevail in the education of women are perpetually struggling with this character, it is as difficult for them in the moral order to reconcile this magnificent gift of nature with the advantages of a good education as it is difficult for men to preserve them unchanged in the intellectual order; and the

woman who knows how to join a knowledge of the world to this sort of simplicity in manners is as deserving of respect as a scholar who joins to the strictness of scholastic rules the freedom and originality of thought.

Simplicity in our mode of thinking brings with it of necessity simplicity in our mode of expression, simplicity in terms as well as movement; and it is in this that grace especially consists. Genius expresses its most sublime and its deepest thoughts with this simple grace; they are the divine oracles that issue from the lips of a child; while the scholastic spirit, always anxious to avoid error, tortures all its words, all its ideas, and makes them pass through the crucible of grammar and logic, hard and rigid, in order to keep from vagueness, and uses few words in order not to say too much, enervates and blunts thought in order not to wound the reader who is not on his guard–genius gives to its expression, with a single and happy stroke of the brush, a precise, firm, and yet perfectly free form. In the case of grammar and logic, the sign and the thing signified are always heterogeneous, and strangers to each other: with genius, on the contrary, the expression gushes forth spontaneously from the idea, the language and the thought are one and the same; so that even though the expression thus gives it a body, the spirit appears as if disclosed in a nude state. This fashion of expression, when the sign disappears entirely in the thing signified, when the tongue, so to speak, leaves the thought it translates naked, while the other mode of expression cannot represent thought without veiling it at the same time: this is what is called originality and inspiration in style.

This freedom, this natural mode by which genius expresses itself in works of intellect, is also the expression of the innocence of heart in the intercourse of life. Every one knows that in the world men have departed from simplicity, from the rigorous veracity of language, in the same proportion as they have lost the simplicity of feelings. The guilty conscience easily wounded, the imagination easily seduced, made an anxious decency necessary. Without telling what is false, people often speak differently from what they think; we are obliged to make circumlocutions to say certain things, which however, can never afflict any but a sickly self-love, and that have no danger except for a depraved imagination. The ignorance of these laws of propriety (conventional laws), coupled with a natural sincerity which despises all kinds of bias and all appearance of falsity (sincerity I mean, not coarseness, for coarseness dispenses with forms because it is hampered), gives rise in the intercourse of life to a simplicity of expression that consists in naming things by their proper name without circumlocution. This is done because we do not venture to

designate them as they are, or only to do so by artificial means. The ordinary expressions of children are of this kind. They make us smile because they are in opposition to received manners; but men would always agree in the bottom of their hearts that the child is right.

It is true that simplicity of feeling cannot properly be attributed to the child any more than to the man–that is, to a being not absolutely subject to nature, though there is still no simplicity, except on the condition that it is pure nature that acts through him. But by an effort of the imagination, which likes to poetize things, we often carry over these attributes of a rational being to beings destitute of reason. It is thus that, on seeing an animal, a landscape, a building, and nature in general, from opposition to what is arbitrary and fantastic in the conceptions of man, we often attribute to them a simple character. But that implies always that in our thought we attribute a will to these things that have none, and that we are struck to see it directed rigorously according to the laws of necessity. Discontented as we are that we have ill employed our own moral freedom, and that we no longer find moral harmony in our conduct, we are easily led to a certain disposition of mind, in which we willingly address ourselves to a being destitute of reason, as if it were a person. And we readily view it as if it had really had to struggle against the temptation of acting otherwise, and proceed to make a merit of its eternal uniformity, and to envy its peaceable constancy. We are quite disposed to consider in those moments reason, this prerogative of the human race, as a pernicious gift and as an evil; we feel so vividly all that is imperfect in our conduct that we forget to be just to our destiny and to our aptitudes.

We see, then, in nature, destitute of reason, only a sister who, more fortunate than ourselves, has remained under the maternal roof, while in the intoxication of our freedom we have fled from it to throw ourselves into a stranger world. We regret this place of safety, we earnestly long to come back to it as soon as we have begun to feel the bitter side of civilization, and in the totally artificial life in which we are exiled we hear in deep emotion the voice of our mother. While we were still only children of nature we were happy, we were perfect: we have become free, and we have lost both advantages. Hence a twofold and very unequal longing for nature: the longing for happiness and the longing for the perfection that prevails there. Man, as a sensuous being, deplores sensibly the loss of the former of these goods; it is only the moral man who can be afflicted at the loss of the other.

Therefore, let the man with a sensible heart and a loving nature question himself closely. Is it your indolence that longs for its repose, or your

wounded moral sense that longs for its harmony? Ask yourself well, when, disgusted with the artifices, offended by the abuses that you discover in social life, you feel yourself attracted towards inanimate nature, in the midst of solitude ask yourself what impels you to fly the world. Is it the privation from which you suffer, its loads, its troubles? Or is it the moral anarchy, the caprice, the disorder that prevail there? Your heart ought to plunge into these troubles with joy, and to find in them the compensation in the liberty of which they are the consequence. You can, I admit, propose as your aim, in a distant future, the calm and the happiness of nature, but only that sort of happiness which is the reward of your dignity. Thus, then, let there be no more complaint about the loads of life, the inequality of conditions, or the hampering of social relations, or the uncertainty of possession, ingratitude, oppression, and persecution. You must submit to all these evils of civilization with a free resignation; it is the natural condition of good, par excellence, of the only good, and you ought to respect it under this head. In all these evils you ought only to deplore what is morally evil in them, and you must do so not with cowardly tears only. Rather watch to remain pure yourself in the midst of these impurities, free amidst this slavery, constant with yourself in the midst of these capricious changes, a faithful observer of the law amidst this anarchy. Be not frightened at the disorder that is without you, but at the disorder which is within; aspire after unity, but seek it not in uniformity; aspire after repose, but through equilibrium, and not by suspending the action of your faculties. This nature which you envy in the being destitute of reason deserves no esteem: it is not worth a wish. You have passed beyond it; it ought to remain forever behind you. The ladder that carried you having given way under your foot, the only thing for you to do is to seize again on the moral law freely, with a free consciousness, a free will, or else to roll down, hopeless of safety, into a bottomless abyss.

But when you have consoled yourself for having lost the happiness of nature, let its perfection be a model to your heart. If you can issue from the circle in which art keeps you enclosed and find nature again, if it shows itself to you in its greatness and in its calm, in its simple beauty, in its childlike innocence and simplicity, oh! then pause before its image, cultivate this feeling lovingly. It is worthy of you, and of what is noblest in man. Let it no more come into your mind to change with it; rather embrace it, absorb it into your being, and try to associate the infinite advantage it has over you with that infinite prerogative that is peculiar to you, and let the divine issue from this sublime union. Let nature breathe around you like a lovely idyll, where far from artifice and its wanderings

you may always find yourself again, where you may go to draw fresh courage, a new confidence, to resume your course, and kindle again in your heart the flame of the ideal, so readily extinguished amidst the tempests of life.

If we think of that beautiful nature which surrounded the ancient Greeks, if we remember how intimately that people, under its blessed sky, could live with that free nature; how their mode of imagining, and of feeling, and their manners approached far nearer than ours to the simplicity of nature, how faithfully the works of their poets express this; we must necessarily remark, as a strange fact, that so few traces are met among them of that sentimental interest that we moderns ever take in the scenes of nature and in natural characters. I admit that the Greeks are superiorly exact and faithful in their descriptions of nature. They reproduce their details with care, but we see that they take no more interest in them and no more heart in them than in describing a vestment, a shield, armour, a piece of furniture, or any production of the mechanical arts. In their love for the object it seems that they make no difference between what exists in itself and what owes its existence to art, to the human will. It seems that nature interests their minds and their curiosity more than moral feeling. They do not attach themselves to it with that depth of feeling, with that gentle melancholy, that characterize the moderns. Nay, more, by personifying nature in its particular phenomena, by deifying it, by representing its effects as the acts of free beings, they take from it that character of calm necessity which is precisely what makes it so attractive to us. Their impatient imagination only traverses nature to pass beyond it to the drama of human life. It only takes pleasure in the spectacle of what is living and free; it requires characters, acts, the accidents of fortune and of manners; and while it happens with us, at least in certain moral dispositions, to curse our prerogative, this free will, which exposes us to so many combats with ourselves, to so many anxieties and errors, and to wish to exchange it for the condition of beings destitute of reason, for that fatal existence that no longer admits of any choice, but which is so calm in its uniformity—while we do this, the Greeks, on the contrary, only have their imagination occupied in retracing human nature in the inanimate world, and in giving to the will an influence where blind necessity rules.

Whence can arise this difference between the spirit of the ancients and the modern spirit? How comes it that, being, for all that relates to nature, incomparably below the ancients, we are superior to them precisely on this point, that we render a more complete homage to nature; that we

have a closer attachment to it; and that we are capable of embracing even the inanimate world with the most ardent sensibility. It is because nature, in our time, is no longer in man, and that we no longer encounter it in its primitive truth except out of humanity, in the inanimate world. It is not because we are more conformable to nature—quite the contrary; it is because in our social relations, in our mode of existence, in our manners, we are in opposition with nature. This is what leads us, when the instinct of truth and of simplicity is awakened—this instinct which, like the moral aptitude from which it proceeds, lives incorruptible and indelible in every human heart—to procure for it in the physical world the satisfaction which there is no hope of finding in the moral order. This is the reason why the feeling that attaches us to nature is connected so closely with that which makes us regret our infancy, forever flown, and our primitive innocence. Our childhood is all that remains of nature in humanity, such as civilization has made it, of untouched, unmutilated nature. It is, therefore, not wonderful, when we meet out of us the impress of nature, that we are always brought back to the idea of our childhood.

It was quite different with the Greeks in antiquity. Civilization with them did not degenerate, nor was it carried to such an excess that it was necessary to break with nature. The entire structure of their social life reposed on feelings, and not on a factitious conception, on a work of art. Their very theology was the inspiration of a simple spirit, the fruit of a joyous imagination, and not, like the ecclesiastical dogmas of modern nations, subtle combinations of the understanding. Since, therefore, the Greeks had not lost sight of nature in humanity, they had no reason, when meeting it out of man, to be surprised at their discovery, and they would not feel very imperiously the need of objects in which nature could be retraced. In accord with themselves, happy in feeling themselves men, they would of necessity keep to humanity as to what was greatest to them, and they must needs try to make all the rest approach it; while we, who are not in accord with ourselves—we who are discontented with the experience we have made of our humanity—have no more pressing interest than to fly out of it and to remove from our sight a so ill-fashioned form. The feeling of which we are treating here is, therefore, not that which was known by the ancients; it approaches far more nearly that which we ourselves experience for the ancients. The ancients felt naturally; we, on our part, feel what is natural. It was certainly a very different inspiration that filled the soul of Homer, when he depicted his divine cowherd giving hospitality to Ulysses, from that which agitated the soul of the young Werther at the moment when he read the *Odyssey* on

issuing from an assembly in which he had only found tedium. The feeling we experience for nature resembles that of a sick man for health.

As soon as nature gradually vanishes from human life—that is, in proportion as it ceases to be experienced as a subject (active and passive)—we see it dawn and increase in the poetical world in the guise of an idea and as an object. The people who have carried furthest the want of nature, and at the same time the reflections on that matter, must needs have been the people who at the same time were most struck with this phenomenon of the simple, and gave it a name. If I am not mistaken, this people was the French. But the feeling of the simple, and the interest we take in it, must naturally go much farther back, and it dates from the time when the moral sense and the aesthetical sense began to be corrupt. This modification in the manner of feeling is exceedingly striking in Euripides, for example, if compared with his predecessors, especially Aeschylus; and yet Euripides was the favourite poet of his time. The same revolution is perceptible in the ancient historians. Horace, the poet of a cultivated and corrupt epoch, praises, under the shady groves of Tibur, the calm and happiness of the country, and he might be termed the true founder of this sentimental poetry, of which he has remained the unsurpassed model. In Propertius, Virgil, and others we find also traces of this mode of feeling; less of it is found in Ovid, who would have required for that more abundance of heart, and who in his exile at Tomis sorrowfully regrets the happiness that Horace so readily dispensed with in his villa at Tibur.

It is in the fundamental idea of poetry that the poet is everywhere the guardian of nature. When he can no longer entirely fill this part, and has already in himself suffered the deleterious influence of arbitrary and factitious forms, or has had to struggle against this influence, he presents himself as the witness of nature and as its avenger. The poet will, therefore, be the expression of nature itself, or his part will be to seek it, if men have lost sight of it. Hence arise two kinds of poetry, which embrace and exhaust the entire field of poetry. All poets—I mean those who are really so—will belong, according to the time when they flourish, according to the accidental circumstances that have influenced their education generally, and the different dispositions of mind through which they pass, will belong, I say, to the order of the sentimental poetry or to simple poetry.

The poet of a young world, simple and inspired, as also the poet who at an epoch of artificial civilization approaches nearest to the primitive bards, is austere and prudish, like the virginal Diana in her forests. Wholly unconfiding, he hides himself from the heart that seeks him, from the de-

sire that wishes to embrace him. It is not rare for the dry truth with which he treats his subject to resemble insensibility. The whole object possesses him, and to reach his heart it does not suffice, as with metals of little value, to stir up the surface; as with pure gold, you must go down to the lowest depths. Like the Deity behind this universe, the simple poet hides himself behind his work; he is himself his work, and his work is himself. A man must be no longer worthy of the work, nor understand it, or be tired of it, to be even anxious to learn who is its author.

Such appear to us, for instance, Homer in antiquity and Shakespeare among moderns: two natures infinitely different and separated in time by an abyss, but perfectly identical as to this trait of character. When, at a very youthful age, I became first acquainted with Shakespeare, I was displeased with his coldness, with his insensibility, which allows him to jest even in the most pathetic moments, to disturb the impression of the most harrowing scenes in *Hamlet*, in *King Lear*, and in *Macbeth*, etc., by mixing with them the buffooneries of a madman. I was revolted by his insensibility, which allowed him to pause sometimes at places where my sensibility would bid me hasten and bear me along, and which sometimes carried him away with indifference when my heart would be so happy to pause. Though I was accustomed, by the practice of modern poets, to seek at once the poet in his works, to meet his heart, to reflect with him in his theme–in a word, to see the object in the subject–I could not bear that the poet could in Shakespeare never be seized, that he would never give me an account of himself. For some years Shakespeare had been the object of my study and of all my respect, before I had learnt to love his personality. I was not yet able to comprehend nature at first hand. All that my eyes could bear was its image only, reflected by the understanding and arranged by rules; and on this score the sentimental poetry of the French, or that of the Germans of 1750 to 1780, was what suited me best. For the rest, I do not blush at this childish judgment; adult critics pronounced in that day in the same way, and carried their simplicity so far as to publish their decisions to the world.

The same thing happened to me in the case of Homer, with whom I made acquaintance at a later date. I remember now that remarkable passage of the sixth book of the *Iliad*, where Glaucus and Diomed meet each other in the strife, and then, recognizing each other as host and guest, exchange presents.[1] With this touching picture of the piety with which the laws of hospitality were observed even in war, may be com-

1. See *Great Books of the Western World*.

pared a picture of chivalrous generosity in Ariosto. The knights, rivals in love, Ferragus and Rinaldo–the former a Saracen, the latter a Christian–after having fought to extremity, all covered with wounds, make peace together, and mount the same horse to go and seek the fugitive Angelica. These two examples, however different in other respects, are very similar with regard to the impression produced on our heart; both represent the noble victory of moral feeling over passion, and touch us by the simplicity of feeling displayed in them. But what a difference in the way in which the two poets go to work to describe two such analogous scenes! Ariosto, who belongs to an advanced epoch, to a world where simplicity of manners no longer existed, in relating this trait cannot conceal the astonishment, the admiration, he feels at it. He measures the distance from those manners to the manners of his own age, and this feeling of astonishment is too strong for him. He abandons suddenly the painting of the object, and comes himself on the scene in person. This beautiful stanza [*Orlando Furioso*, canto i, stanza 22] is well known, and has been always specially admired at all times:

> Oh nobleness, oh generosity of the ancient manners of chivalry! These were rivals, separated by their faith, suffering bitter pain throughout their frames in consequence of a desperate combat; and, without any suspicion, behold them riding in company along dark and winding paths. Stimulated by four spurs, the horse hastens his pace till they arrive at the place where the road divides.

Now let us turn to old Homer. Scarcely has Diomed learnt by the story of Glaucus, his adversary, that the latter has been, from the time of their fathers, the host and friend of his family, when he drives his lance into the ground, converses familiarly with him, and both agree henceforth to avoid each other in the strife. But let us hear Homer himself:

> "Henceforth, however, I must be your host in middle Argos, and you mine in Lycia, if I should ever go there; let us avoid one another's spears even during a general engagement; there are many noble Trojans and allies whom I can kill, if I overtake them and heaven delivers them into my hand; so again with yourself, there are many Achaeans whose lives you may take if you can; we two, then, will exchange armour, that all present may know of the old ties that subsist between us."
>
> With these words they sprang from their chariots, grasped one another's hands, and plighted friendship.

It would have been difficult for a modern poet (at least to one who would be modern in the moral sense of the term) even to wait as long

as this before expressing his joy in the presence of such an action. We should pardon this in him the more easily, because we also, in reading it, feel that our heart makes a pause here, and readily turns aside from the object to bring back its thoughts on itself. But there is not the least trace of this in Homer. As if he had been relating something that is seen every day–nay, more, as if he had no heart beating in his breast–he continues, with his dry truthfulness:

> But the son of Saturn made Glaucus take leave of his wits, for he exchanged golden armour for bronze, the worth of a hundred head of cattle for the worth of nine.

The poets of this order–the genuinely simple poets, are scarcely any longer in their place in this artificial age. Accordingly they are scarcely possible in it, or at least they are only possible on the condition of traversing their age, like scared persons, at a running pace, and of being preserved by a happy star from the influence of their age, which would mutilate their genius. Never, for aye and forever, will society produce these poets; but out of society they still appear sometimes at intervals, rather, I admit, as strangers who excite wonder, or as ill-trained children of nature who give offence. These apparitions, so very comforting for the artist who studies them, and for the real connoisseur who knows how to appreciate them, are, as a general conclusion, in the age when they are begotten, to a very small degree prosperous. The seal of empire is stamped on their brow, and we, we ask the Muses to cradle us, to carry us in their arms. The critics, as regular constables of art, detest these poets as disturbers of rules or of limits. Homer himself may have been only indebted to the testimony of ten centuries for the reward these aristarchs are kindly willing to concede him. Moreover, they find it a hard matter to maintain their rules against his example, or his authority against their rules.

SENTIMENTAL POETRY

I have previously remarked that the poet is nature, or he seeks nature. In the former case, he is a simple poet; in the second case, a sentimental poet.

The poetic spirit is immortal, nor can it disappear from humanity; it can only disappear with humanity itself, or with the aptitude to be a man, a human being. And actually, though man by the freedom of his imagination and of his understanding departs from simplicity, from truth, from the necessity of nature, not only a road always remains open to him to

return to it, but, moreover, a powerful and indestructible instinct, the moral instinct, brings him incessantly back to nature; and it is precisely the poetical faculty that is united to this instinct by the ties of the closest relationship. Thus man does not lose the poetic faculty directly he parts with the simplicity of nature; only this faculty acts out of him in another direction.

Even at present, nature is the only flame that kindles and warms the poetic soul. From nature alone it obtains all its force; to nature alone it speaks in the artificial culture-seeking man. Any other form of displaying its activity is remote from the poetic spirit. Accordingly it may be remarked that it is incorrect to apply the expression poetic to any of the so-styled productions of wit, though the high credit given to French literature has led people for a long period to class them in that category. I repeat that at present, even in the existing phase of culture, it is still nature that powerfully stirs up the poetic spirit, only its present relation to nature is of a different order from formerly.

As long as man dwells in a state of pure nature (I mean pure and not coarse nature), all his being acts at once like a simple sensuous unity, like a harmonious whole. The senses and reason, the receptive faculty and the spontaneously active faculty, have not been as yet separated in their respective functions; a fortiori they are not yet in contradiction with each other. Then the feelings of man are not the formless play of chance; nor are his thoughts an empty play of the imagination, without any value. His feelings proceed from the law of necessity, his thoughts from reality. But when man enters the state of civilization, and art has fashioned him, this sensuous harmony which was in him disappears, and henceforth he can only manifest himself as a moral unity, that is, as aspiring to unity. The harmony that existed as a fact in the former state, the harmony of feeling and thought, only exists now in an ideal state. It is no longer in him, but out of him; it is a conception of thought which he must begin by realizing in himself; it is no longer a fact, a reality of his life. Well, now let us take the idea of poetry, which is nothing else than expressing humanity as completely as possible, and let us apply this idea to these two states. We shall be brought to infer that on the one hand, in the state of natural simplicity, when all the faculties of man are exerted together, his being still manifests itself in a harmonious unity, where, consequently, the totality of his nature expresses itself in reality itself, the part of the poet is necessarily to imitate the real as completely as is possible. In the state of civilization, on the contrary, when this harmonious competition of the whole of human nature is no longer anything but an idea, the part

of the poet is necessarily to raise reality to the ideal, or, what amounts to the same thing, to represent the ideal. And actually, these are the only two ways in which, in general, the poetic genius can manifest itself. Their great difference is quite evident, but though there be great opposition between them, a higher idea exists that embraces both, and there is no cause to be astonished if this idea coincides with the very idea of humanity.

This is not the place to pursue this thought any further, as it would require a separate discussion to place it in its full light. But if we only compare the modern and ancient poets together, not according to the accidental forms which they may have employed, but according to their spirit, we shall be easily convinced of the truth of this thought. The thing that touches us in the ancient poets is nature; it is the truth of sense, it is a present and a living reality: modern poets touch us through the medium of ideas.

The path followed by modern poets is, moreover, that necessarily followed by man generally, individuals as well as the species. Nature reconciles man with himself; art divides and disunites him; the ideal brings him back to unity. Now, the ideal being an infinite that he never succeeds in reaching, it follows that civilized man can never become perfect in his kind, while the man of nature can become so in his. Accordingly in relation to perfection one would be infinitely below the other, if we only considered the relation in which they are both to their own kind and to their maximum. If, on the other hand, it is the kinds that are compared together, it is ascertained that the end to which man tends by civilization is infinitely superior to that which he reaches through nature. Thus one has his reward, because having for object a finite magnitude, he completely reaches this object: the merit of the other is to approach an object that is of infinite magnitude. Now, as there are only degrees, and as there is only progress in the second of these evolutions, it follows that the relative merit of the man engaged in the ways of civilization is never determinable in general, though this man, taking the individuals separately, is necessarily at a disadvantage compared with the man in whom nature acts in all its perfection. But we know also that humanity cannot reach its final end except by progress, and that the man of nature cannot make progress save through culture, and consequently by passing himself through the way of civilization. Accordingly there is no occasion to ask with which of the two the advantage must remain, considering this last end.

All that we say here of the different forms of humanity may be applied equally to the two orders of poets who correspond to them.

Accordingly it would have been desirable not to compare at all the ancient and the modern poets, the simple and the sentimental poets, or only to compare them by referring them to a higher idea (since there is really only one) which embraces both. For, sooth to say, if we begin by forming a specific idea of poetry, merely from the ancient poets, nothing is easier, but also nothing is more vulgar, than to depreciate the moderns by this comparison. If persons wish to confine the name of poetry to that which has in all times produced the same impression in simple nature, this places them in the necessity of contesting the title of poet in the moderns precisely in that which constitutes their highest beauties, their greatest originality and sublimity; for precisely in the points where they excel the most, it is the child of civilization whom they address, and they have nothing to say to the simple child of nature.

To the man who is not disposed beforehand to issue from reality in order to enter the field of the ideal, the richest and most substantial poetry is an empty appearance, and the sublimest flights of poetic inspiration are an exaggeration. Never will a reasonable man think of placing alongside Homer, in his grandest episodes, any of our modern poets; and it has a discordant and ridiculous effect to hear Milton or Klopstock honoured with the name of a "new Homer." But take in modern poets what characterizes them, what makes their special merit, and try to compare any ancient poet with them in this point, they will not be able to support the comparison any better, and Homer less than any other. I should express it thus: the power of the ancients consists in compressing objects into the finite, and the moderns excel in the art of the infinite.

What we have said here may be extended to the fine arts in general, except certain restrictions that are self-evident. If then the strength of the artists of antiquity consists in determining and limiting objects, we must no longer wonder that in the field of the plastic arts the ancients remain so far superior to the moderns, nor especially that poetry and the plastic arts with the moderns, compared respectively with what they were among the ancients, do not offer the same relative value. This is because an object that addresses itself to the eyes is only perfect in proportion as the object is clearly limited in it; while a work that is addressed to the imagination can also reach the perfection which is proper to it by means of the ideal and the infinite. This is why the superiority of the moderns in what relates to ideas is not of great aid to them in the plastic

arts, where it is necessary for them to determine in space, with the greatest precision, the image which their imagination has conceived, and where they must therefore measure themselves with the ancient artist just on a point where his superiority cannot be contested. In the matter of poetry it is another affair, and if the advantage is still with the ancients on that ground, as respects the simplicity of forms–all that can be represented by sensuous features, all that is something bodily–yet, on the other hand, the moderns have the advantage over the ancients as regards fundamental wealth, and all that can neither be represented nor translated by sensuous signs, in short, for all that is called mind and idea in the works of art.

From the moment that the simple poet is content to follow simple nature and feeling, that he is contented with the imitation of the real world, he can only be placed, with regard to his subject, in a single relation. And in this respect he has no choice as to the manner of treating it. If simple poetry produces different impressions–I do not, of course, speak of the impressions that are connected with the nature of the subject, but only of those that are dependent on poetic execution–the whole difference is in the degree; there is only one way of feeling, which varies from more to less; even the diversity of external forms changes nothing in the quality of aesthetic impressions. Whether the form be lyric or epic, dramatic or descriptive, we can receive an impression either stronger or weaker, but if we remove what is connected with the nature of the subject, we shall always be affected in the same way. The feeling we experience is absolutely identical; it proceeds entirely from one single and the same element to such a degree that we are unable to make any distinction. The very difference of tongues and that of times does not here occasion any diversity, for their strict unity of origin and of effect is precisely a characteristic of simple poetry.

It is quite different with sentimental poetry. The sentimental poet reflects on the impression produced on him by objects; and it is only on this reflection that his poetic force is based. It follows that the sentimental poet is always concerned with two opposite forces, has two modes of representing objects to himself and of feeling them; these are the real or limited, and the ideal or infinite; and the mixed feeling that he will awaken will always testify to this duality of origin. Sentimental poetry thus admitting more than one principle, it remains to know which of the two will be predominant in the poet, both in his fashion of feeling and in that of representing the object; and consequently a difference in the mode of treating it is possible. Here, then, a new subject is presented: shall

the poet attach himself to the real or the ideal? to the real as an object of aversion and of disgust, or to the ideal as an object of inclination? The poet will therefore be able to treat the same subject either in its satirical aspect or in its elegiac aspect—taking these words in a larger sense, which will be explained in the sequel: every sentimental poet will of necessity become attached to one or the other of these two modes of feeling.

SATIRICAL POETRY

The poet is a satirist when he takes as subject the distance at which things are from nature, and the contrast between reality and the ideal: as regards the impression received by the soul, these two subjects blend into the same. In the execution he may place earnestness and passion, or jests and levity, according as he takes pleasure in the domain of the will or in that of the understanding. In the former case it is avenging and pathetic satire; in the second case it is sportive, humorous, and mirthful satire.

Properly speaking, the object of poetry is not compatible either with the tone of punishment or that of amusement. The former is too grave for play, which should be the main feature of poetry; the latter is too trifling for seriousness, which should form the basis of all poetic play. Our mind is necessarily interested in moral contradictions, and these deprive the mind of its liberty. Nevertheless, all personal interest, and reference to a personal necessity, should be banished from poetic feeling. But mental contradictions do not touch the heart; nevertheless, the poet deals with the highest interests of the heart—nature and the ideal. Accordingly, it is a hard matter for him not to violate the poetic form in pathetic satire, because this form consists in the liberty of movement; and in sportive satire he is very apt to miss the true spirit of poetry, which ought to be the infinite. The problem can only be solved in one way: by the pathetic satire assuming the character of the sublime, and the playful satire acquiring poetic substance by enveloping the theme in beauty.

In satire the real as imperfection is opposed to the ideal, considered as the highest reality. In other respects it is by no means essential that the ideal should be expressly represented, provided the poet knows how to awaken it in our souls, but he must in all cases awaken it, otherwise he will exert absolutely no poetic action. Thus reality is here a necessary object of aversion; but it is also necessary, for the whole question centres here, that this aversion should come necessarily from the ideal, which is opposed to reality. To make this clear—this aversion might proceed from a purely sensuous source, and repose only on a want of which the satis-

faction finds obstacles in the real. How often, in fact, we think we feel against society a moral discontent, while we are simply soured by the obstacles that it opposes to our inclination. It is this entirely material interest that the vulgar satirist brings into play; and as by this road he never fails to call forth in us movements connected with the affections, he fancies that he holds our heart in his hand, and thinks he has graduated in the pathetic. But all pathos derived from this source is unworthy of poetry, which ought only to move us through the medium of ideas, and reach our heart only by passing through the reason. Moreover, this impure and material pathos will never have its effect on minds, except by over-exciting the affective faculties, and by occupying our hearts with painful feelings; in this it differs entirely from the truly poetic pathos which raises in us the feeling of moral independence, and which is recognized by the freedom of our mind persisting in it even while it is in the state of affection. And, in fact, when the emotion emanates from the ideal opposed to the real, the sublime beauty of the ideal corrects all impression of restraint; and the grandeur of the idea with which we are imbued raises us above all the limits of experience. Thus in the representation of some revolting reality, the essential thing is that the necessary be the foundation on which the poet or the narrator places the real: that he know how to dispose our mind for ideas. Provided the point from which we see and judge be elevated, it matters little if the object be low and far beneath us. When the historian Tacitus depicts the profound decadence of the Romans of the first century, it is a great soul which from a loftier position lets his looks drop down on a low object; and the disposition in which he places us is truly poetic, because it is the height where he is himself placed, and where he has succeeded in raising us, which alone renders so perceptible the baseness of the object.

Accordingly the satire of pathos must always issue from a mind deeply imbued with the ideal. It is nothing but an impulsion towards harmony that can give rise to that deep feeling of moral opposition and that ardent indignation against moral obliquity which amounted to the fullness of enthusiasm in Juvenal, Swift, Rousseau, Haller, and others. These same poets would have succeeded equally well in forms of poetry relating to all that is tender and touching in feeling, and it was only the accidents of life in their early days that diverted their minds into other walks. Nay, some amongst them actually tried their hand successfully in these other branches of poetry. The poets whose names have been just mentioned lived either at a period of degeneracy, and had scenes of painful moral obliquity presented to their view, or personal troubles had combined to

fill their souls with bitter feelings. The strictly austere spirit in which Rousseau, Haller, and others paint reality is a natural result, moreover, of the philosophical mind, when with rigid adherence to laws of thought it separates the mere phenomenon from the substance of things. Yet these outer and contingent influences, which always put restraint on the mind, should never be allowed to do more than decide the direction taken by enthusiasm, nor should they ever give the material for it. The substance ought always to remain unchanged, emancipated from all external motion or stimulus, and it ought to issue from an ardent impulsion towards the ideal, which forms the only true motive that can be put forth for satirical poetry, and indeed for all sentimental poetry.

While the satire of pathos is only adapted to elevated minds, playful satire can only be adequately represented by a heart imbued with beauty. The former is preserved from triviality by the serious nature of the theme; but the latter, whose proper sphere is confined to the treatment of subjects of morally unimportant nature, would infallibly adopt the form of frivolity, and be deprived of all poetic dignity, were it not that the substance is ennobled by the form, and did not the personal dignity of the poet compensate for the insignificance of the subject. Now, it is only given to mind imbued with beauty to impress its character, its entire image, on each of its manifestations, independently of the object of its manifestations. A sublime soul can only make itself known as such by single victories over the rebellion of the senses, only in certain moments of exaltation, and by efforts of short duration. In a mind imbued with beauty, on the contrary, the ideal acts in the same manner as nature, and therefore continuously; accordingly it can manifest itself in it in a state of repose. The deep sea never appears more sublime than when it is agitated; the true beauty of a clear stream is in its peaceful course.

The question has often been raised as to the comparative preference to be awarded to tragedy or comedy. If the question is confined merely to their respective themes, it is certain that tragedy has the advantage. But if our inquiry be directed to ascertain which has the more important personality, it is probable that a decision may be given in favour of comedy. In tragedy the theme in itself does great things; in comedy the object does nothing and the poet all. Now, as in the judgments of taste, no account must be kept of the matter treated of, it follows naturally that the aesthetic value of these two kinds will be in an inverse ratio to the proper importance of their themes.

The tragic poet is supported by the theme, while the comic poet, on the contrary, has to keep up the aesthetic character of his theme by his

own individual influence. The former may soar, which is not a very difficult matter, but the latter has to remain one and the same in tone; he has to be in the elevated region of art, where he must be at home, but where the tragic poet has to be projected and elevated by a bound. And this is precisely what distinguishes a soul of beauty from a sublime soul. A soul of beauty bears in itself by anticipation all great ideas; they flow without constraint and without difficulty from its very nature–an infinite nature, at least in potency, at whatever point of its career you seize it. A sublime soul can rise to all kinds of greatness, but by an effort; it can tear itself from all bondage, to all that limits and constrains it, but only by strength of will. Consequently the sublime soul is only free by broken efforts; the other with ease and always.

The noble task of comedy is to produce and keep up in us this freedom of mind, just as the end of tragedy is to re-establish in us this freedom of mind by aesthetic ways, when it has been violently suspended by passion. Consequently it is necessary that in tragedy the poet, as if he made an experiment, should artificially suspend our freedom of mind, since tragedy shows its poetic virtue by re-establishing it; in comedy, on the other hand, care must be taken that things never reach this suspension of freedom.

It is for this reason that the tragic poet invariably treats his theme in a practical manner, and the comic poet in a theoretic manner, even when the former, as happened with Lessing in his *Nathan,* should have the curious fancy to select a theoretical, and the latter should have that of choosing a practical subject. A piece is constituted a tragedy or a comedy not by the sphere from which the theme is taken, but by the tribunal before which it is judged. A tragic poet ought never to indulge in tranquil reasoning, and ought always to gain the interest of the heart; but the comic poet ought to shun the pathetic and bring into play the understanding. The former displays his art by creating continual excitement, the latter by perpetually subduing his passion; and it is natural that the art in both cases should acquire magnitude and strength in proportion as the theme of one poet is abstract, and that of the other pathetic in character. Accordingly, if tragedy sets out from a more exalted place, it must be allowed, on the other hand, that comedy aims at a more important end; and if this end could be actually attained it would make all tragedy not only unnecessary, but impossible. The aim that comedy has in view is the same as that of the highest destiny of man, and this consists in liberating himself from the influence of violent passions, and taking a calm and lucid survey of all that surrounds him, and also of his own be-

ing, and of seeing everywhere occurrence rather than fate or hazard, and ultimately rather smiling at the absurdities than shedding tears and feeling anger at sight of the wickedness of man.

It frequently happens in human life that facility of imagination, agreeable talents, a good-natured mirthfulness are taken for ornaments of the mind. The same fact is discerned in the case of poetical displays.

Now, public taste scarcely if ever soars above the sphere of the agreeable, and authors gifted with this sort of elegance of mind and style do not find it a difficult matter to usurp a glory which is or ought to be the reward of so much real labour. Nevertheless, an infallible test exists to enable us to discriminate a natural facility of manner from ideal gentleness, and qualities that consist in nothing more than natural virtue from genuine moral worth of character. This test is presented by trials such as those presented by difficulty and events offering great opportunities. Placed in positions of this kind, the genius whose essence is elegance is sure infallibly to fall into platitudes, and that virtue which only results from natural causes drops down to a material sphere. But a mind imbued with true and spiritual beauty is in cases of the kind we have supposed sure to be elevated to the highest sphere of character and of feeling. So long as Lucian merely furnishes absurdity, as in his *Wishes*, in the *Lapithas*, in *Jupiter Tragoedus*, etc., he is only a humorist, and gratifies us by his sportive humour; but he changes character in many passages in his *Nigrinus,* his *Timon*, and his *Alexander*, when his satire directs its shafts against moral depravity. Thus he begins in his *Nigrinus* his picture of the degraded corruption of Rome at that time in this way: "Wretch, why didst thou quit Greece, the sunlight, and that free and happy life? Why didst thou come here into this turmoil of splendid slavery, of service and festivals, of sycophants, flatterers, poisoners, orphan-robbers, and false friends?" It is on such occasions that the poet ought to show the lofty earnestness of soul which has to form the basis of all plays, if a poetical character is to be attained by them. A serious intention may even be detected under the malicious jests with which Lucian and Aristophanes pursue Socrates. Their purpose is to avenge truth against sophistry, and to do combat for an ideal which is not always prominently put forward. There can be no doubt that Lucian has justified this character in his Diogenes and Demonax. Again, among modern writers how grave and beautiful is the character depicted on all occasions by Cervantes in his Don Quixote! How splendid must have been the ideal that filled the mind of a poet who created a Tom Jones and a Sophonisba! How deeply and strongly our hearts are moved by the jests of Yorick when he pleases! I

detect this seriousness also in our own Wieland: even the wanton sportiveness of his humour is elevated and impeded by the goodness of his heart; it has an influence even on his rhythm; nor does he ever lack elastic power, when it is his wish, to raise us up to the most elevated planes of beauty and of thought.

The same judgment cannot be pronounced on the satire of Voltaire. No doubt, also, in his case, it is the truth and simplicity of nature which here and there make us experience poetic emotions, whether he really encounters nature and depicts it in a simple character, as many times in his *Ingénu;* or whether he seeks it and avenges it as in his *Candide* and elsewhere. But when neither one nor the other takes place, he can doubtless amuse us with his fine wit, but he assuredly never touches us as a poet. There is always rather too little of the serious under his raillery, and this is what makes his vocation as poet justly suspicious. You always meet his intelligence only; never his feelings. No ideal can be detected under this light gauze envelope; scarcely can anything absolutely fixed be found under this perpetual movement. His prodigious diversity of externals and forms, far from proving anything in favour of the inner fullness of his inspiration, rather testifies to the contrary; for he has exhausted all forms without finding a single one on which he has succeeded in impressing his heart. We are almost driven to fear that in the case of his rich talent the poverty of heart alone determined his choice of satire. And how could we otherwise explain the fact that he could pursue so long a road without ever issuing from its narrow rut? Whatever may be the variety of matter and of external forms, we see the inner form return everywhere with its sterile and eternal uniformity, and in spite of his so productive career, he never accomplished in himself the circle of humanity, that circle which we see joyfully traversed throughout by the satirists previously named.

ELEGIAC POETRY

When the poet opposes nature to art, and the ideal to the real, so that nature and the ideal form the principal object of his pictures, and that the pleasure we take in them is the dominant impression, I call him an elegiac poet. In this kind, as well as in satire, I distinguish two classes. Either nature and the ideal are objects of sadness, when one is represented as lost to man and the other as unattained; or both are objects of joy, being represented to us as reality. In the first case it is elegy in the narrower sense of the term; in the second case it is the idyll in its most extended acceptation.

Indignation in the pathetic and ridicule in mirthful satire are occasioned by an enthusiasm which the ideal has excited; and thus also sadness should issue from the same source in elegy. It is this, and this only, that gives poetic value to elegy, and any other origin for this description of poetical effusion is entirely beneath the dignity of poetry. The elegiac poet seeks after nature, but he strives to find her in her beauty, and not only in her mirth; in her agreement with conceptions, and not merely in her facile disposition towards the requirements and demands of sense. Melancholy at the privation of joys, complaints at the disappearance of the world's golden age, or at the vanished happiness of youth, affection, etc., can only become the proper themes for elegiac poetry if those conditions implying peace and calm in the sphere of the senses can moreover be portrayed as states of moral harmony. On this account I cannot bring myself to regard as poetry the complaints of Ovid, which he transmitted from his place of exile by the Black Sea; nor would they appear so to me however touching and however full of passages of the highest poetry they might be. His suffering is too devoid of spirit, and nobleness. His lamentations display a want of strength and enthusiasm; though they may not reflect the traces of a vulgar soul, they display a low and sensuous condition of a noble spirit that has been trampled into the dust by its hard destiny. If, indeed, we call to mind that his regrets are directed to Rome in the Augustan age, we forgive him the pain he suffers; but even Rome in all its splendour, except it be transfigured by the imagination, is a limited greatness, and therefore a subject unworthy of poetry, which, raised above every trace of the actual, ought only to mourn over what is infinite.

Thus the object of poetic complaint ought never to be an external object, but only an internal and ideal object; even when it deplores a real loss, it must begin by making it an ideal loss. The proper work of the poet consists in bringing back the finite object to the proportions of the infinite. Consequently, the external matter of elegy, considered in itself, is always indifferent, since poetry can never employ it as it finds it, and because it is only by what it makes of it that it confers on it a poetic dignity. The elegiac poet seeks nature, but nature as an idea, and in a degree of perfection that it has never reached in reality, although he weeps over this perfection as something that has existed and is now lost. When Ossian speaks to us of the days that are no more, and of the heroes that have disappeared, his imagination has long since transformed these pictures represented to him by his memory into a pure ideal, and changed these heroes into gods. The different experiences of such or such a life in

particular have become extended and confounded in the universal idea of transitoriness, and the bard, deeply moved, pursued by the increase of ruin everywhere present, takes his flight towards heaven, to find there in the course of the sun an emblem of what does not pass away.

I turn now to the elegiac poets of modern times. Rousseau, whether considered as a poet or a philosopher, always obeys the same tendency: to seek nature or to avenge it by art. According to the state of his heart, whether he prefers to seek nature or to avenge it, we see him at one time roused by elegiac feelings, at others showing the tone of the satire of Juvenal, and again, as in his Julia, delighting in the sphere of the idyll. His compositions have undoubtedly a poetic value, since their object is ideal; only he does not know how to treat it in a poetic fashion. No doubt his serious character prevents him from falling into frivolity; but this seriousness also does not allow him to rise to poetic play. Sometimes absorbed by passion, at others by abstractions, he seldom if ever reaches aesthetic freedom, which the poet ought to maintain in spite of his material before his object, and in which he ought to make the reader share. Either he is governed by his sickly sensibility and his impressions become a torture, or the force of thought chains down his imagination and destroys by its strictness of reasoning all the grace of his pictures. These two faculties, whose reciprocal influence and intimate union are what properly make the poet, are found in this writer in an uncommon degree, and he lacks only one thing–it is that the two qualities should manifest themselves actually united; it is that the proper activity of thought should show itself mixed more with feeling, and the sensuous more with thought. Accordingly, even in the ideal which he has made of human nature, he is too much taken up with the limits of this nature, and not enough with its capabilities; he always betrays a want of physical repose rather than want of moral harmony. His passionate sensuousness must be blamed when, to finish as quickly as possible that struggle in humanity which offends him, he prefers to carry man back to the unintelligent uniformity of his primitive condition, rather than see that struggle carried out in the intellectual harmony of perfect cultivation, when, rather than await the fulfilment of art he prefers not to let it begin; in short, when he prefers to place the aim nearer the earth, and to lower the ideal in order to reach it the sooner and the safer.

Among the poets of Germany who belong to this class, I shall mention here only Haller, Kleist, and Klopstock. The character of their poetry is sentimental; it is by the ideal that they touch us, not by sensuous reality; and that not so much because they are themselves nature as because

they know how to fill us with enthusiasm for nature. However, what is true in general, as well of these three poets as of every sentimental poet, does not evidently exclude the faculty of moving us, in particular, by beauties of the simple genus; without this they would not be poets. I only mean that it is not their proper and dominant characteristic to receive the impression of objects with a calm feeling, simple, easy, and to give forth in like manner the impression received. Involuntarily the imagination in them anticipates intuition, and reflection is in play before the sensuous nature has done its function; they shut their eyes and stop their ears to plunge into internal meditations. Their souls could not be touched by any impression without observing immediately their own movements, without placing before their eyes and outside themselves what takes place in them. It follows from this that we never see the object itself, but what the intelligence and reflection of the poet have made of the object; and even if this object be the person itself of the poet, even when he wishes to represent to us his own feelings, we are not informed of his state immediately or at first hand; we only see how this state is reflected in his mind, and what he has thought of it in the capacity of spectator of himself. When Haller deplores the death of his wife–every one knows this beautiful elegy–and begins in the following manner:

> If I must needs sing of thy death,
> O Marian, what a song it would be!
> When sighs strive against words,
> And idea follows fast on idea,

we feel that this description is strictly true, but we feel also that the poet does not communicate to us, properly speaking, his feelings, but the thoughts that they suggest to him. Accordingly, the emotion we feel on hearing him is much less vivid; people remark that the poet's mind must have been singularly cooled down, to become thus a spectator of his own emotion.

Haller treated scarcely any subjects but the supersensuous, and part of the poems of Klopstock are also of this nature: this choice itself excludes them from the simple kind. Accordingly, in order to treat these supersensuous themes in a poetic fashion, as no body could be given to them, and they could not be made the objects of sensuous intuition, it was necessary to make them pass from the finite to the infinite, and raise them to the state of objects of spiritual intuition. In general, it may be said that it is only in this sense that a didactic poetry can be conceived without involving contradiction; for, repeating again what has been so often said,

poetry has only two fields, the world of sense and the ideal world, since in the sphere of conceptions, in the world of the understanding, it cannot absolutely thrive. I confess that I do not know as yet any didactic poem, either among the ancients or among the moderns, where the subject is completely brought down to the individual, or purely and completely raised to the ideal. The most common case, in the most happy essays, is where the two principles are used together; the abstract idea predominates, and the imagination, which ought to reign over the whole domain of poetry, has merely the permission to serve the understanding. A didactic poem in which thought itself would be poetic and would remain so is a thing which we must still wait to see.

What we say here of didactic poems in general is true in particular of the poems of Haller. The thought itself of these poems is not poetical, but the execution becomes so sometimes, occasionally by the use of images, at other times by a flight towards the ideal. It is from this last quality only that the poems of Haller belong to this class. Energy, depth, a pathetic earnestness—these are the traits that distinguish this poet. He has in his soul an ideal that enkindles it, and his ardent love of truth seeks in the peaceful valleys of the Alps that innocence of the first ages that the world no longer knows. His complaint is deeply touching; he retraces in an energetic and almost bitter satire the wanderings of the mind and of the heart, and he lovingly portrays the beautiful simplicity of nature. Only, in his pictures as well as in his soul, abstraction prevails too much, and the sensuous is overweighted by the intellectual. He constantly teaches rather than paints; and even in his paintings his brush is more energetic than lovable. He is great, bold, full of fire, sublime; but he rarely and perhaps never attains to beauty.

For the solidity and depth of ideas, Kleist is far inferior to Haller; in point of grace, perhaps, he would have the advantage—if, as happens occasionally, we did not impute to him as a merit, on the one side, that which really is a want on the other. The sensuous soul of Kleist takes especial delight at the sight of country scenes and manners; he withdraws gladly from the vain jingle and rattle of society, and finds in the heart of inanimate nature the harmony and peace that are not offered to him by the moral world. How touching is his "Aspiration after Repose"! How much truth and feeling there is in these verses!

> O world, thou art the tomb of true life!
> Often a generous instinct attracts me to virtue;
> My heart is sad, a torrent of tears bathes my cheeks,

But example conquers, and thou, O fire of youth!
Soon you dry these noble tears.
A true man must live far from men!

But if the poetic instinct of Kleist leads him thus far away from the narrow circle of social relations, in solitude and among the fruitful inspirations of nature, the image of social life and of its anguish pursues him, and also alas! its chains. What he flees from he carries in himself, and what he seeks remains entirely outside him: never can he triumph over the fatal influence of his time. In vain does he find sufficient flame in his heart and enough energy in his imagination to animate by painting the cold conceptions of the understanding; cold thought each time kills the living creations of fancy, and reflection destroys the secret work of the sensuous nature. His poetry, it must be admitted, is of as brilliant colour and as variegated as the spring he celebrated in verse; his imagination is vivid and active; but it might be said that it is more variable than rich, that it sports rather than creates, that it always goes forward with a changeful gait, rather than stops to accumulate and mould things into shape. Traits succeed each other rapidly, with exuberance, but without concentrating to form an individual, without completing each other to make a living whole, without rounding to a form, a figure. While he remains in purely lyrical poetry, and pauses amidst his landscapes of country life, on the one hand the greater freedom of the lyrical form and, on the other, the more arbitrary nature of the subject prevent us from being struck with this defect; in these sorts of works it is in general rather the feelings of the poet than the object in itself of which we expect the portraiture. But this defect becomes too apparent when he undertakes, as in *Cissides und Paches*, or in his Seneca, to represent men and human actions; because here the imagination sees itself kept in within certain fixed and necessary limits, and because here the effect can only be derived from the object itself. Kleist becomes poor, tiresome, jejune, and insupportably frigid; an example full of lessons for those who, without having an inner vocation, aspire to issue from musical poetry, to rise to the regions of plastic poetry. A spirit of this family, Thomson, has paid the same penalty to human infirmity.

In the sentimental kind, and especially in that part of the sentimental kind which we name elegiac, there are but few modern poets, and still fewer ancient ones, who can be compared to our Klopstock. Musical poetry has produced in this poet all that can be attained out of the limits of the living form, and out of the sphere of individuality, in the region of

ideas. It would, no doubt, be doing him a great injustice to dispute entirely in his case that individual truth and that feeling of life with which the simple poet describes his pictures. Many of his odes, many separate traits in his dramas, and in his *Messias* ["Messiah"] represent the object with a striking truth, and mark the outline admirably; especially, when the object is his own heart, he has given evidence on many occasions of a great natural disposition and of a charming simplicity. I mean only that it is not in this that the proper force of Klopstock consists, and that it would not perhaps be right to seek for this throughout his work. Viewed as a production of musical poetry, the *Messias* is a magnificent work; but in the light of plastic poetry, where we look for determined forms and forms determined for the intuition, the *Messias* leaves much to be desired. Perhaps in this poem the figures are sufficiently determined, but they are not so with intuition in view. It is abstraction alone that created them, and abstraction alone can discern them. They are excellent types to express ideas, but they are not individuals nor living figures. With regard to the imagination, which the poet ought to address, and which he ought to command by putting before it always perfectly determinate forms, it is left here much too free to represent as it wishes these men and these angels, these divinities and demons, this paradise and this hell. We see quite well the vague outlines in which the understanding must be kept to conceive these personages; but we do not find the limit clearly traced in which the imagination must be enclosed to represent them. And what I say here of characters must apply to all that in this poem is, or ought to be, action and life, and not only in this epopee, but also in the dramatic poetry of Klopstock. For the understanding all is perfectly determined and bounded in them–I need only here recall his Judas, his Pilate, his Philo, his Solomon in the tragedy that bears that name–but for the imagination all this wants form too much, and I must readily confess I do not find that our poet is at all in his sphere here. His sphere is always the realm of ideas; and he knows how to raise all he touches to the infinite. It might be said that he strips away their bodily envelope, to spiritualize them, from all the objects with which he is occupied, in the same way that other poets clothe all that is spiritual with a body. The pleasure occasioned by his poems must almost always be obtained by an exercise of the faculty of reflection; the feelings he awakens in us, and that so deeply and energetically, flow always from supersensuous sources. Hence the earnestness, the strength, the elasticity, the depth, that characterize all that comes from him; but from that also issues that perpetual tension of mind in which we are kept when reading him. No poet–except

perhaps Young, who in this respect exacts even more than Klopstock, without giving us so much compensation—no poet could be less adapted than Klopstock to play the part of favourite author and guide in life, because he never does anything else than lead us out of life, because he never calls to arms anything save spirit, without giving recreation and refreshment to sensuous nature by the calm presence of any object. His muse is chaste, it has nothing of the earthly, it is immaterial and holy as his religion; and we are forced to admit with admiration that if he wanders sometimes on these high places, it never happened to him to fall from them. But precisely for this reason, I confess in all ingenuousness, that I am not free from anxiety for the common sense of those who quite seriously and unaffectedly make Klopstock the favourite book, the book in which we find sentiments fitting all situations, or to which we may revert at all times: perhaps even—and I suspect it—Germany has seen enough results of his dangerous influence. It is only in certain dispositions of the mind, and in hours of exaltation, that recourse can be had to Klopstock, and that he can be felt. It is for this reason that he is the idol of youth, without, however, being by any means the happiest choice that they could make. Youth, which always aspires to something beyond real life, which avoids all stiffness of form, and finds all limits too narrow, lets itself be carried away with love, with delight, into the infinite spaces opened up to them by this poet. But wait till the youth has become a man, and till, from the domain of ideas, he comes back to the world of experience, then you will see this enthusiastic love of Klopstock decrease greatly, without, however, a riper age changing at all the esteem due to this unique phenomenon, to this so extraordinary genius, to these noble sentiments—the esteem that Germany in particular owes to his high merit.

I have said that this poet was great specially in the elegiac style, and it is scarcely necessary to confirm this judgment by entering into particulars. Capable of exercising all kinds of action on the heart, and having graduated as master in all that relates to sentimental poetry, he can sometimes shake the soul by the most sublime pathos, at others cradle it with sweet and heavenly sensations. Yet his heart prefers to follow the direction of a lofty spiritual melancholy; and, however sublime be the tones of his harp and of his lyre, they are always the tender notes of his lute that resound with most truth and the deepest emotion. I take as witnesses all those whose nature is pure and sensuous: would they not be ready to give all the passages where Klopstock is strong and bold; all those fictions, all the magnificent descriptions, all the models of eloquence which

abound in the *Messias,* all those dazzling comparisons in which our poet excels—would they not exchange them for the pages breathing tenderness, the "Elegy to Ebert," for example, or that admirable poem entitled "Bardalus," or again, the "Tombs Opened before the Hour," the "Summer's Night," the "Lake of Zurich," and many other pieces of this kind? In the same way the *Messias* is dear to me as a treasure of elegiac feelings and of ideal paintings, though I am not much satisfied with it as the recital of an action and as an epic.

I ought, perhaps, before quitting this department, to recall the merits in this style of Uz, Denis, Gessner—in *Der Tod Abels* ["Death of Abel"]—Jacobi, Gerstenberg, Hölty, von Goeckingk, and several others who all knew how to touch by ideas, and whose poems belong to the sentimental kind in the sense in which we have agreed to understand the word. But my object is not here to write a history of German poetry; I only wished to clear up what I said further back by some examples from our literature. I wished to show that the ancient and the modern poets, the authors of simple poetry and of sentimental poetry, follow essentially different paths to arrive at the same end: that the former move by nature, individuality, a very vivid sensuous element; while the latter do it by means of ideas and a high spirituality, exercising over our minds an equally powerful though less extensive influence.

It has been seen, by the examples which precede, how sentimental poetry conceives and treats subjects taken from nature; perhaps the reader may be curious to know how also simple poetry treats a subject of the sentimental order. This is, as it seems, an entirely new question, and one of special difficulty; for, in the first place, has a subject of the sentimental order ever been presented in primitive and simple periods? And in modern times, where is the simple poet with whom we could make this experiment? This has not, however, prevented genius from setting this problem, and solving it in a wonderfully happy way. A poet in whose mind nature works with a purer and more faithful activity than in any other, and who is perhaps of all modern poets the one who departs the least from the sensuous truth of things, has proposed this problem to himself in his conception of a mind, and of the dangerous extreme of the sentimental character. This mind and this character have been portrayed by the modern poet we speak of, a character which with a burning sensuousness embraces the ideal and flies the real, to soar up to an infinite devoid of being, always occupied in seeking out of himself what he incessantly destroys in himself; a mind that only finds reality in his dreams, and to whom the realities of life are only limits and obstacles; in short,

a mind that sees only in its own existence a barrier, and goes on, as it were, logically to break down this barrier in order to penetrate to true reality.

It is interesting to see with what a happy instinct all that is of a nature to feed the sentimental mind is gathered together in Werther: a dreamy and unhappy love, a very vivid feeling for nature, the religious sense coupled with the spirit of philosophic contemplation, and lastly, to omit nothing, the world of Ossian, dark, formless, melancholy. Add to this the aspect under which reality is presented, all is depicted which is least adapted to make it lovable, or rather all that is most fit to make it hated; see how all external circumstances unite to drive back the unhappy man into his ideal world; and now we understand that it was quite impossible for a character thus constituted to save itself, and issue from the circle in which it was enclosed. The same contrast reappears in the *Torquato Tasso* of the same poet, though the characters are very different. Even his last romance presents, like his first, this opposition between the poetic mind and the common sense of practical men, between the ideal and the real, between the subjective mode and the objective mode of seeing and representing things; it is the same opposition, I say, but with what a diversity! Even in *Faust* we still find this contrast, rendered, I admit—as the subject required—much more coarsely on both hands, and materialized. It would be quite worth while if a psychological explanation were attempted of this character, personified and specified in four such different ways.

It has been observed further back that a mere disposition to frivolity of mind, to a merry humour, if a certain fund of the ideal is not joined to it, does not suffice to constitute the vocation of a satirical poet, though this mistake is frequently made. In the same way a mere disposition for tender sentiments, softness of heart, and melancholy do not suffice to constitute a vocation for elegy. I cannot detect the true poetical talent, either on one side or the other; it wants the essential, I mean the energetic and fruitful principle that ought to enliven the subject, and produce true beauty. Accordingly, the productions of this latter nature, of the tender nature, do nothing but enervate us; and without refreshing the heart, without occupying the mind, they are only able to flatter in us the sensuous nature. A constant disposition to this mode of feeling ends necessarily, in the long run, by weakening the character and makes it fall into a state of passivity from which nothing real can issue, either for external or for internal life. People have, therefore, been quite right to persecute by pitiless raillery this fatal mania of sentimentality and of tearful melan-

choly which possessed Germany eighteen years since, in consequence of certain excellent works that were ill understood and indiscreetly imitated. People have been right, I say, to combat this perversity, though the indulgence with which men are disposed to receive the parodies of these elegiac caricatures—that are very little better themselves—the complaisance shown to bad wit, to heartless satire and spiritless mirth, show clearly enough that this zeal against false sentimentalism does not issue from quite a pure source. In the balance of true taste one cannot weigh more than the other, considering that both here and there is wanting that which forms the aesthetic value of a work of art, the intimate union of spirit with matter, and the twofold relation of the work with the faculty of perception as well as with the faculty of the ideal.

People have turned Siegwart and his convent story into ridicule, and yet the *Travels into the South of France* are admired; yet both works have an equal claim to be esteemed in certain respects, and as little to be unreservedly praised in others. A true, though excessive, sensuousness gives value to the former of these two romances; a lively and sportive humour, a fine wit, recommends the other: but one totally lacks all sobriety of mind that would befit it, the other lacks all aesthetic dignity. If you consult experience, one is rather ridiculous; if you think of the ideal, the other is almost contemptible. Now, as true beauty must of necessity accord both with nature and with the ideal, it is clear that neither the one nor the other of these two romances could pretend to pass for a fine work. And notwithstanding all this, it is natural, as I know it by my own experience, that the romance of Thümmel should be read with much pleasure. As a fact it only wounds those requirements which have their principle in the ideal, and which consequently do not exist for the greater part of readers; requirements that, even in persons of most delicate feeling, do not make themselves felt at the moments when we read romances. With regard to the other needs of the mind, and especially to those of the senses, this book on the other hand affords unusual satisfaction. Accordingly, it must be, and will be so, that this book will remain justly one of the favourite works of our age, and of all epochs when men only write aesthetic works to please, and people only read to get pleasure.

But does not poetical literature also offer, even in its classical monuments, some analogous examples of injuries inflicted or attempted against the ideal and its superior purity? Are there not some who, by the gross, sensuous nature of their subject, seem to depart strangely from the spiritualism I here demand of all works of art? If this is permitted to the poet, the chaste nurseling of the muses, ought it not to be conceded to

the novelist, who is only the half-brother of the poet, and who still touches by so many points? I can the less avoid this question because there are masterpieces, both in the elegiac and in the satirical kind, where the authors seek and preach up a nature quite different from that I am discussing in this Essay, and where they seem to defend it, not so much against bad, as against good, morals. The natural conclusion would be either that this sort of poem ought to be rejected, or that, in tracing here the idea of elegiac poetry, we have granted far too much to what is arbitrary.

The question I asked was whether what was permitted by the poet might not be tolerated in a prose narrator, too? The answer is contained in the question. What is allowed in the poet proves nothing about what must be allowed in one who is not a poet. This tolerancy in fact reposes on the very idea which we ought to make to ourselves of the poet, and only on this idea; what in his case is legitimate freedom is only a licence worthy of contempt as soon as it no longer takes its source in the ideal, in those high and noble inspirations which make the poet.

The laws of decency are strangers to innocent nature; the experience of corruption alone has given birth to them. But when once this experience has been made, and natural innocence has disappeared from manners, these laws are henceforth sacred laws that man, who has a moral sense, ought not to infringe upon. They reign in an artificial world with the same right that the laws of nature reign in the innocence of primitive ages. But by what characteristic is the poet recognized? Precisely by his silencing in his soul all that recalls an artificial world, and by causing nature herself to revive in him with her primitive simplicity. The moment he has done this, he is emancipated by this alone from all the laws by which a depraved heart secures itself against itself. He is pure, he is innocent, and all that is permitted to innocent nature is equally permitted to him. But you who read him or listen to him, if you have lost your innocence, and if you are incapable of finding it again, even for a moment, in a purifying contact with the poet, it is your own fault, and not his: why do not you leave him alone? It is not for you that he has sung!

Here follows, therefore, in what relates to these kinds of freedoms, the rules that we can lay down.

Let us remark in the first place that nature only can justify these licences; whence it follows that you could not legitimately take them up of your own choice, nor with a determination of imitating them; the will, in fact, ought always to be directed according to the laws of morality, and on its part all condescending to the sensuous is absolutely unpardonable. These licences must, therefore, above all, be simplicity. But how can

we be convinced that they are actually simple? We shall hold them to be so if we see them accompanied and supported by all the other circumstances which also have their spring of action in nature; for nature can only be recognized by the close and strict consistency, by the unity and uniformity, of its effects. It is only a soul that has on all occasions a horror of all kinds of artifice, and which consequently rejects them even where they would be useful–it is only that soul which we permit to be emancipated from them when the artificial conventionalities hamper and hinder it. A heart that submits to all the obligations of nature has alone the right to profit also by the liberties which it authorizes. All the other feelings of that heart ought consequently to bear the stamp of nature: it will be true, simple, free, frank, sensible, and straightforward; all disguise, all cunning, all arbitrary fancy, all egotistical pettiness will be banished from his character, and you will see no trace of them in his writings.

Second rule: beautiful nature alone can justify freedoms of this kind; whence it follows that they ought not to be a mere outbreak of the appetites; for all that proceeds exclusively from the wants of sensuous nature is contemptible. It is, therefore, from the totality and the fullness of human nature that these vivid manifestations must also issue. We must find humanity in them. But how can we judge that they proceed in fact from our whole nature, and not only from an exclusive and vulgar want of the sensuous nature? For this purpose it is necessary that we should see–that they should represent to us–this whole of which they form a particular feature. This disposition of the mind to experience the impressions of the sensuous is in itself an innocent and an indifferent thing. It does not sit well on a man only because of its being common to animals with him; it augurs in him the lack of true and perfect humanity. It only shocks us in the poem because such a work having the pretension to please us, the author consequently seems to think us capable, us also, of this moral infirmity. But when we see in the man who has let himself be drawn into it by surprise all the other characteristics that human nature in general embraces; when we find in the work where these liberties have been taken the expression of all the realities of human nature, this motive of discontent disappears, and we can enjoy, without anything changing our joy, this simple expression of a true and beautiful nature. Consequently, this same poet who ventures to allow himself to associate us with feelings so basely human, ought to know on the other hand how to raise us to all that is grand, beautiful, and sublime in our nature.

We should, therefore, have found there a measure to which we could subject the poet with confidence, when he trespasses on the ground of

decency, and when he does not fear to penetrate as far as that in order freely to paint nature. His work is common, base, absolutely inexcusable from the moment it is frigid, and from the moment it is empty, because that shows a prejudice, a vulgar necessity, an unhealthy appeal to our appetites. His work on the other hand is beautiful and noble, and we ought to applaud it without any consideration for all the objections of frigid decency, as soon as we recognize in it simplicity, the alliance of spiritual nature and of the heart.

Perhaps I shall be told that if we adopt this criterion, most of the recitals of this kind composed by the French, and the best imitations made of them in Germany, would not perhaps find their interest in it; and that it might be the same, at least in part with many of the productions of our most intellectual and amiable poet, without even excepting his masterpieces. I should have nothing to reply to this. The sentence after all is anything but new, and I am only justifying the judgment pronounced long since on this matter by all men of delicate perceptions. But these same principles which, applied to the works of which I have just spoken, seem perhaps in too strict a spirit, might also be found too indulgent when applied to some other works. I do not deny, in fact, that the same reasons which make me hold to be quite inexcusable the dangerous pictures drawn by the Roman Ovid and the German Ovid, those of Crébillon, of Voltaire, of Marmontel, who pretends to write moral tales!– of Lacroix, and of many others–that these same reasons, I say, reconcile me with the elegies of the Roman Propertius and of the German Propertius, and even with some of the decried productions of Diderot. This is because the former of these works are only witty, prosaic, and voluptuous, while the others are poetic, human, and simple.

IDYLL

It remains for me to say a few words about this third kind of sentimental poetry–some few words and no more, for I propose to speak of it at another time with the developments particularly demanded by the theme.

This kind of poetry generally presents the idea and description of an innocent and happy humanity. This innocence and bliss seeming remote from the artificial refinements of fashionable society, poets have removed the scene of the idyll from crowds of worldly life to the simple shepherd's cot, and have given it a place in the infancy of humanity before the beginning of culture. These limitations are evidently accidental; they do

not form the object of the idyll, but are only to be regarded as the most natural means to attain this end. The end is everywhere to portray man in a state of innocence, which means a state of harmony and peace with himself and the external world.

But a state such as this is not merely met with before the dawn of civilization; it is also the state to which civilization aspires, as to its last end, if only it obeys a determined tendency in its progress. The idea of a similar state, and the belief of the possible reality of this state, is the only thing that can reconcile man with all the evils to which he is exposed in the path of civilization; and if this idea were only a chimera, the complaints of those who accuse civil life and the culture of the intelligence as an evil for which there is no compensation, and who represent this primitive state of nature that we have renounced as the real end of humanity—their complaints, I say, would have a perfectly just foundation. It is, therefore, of infinite importance for the man engaged in the path of civilization to see confirmed in a sensuous manner the belief that this idea can be accomplished in the world of sense, that this state of innocence can be realized in it; and as real experience, far from keeping up this belief, is rather made incessantly to contradict it, poetry comes here, as in many other cases, in aid of reason, to cause this idea to pass into the condition of an intuitive idea, and to realize it in a particular fact. No doubt this innocence of pastoral life is also a poetic idea, and the imagination must already have shown its creative power in that. But the problem, with this datum, becomes infinitely simpler and easier to solve; and we must not forget that the elements of these pictures already existed in real life, and that it was only requisite to gather up the separate traits to form a whole. Under a fine sky, in a primitive society, when all the relations are still simple, when science is limited to so little, nature is easily satisfied, and man turns to savagery only when he is tortured by want. All nations that have a history have a paradise, an age of innocence, a golden age. Nay, more than this, every man has his paradise, his golden age, which he remembers with more or less enthusiasm, according as he is more or less poetical. Thus experience itself furnishes sufficient traits to this picture which the pastoral idyll executes. But this does not prevent the pastoral idyll from remaining always a beautiful and an encouraging fiction; and poetic genius, in retracing these pictures, has really worked in favour of the ideal. For, to the man who has once departed from simple nature, and who has been abandoned to the dangerous guidance of his reason, it is of the greatest importance to find the laws of nature expressed in a faithful copy, to see their image in

a clear mirror, and to reject all the stains of artificial life. There is, however, a circumstance which remarkably lessens the aesthetic value of these sorts of poetry. By the very fact that the idyll is transported to the time that precedes civilization, it also loses the advantages thereof; and by its nature finds itself in opposition to itself. Thus, in a theoretical sense, it takes us back at the same time that in a practical sense it leads us on and ennobles us. Unhappily it places behind us the end towards which it ought to lead us, and consequently it can only inspire us with the sad feeling of a loss, and not the joyous feeling of a hope. As these poems can only attain their end by dispensing with all art, and by simplifying human nature, they have the highest value for the heart, but they are also far too poor for what concerns the mind, and their uniform circle is too quickly traversed. Accordingly, we can only seek them and love them in moments in which we need calm, and not when our faculties aspire after movement and exercise. A morbid mind will find its cure in them, a sound soul will not find its food in them. They cannot vivify, they can only soften. This defect, grounded in the essence of the pastoral idyll, has not been remedied by the whole art of poets. I know that this kind of poem is not without admirers, and that there are readers enough who prefer an Amyntus and a Daphnis to the most splendid masterpieces of the epic or the dramatic muse; but in them it is less the aesthetical taste than the feeling of an individual want that pronounces on works of art; and their judgment, by that very fact, could not be taken into consideration here. The reader who judges with his mind, and whose heart is sensuous, without being blind to the merit of these poems, will confess that he is rarely affected by them, and that they tire him most quickly. But they act with so much the more effect in the exact moment of need. But must the truly beautiful be reduced to await our hours of need? And is it not rather its office to awaken in our soul the want that it is going to satisfy?

The reproaches I here level against the bucolic idyll cannot be understood of the sentimental. The simple pastoral, in fact, cannot be deprived of aesthetic value, since this value is already found in the mere form. To explain myself: every kind of poetry is bound to possess an infinite ideal value, which alone constitutes it a true poetry; but it can satisfy this condition in two different ways. It can give us the feeling of the infinite as to form, by representing the object altogether limited and individualizing it; it can awaken in us the feeling of the infinite as to matter, in freeing its object from all limits in which it is enclosed, by idealizing this object; therefore it can have an ideal value either by an absolute representation

or by the representation of an absolute. Simple poetry takes the former road, the other is that of sentimental poetry. Accordingly, the simple poet is not exposed to failure in value so long as he keeps faithfully to nature, which is always completely circumscribed, that is, is infinite as regards form. The sentimental poet, on the contrary, by that very fact, that nature only offers him completely circumscribed objects, finds in it an obstruction when he wishes to give an absolute value to a particular object. Thus the sentimental poet understands his interests badly when he goes along the trail of the simple poet, and borrows his objects from him—objects which by themselves are perfectly indifferent, and which only become poetical by the way in which they are treated. By this he imposes on himself without any necessity the same limits that confine the field on the simple poet, without, however, being able to carry out the limitation properly, or to vie with his rival in absolute definiteness of representation. He ought rather, therefore, to depart from the simple poet, just in the choice of subject; because the latter having the advantage of him on the score of form, it is only by the nature of the objects that he can resume the upper hand.

Applying this to the pastoral idylls of the sentimental poet, we see why these poems, whatever amount of art and genius be displayed in them, do not fully satisfy the heart or the mind. An ideal is proposed in it, and, at the same time, the writer keeps to this narrow and poor medium of pastoral life. Would it not have been better, on the contrary, to choose for the ideal another frame, or for the pastoral world another kind of picture? These pictures are just ideal enough for painting to lose its individual truth in them, and, again, just individual enough for the ideal in them to suffer therefrom. For example, a shepherd of Gessner can neither charm by the illusion of nature nor by the beauty of imitation; he is too ideal a being for that, but he does not satisfy us any more as an ideal by the infinity of the thought; he is a far too limited creature to give us this satisfaction. He will, therefore, please up to a certain point all classes of readers, without exception, because he seeks to unite the simple with the sentimental, and he thus gives a commencement of satisfaction to the two opposite exigencies that may be brought to bear on any particular part of a poem; but the author, in trying to unite the two points, does not fully satisfy either one or the other exigency, as you do not find in him either pure nature or the pure ideal; he cannot rank himself as entirely up to the mark of a stringent critical taste, for taste does not accept anything equivocal or incomplete in aesthetical matters. It is a strange thing that, in the poet whom I have named, this equivocal character extends to the

language, which floats undecided between poetry and prose, as if he feared either to depart too far from nature by speaking rhythmical language, or if he completely freed himself from rhythm, to lose all poetic flight. Milton gives a higher satisfaction to the mind, in the magnificent picture of the first human pair, and of the state of innocence in paradise–the most beautiful idyll I know of the sentimental kind. Here nature is noble, inspired, simple, full of breadth, and, at the same time, of depth; it is humanity in its highest moral value, clothed in the most graceful form.

Thus, even in respect to the idyll, as well as to all kinds of poetry, we must once for all declare either for individuality or ideality; for to aspire to give satisfaction to both exigencies is the surest means, unless you have reached the terminus of perfection, to miss both ends. If the modern poet thinks he feels enough of the Greeks' mind to vie with them, notwithstanding all the indocility of his matter, on their own ground, namely that of simple poetry, let him do it exclusively, and place himself apart from all the requirements of the sentimental taste of his age. No doubt it is very doubtful if he come up to his models; between the original and the happiest imitation there will always remain a notable distance; but, by taking this road, he is at all events secure of producing a really poetic work. If, on the other hand, he feels himself carried to the ideal by the instinct of sentimental poetry, let him decide to pursue this end fully; let him seek the ideal in its purity, and let him not pause till he has reached the highest regions without looking behind him to know if the real follows him, and does not leave him by the way. Let him not lower himself to this wretched expedient of spoiling the ideal to accommodate himself to the wants of human weakness, and to turn out mind in order to play more easily with the heart. Let him not take us back to our infancy, to make us buy, at the cost of the most precious acquisitions of the understanding, a repose that can only last as long as the slumber of our spiritual faculties; but let him lead us on to emancipation, and give us this feeling of higher harmony which compensates for all his troubles and secures the happiness of the victor! Let him prepare as his task an idyll that realizes the pastoral innocence, even in the children of civilization, and in all the conditions of the most militant and excited life; of thought enlarged by culture; of the most refined art; of the most delicate social conventionalities–an idyll, in short, that is made, not to bring back man to Arcadia, but to lead him to Elysium.

This idyll, as I conceive it, is the idea of humanity definitely reconciled with itself, in the individual as well as in the whole of society; it is union

freely re-established between inclination and duty; it is nature purified, raised to its highest moral dignity; in short, it is no less than the ideal of beauty applied to real life. Thus, the character of this idyll is to reconcile perfectly all the contradictions between the real and the ideal, which formed the matter of satirical and elegiac poetry, and, setting aside their contradictions, to put an end to all conflict between the feelings of the soul. Thus, the dominant expression of this kind of poetry would be calm; but the calm that follows the accomplishment, and not that of indolence—the calm that comes from the equilibrium re-established between the faculties, and not from the suspending of their exercise; from the fullness of our strength, and not from our infirmity; the calm, in short, which is accompanied in the soul by the feeling of an infinite power. But precisely because idyll thus conceived removes all idea of struggle, it will be infinitely more difficult than it was in two previously named kinds of poetry to express movement; yet this is an indispensable condition, without which poetry can never act on men's souls. The most perfect unity is required, but unity ought not to wrong variety; the heart must be satisfied, but without the inspiration ceasing on that account. The solution of this problem is properly what ought to be given us by the theory of the idyll.

Now what are the relations of the two poetries to one another, and their relations to the poetic ideal? Here are the principles we have established.

Nature has granted this favour to the simple poet, to act always as an indivisible unity, to be at all times identical and perfect, and to represent, in the real world, humanity at its highest value. In opposition, it has given a powerful faculty to the sentimental poet, or, rather, it has imprinted an ardent feeling on him: this is to replace out of himself this first unity that abstraction has destroyed in him, to complete humanity in his person, and to pass from a limited state to an infinite state. They both propose to represent human nature fully, or they would not be poets; but the simple poet has always the advantage of sensuous reality over the sentimental poet, by setting forth as a real fact what the other aspires only to reach. Every one experiences this in the pleasure he takes in simple poetry. We there feel that the human faculties are brought into play; no vacuum is felt; we have the feeling of unity, without distinguishing anything of what we experience; we enjoy both our spiritual activity and also the fullness of physical life. Very different is the disposition of mind elicited by the sentimental poet. Here we feel only a vivid aspiration to produce in us this harmony of which we had in the other case the consciousness and reality; to make of ourselves a single and same totality; to realize in our-

selves the idea of humanity as a complete expression. Hence it comes that the mind is here all in movement, stretched, hesitating between contrary feelings; whereas it was before calm and at rest, in harmony with itself, and fully satisfied.

But if the simple poet has the advantage over the sentimental poet on the score of reality; if he causes really to live that of which the other can only elicit a vivid instinct, the sentimental poet, in compensation, has this great advantage over the simple poet: to be in a position to offer to this instinct a greater object than that given by his rival, and the only one he could give. All reality, we know, is below the ideal; all that exists has limits, but thought is infinite. This limitation, to which everything is subject in sensuous reality, is, therefore, a disadvantage for the simple poet, while the absolute, unconditional freedom of the ideal profits the sentimental poet. No doubt, the former accomplishes his object, but this object is limited; the second, I admit, does not entirely accomplish his, but his object is infinite. Here I appeal to experience. We pass pleasantly to real life and things from the frame of mind in which the simple poet has placed us. On the other hand, the sentimental poet will always disgust us, for a time, with real life. This is because the infinite character has, in a manner, enlarged our mind beyond its natural measure, so that nothing it finds in the world of sense can fill its capacity. We prefer to fall back in contemplation on ourselves, where we find food for this awakened impulse towards the ideal world; while, in the simple poet, we only strive to issue out of ourselves, in search of sensuous objects. Sentimental poetry is the offspring of retirement and science, and invites to it; simple poetry is inspired by the spectacle of life, and brings back life.

I have styled simple poetry a gift of nature, to show that thought has no share in it. It is a first jet, a happy inspiration, that needs no correction, when it turns out well, and which cannot be rectified if ill turned out. The entire work of the simple genius is accomplished by feeling; in that is its strength, and in it are its limits. If, then, he has not felt at once in poetic manner—that is, in a perfectly human manner—no art in the world can remedy this defect. Criticism may help him to see the defect, but can place no beauty in its stead. Simple genius must draw all from nature; it can do nothing, or almost nothing, by its will; and it will fulfil the idea of this kind of poetry provided nature acts in it by an inner necessity. Now, it is true that all which happens by nature is necessary, and all the productions, happy or not, of the simple genius, which is disassociated from nothing so much as from arbitrary will, are also imprinted with this character of necessity; momentary constraint is one thing, and the internal

necessity dependent on the totality of things, another. Considered as a whole, nature is independent and infinite; in isolated operations it is poor and limited. The same distinction holds good in respect to the nature of the poet. The very moment when he is most happily inspired depends on a preceding instant, and consequently only a conditional necessity can be attributed to him. But now the problem that the poet ought to solve is to make an individual state similar to the human whole, and consequently to base it in an absolute and necessary manner on itself. It is therefore necessary that at the moment of inspiration every trace of a temporal need should be banished, and that the object itself, however limited, should not limit the flight of the poet. But it may be conceived that this is only possible in so far as the poet brings to the object an absolute freedom, an absolute fullness of faculties, and in so far as he is prepared by an anterior exercise to embrace all things with all his humanity. Now he cannot acquire this exercise except by the world in which he lives, and of which he receives the impressions immediately. Thus simple genius is in a state of dependence with regard to experience, while the sentimental genius is forced from it. We know that the sentimental genius begins its operation at the place where the other finishes its own; its virtue is to complete by the elements which it derives from itself a defective object, and to transport itself by its own strength from a limited state to one of absolute freedom. Thus the simple poet needs a help from without, while the sentimental poet feeds his genius from his own fund, and purifies himself by himself. The former requires a picturesque nature, a poetical world, a simple humanity which casts its eyes around; for he ought to do his work without issuing from the sensuous sphere. If external aid fails him, if he be surrounded by matter not speaking to mind, one of two things will happen: either, if the general character of the poet-race is what prevails in him, he issues from the particular class to which he belongs as a poet, and becomes sentimental to be at any rate poetic; or, if his particular character as simple poet has the upper hand, he leaves his species, and becomes a common nature, in order to remain at any rate natural. The former of these two alternatives might represent the case of the principal poets of the sentimental kind in Roman antiquity and in modern times. Born at another period of the world, transplanted under another sky, these poets who stir us now by ideas, would have charmed us by individual truth and simple beauty. The other alternative is the almost unavoidable quicksand for a poet who, thrown into a vulgar world, cannot resolve to lose sight of nature.

I mean, to lose sight of actual nature; but the greatest care must be

given to distinguish actual nature from true nature, which is the subject of simple poetry. Actual nature exists everywhere; but true nature is so much the more rare because it requires an internal necessity that determines its existence. Every eruption of passion, however vulgar, is real—it may be even true nature; but it is not true human nature, for true human nature requires that the self-directing faculty in us should have a share in the manifestation, and the expression of this faculty is always dignified. All moral baseness is an actual human phenomenon, but I hope not real human nature, which is always noble. All the faults of taste cannot be surveyed that have been occasioned in criticism or the practice of art by this confusion between actual human nature and true human nature. The greatest trivialities are tolerated and applauded under the pretext that they are real nature. Caricatures not to be tolerated in the real world are carefully preserved in the poetic world and reproduced according to nature! The poet can certainly imitate a lower nature, and it enters into the very definition of a satirical poet; but then a beauty by its own nature must sustain and raise the object, and the vulgarity of the subject must not lower the imitator too much. If at the moment he paints he is true human nature himself, the object of his paintings is indifferent; but it is only on this condition we can tolerate a faithful reproduction of reality. Unhappy for us readers when the rod of satire falls into hands that nature meant to handle another instrument, and when, devoid of all poetic talent, with nothing but the ape's mimicry, they exercise it brutally at the expense of our taste!

But vulgar nature has even its dangers for the simple poet; for the simple poet is formed by this fine harmony of the feeling and thinking faculty, which yet is only an idea, never actually realized. Even in the happiest geniuses of this class, receptivity will always more or less carry the day over spontaneous activity. But receptivity is always more or less subordinate to external impressions, and nothing but a perpetual activity of the creative faculty could prevent matter from exercising a blind violence over this quality. Now every time this happens the feeling becomes vulgar instead of poetical.

No genius of the simple class, from Homer down to Bodmer, has entirely steered clear of this quicksand. It is evident that it is most perilous to those who have to struggle against external vulgarity, or who have parted with their refinement owing to a want of proper restraint. The first-named difficulty is the reason why even authors of high cultivation are not always emancipated from platitudes—a fact which has prevented many splendid talents from occupying the place to which they

were summoned by nature. For this reason, a comic poet whose genius has chiefly to deal with scenes of real life is more liable to the danger of acquiring vulgar habits of style and expression–a fact evidenced in the case of Aristophanes, Plautus, and all the poets who have followed in their track. Even Shakespeare, with all his sublimity, suffers us to fall very low now and then. Again, Lope de Vega, Molière, Regnard, Goldoni worry us with frequent trifling. Holberg drags us down into the mire. Schlegel, a German poet among the most remarkable for intellectual talent, with genius to raise him to a place among poets of the first order; Gellert, a truly simple poet; Rabener; and Lessing himself, if I am warranted to introduce his name in this category–this highly cultivated scholar of criticism and vigilant examiner of his own genius–all these suffer in different degrees from the platitudes and uninspired movements of the natures they chose as the theme of their satire. With regard to more recent authors of this class, I avoid naming any of them, as I can make no exceptions in their case.

But not only is simple genius exposed to the danger of coming too near to vulgar reality; the ease of expression, even this too close approximation to reality, encourages vulgar imitators to try their hand in poetry. Sentimental poetry, though offering danger enough, has this advantage, to keep this crowd at a distance, for it is not for the first comer to rise to the ideal; but simple poetry makes them believe that, with feeling and humour, you need only imitate real nature to claim the title of poet. Now nothing is more revolting than platitude when it tries to be simple and amiable, instead of hiding its repulsive nature under the veil of art. This occasions the incredible trivialities loved by the Germans under the name of simple and facetious songs, and which give them endless amusement round a well-garnished table. Under the pretext of good humour and of sentiment people tolerate these poverties; but this good humour and this sentiment ought to be carefully proscribed. The muses of the Pleisse, in particular, are singularly pitiful; and other muses respond to them, from the banks of the Seine and the Elbe. If these pleasantries are flat, the passion heard on our tragic stage is equally pitiful, for, instead of imitating true nature, it is only an insipid and ignoble expression of the actual. Thus, after shedding torrents of tears, you feel as you would after visiting a hospital or reading the "Human Misery" of Saltzmann. But the evil is worse in satirical poetry and comic romance, kinds which touch closely on every-day life, and which consequently, as all frontier posts, ought to be in safer hands. In truth, he less than any other is called on to become the painter of his century, who is himself the child and caricature of his

century. But as, after all, nothing is easier than to take in hand, among our acquaintances, a comic character—a big, fat man—and draw a coarse likeness of him on paper, the sworn enemies of poetic inspiration are often led to blot some paper in this way to amuse a circle of friends. It is true that a pure heart, a well-made mind, will never confound these vulgar productions with the inspirations of simple genius. But purity of feeling is the very thing that is wanting, and in most cases nothing is thought of but satisfying a want of sense, without spiritual nature having any share. A fundamentally just idea, ill understood, that works of *bel-esprit* serve to recreate the mind contributes to keep up this indulgence, if indulgence it may be called when nothing higher occupies the mind, and reader as well as writer find their chief interest therein. This is because vulgar natures, if overstrained, can only be refreshed by vacuity; and even a higher intelligence, when not sustained by a proportional culture, can only rest from its work amidst sensuous enjoyments, from which spiritual nature is absent.

Poetic genius ought to have strength enough to rise with a free and innate activity above all the accidental hindrances which are inseparable from every confined condition, to arrive at a representation of humanity in the absolute plenitude of its powers; it is not, however, permitted, on the other hand, to emancipate itself from the necessary limits implied by the very idea of human nature; for the absolute only in the circle of humanity is its true problem. Simple genius is not exposed to overstep this sphere, but rather not to fill it entirely, giving too much scope to external necessity, to accidental wants, at the expense of the inner necessity. The danger for the sentimental genius is, on the other hand, by trying to remove all limits, of nullifying human nature absolutely, and not only rising, as is its right and duty, beyond finite and determinate reality, as far as absolute possibility, or in other terms to idealize; but of passing even beyond possibility, or, in other words, dreaming. This fault—overstraining—is precisely dependent on the specific property of the sentimental process, as the opposite defect, inertia, depends on the peculiar operation of the simple genius. The simple genius lets nature dominate, without restricting it; and as nature in her particular phenomena is always subject to some want, it follows that the simple sentiment will not be always exalted enough to resist the accidental limitations of the present hour. The sentimental genius, on the contrary, leaves aside the real world, to rise to the ideal and to command its matter with free spontaneity. But while reason, according to law, aspires always to the unconditional, so the sentimental genius will not always remain calm enough to restrain

itself uniformly and without interruption within the conditions implied by the idea of human nature, and to which reason must always, even in its freest acts, remain attached. He could only confine himself in these conditions by help of a receptivity proportioned to his free activity; but most commonly this activity predominates over receptivity in the sentimental poet, as much as receptivity over activity in the simple poet. Hence, in the productions of simple genius, if sometimes inspiration is wanting, so also in works of sentimental poetry the object is often missed. Thus, though they proceed in opposite ways, they will both fall into a vacuum, for before the aesthetic judgment an object without inspiration, and inspiration without an object, are both negations.

The poets who borrow their matter too much from thought, and rather conceive poetic pictures by the internal abundance of ideas than by the suggestions of feeling, are more or less likely to be addicted to go thus astray. In their creations reason makes too little of the limits of the sensuous world, and thought is always carried too far for experience to follow it. Now, when the idea is carried so far that not only no experience corresponds to it—as is the case in the beau ideal—but also that it is repugnant to the conditions of all possible experience, so that, in order to realize it, one must leave human nature altogether, it is no longer a poetic but an exaggerated thought; that is, supposing it claims to be representable and poetical, for otherwise it is enough if it is not self-contradictory. If thought is contradictory it is not exaggeration, but nonsense; for what does not exist cannot exceed. But when the thought is not an object proposed to the fancy, we are just as little justified in calling it exaggerated. For simple thought is infinite, and what is limitless also cannot exceed. Exaggeration, therefore, is only that which wounds, not logical truth, but sensuous truth, and what pretends to be sensuous truth. Consequently, if a poet has the unhappy chance to choose for his picture certain natures that are merely superhuman and cannot possibly be represented, he can only avoid exaggeration by ceasing to be a poet, and not trusting the theme to his imagination. Otherwise one of two things would happen: either imagination, applying its limits to the object, would make a limited and merely human object of an absolute object—which happened with the gods of Greece—or the object would take away limits from fancy, that is, would render it null and void; and this is precisely exaggeration.

Extravagance of feeling should be distinguished from extravagance of portraiture: we are speaking of the former. The object of the feeling may be unnatural, but the feeling itself is natural, and ought accordingly to be

shadowed forth in the language of nature. While extravagant feelings may issue from a warm heart and a really poetic nature, extravagance of portraiture always displays a cold heart, and very often a want of poetic capacity. Therefore this is not a danger for the sentimental poet, but only for the imitator, who has no vocation; it is therefore often found with platitude, insipidity, and even baseness. Exaggeration of sentiment is not without truth, and must have a real object; as nature inspires it, it admits of simplicity of expression, and coming from the heart, it goes to the heart. As its object, however, is not in nature, but artificially produced by the understanding, it has only a logical reality, and the feeling is not purely human. It was not an illusion that Héloïse had for Abélard, Petrarch for Laura, Saint Preux for his Julia, Werther for his Charlotte; Agathon, Phanias, and Peregrinus–in Wieland–for the object of their dreams: the feeling is true, only the object is factitious and outside nature. If their thought had kept to simple sensuous truth, it could not have taken this flight; but on the other hand a mere play of fancy, without inner value, could not have stirred the heart: this is only stirred by reason. Thus this sort of exaggeration must be called to order, but it is not contemptible; and those who ridicule it would do well to find out if the wisdom on which they pride themselves is not want of heart, and if it is not through want of reason that they are so acute. The exaggerated delicacy in gallantry and honour which characterizes the chivalrous romances, especially of Spain, is of this kind; also the refined and even ridiculous tenderness of French and English sentimental romances of the best kind. These sentiments are not only subjectively true, but also objectively they are not without value; they are sound sentiments issuing from a moral source, only reprehensible as overstepping the limits of human truth. Without this moral reality how could they stir and touch so powerfully? The same remark applies to moral and religious fanaticism, patriotism, and the love of freedom when carried up to exaltation. As the object of these sentiments is always a pure idea, and not an external experience, imagination with its proper activity has here a dangerous liberty, and cannot, as elsewhere, be called back to bounds by the presence of a visible object. But neither the man nor the poet can withdraw from the law of nature, except to submit to that of reason. He can only abandon reality for the ideal; for liberty must hold to one or the other of these anchors. But it is far from the real to the ideal; and between the two is found fancy, with its arbitrary conceits and its unbridled freedom. It must needs be, therefore, that man in general, and the poet in particular, when he withdraws by liberty of his understanding from the dominion of feeling, without being

moved to it by the laws of reason–that is, when he abandons nature through pure liberty–he finds himself freed from all law, and therefore a prey to the illusions of fantasy.

It is testified by experience that entire nations, as well as individual men, who have parted with the safe direction of nature, are actually in this condition; and poets have gone astray in the same manner. The true genius of sentimental poetry, if its aim is to raise itself to the rank of the ideal, must overstep the limits of the existing nature; but false genius oversteps all boundaries without any discrimination, flattering itself with the belief that the wild sport of the imagination is poetic inspiration. A true poetical genius can never fall into this error, because it only abandons the real for the sake of the ideal, or at all events, it can only do so at certain moments when the poet forgets himself; but his main tendencies may dispose him to extravagance within the sphere of the senses. His example may also drive others into a chase of wild conceptions, because readers of lively fancy and weak understanding only remark the freedom which he takes with existing nature, and are unable to follow him in copying the elevated necessities of his inner being. The same difficulties beset the path of the sentimental genius in this respect, as those which afflict the career of a genius of the simple order. If a genius of this class carries out every work, obedient to the free and spontaneous impulses of his nature, the man devoid of genius who seeks to imitate him is not willing to consider his own nature a worse guide than that of the great poet. This accounts for the fact that masterpieces of simple poetry are commonly followed by a host of stale and unprofitable works in print, and masterpieces of the sentimental class by wild and fanciful effusions–a fact that may be easily verified on questioning the history of literature.

Two maxims are prevalent in relation to poetry, both of them quite correct in themselves, but mutually destructive in the way in which they are generally conceived. The first is that "poetry serves as a means of amusement and recreation," and we have previously observed that this maxim is highly favourable to aridity and platitudes in poetical fictions. The other maxim, that "poetry is conducive to the moral progress of humanity," takes under its shelter theories and views of the most wild and extravagant character. It may be profitable to examine more attentively these two maxims, of which so much is heard, and which are so often imperfectly understood and falsely applied.

We say that a thing amuses us when it makes us pass from a forced state to the state that is natural to us. The whole question here is to know in what our natural state ought to consist, and what a forced state means.

If our natural state is made to consist merely in the free development of all our physical powers, in emancipation from all constraint, it follows that every act of reason by resisting what is sensuous is a violence we undergo, and rest of mind combined with physical movement will be a recreation par excellence. But if we make our natural state consist in a limitless power of human expression and of freely disposing of all our strength, all that divides these forces will be a forced state, and recreation will be what brings all our nature to harmony. Thus, the first of these ideal recreations is simply determined by the wants of our sensuous nature; the second, by the autonomous activity of human nature. Which of these two kinds of recreation can be demanded of the poet? Theoretically, the question is inadmissible, as no one would put the human ideal beneath the brutal. But in practice the requirements of a poet have been especially directed to the sensuous ideal, and for the most part favour, though not the esteem, for these sorts of works is regulated thereby. Men's minds are mostly engaged in a labour that exhausts them, or an enjoyment that sets them asleep. Now labour makes rest a sensible want, much more imperious than that of the moral nature; for physical nature must be satisfied before the mind can show its requirements. On the other hand, enjoyment paralyses the moral instinct. Hence these two dispositions common in men are very injurious to the feeling for true beauty, and thus very few even of the best judge soundly in aesthetics. Beauty results from the harmony between spirit and sense; it addresses all the faculties of man, and can only be appreciated if a man employs fully all his strength. He must bring to it an open sense, a broad heart, a spirit full of freshness. All a man's nature must be on the alert, and this is not the case with those divided by abstraction, narrowed by formulas, enervated by application. They demand, no doubt, a material for the senses, but not to quicken, only to suspend, thought. They ask to be freed from what? From a load that oppressed their indolence, and not a rein that curbed their activity.

After this can one wonder at the success of mediocre talents in aesthetics? Or at the bitter anger of small minds against true energetic beauty? They reckon on finding therein a congenial recreation, and regret to discover that a display of strength is required to which they are unequal. With mediocrity they are always welcome; however little mind they bring, they want still less to exhaust the author's inspiration. They are relieved of the load of thought; and their nature can lull itself in beatific nothings on the soft pillow of platitude. In the temple of Thalia and Melpomene—at least, so it is with us—the stupid savant and the ex-

hausted man of business are received on the broad bosom of the goddess, where their intelligence is wrapt in a magnetic sleep, while their sluggish senses are warmed, and their imagination with gentle motions rocked.

Vulgar people may be excused what happens to the best capacities. Those moments of repose demanded by nature after lengthy labour are not favourable to aesthetic judgment, and hence in the busy classes few can pronounce safely on matters of taste. Nothing is more common than for scholars to make a ridiculous figure, in regard to a question of beauty, beside cultured men of the world; and technical critics are especially the laughing-stock of connoisseurs. Their opinion, from exaggeration, crudeness, or carelessness guides them generally quite awry, and they can only devise a technical judgment, and not an aesthetical one, embracing the whole work, in which feeling should decide. If they would kindly keep to technicalities, they might still be useful, for the poet in moments of inspiration and readers under his spell are little inclined to consider details. But the spectacle which they afford us is only the more ridiculous inasmuch as we see these crude natures—with whom all labour and trouble only develop at the most a particular aptitude—when we see them set up their paltry individualities as the representation of universal and complete feeling, and in the sweat of their brow pronounce judgment on beauty.

We have just seen that the kind of recreation poetry ought to afford is generally conceived in too restricted a manner, and only referred to a simple sensuous want. Too much scope, however, is also given to the other idea, the moral ennobling the poet should have in view inasmuch as too purely an ideal aim is assigned.

In fact, according to the pure ideal, the ennobling goes on to infinity, because reason is not restricted to any sensuous limits, and only finds rest in absolute perfection. Nothing can satisfy while a superior thing can be conceived; it judges strictly and admits no excuses of infirmity and finite nature. It only admits for limits those of thought, which transcends time and space. Hence the poet could no more propose to himself such an ideal of ennobling (traced for him by pure [didactic] reason) any more than the coarse ideal of recreation of sensuous nature. The aim is to free human nature from accidental hindrances, without destroying the essential idea of our humanity, or displacing its limits. All beyond this is exaggeration, and a quicksand in which the poet too easily suffers shipwreck if he mistakes the idea of nobleness. But, unfortunately, he cannot rise to the true ideal of ennobled human nature without going some steps beyond it. To rise so high he must abandon the world of reality, for, like

every ideal, it is only to be drawn from its inner moral source. He does not find it in the turmoil of worldly life, but only in his heart, and that only in calm meditation. But in this separation from real life he is likely to lose sight of all the limits of human nature, and seeking pure form he may easily lose himself in arbitrary and baseless conceptions. Reason will abstract itself too much from experience, and the practical man will not be able to carry out, in the crush of real life, what the contemplative mind has discovered on the peaceful path of thought. Thus, what makes a dreamy man is the very thing that alone could have made him a sage; and the advantage for the latter is not that he has never been a dreamer, but rather that he has not remained one.

We must not, then, allow the workers to determine recreation according to their wants, nor thinkers that of nobleness according to their speculations, for fear of either a too low physical poetry, or a poetry too given to hyperphysical exaggeration. And as these two ideas direct most men's judgments on poetry, we must seek a class of mind at once active, but not slavishly so, and idealizing, but not dreamy; uniting the reality of life within as few limits as possible, obeying the current of human affairs, but not enslaved by them. Such a class of men can alone preserve the beautiful unity of human nature, that harmony which all work for a moment disturbs, and a life of work destroys; such alone can, in all that is purely human, give by its feelings universal rules of judgment. Whether such a class exists, or whether the class now existing in like conditions answers to this ideal conception, I am not concerned to inquire. If it does not respond to the ideal it has only itself to blame. In such a class–here regarded as a mere ideal–the simple and sentimental would keep each other from extremes of extravagance and relaxation. For the idea of a beautiful humanity is not exhausted by either, but can only be presented in the union of both.

"*On Simple and Sentimental Poetry*"
is from a collection of Schiller's essays
entitled ESSAYS AESTHETICAL AND PHILOSOPHICAL.

Percy Bysshe Shelley

1792–1822

Percy Bysshe Shelley was born at Field Place in Sussex, England, on August 4, 1792. His father was a lawyer and member of Parliament. Shelley entered Eton at the age of twelve. His classmates called him "mad Shelley" because of his outspoken atheism. He went to Oxford in 1810 but was expelled at the end of five months for writing a pamphlet that attacked religion.

In 1811 Shelley eloped with Harriet Westbrook, a girl of sixteen. The couple separated in 1815, and the following year Harriet killed herself. After her death Shelley married Mary Wollstonecraft Godwin, the daughter of William Godwin, an essayist and political philosopher.

In 1818 the Shelleys left England for Italy, where the poet lived for the rest of his life. He had already published three long poems: *Queen Mab*, *Alastor*, and *The Revolt of Islam*.

In the remaining few years of his life, Shelley traveled in Italy. He visited with friends, especially Byron, and continued to write poetry, the subject matter and approach of which were in the Romantic vein of his time. His most famous long poem was *Adonais*, an elegy on the death of Keats.

Shelley thought of himself primarily as a reformer, a champion of beauty who would purify life of evil and ugliness. Matthew Arnold

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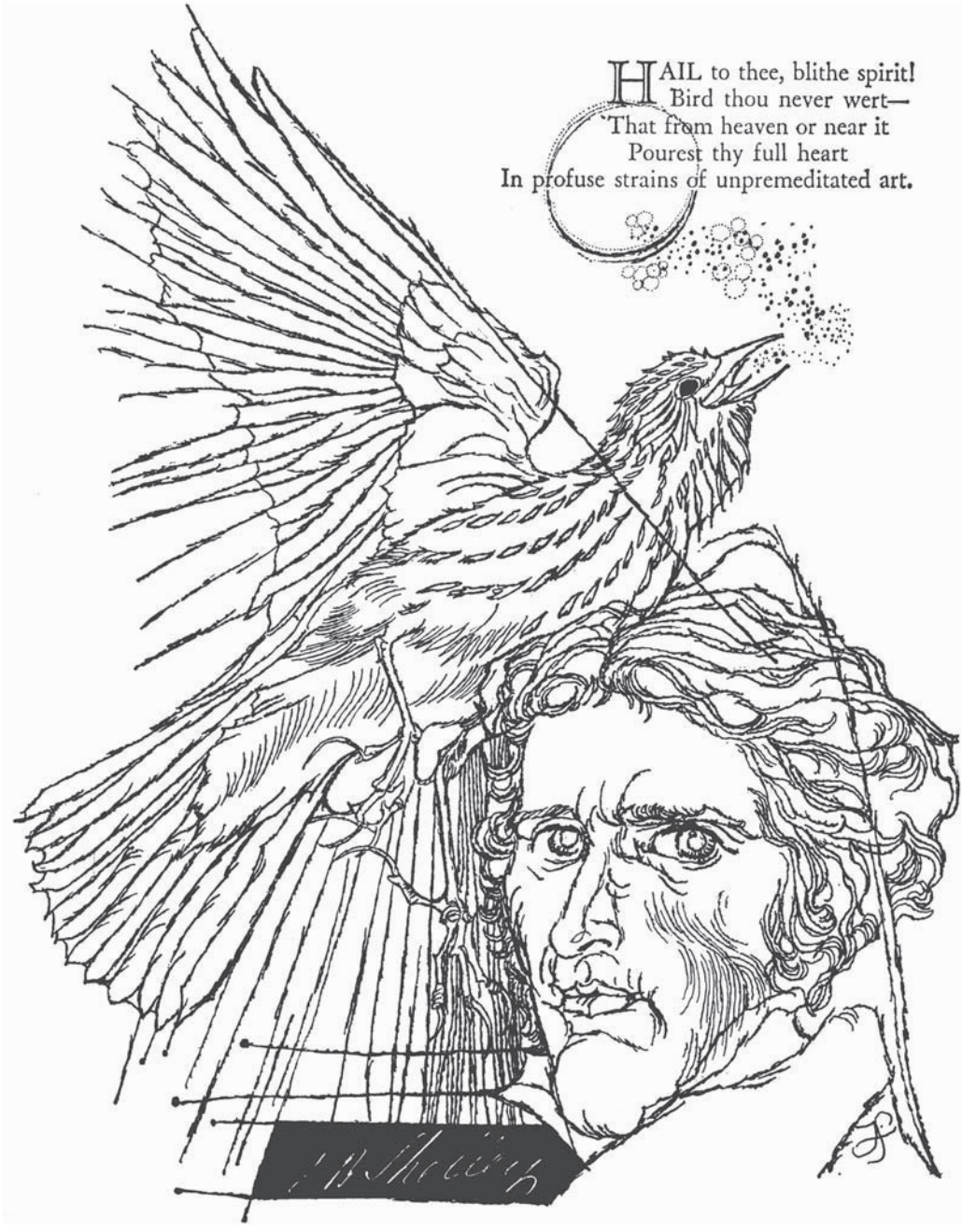
Notes from the artist: "Shelley and the 'Skylark' drawn to suggest that both the man and the bird, though housed in fragile bodies, possessed great strength and power."


HAIL to thee, blithe spirit!
Bird thou never wert—
That from heaven or near it
Pourest thy full heart
In profuse strains of unpremeditated art.

characterized Shelley's Romanticism by describing him as "a beautiful and ineffectual angel, beating in the void his luminous wings in vain."

The poet's success as a reformer may be questionable, but some of his lyric poems, such as *To a Skylark*, *Ode to the West Wind*, and *The Cloud*, are ranked with the greatest in English.

Shelley was drowned on July 8, 1822, while sailing with a friend off Leghorn, Italy. His body was recovered and cremated on the beach.

When Shelley set out to defend poetry he did a thorough job of it. In *A Defence of Poetry*, he attempts to prove that poets are philosophers; that they are the creators and protectors of moral and civil laws; and that if it were not for poets, scientists could not have developed either their theories or their inventions.

How is it possible to make such extravagant claims for poetry, which, for many people, is at worst useless and trivial, and at best an impractical delight?

Shelley starts by drawing a distinction between "reason" and "imagination." Imagination, he says, is "the principle of synthesis," reason "the principle of analysis." Imagination involves being, reason involves relations. "Reason is the enumeration of quantities already known; imagination is the perception of the value of those quantities, both separately and as a whole."

"Poetry," he goes on, "in a general sense, may be defined to be 'the expression of the imagination.' " We see immediately that he does not mean only verse. "The distinction between poets and prose-writers," he writes, "is a vulgar error." Bacon was a poet, he says, and so was Plato–not because they wrote beautifully (though they did that), but because they spoke the truth. Any important truth is, for Shelley, primarily poetic. "A poem is the very image of life expressed in its eternal truth."

But poetry is not only writing, either. "The functions of the poetical faculty are twofold; by one it creates new materials of knowledge, and power, and pleasure; by the other it engenders in the mind a desire to reproduce and arrange them." It is because of this that poetry is the creator and supporter of morals and law. But it is also for this reason that poetry underlies, and anticipates, scientific discoveries. Science, Shelley maintains, is analytical; it deals only

with relations between things which are already known. Poetry finds new things. It puts together rather than takes apart. It creates rather than breaks down. It produces a one rather than a many. If there were no poets to find new truths, there would be no science to find the relations between them.

Given this exalted sense of the term, it is possible that no one will dispute Shelley's view. Clearly, there are some scientists who are "poets" in Shelley's meaning of the word. Newton was one, Einstein another. Both had vital and vibrant imaginations. And a politician could be a poet, too. Dante had what is sometimes called, by hard-headed realists, a "dream" of world government. That dream, as expressed in *De Monarchia*,[1] will perhaps never come true—exactly or completely. But the fact that Dante had it, Shelley would perhaps contend, is the reason why the world now has a United Nations. Great ideas exist first in the poetic mind. The man of reason, who is also necessary, follows after.

The most famous statement from *A Defence of Poetry* is its concluding sentence: "Poets are the unacknowledged legislators of the world." This statement has been held to be nonsense or "romantic" exaggeration. But a careful reading of the essay will show that it makes sense. It follows from what Shelley has said. Given his view, it is undeniable.

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[1] See the selection "On World Government" in Vol. 7, pp. 383–399, of this set.

A Defence of Poetry

According to one mode of regarding those two classes of mental action which are called reason and imagination, the former may be considered as mind contemplating the relations borne by one thought to another, however produced; and the latter, as mind acting upon those thoughts so as to colour them with its own light, and composing from them, as from elements, other thoughts, each containing within itself the principle of its own integrity. The one is the *topoiein*, or the principle of synthesis, and has for its object those forms which are common to universal nature and existence itself; the other is the *to logizein*, or principle of analysis, and its action regards the relations of things simply as relations, considering thoughts not in their integral unity but as the algebraical representations which conduct to certain general results. Reason is the enumeration of quantities already known; imagination is the perception of the value of those quantities, both separately and as a whole. Reason respects the differences, and imagination the similitudes of things. Reason is to the imagination as the instrument to the agent, as the body to the spirit, as the shadow to the substance.

Poetry, in a general sense, may be defined to be "the expression of the imagination": and poetry is connate with the origin of man. Man is an instrument over which a series of external and internal impressions are driven, like the alternations of an ever-changing wind over an Aeolian lyre, which move it by their motion to ever-changing melody. But there is a principle within the human being, and perhaps within all sentient beings which acts otherwise than in a lyre, and produces not melody alone, but harmony, by an internal adjustment of the sounds and motions thus excited to the impressions which excite them. It is as if the lyre could accommodate its chords to the motions of that which strikes them, in a

determined proportion of sound; even as the musician can accommodate his voice to the sound of the lyre. A child at play by itself will express its delight by its voice and motions; and every inflection of tone and gesture will bear exact relation to a corresponding antitype in the pleasurable impressions which awakened it; it will be the reflected image of that impression; and as the lyre trembles and sounds after the wind has died away, so the child seeks, by prolonging in its voice and motions the duration of the effect, to prolong also a consciousness of the cause. In relation to the objects which delight a child, these expressions are what poetry is to higher objects. The savage (for the savage is to ages what the child is to years) expresses the emotions produced in him by surrounding objects in a similar manner; and language and gesture, together with plastic or pictorial imitation, become the image of the combined effect of those objects and his apprehension of them. Man in society, with all his passions and his pleasures, next becomes the object of the passions and pleasures of man; an additional class of emotions produces an augmented treasure of expression; and language, gesture, and the imitative arts become at once the representation and the medium, the pencil and the picture, the chisel and the statue, the chord and the harmony. The social sympathies, or those laws from which as from its elements society results, begin to develop themselves from the moment that two human beings coexist; the future is contained within the present as the plant within the seed; and equality, diversity, unity, contrast, mutual dependence become the principles alone capable of affording the motives according to which the will of a social being is determined to action, inasmuch as he is social; and constitute pleasure in sensation, virtue in sentiment, beauty in art, truth in reasoning, and love in the intercourse of kind. Hence men, even in the infancy of society, observe a certain order in their words and actions, distinct from that of the objects and the impressions represented by them, all expression being subject to the laws of that from which it proceeds. But let us dismiss those more general considerations which might involve an inquiry into the principles of society itself, and restrict our view to the manner in which the imagination is expressed upon its forms.

In the youth of the world, men dance and sing and imitate natural objects, observing in these actions, as in all others, a certain rhythm or order. And, although all men observe a similar, they observe not the same order in the motions of the dance, in the melody of the song, in the combinations of language, in the series of their imitations of natural objects. For there is a certain order or rhythm belonging to each of these classes of mimetic representation, from which the hearer and the

spectator receive an intenser and purer pleasure than from any other: the sense of an approximation to this order has been called taste by modern writers. Every man in the infancy of art observes an order which approximates more or less closely to that from which this highest delight results: but the diversity is not sufficiently marked as that its gradations should be sensible, except in those instances where the predominance of this faculty of approximation to the beautiful (for so we may be permitted to name the relation between this highest pleasure and its cause) is very great. Those in whom it exists to excess are poets, in the most universal sense of the word; and the pleasure resulting from the manner in which they express the influence of society or nature upon their own minds communicates itself to others, and gathers a sort of reduplication from the community. Their language is vitally metaphorical; that is, it marks the before unapprehended relations of things and perpetuates their apprehension, until words, which represent them, become, through time, signs for portions or classes of thought, instead of pictures of integral thoughts; and then, if no new poets should arise to create afresh the associations which have been thus disorganized, language will be dead to all the nobler purposes of human intercourse. These similitudes or relations are finely said by Bacon to be "the same footsteps of nature impressed upon the various subjects of the world"; and he considers the faculty which perceives them as the storehouse of axioms common to all knowledge. In the infancy of society every author is necessarily a poet, because language itself is poetry; and to be a poet is to apprehend the true and the beautiful, in a word, the good which exists in the relation subsisting, first between existence and perception, and secondly between perception and expression. Every original language near to its source is in itself the chaos of a cyclic poem: the copiousness of lexicography and the distinctions of grammar are the works of a later age, and are merely the catalogue and the form of the creations of poetry.

But poets, or those who imagine and express this indestructible order, are not only the authors of language and of music, of the dance, and architecture, and statuary, and painting; they are the institutors of laws and the founders of civil society, and the inventors of the arts of life, and the teachers, who draw into a certain propinquity with the beautiful and the true that partial apprehension of the agencies of the invisible world which is called religion. Hence all original religions are allegorical or susceptible of allegory, and, like Janus, have a double face of false and true. Poets, according to the circumstances of the age and nation in which they appeared, were called, in the earlier epochs of the world, legislators

or prophets: a poet essentially comprises and unites both these characters. For he not only beholds intensely the present as it is, and discovers those laws according to which present things ought to be ordered, but he beholds the future in the present, and his thoughts are the germs of the flower and the fruit of latest time. Not that I assert poets to be prophets in the gross sense of the word, or that they can foretell the form as surely as they foreknow the spirit of events: such is the pretence of superstition, which would make poetry an attribute of prophecy, rather than prophecy an attribute of poetry. A poet participates in the eternal, the infinite, and the one; as far as relates to his conceptions, time and place and number are not. The grammatical forms which express the moods of time, and the difference of persons, and the distinction of place are convertible with respect to the highest poetry without injuring it as poetry; and the choruses of Aeschylus, and the book of Job, and Dante's *Paradiso* would afford, more than any other writings, examples of this fact, if the limits of this essay did not forbid citation. The creations of sculpture, painting, and music are illustrations still more decisive.

Language, colour, form, and religious and civil habits of action are all the instruments and materials of poetry; they may be called poetry by that figure of speech which considers the effect as a synonym of the cause. But poetry in a more restricted sense expresses those arrangements of language, and especially metrical language, which are created by that imperial faculty whose throne is curtained within the invisible nature of man. And this springs from the nature itself of language, which is a more direct representation of the actions and passions of our internal being, and is susceptible of more various and delicate combinations than colour, form, or motion, and is more plastic and obedient to the control of that faculty of which it is the creation. For language is arbitrarily produced by the imagination, and has relation to thoughts alone; but all other materials, instruments, and conditions of art have relations among each other, which limit and interpose between conception and expression. The former is as a mirror which reflects, the latter as a cloud which enfeebles, the light of which both are mediums of communication. Hence the fame of sculptors, painters, and musicians, although the intrinsic powers of the great masters of these arts may yield in no degree to that of those who have employed language as the hieroglyphic of their thoughts, has never equalled that of poets in the restricted sense of the term; as two performers of equal skill will produce unequal effects from a guitar and a harp. The fame of legislators and founders of religion, so long as their institutions last, alone seems to exceed that of poets in the restricted sense;

but it can scarcely be a question whether, if we deduct the celebrity which their flattery of the gross opinions of the vulgar usually conciliates, together with that which belonged to them in their higher character of poets, any excess will remain.

We have thus circumscribed the word poetry within the limits of that art which is the most familiar and the most perfect expression of the faculty itself. It is necessary, however, to make the circle still narrower, and to determine the distinction between measured and unmeasured language; for the popular division into prose and verse is inadmissible in accurate philosophy.

Sounds as well as thoughts have relation both between each other and towards that which they represent, and a perception of the order of those relations has always been found connected with a perception of the order of the relations of thought. Hence the language of poets has ever affected a sort of uniform and harmonious recurrence of sound, without which it were not poetry, and which is scarcely less indispensable to the communication of its influence than the words themselves, without reference to that peculiar order. Hence the vanity of translation; it were as wise to cast a violet into a crucible that you might discover the formal principle of its colour and odour as seek to transfuse from one language into another the creations of a poet. The plant must spring again from its seed, or it will bear no flower—and this is the burden of the curse of Babel.

An observation of the regular mode of the recurrence of harmony in the language of poetical minds, together with its relation to music, produced metre, or a certain system of traditional forms of harmony and language. Yet it is by no means essential that a poet should accommodate his language to this traditional form, so that the harmony, which is its spirit, be observed. The practice is indeed convenient and popular, and to be preferred, especially in such composition as includes much action: but every great poet must inevitably innovate upon the example of his predecessors in the exact structure of his peculiar versification. The distinction between poets and prose-writers is a vulgar error. The distinction between philosophers and poets has been anticipated. Plato was essentially a poet—the truth and splendour of his imagery, and the melody of his language, are the most intense that it is possible to conceive. He rejected the harmony of the epic, dramatic, and lyrical forms, because he sought to kindle a harmony in thoughts divested of shape and action, and he forbore to invent any regular plan of rhythm which would include, under determinate forms, the varied pauses of his style. Cicero sought to imitate the cadence of his periods, but with little success. Bacon

was a poet.[1] His language has a sweet and majestic rhythm, which satisfies the sense no less than the almost superhuman wisdom of his philosophy satisfies the intellect; it is a strain which distends, and then bursts the circumference of the reader's mind, and pours itself forth together with it into the universal element with which it has perpetual sympathy. All the authors of revolutions in opinion are not only necessarily poets as they are inventors, nor even as their words unveil the permanent analogy of things by images which participate in the life of truth; but as their periods are harmonious and rhythmical, and contain in themselves the elements of verse, being the echo of the eternal music. Nor are those supreme poets who have employed traditional forms of rhythm on account of the form and action of their subjects less capable of perceiving and teaching the truth of things than those who have omitted that form. Shakespeare, Dante, and Milton (to confine ourselves to modern writers) are philosophers of the very loftiest power.

A poem is the very image of life expressed in its eternal truth. There is this difference between a story and a poem, that a story is a catalogue of detached facts, which have no other connection than time, place, circumstance, cause, and effect; the other is the creation of actions according to the unchangeable forms of human nature, as existing in the mind of the Creator, which is itself the image of all other minds. The one is partial, and applies only to a definite period of time, and a certain combination of events which can never again recur; the other is universal, and contains within itself the germ of a relation to whatever motives or actions have place in the possible varieties of human nature. Time, which destroys the beauty and the use of the story of particular facts, stripped of the poetry which should invest them, augments that of poetry, and forever develops new and wonderful applications of the eternal truth which it contains. Hence epitomes have been called the moths of just history; they eat out the poetry of it. A story of particular facts is as a mirror which obscures and distorts that which should be beautiful: poetry is a mirror which makes beautiful that which is distorted.

The parts of a composition may be poetical, without the composition as a whole being a poem. A single sentence may be considered as a whole, though it may be found in the midst of a series of unassimilated portions; a single word even may be a spark of inextinguishable thought. And thus all the great historians, Herodotus, Plutarch, Livy, were poets; and although the plan of these writers, especially that of Livy, restrained

1. See the *Filum Labyrinthi* and the *Essay on Death* particularly.

them from developing this faculty in its highest degree, they made copious and ample amends for their subjection, by filling all the interstices of their subjects with living images.

Having determined what is poetry, and who are poets, let us proceed to estimate its effects upon society.

Poetry is ever accompanied with pleasure: all spirits upon which it falls open themselves to receive the wisdom which is mingled with its delight. In the infancy of the world, neither poets themselves nor their auditors are fully aware of the excellence of poetry: for it acts in a divine and unapprehended manner, beyond and above consciousness; and it is reserved for future generations to contemplate and measure the mighty cause and effect in all the strength and splendour of their union. Even in modern times, no living poet ever arrived at the fullness of his fame: the jury which sits in judgment upon a poet, belonging as he does to all time, must be composed of his peers: it must be empanelled by time from the selectest of the wise of many generations. A poet is a nightingale, who sits in darkness and sings to cheer its own solitude with sweet sounds; his auditors are as men entranced by the melody of an unseen musician, who feel that they are moved and softened, yet know not whence or why. The poems of Homer and his contemporaries were the delight of infant Greece; they were the elements of that social system which is the column upon which all succeeding civilization has reposed. Homer embodies the ideal perfection of his age in human character; nor can we doubt that those who read his verses were awakened to an ambition of becoming like to Achilles, Hector, and Ulysses: the truth and beauty of friendship, patriotism, and persevering devotion to an object were unveiled to their depths in these immortal creations: the sentiments of the auditors must have been refined and enlarged by a sympathy with such great and lovely impersonations, until from admiring they imitated, and from imitation they identified themselves with the objects of their admiration. Nor let it be objected that these characters are remote from moral perfection, and that they are by no means to be considered as edifying patterns for general imitation. Every epoch, under names more or less specious, has deified its peculiar errors; Revenge is the naked idol of the worship of a semi-barbarous age; and Self-deceit is the veiled image of unknown evil, before which luxury and satiety lie prostrate. But a poet considers the vices of his contemporaries as the temporary dress in which his creations must be arrayed, and which cover without concealing the eternal proportions of their beauty. An epic or dramatic personage is understood to wear them around his soul, as he may the ancient

armour or modern uniform around his body; whilst it is easy to conceive a dress more graceful than either. The beauty of the internal nature cannot be so far concealed by its accidental vesture, but that the spirit of its form shall communicate itself to the very disguise, and indicate the shape it hides from the manner in which it is worn. A majestic form and graceful motions will express themselves through the most barbarous and tasteless costume. Few poets of the highest class have chosen to exhibit the beauty of their conceptions in its naked truth and splendour; and it is doubtful whether the alloy of costume, habit, etc., be not necessary to temper this planetary music for mortal ears.

The whole objection, however, of the immorality of poetry rests upon a misconception of the manner in which poetry acts to produce the moral improvement of man. Ethical science arranges the elements which poetry has created, and propounds schemes and proposes examples of civil and domestic life: nor is it for want of admirable doctrines that men hate, and despise, and censure, and deceive, and subjugate one another. But poetry acts in another and diviner manner. It awakens and enlarges the mind itself by rendering it the receptacle of a thousand unapprehended combinations of thought. Poetry lifts the veil from the hidden beauty of the world, and makes familiar objects be as if they were not familiar; it reproduces all that it represents, and the impersonations clothed in its Elysian light stand thenceforward in the minds of those who have once contemplated them as memorials of that gentle and exalted content which extends itself over all thoughts and actions with which it coexists. The great secret of morals is love; or a going out of our own nature, and an identification of ourselves with the beautiful which exists in thought, action, or person, not our own. A man, to be greatly good, must imagine intensely and comprehensively; he must put himself in the place of another and of many others; the pains and pleasures of his species must become his own. The great instrument of moral good is the imagination; and poetry administers to the effect by acting upon the cause. Poetry enlarges the circumference of the imagination by replenishing it with thoughts of ever new delight, which have the power of attracting and assimilating to their own nature all other thoughts, and which form new intervals and interstices whose void for ever craves fresh food. Poetry strengthens the faculty which is the organ of the moral nature of man, in the same manner as exercise strengthens a limb. A poet therefore would do ill to embody his own conceptions of right and wrong, which are usually those of his place and time, in his poetical creations, which participate in neither. By this assumption of the inferior office of inter-

preting the effect, in which perhaps after all he might acquit himself but imperfectly, he would resign a glory in the participation of the cause. There was little danger that Homer, or any of the eternal poets, should have so far misunderstood themselves as to have abdicated this throne of their widest dominion. Those in whom the poetical faculty, though great, is less intense, as Euripides, Lucan, Tasso, Spenser, have frequently affected a moral aim, and the effect of their poetry is diminished in exact proportion to the degree in which they compel us to advert to this purpose.

Homer and the cyclic poets were followed at a certain interval by the dramatic and lyrical poets of Athens, who flourished contemporaneously with all that is most perfect in the kindred expressions of the poetical faculty; architecture, painting, music, the dance, sculpture, philosophy, and we may add, the forms of civil life. For although the scheme of Athenian society was deformed by many imperfections which the poetry existing in chivalry and Christianity has erased from the habits and institutions of modern Europe; yet never at any other period has so much energy, beauty and virtue been developed; never was blind strength and stubborn form so disciplined and rendered subject to the will of man, or that will less repugnant to the dictates of the beautiful and the true, as during the century which preceded the death of Socrates. Of no other epoch in the history of our species have we records and fragments stamped so visibly with the image of the divinity in man. But it is poetry alone, in form, in action, and in language which has rendered this epoch memorable above all others, and the storehouse of examples to everlasting time. For written poetry existed at that epoch simultaneously with the other arts, and it is an idle inquiry to demand which gave and which received the light, which all, as from a common focus, have scattered over the darkest periods of succeeding time. We know no more of cause and effect than a constant conjunction of events: poetry is ever found to coexist with whatever other arts contribute to the happiness and perfection of man. I appeal to what has already been established to distinguish between the cause and the effect.

It was at the period here adverted to that the drama had its birth; and however a succeeding writer may have equalled or surpassed those few great specimens of the Athenian drama which have been preserved to us, it is indisputable that the art itself never was understood or practised according to the true philosophy of it as at Athens. For the Athenians employed language, action, music, painting, the dance, and religious institutions to produce a common effect in the representation of

the highest idealisms of passion and of power; each division in the art was made perfect in its kind by artists of the most consummate skill, and was disciplined into a beautiful proportion and unity one towards the other. On the modern stage few only of the elements capable of expressing the image of the poet's conception are employed at once. We have tragedy without music and dancing; and music and dancing without the highest impersonations of which they are the fit accompaniment, and both without religion and solemnity. Religious institution has indeed been usually banished from the stage. Our system of divesting the actor's face of a mask, on which the many expressions appropriated to his dramatic character might be moulded into one permanent and unchanging expression, is favourable only to a partial and inharmonious effect; it is fit for nothing but a monologue, where all the attention may be directed to some great master of ideal mimicry. The modern practice of blending comedy with tragedy, though liable to great abuse in point of practice, is undoubtedly an extension of the dramatic circle; but the comedy should be as in King Lear, universal, ideal, and sublime. It is perhaps the intervention of this principle which determines the balance in favour of *King Lear* against the *Oedipus Tyrannus* or the *Agamemnon*, or, if you will, the trilogies with which they are connected; unless the intense power of the choral poetry, especially that of the latter, should be considered as restoring the equilibrium. King Lear, if it can sustain this comparison, may be judged to be the most perfect specimen of the dramatic art existing in the world; in spite of the narrow conditions to which the poet was subjected by the ignorance of the philosophy of the drama which has prevailed in modern Europe. Calderón, in his religious Autos, has attempted to fulfil some of the high conditions of dramatic representations neglected by Shakespeare; such as the establishing a relation between the drama and religion, and the accommodating them to music and dancing; but he omits the observation of conditions still more important, and more is lost than gained by the substitution of the rigidly defined and ever-repeated idealisms of a distorted superstition for the living impersonations of the truth of human passions.

But I digress. The connection of scenic exhibitions with the improvement or corruption of the manners of men has been universally recognized: in other words, the presence or absence of poetry, in its most perfect and universal form, has been found to be connected with good and evil in conduct or habit. The corruption which has been imputed to the drama as an effect begins when the poetry employed in its constitution ends: I appeal to the history of manners whether the periods of

the growth of the one and the decline of the other have not corresponded with an exactness equal to any example of moral cause and effect.

The drama at Athens, or wheresoever else it may have approached to its perfection, ever coexisted with the moral and intellectual greatness of the age. The tragedies of the Athenian poets are as mirrors in which the spectator beholds himself, under a thin disguise of circumstance, stripped of all but that ideal perfection and energy which every one feels to be the internal type of all that he loves, admires, and would become. The imagination is enlarged by a sympathy with pains and passions so mighty that they distend in their conception the capacity of that by which they are conceived; the good affections are strengthened by pity, indignation, terror and sorrow; and an exalted calm is prolonged from the satiety of this high exercise of them into the tumult of familiar life: even crime is disarmed of half its horror and all its contagion by being represented as the fatal consequence of the unfathomable agencies of nature; error is thus divested of its wilfulness; men can no longer cherish it as the creation of their choice. In the drama of the highest order there is little food for censure or hatred; it teaches rather self-knowledge and self-respect. Neither the eye nor the mind can see itself, unless reflected upon that which it resembles. The drama, so long as it continues to express poetry, is a prismatic and many-sided mirror, which collects the brightest rays of human nature and divides and reproduces them from the simplicity of these elementary forms, and touches them with majesty and beauty, and multiplies all that it reflects, and endows it with the power of propagating its like wherever it may fall.

But in periods of the decay of social life, the drama sympathizes with that decay. Tragedy becomes a cold imitation of the form of the great masterpieces of antiquity, divested of all harmonious accompaniment of the kindred arts; and often the very form misunderstood, or a weak attempt to teach certain doctrines, which the writer considers as moral truths; and which are usually no more than specious flatteries of some gross vice or weakness, with which the author, in common with his auditors, are infected. Hence what has been called the classical and domestic drama. Addison's *Cato* is a specimen of the one; and would it were not superfluous to cite examples of the other! To such purposes poetry cannot be made subservient. Poetry is a sword of lightning, ever unsheathed, which consumes the scabbard that would contain it. And thus we observe that all dramatic writings of this nature are unimaginative in a singular degree; they affect sentiment and passion, which, divested of imagination, are other names for caprice and appetite. The period in our own

history of the grossest degradation of the drama is the reign of Charles II, when all forms in which poetry had been accustomed to be expressed became hymns to the triumph of kingly power over liberty and virtue. Milton stood alone illuminating an age unworthy of him. At such periods the calculating principle pervades all the forms of dramatic exhibition, and poetry ceases to be expressed upon them. Comedy loves its ideal universality: wit succeeds to humour; we laugh from self-complacency and triumph, instead of pleasure; malignity, sarcasm, and contempt succeed to sympathetic merriment; we hardly laugh, but we smile. Obscenity, which is ever blasphemy against the divine beauty in life, becomes, from the very veil which it assumes, more active if less disgusting: it is a monster for which the corruption of society for ever brings forth new food, which it devours in secret.

The drama being that form under which a greater number of modes of expression of poetry are susceptible of being combined than any other, the connection of poetry and social good is more observable in the drama than in whatever other form. And it is indisputable that the highest perfection of human society has ever corresponded with the highest dramatic excellence; and that the corruption or the extinction of the drama in a nation where it has once flourished is a mark of a corruption of manners, and an extinction of the energies which sustain the soul of social life. But, as Machiavelli says of political institutions, that life may be preserved and renewed, if men should arise capable of bringing back the drama to its principles. And this is true with respect to poetry in its most extended sense: all language, institution and form require not only to be produced but to be sustained: the office and character of a poet participates in the divine nature as regards providence, no less than as regards creation.

Civil war, the spoils of Asia, and the fatal predominance first of the Macedonian, and then of the Roman arms, were so many symbols of the extinction or suspension of the creative faculty in Greece. The bucolic writers, who found patronage under the lettered tyrants of Sicily and Egypt, were the latest representatives of its most glorious reign. Their poetry is intensely melodious; like the odour of the tuberose, it overcomes and sickens the spirit with excess of sweetness; whilst the poetry of the preceding age was as a meadow-gale of June, which mingles the fragrance of all the flowers of the field, and adds a quickening and harmonizing spirit of its own which endows the sense with a power of sustaining its extreme delight. The bucolic and erotic delicacy in written poetry is correlative with that softness in statuary, music, and the kindred arts,

and even in manners and institutions, which distinguished the epoch to which I now refer. Nor is it the poetical faculty itself, or any misapplication of it, to which this want of harmony is to be imputed. An equal sensibility to the influence of the senses and the affections is to be found in the writings of Homer and Sophocles: the former, especially, has clothed sensual and pathetic images with irresistible attractions. The superiority in these to succeeding writers consists in the presence of those thoughts which belong to the inner faculties of our nature, not in the absence of those which are connected with the external: their incomparable perfection consists in a harmony of the union of all. It is not what the erotic poets have, but what they have not, in which their imperfection consists. It is not inasmuch as they were poets, but inasmuch as they were not poets, that they can be considered with any plausibility as connected with the corruption of their age. Had that corruption availed so as to extinguish in them the sensibility to pleasure, passion, and natural scenery, which is imputed to them as an imperfection, the last triumph of evil would have been achieved.

For the end of social corruption is to destroy all sensibility to pleasure; and, therefore, it is corruption. It begins at the imagination and the intellect as at the core, and distributes itself thence as a paralysing venom, through the affections into the very appetites, until all become a torpid mass in which hardly sense survives. At the approach of such a period, poetry ever addresses itself to those faculties which are the last to be destroyed, and its voice is heard, like the footsteps of Astraea, departing from the world. Poetry ever communicates all the pleasure which men are capable of receiving: it is ever still the light of life; the source of whatever of beautiful or generous or true can have place in an evil time. It will readily be confessed that those among the luxurious citizens of Syracuse and Alexandria, who were delighted with the poems of Theocritus, were less cold, cruel, and sensual than the remnant of their tribe. But corruption must utterly have destroyed the fabric of human society before poetry can ever cease. The sacred links of that chain have never been entirely disjoined, which descending through the minds of many men is attached to those great minds, whence as from a magnet the invisible effluence is sent forth, which at once connects, animates, and sustains the life of all. It is the faculty which contains within itself the seeds at once of its own and of social renovation. And let us not circumscribe the effects of the bucolic and erotic poetry within the limits of the sensibility of those to whom it was addressed. They may have perceived the beauty of those immortal compositions simply as fragments and isolated portions;

those who are more finely organized, or born in a happier age, may recognize them as episodes to that great poem which all poets, like the cooperating thoughts of one great mind, have built up since the beginning of the world.

The same revolutions within a narrower sphere had place in ancient Rome; but the actions and forms of its social life never seem to have been perfectly saturated with the poetical element. The Romans appear to have considered the Greeks as the selectest treasuries of the selectest forms of manners and of nature, and to have abstained from creating in measured language, sculpture, music, or architecture anything which might bear a particular relation to their own condition, whilst it should bear a general one to the universal constitution of the world. But we judge from partial evidence, and we judge perhaps partially. Ennius, Varro, Pacuvius, and Accius, all great poets, have been lost. Lucretius is in the highest, and Virgil in a very high sense, a creator. The chosen delicacy of expressions of the latter are as a mist of light which conceal from us the intense and exceeding truth of his conceptions of nature. Livy is instinct with poetry. Yet Horace, Catullus, Ovid, and generally the other great writers of the Virgilian age saw man and nature in the mirror of Greece. The institutions also, and the religion of Rome, were less poetical than those of Greece, as the shadow is less vivid than the substance. Hence poetry in Rome seemed to follow, rather than accompany, the perfection of political and domestic society. The true poetry of Rome lived in its institutions; for whatever of beautiful, true, and majestic they contained could have sprung only from the faculty which creates the order in which they consist. The life of Camillus; the death of Regulus; the expectation of the senators, in their godlike state, of the victorious Gauls; the refusal of the republic to make peace with Hannibal after the battle of Cannae were not the consequences of a refined calculation of the probable personal advantage to result from such a rhythm and order in the shows of life to those who were at once the poets and the actors of these immortal dramas. The imagination beholding the beauty of this order created it out of itself according to its own idea; the consequence was empire, and the reward everlasting fame. These things are not the less poetry, *quia carent vate sacro* [because they lack a poet]. They are the episodes of that cyclic poem written by Time upon the memories of men. The Past, like an inspired rhapsodist, fills the theatre of everlasting generations with their harmony.

At length the ancient system of religion and manners had fulfilled the circle of its evolutions. And the world would have fallen into utter an-

archy and darkness, but that there were found poets among the authors of the Christian and chivalric systems of manners and religion, who created forms of opinion and action never before conceived; which, copied into the imaginations of men, became as generals to the bewildered armies of their thoughts. It is foreign to the present purpose to touch upon the evil produced by these systems: except that we protest, on the ground of the principles already established, that no portion of it can be attributed to the poetry they contain.

It is probable that the poetry of Moses, Job, David, Solomon, and Isaiah had produced a great effect upon the mind of Jesus and his disciples. The scattered fragments preserved to us by the biographers of this extraordinary person are all instinct with the most vivid poetry. But his doctrines seem to have been quickly distorted. At a certain period after the prevalence of a system of opinions founded upon those promulgated by him, the three forms into which Plato had distributed the faculties of mind underwent a sort of apotheosis, and became the object of the worship of the civilized world. Here it is to be confessed that "Light thickens," and

> . . . the crow makes wing to the rooky wood,
> Good things of day begin to droop and drowse;
> Whiles night's black agents to their preys do rouse.[2]

But mark how beautiful an order has sprung from the dust and blood of this fierce chaos! how the world, as from a resurrection, balancing itself on the golden wings of knowledge and of hope, has reassumed its yet unwearied flight into the heaven of time. Listen to the music, unheard by outward ears, which is as a ceaseless and invisible wind, nourishing its everlasting course with strength and swiftness.

The poetry in the doctrines of Jesus, and the mythology and institutions of the Celtic conquerors of the Roman empire, outlived the darkness and the convulsions connected with their growth and victory, and blended themselves in a new fabric of manners and opinion. It is an error to impute the ignorance of the dark ages to the Christian doctrines or the predominance of the Celtic nations. Whatever of evil their agencies may have contained sprang from the extinction of the poetical principle, connected with the progress of despotism and superstition. Men, from causes too intricate to be here discussed, had become insensible and selfish; their own will had become feeble, and yet they were its slaves, and thence the slaves of the will of others; but fear, avarice, cruelty, and fraud character-

2. *Macbeth*, act iii, scene 2, *Great Books of the Western World* [Ed.].

ized a race amongst whom no one was to be found capable of *creating* in form, language, or institution. The moral anomalies of such a state of society are not justly to be charged upon any class of events immediately connected with them, and those events are most entitled to our approbation which could dissolve it most expeditiously. It is unfortunate for those who cannot distinguish words from thoughts that many of these anomalies have been incorporated into our popular religion.

It was not until the eleventh century that the effects of the poetry of the Christian and chivalric systems began to manifest themselves. The principle of equality had been discovered and applied by Plato in his *Republic* as the theoretical rule of the mode in which the materials of pleasure and of power, produced by the common skill and labour of human beings, ought to be distributed among them. The limitations of this rule were asserted by him to be determined only by the sensibility of each, or the utility to result to all. Plato, following the doctrines of Timaeus and Pythagoras, taught also a moral and intellectual system of doctrine, comprehending at once the past, the present, and the future condition of man. Jesus divulged the sacred and eternal truths contained in these views to mankind, and Christianity, in its abstract purity, became the exoteric expression of the esoteric doctrines of the poetry and wisdom of antiquity. The incorporation of the Celtic nations with the exhausted population of the south impressed upon it the figure of the poetry existing in their mythology and institutions. The result was a sum of the action and reaction of all the causes included in it; for it may be assumed as a maxim that no nation or religion can supersede any other without incorporating into itself a portion of that which it supersedes. The abolition of personal and domestic slavery, and the emancipation of women from a great part of the degrading restraints of antiquity, were among the consequences of these events.

The abolition of personal slavery is the basis of the highest political hope that it can enter into the mind of man to conceive. The freedom of women produced the poetry of sexual love. Love became a religion, the idols of whose worship were ever present. It was as if the statues of Apollo and the Muses had been endowed with life and motion, and had walked forth among their worshippers; so that earth became peopled by the inhabitants of a diviner world. The familiar appearance and proceedings of life became wonderful and heavenly, and a paradise was created as out of the wrecks of Eden. And as this creation itself is poetry, so its creators were poets; and language was the instrument of their art:

Galeotto fù il libro, e chi lo scrisse [Galeotto was the book, and he who wrote it].[3] The Provençal Trouvères, or inventors, preceded Petrarch, whose verses are as spells, which unseal the inmost enchanted fountains of the delight which is in the grief of love. It is impossible to feel them without becoming a portion of that beauty which we contemplate: it were superfluous to explain how the gentleness and elevation of mind connected with these sacred emotions can render men more amiable, more generous and wise, and lift them out of the dull vapours of the little world of self. Dante understood the secret things of love even more than Petrarch. His *Vita Nuova* is an inexhaustible fountain of purity of sentiment and language: it is the idealized history of that period, and those intervals of his life which were dedicated to love. His apotheosis to Beatrice in Paradise, and the gradations of his own love and her loveliness, by which as by steps he feigns himself to have ascended to the throne of the Supreme Cause, is the most glorious imagination of modern poetry. The acutest critics have justly reversed the judgment of the vulgar, and the order of the great acts of the *Divina Commedia*, in the measure of the admiration which they accord to the Hell, Purgatory, and Paradise. The latter is a perpetual hymn of everlasting love. Love, which found a worthy poet in Plato alone of all the ancients, has been celebrated by a chorus of the greatest writers of the renovated world; and the music has penetrated the caverns of society, and its echoes still drown the dissonance of arms and superstition. At successive intervals, Ariosto, Tasso, Shakespeare, Spenser, Calderón, Rousseau, and the great writers of our own age have celebrated the dominion of love, planting as it were trophies in the human mind of that sublimest victory over sensuality and force. The true relation borne to each other by the sexes into which human kind is distributed has become less misunderstood; and if the error which confounded diversity with inequality of the powers of the two sexes has been partially recognized in the opinions and institutions of modern Europe, we owe this great benefit to the worship of which chivalry was the law, and poets the prophets.

The poetry of Dante may be considered as the bridge thrown over the stream of time, which unites the modern and ancient world. The distorted notions of invisible things which Dante and his rival Milton have idealized, are merely the mask and the mantle in which these great

3. From the episode of Paolo and Francesca in Dante's *Hell* (see *Great Books of the Western World*.) Their love was instigated by their reading the story of Galahad's (Gallehaut's) bringing together Lancelot and Guenevere in the Arthurian romance [Ed.].

poets walk through eternity enveloped and disguised. It is a difficult question to determine how far they were conscious of the distinction which must have subsisted in their minds between their own creeds and that of the people. Dante at least appears to wish to mark the full extent of it by placing Riphaeus, whom Virgil calls *justissimus unus* [the most upright], in Paradise, and observing a most poetical caprice in his distribution of rewards and punishments. And Milton's poem contains within itself a philosophical refutation of that system of which, by a strange and natural antithesis, it has been a chief popular support. Nothing can exceed the energy and magnificence of the character of Satan as expressed in *Paradise Lost*. It is a mistake to suppose that he could ever have been intended for the popular personification of evil. Implacable hate, patient cunning, and a sleepless refinement of device to inflict the extremest anguish on an enemy, these things are evil; and, although venial in a slave, are not to be forgiven in a tyrant; although redeemed by much that ennobles his defeat in one subdued, are marked by all that dishonours his conquest in the victor. Milton's Devil as a moral being is as far superior to his God as one who perseveres in some purpose which he has conceived to be excellent in spite of adversity and torture is to one who in the cold security of undoubted triumph inflicts the most horrible revenge upon his enemy not from any mistaken notion of inducing him to repent of a perseverance in enmity but with the alleged design of exasperating him to deserve new torments. Milton has so far violated the popular creed (if this shall be judged to be a violation) as to have alleged no superiority of moral virtue to his God over his Devil. And this bold neglect of a direct moral purpose is the most decisive proof of the supremacy of Milton's genius. He mingled as it were the elements of human nature as colours upon a single palette, and arranged them in the composition of his great picture according to the laws of epic truth, that is, according to the laws of that principle by which a series of actions of the external universe and of intelligent and ethical beings is calculated to excite the sympathy of succeeding generations of mankind. The *Divina Commedia* and *Paradise Lost* have conferred upon modern mythology a systematic form; and when change and time shall have added one more superstition to the mass of those which have arisen and decayed upon the earth, commentators will be learnedly employed in elucidating the religion of ancestral Europe, only not utterly forgotten because it will have been stamped with the eternity of genius.

Homer was the first and Dante the second epic poet: that is, the

second poet, the series of whose creations bore a defined and intelligible relation to the knowledge and sentiment and religion of the age in which he lived, and of the ages which followed it: developing itself in correspondence with their development. For Lucretius had limed the wings of his swift spirit in the dregs of the sensible world; and Virgil, with a modesty that ill became his genius, had affected the fame of an imitator, even whilst he created anew all that he copied; and none among the flock of mock-birds, though their notes are sweet, Apollonius Rhodius, Quintus Calaber, Smyrnaeus, Nonnus, Lucan, Statius, or Claudian, have sought even to fulfil a single condition of epic truth. Milton was the third epic poet. For if the title of epic in its highest sense be refused to the *Aeneid*, still less can it be conceded to the *Orlando Furioso*, the *Gerusalemme Liberata*, *Os Lusíadas* [the *Lusiad*], or the *Faerie Queene*.

Dante and Milton were both deeply penetrated with the ancient religion of the civilized world; and its spirit exists in their poetry probably in the same proportion as its forms survived in the unreformed worship of modern Europe. The one preceded and the other followed the Reformation at almost equal intervals. Dante was the first religious reformer, and Luther surpassed him rather in the rudeness and acrimony than in the boldness of his censures, of papal usurpation. Dante was the first awakener of entranced Europe; he created a language, in itself music and persuasion, out of a chaos of inharmonious barbarisms. He was the congregator of those great spirits who presided over the resurrection of learning; the Lucifer of that starry flock which in the thirteenth century shone forth from republican Italy, as from a heaven, into the darkness of the benighted world. His very words are instinct with spirit; each is as a spark, a burning atom of inextinguishable thought; and many yet lie covered in the ashes of their birth, and pregnant with a lightning which has yet found no conductor. All high poetry is infinite; it is as the first acorn, which contained all oaks potentially. Veil after veil may be undrawn, and the inmost naked beauty of the meaning never exposed. A great poem is a fountain for ever overflowing with the waters of wisdom and delight; and after one person and one age has exhausted all of its divine effluence which their peculiar relations enable them to share, another and yet another succeeds, and new relations are ever developed, the source of an unforeseen and an unconceived delight.

The age immediately succeeding to that of Dante, Petrarch, and Boccaccio was characterized by a revival of painting, sculpture, and architecture. Chaucer caught the sacred inspiration, and the superstructure of English literature is based upon the materials of Italian invention.

But let us not be betrayed from a defence into a critical history of poetry and its influence on society. Be it enough to have pointed out the effects of poets, in the large and true sense of the word, upon their own and all succeeding times.

But poets have been challenged to resign the civic crown to reasoners and mechanists on another plea. It is admitted that the exercise of the imagination is most delightful, but it is alleged that that of reason is more useful. Let us examine, as the grounds of this distinction, what is here meant by utility. Pleasure or good, in a general sense, is that which the consciousness of a sensitive and intelligent being seeks, and in which, when found, it acquiesces. There are two kinds of pleasure, one durable, universal, and permanent; the other transitory and particular. Utility may either express the means of producing the former or the latter. In the former sense, whatever strengthens and purifies the affections, enlarges the imagination, and adds spirit to sense is useful. But a narrower meaning may be assigned to the word utility, confining it to express that which banishes the importunity of the wants of our animal nature, the surrounding men with security of life, the dispersing the grosser delusions of superstition, and the conciliating such a degree of mutual forbearance among men as may consist with the motives of personal advantage.

Undoubtedly the promoters of utility, in this limited sense, have their appointed office in society. They follow the footsteps of poets, and copy the sketches of their creations into the book of common life. They make space, and give time. Their exertions are of the highest value, so long as they confine their administration of the concerns of the inferior powers of our nature within the limits due to the superior ones. But while the sceptic destroys gross superstitions, let him spare to deface, as some of the French writers have defaced, the eternal truths charactered upon the imaginations of men. Whilst the mechanist abridges, and the political economist combines, labour, let them beware that their speculations, for want of correspondence with those first principles which belong to the imagination, do not tend, as they have in modern England, to exasperate at once the extremes of luxury and want. They have exemplified the saying, "To him that hath, more shall be given; and from him that hath not, the little that he hath shall be taken away." The rich have become richer, and the poor have become poorer; and the vessel of the state is driven between the Scylla and Charybdis of anarchy and despotism. Such are the effects which must ever flow from an unmitigated exercise of the calculating faculty.

It is difficult to define pleasure in its highest sense; the definition in-

volving a number of apparent paradoxes. For, from an inexplicable defect of harmony in the constitution of human nature, the pain of the inferior is frequently connected with the pleasures of the superior portions of our being. Sorrow, terror, anguish, despair itself are often the chosen expressions of an approximation to the highest good. Our sympathy in tragic fiction depends on this principle; tragedy delights by affording a shadow of that pleasure which exists in pain. This is the source also of the melancholy which is inseparable from the sweetest melody. The pleasure that is in sorrow is sweeter than the pleasure of pleasure itself. And hence the saying, "It is better to go to the house of mourning than to the house of mirth." Not that this highest species of pleasure is necessarily linked with pain. The delight of love and friendship, the ecstasy of the admiration of nature, the joy of the perception and still more of the creation of poetry is often wholly unalloyed.

The production and assurance of pleasure in this highest sense is true utility. Those who produce and preserve this pleasure are poets or poetical philosophers.

The exertions of Locke, Hume, Gibbon, Voltaire, Rousseau,[4] and their disciples, in favour of oppressed and deluded humanity, are entitled to the gratitude of mankind. Yet it is easy to calculate the degree of moral and intellectual improvement which the world would have exhibited had they never lived. A little more nonsense would have been talked for a century or two; and perhaps a few more men, women, and children burnt as heretics. We might not at this moment have been congratulating each other on the abolition of the Inquisition in Spain. But it exceeds all imagination to conceive what would have been the moral condition of the world if neither Dante, Petrarch, Boccaccio, Chaucer, Shakespeare, Calderón, Bacon, nor Milton had ever existed; if Raphael and Michelangelo had never been born; if the Hebrew poetry had never been translated; if a revival of the study of Greek literature had never taken place; if no monuments of ancient sculpture had been handed down to us; and if the poetry of the religion of the ancient world had been extinguished together with its belief. The human mind could never, except by the intervention of these excitements, have been awakened to the invention of the grosser sciences, and that application of analytical reasoning to the aberrations of society, which it is now attempted to exalt over the direct expression of the inventive and creative faculty itself.

We have more moral, political, and historical wisdom than we know

4. Although Rousseau has been thus classed, he was essentially a poet. The others, even Voltaire, were mere reasoners.

how to reduce into practice; we have more scientific and economical knowledge than can be accommodated to the just distribution of the produce which it multiplies. The poetry, in these systems of thought, is concealed by the accumulation of facts and calculating processes. There is no want of knowledge respecting what is wisest and best in morals, government, and political economy, or at least what is wiser and better than what men now practise and endure. But we let "*I dare not* wait upon *I would*, like the poor cat in the adage." We want the creative faculty to imagine that which we know; we want the generous impulse to act that which we imagine; we want the poetry of life; our calculations have outrun conception; we have eaten more than we can digest. The cultivation of those sciences which have enlarged the limits of the empire of man over the external world has, for want of the poetical faculty, proportionally circumscribed those of the internal world; and man, having enslaved the elements, remains himself a slave. To what but a cultivation of the mechanical arts in a degree disproportioned to the presence of the creative faculty, which is the basis of all knowledge, is to be attributed the abuse of all invention for abridging and combining labour, to the exasperation of the inequality of mankind? From what other cause has it arisen that the discoveries which should have lightened have added a weight to the curse imposed on Adam? Poetry, and the principle of Self, of which money is the visible incarnation, are the God and Mammon of the world.

The functions of the poetical faculty are twofold; by one it creates new materials of knowledge, and power, and pleasure; by the other it engenders in the mind a desire to reproduce and arrange them according to a certain rhythm and order, which may be called the beautiful and the good. The cultivation of poetry is never more to be desired than at periods when, from an excess of the selfish and calculating principle, the accumulation of the materials of external life exceed the quantity of the power of assimilating them to the internal laws of human nature. The body has then become too unwieldy for that which animates it.

Poetry is indeed something divine. It is at once the centre and circumference of knowledge; it is that which comprehends all science, and that to which all science must be referred. It is at the same time the root and blossom of all other systems of thought; it is that from which all spring, and that which adorns all, and that which, if blighted, denies the fruit and the seed, and withholds from the barren world the nourishment and the succession of the scions of the tree of life. It is the perfect and consummate surface and bloom of all things; it is as the odour and the

colour of the rose to the texture of the elements which compose it, as the form and splendour of unfaded beauty to the secrets of anatomy and corruption. What were virtue, love, patriotism, friendship—what were the scenery of this beautiful universe which we inhabit; what were our consolations on this side of the grave—and what were our aspirations beyond it, if poetry did not ascend to bring light and fire from those eternal regions where the owl-winged faculty of calculation dare not ever soar? Poetry is not like reasoning, a power to be exerted according to the determination of the will. A man cannot say, "I will compose poetry." The greatest poet even cannot say it; for the mind in creation is as a fading coal, which some invisible influence, like an inconstant wind, awakens to transitory brightness; this power arises from within, like the colour of a flower which fades and changes as it is developed, and the conscious portions of our nature are unprophetic either of its approach or its departure. Could this influence be durable in its original purity and force, it is impossible to predict the greatness of the results; but when composition begins, inspiration is already on the decline, and the most glorious poetry that has ever been communicated to the world is probably a feeble shadow of the original conceptions of the poet. I appeal to the greatest poets of the present day whether it is not an error to assert that the finest passages of poetry are produced by labour and study. The toil and the delay recommended by critics can be justly interpreted to mean no more than a careful observation of the inspired moments, and an artificial connection of the spaces between their suggestions, by the intertexture of conventional expressions; a necessity only imposed by the limitedness of the poetical faculty itself: for Milton conceived the *Paradise Lost* as a whole before he executed it in portions. We have his own authority also for the muse having "dictated" to him the "unpremeditated song." And let this be an answer to those who would allege the fifty-six various readings of the first line of the *Orlando Furioso*. Compositions so produced are to poetry what mosaic is to painting. The instinct and intuition of the poetical faculty is still more observable in the plastic and pictorial arts: a great statue or picture grows under the power of the artist as a child in the mother's womb; and the very mind which directs the hands in formation is incapable of accounting to itself for the origin, the gradations, or the media of the process.

Poetry is the record of the best and happiest moments of the happiest and best minds. We are aware of evanescent visitations of thought and feeling, sometimes associated with place or person, sometimes regarding our own mind alone, and always arising unforeseen and departing un-

bidden, but elevating and delightful beyond all expression: so that even in the desire and the regret they leave, there cannot but be pleasure, participating as it does in the nature of its object. It is as it were the interpenetration of a diviner nature through our own; but its footsteps are like those of a wind over the sea, which the morning calm erases, and whose traces remain only, as on the wrinkled sand which paves it. These and corresponding conditions of being are experienced principally by those of the most delicate sensibility and the most enlarged imagination; and the state of mind produced by them is at war with every base desire. The enthusiasm of virtue, love, patriotism, and friendship is essentially linked with such emotions; and whilst they last, self appears as what it is, an atom to a universe. Poets are not only subject to these experiences as spirits of the most refined organization, but they can colour all that they combine with the evanescent hues of this ethereal world; a word, a trait in the representation of a scene or a passion will touch the enchanted chord, and reanimate, in those who have ever experienced those emotions, the sleeping, the cold, the buried image of the past. Poetry thus makes immortal all that is best and most beautiful in the world; it arrests the vanishing apparitions which haunt the interlunations of life, and veiling them, or in language or in form, sends them forth among mankind, bearing sweet news of kindred joy to those with whom their sisters abide–abide, because there is no portal of expression from the caverns of the spirit which they inhabit into the universe of things. Poetry redeems from decay the visitations of the divinity in man.

Poetry turns all things to loveliness; it exalts the beauty of that which is most beautiful, and it adds beauty to that which is most deformed; it marries exultation and horror, grief and pleasure, eternity and change; it subdues to union, under its light yoke, all irreconcilable things. It transmutes all that it touches, and every form moving within the radiance of its presence is changed by wondrous sympathy to an incarnation of the spirit which it breathes: its secret alchemy turns to potable gold the poisonous waters which flow from death through life; it strips the veil of familiarity from the world, and lays bare the naked and sleeping beauty, which is the spirit of its forms.

All things exist as they are perceived; at least in relation to the percipient.

> The mind is its own place, and in itself
> Can make a heaven of hell, a hell of heaven.

But poetry defeats the curse which binds us to be subjected to the acci-

dent of surrounding impressions. And whether it spreads its own figured curtain, or withdraws life's dark veil from before the scene of things, it equally creates for us a being within our being. It makes us the inhabitant of a world to which the familiar world is a chaos. It reproduces the common universe of which we are portions and percipients, and it purges from our inward sight the film of familiarity which obscures from us the wonder of our being. It compels us to feel that which we perceive, and to imagine that which we know. It creates anew the universe, after it has been annihilated in our minds by the recurrence of impressions blunted by reiteration. It justifies the bold and true word of Tasso: *Non merita nome di creatore, se non Iddio ed il Poeta* [No one deserves the name of creator except God and the Poet].

A poet, as he is the author to others of the highest wisdom, pleasure, virtue and glory, so he ought personally to be the happiest, the best, the wisest, and the most illustrious of men. As to his glory, let time be challenged to declare whether the fame of any other institutor of human life be comparable to that of a poet. That he is the wisest, the happiest, and the best, inasmuch as he is a poet, is equally incontrovertible: the greatest poets have been men of the most spotless virtue, of the most consummate prudence, and, if we would look into the interior of their lives, the most fortunate of men: and the exceptions, as they regard those who possessed the poetic faculty in a high yet inferior degree, will be found on consideration to confirm rather than destroy the rule. Let us for a moment stoop to the arbitration of popular breath, and usurping and uniting in our own persons the incompatible characters of accuser, witness, judge and executioner, let us decide without trial, testimony, or form that certain motives of those who are "there sitting where we dare not soar" are reprehensible. Let us assume that Homer was a drunkard, that Virgil was a flatterer, that Horace was a coward, that Tasso was a madman, that Bacon was a speculator, that Raphael was a libertine, that Spenser was a poet laureate. It is inconsistent with this division of our subject to cite living poets, but posterity has done ample justice to the great names now referred to. Their errors have been weighed and found to have been dust in the balance; if their sins were as scarlet, they are now white as snow: they have been washed in the blood of the mediator and redeemer, time. Observe in what a ludicrous chaos the imputations of real or fictitious crime have been confused in the contemporary calumnies against poetry and poets; consider how little is, as it appears—or appears as it is; look to your own motives, and judge not, lest ye be judged.

Poetry, as has been said, differs in this respect from logic, that it is not subject to the control of the active powers of the mind, and that its birth

and recurrence have no necessary connection with the consciousness or will. It is presumptuous to determine that these are the necessary conditions of all mental causation, when mental effects are experienced insusceptible of being referred to them. The frequent recurrence of the poetical power, it is obvious to suppose, may produce in the mind a habit of order and harmony correlative with its own nature and with its effects upon other minds. But in the intervals of inspiration, and they may be frequent without being durable, a poet becomes a man, and is abandoned to the sudden reflux of the influences under which others habitually live. But as he is more delicately organized than other men, and sensible to pain and pleasure, both his own and that of others, in a degree unknown to them, he will avoid the one and pursue the other with an ardour proportioned to this difference. And he renders himself obnoxious to calumny, when he neglects to observe the circumstances under which these objects of universal pursuit and flight have disguised themselves in one another's garments.

But there is nothing necessarily evil in this error, and thus cruelty, envy, revenge, avarice, and the passions purely evil have never formed any portion of the popular imputations on the lives of poets.

I have thought it most favourable to the cause of truth to set down these remarks according to the order in which they were suggested to my mind, by a consideration of the subject itself, instead of observing the formality of a polemical reply; but if the view which they contain be just, they will be found to involve a refutation of the arguers against poetry, so far at least as regards the first division of the subject. I can readily conjecture what should have moved the gall of some learned and intelligent writers who quarrel with certain versifiers; I, like them, confess myself unwilling to be stunned by the Theseids of the hoarse Codri of the day. Bavius and Maevius undoubtedly are, as they ever were, insufferable persons. But it belongs to a philosophical critic to distinguish rather than confound.

The first part of these remarks has related to poetry in its elements and principles: and it has been shown, as well as the narrow limits assigned them would permit, that what is called poetry in a restricted sense has a common source with all other forms of order and of beauty, according to which the materials of human life are susceptible of being arranged, and which is poetry in an universal sense.

The second part will have for its object an application of these principles to the present state of the cultivation of poetry, and a defence of the attempt to idealize the modern forms of manners and opinions, and compel them into a subordination to the imaginative and creative faculty.

For the literature of England, an energetic development of which has ever preceded or accompanied a great and free development of the national will, has arisen as it were from a new birth. In spite of the low-thoughted envy which would undervalue contemporary merit, our own will be a memorable age in intellectual achievements, and we live among such philosophers and poets as surpass beyond comparison any who have appeared since the last national struggle for civil and religious liberty. The most unfailing herald, companion, and follower of the awakening of a great people to work a beneficial change in opinion or institution is poetry. At such periods there is an accumulation of the power of communicating and receiving intense and impassioned conceptions respecting man and nature. The persons in whom this power resides may often, as far as regards many portions of their nature, have little apparent correspondence with that spirit of good of which they are the ministers. But even whilst they deny and abjure, they are yet compelled to serve the power which is seated on the throne of their own soul. It is impossible to read the compositions of the most celebrated writers of the present day without being startled with the electric life which burns within their words. They measure the circumference and sound the depths of human nature with a comprehensive and all-penetrating spirit, and they are themselves perhaps the most sincerely astonished at its manifestations; for it is less their spirit than the spirit of the age. Poets are the hierophants of an unapprehended inspiration; the mirrors of the gigantic shadows which futurity casts upon the present; the words which express what they understand not; the trumpets which sing to battle and feel not what they inspire; the influence which is moved not, but moves. Poets are the unacknowledged legislators of the world.

Walt Whitman

1819–1892

Walt Whitman (Walter Whitman, Jr., in full) came of English, Welsh, and Dutch stock. He was born on the family farm in Huntington, Long Island, New York, May 31, 1819. In the early 1820's, his family moved to Brooklyn, where Whitman got a little schooling. He spent a leisurely youth teaching in country districts on Long Island and working as a newspaper printer and writer.

By 1846 he was editing the *Brooklyn Daily Eagle*. A few months with a New Orleans newspaper gave him a chance to explore the Mississippi Valley en route. In Brooklyn again, he began to meditate the poems for *Leaves of Grass*. This great book became the focus of his life. In 1855, almost singlehanded, he set and printed the first edition. "I greet you at the beginning of a great career," Emerson wrote; but the book went largely unread.

From early 1863 until the end of the Civil War, Whitman served as a volunteer nurse, letter writer, and friend in the national hospitals at Washington, D.C. Later he estimated that he made 600 visits and talked to as many as 100,000 sick or wounded, both Union and Confederate. As the author of "an indecent book," he was discharged from the Department of the Interior in 1865.

His friend W. D. O'Connor defended his name in *The Good Gray Poet* and found him another place in the Attorney General's office. There Whitman worked until he was partly disabled by a cerebral hemorrhage in 1873. Meantime his *Selected Poems* had been brought out in England. He published a fifth enlarged edition of *Leaves of Grass*. A prose work, *Democratic Vistas*, conveyed his vision of America's prospects and liabilities.

Except for trips to Colorado and Canada, he spent most of his later years in Camden, New Jersey. There friends–John Burroughs,

Horace Traubel, Dr. R. M. Bucke, and an English admirer, Mrs. Anne Gilchrist–gathered about him. In his last days he edited the ninth edition of *Leaves of Grass* and his *Complete Prose Works*. Weakened by pneumonia, he died in Camden of a complication of illnesses on March 26, 1892.

Let us imagine for a moment that we are Walt Whitman. The year is 1855. He has sold a house to get money for the first publication of *Leaves of Grass*. He is thirty-six, a calm, big-boned man whose hair is already turning gray. He has written a propaganda novel in favor of temperance, edited a few newspapers, and published some sentimental verses. By common standards he is a nobody, but a very self-reliant nobody, "one full-sized man unconquerable and simple." He lives a ferry ride away from the most energetic city in the bustling new nation of the United States.

This is the man–this nobody, this farmer's son from Long Island–who announces calmly out of the blue, in his first book, that he has elected himself the poet of American democracy, with options on the world and the universe. Even if it were a hoax, this would be the boldest act in the history of American literature. But it is not a hoax. It is a serene act of genius. He gives us the evidence in verse, plus an argument in prose. We cannot help noticing that the claim is not purely literary. It is also philosophical, social, and political. It demands for the poet–for Whitman himself, and for the poets who will come after him–the most exalted position, as lawgiver, seer, creator of the future, and delegate of the "divine average," the free individual.

As if this were not enough, the poems in *Leaves of Grass* break all the rules. They shock the literary reader, who expects meter and rhymed endings. Their frankness violates the provincial conventions of the period. With two or three exceptions, the result is outrage. One reviewer calls Whitman "the poet who brought the slop-pail

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Notes from the artist: ". . . Bold, sweeping lines in an abstract pattern swirl around and within the portrait of Whitman in workingman's clothes. The strong, tough lines, like those of Whitman's poetry, might be thought of as Leaves of Grass."

Walt Whitman

into the parlor." And what does Whitman do? He tries to promote the book. When it will not be promoted, he goes calmly about the business of preparing a second, expanded edition.

But the mystery remains. How did this man suddenly produce this book? We know that in the years between his journey to New Orleans and 1855, something has happened to Whitman. We do not know what. Perhaps he does not know himself. Perhaps it is only that all his lines of development have come together f or the first time in the bold speeches of his poems. The answer, if we can find it anywhere, may be found in the *Preface* he wrote for *Leaves of Grass*.

It is infused with a sense of mission. In it Whitman speaks in the tone of a man who has experienced a religious conversion. He has fallen in love with the universe and found his true relation to it. His voice is the voice of a great ethical teacher: "Love the earth and sun and the animals, despise riches, give alms to every one that asks, stand up for the stupid and crazy, devote your income and labor to others, hate tyrants, argue not concerning God. . . ." Do these things, he writes, and "your very flesh shall be a great poem. . . ."

Preface to Leaves of Grass

merica does not repel the past, or what the past has produced under its forms, or amid other politics, or the idea of castes, or the old religions–accepts the lesson with calmness–is not impatient because the slough still sticks to opinions and manners in literature, while the life which served its requirements has passed into the new life of the new forms–perceives that the corpse is slowly borne from the eating and sleeping rooms of the house–perceives that it waits a little while in the door–that it was fittest for its days–that its action has descended to the stalwart and well-shaped heir who approaches–and that he shall be fittest for his days.

The Americans of all nations at any time upon the earth, have probably the fullest poetical nature. The United States themselves are essentially the greatest poem. In the history of the earth hitherto, the largest and most stirring appear tame and orderly to their ampler largeness and stir. Here at last is something in the doings of man that corresponds with the broadcast doings of the day and night. Here is action untied from strings, necessarily blind to particulars and details, magnificently moving in masses. Here is the hospitality which forever indicates heroes. Here the performance, disdaining the trivial, unapproached in the tremendous audacity of its crowds and groupings, and the push of its perspective, spreads with crampless and flowing breadth, and showers its prolific and splendid extravagance. One sees it must indeed own the riches of the summer and winter, and need never be bankrupt while corn grows from the ground, or the orchards drop apples, or the bays contain fish, or men beget children upon women.

Other states indicate themselves in their deputies–but the genius of the United States is not best or most in its executives or legislatures, nor in its ambassadors or authors, or colleges or churches or parlors, nor

even in its newspapers or inventors–but always most in the common people, south, north, west, east, in all its States, through all its mighty amplitude. The largeness of the nation, however, were monstrous without a corresponding largeness and generosity of the spirit of the citizen. Not swarming states, nor streets and steamships, nor prosperous business, nor farms, nor capital, nor learning, may suffice for the ideal of man–nor suffice the poet. No reminiscences may suffice either. A live nation can always cut a deep mark, and can have the best authority the cheapest–namely, from its own soul. This is the sum of the profitable uses of individuals or states, and of present action and grandeur, and of the subjects of poets. (As if it were necessary to trot back generation after generation to the eastern records! As if the beauty and sacredness of the demonstrable must fall behind that of the mythical! As if men do not make their mark out of any times! As if the opening of the western continent by discovery, and what has transpired in North and South America, were less than the small theatre of the antique, or the aimless sleep walking of the middle ages!) The pride of the United States leaves the wealth and finesse of the cities, and all returns of commerce and agriculture, and all the magnitude of geography or shows of exterior victory, to enjoy the sight and realization of full-sized men, or one full-sized man unconquerable and simple.

The American poets are to enclose old and new, for America is the race of races. The expression of the American poet is to be transcendent and new. It is to be indirect, and not direct or descriptive or epic. Its quality goes through these to much more. Let the age and wars of other nations be chanted, and their eras and characters be illustrated, and that finish the verse. Not so the great psalm of the republic. Here the theme is creative, and has vista. Whatever stagnates in the flat of custom or obedience or legislation, the great poet never stagnates. Obedience does not master him, he masters it. High up out of reach he stands, turning a concentrated light–he turns the pivot with his finger–he baffles the swiftest runners as he stands, and easily overtakes and envelopes them. The time straying toward infidelity and confections and persiflage he withholds by steady faith. Faith is the antiseptic of the soul–it pervades the common people and preserves them–they never give up believing and expecting and trusting. There is that indescribable freshness and unconsciousness about an illiterate person, that humbles and mocks the power of the noblest expressive genius. The poet sees for a certainty how one not a great artist may be just as sacred and perfect as the greatest artist.

The power to destroy or remold is freely used by the greatest poet, but seldom the power of attack. What is past is past. If he does not expose superior models, and prove himself by every step he takes, he is not what is wanted. The presence of the great poet conquers—not parleying, or struggling, or any prepared attempts. Now he has passed that way, see after him! There is not left any vestige of despair, or misanthropy, or cunning, or exclusiveness, or the ignominy of a nativity or color, or delusion of hell or the necessity of hell—and no man thenceforward shall be degraded for ignorance or weakness or sin. The greatest poet hardly knows pettiness or triviality. If he breathes into anything that was before thought small, it dilates with the grandeur and life of the universe. He is a seer—he is individual—he is complete in himself—the others are as good as he, only he sees it, and they do not. He is not one of the chorus—he does not stop for any regulation—he is the president of regulation. What the eyesight does to the rest, he does to the rest. Who knows the curious mystery of the eyesight? The other senses corroborate themselves, but this is removed from any proof but its own, and foreruns the identities of the spiritual world. A single glance of it mocks all the investigations of man, and all the instruments and books of the earth, and all reasoning. What is marvelous? what is unlikely? what is impossible or baseless or vague—after you have once just opened the space of a peach pit, and given audience to far and near, and to the sunset, and had all things enter with electric swiftness, softly and duly, without confusion or jostling or jam?

The land and sea, the animals, fishes and birds, the sky of heaven and the orbs, the forests, mountains and rivers, are not small themes—but folks expect of the poet to indicate more than the beauty and dignity which always attach to dumb real objects—they expect him to indicate the path between reality and their souls. Men and women perceive the beauty well enough—probably as well as he. The passionate tenacity of hunters, woodmen, early risers, cultivators of gardens and orchards and fields, the love of healthy women for the manly form, seafaring persons, drivers of horses, the passion for light and the open air, all is an old varied sign of the unfailing perception of beauty, and of a residence of the poetic in outdoor people. They can never be assisted by poets to perceive—some may, but they never can. The poetic quality is not marshaled in rhyme or uniformity, or abstract addresses to things, nor in melancholy complaints or good precepts, but is the life of these and much else, and is in the soul. The profit of rhyme is that it drops seeds of a sweeter and more luxuriant rhyme, and of uniformity that it conveys itself into its own

roots in the ground out of sight. The rhyme and uniformity of perfect poems show the free growth of metrical laws, and bud from them as unerringly and loosely as lilacs and roses on a bush, and take shapes as compact as the shapes of chestnuts and oranges, and melons and pears, and shed the perfume impalpable to form. The fluency and ornaments of the finest poems or music or orations or recitations, are not independent but dependent. All beauty comes from beautiful blood and a beautiful brain. If the greatnesses are in conjunction in a man or woman, it is enough–the fact will prevail through the universe; but the gaggery and gilt of a million years will not prevail. Who troubles himself about his ornaments or fluency is lost. This is what you shall do: Love the earth and sun and the animals, despise riches, give alms to every one that asks, stand up for the stupid and crazy, devote your income and labor to others, hate tyrants, argue not concerning God, have patience and indulgence toward the people, take off your hat to nothing known or unknown, or to any man or number of men–go freely with powerful uneducated persons, and with the young, and with the mothers of families–re-examine all you have been told in school or church or in any book, and dismiss whatever insults your own soul; and your very flesh shall be a great poem, and have the richest fluency, not only in its words, but in the silent lines of its lips and face, and between the lashes of your eyes, and in every motion and joint of your body. The poet shall not spend his time in unneeded work. He shall know that the ground is already ploughed and manured; others may not know it, but he shall. He shall go directly to the creation. His trust shall master the trust of everything he touches–and shall master all attachment.

The known universe has one complete lover, and that is the greatest poet. He consumes an eternal passion, and is indifferent which chance happens, and which possible contingency of fortune or misfortune, and persuades daily and hourly his delicious pay. What balks or breaks others is fuel for his burning progress to contact and amorous joy. Other proportions of the reception of pleasure dwindle to nothing to his proportions. All expected from heaven or from the highest, he is rapport with in the sight of the daybreak, or the scenes of the winter woods, or the presence of children playing, or with his arm round the neck of a man or woman. His love above all love has leisure and expanse–he leaves room ahead of himself. He is no irresolute or suspicious lover–he is sure–he scorns intervals. His experience and the showers and thrills are not for nothing. Nothing can jar him–suffering and darkness cannot–death and

fear cannot. To him complaint and jealousy and envy are corpses buried and rotten in the earth–he saw them buried. The sea is not surer of the shore, or the shore of the sea, than he is the fruition of his love, and of all perfection and beauty.

The fruition of beauty is no chance of miss or hit–it is as inevitable as life–it is exact and plumb as gravitation. From the eyesight proceeds another eyesight, and from the hearing proceeds another hearing, and from the voice proceeds another voice, eternally curious of the harmony of things with man. These understand the law of perfection in masses and floods–that it is profuse and impartial–that there is not a minute of the light or dark, nor an acre of the earth and sea, without it–nor any direction of the sky, nor any trade or employment, nor any turn of events. This is the reason that about the proper expression of beauty there is precision and balance. One part does not need to be thrust above another. The best singer is not the one who has the most lithe and powerful organ. The pleasure of poems is not in them that take the handsomest measure and sound.

Without effort, and without exposing in the least how it is done, the greatest poet brings the spirit of any or all events and passions and scenes and persons, some more and some less, to bear on your individual character as you hear or read. To do this well is to compete with the laws that pursue and follow Time. What is the purpose must surely be there, and the clue of it must be there–and the faintest indication is the indication of the best, and then becomes the clearest indication. Past and present and future are not disjoined but joined. The greatest poet forms the consistence of what is to be, from what has been and is. He drags the dead out of their coffins and stands them again on their feet. He says to the past, Rise and walk before me that I may realize you. He learns the lesson–he places himself where the future becomes present. The greatest poet does not only dazzle his rays over character and scenes and passions–he finally ascends, and finishes all–he exhibits the pinnacles that no man can tell what they are for, or what is beyond–he glows a moment on the extremest verge. He is most wonderful in his last half-hidden smile or frown; by that flash of the moment of parting the one that sees it shall be encouraged or terrified afterward for many years. The greatest poet does not moralize or make applications of morals–he knows the soul. The soul has that measureless pride which consists in never acknowledging any lessons or deductions but its own. But it has sympathy as measureless as its pride, and the one balances the other, and neither can

stretch too far while it stretches in company with the other. The inmost secrets of art sleep with the twain. The greatest poet has lain close betwixt both, and they are vital in his style and thoughts.

The art of art, the glory of expression and the sunshine of the light of letters, is simplicity. Nothing is better than simplicity—nothing can make up for excess, or for the lack of definiteness. To carry on the heave of impulse and pierce intellectual depths and give all subjects their articulations are powers neither common nor very uncommon. But to speak in literature with the perfect rectitude and insouciance of the movements of animals, and the unimpeachableness of the sentiment of trees in the woods and grass by the roadside, is the flawless triumph of art. If you have looked on him who has achieved it you have looked on one of the masters of the artists of all nations and times. You shall not contemplate the flight of the gray gull over the bay, or the mettlesome action of the blood horse, or the tall leaning of sunflowers on their stalk, or the appearance of the sun journeying through heaven, or the appearance of the moon afterward, with any more satisfaction than you shall contemplate him. The great poet has less a marked style, and is more the channel of thoughts and things without increase or diminution, and is the free channel of himself. He swears to his art, I will not be meddlesome, I will not have in my writing any elegance, or effect, or originality, to hang in the way between me and the rest like curtains. I will have nothing hang in the way, not the richest curtains. What I tell I tell for precisely what it is. Let who may exalt or startle or fascinate or soothe, I will have purposes as health or heat or snow has, and be as regardless of observation. What I experience or portray shall go from my composition without a shred of my composition. You shall stand by my side and look in the mirror with me.

The old red blood and stainless gentility of great poets will be proved by their unconstraint. A heroic person walks at his ease through and out of that custom or precedent or authority that suits him not. Of the traits of the brotherhood of first-class writers, savans, musicians, inventors and artists, nothing is finer than silent defiance advancing from new free forms. In the need of poems, philosophy, politics, mechanism, science, behavior, the craft of art, an appropriate native grand opera, shipcraft, or any craft, he is greatest for ever and ever who contributes the greatest original practical example. The cleanest expression is that which finds no sphere worthy of itself, and makes one.

The messages of great poems to each man and woman are, Come to us on equal terms, only then can you understand us. We are no better than

you, what we enclose you enclose, what we enjoy you may enjoy. Did you suppose there could be only one Supreme? We affirm there can be unnumbered Supremes, and that one does not countervail another any more than one eyesight countervails another–and that men can be good or grand only of the consciousness of their supremacy within them. What do you think is the grandeur of storms and dismemberments, and the deadliest battles and wrecks, and the wildest fury of the elements, and the power of the sea, and the motion of Nature, and the throes of human desires, and dignity and hate and love? It is that something in the soul which says, Rage on, whirl on, I tread master here and everywhere–Master of the spasms of the sky and of the shatter of the sea, Master of nature and passion and death, and of all terror and all pain.

The American bards shall be marked for generosity and affection, and for encouraging competitors. They shall be Kosmos, without monopoly or secrecy, glad to pass anything to any one–hungry for equals night and day. They shall not be careful of riches and privilege–they shall be riches and privilege–they shall perceive who the most affluent man is. The most affluent man is he that confronts all the shows he sees by equivalents out of the stronger wealth of himself. The American bard shall delineate no class of persons, nor one or two out of the strata of interests, nor love most nor truth most, nor the soul most, nor the body most–and not be for the Eastern States more than the Western, or the Northern States more than the Southern.

Exact science and its practical movements are no checks on the greatest poet, but always his encouragement and support. The outset and remembrance are there–there the arms that lifted him first, and braced him best–there he returns after all his goings and comings. The sailor and traveler–the anatomist, chemist, astronomer, geologist, phrenologist, spiritualist, mathematician, historian, and lexicographer, are not poets, but they are the lawgivers of poets, and their construction underlies the structure of every perfect poem. No matter what rises or is uttered, they sent the seed of the conception of it–of them and by them stand the visible proofs of souls. If there shall be love and content between the father and the son, and if the greatness of the son is the exuding of the greatness of the father, there shall be love between the poet and the man of demonstrable science. In the beauty of poems are henceforth the tuft and final applause of science.

Great is the faith of the flush of knowledge, and of the investigation of the depths of qualities and things. Cleaving and circling here swells the soul of the poet, yet is president of itself always. The depths are fathom-

less, and therefore calm. The innocence and nakedness are resumed–they are neither modest nor immodest. The whole theory of the supernatural, and all that was twined with it or educed out of it, departs as a dream. What has ever happened–what happens, and whatever may or shall happen, the vital laws enclose all. They are sufficient for any case and for all cases–none to be hurried or retarded–any special miracle of affairs or persons inadmissible in the vast clear scheme where every motion and every spear of grass, and the frames and spirits of men and women and all that concerns them, are unspeakably perfect miracles, all referring to all, and each distinct and in its place. It is also not consistent with the reality of the soul to admit that there is anything in the known universe more divine than men and women.

Men and women, and the earth and all upon it, are to be taken as they are, and the investigation of their past and present and future shall be unintermitted, and shall be done with perfect candor. Upon this basis philosophy speculates, ever looking towards the poet, ever regarding the eternal tendencies of all toward happiness, never inconsistent with what is clear to the senses and to the soul. For the eternal tendencies of all toward happiness make the only point of sane philosophy. Whatever comprehends less than that–whatever is less than the laws of light and of astronomical motion–or less than the laws that follow the thief, the liar, the glutton and the drunkard, through this life and doubtless afterward–or less than vast stretches of time, or the slow formation of density, or the patient upheaving of strata–is of no account. Whatever would put God in a poem or system of philosophy as contending against some being or influence, is also of no account. Sanity and ensemble characterize the great master–spoilt in one principle, all is spoilt. The great master has nothing to do with miracles. He sees health for himself in being one of the mass–he sees the hiatus in singular eminence. To the perfect shape comes common ground. To be under the general law is great, for that is to correspond with it. The master knows that he is unspeakably great, and that all are unspeakably great–that nothing, for instance, is greater than to conceive children, and bring them up well–that to *be* is just as great as to perceive or tell.

In the make of the great masters the idea of political liberty is indispensable. Liberty takes the adherence of heroes wherever man and woman exist–but never takes any adherence or welcome from the rest more than from poets. They are the voice and exposition of liberty. They out of ages are worthy the grand idea–to them it is confided, and they

must sustain it. Nothing has precedence of it, and nothing can warp or degrade it.

As the attributes of the poets of the kosmos concentre in the real body, and in the pleasure of things, they possess the superiority of genuineness over all fiction and romance. As they emit themselves, facts are showered over with light–the daylight is lit with more volatile light–the deep between the setting and rising sun goes deeper many fold. Each precise object or condition or combination or process exhibits a beauty–the multiplication table its–old age its–the carpenter's trade its–the grand opera its–the huge-hulled clean-shaped New York clipper at sea under steam or full sail gleams with unmatched beauty–the American circles and large harmonies of government gleam with theirs–and the commonest definite intentions and actions with theirs. The poets of the kosmos advance through all interpositions and coverings and turmoils and stratagems to first principles. They are of use–they dissolve poverty from its need, and riches from its conceit. You large proprietor, they say, shall not realize or perceive more than any one else. The owner of the library is not he who holds a legal title to it, having bought and paid for it. Any one and every one is owner of the library, (indeed he or she alone is owner,) who can read the same through all the varieties of tongues and subjects and styles, and in whom they enter with ease, and make supple and powerful and rich and large.

These American States, strong and healthy and accomplished, shall receive no pleasure from violations of natural models, and must not permit them. In paintings or moldings or carvings in mineral or wood, or in the illustrations of books or newspapers, or in the patterns of woven stuffs, or anything to beautify rooms or furniture or costumes, or to put upon cornices or monuments, or on the prows or sterns of ships, or to put anywhere before the human eye indoors or out, that which distorts honest shapes, or which creates unearthly beings or places or contingencies, is a nuisance and revolt. Of the human form especially, it is so great it must never be made ridiculous. Of ornaments to a work nothing *outré* can be allowed–but those ornaments can be allowed that conform to the perfect facts of the open air, and that flow out of the nature of the work, and come irrepressibly from it, and are necessary to the completion of the work. Most works are most beautiful without ornament. Exaggerations will be revenged in human physiology. Clean and vigorous childen are jetted and conceived only in those communities where the models of natural forms are public every day. Great genius and the people of these

States must never be demeaned to romances. As soon as histories are properly told, no more need of romances.

The great poets are to be known by the absence in them of tricks, and by the justification of perfect personal candor. All faults may be forgiven of him who has perfect candor. Henceforth let no man of us lie, for we have seen that openness wins the inner and outer world, and that there is no single exception, and that never since our earth gathered itself in a mass have deceit or subterfuge or prevarication attracted its smallest particle or the faintest tinge of a shade—and that through the enveloping wealth and rank of a state, or the whole republic of states, a sneak or sly person shall be discovered and despised—and that the soul has never once been fooled and never can be fooled—and thrift without the loving nod of the soul is only a fetid puff—and there never grew up in any of the continents of the globe, nor upon any planet or satellite, nor in that condition which precedes the birth of babes, nor at any time during the changes of life, nor in any stretch of abeyance or action of vitality, nor in any process of formation or reformation anywhere, a being whose instinct hated the truth.

Extreme caution or prudence, the soundest organic health, large hope and comparison and fondness for women and children, large alimentiveness and destructiveness and causality, with a perfect sense of the oneness of nature, and the propriety of the same spirit applied to human affairs, are called up of the float of the brain of the world to be parts of the greatest poet from his birth out of his mother's womb, and from her birth out of her mother's. Caution seldom goes far enough. It has been thought that the prudent citizen was the citizen who applied himself to solid gains, and did well for himself and for his family, and completed a lawful life without debt or crime. The greatest poet sees and admits these economies as he sees the economies of food and sleep, but has higher notions of prudence than to think he gives much when he gives a few slight attentions at the latch of the gate. The premises of the prudence of life are not the hospitality of it, or the ripeness and harvest of it. Beyond the independence of a little sum laid aside for burial money, and of a few clapboards around and shingles overhead on a lot of American soil owned, and the easy dollars that supply the year's plain clothing and meals, the melancholy prudence of the abandonment of such a great being as a man is, to the toss and pallor of years of money-making, with all their scorching days and icy nights, and all their stifling deceits and underhand dodgings, or infinitesimals of parlors, or shameless stuffing while others starve, and all the loss of the bloom and odor of the earth,

and of the flowers and atmosphere, and of the sea, and of the true taste of the women and men you pass or have to do with in youth or middle age, and the issuing sickness and desperate revolt at the close of a life without elevation or naïveté (even if you have achieved a secure 10,000 a year, or election to Congress or the Governorship), and the ghastly chatter of a death without serenity or majesty, is the great fraud upon modern civilization and forethought, blotching the surface and system which civilization undeniably drafts, and moistening with tears the immense features it spreads and spreads with such velocity before the reached kisses of the soul.

Ever the right explanation remains to be made about prudence. The prudence of the mere wealth and respectability of the most esteemed life appears too faint for the eye to observe at all, when little and large alike drop quietly aside at the thought of the prudence suitable for immortality. What is the wisdom that fills the thinness of a year, or seventy or eighty years—to the wisdom spaced out by ages, and coming back at a certain time with strong reinforcements and rich presents, and the clear faces of wedding guests as far as you can look, in every direction, running gaily toward you? Only the soul is of itself—all else has reference to what ensues. All that a person does or thinks is of consequence. Nor can the push of charity or personal force ever be anything else than the profoundest reason, whether it brings argument to hand or no. No specification is necessary—to add or subtract or divide is in vain. Little or big, learned or unlearned, white or black, legal or illegal, sick or well, from the first inspiration down the windpipe to the last expiration out of it, all that a male or female does that is vigorous and benevolent and clean is so much sure profit to him or her in the unshakable order of the universe, and through the whole scope of it forever. The prudence of the greatest poet answers at last the craving and glut of the soul, puts off nothing, permits no letup for its own case or any case, has no particular sabbath or judgment day, divides not the living from the dead, or the righteous from the unrighteous, is satisfied with the present, matches every thought or act by its correlative, and knows no possible forgiveness or deputed atonement.

The direct trial of him who would be the greatest poet is today. If he does not flood himself with the immediate age as with vast oceanic tides—if he be not himself the age transfigured, and if to him is not opened the eternity which gives similitude to all periods and locations and processes, and animate and inanimate forms, and which is the bond of time, and rises up from its inconceivable vagueness and infiniteness in

the swimming shapes of today, and is held by the ductile anchors of life, and makes the present spot the passage from what was to what shall be, and commits itself to the representation of this wave of an hour, and this one of the sixty beautiful children of the wave–let him merge in the general run, and wait his development.

Still the final test of poems, or any character or work, remains. The prescient poet projects himself centuries ahead, and judges performer or performance after the changes of time. Does it live through them? Does it still hold on untired? Will the same style, and the direction of genius to similar points, be satisfactory now? Have the marches of tens and hundreds and thousands of years made willing detours to the right hand and the left hand for his sake? Is he beloved long and long after he is buried? Does the young man think often of him? and the young woman think often of him? and do the middle-aged and the old think of him?

A great poem is for ages and ages in common, and for all degrees and complexions, and all departments and sects, and for a woman as much as a man, and a man as much as a woman. A great poem is no finish to a man or woman, but rather a beginning. Has any one fancied he could sit at last under some due authority, and rest satisfied with explanations, and realize, and be content and full? To no such terminus does the greatest poet bring–he brings neither cessation nor sheltered fatness and ease. The touch of him, like Nature, tells in action. Whom he takes he takes with firm sure grasp into live regions previously unattained–thenceforward is no rest–they see the space and ineffable sheen that turn the old spots and lights into dead vacuums. Now there shall be a man cohered out of tumult and chaos–the elder encourages the younger and shows him how–they two shall launch off fearlessly together till the new world fits an orbit for itself, and looks unabashed on the lesser orbits of the stars, and sweeps through the ceaseless rings, and shall never be quiet again.

There will soon be no more priests. Their work is done. A new order shall arise, and they shall be the priests of man, and every man shall be his own priest. They shall find their inspiration in real objects today, symptoms of the past and future. They shall not deign to defend immortality or God, or the perfection of things, or liberty, or the exquisite beauty and reality of the soul. They shall arise in America, and be responded to from the remainder of the earth.

The English language befriends the grand American expression–it is brawny enough, and limber and full enough. On the tough stock of a race who through all change of circumstance was never without the idea of

political liberty, which is the animus of all liberty, it has attracted the terms of daintier and gayer and subtler and more elegant tongues. It is the powerful language of resistance–it is the dialect of common sense. It is the speech of the proud and melancholy races, and of all who aspire. It is the chosen tongue to express growth, faith, self-esteem, freedom, justice, equality, friendliness, amplitude, prudence, decision, and courage. It is the medium that shall well-nigh express the inexpressible.

No great literature, nor any like style of behavior or oratory, or social intercourse or household arrangements, or public institutions, or the treatment by bosses of employed people, nor executive detail, or detail of the army and navy, nor spirit of legislation or courts, or police or tuition or architecture, or songs or amusements, can long elude the jealous and passionate instinct of American standards. Whether or no the sign appears from the mouths of the people, it throbs a live interrogation in every freeman's and freewoman's heart, after that which passes by, or this built to remain. Is it uniform with my country? Are its disposals without ignominious distinctions? Is it for the ever-growing communes of brothers and lovers, large, well united, proud, beyond the old models, generous beyond all models? Is it something grown fresh out of the fields, or drawn from the sea for use to me today here? I know that what answers for me, an American, in Texas, Ohio, Canada, must answer for any individual or nation that serves for a part of my materials. Does this answer? Is it for the nursing of the young of the republic? Does it solve readily with the sweet milk of the nipples of the breasts of the Mother of Many Children?

America prepares with composure and good will for the visitors that have sent word. It is not intellect that is to be their warrant and welcome. The talented, the artist, the ingenious, the editor, the statesman, the erudite, are not unappreciated–they fall in their place and do their work. The soul of the nation also does its work. It rejects none, it permits all. Only toward the like of itself will it advance half-way. An individual is as superb as a nation when he has the qualities which make a superb nation. The soul of the largest and wealthiest and proudest nation may well go half-way to meet that of its poets.

The foregoing is Whitman's preface to the 1882 edition of LEAVES OF GRASS.

William Hazlitt

1778–1830

William Hazlitt was born at Maidstone, Kent, April 10, 1778. His father, a Unitarian minister and liberal of Irish stock, knew Franklin and favored the American Revolution. In 1783 he moved his family, first to Ireland, then to Philadelphia and Boston. A little later the Hazlitts returned to England. Young William grew up in the peaceful, flowery countryside at Wem in Shropshire, his mind full of the French Revolution, the great event of his time. All his life he remained a hot libertarian who also idolized Napoleon.

He was sent to a well-taught Unitarian academy at Hackney. Like Henry and William James, he tried painting first. In Paris, he earned his keep making copies of works at the Louvre. Back in England in 1803, he spent two years as a wandering portrait painter. His self-portrait, solidly painted, shows a gaunt-faced, brooding young man, not unhandsome, with lank black hair and big dark eyes.

In 1805 he turned to writing. *On the Principles of Human Action* and three other books of ideas were published in the next few years. He married Sarah Stoddart, a friend of the Lambs, and went to live at Winterslow. Hazlitt was penniless when his second child was born in 1811. He lectured on philosophy in London and got a job as parliamentary reporter on the *Morning Chronicle*. He became the paper's drama critic. A collection of theater articles and two books

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Notes from the artist: "Hazlitt and two important figures in his life . . . at the left, Shakespeare, subject of several of Hazlitt's essays; above is Napoleon I, greatly admired by Hazlitt, who was deeply affected by the emperor's defeat at Waterloo."

Wm Hazlitt.

of his "Round Table" essays made his reputation. He praised the Romantic poets. This brought him under attack by the thunderous William Gifford of the *Quarterly Review*. Hazlitt replied with all guns, to the delight of Keats and his other friends.

He wrote on every subject from art exhibitions to prize fights. His three famous lecture series, including *On the English Poets*, were gathered into books. Long separated from his wife, he fell in love with Sarah Walker, the daughter of his London landlord. She played him off against another man. He wrote the story, somewhat disguised, in *Liber Amoris*, a book that English critics found distasteful. Hazlitt married again later, traveled in France and Italy, and wrote a four-volume life of Napoleon. His best-known later work, *The Spirit of the Age*, contained studies of the leading men of his time. He died of cancer of the stomach in London on September 18, 1830.

Up to 1820 the name of Wordsworth was trampled underfoot," said De Quincey; and the same was true of Coleridge. Why? Because they had made a revolution in poetry, and because at that time they supported the French Revolution. Hazlitt met them first in 1798, when he was twenty. A quarter-century later, in *My First Acquaintance with Poets*, he recovers the excitement of that youthful time when a new poetry and a new age were born together.

We see Coleridge, the big, "round-faced man in black," in the character of a Unitarian clergyman, preaching a sermon as vivid as Father Mapple's in Melville.[1] Later, with young Hazlitt, we go on a visit to Coleridge. Walking, of course—what are legs for?—we arrive at Nether Stowey, a "green and hilly" place near the sea. With Dorothy Wordsworth we eat the plain supper of poets and a day or two later get our first view of that other great man, William Wordsworth, "gaunt and Don Quixote-like" in his "brown fustian jacket and striped pantaloons."

Hazlitt and Coleridge held nearly opposite opinions of Swift as a poet. But Coleridge, even in his later falling out with Hazlitt, must have found Hazlitt's essay *On Swift* a generally admirable piece of work. Hazlitt shows a sound understanding of the color and depth of Swift's moralism. He sees that it is central to Swift's work.

[1] See *Moby Dick,* in *Great Books of the Western World*.

And he gives us here the best and truest image of Swift as a writer: a jealously irritable father out of patience with "that great baby the world."

In *Of Persons One Would Wish to Have Seen*, Hazlitt leads us up three flights to an evening party at the rooms of Charles Lamb in Mitre-Court, London. The picture has its own snug charm. The host is there, and his sister Mary, here called "Mrs. Reynolds." Others who take part in the conversation are William Ayrton, musician and critic; John Rickman, political economist; Erasmus Phillips, his secretary; Fanny Burney's brother, Captain James Burney, and his son Martin; Barron Field, critic and lawyer; and George Dyer, poet. William Godwin, novelist and political writer, also appears to be present, but silent. The "Eugene Aram" mentioned by Hazlitt was a philologist hanged for murder, later the subject of a novel by Edward Bulwer-Lytton. The "Lord Brooke" of whom Lamb speaks has been named earlier as Fulke Greville, Elizabethan poet and statesman.

Which two persons now dead would *we* like to have seen? We have a century and a half of famous names to add to Hazlitt's list. Lincoln and Jenny Lind? Sun Yat-sen and Vincent Van Gogh? Or Emily Dickinson and Buffalo Bill?

My First Acquaintance with Poets

My father was a Dissenting Minister, at Wem, in Shropshire; and in the year 1798 (the figures that compose the date are to me like the "dreaded name of Demogorgon") Mr. Coleridge came to Shrewsbury, to succeed Mr. Rowe in the spiritual charge of a Unitarian Congregation there. He did not come till late on the Saturday afternoon before he was to preach; and Mr. Rowe, who himself went down to the coach, in a state of anxiety and expectation, to look for the arrival of his successor, could find no one at all answering the description but a round-faced man, in a short black coat (like a shooting-jacket) which hardly seemed to have been made for him, but who seemed to be talking at a great rate to his fellow-passengers. Mr. Rowe had scarce returned to give an account of his disappointment when the round-faced man in black entered, and dissipated all doubts on the subject by beginning to talk. He did not cease while he stayed; nor has he since, that I know of. He held the good town of Shrewsbury in delightful suspense for three weeks that he remained there, "fluttering the proud Salopians, like an eagle in a dovecote"; and the Welsh mountains that skirt the horizon with their tempestuous confusion agree to have heard no such mystic sounds since the days of

> High-born Hoel's harp or soft Llewellyn's lay.

As we passed along between Wem and Shrewsbury, and I eyed their blue tops seen through the wintry branches, or the red rustling leaves of the sturdy oak-trees by the roadside, a sound was in my ears as of a Siren's song; I was stunned, startled with it, as from deep sleep; but I had no notion then that I should ever be able to express my admiration to others in motley imagery of quaint allusion, till the light of his genius shone into my soul, like the sun's rays glittering in the puddles of the

road. I was at that time dumb, inarticulate, helpless, like a worm by the wayside, crushed, bleeding, lifeless; but now, bursting from the deadly bands that "bound them,

With Styx nine times round them,"

my ideas float on winged words, and as they expand their plumes, catch the golden light of other years. My soul has indeed remained in its original bondage, dark, obscure, with longings infinite and unsatisfied; my heart, shut up in the prison-house of this rude clay, has never found, nor will it ever find, a heart to speak to; but that my understanding also did not remain dumb and brutish, or at length found a language to express itself, I owe to Coleridge. But this is not to my purpose.

My father lived ten miles from Shrewsbury, and was in the habit of exchanging visits with Mr. Rowe, and with Mr. Jenkins of Whitchurch (nine miles farther on), according to the custom of Dissenting Ministers in each other's neighborhood. A line of communication is thus established, by which the flame of civil and religious liberty is kept alive, and nourishes its smoldering fire unquenchable, like the fires in the *Agamemnon* of Aeschylus, placed at different stations, that waited for ten long years to announce with their blazing pyramids the destruction of Troy. Coleridge had agreed to come over and see my father, according to the courtesy of the country, as Mr. Rowe's probable successor; but in the meantime, I had gone to hear him preach the Sunday after his arrival. A poet and a philosopher getting up into a Unitarian pulpit to preach the gospel was a romance in these degenerate days, a sort of revival of the primitive spirit of Christianity, which was not to be resisted.

It was in January of 1798, that I rose one morning before daylight, to walk ten miles in the mud, to hear this celebrated person preach. Never, the longest day I have to live, shall I have such another walk as this cold, raw, comfortless one, in the winter of the year 1798. *Il y a des impressions que ni le tems ni les circonstances peuvent effacer. Dussé-je vivre des siècles entiers, le doux tems de ma jeunesse ne peut renaître pour moi, ni s'effacer jamais dans ma mémoire*. ["There are impressions that neither time nor circumstances can erase. Should I live whole centuries, the sweet period of my youth could never be reborn for me, nor could it ever fade from my memory."] When I got there, the organ was playing the 100th Psalm, and when it was done, Mr. Coleridge rose and gave out his text, "And he went up into the mountain to pray, HIMSELF, ALONE." As he gave out this text, his voice "rose like a steam of rich distilled perfumes," and when he came to the two last words, which he pronounced loud, deep,

and distinct, it seemed to me, who was then young, as if the sounds had echoed from the bottom of the human heart, and as if that prayer might have floated in solemn silence through the universe. The idea of St. John came into my mind, "of one crying in the wilderness, who had his loins girt about, and whose food was locusts and wild honey." The preacher then launched into his subject, like an eagle dallying with the wind. The sermon was upon peace and war; upon church and state—not their alliance, but their separation—on the spirit of the world and the spirit of Christianity, not as the same, but as opposed to one another. He talked of those who had "inscribed the cross of Christ on banners dripping with human gore." He made a poetical and pastoral excursion—and to show the fatal effects of war, drew a striking contrast between the simple shepherd-boy, driving his team afield, or sitting under the hawthorn, piping to his flock, "as though he should never be old," and the same poor country-lad, crimped, kidnapped, brought into town, made drunk at an alehouse, turned into a wretched drummer-boy, with his hair sticking on end with powder and pomatum, a long cue at his back, and tricked out in the loathsome finery of the profession of blood:

> Such were the notes our once-loved poet sung.

And for myself, I could not have been more delighted if I had heard the music of the spheres. Poetry and Philosophy had met together. Truth and Genius had embraced, under the eye and with the sanction of Religion. This was even beyond my hopes. I returned home well satisfied. The sun that was still laboring pale and wan through the sky, obscured by thick mists, seemed an emblem of the good cause; and the cold dank drops of dew, that hung half melted on the beard of the thistle, had something genial and refreshing in them; for there was a spirit of hope and youth in all nature, that turned everything into good. The face of nature had not then the brand of Jus Divinum on it:

> Like to that sanguine flower inscrib'd with woe.

On the Tuesday following, the half-inspired speaker came. I was called down into the room where he was, and went half-hoping, half-afraid. He received me very graciously, and I listened for a long time without uttering a word. I did not suffer in his opinion by my silence. "For those two hours," he afterwards was pleased to say, "he was conversing with William Hazlitt's forehead!" His appearance was different from what I had anticipated from seeing him before. At a distance, and in the dim light of the chapel, there was to me a strange wildness in his aspect, a

dusky obscurity, and I thought him pitted with the smallpox. His complexion was at that time clear, and even bright–

As are the children of yon azure sheen.

His forehead was broad and high, light as if built of ivory, with large projecting eyebrows, and his eyes rolling beneath them, like a sea with darkened lustre. "A certain tender bloom his face o'erspread," a purple tinge as we see it in the pale thoughtful complexions of the Spanish portrait-painters, Murillo and Velasquez. His mouth was gross, voluptuous, open, eloquent; his chin good-humoured and round; but his nose, the rudder of the face, the index of the will, was small, feeble, nothing–like what he has done. It might seem that the genius of his face as from a height surveyed and projected him (with sufficient capacity and huge aspiration) into the world unknown of thought and imagination, with nothing to support or guide his veering purpose, as if Columbus had launched his adventurous course for the New World in a scallop, without oars or compass. So, at least, I comment on it after the event. Coleridge, in his person, was rather above the common size, inclining to the corpulent, or like Lord Hamlet, "somewhat fat and pursy." His hair (now, alas! grey) was then black and glossy as the raven's and fell in smooth masses over his forehead. This long pendulous hair is peculiar to enthusiasts, to those whose minds tend heavenward; and is traditionally inseparable (though of a different colour) from the pictures of Christ. It ought to belong, as a character, to all who preach Christ crucified, and Coleridge was at that time one of those!

It was curious to observe the contrast between him and my father, who was a veteran in the cause, and then declining into the vale of years. He had been a poor Irish lad, carefully brought up by his parents, and sent to the University of Glasgow (where he studied under Adam Smith) to prepare him for his future destination. It was his mother's proudest wish to see her son a Dissenting Minister. So, if we look back to past generations (as far as eye can reach), we see the same hopes, fears, wishes, followed by the same disappointments, throbbing in the human heart; and so we may see them (if we look forward) rising up forever, and disappearing, like vaporish bubbles, in the human breast! After being tossed about from congregation to congregation in the heats of the Unitarian controversy, and squabbles about the American war, he had been relegated to an obscure village, where he was to spend the last thirty years of his life, far from the only converse that he loved, the talk about disputed texts of Scripture, and the cause of civil and religious

liberty. Here he passed his days, repining, but resigned, in the study of the Bible, and the perusal of the Commentators—huge folios, not easily got through, one of which would outlast a winter! Why did he pore on these from morn to night (with the exception of a walk in the fields or a turn in the garden to gather broccoli plants or kidney beans of his own rearing, with no small degree of pride and pleasure)? Here were "no figures nor no fantasies"—neither poetry nor philosophy—nothing to dazzle, nothing to excite modern curiosity; but to his lack-lustre eyes there appeared within the pages of the ponderous, unwieldy, neglected tomes, the sacred name of Jehovah in Hebrew capitals: pressed down by the weight of the style, worn to the last fading thinness of the understanding, there were glimpses, glimmering notions of the patriarchal wanderings, with palm-trees hovering in the horizon, and processions of camels at the distance of three thousand years; there was Moses with the Burning Bush, the number of the Twelve Tribes, types, shadows, glosses on the law and the prophets; there were discussions (dull enough) on the age of Methuselah, a mightly speculation! there were outlines, rude guesses at the shape of Noah's Ark and of the riches of Solomon's Temple; questions as to the date of the creation, predictions of the end of all things; the great lapses of time, the strange mutations of the globe were unfolded with the voluminous leaf, as it turned over; and though the soul might slumber with an hieroglyphic veil of inscrutable mysteries drawn over it, yet it was in a slumber ill-exchanged for all the sharpened realities of sense, wit, fancy, or reason. My father's life was comparatively a dream; but it was a dream of infinity and eternity, of death, the resurrection, and a judgment to come!

No two individuals were ever more unlike than were the host and his guest. A poet was to my father a sort of nondescript; yet whatever added grace to the Unitarian cause was to him welcome. He could hardly have been more surprised or pleased, if our visitor had worn wings. Indeed, his thoughts had wings: and as the silken sounds rustled round our little wainscoted parlor, my father threw back his spectacles over his forehead, his white hairs mixing with its sanguine hue; and a smile of delight beamed across his rugged, cordial face, to think that Truth had found a new ally in Fancy! Besides, Coleridge seemed to take considerable notice of me, and that of itself was enough. He talked very familiarly, but agreeably, and glanced over a variety of subjects. At dinner-time he grew more animated, and dilated in a very edifying manner on Mary Wollstonecraft and Mackintosh. The last, he said, he considered (on my father's speaking of his *Vindiciae Gallicae* as a capital performance) as a clever,

scholastic man—a master of the topics—or, as the ready warehouseman of letters, who knew exactly where to lay his hand on what he wanted, though the goods were not his own. He thought him no match for Burke, either in style or matter. Burke was a metaphysician, Mackintosh a mere logician. Burke was an orator (almost a poet) who reasoned in figures, because he had an eye for nature: Mackintosh, on the other hand, was a rhetorician, who had only an eye to commonplaces. On this I ventured to say that I had always entertained a great opinion of Burke, and that (as far as I could find) the speaking of him with contempt might be made the test of a vulgar, democratical mind. This was the first observation I ever made to Coleridge, and he said it was a very just and striking one. I remember the leg of Welsh mutton and the turnips on the table that day had the finest flavor imaginable. Coleridge added that Mackintosh and Tom Wedgwood (of whom, however, he spoke highly) had expressed a very indifferent opinion of his friend Mr. Wordsworth, on which he remarked to them—"He strides on so far before you, that he dwindles in the distance!" Godwin had once boasted to him of having carried on an argument with Mackintosh for three hours with dubious success; Coleridge told him—"If there had been a man of genius in the room, he would have settled the question in five minutes." He asked me if I had ever seen Mary Wollstonecraft, and I said, I had once for a few moments, and that she seemed to me to turn off Godwin's objections to something she advanced with quite a playful, easy air. He replied, that "this was only one instance of the ascendancy which people of imagination exercised over those of mere intellect." He did not rate Godwin very high (this was caprice or prejudice, real or affected), but he had a great idea of Mrs. Wollstonecraft's powers of conversation; none at all of her talent for book-making. We talked a little about Holcroft. He had been asked if he was not much struck *with* him, and he said, he thought himself in more danger of being struck *by* him. I complained that he would not let me get on at all, for he required a definition of even the commonest word, exclaiming, "What do you mean by a *sensation*, Sir? What do you mean by an *idea*?" This, Coleridge said, was barricadoing the road to truth; it was setting up a turnpike gate at every step we took. I forget a great number of things, many more than I remember; but the day passed off pleasantly, and the next morning Mr. Coleridge was to return to Shrewsbury. When I came down to breakfast, I found that he had just received a letter from his friend, T. Wedgwood, making him an offer of £ 150 a year if he chose to waive his present pursuit, and devote himself entirely to the study of poetry and philosophy. Coleridge seemed to

make up his mind to close with this proposal in the act of tying on one of his shoes. It threw an additional damp on his departure. It took the wayward enthusiast quite from us to cast him into Deva's winding vales, or by the shores of old romance. Instead of living at ten miles' distance, of being the pastor of a Dissenting congregation at Shrewsbury, he was henceforth to inhabit the Hill of Parnassus, to be a Shepherd on the Delectable Mountains. Alas! I knew not the way thither, and felt very little gratitude for Mr. Wedgwood's bounty. I was presently relieved from this dilemma; for Mr. Coleridge, asking for a pen and ink, and going to a table to write something on a bit of card, advanced towards me with undulating step, and giving me the precious document, said that that was his address, *Mr. Coleridge*, *Nether Stowey, Somersetshire;* and that he should be glad to see me there in a few weeks' time, and, if I chose, would come half-way to meet me. I was not less surprised than the shepherd-boy (this simile is to be found in *Cassandra*), when he sees a thunderbolt fall close at his feet. I stammered out my acknowledgments and acceptance of this offer (I thought Mr. Wedgwood's annuity a trifle to it) as well as I could; and this mighty business being settled, the poet-preacher took leave, and I accompanied him six miles on the road. It was a fine morning in the middle of winter, and he talked the whole way. The scholar in Chaucer is described as going

Sounding on his way.

So Coleridge went on his. In digressing, in dilating, in passing from subject to subject, he appeared to me to float in air, to slide on ice. He told me in confidence (going along) that he should have preached two sermons before he accepted the situation at Shrewsbury, one on Infant Baptism, the other on the Lord's Supper, showing that he could not administer either, which would have effectually disqualified him for the object in view. I observed that he continually crossed me on the way by shifting from one side of the foot-path to the other. This struck me as an odd movement; but I did not at that time connect it with any instability of purpose or involuntary change of principle, as I have done since. He seemed unable to keep on in a straight line. He spoke slightingly of Hume (whose *Essay on Miracles* he said was stolen from an objection started in one of South's sermons—*Credat Judaeus Apella!* ["Let Apella the Jew believe it."] [1]). I was not very much pleased at this account of Hume, for I had just been reading, with infinite relish, that completest

1. Horace, *Satires* V, 100 [Ed.].

of all metaphysical choke-pears, his *Treatise on Human Nature*, to which the *Essays*, in point of scholastic subtility and close reasoning, are mere elegant trifling, light summer reading. Coleridge even denied the excellence of Hume's general style, which I think betrayed a want of taste or candor. He however made me amends by the manner in which he spoke of Berkeley. He dwelt particularly on his *Essay on Vision* as a masterpiece of analytical reasoning. So it undoubtedly is. He was exceedingly angry with Dr. Johnson for striking the stone with his foot, in allusion to this author's *Theory of Matter and Spirit*, and saying, "Thus I confute him, Sir." Coleridge drew a parallel (I don't know how he brought about the connection) between Bishop Berkeley and Tom Paine. He said the one was an instance of a subtle, the other of an acute mind, than which no two things could be more distinct. The one was a shop-boy's quality, the other the characteristic of a philosopher. He considered Bishop Butler as a true philosopher, a profound and conscientious thinker, a genuine reader of nature and his own mind. He did not speak of his *Analogy*, but of his *Sermons at the Rolls' Chapel*, of which I had never heard. Coleridge somehow always contrived to prefer the *unknown* to the *known*. In this instance, he was right. The *Analogy* is a tissue of sophistry, of wire-drawn, theological special pleading; the *Sermons* (with the preface to them) are in a fine vein of deep, matured reflection, a candid appeal to our observation of human nature, without pedantry and without bias. I told Coleridge I had written a few remarks, and was sometimes foolish enough to believe that I had made a discovery on the same subject (the *Natural Disinterestedness of the Human Mind*)—and I tried to explain my view of it to Coleridge, who listened with great willingness, but I did not succeed in making myself understood. I sat down to the task shortly afterwards for the twentieth time, got new pens and paper, determined to make clear work of it, wrote a few meagre sentences in the skeleton-style of a mathematical demonstration, stopped half-way down the second page; and, after trying in vain to pump up any words, images, notions, apprehensions, facts, or observations, from that gulf of abstraction in which I had plunged myself for four or five years preceding, gave up the attempt as labour in vain, and shed tears of helpless despondency on the blank, unfinished paper. I can write fast enough now. Am I better than I was then? Oh no! One truth discovered, one pang of regret at not being able to express it, is better than all the fluency and flippancy in the world. Would that I could go back to what I then was! Why can we not revive past times as we can revisit old places? If I had the quaint muse of Sir Philip Sidney to assist me, I would write a *Sonnet to the Road*

between Wem and Shrewsbury, and immortalize every step of it by some fond enigmatical conceit. I would swear that the very milestones had ears, and that Harmer Hill stooped with all its pines, to listen to a poet, as he passed! I remember but one other topic of discourse in this walk. He mentioned Paley, praised the naturalness and clearness of his style, but condemned his sentiments, thought him a mere timeserving casuist, and said that "the fact of his work on Moral and Political Philosophy being made a textbook in our Universities was a disgrace to the national character." We parted at the six-mile stone; and I returned homeward, pensive, but much pleased. I had met with unexpected notice from a person whom I believed to have been prejudiced against me. "Kind and affable to me had been his condescension, and should be honoured ever with suitable regard." He was the first poet I had known, and he certainly answered to that inspired name. I had heard a great deal of his powers of conversation, and was not disappointed. In fact, I never met with anything at all like them, either before or since. I could easily credit the accounts which were circulated of his holding forth to a large party of ladies and gentlemen, an evening or two before, on the Berkeleian theory, when he made the whole material universe look like a transparency of fine words; and another story (which I believe he has somewhere told himself) of his being asked to a party at Birmingham, of his smoking tobacco and going to sleep after dinner on a sofa, where the company found him, to their no small surprise, which was increased to wonder when he started up of a sudden, and rubbing his eyes, looked about him, and launched into a three hours' description of the third heaven, of which he had had a dream, very different from Mr. Southey's *Vision of Judgment*, and also from that other *Vision of Judgment*, which Mr. Murray, the Secretary of the Bridge Street Junto, took into his especial keeping!

On my way back, I had a sound in my ears–it was the voice of Fancy; I had a light before me–it was the face of Poetry. The one still lingers there, the other has not quitted my side! Coleridge, in truth, met me half-way on the ground of philosophy, or I should not have been won over to his imaginative creed. I had an uneasy, pleasurable sensation all the time, till I was to visit him. During those months the chill breath of winter gave me a welcoming; the vernal air was balm and inspiration to me. The golden sunsets, the silver star of evening, lighted me on my way to new hopes and prospects. *I was to visit Coleridge in the spring*. This circumstance was never absent from my thoughts, and mingled with all my feelings. I wrote to him at the time proposed, and received an answer postponing my intended visit for a week or two, but very cordially urging

me to complete my promise then. This delay did not damp, but rather increased, my ardor. In the meantime, I went to Llangollen Vale, by way of initiating myself in the mysteries of natural scenery; and I must say I was enchanted with it. I had been reading Coleridge's description of England in his fine *Ode on the Departing Year*, and I applied it, *con amore*, to the objects before me. That valley was to me (in a manner) the cradle of a new existence: in the river that winds through it, my spirit was baptized in the waters of Helicon!

I returned home, and soon after set out on my journey with unworn heart, and untried feet. My way lay through Worcester and Gloucester, and by Upton, where I thought of Tom Jones and the adventure of the muff. I remember getting completely wet through one day, and stopping at an inn (I think it was Tewkesbury) where I sat up all night to read *Paul and Virginia*. Sweet were the showers in early youth that drenched my body, and sweet the drops of pity that fell upon the books I read! I recollect a remark of Coleridge's upon this very book—that nothing could show the gross indelicacy of French manners and the entire corruption of their imagination more strongly than the behavior of the heroine in the last fatal scene, who turns away from a person on board the sinking vessel, that offers to save her life, because he has thrown off his clothes to assist him in swimming. Was this a time to think of such a circumstance? I once hinted to Wordsworth, as we were sailing in his boat on Grasmere Lake, that I thought he had borrowed the idea of his *Poems on the Naming of Places* from the local inscriptions of the same kind in *Paul and Virginia*. He did not own the obligation, and stated some distinction without a difference, in defense of his claim to originality. Any the slightest variation would be sufficient for this purpose in his mind; for whatever he added or altered would inevitably be worth all that any one else had done, and contain the marrow of the sentiment.— I was still two days before the time fixed for my arrival, for I had taken care to set out early enough. I stopped these two days at Bridgewater; and when I was tired of sauntering on the banks of its muddy river, returned to the inn and read *Camilla*. So have I loitered my life away, reading books, looking at pictures, going to plays, hearing, thinking, writing on what pleased me best. I have wanted only one thing to make me happy; but wanting that, have wanted everything!

I arrived, and was well received. The country about Nether Stowey is beautiful, green and hilly, and near the sea-shore. I saw it but the other day, after an interval of twenty years, from a hill near Taunton. How was the map of my life spread out before me, as the map of the country lay at

my feet! In the afternoon, Coleridge took me over to All-Foxden, a romantic old family mansion of the St. Aubins, where Wordsworth lived. It was then in the possession of a friend of the poet's, who gave him the free use of it. Somehow, that period (the time just after the French Revolution) was not a time when nothing was given for nothing. The mind opened and a softness might be perceived coming over the heart of individuals, beneath "the scales that fence" our self-interest. Wordsworth himself was from home, but his sister kept house, and set before us a frugal repast; and we had free access to her brother's poems, the *Lyrical Ballads*, which were still in manuscript, or in the form of *Sybilline Leaves*. I dipped into a few of these with great satisfaction, and with the faith of a novice. I slept that night in an old room with blue hangings, and covered with the round-faced family portraits of the age of George I and II, and from the wooded declivity of the adjoining park that overlooked my window, at the dawn of day, could

hear the loud stag speak.

In the outset of life (and particularly at this time I felt it so) our imagination has a body to it. We are in a state between sleeping and waking, and have indistinct but glorious glimpses of strange shapes, and there is always something to come better than what we see. As in our dreams the fulness of the blood gives warmth and reality to the coinage of the brain, so in youth our ideas are clothed, and fed, and pampered with our good spirits; we breathe thick with thoughtless happiness, the weight of future years presses on the strong pulses of the heart, and we repose with undisturbed faith in truth and good. As we advance, we exhaust our fund of enjoyment and of hope. We are no longer wrapped in lamb's-wool, lulled in Elysium. As we taste the pleasures of life, their spirit evaporates, the sense palls; and nothing is left but the phantoms, the lifeless shadows of what has been!

That morning, as soon as breakfast was over, we strolled out into the park, and seating ourselves on the trunk of an old ash-tree that stretched along the ground, Coleridge read aloud with a sonorous and musical voice, the ballad of *Betty Foy*. I was not critically or sceptically inclined. I saw touches of truth and nature, and took the rest for granted. But in the *Thorn*, the *Mad Mother*, and the *Complaint of a Poor Indian Woman*, I felt that deeper power and pathos which have been since acknowledged,

In spite of pride, in erring reason's spite,

as the characteristics of this author; and the sense of a new style and a new spirit in poetry came over me. It had to me something of the effect that arises from the turning up of the fresh soil, or of the first welcome breath of spring:

> While yet the trembling year is unconfirmed.

Coleridge and myself walked back to Stowey that evening, and his voice sounded high

> Of Providence, foreknowledge, will, and fate,
> Fix'd fate, free-will, foreknowledge absolute,

as we passed through echoing grove, by fairy stream or waterfall, gleaming in the summer moonlight! He lamented that Wordsworth was not prone enough to believe in the traditional superstitions of the place, and that there was a something corporeal, a matter-of-factness, a clinging to the palpable, or often to the petty, in his poetry, in consequence. His genius was not a spirit that descended to him through the air; it sprung out of the ground like a flower, or unfolded itself from a green spray, on which the goldfinch sang. He said, however (if I remember right), that this objection must be confined to his descriptive pieces, that his philosophic poetry had a grand and comprehensive spirit in it, so that his soul seemed to inhabit the universe like a palace, and to discover truth by intuition, rather than by deduction. The next day Wordsworth arrived from Bristol at Coleridge's cottage. I think I see him now. He answered in some degree to his friend's description of him, but was more gaunt and Don Quixote-like. He was quaintly dressed (according to the costume of that unconstrained period) in a brown fustian jacket and striped pantaloons. There was something of a roll, a lounge in his gait, not unlike his own *Peter Bell*. There was a severe, worn pressure of thought about his temples, a fire in his eye (as if he saw something in objects more than the outward appearance), an intense, high, narrow forehead, a Roman nose, cheeks furrowed by strong purpose and feeling, and a convulsive inclination to laughter about the mouth, a good deal at variance with the solemn, stately expression of the rest of his face. Chantrey's bust wants the marking traits; but he was teased into making it regular and heavy: Haydon's head of him, introduced into the *Entrance of Christ into Jerusalem*, is the most like his drooping weight of thought and expression. He sat down and talked very naturally and freely, with a mixture of clear, gushing accents in his voice, a deep guttural intonation, and a strong tincture of the northern burr, like the crust on wine. He instantly began to make

havoc of the half of a Cheshire cheese on the table, and said, triumphantly, that "his marriage with experience had not been so productive as Mr. Southey's in teaching him a knowledge of the good things of this life." He had been to see the *Castle Spectre* by Monk Lewis, while at Bristol, and described it very well. He said "it fitted the taste of the audience like a glove." This *ad captandum* merit was however by no means a recommendation of it, according to the severe principles of the new school, which reject rather than court popular effect. Wordsworth, looking out of the low, latticed window, said, "How beautifully the sun sets on that yellow bank!" I thought within myself, "With what eyes these poets see nature!" and ever after, when I saw the sunset stream upon the objects facing it, conceived I had made a discovery, or thanked Mr. Wordsworth for having made one for me! We went over to All-Foxden again the day following, and Wordsworth read us the story of *Peter Bell* in the open air; and the comment made upon it by his face and voice was very different from that of some later critics! Whatever might be thought of the poem, "his face was as a book where men might read strange matters," and he announced the fate of his hero in prophetic tones. There is a chaunt in the recitation both of Coleridge and Wordsworth, which acts as a spell upon the hearer, and disarms the judgment. Perhaps they have deceived themselves by making habitual use of this ambiguous accompaniment. Coleridge's manner is more full, animated, and varied; Wordsworth's more equable, sustained, and internal. The one might be termed more *dramatic*, the other more *lyrical*. Coleridge has told me that he himself liked to compose in walking over uneven ground, or breaking through the straggling branches of a copsewood; whereas Wordsworth always wrote (if he could) walking up and down a straight gravel-walk, or in some spot where the continuity of his verse met with no collateral interruption. Returning that same evening, I got into a metaphysical argument with Wordsworth, while Coleridge was explaining the different notes of the nightingale to his sister, in which we neither of us succeeded in making ourselves perfectly clear and intelligible. Thus I passed three weeks at Nether Stowey and in the neighborhood, generally devoting the afternoons to a delightful chat in an arbor made of bark by the poet's friend Tom Poole, sitting under two fine elm-trees, and listening to the bees humming round us, while we quaffed our flip. It was agreed, among other things, that we should make a jaunt down the Bristol Channel, as far as Linton. We set off together on foot, Coleridge, John Chester, and I. This Chester was a native of Nether Stowey, one of those who were attracted to Coleridge's discourse as flies are to honey, or bees in swarming time to the sound of a brass pan. He "followed in the chase like a dog

who hunts, not like one that made up the cry." He had on a brown cloth coat, boots, and corduroy breeches, was low in stature, bow-legged, had a drag in his walk like a drover, which he assisted by a hazel switch, and kept on a sort of trot by the side of Coleridge, like a running footman by a state coach, that he might not lose a syllable or sound that fell from Coleridge's lips. He told me his private opinion, that Coleridge was a wonderful man. He scarcely opened his lips, much less offered an opinion the whole way: yet of the three, had I to choose during that journey, I would be John Chester. He afterwards followed Coleridge into Germany, where the Kantean philosophers were puzzled how to bring him under any of their categories. When he sat down at table with his idol, John's felicity was complete; Sir Walter Scott's, or Mr. Blackwood's, when they sat down at the same table with the King, was not more so. We passed Dunster on our right, a small town between the brow of a hill and the sea. I remember eyeing it wistfully as it lay below us: contrasted with the woody scene around, it looked as clear, as pure, as embrowned and ideal as any landscape I have seen since, of Gaspar Poussin's or Domenichino's. We had a long day's march—(our feet kept time to the echoes of Coleridge's tongue)—through Minehead and by the Blue Anchor, and on to Linton, which we did not reach till near midnight, and where we had some difficulty in making a lodgment. We, however, knocked the people of the house up at last, and we were repaid for our apprehensions and fatigue by some excellent rashers of fried bacon and eggs. The view in coming along had been splendid. We walked for miles and miles on dark brown heaths overlooking the Channel, with the Welsh hills beyond, and at times descended into little sheltered valleys close by the sea-side, with a smuggler's face scowling by us, and then had to ascend conical hills with a path winding up through a coppice to a barren top, like a monk's shaven crown, from one of which I pointed out to Coleridge's notice the bare masts of a vessel on the very edge of the horizon, and within the red-orbed disk of the setting sun, like his own spectre ship in the *Ancient Mariner*. At Linton the character of the sea-coast becomes more marked and rugged. There is a place called the Valley of Rocks (I suspect this was only the poetical name for it), bedded among precipices overhanging the sea, with rocky caverns beneath, into which the waves dash, and where the sea-gull forever wheels its screaming flight. On the tops of these are huge stones thrown transverse, as if an earthquake had tossed them there, and behind these is a fretwork of perpendicular rocks, something like the Giant's Causeway. A thunderstorm came on while we were at the inn, and Coleridge was running out bare-headed to enjoy the commotion of the elements in the Valley of Rocks, but as if in spite,

the clouds only muttered a few angry sounds, and let fall a few refreshing drops. Coleridge told me that he and Wordsworth were to have made this place the scene of a prose tale, which was to have been in the manner of, but far superior to, the *Death of Abel*, but they had relinquished the design. In the morning of the second day, we breakfasted luxuriously in an old-fashioned parlor on tea, toast, eggs, and honey, in the very sight of the bee hives from which it had been taken, and a garden full of thyme and wild flowers that had produced it. On this occasion Coleridge spoke of Virgil's *Georgics*, but not well. I do not think he had much feeling for the classical or elegant. It was in this room that we found a little worn-out copy of *The Seasons*, lying in a window-seat, on which Coleridge exclaimed, "*That* is true fame!" He said Thomson was a great poet, rather than a good one; his style was as meretricious as his thoughts were natural. He spoke of Cowper as the best modern poet. He said the *Lyrical Ballads* were an experiment about to be tried by him and Wordsworth, to see how far the public taste would endure poetry written in a more natural and simple style than had hitherto been attempted; totally discarding the artifices of poetical diction, and making use only of such words as had probably been common in the most ordinary language since the days of Henry II. Some comparison was introduced between Shakespeare and Milton. He said "he hardly knew which to prefer. Shakespeare appeared to him a mere stripling in the art; he was as tall and as strong, with infinitely more activity than Milton, but he never appeared to have come to man's estate; or if he had, he would not have been a man, but a monster." He spoke with contempt of Gray, and with intolerance of Pope. He did not like the versification of the latter. He observed that "the ears of these couplet-writers might be charged with having short memories, that could not retain the harmony of whole passages." He thought little of Junius as a writer; he had a dislike of Dr. Johnson; and a much higher opinion of Burke as an orator and politician, than of Fox or Pitt. He, however, thought him very inferior in richness of style and imagery to some of our elder prose writers, particularly Jeremy Taylor. He like Richardson, but not Fielding; nor could I get him to enter into the merits of *Caleb Williams*. In short, he was profound and discriminating with respect to those authors whom he liked, and where he gave his judgment fair play; capricious, perverse, and prejudiced in his antipathies and distastes. We loitered on the "ribbed sea-sands," in such talk as this a whole morning, and, I recollect, met with a curious seaweed, of which John Chester told us the country name! A fisherman gave Coleridge an account of a boy that had been drowned the day before, and that they had tried to save him at the risk of their own lives. He said "he did not know

how it was that they ventured, but, Sir, we have a *nature* towards one another." This expression, Coleridge remarked to me, was a fine illustration of that theory of disinterestedness which I (in common with Butler) had adopted. I broached to him an argument of mine to prove that *likeness* was not mere association of ideas. I said that the mark in the sand put one in mind of a man's foot, not because it was part of a former impression of a man's foot (for it was quite new), but because it was like the shape of a man's foot. He assented to the justness of this distinction (which I have explained at length elsewhere, for the benefit of the curious) and John Chester listened; not from any interest in the subject, but because he was astonished that I should be able to suggest anything to Coleridge that he did not already know. We returned on the third morning, and Coleridge remarked the silent cottage smoke curling up the valleys where, a few evenings before, we had seen the lights gleaming through the dark.

In a day or two after we arrived at Stowey, we set out, I on my return home, and he for Germany. It was a Sunday morning, and he was to preach that day for Dr. Toulmin of Taunton. I asked him if he had prepared anything for the occasion? He said he had not even thought of the text, but should as soon as we parted. I did not go to hear him–this was a fault–but we met in the evening at Bridgewater. The next day we had a long day's walk to Bristol, and sat down, I recollect, by a well-side on the road, to cool ourselves and satisfy our thirst, when Coleridge repeated to me some descriptive lines of his tragedy of *Remorse;* which I must say became his mouth and that occasion better than they, some years after, did Mr. Elliston's and the Drury Lane boards–

> Oh, memory! shield me from the world's poor strife,
> And give those scenes thine everlasting life.

I saw no more of him for a year or two, during which period he had been wandering in the Harz Forest, in Germany; and his return was cometary, meteorous, unlike his setting out. It was not till some time after that I knew his friends Lamb and Southey. The last always appears to me (as I first saw him) with a commonplace book under his arm, and the first with a *bon mot* in his mouth. It was at Godwin's that I met him with Holcroft and Coleridge, where they were disputing fiercely which was the best–Man as he was, or man as he is to be. "Give me," says Lamb, "man as he is *not* to be." This saying was the beginning of a friendship between us, which I believe still continues.–Enough of this for the present.

On Swift

Swift's reputation as a poet has been in a manner obscured by the greater splendour, by the natural force and inventive genius of his prose writings; but if he had never written either the *Tale of a Tub* or *Gulliver's Travels*, his name merely as a poet would have come down to us, and have gone down to posterity with well-earned honours. His *Imitations of Horace*, and still more his *Verses on His Own Death*, place him on the first rank of agreeable moralists in verse. There is not only a dry humour, an exquisite tone of irony, in these productions of his pen: but there is a touching, unpretending pathos, mixed up with the most whimsical and eccentric strokes of pleasantry and satire. His *Description of the Morning in London*, and of a *City Shower*, which were first published in the *Tatler*, are among the most delightful of the contents of that very delightful work. Swift shone as one of the most sensible of the poets; he is also distinguished as one of the most nonsensical of them. No man has written so many lackadaisical, slipshod, tedious, trifling, foolish, fantastical verses as he, which are so little an imputation on the wisdom of the writer; and which, in fact, only show his readiness to oblige others, and to forget himself. He has gone so far as to invent a new stanza of fourteen and sixteen syllable lines for Mary the cookmaid to vent her budget of nothings, and for Mrs. Harris to gossip with the deaf old housekeeper. Oh, when shall we have such another Rector of Laracor! The *Tale of a Tub* is one of the most masterly compositions in the language whether for thought, wit, or style. It is so capital and undeniable a proof of the author's talents, that Dr. Johnson, who did not like Swift, would not allow that he wrote it. It is hard that the same performance should stand in the way of a man's promotion to a bishopric, as wanting gravity, and at the same time be denied to be his, as having too much wit. It is a pity the Doctor did not find out some graver author, for whom he felt a critical kindness, on whom to father this splendid but unacknowledged

production. Dr. Johnson could not deny that *Gulliver's Travels* were his; he therefore disputed their merits, and said that after the first idea of them was conceived, they were easy to execute; all the rest followed mechanically. I do not know how that may be; but the mechanism employed is something very different from any that the author of *Rasselas* was in the habit of bringing to bear on such occasions. There is nothing more futile as well as invidious than this mode of criticizing a work of original genius. Its greatest merit is supposed to be in the invention; and you say, very wisely, that it is not in the execution. You might as well take away the merit of the invention of the telescope by saying that after its uses were explained and understood any ordinary eyesight could look through it. Whether the excellence of *Gulliver's Travels* is in the conception or the execution is of little consequence; the power is somewhere and it is a power that has moved the world. The power is not that of big words and vaunting commonplaces. Swift left these to those who wanted them; and has done what his acuteness and intensity of mind alone could enable anyone to conceive or to perform. His object was to strip empty pride and grandeur of the imposing air which external circumstances throw around them; and for this purpose he has cheated the imagination of the illusions which the prejudices of sense and of the world put upon it by reducing everything to the abstract predicament of size. He enlarges or diminishes the scale as he wishes to show the insignificance or the grossness of our overweening self-love. That he has done this with mathematical precision, with complete presence of mind and perfect keeping in a manner that comes equally home to the understanding of the man and of the child does not take away from the merit of the work or the genius of the author. He has taken a new view of human nature, such as a being of a higher sphere might take of it; he has torn the scales from off his moral vision; he has tried an experiment upon human life, and sifted its pretensions from the alloy of circumstances. He has measured it with a rule, has weighed it in a balance, and found it, for the most part, wanting and worthless—in substance and in show. Nothing solid, nothing valuable is left in his system but virtue and wisdom. What a libel is this upon mankind! What a convincing proof of misanthropy! What presumption and what *malice prepense*, to show men what they are, and to teach them what they ought to be! What a mortifying stroke aimed at national glory is that unlucky incident of Gulliver's wading across the channel and carrying off the whole fleet of Blefuscu! After that, we have only to consider which of the contending parties was in the right. What a shock to

personal vanity is given in the account of Gulliver's nurse Glumdalclitch! Still, notwithstanding the disparagement to her personal charms, her good nature remains the same amiable quality as before. I cannot see the harm, the misanthropy, the immoral and degrading tendency of this. The moral lesson is as fine as the intellectual exhibition is amusing. It is an attempt to tear off the mask of imposture from the world; and nothing but imposture has a right to complain of it. It is, indeed, the way with our quacks in morality to preach up the dignity of human nature, to pamper pride and hypocrisy with the idle mockeries of the virtues they pretend to, and which they have not: but it was not Swift's way to cant morality, or anything else; nor did his genius prompt him to write unmeaning panegyrics on mankind!

The determination with which Swift persisted in a preconcerted theory savoured of the morbid affection of which he died. There is nothing more likely to drive a man mad than the being unable to get rid of the idea of the distinction between right and wrong, and an obstinate, constitutional preference of the true to the agreeable. Swift was not a Frenchman. In this respect he differed from Rabelais and Voltaire. They have been accounted the three greatest wits in modern times; but their wit was of a peculiar kind in each. They are little beholden to each other; there is some resemblance between Lord Peter in the *Tale of a Tub* and Rabelais' Friar John; but in general they are all three authors of a substantive character in themselves. Swift's wit (particularly in his chief prose works) was serious, saturnine, and practical; Rabelais' was fantastical and joyous; Voltaire's was light, sportive, and verbal. Swift's wit was the wit of sense; Rabelais', the wit of nonsense; Voltaire's, of indifference to both. The ludicrous in Swift arises out of his keen sense of impropriety, his soreness and impatience of the least absurdity. He separates, with a severe and caustic air, truth from falsehood, folly from wisdom, "shows vice her own image, scorn her own feature"; and it is the force, the precision, and the honest abruptness with which the separation is made that excites our surprise, our admiration, and laughter. He sets a mark of reprobation on that which offends good sense and good manners, which cannot be mistaken, and which holds it up to our ridicule and contempt ever after. His occasional disposition to trifling was a relaxation from the excessive earnestness of his mind. His better genius was his spleen. It was the biting acrimony of his temper that sharpened his other faculties. The truth of his perceptions produced the pointed coruscations of his wit; his playful irony was the result of inward bitterness of thought; his imagination was the product of the literal, dry, incorrigible tenaciousness of his

understanding. He endeavoured to escape from the persecution of realities into the regions of fancy, and invented his Lilliputians and Brobdingnagians, Yahoos, and Houynhyms as a diversion to the more painful knowledge of the world around him: *they* only made him laugh, while men and women made him angry. His feverish impatience made him view the infirmities of that great baby the world with the same scrutinizing glance and jealous irritability that a parent regards the failings of its offspring.

Of Persons One Would Wish to Have Seen

Lamb it was, I think, who suggested this subject, as well as the defence of Guy Fawkes, which I urged him to execute. As, however, he would undertake neither, I suppose I must do both, a task for which he would have been much fitter, no less from the temerity than the felicity of his pen–

> Never so sure our rapture to create
> As when it touched the brink of all we hate.

Compared with him, I shall, I fear, make but a commonplace piece of business of it; but I should be loth the idea was entirely lost, and besides I may avail myself of some hints of his in the progress of it. I am sometimes, I suspect, a better reporter of the ideas of other people than expounder of my own. I pursue the one too far into paradox or mysticism; the others I am not bound to follow farther than I like, or than seems fair and reasonable.

On the question being started, A[yrton] said, "I suppose the two first persons you would choose to see would be the two greatest names in English literature, Sir Isaac Newton and Mr. Locke?" In this A[yrton], as usual, reckoned without his host. Every one burst out a-laughing at the expression of Lamb's face, in which impatience was restrained by courtesy.

"Yes, the greatest names," he stammered out hastily, "but they were not persons–not persons."

"Not persons?" said A[yrton], looking wise and foolish at the same time, afraid his triumph might be premature.

"That is," rejoined Lamb, "not characters, you know. By Mr. Locke and Sir Isaac Newton, you mean the *Essay on the Human Understanding*, and the *Principia*, which we have to this day. Beyond their contents there

is nothing personally interesting in the men. But what we want to see any one *bodily* for is when there is something peculiar, striking, in the individuals, more than we can learn from their writings, and yet are curious to know. I dare say Locke and Newton were very like Kneller's portraits of them. But who could paint Shakespeare?"

"Ay," retorted A[yrton], "there it is; then I suppose you would prefer seeing him and Milton instead?"

"No," said Lamb, "neither. I have seen so much of Shakespeare on the stage and on book-stalls, in frontispieces and on mantel-pieces, that I am quite tired of the everlasting repetition; and as to Milton's face, the impressions that have come down to us of it I do not like: it is too starched and puritanical, and I should be afraid of losing some of the manna of his poetry in the leaven of his countenance and the precisian's band and gown."

"I shall guess no more," said A[yrton]. "Who is it, then, you would like to see 'in his habit as he lived,' if you had your choice of the whole range of English literature?"

Lamb then named Sir Thomas Browne and Fulke Greville, the friend of Sir Philip Sidney, as the two worthies whom he should feel the greatest pleasure to encounter on the floor of his apartment in their nightgown and slippers, and to exchange friendly greetings with them. At this A[yrton] laughed outright, and conceived Lamb was jesting with him; but as no one followed his example, he thought there might be something in it, and waited for an explanation in a state of whimsical suspense. Lamb then (as well as I can remember a conversation that passed twenty years ago—how time slips!) went on as follows: "The reason why I pitch upon these two authors is that their writings are riddles, and they themselves the most mysterious of personages. They resemble the soothsayers of old, who dealt in dark hints and doubtful oracles; and I should like to ask them the meaning of what no mortal but themselves, I should suppose, can fathom. There is Dr. Johnson: I have no curiosity, no strange uncertainty about him; he and Boswell together have pretty well let me into the secret of what passed through his mind. He and other writers like him are sufficiently explicit: my friends whose repose I should be tempted to disturb (were it in my power), are implicit, inextricable, inscrutable.

"When I look at that obscure but gorgeous prose-composition, the *Urn-Burial*, I seem to myself to look into a deep abyss, at the bottom of which are hid pearls and rich treasure; or it is like a stately labyrinth of doubt and withering speculation, and I would invoke the spirit of the author to

lead me through it. Besides, who would not be curious to see the lineaments of a man who, having himself been twice married, wished that mankind were propagated like trees! As to Fulke Greville, he is like nothing but one of his own 'Prologues spoken by the ghost of an old king of Ormus,' a truly formidable and inviting personage: his style is apocalyptical, cabalistical, a knot worthy of such an apparition to untie; and for the unravelling a passage or two, I would stand the brunt of an encounter with so portentous a commentator!"

"I am afraid, in that case," said A[yrton], "that if the mystery were once cleared up, the merit might be lost"; and turning to me, whispered a friendly apprehension that while Lamb continued to admire these old crabbed authors, he would never become a popular writer. Dr. Donne was mentioned as a writer of the same period, with a very interesting countenance, whose history was singular, and whose meaning was often quite as *uncomeatable*, without a personal citation from the dead, as that of any of his contemporaries. The volume was produced; and while some one was expatiating on the exquisite simplicity and beauty of the portrait prefixed to the old edition, A[yrton] got hold of the poetry, and exclaiming "What have we here?" read the following:

> Here lies a shee Sunne and a hee Moone here,
> She gives the best light to his Spheare,
> Or each is both, and all, and so
> They unto one another nothing owe.

There was no resisting this, till Lamb, seizing the volume, turned to the beautiful *Lines to his Mistress*, dissuading her from accompanying him abroad, and read them with suffused features and a faltering tongue. . . .

Some one then inquired of Lamb if we could not see from the window the Temple walk in which Chaucer used to take his exercise; and on his name being put to the vote, I was pleased to find that there was a general sensation in his favor in all but A[yrton], who said something about the ruggedness of the metre, and even objected to the quaintness of the orthography. I was vexed at this superficial gloss, pertinaciously reducing everything to its own trite level, and asked "if he did not think it would be worth while to scan the eye that had first greeted the Muse in that dim twilight and early dawn of English literature; to see the head round which the visions of fancy must have played like gleams of inspiration or a sudden glory; to watch those lips that 'lisped in numbers, for the num-

bers came'—as by a miracle, or as if the dumb should speak? Nor was it alone that he had been the first to tune his native tongue (however imperfectly to modern ears); but he was himself a noble, manly character, standing before his age and striving to advance it; a pleasant humorist withal, who has not only handed down to us the living manners of his time, but had, no doubt, store of curious and quaint devices, and would make as hearty a companion as Mine Host of the Tabard. His interview with Petrarch is fraught with interest. Yet I would rather have seen Chaucer in company with the author of the *Decameron*, and have heard them exchange their best stories together—the *Squire's Tale* against the *Story of the Falcon*, the *Wife of Bath's Prologue* against the *Adventures of Friar Albert*. How fine to see the high mysterious brow which learning then wore, relieved by the gay, familiar tone of men of the world, and by the courtesies of genius! Surely, the thoughts and feelings which passed through the minds of these great revivers of learning, these Cadmuses who sowed the teeth of letters, must have stamped an expression on their features as different from the moderns as their books, and well worth the perusal. Dante," I continued, "is as interesting a person as his own Ugolino, one whose lineaments curiosity would as eagerly devour in order to penetrate his spirit, and the only one of the Italian poets I should care much to see. There is a fine portrait of Ariosto by no less a hand than Titian's; light, Moorish, spirited, but not answering our idea. The same artist's large colossal profile of Peter Aretine [Pietro Aretino] is the only likeness of the kind that has the effect of conversing with 'the mighty dead'; and this is truly spectral, ghastly, necromantic." Lamb put it to me if I should like to see Spenser as well as Chaucer; and I answered, without hesitation, "No; for that his beauties were ideal, visionary, not palpable or personal, and therefore connected with less curiosity about the man. His poetry was the essence of romance, a very halo round the bright orb of fancy; and the bringing in the individual might dissolve the charm. No tones of voice could come up to the mellifluous cadence of his verse; no form but of a winged angel could vie with the airy shapes he has described. He was (to my apprehension) rather a 'creature of the element, that lived in the rainbow and played in the plighted clouds,' than an ordinary mortal. Or if he did appear, I should wish it to be as a mere vision, like one of his own pageants, and that he should pass by unquestioned like a dream or sound—

> That was Arion crown'd:
> So went he playing on the wat'ry plain."

Captain [Burney] muttered something about Columbus, and M[artin Burney] hinted at the Wandering Jew; but the last was set aside as spurious, and the first made over to the New World.

"I should like," said [Mrs. Reynolds], "to have seen Pope talk with Patty Blount; and I *have* seen Goldsmith." Every one turned round to look at [Mrs. Reynolds], as if by so doing they could get a sight at Goldsmith.

"Where," asked a harsh, croaking voice, "was Dr. Johnson in the years 1745–6? He did not write anything that we know of, nor is there any account of him in Boswell during those two years. Was he in Scotland with the Pretender? He seems to have passed through the scenes in the Highlands in company with Boswell, many years after, 'with lack-lustre eye,' yet as if they were familiar to him, or associated in his mind with interests that he durst not explain. If so, it would be an additional reason for my liking him; and I would give something to have seen him seated in the tent with the youthful Majesty of Britain, and penning the Proclamation to all true subjects and adherents of the legitimate Government."

"I thought," said A[yrton], turning short round upon Lamb, "that you of the Lake School did not like Pope?"

"Not like Pope! My dear sir, you must be under a mistake–I can read him over and over forever!"

"Why, certainly, the *Essay on Man* must be allowed to be a masterpiece."

"It may be so, but I seldom look into it."

"Oh! then it's his *Satires* you admire?"

"No, not his *Satires*, but his friendly *Epistles* and his compliments."

"Compliments! I did not know he ever made any."

"The finest," said Lamb, "that were ever paid by the wit of man. Each of them is worth an estate for life–nay, is an immortality. There is that superb one to Lord Cornbury:

> Despise low joys, low gains;
> Disdain whatever Cornbury disdains;
> Be virtuous, and be happy for your pains.

Was there ever more artful insinuation of idolatrous praise? And then that noble apotheosis of his friend Lord Mansfield (however little deserved), when, speaking of the House of Lords, he adds:

> Conspicuous scene! another yet is nigh,
> (More silent far) where kings and poets lie;
> Where Murray (long enough his country's pride)
> Shall be no more than Tully or than Hyde.

And with what a fine turn of indignant flattery he addresses Lord Bolingbroke:

> Why rail they then, if but one wreath of mine,
> Oh! all accomplish'd St. John, deck thy shrine?

"Or turn," continued Lamb, with a slight hectic on his cheek and his eyes glistening, "to his list of early friends:

> But why then publish? Granville the polite,
> And knowing Walsh, would tell me I could write;
> Well-natured Garth inflamed with early praise,
> And Congreve loved, and Swift endured my lays;
> The courtly Talbot, Somers, Sheffield read,
> Ev'n mitred Rochester would nod the head;
> And St. John's self (great Dryden's friend before)
> Received with open arms one poet more.
> Happy my studies, if by these approved!
> Happier their author, if by these beloved!
> From these the world will judge of men and books,
> Not from the Burnets, Oldmixons, and Cooks."

Here his voice totally failed him, and throwing down the books, he said, "Do you think I would not wish to have been friends with such a man as this?"

"What say you to Dryden?"

"He rather made a show of himself, and courted popularity in that lowest temple of fame, a coffee-shop, so as in some measure to vulgarize one's idea of him. Pope, on the contrary, reached the very *beau ideal* of what a poet's life should be; and his fame while living seemed to be an emanation from that which was to circle his name after death. He was so far enviable (and one would feel proud to have witnessed the rare spectacle in him) that he was almost the only poet and man of genius who met with his reward on this side of the tomb, who realized in friends, fortune, the esteem of the world, the most sanguine hopes of a youthful ambition, and who found that sort of patronage from the great during his lifetime which they would be thought anxious to bestow upon him after his death. Read Gay's verses to him on his supposed return from Greece, after his translation of Homer was finished, and say if you would not gladly join the bright procession that welcomed him home, or see it once more land at Whitehall stairs."

"Still," said [Mrs. Reynolds], "I would rather have seen him talking

with Patty Blount, or riding by in a coronet-coach with Lady Mary Wortley Montagu!"

E[rasmus Phillips], who was deep in a game of piquet at the other end of the room, whispered to M[artin Burney] to ask if Junius would not be a fit person to invoke from the dead. "Yes," said Lamb, "provided he would agree to lay aside his mask."

We were now at a stand for a short time, when Fielding was mentioned as a candidate; only one, however, seconded the proposition. "Richardson?"

"By all means, but only to look at him through the glass-door of his back-shop, hard at work upon one of his novels (the most extraordinary contrast that ever was presented between an author and his works), but not to let him come behind his counter, lest he should want you to turn customer, nor to go upstairs with him, lest he should offer to read the first manuscript of Sir Charles Grandison, which was originally written in eight-and-twenty volumes octavo, or get out the letters of his female correspondents, to prove that Joseph Andrews was low."

There was but one statesman in the whole of English history that anyone expressed the least desire to see—Oliver Cromwell, with his fine, frank, rough, pimply face, and wily policy; and one enthusiast, John Bunyan, the immortal author of the *Pilgrim's Progress*. It seemed that if he came into the room, dreams would follow him, and that each person would nod under his golden cloud, "nigh-sphered in heaven," a canopy as strange and stately as any in Homer.

Of all persons near our own time, Garrick's name was received with the greatest enthusiasm, who was proposed by [Barron] F[ield]. He presently superseded both Hogarth and Handel, who had been talked of, but then it was on condition that he should act in tragedy and comedy, in the play and the farce, *Lear* and *Wildair* and *Abel Drugger*. What a sight for sore eyes that would be! Who would not part with a year's income at least, almost with a year of his natural life, to be present at it? Besides, as he could not act alone, and recitations are unsatisfactory things, what a troop he must bring with him—the silver-tongued Barry, and Quin, and Shuter and Weston, and Mrs. Clive and Mrs. Pritchard, of whom I have heard my father speak as so great a favourite when he was young. This would indeed be a revival of the dead, the restoring of art; and so much the more desirable, as such is the lurking scepticism mingled with our overstrained admiration of past excellence, that though we have the speeches of Burke, the portraits of Reynolds, the writings of Goldsmith, and the conversation of Johnson, to show what people could

do at that period, and to confirm the universal testimony to the merits of Garrick; yet, as it was before our time, we have our misgivings, as if he was probably, after all, little better than a Bartlemy-fair actor, dressed out to play Macbeth in a scarlet and laced cocked hat. For one, I should like to have seen and heard with my own eyes and ears. Certainly, by all accounts, if any one was ever moved by the true histrionic estus, it was Garrick. When he followed the Ghost in *Hamlet*, he did not drop the sword, as most actors do, behind the scenes, but kept the point raised the whole way round, so fully was he possessed with the idea, or so anxious not to lose sight of his part for a moment. Once at a splendid dinner party at Lord——'s, they suddenly missed Garrick, and could not imagine what was become of him, till they were drawn to the window by the convulsive screams and peals of laughter of a young Negro boy, who was rolling on the ground in an ecstasy of delight to see Garrick mimicking a turkey-cock in the courtyard, with his coat-tail stuck out behind, and in a seeming flutter of feathered rage and pride. Of our party only two persons present had seen the British Roscius; and they seemed as willing as the rest to renew their acquaintance with their old favourite.

We were interrupted in the hey-day and mid-career of this fanciful speculation, by a grumbler in a corner, who declared it was a shame to make all this rout about a mere player and farce-writer, to the neglect and exclusion of the fine old dramatists, the contemporaries and rivals of Shakespeare. Lamb said he had anticipated this objection when he had named the author of *Mustapha* and *Alaham;* and, out of caprice, insisted upon keeping him to represent the set, in preference to the wild, hare-brained enthusiast, Kit Marlowe; to the sexton of St. Ann's, Webster, with his melancholy yew-trees and death's-heads; to Dekker, who was but a garrulous proser; to the voluminous Heywood; and even to Beaumont and Fletcher, whom we might offend by complimenting the wrong author on their joint productions. Lord Brooke, on the contrary, stood quite by himself, or, in Cowley's words, was "a vast species alone." Some one hinted at the circumstances of his being a lord, which rather startled Lamb, but he said a *ghost* would perhaps dispense with strict etiquette, on being regularly addressed by his title. Ben Jonson divided our suffrages pretty equally. Some were afraid he would begin to traduce Shakespeare, who was not present to defend himself. "If he grows disagreeable," it was whispered aloud, "there is G[odwin] can match him." At length, his romantic visit to Drummond of Hawthornden was mentioned, and turned the scale in his favor.

Lamb inquired if there was any one that was hanged that I would choose to mention. And I answered, Eugene Aram. The name of the "Admirable Crichton" was suddenly started as a splendid example of *waste* talents, so different from the generality of his countrymen. This choice was mightily approved by a North Briton present, who declared himself descended from that prodigy of learning and accomplishment, and said he had family plate in his possession as vouchers for the fact, with the initals A.C.–*Admirable Crichton!* H—— laughed, or rather roared, as heartily at this as I should think he has done for many years.

The last-named Mitre-courtier then wished to know whether there were any metaphysicians to whom one might be tempted to apply the wizard spell. I replied, there were only six in modern times deserving the name–Hobbes, Berkeley, Butler, Hartley, Hume, Leibniz; and perhaps Jonathan Edwards, a Massachusetts man. As to the French, who talked fluently of having *created* this science, there was not a title in any of their writings that was not to be found literally in the authors I had mentioned. (Horne Tooke, who might have a claim to come in under the head of Grammar, was still living.) None of these names seemed to excite much interest, and I did not plead for the reappearance of those who might be thought best fitted by the abstracted nature of their studies for the present spiritual and disembodied state, and who, even while on this living stage, were nearly divested of common flesh and blood. As A[yrton], with an uneasy, fidgety face, was about to put some question about Mr. Locke and Dugald Stewart, he was prevented by M[artin Burney], who observed, "If J—— was here, he would undoubtedly be for having up those profound and redoubted scholiasts, Thomas Aquinas and Duns Scotus." I said this might be fair enough in him who had read, or fancied he had read, the original works, but I did not see how we could have any right to call up these authors to give an account of themselves in person, till we had looked into their writings.

By this time it should seem that some rumour of our whimsical deliberation had got wind, and had disturbed the *irritabile genus* in their shadowy abodes, for we received messages from several candidates that we had just been thinking of. Gray declined our invitation, though he had not yet been asked; Gay offered to come, and bring in his hand the Duchess of Bolton, the original Polly; Steele and Addison left their cards as Captain Sentry and Sir Roger de Coverley; Swift came in and sat down without speaking a word and quitted the room as abruptly; Otway and Chatterton were seen lingering on the opposite side of the Styx, but

could not muster enough between them to pay Charon his fare; Thomson fell asleep in the boat, and was rowed back again–and Burns sent a low fellow, one John Barleycorn, an old companion of his, who had conducted him to the other world, to say that he had during his lifetime been drawn out of his retirement as a show, only to be made an exciseman of, and that he would rather remain where he was. He desired, however, to shake hands by his representative–the hand, thus held out, was in a burning fever, and shook prodigiously.

The room was hung round with several portraits of eminent painters. While we were debating whether we should demand speech with these masters of mute eloquence, whose features were so familiar to us, it seemed that all at once they glided from their frames, and seated themselves at some little distance from us. There was Leonardo, with his majestic beard and watchful eye, having a bust of Archimedes before him; next him was Raphael's graceful head turned round to the Fornarina; and on his other side was Lucretia Borgia, with calm, golden locks; Michelangelo had placed the model of St. Peter's on the table before him; Correggio had an angel at his side; Titian was seated with his mistress between himself and Giorgione; Guido was accompanied by his own Aurora, who took a dice-box from him; Claude held a mirror in his hand; Rubens patted a beautiful panther (led in by a satyr) on the head; Vandyke appeared as his own Paris, and Rembrandt was hid under furs, gold chains, and jewels, which Sir Joshua eyed closely, holding his hand so as to shade his forehead. Not a word was spoken; and as we rose to do them homage, they still presented the same surface to the view. Not being *bona fide* representations of living people, we got rid of the splendid apparitions by signs and dumb show. As soon as they had melted into thin air, there was a loud noise at the outer door, and we found it was Giotto, Cimabue, and Ghirlandaio, who had been raised from the dead by their earnest desire to see their illustrious successors–

> Whose names on earth
> In Fame's eternal records live for aye!

Finding them gone, they had no ambition to be seen after them, and mournfully withdrew. "Egad!" said Lamb, "these are the very fellows I should like to have had some talk with, to know how they could see to paint when all was dark around them."

"But shall we have nothing to say," interrogated G. J——, "to the *Legend of Good Women?*"

"Name, name, Mr. J——," cried H—— in a boisterous tone of friendly exultation, "name as many as you please, without reserve or fear of molestation!"

J—— was perplexed between so many amiable recollections, that the name of the lady of his choice expired in a pensive whiff of his pipe; and Lamb impatiently declared for the Duchess of Newcastle. Mrs. Hutchinson was no sooner mentioned, than she carried the day from the Duchess. We were the less solicitous on this subject of filling up the posthumous lists of Good Women, as there was already one in the room as good, as sensible, and in all respects as exemplary, as the best of them could be for their lives! "I should like vastly to have seen Ninon de l'Enclos," said that incomparable person; and this immediately put us in mind that we had neglected to pay honour due to our friends on the other side of the Channel: Voltaire, the patriarch of levity, and Rousseau, the father of sentiment; Montaigne and Rabelais (great in wisdom and in wit); Molière and that illustrious group that are collected round him (in the print of that subject) to hear him read his comedy of the *Tartuffe* at the house of Ninon; Racine, La Fontaine, Rochefoucault, St. Evremont, etc.

"There is one person," said a shrill, querulous voice, "I would rather see than all these–Don Quixote!"

"Come, come!" said H——; "I thought we should have no heroes, real or fabulous. What say you, Mr. Lamb? Are you for eking out your shadowy list with such names as Alexander, Julius Caesar, Tamerlane, or Genghis Khan?"

"Excuse me," said Lamb, "on the subject of characters in active life, plotters and disturbers of the world, I have a crotchet of my own, which I beg leave to reserve."

"No, no! come, out with your worthies!"

"What do you think of Guy Fawkes and Judas Iscariot?" H—— turned an eye upon him like a wild Indian, but cordial and full of smothered glee. "Your most exquisite reason!" was echoed on all sides; and A[yrton] thought that Lamb had now fairly entangled himself.

"Why I cannot but think," retorted he of the wistful countenance, "that Guy Fawkes, that poor, fluttering annual scarecrow of straw and rags, is an ill-used gentleman. I would give something to see him sitting pale and emaciated, surrounded by his matches and his barrels of gunpowder, and expecting the moment that was to transport him to Paradise for his heroic self-devotion; but if I say any more, there is that fellow G[odwin] will make something of it. And as to Judas Iscariot, my reason is different. I would fain see the face of him who, having dipped his hand in the

same dish with the Son of Man, could afterwards betray him. I have no conception of such a thing; nor have I ever seen any picture (not even Leonardo's very fine one) that gave me the least idea of it."

"You have said enough, Mr. Lamb, to justify your choice."

"Oh! ever right, Menenius–ever right!"

"There is only one other person I can ever think of after this," continued H——; but without mentioning a name that once put on a semblance of mortality. "If Shakespeare was to come into the room, we should all rise up to meet him; but if that person was to come into it, we should all fall down and try to kiss the hem of his garment!"

As a lady present seemed now to get uneasy at the turn the conversation had taken, we rose up to go. The morning broke with that dim, dubious light by which Giotto, Cimabue, and Ghirlandaio must have seen to paint their earliest works; and we parted to meet again and renew similar topics at night, the next night, and the night after that, till that night overspread Europe which saw no dawn. The same event, in truth, broke up our little congress that broke up the great one. But that was to meet again: our deliberations have never been resumed.

Charles Lamb

1775–1834

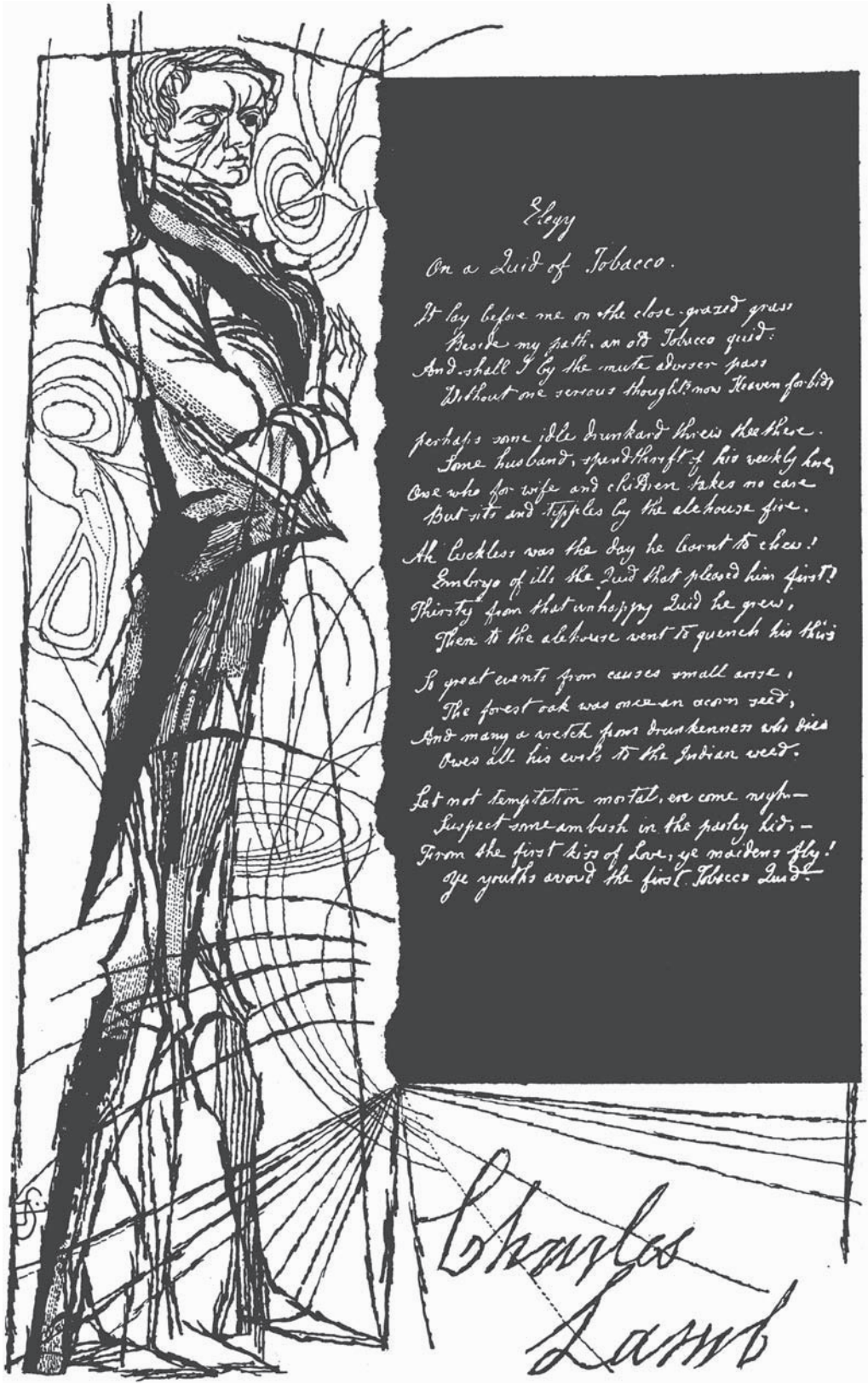
Charles Lamb was born in the Inner Temple, London, February 10, 1775. He went to school with Coleridge at Christ's Hospital. They became close friends. In 1792 he took a job at East India House, where James Mill was later his colleague and John Stuart Mill would also be an official. Lamb held his post for thirty-three years.

After an unlucky love affair, he entered an asylum for a while in 1795. During the following year his sister, Mary Lamb, became unbalanced and stabbed her mother to death. In order to prevent her spending the rest of her life in an asylum, Lamb arranged to take care of his sister. He did so until he died. Each time the warning symptoms showed themselves, Mary Lamb, quietly and in tears, would go back to the asylum again.

Lamb's plays, *John Woodvil* and *Mr. H—*, were produced but were not well received. In 1807 he and Mary Lamb published *Tales Founded on the Plays of Shakespeare*. Other children's books and a number of articles for Leigh Hunt's *The Reflector* were written before 1811. Lamb's *Specimens of English Dramatic Poets*, together with Hazlitt's lectures, helped to bring the lesser Elizabethan writers back into favor.

The period of Lamb's weekly literary evenings, described by

Notes from the artist: "An elongated interpretation of Lamb reminiscent of a sketch made during his lifetime by Charles Pulham. Next to the portrait is a facsimile of Lamb's poem Elegy on a Quid of Tobacco."


Elegy
On a Quid of Tobacco.
It lay before me on the close-grazed grass
Beside my path, an old Tobacco quid:
And shall I by the mute adviser pass
Without one serious thought? now Heaven forbid
perhaps some idle drunkard threw the there.
Some husband, spendthrift of his weekly hire,
One who for wife and children takes no care
But sits and tipples by the alehouse fire.
Ah Luckless was the day he learnt to chew!
Embryo of ills the Quid that pleased him first!
Thirsty from that unhappy Quid he grew,
Then to the alehouse went to quench his thirst
So great events from causes small arise,
The forest oak was once an acorn seed,
And many a wretch from drunkenness who dies
Owes all his evils to the Indian weed.
Let not temptation mortal, ere come nigh—
Suspect some ambush in the pasty lid,—
From the first kiss of Love, ye maidens fly!
Oye youths avoid the first Tobacco Quid.
Charles Lamb

Hazlitt, began about 1811. He proposed marriage to Fanny Kelly, an actress, but was refused. In 1818 his collected *Works* appeared—a little too early to include his best. In the *London Magazine*, after 1820, he began his most famous series, the *Essays of Elia*. (Elia was a "gay light-hearted foreigner" who had once been Lamb's fellow clerk at South Sea House.)

Lamb was pensioned and moved to the country at Enfield. His sister's malady grew constantly worse. During this period his great joy was the Lambs' adopted daughter, Emma Isola. He died at Edmonton, December 27, 1834, from erysipelas and the effects of a fall on the London Road.

Lamb is the magician of the English familiar essay. At the first touch of his wand, we are friends. Happily we consent to go with him wherever he leads, charmed by the brisk voice, the liveliness of fancy, the literary reference from anywhere and everywhere that lights up each stone on the way. He is amused and amusing. We recall that he once joined the audience in hissing his own play.

My First Play (the first he saw, not the first he wrote) may remind us of our own first visit to a theater. Lamb's recollection centers on a green curtain and the unbearable time it takes to go up on the lighted world of the stage. His gift is that he can make us remember that waiting as it happened to *us*, so that we almost seem to remember what he is telling us about himself.

We too fidget through the little preliminary drama of the weather. Will it stop raining? It does. We have "orders"—that is, passes—to the theater. They are a gift from his godfather the oilman. Lamb wanders off a little to chat happily about this godfather of his, who was a friend of the great Sheridan, and who left Charles a patch of land in Hertfordshire.

Then we are in the theater—a theater doubly magical because it belongs to the late eighteenth century and so is a little strange to us. What is a nonpareil? A kind of apple. The attraction was probably a revival of Thomas Arne's *Artaxerxes*—in effect an opera, with sung speeches. Lamb saw the traditional Harlequin at his tricks. The Rich he mentions was John Rich, father of English pantomime. Later he watches a pantomime of *Robinson Crusoe*, and it was just as he had imagined it.

In *Dream Children*, Lamb tells stories of his own youth to the

children he might have had. His grandmother, Mary Field, had been caretaker of just such a great house as he describes, in Hertfordshire. And a girl of that country, Ann Simmons, to whom his first sonnets were written, might well have been the imaginary dead wife Alice of his dreams.

The third essay, *Sanity of True Genius*, makes a point that needs to be repeated in each generation. Art is not daydreaming. It is something willed. A true artist is seldom the servant of his visions. He is their master. They are the materials out of which he constructs his work, as a carpenter uses boards and nails to put up a house.

My First Play

t the north end of Cross-court there yet stands a portal, of some architectural pretensions, though reduced to humble use, serving at present for an entrance to a printing-office. This old doorway, if you are young, reader, you may not know was the identical pit entrance to old Drury–Garrick's Drury–all of it that is left. I never pass it without shaking some forty years from off my shoulders, recurring to the evening when I passed through it to see *my first play*. The afternoon had been wet, and the condition of our going (the elder folks and myself) was that the rain should cease. With what a beating heart did I watch from the window the puddles, from the stillness of which I was taught to prognosticate the desired cessation! I seem to remember the last spurt, and the glee with which I ran to announce it.

We went with orders, which my godfather F. had sent us. He kept the oil shop (now Davies's) at the corner of Featherstone-building, in Holborn. F. was a tall grave person, lofty in speech, and had pretensions above his rank. He associated in those days with John Palmer, the comedian, whose gait and bearing he seemed to copy; if John (which is quite as likely) did not rather borrow somewhat of his manner from my godfather. He was also known to and visited by Sheridan. It was to his house in Holborn that young Brinsley brought his first wife on her elopement with him from a boarding-school at Bath–the beautiful Maria Linley. My parents were present (over a quadrille table) when he arrived in the evening with his harmonious charge. From either of these connections it may be inferred that my godfather could command an order for the then Drury Lane theatre at pleasure–and, indeed, a pretty liberal issue of those cheap billets, in Brinsley's easy autograph, I have heard him say was the sole remuneration which he had received for many years' nightly illumination of the orchestra and various avenues of that theatre–and he was content it should be so. The honour of Sheridan's familiarity–or supposed familiarity–was better to my godfather than money.

F. was the most gentlemanly of oilmen; grandiloquent, yet courteous. His delivery of the commonest matters of fact was Ciceronian. He had two Latin words almost constantly in his mouth (how odd sounds Latin from an oilman's lips!), which my better knowledge since has enabled me to correct. In strict pronunciation they should have been sounded *vice versa*—but in those young years they impressed me with more awe than they would now do, read aright from Seneca or Varro—in his own peculiar pronunciation, monosyllabically elaborated, or anglicized, into something like *verse verse*. By an imposing manner, and the help of these distorted syllables, he climbed (but that was little) to the highest parochial honours which St. Andrew's has to bestow.

He is dead—and thus much I thought due to his memory, both for my first orders (little wondrous talismans!—slight keys, and insignificant to outward sight, but opening to me more than Arabian paradises!) and, moreover, that by his testamentary beneficence I came into possession of the only landed property which I could ever call my own—situate near the roadway village of pleasant Puckeridge, in Hertfordshire. When I journeyed down to take possession, and planted foot on my own ground, the stately habits of the donor descended upon me, and I strode (shall I confess the vanity?) with larger paces over my allotment of three-quarters of an acre, with its commodious mansion in the midst, with the feeling of an English freeholder that all betwixt sky and centre was my own. The estate has passed into more prudent hands, and nothing but an agrarian can restore it.

In those days were pit orders. Beshrew the uncomfortable manager who abolished them!—with one of these we went. I remember the waiting at the door—not that which is left—but between that and an inner door in shelter—O when shall I be such an expectant again!—with the cry of nonpareils, an indispensable playhouse accompaniment in those days. As near as I can recollect, the fashionable pronunciation of the theatrical fruiteresses then was, "Chase some oranges, chase some numparels, chase a bill of the play"—chase *pro* chuse. But when we got in, and I beheld the green curtain that veiled a heaven to my imagination, which was soon to be disclosed—the breathless anticipations I endured! I had seen something like it in the plate prefixed to *Troilus and Cressida*, in Rowe's *Shakespeare*—the tent scene with Diomede—and a sight of that plate can always bring back in a measure the feeling of that evening. The boxes at that time, full of well-dressed women of quality, projected over the pit; and the pilasters reaching down were adorned with a glistening substance (I know not what) under glass (as it seemed), resembling—a

homely fancy–but I judged it to be sugar-candy–yet to my raised imagination, divested of its homelier qualities, it appeared a glorified candy! The orchestra lights at length rose, those "fair Auroras"! Once the bell sounded. It was to ring out yet once again–and, incapable of the anticipation, I reposed my shut eyes in a sort of resignation upon the maternal lap. It rang the second time. The curtain drew up–I was not past six years old, and the play was *Artaxerxes!*

I had dabbled a little in the Universal History–the ancient part of it–and here was the court of Persia. It was being admitted to a sight of the past. I took no proper interest in the action going on, for I understood not its import–but I heard the word Darius, and I was in the midst of Daniel. All feeling was absorbed in vision. Gorgeous vests, gardens, palaces, princesses, passed before me. I knew not players. I was in Persepolis for the time, and the burning idol of their devotion almost converted me into a worshipper. I was awe-struck, and believed those significations to be something more than elemental fires. It was all enchantment and a dream. No such pleasure has since visited me but in dreams. Harlequin's Invasion followed; where, I remember, the transformation of the magistrates into reverend beldams seemed to me a piece of grave historic justice, and the tailor carrying his own head to be as sober a verity as the legend of St. Denys.

The next play to which I was taken was the *Lady of the Manor*, of which, with the exception of some scenery, very faint traces are left in my memory. It was followed by a pantomime, called "Lun's Ghost"–a satiric touch, I apprehend, upon Rich, not long since dead–but to my apprehension (too sincere for satire), Lun was as remote a piece of antiquity as Lud–the father of a line of Harlequins–transmitting his dagger of lath (the wooden sceptre) through countless ages. I saw the primeval Motley come from his silent tomb in a ghastly vest of white patchwork, like the apparition of a dead rainbow. So Harlequins (thought I) look when they are dead.

My third play followed in quick succession. It was the *Way of the World*. I think I must have sat at it as grave as a judge; for I remember the hysteric affectations of good Lady Wishfort affected me like some solemn tragic passion. *Robinson Crusoe* followed; in which Crusoe, man Friday, and the parrot were as good and authentic as in the story. The clownery and pantaloonery of these pantomimes have clean passed out of my head. I believe I no more laughed at them than at the same age I should have been disposed to laugh at the grotesque Gothic heads

(seeming to me then replete with devout meaning) that gape, and grin, in stone around the inside of the old Round Church (my church) of the Templars.

I saw these plays in the season 1781–2, when I was from six to seven years old. After the intervention of six or seven other years (for at school all play-going was inhibited), I again entered the doors of a theatre. That old Artaxerxes evening had never done ringing in my fancy. I expected the same feelings to come again with the same occasion. But we differ from ourselves less at sixty and sixteen, than the latter does from six. In that interval what had I not lost! At the first period I knew nothing, understood nothing, discriminated nothing. I felt all, loved all, wondered all–

Was nourished, I could not tell how–

I had left the temple a devotee, and was returned a rationalist. The same things were there materially; but the emblem, the reference, was gone! The green curtain was no longer a veil, drawn between two worlds, the unfolding of which was to bring back past ages, to present a "royal ghost"–but a certain quantity of green baize, which was to separate the audience for a given time from certain of their fellow-men who were to come forward and pretend those parts. The lights–the orchestra lights–came up a clumsy machinery. The first ring, and the second ring, was now but a trick of the prompter's bell–which had been, like the note of the cuckoo, a phantom of a voice, no hand seen or guessed at which ministered to its warning. The actors were men and women painted. I thought the fault was in them; but it was in myself, and the alteration which those many centuries–of six short twelvemonths–had wrought in me. Perhaps it was fortunate for me that the play of the evening was but an indifferent comedy, as it gave me time to crop some unreasonable expectations, which might have interfered with the genuine emotions with which I was soon after enabled to enter upon the first appearance to me of Mrs. Siddons in *Isabella*. Comparison and retrospection soon yielded to the present attraction of the scene; and the theatre became to me, upon a new stock, the most delightful of recreations.

Dream Children, a Reverie

hildren love to listen to stories about their elders, when *they* were children; to stretch their imagination to the conception of a traditionary great-uncle, or grandame, whom they never saw. It was in this spirit that my little ones crept about me the other evening to hear about their great-grandmother Field, who lived in a great house in Norfolk (a hundred times bigger than that in which they and papa lived) which had been the scene—so at least it was generally believed in that part of the country—of the tragic incidents which they had lately become familiar with from the ballad of the Children in the Wood. Certain it is that the whole story of the children and their cruel uncle was to be seen fairly carved out in wood upon the chimney-piece of the great hall, the whole story down to the Robin Redbreasts; till a foolish rich person pulled it down to set up a marble one of modern invention in its stead, with no story upon it. Here Alice put out one of her dear mother's looks, too tender to be called upbraiding. Then I went on to say, how religious and how good their great-grandmother Field was, how beloved and respected by everybody, though she was not indeed the mistress of this great house, but had only the charge of it (and yet in some respects she might be said to be the mistress of it too) committed to her by the owner, who preferred living in a newer and more fashionable mansion which he had purchased somewhere in the adjoining county; but still she lived in it in a manner as if it had been her own, and kept up the dignity of the great house in a sort while she lived, which afterwards came to decay, and was nearly pulled down, and all its old ornaments stripped and carried away to the owner's other house, where they were set up, and looked as awkward as if some one were to carry away the old tombs they had seen lately at the Abbey, and stick them up in Lady C.'s tawdry gilt drawing-room. Here John smiled, as much as to say, "That would be foolish indeed." And then

I told how, when she came to die, her funeral was attended by a concourse of all the poor, and some of the gentry too, of the neighbourhood for many miles round, to show their respect for her memory, because she had been such a good and religious woman; so good indeed that she knew all the Psaltery by heart, ay, and a great part of the Testament besides. Here little Alice spread her hands. Then I told what a tall, upright, graceful person their great-grandmother Field once was; and how in her youth she was esteemed the best dancer—here Alice's little right foot played an involuntary movement, till, upon my looking grave, it desisted—the best dancer, I was saying, in the county, till a cruel disease, called a cancer, came, and bowed her down with pain; but it could never bend her good spirits, or make them stoop, but they were still upright, because she was so good and religious. Then I told how she was used to sleep by herself in a lone chamber of the great lone house; and how she believed that an apparition of two infants was to be seen at midnight gliding up and down the great staircase near where she slept, but she said "those innocents would do her no harm"; and how frightened I used to be, though in those days I had my maid to sleep with me, because I was never half so good or religious as she—and yet I never saw the infants. Here John expanded all his eyebrows and tried to look courageous. Then I told how good she was to all her grandchildren, having us to the great house in the holydays, where I in particular used to spend many hours by myself, in gazing upon the old busts of the twelve Caesars that had been emperors of Rome, till the old marble heads would seem to live again, or I to be turned into marble with them; how I never could be tired with roaming about that huge mansion, with its vast empty rooms, with their worn-out hangings, fluttering tapestry, and carved oaken panels, with the gilding almost rubbed out—sometimes in the spacious old-fashioned gardens, which I had almost to myself, unless when now and then a solitary gardening man would cross me—and how the nectarines and peaches hung upon the walls, without my ever offering to pluck them, because they were forbidden fruit, unless now and then,—and because I had more pleasure in strolling about among the old melancholy-looking yew-trees, or the firs, and picking up the red berries, and the fir-apples, which were good for nothing but to look at—or in lying about upon the fresh grass with all the fine garden smells around me—or basking in the orangery, till I could almost fancy myself ripening too along with the oranges and the limes in that grateful warmth—or in watching the dace that darted to and fro in the fishpond, at the bottom of the garden, with here and there a great sulky pike hanging midway down the water in silent state,

as if it mocked at their impertinent friskings–I had more pleasure in these busy-idle diversions than in all the sweet flavours of peaches, nectarines, oranges, and such-like common baits of children. Here John slyly deposited back upon the plate a bunch of grapes, which, not unobserved by Alice, he had meditated dividing with her, and both seemed willing to relinquish them for the present as irrelevant. Then, in somewhat a more heightened tone, I told how, though their great-grandmother Field loved all her grandchildren, yet in an especial manner she might be said to love their uncle, John L––, because he was so handsome and spirited a youth, and a king to the rest of us; and, instead of moping about in solitary corners, like some of us, he would mount the most mettlesome horse he could get, when but an imp no bigger than themselves, and make it carry him half over the county in a morning, and join the hunters when there were any out–and yet he loved the old great house and gardens too, but had too much spirit to be always pent up within their boundaries– and how their uncle grew up to man's estate as brave as he was handsome, to the admiration of everybody, but of their great-grandmother Field most especially; and how he used to carry me upon his back when I was a lame-footed boy–for he was a good bit older than me–many a mile when I could not walk for pain;–and how in after life he became lame-footed too, and I did not always (I fear) make allowances enough for him when he was impatient and in pain, nor remember sufficiently how considerate he had been to me when I was lame-footed, and how when he died, though he had not been dead an hour, it seemed as if he had died a great while ago, such a distance there is betwixt life and death; and how I bore his death as I thought pretty well at first, but afterwards it haunted and haunted me; and though I did not cry or take it to heart as some do, and as I think he would have done if I had died, yet I missed him all day long, and knew not till then how much I had loved him. I missed his kindness, and I missed his crossness, and wished him to be alive again, to be quarrelling with him (for we quarrelled sometimes), rather than not have him again, and was as uneasy without him, as he, their poor uncle, must have been when the doctor took off his limb. Here the children fell a crying, and asked if their little mourning which they had on was not for Uncle John, and they looked up, and prayed me not to go on about their uncle, but to tell them some stories about their pretty dead mother. Then I told how for seven long years, in hope sometimes, sometimes in despair, yet persisting ever, I courted the fair Alice W–n; and as much as children could understand, I explained to them what coyness, and difficulty, and denial, meant in maidens–when suddenly turning to

Alice, the soul of the first Alice looked out at her eyes with such a reality of re-presentment that I became in doubt which of them stood there before me, or whose that bright hair was; and while I stood gazing, both the children gradually grew fainter to my view, receding, and still receding, till nothing at last but two mournful features were seen in the uttermost distance, which, without speech, strangely impressed upon me the effects of speech: "We are not of Alice, nor of thee, nor are we children at all. The children of Alice call Bartrum father. We are nothing; less than nothing, and dreams. We are only what might have been, and must wait upon the tedious shores of Lethe millions of ages before we have existence, and a name"––and immediately awaking, I found myself quietly seated in my bachelor arm-chair, where I had fallen asleep, with the faithful Bridget unchanged by my side–but John L. (or James Elia) was gone forever.

Sanity of True Genius

So far from the position holding true, that great wit (or genius, in our modern way of speaking) has a necessary alliance with insanity, the greatest wits, on the contrary, will ever be found to be the sanest writers. It is impossible for the mind to conceive of a mad Shakespeare. The greatness of wit, by which the poetic talent is here chiefly to be understood, manifests itself in the admirable balance of all the faculties. Madness is the disproportionate straining or excess of any one of them. "So strong a wit," says Cowley, speaking of a poetical friend,

> —did Nature to him frame,
> As all things but his judgment overcame;
> His judgment like the heavenly moon did show,
> Tempering that mighty sea below.

The ground of the mistake is that men, finding in the raptures of the higher poetry a condition of exaltation, to which they have no parallel in their own experience, besides the spurious resemblance of it in dreams and fevers, impute a state of dreaminess and fever to the poet. But the true poet dreams being awake. He is not possessed by his subject, but has dominion over it. In the groves of Eden he walks familiar as in his native paths. He ascends the empyrean heaven, and is not intoxicated. He treads the burning marl without dismay; he wins his flight without self-loss through realms of chaos "and old night." Or if, abandoning himself to that severer chaos of a "human mind untuned," he is content awhile to be mad with Lear, or to hate mankind (a sort of madness) with Timon, neither is that madness, nor this misanthropy, so unchecked, but that–never letting the reins of reason wholly go, while most he seems to do so–he has his better genius still whispering at his ear, with the good

servant Kent suggesting saner counsels, or with the honest steward Flavius recommending kindlier resolutions. Where he seems most to recede from humanity, he will be found the truest to it. From beyond the scope of Nature if he summon possible existences, he subjugates them to the law of her consistency. He is beautifully loyal to that sovereign directress, even when he appears most to betray and desert her. His ideal tribes submit to policy; his very monsters are tamed to his hand, even as that wild sea-brood, shepherded by Proteus. He tames, and he clothes them with attributes of flesh and blood, till they wonder at themselves, like Indian Islanders forced to submit to European vesture. Caliban, the Witches, are as true to the laws of their own nature (ours with a difference), as Othello, Hamlet, and Macbeth. Herein the great and the little wits are differenced; that if the latter wander ever so little from nature or actual existence, they lose themselves and their readers. Their phantoms are lawless; their visions nightmares. They do not create, which implies shaping and consistency. Their imaginations are not active—for to be active is to call something into act and form—but passive, as men in sick dreams. For the supernatural, or something super-added to what we know of nature, they give you the plainly non-natural. And if this were all, and that these mental hallucinations were discoverable only in the treatment of subjects out of nature, or transcending it, the judgment might with some plea be pardoned if it ran riot, and a little wantonized: but even in the describing of real and everyday life, that which is before their eyes, one of these lesser wits shall more deviate from nature—show more of that inconsequence, which has a natural alliance with frenzy—than a great genius in his "maddest fits," as Withers somewhere calls them. We appeal to any one that is acquainted with the common run of Lane's novels—as they existed some twenty or thirty years back, those scanty intellectual viands of the whole female reading public, till a happier genius arose, and expelled forever the innutritious phantoms—whether he has not found his brain more "betossed," his memory more puzzled, his sense of when and where more confounded, among the improbable events, the incoherent incidents, the inconsistent characters, or no characters, of some third-rate love-intrigue—where the persons shall be a Lord Glendamour and a Miss Rivers, and the scene only alternate between Bath and Bond Street—a more bewildering dreaminess induced upon him than he has felt wandering over all the fairy-grounds of Spenser. In the productions we refer to, nothing but names and places is familiar; the persons are neither of this world nor of any other conceivable one; an endless stream of activities without purpose, of purposes destitute of mo-

tive: we meet phantoms in our known walks; *fantasques* only christened. In the poet we have names which announce fiction; and we have absolutely no place at all, for the things and persons of the Fairy Queen prate not of their "whereabout." But in their inner nature, and the law of their speech and actions, we are at home, and upon acquainted ground. The one turns life into a dream: the other to the wildest dreams gives the sobrieties of everyday occurrences. By what subtle art of tracing the mental processes it is effected, we are not philosophers enough to explain, but in that wonderful episode of the cave of Mammon, in which the Money God appears first in the lowest form of a miser, is then a worker of metals, and becomes the god of all the treasures of the world; and has a daughter, Ambition, before whom all the world kneels for favours—with the Hesperian fruit, the waters of Tantalus, with Pilate washing his hands vainly, but not impertinently, in the same stream—that we should be at one moment in the cave of an old hoarder of treasures, at the next at the forge of the Cyclops, in a palace and yet in hell, all at once, with the shifting mutations of the most rambling dream, and our judgment yet all the time awake, and neither able nor willing to detect the fallacy, is a proof of that hidden sanity which still guides the poet in the wildest seeming-aberrations.

It is not enough to say that the whole episode is a copy of the mind's conceptions in sleep; it is, in some sort—but what a copy! Let the most romantic of us, that has been entertained all night with the spectacle of some wild and magnificent vision, recombine it in the morning, and try it by his waking judgment. That which appeared so shifting, and yet so coherent, while that faculty was passive, when it comes under cool examination shall appear so reasonless and so unlinked, that we are ashamed to have been so deluded; and to have taken, though but in sleep, a monster for a god. But the transitions in this episode are every whit as violent as in the most extravagant dream, and yet the waking judgment ratifies them.

"My First Play" and "Dream Children, a Reverie" are from a collection of Lamb's essays entitled THE ESSAYS OF ELIA; *"Sanity of True Genius" is from a collection of Lamb's essays entitled* THE LAST ESSAYS OF ELIA.

Samuel Johnson

1709–1784

Samuel Johnson was born in Lichfield, England, on September 18, 1709. His father, Michael, a bookseller, was sheriff of the city that year. From his father, Samuel inherited his large, powerful, though not entirely healthy, body; and in his father's shop the boy gained an early interest in books.

When he was young, Samuel Johnson suffered from scrofula, a disease which disfigured his face and injured his eyesight. He was educated at Lichfield Grammar School and at Oxford, where he stayed from October, 1728, until December, 1729. For the next few years, Johnson made a meager living teaching, translating, and writing.

In 1735 he married a widow, Mrs. Elizabeth Porter, and set up a school at Edial, near Lichfield. The school failed and in 1737 he left for London, where he was to spend the rest of his life. During the next few years Johnson suffered poverty and enjoyed little success. He earned a living chiefly by writing for the *Gentleman's Magazine*.

In 1744 was published Johnson's *Life of Savage*, a biography of his friend Richard Savage; and his poem *The Vanity of Human Wishes* appeared in 1749. But it was the publication of Johnson's famous *Dictionary of the English Language* in 1755 that made his reputation. The *Dictionary* was an immediate success and was at once accepted as the standard authority. For two of the eight years he spent preparing the dictionary, Johnson supported himself in part by publishing a periodical, *The Rambler* (1750–52). Later, from 1758–60, he also published another periodical, *The Idler*.

In 1762 Johnson was given a government pension which made him financially independent. His remaining years were comparatively easy, but the death of his wife in 1752 had been a great blow to him,

and Johnson was never free from the periods of deep depression which had plagued him throughout his life.

At meetings of The Literary Club, which Johnson helped found in 1764, his genius as a conversationalist was displayed. James Boswell recorded these conversations, as well as every quirk and peculiarity of the great man, so that we probably know more about Johnson than about any writer who ever lived.[1]

In 1765, Johnson brought out the long-awaited edition of Shakespeare's plays, which he had been promising for nearly ten years. In 1779–81 was published *Lives of the English Poets*, prefaces written for a large collection of English poetry. He died on December 13, 1784, and was buried in Westminster Abbey.

Shakespeare has been more studied, as well as more read and played, than any English dramatist. Dr. Johnson's critique, in the *Preface* that he wrote to his edition of the plays, reprinted below, is one of a long line of such works. Authors and editors had praised Shakespeare for a hundred years before Johnson's birth; and, of course, the flood of praise and criticism has continued unabated until our time. But there is reason to believe that Johnson's evaluation is the best general study of Shakespeare.

If it is not the best, it is certainly important to read today. Modern criticism of Shakespeare tends to ignore the main point of Johnson's critique. Much contemporary Shakespearean criticism seems to dehumanize Shakespeare, to treat him as difficult, strange, and recondite. It emphasizes the changes that his language has undergone, and points out the intricacy of his images. Doubtless such criticism is valuable. The complexities of Shakespeare should be observed and clarified. His uniquely involuted ironies and ambiguities should be understood.

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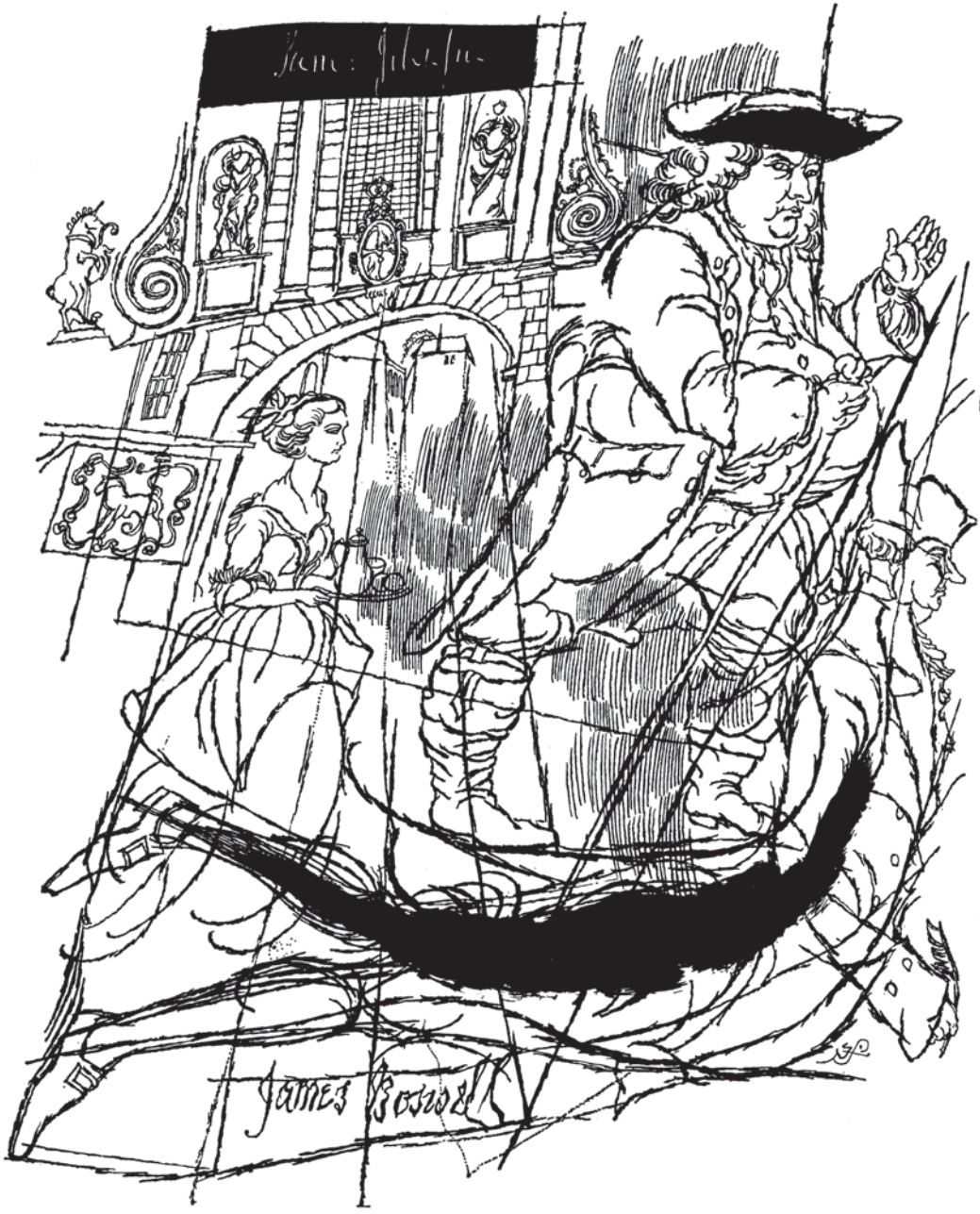
[1] See his *Life of Samuel Johnson,* in *Great Books of the Western World.*

Notes from the artist: "Johnson and, below, the ever-present Boswell, followed by a coffeehouse waitress, in a fantasy of Fleet Street, scene of some of Johnson's famous verbal jousts."


James Boswell

But one sometimes has the feeling that this criticism misses the forest for the trees. Johnson does not fail to see the forest; he is able to view, and to appreciate, Shakespeare as a whole.

"Nothing can please many," he writes, "and please long, but just representations of general nature." Shakespeare's characters, he goes on, "are not modified by the customs of particular places, unpractised by the rest of the world; by the peculiarities of studies or professions, which can operate but upon small numbers; or by the accidents of transient fashions or temporary opinions: they are the genuine progeny of common humanity, such as the world will always supply, and observation will always find."

"Shakespeare has no heroes," Johnson adds in a later place; "his scenes are occupied only by men who act and speak as the reader thinks that he should himself have spoken or acted on the same occasion."

"This therefore is the praise of Shakespeare," Johnson concludes, "that his drama is the mirror of life; that he who has mazed his imagination, in following the phantoms which other writers raise up before him, may here be cured of his delirious ecstasies, by reading human sentiments in human language, by scenes from which a hermit may estimate the transactions of the world, and a confessor predict the progress of the passions."

Johnson does not praise Shakespeare unreservedly. He has many criticisms which some modern readers consider carping: for example, that Shakespeare is sometimes morally slack, sometimes a poor storyteller, sometimes vulgar, sometimes ignorant, and that he too often indulges in punning. The reader of Johnson's *Preface* will have to decide for himself whether the things that Johnson takes exception to should be condemned or condoned. But he should not forget the chief point. Shakespeare's plays exhibit "the real state of sublunary nature," Johnson writes, "which partakes of good and evil, joy and sorrow, mingled with endless variety of proportion and innumerable modes of combination . . . in which, at the same time, the reveller is hasting to his wine, and the mourner burying his friend; in which the malignity of one is sometimes defeated by the frolic of another; and many mischiefs and many benefits are done and hindered without design."

Shakespeare is the poet of life as we all know it and always will know it. Johnson is saying–and do we wish to dispute him?–that this is the highest praise which can be accorded any artist.

Johnson's *Preface* is useful and interesting for other reasons. It talks sense about the theater, and it talks sense, too, about the business of criticism. The sympathetic reader will not fail to derive delight from Johnson's style. This is the "grand style," so rare in English. The sentences are long and often complex, but they move like stately music to a deeply satisfying close. The combination of Shakespeare and Johnson is a wonderful one.

Preface to Shakespeare

That praises are without reason lavished on the dead, and that the honours due only to excellence are paid to antiquity, is a complaint likely to be always continued by those who, being able to add nothing to truth, hope for eminence from the heresies of paradox; or those who, being forced by disappointment upon consolatory expedients, are willing to hope from posterity what the present age refuses, and flatter themselves that the regard which is yet denied by envy will be at last bestowed by time.

Antiquity, like every other quality that attracts the notice of mankind, has undoubtedly votaries that reverence it, not from reason, but from prejudice. Some seem to admire indiscriminately whatever has been long preserved, without considering that time has sometimes co-operated with chance; all perhaps are more willing to honour past than present excellence; and the mind contemplates genius through the shades of age, as the eye surveys the sun through artificial opacity. The great contention of criticism is to find the faults of the moderns, and the beauties of the ancients. While an author is yet living we estimate his powers by his worst performance, and when he is dead, we rate them by his best.

To works, however, of which the excellence is not absolute and definite, but gradual and comparative; to works not raised upon principles demonstrative and scientific, but appealing wholly to observation and experience, no other test can be applied than length of duration and continuance of esteem. What mankind have long possessed they have often examined and compared; and if they persist to value the possession, it is because frequent comparisons have confirmed opinion in its favour. As among the works of nature no man can properly call a river deep, or a mountain high, without the knowledge of many mountains, and many rivers; so in the productions of genius, nothing can be styled excellent till it has been compared with other works of the same kind. Demonstration immediately displays its power, and has nothing to

hope or fear from the flux of years; but works tentative and experimental must be estimated by their proportion to the general and collective ability of man, as it is discovered in a long succession of endeavours. Of the first building that was raised, it might be with certainty determined that it was round or square; but whether it was spacious or lofty must have been referred to time. The Pythagorean scale of numbers was at once discovered to be perfect; but the poems of Homer we yet know not to transcend the common limits of human intelligence, but by remarking that nation after nation, and century after century, has been able to do little more than transpose his incidents, new-name his characters, and paraphrase his sentiments.

The reverence due to writings that have long subsisted arises therefore not from any credulous confidence in the superior wisdom of past ages, or gloomy persuasion of the degeneracy of mankind, but is the consequence of acknowledged and indubitable positions that what has been longest known has been most considered, and what is most considered is best understood.

The Poet, of whose works I have undertaken the revision, may now begin to assume the dignity of an ancient, and claim the privilege of established fame and prescriptive veneration. He has long outlived his century, the term commonly fixed as the test of literary merit. Whatever advantages he might once derive from personal allusions, local customs, or temporary opinions have for many years been lost; and every topic of merriment, or motive of sorrow, which the modes of artificial life afforded him, now only obscure the scenes which they once illuminated. The effects of favour and competition are at an end; the tradition of his friendships and his enmities has perished; his works support no opinion with arguments, nor supply any faction with invectives; they can neither indulge vanity nor gratify malignity; but are read without any other reason than the desire of pleasure, and are therefore praised only as pleasure is obtained; yet, thus unassisted by interest or passion, they have passed through variations of taste and changes of manners, and, as they devolved from one generation to another, have received new honours at every transmission.

But because human judgment, though it be gradually gaining upon certainty, never becomes infallible; and approbation, though long continued, may yet be only the approbation of prejudice or fashion; it is proper to enquire by what peculiarities of excellence Shakespeare has gained and kept the favour of his countrymen.

Nothing can please many, and please long, but just representations of

general nature. Particular manners can be known to few, and therefore few only can judge how nearly they are copied. The irregular combinations of fanciful invention may delight awhile, by that novelty of which the common satiety of life sends us all in quest; but the pleasures of sudden wonder are soon exhausted, and the mind can only repose on the stability of truth.

Shakespeare is above all writers, at least above all modern writers, the poet of nature; the poet that holds up to his readers a faithful mirror of manners and of life. His characters are not modified by the customs of particular places, unpractised by the rest of the world; by the peculiarities of studies or professions, which can operate but upon small numbers; or by the accidents of transient fashions or temporary opinions: they are the genuine progeny of common humanity, such as the world will always supply, and observation will always find. His persons act and speak by the influence of those general passions and principles by which all minds are agitated, and the whole system of life is continued in motion. In the writings of other poets a character is too often an individual; in those of Shakespeare it is commonly a species.

It is from this wide extension of design that so much instruction is derived. It is this which fills the plays of Shakespeare with practical axioms and domestic wisdom. It was said of Euripides that every verse was a precept; and it may be said of Shakespeare that from his works may be collected a system of civil and economical prudence. Yet his real power is not shown in the splendour of particular passages, but by the progress of his fable, and the tenor of his dialogue; and he that tries to recommend him by select quotations will succeed like the pedant in Hierocles, who, when he offered his house to sale, carried a brick in his pocket as a specimen.

It will not easily be imagined how much Shakespeare excels in accommodating his sentiments to real life but by comparing him with other authors. It was observed of the ancient schools of declamation that the more diligently they were frequented, the more was the student disqualified for the world, because he found nothing there which he should ever meet in any other place. The same remark may be applied to every stage but that of Shakespeare. The theatre, when it is under any other direction, is peopled by such characters as were never seen, conversing, in a language which was never heard, upon topics which will never arise in the commerce of mankind. But the dialogue of this author is often so evidently determined by the incident which produces it, and is pursued

with so much ease and simplicity, that it seems scarcely to claim the merit of fiction, but to have been gleaned by diligent selection out of common conversation, and common occurrences.

Upon every other stage the universal agent is love, by whose power all good and evil is distributed, and every action quickened or retarded. To bring a lover, a lady and a rival into the fable; to entangle them in contradictory obligations, perplex them with oppositions of interest, and harass them with violence of desires inconsistent with each other; to make them meet in rapture and part in agony; to fill their mouths with hyperbolical joy and outrageous sorrow; to distress them as nothing human ever was distressed; to deliver them as nothing human ever was delivered is the business of a modern dramatist. For this probability is violated, life is misrepresented, and language is depraved. But love is only one of many passions; and as it has no great influence upon the sum of life, it has little operation in the dramas of a poet who caught his ideas from the living world, and exhibited only what he saw before him. He knew that any other passion, as it was regular or exorbitant, was a cause of happiness or calamity.

Characters thus ample and general were not easily discriminated and preserved, yet perhaps no poet ever kept his personages more distinct from each other. I will not say with Pope that every speech may be assigned to the proper speaker, because many speeches there are which have nothing characteristical; but perhaps, though some may be equally adapted to every person, it will be difficult to find any that can be properly transferred from the present possessor to another claimant. The choice is right when there is reason for choice.

Other dramatists can only gain attention by hyperbolical or aggravated characters, by fabulous and unexampled excellence or depravity, as the writers of barbarous romances invigorated the reader by a giant and a dwarf; and he that should form his expectations of human affairs from the play, or from the tale, would be equally deceived. Shakespeare has no heroes; his scenes are occupied only by men who act and speak as the reader thinks that he should himself have spoken or acted on the same occasion: Even where the agency is supernatural the dialogue is level with life. Other writers disguise the most natural passions and most frequent incidents; so that he who contemplates them in the book will not know them in the world: Shakespeare approximates the remote, and familiarizes the wonderful; the event which he represents will not happen, but if it were possible, its effects would probably be such as he has

assigned; and it may be said that he has not only shown human nature as it acts in real exigencies but as it would be found in trials to which it cannot be exposed.

This therefore is the praise of Shakespeare, that his drama is the mirror of life; that he who has mazed his imagination, in following the phantoms which other writers raise up before him, may here be cured of his delirious ecstasies, by reading human sentiments in human language, by scenes from which a hermit may estimate the transactions of the world, and a confessor predict the progress of the passions.

His adherence to general nature has exposed him to the censure of critics, who form their judgments upon narrower principles. Dennis and Rhymer think his Romans not sufficiently Roman; and Voltaire censures his kings as not completely royal. Dennis is offended that Menenius, a senator of Rome, should play the buffoon; and Voltaire perhaps thinks decency violated when the Danish Usurper is represented as a drunkard. But Shakespeare always makes nature predominate over accident; and if he preserves the essential character, is not very careful of distinctions superinduced and adventitious. His story requires Romans or kings, but he thinks only on men. He knew that Rome, like every other city, had men of all dispositions; and wanting a buffoon, he went into the senate-house for that which the senate-house would certainly have afforded him. He was inclined to show a usurper and a murderer not only odious but despicable; he therefore added drunkenness to his other qualities, knowing that kings love wine like other men, and that wine exerts its natural power upon kings. These are the petty cavils of petty minds; a poet overlooks the casual distinction of country and condition, as a painter, satisfied with the figure, neglects the drapery.

The censure which he has incurred by mixing comic and tragic scenes, as it extends to all his works, deserves more consideration. Let the fact be first stated, and then examined.

Shakespeare's plays are not in the rigorous and critical sense either tragedies or comedies, but compositions of a distinct kind; exhibiting the real state of sublunary nature, which partakes of good and evil, joy and sorrow, mingled with endless variety of proportion and innumerable modes of combination; and expressing the course of the world, in which the loss of one is the gain of another; in which, at the same time, the reveller is hasting to his wine, and the mourner burying his friend; in which the malignity of one is sometimes defeated by the frolic of another; and many mischiefs and many benefits are done and hindered without design.

Out of this chaos of mingled purposes and casualties the ancient poets, according to the laws which custom had prescribed, selected: some the crimes of men, and some their absurdities; some the momentous vicissitudes of life, and some the lighter occurrences; some the terrors of distress, and some the gaieties of prosperity. Thus rose the two modes of imitation, known by the names of tragedy and comedy, compositions intended to promote different ends by contrary means, and considered as so little allied that I do not recollect among the Greeks or Romans a single writer who attempted both.

Shakespeare has united the powers of exciting laughter and sorrow not only in one mind, but in one composition. Almost all his plays are divided between serious and ludicrous characters, and, in the successive evolutions of the design, sometimes produce seriousness and sorrow, and sometimes levity and laughter.

That this is a practice contrary to the rules of criticism will be readily allowed; but there is always an appeal open from criticism to nature. The end of writing is to instruct; the end of poetry is to instruct by pleasing. That the mingled drama may convey all the instruction of tragedy or comedy cannot be denied, because it includes both in its alternations of exhibition and approaches nearer than either to the appearance of life, by showing how great machinations and slender designs may promote or obviate one another, and the high and the low co-operate in the general system by unavoidable concatenation.

It is objected that by this change of scenes the passions are interrupted in their progression, and that the principal event, being not advanced by a due gradation of preparatory incidents, wants at last the power to move, which constitutes the perfection of dramatic poetry. This reasoning is so specious that it is received as true even by those who in daily experience feel it to be false. The interchanges of mingled scenes seldom fail to produce the intended vicissitudes of passion. Fiction cannot move so much but that the attention may be easily transferred; and though it must be allowed that pleasing melancholy be sometimes interrupted by unwelcome levity, yet let it be considered likewise that melancholy is often not pleasing, and that the disturbance of one man may be the relief of another; that different auditors have different habitudes; and that, upon the whole, all pleasure consists in variety.

The players, who in their edition divided our author's works into comedies, histories, and tragedies, seem not to have distinguished the three kinds by any very exact or definite ideas.

An action which ended happily to the principal persons, however seri-

ous or distressful through its intermediate incidents, in their opinion constituted a comedy. This idea of a comedy continued long amongst us; and plays were written, which, by changing the catastrophe, were tragedies to-day, and comedies to-morrow.

Tragedy was not in those times a poem of more general dignity or elevation than comedy; it required only a calamitous conclusion, with which the common criticism of that age was satisfied, whatever lighter pleasure it afforded in its progress.

History was a series of actions, with no other than chronological succession, independent on each other, and without any tendency to introduce or regulate the conclusion. It is not always very nicely distinguished from tragedy. There is not much nearer approach to unity of action in the tragedy of Antony and Cleopatra than in the history of Richard the Second. But a history might be continued through many plays; as it had no plan, it had no limits.

Through all these denominations of the drama, Shakespeare's mode of composition is the same; an interchange of seriousness and merriment, by which the mind is softened at one time, and exhilarated at another. But whatever be his purpose, whether to gladden or depress, or to conduct the story, without vehemence or emotion, through tracts of easy and familiar dialogue, he never fails to attain his purpose; as he commands us, we laugh or mourn, or sit silent with quiet expectation, in tranquillity without indifference.

When Shakespeare's plan is understood, most of the criticisms of Rhymer and Voltaire vanish away. The play of Hamlet is opened, without impropriety, by two sentinels; Iago bellows at Brabantio's window, without injury to the scheme of the play, though in terms which a modern audience would not easily endure; the character of Polonius is seasonable and useful; and the Grave-diggers themselves may be heard with applause.

Shakespeare engaged in dramatic poetry with the world open before him; the rules of the ancients were yet known to few; the public judgment was unformed; he had no example of such fame as might force him upon imitation, nor critics of such authority as might restrain his extravagance: He therefore indulged his natural disposition, and his disposition, as Rhymer has remarked, led him to comedy. In tragedy he often writes, with great appearance of toil and study, what is written at last with little felicity; but in his comic scenes, he seems to produce without labour what no labour can improve. In tragedy he is always struggling after some occasion to be comic; but in comedy he seems to repose, or to

luxuriate, as in a mode of thinking congenial to his nature. In his tragic scenes there is always something wanting, but his comedy often surpasses expectation or desire. His comedy pleases by the thoughts and the language, and his tragedy for the greater part by incident and action. His tragedy seems to be skill, his comedy to be instinct.

The force of his comic scenes has suffered little diminution from the changes made by a century and a half, in manners or in words. As his personages act upon principles arising from genuine passion, very little modified by particular forms, their pleasures and vexations are communicable to all times and to all places; they are natural, and therefore durable; the adventitious peculiarities of personal habits are only superficial dies, bright and pleasing for a little while, yet soon fading to a dim tinct, without any remains of former lustre; but the discriminations of true passion are the colours of nature; they pervade the whole mass, and can only perish with the body that exhibits them. The accidental compositions of heterogeneous modes are dissolved by the chance which combined them; but the uniform simplicity of primitive qualities neither admits increase, nor suffers decay. The sand heaped by one flood is scattered by another, but the rock always continues in its place. The stream of time, which is continually washing the dissoluble fabrics of other poets, passes without injury by the adamant of Shakespeare.

If there be, what I believe there is, in every nation, a style which never becomes obsolete, a certain mode of phraseology so consonant and congenial to the analogy and principles of its respective language as to remain settled and unaltered; this style is probably to be sought in the common intercourse of life, among those who speak only to be understood, without ambition of elegance. The polite are always catching modish innovations, and the learned depart from established forms of speech, in hope of finding or making better; those who wish for distinction forsake the vulgar, when the vulgar is right; but there is a conversation above grossness and below refinement, where propriety resides, and where this poet seems to have gathered his comic dialogue. He is therefore more agreeable to the ears of the present age than any other author equally remote, and among his other excellencies deserves to be studied as one of the original masters of our language.

These observations are to be considered not as unexceptionably constant, but as containing general and predominant truth. Shakespeare's familiar dialogue is affirmed to be smooth and clear, yet not wholly without ruggedness or difficulty; as a country may be eminently fruitful, though it has spots unfit for cultivation: His characters are praised as

natural, though their sentiments are sometimes forced, and their actions improbable; as the earth upon the whole is spherical, though its surface is varied with protuberances and cavities.

Shakespeare with his excellencies has likewise faults, and faults sufficient to obscure and overwhelm any other merit. I shall show them in the proportion in which they appear to me, without envious malignity or superstitious veneration. No question can be more innocently discussed than a dead poet's pretensions to renown; and little regard is due to that bigotry which sets candour higher than truth.

His first defect is that to which may be imputed most of the evil in books or in men. He sacrifices virtue to convenience, and is so much more careful to please than to instruct that he seems to write without any moral purpose. From his writings indeed a system of social duty may be selected, for he that thinks reasonably must think morally; but his precepts and axioms drop casually from him; he makes no just distribution of good or evil, nor is always careful to show in the virtuous a disapprobation of the wicked; he carries his persons indifferently through right and wrong, and at the close dismisses them without further care, and leaves their examples to operate by chance. This fault the barbarity of his age cannot extenuate; for it is always a writer's duty to make the world better, and justice is a virtue independent on time or place.

The plots are often so loosely formed that a very slight consideration may improve them, and so carelessly pursued that he seems not always fully to comprehend his own design. He omits opportunities of instructing or delighting which the train of his story seems to force upon him, and apparently rejects those exhibitions which would be more affecting, for the sake of those which are more easy.

It may be observed that in many of his plays the latter part is evidently neglected. When he found himself near the end of his work, and, in view of his reward, he shortened the labour to snatch the profit. He therefore remits his efforts where he should most vigorously exert them, and his catastrophe is improbably produced or imperfectly represented.

He had no regard to distinction of time or place, but gives to one age or nation, without scruple, the customs, institutions, and opinions of another, at the expense not only of likelihood but of possibility. These faults Pope has endeavoured, with more zeal than judgment, to transfer to his imagined interpolators. We need not wonder to find Hector quoting Aristotle, when we see the loves of Theseus and Hippolyta combined with the Gothic mythology of fairies. Shakespeare, indeed, was not the only violator of chronology, for in the same age Sidney, who wanted not

the advantages of learning, has, in his *Arcadia*, confounded the pastoral with the feudal times, the days of innocence, quiet and security, with those of turbulence, violence, and adventure.

In his comic scenes he is seldom very successful when he engages his characters in reciprocations of smartness and contests of sarcasm; their jests are commonly gross, and their pleasantry licentious; neither his gentlemen nor his ladies have much delicacy, nor are sufficiently distinguished from his clowns by any appearance of refined manners. Whether he represented the real conversation of his time is not easy to determine; the reign of Elizabeth is commonly supposed to have been a time of stateliness, formality and reserve; yet perhaps the relaxations of that severity were not very elegant. There must, however, have been always some modes of gaiety preferable to others, and a writer ought to choose the best.

In tragedy his performance seems constantly to be worse, as his labour is more. The effusions of passion which exigence forces out are for the most part striking and energetic; but whenever he solicits his invention, or strains his faculties, the offspring of his throes is tumour, meanness, tediousness, and obscurity.

In narration he affects a disproportionate pomp of diction, and a wearisome train of circumlocution, and tells the incident imperfectly in many words, which might have been more plainly delivered in few. Narration in dramatic poetry is naturally tedious, as it is unanimated and inactive, and obstructs the progress of the action; it should therefore always be rapid, and enlivened by frequent interruption. Shakespeare found it an encumbrance, and instead of lightening it by brevity, endeavoured to recommend it by dignity and splendour.

His declamations or set speeches are commonly cold and weak, for his power was the power of nature; when he endeavoured, like other tragic writers, to catch opportunities of amplification, and instead of enquiring what the occasion demanded, to show how much his stores of knowledge could supply, he seldom escapes without the pity or resentment of his reader.

It is incident to him to be now and then entangled with an unwieldy sentiment, which he cannot well express, and will not reject; he struggles with it awhile, and if it continues stubborn, comprises it in words such as occur, and leaves it to be disentangled and evolved by those who have more leisure to bestow upon it.

Not that always where the language is intricate the thought is subtle, or the image always great where the line is bulky; the equality of words

to things is very often neglected, and trivial sentiments and vulgar ideas disappoint the attention, to which they are recommended by sonorous epithets and swelling figures.

But the admirers of this great poet have never less reason to indulge their hopes of supreme excellence than when he seems fully resolved to sink them in dejection, and mollify them with tender emotions by the fall of greatness, the danger of innocence, or the crosses of love. He is not long soft and pathetic without some idle conceit, or contemptible equivocation. He no sooner begins to move than he counteracts himself; and terror and pity, as they are rising in the mind, are checked and blasted by sudden frigidity.

A quibble is to Shakespeare what luminous vapours are to the traveller; he follows it at all adventures; it is sure to lead him out of his way, and sure to engulf him in the mire. It has some malignant power over his mind, and its fascinations are irresistible. Whatever be the dignity or profundity of his disquisition, whether he be enlarging knowledge or exalting affection, whether he be amusing attention with incidents, or enchaining it in suspense, let but a quibble spring up before him, and he leaves his work unfinished. A quibble is the golden apple for which he will always turn aside from his career, or stoop from his elevation. A quibble, poor and barren as it is, gave him such delight that he was content to purchase it, by the sacrifice of reason, propriety and truth. A quibble was to him the fatal Cleopatra for which he lost the world, and was content to lose it.

It will be thought strange that, in enumerating the defects of this writer, I have not yet mentioned his neglect of the unities; his violation of those laws which have been instituted and established by the joint authority of poets and of critics.

For his other deviations from the art of writing I resign him to critical justice, without making any other demand in his favour than that which must be indulged to all human excellence: that his virtues be rated with his failings: But, from the censure which this irregularity may bring upon him, I shall, with due reverence to that learning which I must oppose, adventure to try how I can defend him.

His histories, being neither tragedies nor comedies, are not subject to any of their laws; nothing more is necessary to all the praise which they expect than that the changes of action be so prepared as to be understood, that the incidents be various and affecting, and the characters consistent, natural, and distinct. No other unity is intended, and therefore none is to be sought.

In his other works he has well enough preserved the unity of action. He has not, indeed, an intrigue regularly perplexed and regularly unravelled: he does not endeavour to hide his design only to discover it, for this is seldom the order of real events, and Shakespeare is the poet of nature: But his plan has commonly what Aristotle requires, a beginning, a middle, and an end; one event is concatenated with another, and the conclusion follows by easy consequence. There are perhaps some incidents that might be spared, as in other poets there is much talk that only fills up time upon the stage; but the general system makes gradual advances, and the end of the play is the end of expectation.

To the unities of time and place he has shown no regard; and perhaps a nearer view of the principles on which they stand will diminish their value, and withdraw from them the veneration which, from the time of Corneille, they have very generally received, by discovering that they have given more trouble to the poet than pleasure to the auditor.

The necessity of observing the unities of time and place arises from the supposed necessity of making the drama credible. The critics hold it impossible that an action of months or years can be possibly believed to pass in three hours; or that the spectator can suppose himself to sit in the theatre, while ambassadors go and return between distant kings, while armies are levied and towns besieged, while an exile wanders and returns, or till he whom they saw courting his mistress, shall lament the untimely fall of his son. The mind revolts from evident falsehood, and fiction loses its force when it departs from the resemblance of reality.

From the narrow limitation of time necessarily arises the contraction of place. The spectator, who knows that he saw the first act at Alexandria, cannot suppose that he sees the next at Rome, at a distance to which not the dragons of Medea could, in so short a time, have transported him; he knows with certainty that he has not changed his place, and he knows that place cannot change itself; that what was a house cannot become a plain; that what was Thebes can never be Persepolis.

Such is the triumphant language with which a critic exults over the misery of an irregular poet, and exults commonly without resistance or reply. It is time therefore to tell him by the authority of Shakespeare that he assumes, as an unquestionable principle, a position which, while his breath is forming it into words, his understanding pronounces to be false. It is false that any representation is mistaken for reality; that any dramatic fable in its materiality was ever credible, or, for a single moment, was ever credited.

The objection arising from the impossibility of passing the first hour at

Alexandria, and the next at Rome, supposes that when the play opens, the spectator really imagines himself at Alexandria, and believes that his walk to the theatre has been a voyage to Egypt, and that he lives in the days of Antony and Cleopatra. Surely he that imagines this may imagine more. He that can take the stage at one time for the palace of the Ptolemies may take it in half an hour for the promontory of Actium. Delusion, if delusion be admitted, has no certain limitation; if the spectator can be once persuaded that his old acquaintances are Alexander and Caesar, that a room illuminated with candles is the plain of Pharsalia, or the bank of Granicus, he is in a state of elevation above the reach of reason, or of truth, and from the heights of empyrean poetry, may despise the circumscriptions of terrestrial nature. There is no reason why a mind thus wandering in ecstasy should count the clock, or why an hour should not be a century in that calenture of the brains that can make the stage a field.

The truth is that the spectators are always in their senses, and know, from the first act to the last, that the stage is only a stage, and that the players are only players. They came to hear a certain number of lines recited with just gesture and elegant modulation. The lines relate to some action, and an action must be in some place; but the different actions that complete a story may be in places very remote from each other; and where is the absurdity of allowing that space to represent first Athens, and then Sicily which was always known to be neither Sicily nor Athens, but a modern theatre?

By supposition, as place is introduced, time may be extended; the time required by the fable elapses for the most part between the acts; for, of so much of the action as is represented, the real and poetical duration is the same. If, in the first act, preparations for war against Mithridates are represented to be made in Rome, the event of the war may, without absurdity, be represented, in the catastrophe, as happening in Pontus; we know that there is neither war, nor preparation for war; we know that we are neither in Rome nor Pontus; that neither Mithridates nor Lucullus are before us. The drama exhibits successive imitations of successive actions; and why may not the second imitation represent an action that happened years after the first, if it be so connected with it that nothing but time can be supposed to intervene? Time is, of all modes of existence, most obsequious to the imagination; a lapse of years is as easily conceived as a passage of hours. In contemplation we easily contract the time of real actions, and therefore willingly permit it to be contracted when we only see their imitation.

It will be asked how the drama moves if it is not credited. It is credited with all the credit due to a drama. It is credited, whenever it moves, as a just picture of a real original; as representing to the auditor what he would himself feel if he were to do or suffer what is there feigned to be suffered or to be done. The reflection that strikes the heart is not that the evils before us are real evils but that they are evils to which we ourselves may be exposed. If there be any fallacy, it is not that we fancy the players, but that we fancy ourselves unhappy for a moment; but we rather lament the possibility than suppose the presence of misery, as a mother weeps over her babe when she remembers that death may take it from her. The delight of tragedy proceeds from our consciousness of fiction; if we thought murders and treasons real, they would please no more.

Imitations produce pain or pleasure, not because they are mistaken for realities, but because they bring realities to mind. When the imagination is recreated by a painted landscape, the trees are not supposed capable to give us shade, or the fountains coolness; but we consider how we should be pleased with such fountains playing beside us, and such woods waving over us. We are agitated in reading the history of Henry V, yet no man takes his book for the field of Agincourt. A dramatic exhibition is a book recited with concomitants that increase or diminish its effect. Familiar comedy is often more powerful on the theatre, than in the page; imperial tragedy is always less. The humour of Petruchio may be heightened by grimace; but what voice or what gesture can hope to add dignity or force to the soliloquy of Cato.

A play read affects the mind like a play acted. It is therefore evident that the action is not supposed to be real; and it follows that between the acts a longer or shorter time may be allowed to pass, and that no more account of space or duration is to be taken by the auditor of a drama than by the reader of a narrative, before whom may pass in an hour the life of a hero, or the revolutions of an empire.

Whether Shakespeare knew the unities, and rejected them by design, or deviated from them by happy ignorance, it is, I think, impossible to decide, and useless to enquire. We may reasonably suppose that, when he rose to notice, he did not want the counsels and admonitions of scholars and critics, and that he at last deliberately persisted in a practice which he might have begun by chance. As nothing is essential to the fable but unity of action, and as the unities of time and place arise evidently from false assumptions, and, by circumscribing the extent of the drama, lessen its variety, I cannot think it much to be lamented that they were not

known by him, or not observed: Nor, if such another poet could arise, should I very vehemently reproach him that his first act passed at Venice, and his next in Cyprus. Such violations of rules merely positive become the comprehensive genius of Shakespeare, and such censures are suitable to the minute and slender criticism of Voltaire:

> *Non usque adeo permiscuit imis*
> *Longus summa dies, ut non, si voce Metelli*
> *Serventur leges, malint a Caesare tolli.*
>
> [Not so far had that long day mixed high with
> low that the laws might not rather be broken
> by Caesar than kept by Metellus' word.]

Yet when I speak thus slightly of dramatic rules, I cannot but recollect how much wit and learning may be produced against me; before such authorities I am afraid to stand, not that I think the present question one of those that are to be decided by mere authority, but because it is to be suspected that these precepts have not been so easily received but for better reasons than I have yet been able to find. The result of my enquiries, in which it would be ludicrous to boast of impartiality, is that the unities of time and place are not essential to a just drama, that though they may sometimes conduce to pleasure, they are always to be sacrificed to the nobler beauties of variety and instruction; and that a play, written with nice observation of critical rules, is to be contemplated as an elaborate curiosity, as the product of superfluous and ostentatious art, by which is shown rather what is possible than what is necessary.

He that, without diminution of any other excellence, shall preserve all the unities unbroken deserves the like applause with the architect who shall display all the orders of architecture in a citadel without any deduction from its strength; but the principal beauty of a citadel is to exclude the enemy; and the greatest graces of a play are to copy nature and instruct life.

Perhaps, what I have here not dogmatically but deliberately written may recall the principles of the drama to a new examination. I am almost frighted at my own temerity; and when I estimate the fame and the strength of those that maintain the contrary opinion, am ready to sink down in reverential silence; as Aeneas withdrew from the defence of Troy when he saw Neptune shaking the wall, and Juno heading the besiegers.

Those whom my arguments cannot persuade to give their approbation

to the judgment of Shakespeare will easily, if they consider the condition of his life, make some allowance for his ignorance.

Every man's performances, to be rightly estimated, must be compared with the state of the age in which he lived, and with his own particular opportunities; and though to the reader a book be not worse or better for the circumstances of the author, yet as there is always a silent reference of human works to human abilities, and as the enquiry how far man may extend his designs, or how high he may rate his native force, is of far greater dignity than in what rank we shall place any particular performance, curiosity is always busy to discover the instruments, as well as to survey the workmanship, to know how much is to be ascribed to original powers, and how much to casual and adventitious help. The palaces of Peru or Mexico were certainly mean and incommodious habitations if compared to the houses of European monarchs; yet who could forbear to view them with astonishment who remembered that they were built without the use of iron?

The English nation in the time of Shakespeare was yet struggling to emerge from barbarity. The philology of Italy had been transplanted hither in the reign of Henry VIII; and the learned languages had been successfully cultivated by Lilly, Linacre, and More; by Pole, Cheke, and Gardiner; and afterwards by Smith, Clerk, Haddon, and Ascham. Greek was now taught to boys in the principal schools; and those who united elegance with learning read, with great diligence, the Italian and Spanish poets. But literature was yet confined to professed scholars, or to men and women of high rank. The public was gross and dark; and to be able to read and write was an accomplishment still valued for its rarity.

Nations, like individuals, have their infancy. A people newly awakened to literary curiosity, being yet unacquainted with the true state of things, knows not how to judge of that which is proposed as its resemblance. Whatever is remote from common appearances is always welcome to vulgar, as to childish, credulity; and of a country unenlightened by learning, the whole people is the vulgar. The study of those who then aspired to plebeian learning was laid out upon adventures, giants, dragons, and enchantments. *The Death of Arthur* was the favourite volume.

The mind, which has feasted on the luxurious wonders of fiction, has no taste of the insipidity of truth. A play which imitated only the common occurrences of the world would, upon the admirers of Palmerin and Guy of Warwick, have made little impression; he that wrote for such an audience was under the necessity of looking round for strange events and

fabulous transactions, and that incredibility by which maturer knowledge is offended was the chief recommendation of writings to unskilful curiosity.

Our author's plots are generally borrowed from novels, and it is reasonable to suppose that he chose the most popular, such as were read by many, and related by more; for his audience could not have followed him through the intricacies of the drama had they not held the thread of the story in their hands.

The stories, which we now find only in remoter authors, were in his time accessible and familiar. The fable of *As You Like It*, which is supposed to be copied from Chaucer's Gamelyn, was a little pamphlet of those times; and old Mr. Cibber remembered the tale of Hamlet in plain English prose, which the critics have now to seek in Saxo Grammaticus.

His English histories he took from English chronicles and English ballads; and as the ancient writers were made known to his countrymen by versions, they supplied him with new subjects; he dilated some of Plutarch's lives into plays, when they had been translated by North.

His plots, whether historical or fabulous, are always crowded with incidents, by which the attention of a rude people was more easily caught than by sentiment or argumentation; and such is the power of the marvellous even over those who despise it that every man finds his mind more strongly seized by the tragedies of Shakespeare than of any other writer; others please us by particular speeches, but he always makes us anxious for the event, and has perhaps excelled all but Homer in securing the first purpose of a writer, by exciting restless and unquenchable curiosity and compelling him that reads his work to read it through.

The shows and bustle with which his plays abound have the same original. As knowledge advances, pleasure passes from the eye to the ear, but returns, as it declines, from the ear to the eye. Those to whom our author's labours were exhibited had more skill in pomps or processions than in poetical language, and perhaps wanted some visible and discriminated events, as comments on the dialogue. He knew how he should most please; and whether his practice is more agreeable to nature, or whether his example has prejudiced the nation, we still find that on our stage something must be done as well as said, and inactive declamation is very coldly heard, however musical or elegant, passionate or sublime.

Voltaire expresses his wonder that our author's extravagances are endured by a nation which has seen the tragedy of Cato. Let him be answered that Addison speaks the language of poets, and Shakespeare, of men. We find in Cato innumerable beauties which enamour us of its

author, but we see nothing that acquaints us with human sentiments or human actions; we place it with the fairest and the noblest progeny which judgment propagates by conjunction with learning, but Othello is the vigorous and vivacious offspring of observation impregnated by genius. Cato affords a splendid exhibition of artificial and fictitious manners, and delivers just and noble sentiments, in diction easy, elevated and harmonious, but its hopes and fears communicate no vibration to the heart; the composition refers us only to the writer; we pronounce the name of Cato, but we think on Addison.

The work of a correct and regular writer is a garden accurately formed and diligently planted, varied with shades, and scented with flowers; the composition of Shakespeare is a forest, in which oaks extend their branches, and pines tower in the air, interspersed sometimes with weeds and brambles, and sometimes giving shelter to myrtles and to roses; filling the eye with awful pomp, and gratifying the mind with endless diversity. Other poets display cabinets of precious rarities, minutely finished, wrought into shape, and polished unto brightness. Shakespeare opens a mine which contains gold and diamonds in unexhaustible plenty, though clouded by incrustations, debased by impurities, and mingled with a mass of meaner minerals.

It has been much disputed whether Shakespeare owed his excellence to his own native force, or whether he had the common helps of scholastic education, the precepts of critical science, and the examples of ancient authors.

There has always prevailed a tradition that Shakespeare wanted learning, that he had no regular education, nor much skill in the dead languages. Jonson, his friend, affirms, that he had small Latin, and no Greek; who, besides that he had no imaginable temptation to falsehood, wrote at a time when the character and acquisitions of Shakespeare were known to multitudes. His evidence ought therefore to decide the controversy, unless some testimony of equal force could be opposed.

Some have imagined that they have discovered deep learning in many imitations of old writers; but the examples which I have known urged were drawn from books translated in his time; or were such easy coincidences of thought, as will happen to all who consider the same subjects; or such remarks on life or axioms of morality as float in conversation, and are transmitted through the world in proverbial sentences.

I have found it remarked that in this important sentence, "Go before, I'll follow," we read a translation of, *I prae, sequar*. I have been told that when Caliban, after a pleasing dream, says, "I cry'd to sleep again,"

the author imitates Anacreon, who had, like every other man, the same wish on the same occasion.

There are a few passages which may pass for imitations, but so few that the exception only confirms the rule; he obtained them from accidental quotations, or by oral communication, and as he used what he had, would have used more if he had obtained it.

The *Comedy of Errors* is confessedly taken from the *Menaechmi* of Plautus; from the only play of Plautus which was then in English. What can be more probable than that he who copied that would have copied more; but that those which were not translated were inaccessible?

Whether he knew the modern languages is uncertain. That his plays have some French scenes proves but little; he might easily procure them to be written, and probably, even though he had known the language in the common degree, he could not have written it without assistance. In the story of Romeo and Juliet he is observed to have followed the English translation where it deviates from the Italian; but this on the other part proves nothing against his knowledge of the original. He was to copy, not what he knew himself, but what was known to his audience.

It is most likely that he had learned Latin sufficiently to make him acquainted with construction, but that he never advanced to an easy perusal of the Roman authors. Concerning his skill in modern languages, I can find no sufficient ground of determination; but as no imitations of French or Italian authors have been discovered, though the Italian poetry was then high in esteem, I am inclined to believe that he read little more than English, and chose for his fables only such tales as he found translated.

That much knowledge is scattered over his works is very justly observed by Pope, but it is often such knowledge as books did not supply. He that will understand Shakespeare must not be content to study him in the closet; he must look for his meaning sometimes among the sports of the field, and sometimes among the manufactures of the shop.

There is however proof enough that he was a very diligent reader, nor was our language then so indigent of books but that he might very liberally indulge his curiosity without excursion into foreign literature. Many of the Roman authors were translated, and some of the Greek; the Reformation had filled the kingdom with theological learning; most of the topics of human disquisition had found English writers; and poetry had been cultivated, not only with diligence, but success. This was a stock of knowledge sufficient for a mind so capable of appropriating and improving it.

But the greater part of his excellence was the product of his own genius. He found the English stage in a state of the utmost rudeness; no essays either in tragedy or comedy had appeared, from which it could be discovered to what degree of delight either one or other might be carried. Neither character nor dialogue were yet understood. Shakespeare may be truly said to have introduced them both amongst us, and in some of his happier scenes to have carried them both to the utmost height.

By what gradations of improvement he proceeded is not easily known; for the chronology of his works is yet unsettled. Rowe is of opinion, that "perhaps we are not to look for his beginning, like those of other writers, in his least perfect works; art had so little, and nature so large, a share in what he did that for ought I know," says he, "the performances of his youth, as they were the most vigorous, were the best." But the power of nature is only the power of using to any certain purpose the materials which diligence procures, or opportunity supplies. Nature gives no man knowledge, and when images are collected by study and experience, can only assist in combining or applying them. Shakespeare, however favoured by nature, could impart only what he had learned; and as he must increase his ideas, like other mortals, by gradual acquisition, he, like them, grew wiser as he grew older, could display life better, as he knew it more, and instruct with more efficacy, as he was himself more amply instructed.

There is a vigilance of observation and accuracy of distinction which books and precepts cannot confer; from this almost all original and native excellence proceeds. Shakespeare must have looked upon mankind with perspicacity, in the highest degree curious and attentive. Other writers borrow their characters from preceding writers, and diversify them only by the accidental appendages of present manners; the dress is a little varied, but the body is the same. Our author had both matter and form to provide; for except the characters of Chaucer, to whom I think he is not much indebted, there were no writers in English, and perhaps not many in other modern languages, which showed life in its native colours.

The contest about the original benevolence or malignity of man had not yet commenced. Speculation had not yet attempted to analyse the mind, to trace the passions to their sources, to unfold the seminal principles of vice and virtue, or sound the depths of the heart for the motives of action. All those enquiries which from that time that human nature became the fashionable study have been made sometimes with nice discernment but often with idle subtilty were yet unattempted. The tales,

with which the infancy of learning was satisfied, exhibited only the superficial appearances of action, related the events but omitted the causes, and were formed for such as delighted in wonders rather than in truth. Mankind was not then to be studied in the closet; he that would know the world was under the necessity of gleaning his own remarks, by mingling as he could in its business and amusements.

Boyle congratulated himself upon his high birth, because it favoured his curiosity, by facilitating his access. Shakespeare had no such advantage; he came to London a needy adventurer, and lived for a time by very mean employments. Many works of genius and learning have been performed in states of life that appear very little favourable to thought or to enquiry; so many that he who considers them is inclined to think that he sees enterprise and perseverance predominating over all external agency, and bidding help and hindrance vanish before them. The genius of Shakespeare was not to be depressed by the weight of poverty, nor limited by the narrow conversation to which men in want are inevitably condemned; the incumbrances of his fortune were shaken from his mind, "as dewdrops from a lion's mane."

Though he had so many difficulties to encounter, and so little assistance to surmount them, he has been able to obtain an exact knowledge of many modes of life, and many casts of native dispositions; to vary them with great multiplicity; to mark them by nice distinctions; and to show them in full view by proper combinations. In this part of his performances he had none to imitate, but has himself been imitated by all succeeding writers; and it may be doubted whether from all his successors more maxims of theoretical knowledge, or more rules of practical prudence, can be collected than he alone has given to his country.

Nor was his attention confined to the actions of men; he was an exact surveyor of the inanimate world; his descriptions have always some peculiarities, gathered by contemplating things as they really exist. It may be observed that the oldest poets of many nations preserve their reputation, and that the following generations of wit, after a short celebrity, sink into oblivion. The first, whoever they be, must take their sentiments and descriptions immediately from knowledge; the resemblance is therefore just, their descriptions are verified by every eye, and their sentiments acknowledged by every breast. Those whom their fame invites to the same studies copy partly them, and partly nature, till the books of one age gain such authority as to stand in the place of nature to another, and imitation, always deviating a little, becomes at last capricious and casual. Shakespeare, whether life or nature be his sub-

ject, shows plainly that he has seen with his own eyes; he gives the image which he receives, not weakened or distorted by the intervention of any other mind; the ignorant feel his representations to be just, and the learned see that they are complete.

Perhaps it would not be easy to find any author, except Homer, who invented so much as Shakespeare, who so much advanced the studies which he cultivated, or effused so much novelty upon his age or country. The form, the characters, the language, and the shows of the English drama are his. "He seems," says Dennis, "to have been the very original of our English tragical harmony, that is, the harmony of blank verse, diversified often by dissyllable and trissyllable terminations. For the diversity distinguishes it from heroic harmony, and by bringing it nearer to common use makes it more proper to gain attention, and more fit for action and dialogue. Such verse we make when we are writing prose; we make such verse in common conversation."

I know not whether this praise is rigorously just. The dissyllable termination, which the critic rightly appropriates to the drama, is to be found, though, I think, not in *Gorboduc* which is confessedly before our author; yet in *Hieronimo*, of which the date is not certain, but which there is reason to believe at least as old as his earliest plays. This however is certain, that he is the first who taught either tragedy or comedy to please, there being no theatrical piece of any older writer of which the name is known, except to antiquaries and collectors of books, which are sought because they are scarce, and would not have been scarce had they been much esteemed.

To him we must ascribe the praise, unless Spenser may divide it with him, of having first discovered to how much smoothness and harmony the English language could be softened. He has speeches, perhaps sometimes scenes, which have all the delicacy of Rowe, without his effeminacy. He endeavours indeed commonly to strike by the force and vigour of his dialogue, but he never executes his purpose better than when he tries to soothe by softness.

Yet it must be at last confessed that as we owe everything to him, he owes something to us; that, if much of his praise is paid by perception and judgment, much is likewise given by custom and veneration. We fix our eyes upon his graces, and turn them from his deformities, and endure in him what we should in another loathe or despise. If we endured without praising, respect for the father of our drama might excuse us; but I have seen, in the book of some modern critic, a collection of anomalies, which show that he has corrupted language by every mode of

depravation, but which his admirer has accumulated as a monument of honour.

He has scenes of undoubted and perpetual excellence, but perhaps not one play, which, if it were now exhibited as the work of a contemporary writer, would be heard to the conclusion. I am indeed far from thinking that his works were wrought to his own ideas of perfection; when they were such as would satisfy the audience, they satisfied the writer. It is seldom that authors, though more studious of fame than Shakespeare, rise much above the standard of their own age; to add a little of what is best will always be sufficient for present praise, and those who find themselves exalted into fame are willing to credit their encomiasts, and to spare the labour of contending with themselves.

It does not appear that Shakespeare thought his works worthy of posterity, that he levied any ideal tribute upon future times, or had any further prospect than of present popularity and present profit. When his plays had been acted, his hope was at an end; he solicited no addition of honour from the reader. He therefore made no scruple to repeat the same jests in many dialogues, or to entangle different plots by the same knot of perplexity, which may be at least forgiven him by those who recollect that of Congreve's four comedies two are concluded by a marriage in a mask, by a deception, which perhaps never happened, and which, whether likely or not, he did not invent.

So careless was this great poet of future fame that, though he retired to ease and plenty while he was yet little "declined into the vale of years," before he could be disgusted with fatigue, or disabled by infirmity, he made no collection of his works, nor desired to rescue those that had been already published from the depravations that obscured them, or secure to the rest a better destiny, by giving them to the world in their genuine state.

Of the plays which bear the name of Shakespeare in the late editions, the greater part were not published till about seven years after his death, and the few which appeared in his life are apparently thrust into the world without the care of the author, and therefore probably without his knowledge.

Of all the publishers, clandestine or professed, their negligence and unskilfulness has by the late revisers been sufficiently shown. The faults of all are indeed numerous and gross, and have not only corrupted many passages perhaps beyond recovery, but have brought others into suspicion, which are only obscured by obsolete phraseology, or by the writer's unskilfulness and affectation. To alter is more easy than to explain, and

temerity is a more common quality than diligence. Those who saw that they must employ conjecture to a certain degree were willing to indulge it a little further. Had the author published his own works, we should have sat quietly down to disentangle his intricacies, and clear his obscurities; but now we tear what we cannot loose, and eject what we happen not to understand.

The faults are more than could have happened without the concurrence of many causes. The style of Shakespeare was in itself ungrammatical, perplexed and obscure; his works were transcribed for the players by those who may be supposed to have seldom understood them; they were transmitted by copiers equally unskilful, who still multiplied errors; they were perhaps sometimes mutilated by the actors, for the sake of shortening the speeches; and were at last printed without correction of the press.

In this state they remained, not, as Dr. Warburton supposes, because they were unregarded, but because the editor's art was not yet applied to modern languages, and our ancestors were accustomed to so much negligence of English printers that they could very patiently endure it. At last an edition was undertaken by Rowe; not because a poet was to be published by a poet, for Rowe seems to have thought very little on correction or explanation, but that our author's works might appear like those of his fraternity, with the appendages of a life and recommendatory preface. Rowe has been clamorously blamed for not performing what he did not undertake, and it is time that justice be done him, by confessing that though he seems to have had no thought of corruption beyond the printer's errors, yet he has made many emendations, if they were not made before, which his successors have received without acknowledgment, and which, if they had produced them, would have filled pages and pages with censures of the stupidity by which the faults were committed, with displays of the absurdities which they involved, with ostentatious expositions of the new reading, and self congratulations on the happiness of discovering it.

Of Rowe, as of all the editors, I have preserved the preface, and have likewise retained the author's life, though not written with much elegance or spirit; it relates however what is now to be known, and therefore deserves to pass through all succeeding publications.

The nation had been for many years content enough with Mr. Rowe's performance, when Mr. Pope made them acquainted with the true state of Shakespeare's text, showed that it was extremely corrupt, and gave reason to hope that there were means of reforming it. He collated the

old copies, which none had thought to examine before, and restored many lines to their integrity; but, by a very compendious criticism, he rejected whatever he disliked, and thought more of amputation than of cure.

I know not why he is commended by Dr. Warburton for distinguishing the genuine from the spurious plays. In this choice he exerted no judgment of his own; the plays which he received were given by Hemings and Condel, the first editors; and those which he rejected, though, according to the licentiousness of the press in those times, they were printed during Shakespeare's life, with his name, had been omitted by his friends, and were never added to his works before the edition of 1664, from which they were copied by the later printers.

This was a work which Pope seems to have thought unworthy of his abilities, being not able to suppress his contempt of "the dull duty of an editor." He understood but half his undertaking. The duty of a collator is indeed dull, yet, like other tedious tasks, is very necessary; but an emendatory critic would ill discharge his duty, without qualities very different from dullness. In perusing a corrupted piece, he must have before him all possibilities of meaning, with all possibilities of expression. Such must be his comprehension of thought, and such his copiousness of language. Out of many readings possible, he must be able to select that which best suits with the state of opinions, and modes of language prevailing in every age, and with his author's particular cast of thought, and turn of expression. Such must be his knowledge, and such his taste. Conjectural criticism demands more than humanity possesses, and he that exercises it with most praise has very frequent need of indulgence. Let us now be told no more of the dull duty of an editor.

Confidence is the common consequence of success. They whose excellence of any kind has been loudly celebrated are ready to conclude that their powers are universal. Pope's edition fell below his own expectations, and he was so much offended, when he was found to have left anything for others to do, that he passed the latter part of his life in a state of hostility with verbal criticism.

I have retained all his notes, that no fragment of so great a writer may be lost; his preface, valuable alike for elegance of composition and justness of remark, and containing a general criticism on his author, so extensive that little can be added, and so exact that little can be disputed, every editor has an interest to suppress, but that every reader would demand its insertion.

Pope was succeeded by Theobald, a man of narrow comprehension and

small acquisitions, with no native and intrinsic splendour of genius, with little of the artificial light of learning, but zealous for minute accuracy, and not negligent in pursuing it. He collated the ancient copies, and rectified many errors. A man so anxiously scrupulous might have been expected to do more, but what little he did was commonly right.

In his report of copies and editions he is not to be trusted without examination. He speaks sometimes indefinitely of copies, when he has only one. In his enumeration of editions, he mentions the two first folios as of high, and the third folio as of middle, authority; but the truth is that the first is equivalent to all others, and that the rest only deviate from it by the printer's negligence. Whoever has any of the folios has all, excepting those diversities which mere reiteration of editions will produce. I collated them all at the beginning, but afterwards used only the first.

Of his notes I have generally retained those which he retained himself in his second edition, except when they were confuted by subsequent annotators, or were too minute to merit preservation. I have sometimes adopted his restoration of a comma, without inserting the panegyric in which he celebrated himself for his achievement. The exuberant excrescence of his diction I have often lopped, his triumphant exultations over Pope and Rowe I have sometimes suppressed, and his contemptible ostentation I have frequently concealed; but I have in some places shown him, as he would have shown himself, for the reader's diversion, that the inflated emptiness of some notes may justify or excuse the contraction of the rest.

Theobald, thus weak and ignorant, thus mean and faithless, thus petulant and ostentatious, by the good luck of having Pope for his enemy, has escaped, and escaped alone, with reputation, from this undertaking. So willingly does the world support those who solicit favour, against those who command reverence; and so easily is he praised whom no man can envy.

Our author fell then into the hands of Sir Thomas Hanmer, the Oxford editor, a man, in my opinion, eminently qualified by nature for such studies. He had what is the first requisite to emendatory criticism, that intuition by which the poet's intention is immediately discovered, and that dexterity of intellect which dispatches its work by the easiest means. He had undoubtedly read much; his acquaintance with customs, opinions, and traditions seems to have been large; and he is often learned without show. He seldom passes what he does not understand without an attempt to find or to make a meaning, and sometimes hastily makes what

a little more attention would have found. He is solicitous to reduce to grammar what he could not be sure that his author intended to be grammatical. Shakespeare regarded more the series of ideas than of words; and his language, not being designed for the reader's desk, was all that he desired it to be, if it conveyed his meaning to the audience.

Hanmer's care of the metre has been too violently censured. He found the measures reformed in so many passages, by the silent labours of some editors, with the silent acquiescence of the rest, that he thought himself allowed to extend a little further the license, which had already been carried so far without reprehension; and of his corrections in general, it must be confessed that they are often just, and made commonly with the least possible violation of the text.

But, by inserting his emendations, whether invented or borrowed, into the page, without any notice of varying copies, he has appropriated the labour of his predecessors, and made his own edition of little authority. His confidence indeed, both in himself and others, was too great; he supposes all to be right that was done by Pope and Theobald; he seems not to suspect a critic of fallibility, and it was but reasonable that he should claim what he so liberally granted.

As he never writes without careful enquiry and diligent consideration, I have received all his notes, and believe that every reader will wish for more.

Of the last editor it is more difficult to speak. Respect is due to high place, tenderness to living reputation, and veneration to genius and learning; but he cannot be justly offended at that liberty of which he has himself so frequently given an example, nor very solicitous what is thought of notes, which he ought never to have considered as part of his serious employments, and which, I suppose, since the ardour of composition is remitted, he no longer numbers among his happy effusions.

The original and predominant error of his commentary is acquiescence in his first thoughts; that precipitation which is produced by consciousness of quick discernment; and that confidence which presumes to do, by surveying the surface, what labour only can perform, by penetrating the bottom. His notes exhibit sometimes perverse interpretations, and sometimes improbable conjectures; he at one time gives the author more profundity of meaning than the sentence admits, and at another discovers absurdities where the sense is plain to every other reader. But his emendations are likewise often happy and just; and his interpretation of obscure passages learned and sagacious.

Of his notes, I have commonly rejected those against which the gen-

eral voice of the public has exclaimed, or which their own incongruity immediately condemns, and which, I suppose, the author himself would desire to be forgotten. Of the rest, to part I have given the highest approbation, by inserting the offered reading in the text; part I have left to the judgment of the reader, as doubtful, though specious; and part I have censured without reserve, but I am sure without bitterness of malice, and, I hope, without wantonness of insult.

It is no pleasure to me, in revising my volumes, to observe how much paper is wasted in confutation. Whoever considers the revolutions of learning, and the various questions of greater or less importance, upon which wit and reason have exercised their powers, must lament the unsuccessfulness of enquiry, and the slow advances of truth, when he reflects that great part of the labour of every writer is only the destruction of those that went before him. The first care of the builder of a new system is to demolish the fabrics which are standing. The chief desire of him that comments an author is to show how much other commentators have corrupted and obscured him. The opinions prevalent in one age, as truths above the reach of controversy, are confuted and rejected in another, and rise again to reception in remoter times. Thus the human mind is kept in motion without progress. Thus sometimes truth and error, and sometimes contrarieties of error, take each other's place by reciprocal invasion. The tide of seeming knowledge which is poured over one generation retires and leaves another naked and barren; the sudden meteors of intelligence which for awhile appear to shoot their beams into the regions of obscurity on a sudden withdraw their lustre, and leave mortals again to grope their way.

These elevations and depressions of renown, and the contradictions to which all improvers of knowledge must for ever be exposed, since they are not escaped by the highest and brightest of mankind, may surely be endured with patience by critics and annotators, who can rank themselves but as the satellites of their authors. "How canst thou beg for life," says Achilles to his captive, "when thou knowest that thou art now to suffer only what must another day be suffered by Achilles?"

Dr. Warburton had a name sufficient to confer celebrity on those who could exalt themselves into antagonists, and his notes have raised a clamour too loud to be distinct. His chief assailants are the authors of the canons of criticism and of the review of Shakespeare's text; of whom one ridicules his errors with airy petulance, suitable enough to the levity of the controversy; the other attacks them with gloomy malignity, as if he were dragging to justice an assassin or incendiary. The one stings like

a fly, sucks a little blood, takes a gay flutter, and returns for more; the other bites like a viper, and would be glad to leave inflammations and gangrene behind him. When I think on one, with his confederates, I remember the danger of Coriolanus, who was afraid that "girls with spits, and boys with stones, should slay him in puny battle"; when the other crosses my imagination, I remember the prodigy in *Macbeth,*

> An eagle tow'ring in his pride of place,
> Was by a mousing owl hawk'd at and kill'd.

Let me however do them justice. One is a wit, and one a scholar. They have both shown acuteness sufficient in the discovery of faults, and have both advanced some probable interpretations of obscure passages; but when they aspire to conjecture and emendation, it appears how falsely we all estimate our own abilities, and the little which they have been able to perform might have taught them more candour to the endeavours of others.

Before Dr. Warburton's edition, critical observations on Shakespeare had been published by Mr. Upton, a man skilled in languages, and acquainted with books, but who seems to have had no great vigour of genius or nicety of taste. Many of his explanations are curious and useful, but he likewise, though he professed to oppose the licentious confidence of editors, and adhere to the old copies, is unable to restrain the rage of emendation, though his ardour is ill seconded by his skill. Every cold empiric, when his heart is expanded by a successful experiment, swells into a theorist, and the laborious collator at some unlucky moment frolics in conjecture.

Critical, historical and explanatory notes have been likewise published upon Shakespeare by Dr. Grey, whose diligent perusal of the old English writers has enabled him to make some useful observations. What he undertook he has well enough performed, but as he neither attempts judicial nor emendatory criticism, he employs rather his memory than his sagacity. It were to be wished that all would endeavour to imitate his modesty who have not been able to surpass his knowledge.

I can say with great sincerity of all my predecessors, what I hope will hereafter be said of me, that not one has left Shakespeare without improvement, nor is there one to whom I have not been indebted for assistance and information. Whatever I have taken from them it was my intention to refer to its original author, and it is certain that what I have not given to another, I believed when I wrote it to be my own. In some perhaps I have been anticipated; but if I am ever found to encroach upon

the remarks of any other commentator, I am willing that the honour, be it more or less, should be transferred to the first claimant, for his right, and his alone, stands above dispute; the second can prove his pretensions only to himself, nor can himself always distinguish invention, with sufficient certainty, from recollection.

They have all been treated by me with candour, which they have not been careful of observing to one another. It is not easy to discover from what cause the acrimony of a scholiast can naturally proceed. The subjects to be discussed by him are of very small importance; they involve neither property nor liberty; nor favour the interest of sect or party. The various readings of copies, and different interpretations of a passage, seem to be questions that might exercise the wit, without engaging the passions. But, whether it be that "small things make mean men proud," and vanity catches small occasions; or that all contrariety of opinion, even in those that can defend it no longer, makes proud men angry; there is often found in commentaries a spontaneous strain of invective and contempt, more eager and venomous than is vented by the most furious controvertist in politics against those whom he is hired to defame.

Perhaps the lightness of the matter may conduce to the vehemence of the agency; when the truth to be investigated is so near to inexistence as to escape attention, its bulk is to be enlarged by rage and exclamation: That to which all would be indifferent in its original state may attract notice when the fate of a name is appended to it. A commentator has indeed great temptations to supply by turbulence what he wants of dignity, to beat his little gold to a spacious surface, to work that to foam which no art or diligence can exalt to spirit.

The notes which I have borrowed or written are either illustrative, by which difficulties are explained; or judicial, by which faults and beauties are remarked; or emendatory, by which depravations are corrected.

The explanations transcribed from others, if I do not subjoin any other interpretation, I suppose commonly to be right; at least I intend by acquiescence to confess that I have nothing better to propose.

After the labours of all the editors, I found many passages which appeared to me likely to obstruct the greater number of readers, and thought it my duty to facilitate their passage. It is impossible for an expositor not to write too little for some, and too much for others. He can only judge what is necessary by his own experience; and how long so-ever he may deliberate will at last explain many lines which the learned will think impossible to be mistaken, and omit many for which the ig-

norant will want his help. These are censures merely relative, and must be quietly endured. I have endeavoured to be neither superfluously copious, nor scrupulously reserved, and hope that I have made my author's meaning accessible to many who before were frighted from perusing him, and contributed something to the public, by diffusing innocent and rational pleasure.

The complete explanation of an author not systematic and consequential, but desultory and vagrant, abounding in casual allusions and light hints, is not to be expected from any single scholiast. All personal reflections, when names are suppressed, must be in a few years irrecoverably obliterated; and customs, too minute to attract the notice of law, such as modes of dress, formalities of conversation, rules of visits, disposition of furniture, and practices of ceremony, which naturally find places in familiar dialogue, are so fugitive and unsubstantial that they are not easily retained or recovered. What can be known will be collected by chance, from the recesses of obscure and obsolete papers, perused commonly with some other view. Of this knowledge every man has some, and none has much; but when an author has engaged the public attention, those who can add anything to his illustration communicate their discoveries, and time produces what had eluded diligence.

To time I have been obliged to resign many passages, which, though I did not understand them, will perhaps hereafter be explained, having, I hope, illustrated some which others have neglected or mistaken, sometimes by short remarks, or marginal directions, such as every editor has added at his will, and often by comments more laborious than the matter will seem to deserve; but that which is most difficult is not always most important, and to an editor nothing is a trifle by which his author is obscured.

The poetical beauties or defects I have not been very diligent to observe. Some plays have more, and some fewer, judicial observations, not in proportion to their difference of merit, but because I gave this part of my design to chance and to caprice. The reader, I believe, is seldom pleased to find his opinion anticipated; it is natural to delight more in what we find or make than in what we receive. Judgment, like other faculties, is improved by practice, and its advancement is hindered by submission to dictatorial decisions, as the memory grows torpid by the use of a table book. Some initiation is however necessary; of all skill, part is infused by precept, and part is obtained by habit; I have therefore shown so much as may enable the candidate of criticism to discover the rest.

To the end of most plays, I have added short strictures, containing a general censure of faults, or praise of excellence; in which I know not how much I have concurred with the current opinion; but I have not, by any affectation of singularity, deviated from it. Nothing is minutely and particularly examined, and therefore it is to be supposed that in the plays which are condemned there is much to be praised, and in those which are praised much to be condemned.

The part of criticism in which the whole succession of editors has laboured with the greatest diligence, which has occasioned the most arrogant ostentation, and excited the keenest acrimony, is the emendation of corrupted passages, to which the public attention, having been first drawn by the violence of contention between Pope and Theobald, has been continued by the persecution which, with a kind of conspiracy, has been since raised against all the publishers of Shakespeare.

That many passages have passed in a state of depravation through all the editions is indubitably certain; of these the restoration is only to be attempted by collation of copies or sagacity of conjecture. The collator's province is safe and easy, the conjecturer's perilous and difficult. Yet as the greater part of the plays are extant only in one copy, the peril must not be avoided, nor the difficulty refused.

Of the readings which this emulation of amendment has hitherto produced, some from the labours of every publisher I have advanced into the text; those are to be considered as in my opinion sufficiently supported; some I have rejected without mention, as evidently erroneous; some I have left in the notes without censure or approbation, as resting in equipoise between objection and defence; and some, which seemed specious but not right, I have inserted with a subsequent animadversion.

Having classed the observations of others, I was at last to try what I could substitute for their mistakes, and how I could supply their omissions. I collated such copies as I could procure, and wished for more, but have not found the collectors of these rarities very communicative. Of the editions which chance or kindness put into my hands I have given an enumeration that I may not be blamed for neglecting what I had not the power to do.

By examining the old copies, I soon found that the later publishers, with all their boasts of diligence, suffered many passages to stand unauthorized, and contented themselves with Rowe's regulation of the text, even where they knew it to be arbitrary, and with a little consideration might have found it to be wrong. Some of these alterations are only the

ejection of a word for one that appeared to him more elegant or more intelligible. These corruptions I have often silently rectified; for the history of our language, and the true force of our words, can only be preserved by keeping the text of authors free from adulteration. Others, and those very frequent, smoothed the cadence, or regulated the measure; on these I have not exercised the same rigour; if only a word was transposed, or a particle inserted or omitted, I have sometimes suffered the line to stand; for the inconstancy of the copies is such as that some liberties may be easily permitted. But this practice I have not suffered to proceed far, having restored the primitive diction wherever it could for any reason be preferred.

The emendations, which comparison of copies supplied, I have inserted in the text; sometimes where the improvement was slight, without notice, and sometimes with an account of the reasons of the change.

Conjecture, though it be sometimes unavoidable, I have not wantonly nor licentiously indulged. It has been my settled principle that the reading of the ancient books is probably true, and therefore is not to be disturbed for the sake of elegance, perspicuity, or mere improvement of the sense. For though much credit is not due to the fidelity, nor any to the judgment of the first publishers, yet they who had the copy before their eyes were more likely to read it right than we who read it only by imagination. But it is evident that they have often made strange mistakes by ignorance or negligence, and that therefore something may be properly attempted by criticism, keeping the middle way between presumption and timidity.

Such criticism I have attempted to practise, and where any passage appeared inextricably perplexed, have endeavoured to discover how it may be recalled to sense, with least violence. But my first labour is always to turn the old text on every side, and try if there be any interstice through which light can find its way; nor would Huetius himself condemn me, as refusing the trouble of research, for the ambition of alteration. In this modest industry I have not been unsuccessful. I have rescued many lines from the violations of temerity, and secured many scenes from the inroads of correction. I have adopted the Roman sentiment that it is more honourable to save a citizen than to kill an enemy, and have been more careful to protect than to attack.

I have preserved the common distribution of the plays into acts, though I believe it to be in almost all the plays void of authority. Some of those which are divided in the later editions have no division in the first folio, and some that are divided in the folio have no division in the pre-

ceding copies. The settled mode of the theatre requires four intervals in the play, but few, if any, of our author's compositions can be properly distributed in that manner. An act is so much of the drama as passes without intervention of time or change of place. A pause makes a new act. In every real, and therefore in every imitative, action, the intervals may be more or fewer, the restriction of five acts being accidental and arbitrary. This Shakespeare knew, and this he practised; his plays were written, and at first printed, in one unbroken continuity, and ought now to be exhibited with short pauses, interposed as often as the scene is changed, or any considerable time is required to pass. This method would at once quell a thousand absurdities.

In restoring the author's works to their integrity, I have considered the punctuation as wholly in my power; for what could be their care of colons and commas who corrupted words and sentences. Whatever could be done by adjusting points is therefore silently performed, in some plays with much diligence, in others with less; it is hard to keep a busy eye steadily fixed upon evanescent atoms, or a discursive mind upon evanescent truth.

The same liberty has been taken with a few particles, or other words of slight effect. I have sometimes inserted or omitted them without notice. I have done that sometimes which the other editors have done always, and which indeed the state of the text may sufficiently justify.

The greater part of readers, instead of blaming us for passing trifles, will wonder that on mere trifles so much labour is expended, with such importance of debate, and such solemnity of diction. To these I answer with confidence that they are judging of an art which they do not understand; yet cannot much reproach them with their ignorance, nor promise that they would become in general, by learning criticism, more useful, happier or wiser.

As I practised conjecture more, I learned to trust it less; and after I had printed a few plays, resolved to insert none of my own readings in the text. Upon this caution I now congratulate myself, for every day increases my doubt of my emendations.

Since I have confined my imagination to the margin, it must not be considered as very reprehensible if I have suffered it to play some freaks in its own dominion. There is no danger in conjecture if it be proposed as conjecture; and while the text remains uninjured, those changes may be safely offered which are not considered even by him that offers them as necessary or safe.

If my readings are of little value, they have not been ostentatiously dis-

played or importunately obtruded. I could have written longer notes, for the art of writing notes is not of difficult attainment. The work is performed, first by railing at the stupidity, negligence, ignorance, and asinine tastelessness of the former editors, and showing, from all that goes before and all that follows, the inelegance and absurdity of the old reading; then by proposing something which to superficial readers would seem specious, but which the editor rejects with indignation; then by producing the true reading, with a long paraphrase, and concluding with loud acclamations on the discovery, and a sober wish for the advancement and prosperity of genuine criticism.

All this may be done, and perhaps done sometimes without impropriety. But I have always suspected that the reading is right which requires many words to prove it wrong; and the emendation wrong that cannot without so much labour appear to be right. The justness of a happy restoration strikes at once, and the moral precept may be well applied to criticism, *quod dubitas ne feceris* [do nothing that you doubt].

To dread the shore which he sees spread with wrecks is natural to the sailor. I had before my eye so many critical adventures ended in miscarriage that caution was forced upon me. I encountered in every page Wit struggling with its own sophistry, and Learning confused by the multiplicity of its views. I was forced to censure those whom I admired, and could not but reflect, while I was dispossessing their emendations, how soon the same fate might happen to my own, and how many of the readings which I have corrected may be by some other editor defended and established.

> Criticks, I saw, that other's names efface,
> And fix their own, with labour, in the place;
> Their own, like others, soon their place resign'd,
> Or disappear'd, and left the first behind. POPE.

That a conjectural critic should often be mistaken cannot be wonderful, either to others or himself, if it be considered that in his art there is no system, no principal and axiomatical truth that regulates subordinate positions. His chance of error is renewed at every attempt; an oblique view of the passage, a slight misapprehension of a phrase, a casual inattention to the parts connected, is sufficient to make him not only fail but fail ridiculously; and when he succeeds best, he produces perhaps but one reading of many probable, and he that suggests another will always be able to dispute his claims.

It is an unhappy state, in which danger is hid under pleasure. The al-

lurements of emendation are scarcely resistible. Conjecture has all the joy and all the pride of invention, and he that has once started a happy change is too much delighted to consider what objections may rise against it.

Yet conjectural criticism has been of great use in the learned world; nor is it my intention to depreciate a study that has exercised so many mighty minds, from the revival of learning to our own age, from the Bishop of Aleria to English Bentley. The critics on ancient authors have, in the exercise of their sagacity, many assistances, which the editor of Shakespeare is condemned to want. They are employed upon grammatical and settled languages, whose construction contributes so much to perspicuity that Homer has fewer passages unintelligible than Chaucer. The words have not only a known regimen but invariable quantities, which direct and confine the choice. There are commonly more manuscripts than one; and they do not often conspire in the same mistakes. Yet Scaliger could confess to Salmasius how little satisfaction his emendations gave him. *Illudunt nobis conjecturae nostrae*, *quarum nos pudet*, *posteaquam in meliores codices incidimus*. [Our conjectures mock us, when we were ashamed to make them, but later find them in the best editions.] And Lipsius could complain that critics were making faults by trying to remove them, *Ut olim vitiis*, *ita nunc remediis laboratur* [We are now inconvenienced by corrections, as formerly by errors]. And indeed, where mere conjecture is to be used, the emendations of Scaliger and Lipsius, notwithstanding their wonderful sagacity and erudition, are often vague and disputable, like mine or Theobald's.

Perhaps I may not be more censured for doing wrong than for doing little; for raising in the public, expectations which at last I have not answered. The expectation of ignorance is indefinite, and that of knowledge is often tyrannical. It is hard to satisfy those who know not what to demand, or those who demand by design what they think impossible to be done. I have indeed disappointed no opinion more than my own; yet I have endeavoured to perform my task with no slight solicitude. Not a single passage in the whole work has appeared to me corrupt which I have not attempted to restore; or obscure which I have not endeavoured to illustrate. In many I have failed like others; and from many, after all my efforts, I have retreated, and confessed the repulse. I have not passed over, with affected superiority, what is equally difficult to the reader and to myself, but where I could not instruct him, have owned my ignorance. I might easily have accumulated a mass of seeming learning upon easy scenes; but it ought not to be imputed to negligence that, where nothing

was necessary, nothing has been done, or that, where others have said enough, I have said no more.

Notes are often necessary, but they are necessary evils. Let him that is yet unacquainted with the powers of Shakespeare, and who desires to feel the highest pleasure that the drama can give, read every play from the first scene to the last with utter negligence of all his commentators. When his fancy is once on the wing, let it not stoop at correction or explanation. When his attention is strongly engaged, let it disdain alike to turn aside to the name of Theobald and of Pope. Let him read on through brightness and obscurity, through integrity and corruption; let him preserve his comprehension of the dialogue and his interest in the fable. And when the pleasures of novelty have ceased, let him attempt exactness, and read the commentators.

Particular passages are cleared by notes, but the general effect of the work is weakened. The mind is refrigerated by interruption; the thoughts are diverted from the principal subject; the reader is weary, he suspects not why; and at last throws away the book, which he has too diligently studied.

Parts are not to be examined till the whole has been surveyed; there is a kind of intellectual remoteness necessary for the comprehension of any great work in its full design and its true proportions; a close approach shows the smaller niceties, but the beauty of the whole is discerned no longer.

It is not very grateful to consider how little the succession of editors has added to this author's power of pleasing. He was read, admired, studied, and imitated, while he was yet deformed with all the improprieties which ignorance and neglect could accumulate upon him; while the reading was yet not rectified, nor his allusions understood; yet then did Dryden pronounce that "Shakespeare was the man, who, of all modern and perhaps ancient poets, had the largest and most comprehensive soul. All the images of nature were still present to him, and he drew them not laboriously, but luckily: When he describes any thing, you more than see it, you feel it too. Those who accuse him to have wanted learning give him the greater commendation: he was naturally learned: he needed not the spectacles of books to read nature; he looked inwards, and found her there. I cannot say he is every where alike; were he so, I should do him injury to compare him with the greatest of mankind. He is many times flat and insipid; his comic wit degenerating into clenches, his serious swelling into bombast. But he is always great when some great occasion

is presented to him: No man can say he ever had a fit subject for his wit, and did not then raise himself as high above the rest of poets,

Quantum lenta solent inter viburna cupressi."

[as cypresses will (rise) among delicate shrubs.]

It is to be lamented that such a writer should want a commentary; that his language should become obsolete, or his sentiments obscure. But it is vain to carry wishes beyond the condition of human things; that which must happen to all has happened to Shakespeare, by accident and time; and more than has been suffered by any other writer since the use of types has been suffered by him through his own negligence of fame, or perhaps by that superiority of mind which despised its own performances when it compared them with its powers, and judged those works unworthy to be preserved which the critics of following ages were to contend for the fame of restoring and explaining.

Among these candidates of inferior fame, I am now to stand the judgment of the public; and wish that I could confidently produce my commentary as equal to the encouragement which I have had the honour of receiving. Every work of this kind is by its nature deficient, and I should feel little solicitude about the sentence were it to be pronounced only by the skilful and the learned.

Dr. Johnson's "Preface to Shakespeare"
first appeared in the 1765 edition
of THE PLAYS OF WILLIAM SHAKESPEARE.

Thomas De Quincey

1785–1859

Born near Manchester, England, in 1785, Thomas De Quincey was the fifth of eight children. He himself would have eight. His father's death left the family with an ample £ 1,600 a year. Though De Quincey earned his living at writing, he seems to have had a small personal income most of his life. In the public and private schools he went to, he was noted for two things: early brilliance in Latin and Greek and a habit of running away. On one of these excursions he spent a year or more in the rough Soho district of London (an episode mentioned in his *Confessions of an English Opium-Eater*). But afterward he described his growing up as "a youth passed in the divinest happiness."

In his second year at Oxford, he took opium for neuralgic pains and caught the habit. Four times in his life he went deep into the world of the drug; and four times broke out. On a visit to his mother near Bath he met Coleridge. When he left Oxford, De Quincey settled near Coleridge, Wordsworth, and Southey in the Lake District north of Liverpool. There he married Margaret Simpson and edited the *Westmorland Gazette*.

In 1820 he went to London, where he was welcomed by Charles Lamb and his circle. A year later, his *Confessions* were appearing in the *London Magazine* and he was famous—a tiny, neat-boned

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Notes from the artist: "De Quincey haunted by the dreams of opium. . . . Poppies grow from his head, and among them is Ann of Oxford Street, a little girl once befriended by De Quincey and then lost to him. Around his neck is Death beating the drums, and a crocodile, recurring images in his dreams. . . .

Thomas Ewing

man, hardly five feet three, handsome with an almost feminine delicacy, and one of the two most celebrated talkers (Coleridge was the other) in an age of great talkers. From that time on, he worked almost entirely for the magazines–*Blackwood's*, *Tait's*, the *Edinburgh Literary Gazette*–and his writings were not brought together until late in his career.

After his wife died in 1837, he moved his family to Lasswade, near Edinburgh. The children grew up largely in the care of his eldest daughter. De Quincey moved from one rented room to another, each so full of books and papers that he could hardly turn around in it. He loved both solitude and society, and could never get enough of either. He had a great fondness for the human race in all its varieties, and the human race repaid him in kind. His children were enchanted with him. His friends found him a delightful companion. If there had been no creditors in the world, De Quincey might have been that monster of nature, a completely happy man. He died in Edinburgh on December 8, 1859.

We may think of John Stuart Mill as the pure type of the man of ideas, English style. De Quincey, his older contemporary, is a rather more extreme specimen of the English man of letters. True, he spoke of himself as a "philosopher," and wrote little fiction or poetry. Again, he was the author of *The Logic of Political Economy* and, like James Mill and his son, discussed Ricardo's economic theories. But the difference between the man of ideas and the man of letters comes out strongly in his *Literature of Knowledge and Literature of Power*.

If we read it through once, we are struck with its straightforwardness. De Quincey usually likes to stop and make soundings, or curve away from the subject and come back to it. This time he sticks to the point from beginning to end. The point is basic and major. Is it any better or more generally understood now than in De Quincey's time? We may doubt it.

There are, says De Quincey, two types of literature: the literature of knowledge and the literature of power. The function of the one is to teach–that is, convey information or ideas. The function of the other is to move the reader–that is, carry over or call forth emotion or action. The two may run together, and often do; but in function and nature they stand sharply apart.

The literature of knowledge is perishable. It will hold only until more accurate knowledge can be found. De Quincey mentions Sir Isaac Serventur *Principia* as an example of this. In the twentieth century, we have seen even the mechanics of Newton challenged by new theories. But the great works of the literature of power, De Quincey tells us, are "triumphant forever, as long as the languages exist in which they speak or can be taught to speak." Such literature is "moral" and resembles "nature." It nourishes the great truths of human feeling.

Our second essay, *On the Knocking at the Gate in Macbeth*, is De Quincey's interpretation of a great scene from the literature of power—in this case, Shakespeare's *Macbeth*. He tells us that he had always been puzzled by the solemn effect of that knocking after the murder of the "gracious Duncan." Why was it so chilling? He cautions us against trusting what he calls our "understanding," by which he means the habit of seeing things as they are supposed to be rather than as they are. Then he comes back to *Macbeth* and explains how he waited and "clung to the problem" until it could be solved. The solution came to him in the case of a very accomplished English murderer, a "Mr. Williams," in which there was also a knocking at the door. De Quincy understood that we "identify" with the murderer and share his fear of discovery. From that point on, he gives us a superb view of murder as an emotional experience for the murderer. His essay has still another value: it is a perfect little step-by-step example of how the imagination works.

Literature of Knowledge and Literature of Power

What is it that we mean by literature? Popularly, and amongst the thoughtless, it is held to include everything that is printed in a book. Little logic is required to disturb that definition. The most thoughtless person is easily made aware that in the idea of literature one essential element is some relation to a general and common interest of man, so that what applies only to a local or professional or merely personal interest, even though presenting itself in the shape of a book, will not belong to literature. So far the definition is easily narrowed; and it is as easily expanded. For not only is much that takes a station in books not literature, but, inversely, much that really is literature never reaches a station in books. The weekly sermons of Christendom, that vast pulpit literature which acts so extensively upon the popular mind—to warn, to uphold, to renew, to comfort, to alarm—does not attain the sanctuary of libraries in the ten-thousandth part of its extent. The drama, again, as for instance the finest of Shakespeare's plays in England and all leading Athenian plays in the noontide of the Attic stage, operated as a literature on the public mind, and were (according to the strictest letter of that term) published through the audiences that witnessed their representation some time before they were published as things to be read; and they were published in this scenical mode of publication with much more effect than they could have had as books during ages of costly copying or of costly printing.

Books, therefore, do not suggest an idea coextensive and interchangeable with the idea of literature, since much literature, scenic, forensic, or didactic (as from lecturers and public orators), may never come into books, and much that does come into books may connect itself with no literary interest. But a far more important correction, applicable to the common vague idea of literature, is to be sought, not so much in a better

definition of literature, as in a sharper distinction of the two functions which it fulfils. In that great social organ which, collectively, we call literature there may be distinguished two separate offices that may blend and often do so, but capable, severally, of a severe insulation and naturally fitted for reciprocal repulsion. There is, first, the literature of knowledge and, secondly, the literature of power. The function of the first is to teach; the function of the second is to move: the first is a rudder; the second, an oar or a sail. The first speaks to the mere discursive understanding; the second speaks ultimately, it may happen, to the higher understanding, or reason, but always through affections of pleasure and sympathy. Remotely it may travel towards an object seated in what Lord Bacon calls dry light; but proximately, it does and must operate—else it ceases to be a literature of power—on and through that humid light which clothes itself in the mists and glittering iris of human passions, desires, and genial emotions. Men have so little reflected on the higher functions of literature as to find it a paradox if one should describe it as a mean or subordinate purpose of books to give information. But this is a paradox only in the sense which makes it honorable to be paradoxical. Whenever we talk in ordinary language of seeking information or gaining knowledge, we understand the words as connected with something of absolute novelty. But it is the grandeur of all truth which can occupy a very high place in human interests that it is never absolutely novel to the meanest of minds: it exists eternally, by way of germ or latent principle, in the lowest as in the highest, needing to be developed but never to be planted. To be capable of transplantation is the immediate criterion of a truth that ranges on a lower scale. Besides which, there is a rarer thing than truth, namely, power, or deep sympathy with truth. What is the effect, for instance, upon society, of children? By the pity, by the tenderness, and by the peculiar modes of admiration, which connect themselves with the helplessness, with the innocence, and with the simplicity of children, not only are the primal affections strengthened and continually renewed, but the qualities which are dearest in the sight of heaven—the frailty, for instance, which appeals to forbearance, the innocence which symbolizes the heavenly, and the simplicity which is most alien from the worldly—are kept up in perpetual remembrance, and their ideals are continually refreshed. A purpose of the same nature is answered by the higher literature, viz., the literature of power. What do you learn from *Paradise Lost?* Nothing at all. What do you learn from a cookery-book? Something new, something that you did not know before, in every paragraph. But would you therefore put the wretched cookery-

book on a higher level of estimation than the divine poem? What you owe to Milton is not any knowledge, of which a million separate items are still but a million of advancing steps on the same earthly level; what you owe is power, that is, exercise and expansion to your own latent capacity of sympathy with the infinite, where every pulse and each separate influx is a step upwards, a step ascending as upon a Jacob's ladder from earth to mysterious altitudes above the earth. All the steps of knowledge, from first to last, carry you further on the same plane, but could never raise you one foot above your ancient level of earth; whereas the very first step in power is a flight, is an ascending movement into another element where earth is forgotten.

Were it not that human sensibilities are ventilated and continually called out into exercise by the great phenomena of infancy, or of real life as it moves through chance and change, or of literature as it recombines these elements in the mimicries of poetry, romance, etc., it is certain that, like any animal power or muscular energy falling into disuse, all such sensibilities would gradually droop and dwindle. It is in relation to these great moral capacities of man that the literature of power, as contradistinguished from that of knowledge, lives and has its field of action. It is concerned with what is highest in man; for the Scriptures themselves never condescended to deal by suggestion or cooperation with the mere discursive understanding: when speaking of man in his intellectual capacity, the Scriptures speak, not of the understanding, but of "the understanding heart," making the heart, *i.e.*, the great intuitive (or non-discursive) organ, to be the interchangeable formula for man in his highest state of capacity for the infinite. Tragedy, romance, fairy tale, or epopee, all alike restore to man's mind the ideals of justice, of hope, of truth, of mercy, of retribution, which else (left to the support of daily life in its realities) would languish for want of sufficient illustration. What is meant, for instance, by poetic justice? It does not mean a justice that differs by its object from the ordinary justice of human jurisprudence, for then it must be confessedly a very bad kind of justice; but it means a justice that differs from common forensic justice by the degree in which it attains its object, a justice that is more omnipotent over its own ends, as dealing, not with the refractory elements of earthly life, but with the elements of its own creation and with materials flexible to its own purest preconceptions. It is certain that, were it not for the literature of power, these ideals would often remain amongst us as mere arid notional forms; whereas, by the creative forces of man put forth in literature, they gain a vernal life of restoration and germinate

into vital activities. The commonest novel, by moving in alliance with human fears and hopes, with human instincts of wrong and right, sustains and quickens those affections. Calling them into action, it rescues them from torpor. And hence the pre-eminency, over all authors that merely teach, of the meanest that moves, or that teaches, if at all, indirectly *by* moving. The very highest work that has ever existed in the literature of knowledge is but a provisional work, a book upon trial and sufferance, and *quamdiu bene se gesserit* [as long as it wears well]. Let its teaching be even partially revised, let it be but expanded, nay, even let its teaching be but placed in a better order, and instantly it is superseded. Whereas the feeblest works in the literature of power, surviving at all, survive as finished and unalterable among men. For instance, the *Principia* of Sir Isaac Newton was a book militant on earth from the first. In all stages of its progress it would have to fight for its existence: first, as regards absolute truth; secondly, when that combat was over, as regards its form, or mode of presenting the truth. And as soon as a La Place, or anybody else, builds higher upon the foundations laid by this book, effectually he throws it out of the sunshine into decay and darkness; by weapons won from this book he superannuates and destroys this book, so that soon the name of Newton remains as a mere *nominis umbra* [shadow of a name], but his book, as a living power, has transmigrated into other forms. Now, on the contrary, the *Iliad*, the *Prometheus* of Aeschylus, the *Othello* or *King Lear*, the *Hamlet* or *Macbeth,* and the *Paradise Lost* are not militant but triumphant forever, as long as the languages exist in which they speak or can be taught to speak. They never can transmigrate into new incarnations. To reproduce these in new forms or variations, even if in some things they should be improved, would be to plagiarize. A good steam-engine is properly superseded by a better. But one lovely pastoral valley is not superseded by another, nor a statue of Praxiteles by a statue of Michelangelo. These things are separated, not by imparity, but by disparity. They are not thought of as unequal under the same standard, but as different in kind, and, if otherwise equal, as equal under a different standard. Human works of immortal beauty and works of nature in one respect stand on the same footing: they never absolutely repeat each other, never approach so near as not to differ; and they differ not as better and worse, or simply by more and less; they differ by undecipherable and incommunicable differences, that cannot be caught by mimicries, that cannot be reflected in the mirror of copies, that cannot become ponderable in the scales of vulgar comparison.

On the Knocking at the Gate in Macbeth

From my boyish days I had always felt a great perplexity on one point in *Macbeth*. It was this: the knocking at the gate, which succeeds to the murder of Duncan, produced to my feelings an effect for which I never could account. The effect was that it reflected back upon the murderer a peculiar awfulness and a depth of solemnity; yet, however obstinately I endeavoured with my understanding to comprehend this, for many years I never could see *why* it should produce such an effect.

Here I pause for one moment, to exhort the reader never to pay any attention to his understanding, when it stands in opposition to any other faculty of his mind. The mere understanding, however useful and indispensable, is the meanest faculty in the human mind, and the most to be distrusted; and yet the great majority of people trust to nothing else, which may do for ordinary life, but not for philosophical purposes. Of this out of ten thousand instances that I might produce, I will cite one. Ask of any person whatsoever, who is not previously prepared for the demand by a knowledge of the perspective, to draw in the rudest way the commonest appearance which depends upon the laws of that science; as, for instance, to represent the effect of two walls standing at right angles to each other, or the appearance of the houses on each side of a street, as seen by a person looking down the street from one extremity. Now in all cases, unless the person has happened to observe in pictures how it is that artists produce these effects, he will be utterly unable to make the smallest approximation to it. Yet why? For he has actually seen the effect every day of his life. The reason is that he allows his understanding to overrule his eyes. His understanding, which includes no intuitive knowledge of the laws of vision, can furnish him with no reason why a line which is known and can be proved to be a horizontal line should

not appear a horizontal line; a line that made any angle with the perpendicular, less than a right angle, would seem to him to indicate that his houses were all tumbling down together. Accordingly, he makes the line of his houses a horizontal line, and fails, of course, to produce the effect demanded. Here, then, is one instance out of many, in which not only the understanding is allowed to overrule the eyes, but where the understanding is positively allowed to obliterate the eyes, as it were; for not only does the man believe the evidence of his understanding in opposition to that of his eyes, but (what is monstrous!) the idiot is not aware that his eyes ever gave such evidence. He does not know that he has seen (and therefore *quoad* his consciousness has *not* seen) that which he *has* seen every day of his life.

But to return from this digression, my understanding could furnish no reason why the knocking at the gate in *Macbeth* should produce any effect, direct or reflected. In fact, my understanding said positively that it could *not* produce any effect. But I knew better; I felt that it did; and I waited and clung to the problem until further knowledge should enable me to solve it. At length, in 1812, Mr. Williams made his debut on the stage of Ratcliffe Highway, and executed those unparalleled murders which have procured for him such a brilliant and undying reputation. On which murders, by the way, I must observe, that in one respect they have had an ill effect, by making the connoisseur in murder very fastidious in his taste, and dissatisfied by anything that has been since done in that line. All other murders look pale by the deep crimson of his; and, as an amateur once said to me in a querulous tone, "There has been absolutely nothing *doing* since his time, or nothing that's worth speaking of." But this is wrong; for it is unreasonable to expect all men to be great artists, and born with the genius of Mr. Williams. Now it will be remembered that in the first of these murders (that of the Marrs), the same incident (of a knocking at the door, soon after the work of extermination was complete) did actually occur, which the genius of Shakespeare has invented; and all good judges, and the most eminent dilettanti, acknowledged the felicity of Shakespeare's suggestion, as soon as it was actually realized. Here, then, was a fresh proof that I was right in relying on my own feeling, in opposition to my understanding; and I again set myself to study the problem; at length I solved it to my own satisfaction, and my solution is this. Murder, in ordinary cases, where the sympathy is wholly directed to the case of the murdered person, is an incident of coarse and vulgar horror; and for this reason, that it flings the interest

exclusively upon the natural but ignoble instinct by which we cleave to life; an instinct which, as being indispensable to the primal law of self-preservation, is the same in kind (though different in degree) amongst all living creatures. This instinct, therefore, because it annihilates all distinctions, and degrades the greatest of men to the level of "the poor beetle that we tread on," exhibits human nature in its most abject and humiliating attitude. Such an attitude would little suit the purposes of the poet. What then must he do? He must throw the interest on the murderer. Our sympathy must be with *him* (of course I mean a sympathy of comprehension, a sympathy by which we enter into his feelings, and are made to understand them—not a sympathy of pity or approbation). In the murdered person, all strife of thought, all flux and reflux of passion and of purpose, are crushed by one overwhelming panic; the fear of instant death smites him "with its petrific mace." But in the murderer, such a murderer as a poet will condescend to, there must be raging some great storm of passion—jealousy, ambition, vengeance, hatred—which will create a hell within him; and into this hell we are to look.

In *Macbeth*, for the sake of gratifying his own enormous and teeming faculty of creation, Shakespeare has introduced two murderers: and, as usual in his hands, they are remarkably discriminated; but, though in Macbeth the strife of mind is greater than in his wife, the tiger spirit not so awake, and his feelings caught chiefly by contagion from her—yet, as both were finally involved in the guilt of murder, the murderous mind of necessity is finally to be presumed in both. This was to be expressed; and on its own account, as well as to make it a more proportionable antagonist to the unoffending nature of their victim, "the gracious Duncan," and adequately to expound "the deep damnation of his taking off," this was to be expressed with peculiar energy. We were to be made to feel that the human nature, *i.e.*, the divine nature of love and mercy, spread through the hearts of all creatures, and seldom utterly withdrawn from man—was gone, vanished, extinct; and that the fiendish nature had taken its place. And, as this effect is marvellously accomplished in the dialogues and soliloquies themselves, so it is finally consummated by the expedient under consideration; and it is to this that I now solicit the reader's attention. If the reader has ever witnessed a wife, daughter, or sister in a fainting fit, he may chance to have observed that the most affecting moment in such a spectacle is that in which a sigh and a stirring announce the recommencement of suspended life. Or, if the reader has ever been present in a vast metropolis, on the day

when some great national idol was carried in funeral pomp to his grave, and chancing to walk near the course through which it passed, has felt powerfully in the silence and desertion of the streets, and in the stagnation of ordinary business, the deep interest which at that moment was possessing the heart of man—if all at once he should hear the deathlike stillness broken up by the sound of wheels rattling away from the scene, and making known that the transitory vision was dissolved, he will be aware that at no moment was his sense of the complete suspension and pause in ordinary human concerns so full and affecting, as at that moment when the suspension ceases, and the goings-on of human life are suddenly resumed. All action in any direction is best expounded, measured, and made apprehensible, by reaction. Now apply this to the case of *Macbeth*. Here, as I have said, the retiring of the human heart, and the entrance of the fiendish heart was to be expressed and made sensible. Another world has stepped in; and the murderers are taken out of the region of human things, human purposes, human desires. They are transfigured: Lady Macbeth is "unsexed"; Macbeth has forgot that he was born of woman; both are conformed to the image of devils; and the world of devils is suddenly revealed. But how shall this be conveyed and made palpable? In order that a new world may step in, this world must for a time disappear. The murderers, and the murder must be insulated—cut off by an immeasurable gulf from the ordinary tide and succession of human affairs—locked up and sequestered in some deep recess; we must be made sensible that the world of ordinary life is suddenly arrested—laid asleep—tranced—racked into a dread armistice; time must be annihilated; relation to things without abolished; and all must pass self-withdrawn into a deep syncope and suspension of earthly passion. Hence it is, that when the deed is done, when the work of darkness is perfect, then the world of darkness passes away like a pageantry in the clouds: the knocking at the gate is heard; and it makes known audibly that the reaction has commenced; the human has made its reflux upon the fiendish; the pulses of life are beginning to beat again; and the re-establishment of the goings-on of the world in which we live, first makes us profoundly sensible of the awful parenthesis that has suspended them.

O mighty poet! Thy works are not as those of other men, simply and merely great works of art, but are also like the phenomena of nature, like the sun and the sea, the stars and the flowers; like frost and snow, rain and dew, hailstorm and thunder, which are to be studied with

entire submission of our own faculties, and in the perfect faith that in them there can be no too much or too little, nothing useless or inert–but that, the further we press in our discoveries, the more we shall see proofs of design and self-supporting arrangement where the careless eye had seen nothing but accident!

Thomas Stearns Eliot

1888–1965

Thomas Stearns Eliot was born in St. Louis, Missouri, on September 26, 1888. His grandfather had founded the city's first Unitarian Church, as well as Washington University. His father was a successful businessman. Tom, a serious, bookish boy, was the youngest of seven children.

Eliot went to Smith Academy in St. Louis and Milton Academy near Boston. He entered Harvard when he was eighteen. A brilliant, hard-working student, he finished his undergraduate work in three years and took a master's degree in the fourth year. The teachers who had the greatest influence on him were George Santayana, Irving Babbitt, and Bertrand Russell.

He spent a year studying at the Sorbonne in Paris, where he wrote his first important poem, *The Love Song of J. Alfred Prufrock*. He returned to Harvard and continued his study of philosophy. In 1914 Eliot won a traveling scholarship and went to Germany. When World War I broke out, he left for England, where, except for a few intervals, he lived the rest of his life.

In England Eliot worked first as a teacher, then as a banker, devoting his evenings to study and writing. Later he became an editor in a publishing firm.

Bertrand Russell introduced him to the Bloomsbury group, who immediately recognized him as a talented writer. Leonard and Virginia Woolf published *The Waste Land*, often said to be the most influential English poem of the twentieth century, at the Hogarth Press in 1922.

In 1927 Eliot became a British citizen and was confirmed in the Anglican Church. In 1928 he published *For Lancelot Andrewes*, a volume of essays in which he first publicly stated his belief in Anglo-

Catholicism. Most of the poems, such as *Ash Wednesday* (1930), and the verse plays he later wrote reflect his religious attitude and his association with a traditional culture. One of his greatest achievements as a poet was *Four Quartets*, published in 1943.

Eliot's first wife, Vivienne Haigh-Wood, died in 1947. In 1957 he married Esmé Valerie Fletcher. He died in London on January 4, 1965.

He was awarded the Nobel Prize for literature in 1948. He received honorary degrees from many of the world's leading universities, as well as Britain's highest honor, the Order of Merit.

In an often quoted statement, Eliot described himself as "classicist in literature, royalist in politics, Anglo-Catholic in religion." Two of these attitudes—classicist and Anglo-Catholic—are illustrated in these essays.

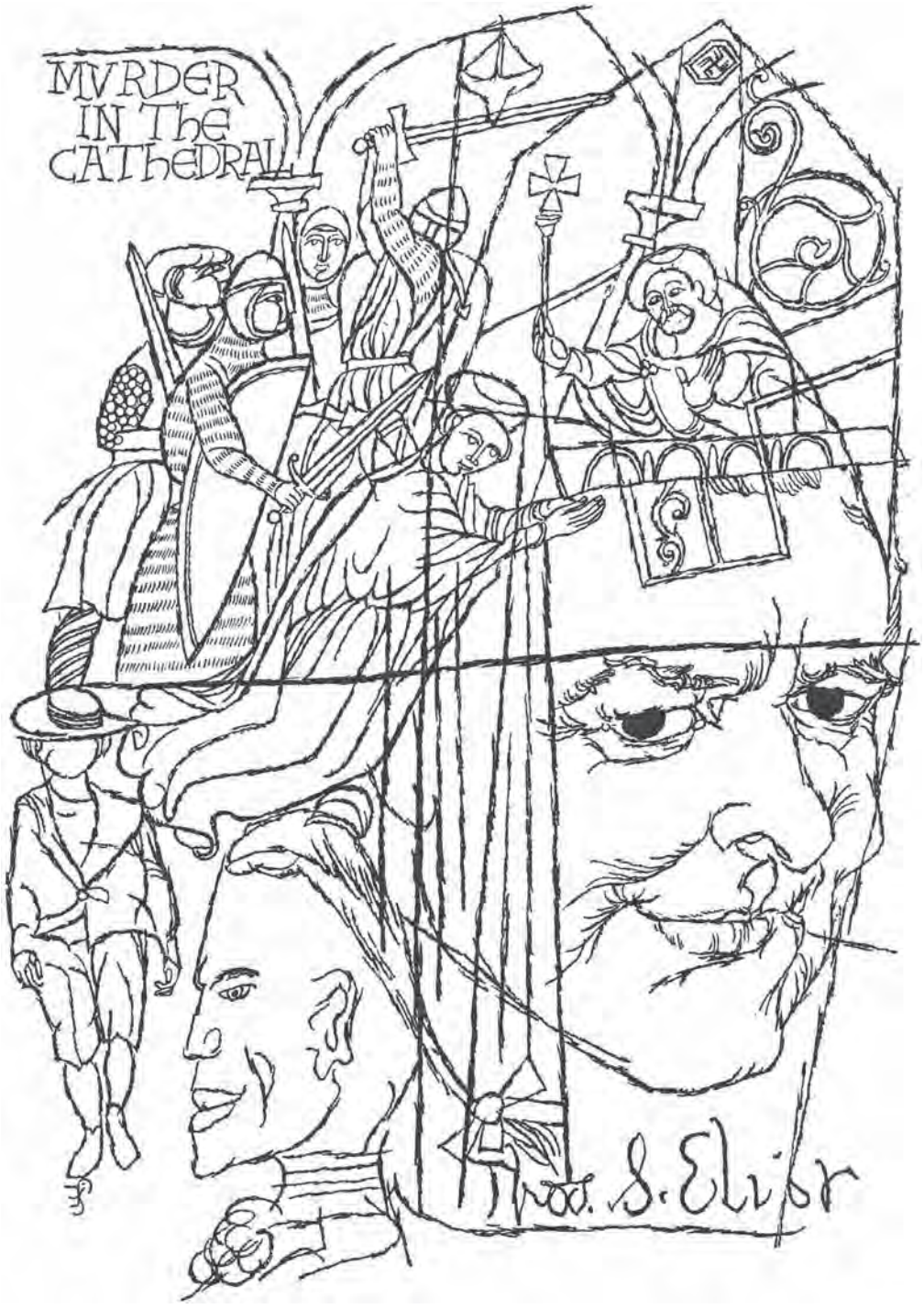
"Dante and Shakespeare divide the modern world between them," Eliot writes. He goes on to indicate what seems to him the difference between them. "Shakespeare," he says, "gives the greatest *width* of human passion; Dante the greatest altitude and greatest depth." The range of Shakespeare is, indeed, wider than that of any poet. Eliot in his essay on Dante attempts to show us, by following Dante in his journey from Hell to Heaven, how the Italian poet plumbs deeper depths, and scales greater heights, than Shakespeare could reach. His argument is persuasive.

Dante, Eliot says, is easy to read. Easy, that is, in the way in which Eliot believes that all good poetry is easy—it can communicate before it is understood. This sounds like a paradox, as indeed it is. Eliot means that Dante's *Divine Comedy* has a first, an immediate, meaning for every reader. It is a story that is comprehensible to all.[1]

The *Divine Comedy* is also, as Eliot points out, an allegory. It is,

[1] See *Great Books of the Western World*.

Notes from the artist: ". . . a linear portrait of Eliot with a background in medieval style, a scene from Murder in the Cathedral. *The two figures below are from Eliot's youth . . . at left, the author as a boy; center, copy of a drawing of George Washington by Eliot when he was seven years old."*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he says, "one vast metaphor." The *full* understanding of the meaning of the metaphor is, Eliot suggests, unobtainable. The *Divine Comedy* is among the very highest of literary achievements. "The majority of poems one outgrows and outlives, as one outgrows and outlives the majority of human passions: Dante's is one of those which one can only just hope to grow up to at the end of life." Thus Dante is both easy and extraordinarily difficult. These are two criteria of poetic greatness.

Eliot begins the essay *Tradition and the Individual Talent* with another paradox. The truly original poet, he suggests, must have what he calls the historical sense. "This historical sense," Eliot writes, "which is a sense of the timeless as well as of the temporal and of the timeless and of the temporal together, is what makes a writer traditional. And it is at the same time what makes a writer most acutely conscious of his place in time, of his own contemporaneity."

Eliot goes on to say that the great art of the past exists in a kind of order, of which any new, important work must become a part. "Whoever has approved this idea of order, of the form of European, of English literature," he explains, "will not find it preposterous that the past should be altered by the present as much as the present is directed by the past." This startling idea follows from Eliot's conception of order. He does not mean, of course, that the writing of a new work will change any of the lines of Shakespeare. But if the new work is worthy to be placed in the tradition of European poetry, its existence will subtly change our view, our understanding, of Shakespeare. In this sense, Eliot is certainly correct in suggesting that "the poet who is aware of this will be aware of great difficulties and responsibilities."

Having made this point, Eliot turns to a still more important one. "Poetry," he says, "is not a turning loose of emotion, but an escape from emotion; it is not the expression of personality, but an escape from personality." The best poetry, he says, "is an expression of *significant* emotion, emotion which has its life in the poem and not in the history of the poet." Mere individuality is of no interest or importance. Novelty is preferable to repetition, but both are secondary compared to the truest art, which is impersonal.

Dante

I. THE "INFERO"

In my own experience of the appreciation of poetry I have always found that the less I knew about the poet and his work, before I began to read it, the better. A quotation, a critical remark, an enthusiastic essay, may well be the accident that sets one to reading a particular author; but an elaborate preparation of historical and biographical knowledge has always been to me a barrier. I am not defending poor scholarship; and I admit that such experience, solidified into a maxim, would be very difficult to apply in the study of Latin and Greek. But with authors of one's own speech, and even with some of those of other modern languages, the procedure is possible. At least, it is better to be spurred to acquire scholarship because you enjoy the poetry, than to suppose that you enjoy the poetry because you have acquired the scholarship. I was passionately fond of certain French poetry long before I could have translated two verses of it correctly. With Dante the discrepancy between enjoyment and understanding was still wider.

I do not counsel any one to postpone the study of Italian grammar until he has read Dante, but certainly there is an immense amount of knowledge which, until one has read some of his poetry with intense pleasure—that is, with as keen pleasure as one is capable of getting from any poetry—is positively undesirable. In saying this I am avoiding two possible extremes of criticism. One might say that understanding of the scheme, the philosophy, the concealed meanings, of Dante's verse was *essential* to appreciation; and on the other hand one might say that these things were quite irrelevant, that the poetry in his poems was one thing, which could be enjoyed by itself without studying a framework which had served the author in producing the poetry but could not serve the reader in enjoying it. The latter error is the more prevalent, and is probably the reason why many people's knowledge of the *Comedy* is limited to the *Inferno*, or

even to certain passages in it. The enjoyment of the *Divine Comedy* is a continuous process. If you get nothing out of it at first, you probably never will; but if from your first deciphering of it there comes now and then some direct shock of poetic intensity, nothing but laziness can deaden the desire for fuller and fuller knowledge.

What is surprising about the poetry of Dante is that it is, in one sense, extremely easy to read. It is a test (a positive test, I do not assert that it is always valid negatively) that genuine poetry can communicate before it is understood. The impression can be verified on fuller knowledge; I have found with Dante and with several other poets in languages in which I was unskilled, that about such impressions there was nothing fanciful. They were not due, that is, to *mis*understanding the passage, or to reading into it something not there, or to accidental sentimental evocations out of my own past. The impression was new, and of, I believe, the objective "poetic emotion." There are more detailed reasons for this experience on the first reading of Dante, and for my saying that he is easy to read. I do not mean that he writes very simple Italian, for he does not; or that his content is simple or always simply expressed. It is often expressed with such a force of compression that the elucidation of three lines needs a paragraph, and their allusions a page of commentary. What I have in mind is that Dante is, in a sense to be defined (for the word means little by itself), the most *universal* of poets in the modern languages. That does not mean that he is "the greatest," or that he is the most comprehensive–there is greater variety and detail in Shakespeare. Dante's universality is not solely a personal matter. The Italian language, and especially the Italian language in Dante's age, gains much by being the product of universal Latin. There is something much more *local* about the languages in which Shakespeare and Racine had to express themselves. This is not to say, either, that English and French are inferior, as vehicles of poetry, to Italian. But the Italian vernacular of the late Middle Ages was still very close to Latin, as literary expression, for the reason that the men, like Dante, who used it, were trained, in philosophy and all abstract subjects, in mediaeval Latin. Now mediaeval Latin is a very fine language; fine prose and fine verse were written in it; and it had the quality of a highly developed and literary Esperanto. When you read modern philosophy, in English, French, German, and Italian, you must be struck by national or racial differences of thought: modern languages *tend* to separate abstract thought (mathematics is now the only universal language); but mediaeval Latin tended to concentrate on what men of various races and lands could think together. Some of the character of

this universal language seems to me to inhere in Dante's Florentine speech; and the localization ("Florentine" speech) seems if anything to emphasize the universality, because it cuts across the modern division of nationality. To enjoy any French or German poetry, I think one needs to have some sympathy with the French or German mind; Dante, none the less an Italian and a patriot, is first a European.

This difference, which is one of the reasons why Dante is "easy to read," may be discussed in more particular manifestations. The style of Dante has a peculiar lucidity—a *poetic* as distinguished from an *intellectual* lucidity. The thought may be obscure, but the word is lucid, or rather translucent. In English poetry words have a kind of opacity which is part of their beauty. I do not mean that the beauty of English poetry is what is called mere "verbal beauty." It is rather that words have associations, and the groups of words *in* association have associations, which is a kind of local self-consciousness, because they are the growth of a *particular* civilization; and the same thing is true of other modern languages. The Italian of Dante, though essentially the Italian of today, is not in this way a modern language. The culture of Dante was not of one European country but of Europe. I am aware, of course, of a directness of speech which Dante shares with other great poets of pre-Reformation and pre-Renaissance times, notably Chaucer and Villon. Undoubtedly there is something in common between the three, so much that I should expect an admirer of any one of them to be an admirer of the others; and undoubtedly there is an opacity, or inspissation of poetic style throughout Europe after the Renaissance. But the lucidity and universality of Dante are far beyond those qualities in Villon and Chaucer, though they are akin.

Dante is "easier to read," for a foreigner who does not know Italian very well, for other reasons: but all related to this central reason, that in Dante's time Europe, with all its dissensions and dirtiness, was mentally more united than we can now conceive. It is not particularly the Treaty of Versailles that has separated nation from nation; nationalism was born long before; and the process of disintegration which for our generation culminates in that treaty began soon after Dante's time. One of the reasons for Dante's "easiness" is the following—but first I must make a digression.

I must explain why I have said that Dante is "easy to read," instead of talking about his "universality." The latter word would have been much easier to use. But I do not wish to be thought to claim a universality for Dante which I deny to Shakespeare or Molière or Sophocles. Dante is

no more "universal" than Shakespeare: though I feel that we can come nearer to understanding Dante than a foreigner can come to understanding those others. Shakespeare, or even Sophocles, or even Racine and Molière, are dealing with what is as universally human as the material of Dante; but they had no choice but to deal with it in a more local way. As I have said, the Italian of Dante is very near in feeling to mediaeval Latin: and of the mediaeval philosophers whom Dante read, and who were read by learned men of his time, there were, for instance, St. Thomas who was an Italian, St. Thomas's predecessor Albertus, who was a German, Abelard who was French, and Hugh and Richard of St. Victor who were Scots. For the *medium* that Dante had to use compare the opening of the *Inferno*

> *Nel mezzo del cammin di nostra vita*
> *mi ritrovai per una selva oscura,*
> *che la diritta via era smarrita.*
>
> In the middle of the journey of our life I found myself in a dark wood, having lost the straight path.

with the lines with which Duncan is introduced to Macbeth's castle:

> This castle hath a pleasant seat; the air
> Nimbly and sweetly recommends itself
> Unto our gentle senses.
> This guest of summer,
> The temple-haunting martlet, does approve
> By his loved masonry that the heaven's breath
> Smells wooingly here: no jutty, frieze,
> Buttress, nor coign of vantage, but this bird
> Hath made his pendant bed and procreant cradle:
> Where they most breed and haunt, I have observed
> The air is delicate.

I do not at all pretend that we appreciate everything, even in one single line of Dante, that a cultivated Italian can appreciate. But I do maintain that more is lost in translating Shakespeare into Italian than in translating Dante into English. How can a foreigner find words to convey in his own language just that combination of intelligibility and remoteness that we get in many phrases of Shakespeare?

I am not considering whether the language of Dante or Shakespeare is superior, for I cannot admit the question: I merely affirm that the differences are such as make Dante easier for a foreigner. Dante's advantages

are not due to greater genius, but to the fact that he wrote when Europe was still more or less one. And even had Chaucer or Villon been exact contemporaries of Dante, they would still have been farther, linguistically as well as geographically, from the centre of Europe than Dante.

But the simplicity of Dante has another detailed reason. He not only thought in a way in which every man of his culture in the whole of Europe then thought, but he employed a method which was common and commonly understood throughout Europe. I do not intend, in this essay, to go into questions of disputed interpretations of Dante's allegory. What is important for my purpose is the fact that the allegorical method was a definite method not confined to Italy; and the fact, apparently paradoxical, that the allegorical method makes for simplicity and intelligibility. We incline to think of allegory as a tiresome cross-word puzzle. We incline to associate it with dull poems (at best, *The Romance of the Rose*), and in a great poem to ignore it as irrelevant. What we ignore is, in a case like Dante's, its particular effect towards lucidity of style.

I do not recommend, in first reading the first canto of the *Inferno*, worrying about the identity of the Leopard, the Lion, or the She-Wolf. It is really better, at the start, not to know or care what they do mean. What we should consider is not so much the meaning of the images, but the reverse process, that which led a man having an idea to express it in images. We have to consider the type of mind which by nature and *practice* tended to express itself in allegory: and for a competent poet, allegory means *clear visual images*. And clear visual images are given much more intensity by having a meaning–we do not need to know what that meaning is, but in our awareness of the image we must be aware that the meaning is there too. Allegory is only one poetic method, but it is a method which has very great advantages.

Dante's is a *visual* imagination. It is a visual imagination in a different sense from that of a modern painter of still life: it is visual in the sense that he lived in an age in which men still saw visions. It was a psychological habit, the trick of which we have forgotten, but as good as any of our own. We have nothing but dreams, and we have forgotten that seeing visions–a practice now relegated to the aberrant and uneducated–was once a more significant, interesting, and disciplined kind of dreaming. We take it for granted that our dreams spring from below: possibly the quality of our dreams suffers in consequence.

All that I ask of the reader, at this point, is to clear his mind, if he can, of every prejudice against allegory, and to admit at least that it was not a device to enable the uninspired to write verses, but really a

mental habit, which when raised to the point of genius can make a great poet as well as a great mystic or saint. And it is the allegory which makes it possible for the reader who is not even a good Italian scholar to enjoy Dante. Speech varies, but our eyes are all the same. And allegory was not a local Italian custom, but a universal European method.

Dante's attempt is to make us see what he saw. He therefore employs very simple language, and very few metaphors, for allegory and metaphor do not get on well together. And there is a peculiarity about his *comparisons* which is worth noticing in passing.

There is a well-known comparison or simile in the great XVth canto of the *Inferno*, which Matthew Arnold singled out, rightly, for high praise; which is characteristic of the way in which Dante employs these figures. He is speaking of the crowd in Hell who peered at him and his guide under a dim light:

> *e si ver noi aguzzevan le ciglia,*
> *come vecchio sartor fa nella cruna.*

> and sharpened their vision (knitted their brows) at us, like an old tailor peering at the eye of his needle.

The purpose of this type of simile is solely to make us see *more definitely* the scene which Dante has put before us in the preceding lines.

> she looks like sleep,
> As she would catch another Antony
> In her strong toil of grace.

The image of Shakespeare's is much more complicated than Dante's, and more complicated than it looks. It has the grammatical form of a kind of simile (the "as if" form), but of course "catch in her toil" is a metaphor. But whereas the simile of Dante is merely to make you see more clearly how the people looked, and is explanatory, the figure of Shakespeare is expansive rather than intensive; its purpose is to *add* to what you see (either on the stage or in your imagination) a reminder of that fascination of Cleopatra which shaped her history and that of the world, and of that fascination being so strong that it prevails even in death. It is more elusive, and it is less possible to convey without close knowledge of the English language. Between men who could make such inventions as these there can be no question of greater or less. But as the whole poem of Dante is, if you like, one vast metaphor, there is hardly any place for metaphor in the detail of it.

There is all the more reason to acquaint oneself well with Dante's poem

first part by part, even dwelling specially on the parts that one likes most at first, because we cannot extract the full significance of any part without knowing the whole. We cannot understand the inscription at Hell Gate:

Giustizia mosse il mio alto Fattore;
fecemi la divina Potestate,
la somma Sapienza e il primo Amore.

Justice moved my high Maker; what made me were the divine Power, the supreme Wisdom, and the primal Love–

until we have ascended to the highest Heaven and returned. But we can understand the first Episode that strikes most readers, that of Paolo and Francesca, enough to be moved by it as much as by any poetry, on the first reading. It is introduced by two similes of the same explanatory nature as that which I have just quoted:

E come gli stornei ne portan l'ali,
nel freddo tempo, a schiera larga e piena,
cosi quel fiato gli spiriti mali;

And as their wings bear along the starlings, at the cold season, in large full troop.

E come i gru van cantando lor lai
facendo in aer di sè lunga riga;
cosi vid' io venir, traendo guai,
ombre portate dalla detta briga;

And as the cranes go chanting their lays, making themselves a long streak in the air, so I saw the wailing shadows come, wailing, carried on the striving wind.

We can see and feel the situation of the two lost lovers, though we do not yet understand the meaning which Dante gives it. Taking such an episode by itself, we can get as much out of it as we get from the reading of a whole single play of Shakespeare. We do not understand Shakespeare from a single reading, and certainly not from a single play. There is a relation between the various plays of Shakespeare, taken in order; and it is a work of years to venture even one individual interpretation of the pattern in Shakespeare's carpet. It is not certain that Shakespeare himself knew what it was. It is perhaps a larger pattern than Dante's, but the pattern is less distinct. We can read with full comprehension the lines:

Noi leggevamo un giorno per diletto
di Lancillotto, come amor lo strinse;
soli eravamo e senza alcun sospetto.
Per più fiate gli occhi ci sospinse
quella lettura, e scolorocci il viso;
ma solo un punto fu quel che ci vinse.
Quando leggemmo il disiato riso
esser baciato da cotanto amante,
questi, che mai da me non fia diviso,
La bocca mi baciò tutto tremante:

One day, for pastime, we read of Lancelot, how love constrained him; we were alone, and without all suspicion. Several times that reading urged our eyes to meet, and changed the colour of our faces; but one moment alone it was that overcame us. When we read how the fond smile was kissed by such a lover, he, who shall never be divided from me, kissed my mouth all trembling.

When we come to fit the episode into its place in the whole *Comedy*, and see how this punishment is related to all other punishments and to purgations and rewards, we can appreciate better the subtle psychology of the simple line of Francesca:

se fosse amico il re dell' universo

if the King of the Universe were our friend. . . .

or of the line

Amor, che a nullo amato amar perdona

Love, which to no loved one permits excuse for loving. . . .

or indeed of the line already quoted:

questi, che mai da me non fia diviso

he, who shall never be divided from me. . . .

Proceeding through the *Inferno* on a first reading, we get a succession of phantasmagoric but clear images, of images which are coherent, in that each reinforces the last; of glimpses of individuals made memorable by a perfect phrase, like that of the proud Farinata degli Uberti:

ed ei s' ergea col petto e colla fronte,
come avesse lo inferno in gran dispitto.

He rose upright with breast and countenance, as though he entertained great scorn of Hell.

and of particular longer episodes, which remain separately in the memory. I think that among those which impress themselves most at the first reading are the episode of Brunetto Latini (Canto XV), Ulysses (Canto XXVI), Bertrand de Born (Canto XXVIII), Adamo di Brescia (Canto XXX), and Ugolino (Canto XXXIII).

Although I think it would be a mistake to skip, and find it much better to await these episodes until we come to them in due course, they certainly remain in my memory as the parts of the *Inferno* which first convinced me, and especially the Brunetto and the Ulysses episodes, for which I was unprepared by quotation or allusion. And the two may well be put together: for the first is Dante's testimony of a loved master of arts, the second his reconstruction of a legendary figure of ancient epic; yet both have the quality of *surprise* which Poe declared to be essential to poetry. This *surprise*, at its highest, could by nothing be better illustrated than by the final lines with which Dante dismisses the damned master whom he loves and respects:

Poi si rivolse, e parve di coloro
che coronno a Verona il drappo verde
per la campagna; e parve di costoro
quegli che vince e non colui che perde.

Then he turned, and seemed like one of those who run for the green cloth at Verona through the open field; and of them he seemed like him who wins, and not like him who loses.

One does not need to know anything about the race for the roll of green cloth, to be *hit* by these lines; and in making Brunetto, so fallen, *run like the winner*, a quality is given to the punishment which belongs only to the greatest poetry. So Ulysses, unseen in the hornèd wave of flame,

Lo maggior corno della fiamma antica
cominciò a crollarsi mormorando,
pur come quella cui vento affatica.
Indi la cima qua e là menando,
come fosse la lingua che parlasse,
gittò voce di fuori e disse: "Quando
mi diparti' da Circe, che sottrasse
me più d'un anno la presso a Gaeta. . . ."

The greater horn of the ancient flame began to shake itself murmuring, like a flame struggling against the wind. Then moving to and fro the peak, as though it were the tongue that spoke, threw forth a voice and

> said: "When I left Circe, who kept me more than a year there near Gaeta. . . ."

is a creature of the pure poetic imagination, apprehensible apart from place and time and the scheme of the poem. The Ulysses episode may strike us first as a kind of excursion, an irrelevance, a self-indulgence on the part of Dante taking a holiday from his Christian scheme. But when we know the whole poem, we recognize how cunningly and convincingly Dante has made to fit in real men, his contemporaries, friends, and enemies, recent historical personages, legendary and Biblical figures, and figures of ancient fiction. He has been reproved or smiled at for satisfying personal grudges by putting in Hell men whom he knew and hated; but these, as well as Ulysses, are transformed in the whole; for the real and the unreal are all representative of types of sin, suffering, fault, and merit, and all become of the same reality and contemporary. The Ulysses episode is particularly "readable," I think, because of its continuous straightforward narrative, and because to an English reader the comparison with Tennyson's poem–a perfect poem at that–is very instructive. It is worth while noticing the greatly superior degree of *simplification* of Dante's version. Tennyson, like most poets, like most even of those whom we can call great poets, has to get his effect with a certain amount of *forcing*. Thus the line about the sea which

> moans round with many voices,

a true specimen of Tennyson-Virgilianism, is too *poetical* in comparison with Dante, to be the highest poetry. (Only Shakespeare can be so "poetical" without giving any effect of overloading, or distracting us from the main issue:

> Put up your bright swords or the dew will rust them.)

Ulysses and his shipmates pass through the pillars of Hercules, that "narrow pass"

> *ov' Ercole segnò li suoi riguardi*
> *acciochè l'uom più oltre non si metta.*

where Hercules set his marks, so that man should pass no farther.

> *"O frati," dissi, "che per cento milia*
> *perigli siete giunti all' occidente,*
> *a questa tanto picciola vigilia*
> *de' vostri sensi, ch' è del rimanente,*
> *non vogliate negar l'esperienza*
> *di retro al sol, del mondo senza gente.*

Considerate la vostra semenza,
fatti non foste a viver come bruti
ma per seguir virtute e conoscenza."

"O brothers!" I said, "who through a hundred thousand dangers have reached the West, deny not, to this so brief vigil of your senses that remains, experience of the world without men that lies behind the sun. Consider your nature, you were made not to live like beasts, but to pursue virtue and knowledge."

They fare forth until suddenly

n'apparve una montagna bruna
per la distanza, e parvemi alta tanto
quanto veduta non n'aveva alcuna.
Noi ci allegrammo, e tosto tornò in pianto,
chè dalla nuova terra un turbo nacque,
e percosse del legno il primo canto.
Tre volte il fe' girar con tutte l'acque,
alla quarta levar la poppa in suso,
e la prora ire in giù, com' altrui piacque,
infin che il mar fu sopra noi richiuso.

there appeared a mountain brown in the distance; and it seemed to me the highest that I had ever seen. We rejoiced, but soon our joy was turned to lamentation: for a storm came up from the new land, and caught the stem of our ship. Three times it whirled her round with all the waters; the fourth time it heaved up the stern and drove her down at the head, as pleased Another; until the sea closed over us.

The story of Ulysses, as told by Dante, reads like a straightforward piece of romance, a well told seaman's yarn; Tennyson's Ulysses is primarily a very self-conscious poet. But Tennyson's poem is flat, it has only two dimensions; there is nothing more in it than what the average Englishman, with a feeling for verbal beauty, can see. We do not need, at first, to know what mountain the mountain was, or what the words mean *as pleased Another*, to feel that Dante's sense has further depths.

It is worth pointing out again how very right was Dante to introduce among his historical characters at least one character who even to him could hardly have been more than a fiction. For the *Inferno* is relieved from any question of pettiness or arbitrariness in Dante's selection of damned. It reminds us that Hell is not a place but a *state;* that man is damned or blessed in the creatures of his imagination as well as in men who have actually lived; and that Hell, though a state, is a state which

can only be thought of, and perhaps only experienced, by the projection of sensory images; and that the resurrection of the body has perhaps a deeper meaning than we understand. But these are such thoughts as come only after many readings; they are not necessary for the first poetic enjoyment.

The experience of a poem is the experience both of a moment and of a lifetime. It is very much like our intenser experiences of other human beings. There is a first, or an early moment which is unique, of shock and surprise, even of terror (*Ego dominus tuus* [I am thy God]); a moment which can never be forgotten, but which is never repeated integrally; and yet which would become destitute of significance if it did not survive in a larger whole of experience; which survives inside a deeper and a calmer feeling. The majority of poems one outgrows and outlives, as one outgrows and outlives the majority of human passions: Dante's is one of those which one can only just hope to grow up to at the end of life.

The last canto (XXXIV) is probably the most difficult on first reading. The vision of Satan may seem grotesque, especially if we have fixed in our minds the curly-haired Byronic hero of Milton; it is too like a Satan in a fresco in Siena. Certainly no more than the Divine Spirit can the Essence of Evil be confined in one form and place; and I confess that I tend to get from Dante the impression of a Devil suffering like the human damned souls; whereas I feel that the *kind* of suffering experienced by the Spirit of Evil should be represented as utterly different. I can only say that Dante made the best of a bad job. In putting Brutus, the noble Brutus, and Cassius with Judas Iscariot he will also disturb at first the English reader, for whom Brutus and Cassius must always be the Brutus and Cassius of Shakespeare: but if my justification of Ulysses is valid, then the presence of Brutus and Cassius is also. If any one is repelled by the last canto of the *Inferno*, I can only ask him to wait until he has read and lived for years with the last canto of the *Paradiso*, which is to my thinking the highest point that poetry has ever reached or ever can reach, and in which Dante amply repairs any failure of Canto XXXIV of the *Inferno;* but perhaps it is better, on our first reading of the *Inferno*, to omit the last canto and return to the beginning:

Per me si va nella città dolente;
per me si va nell' eterno dolore;
per me si va tra la perduta gente.
Giustizia mosse il mio alto Fattore;
fecemi la divina Potestate,
la somma Sapienza e il primo Amore.

[Through me is the way into the woeful city; through me is the way into the eternal woe; through me is the way among the lost people. Justice moved my lofty maker: the divine Power, the supreme Wisdom and the primal Love made me.]

II. THE "PURGATORIO" AND THE "PARADISO"

For the science or art of writing verse, one has learned from the *Inferno* that the greatest poetry can be written with the greatest economy of words, and with the greatest austerity in the use of metaphor, simile, verbal beauty, and elegance. When I affirm that more can be learned about how to write poetry from Dante than from any English poet, I do not at all mean that Dante's way is the only right way, or that Dante is thereby *greater* than Shakespeare or, indeed, any other English poet. I put my meaning into other words by saying that Dante can do less *harm* to any one trying to learn to write verse than can Shakespeare. Most great English poets are *inimitable* in a way in which Dante was not. If you try to imitate Shakespeare you will certainly produce a series of stilted, forced, and violent distortions of language. The language of each great English poet is his own language; the language of Dante is the perfection of a common language. In a sense, it is more pedestrian than that of Dryden or Pope. If you follow Dante without talent, you will at worst be pedestrian and flat; if you follow Shakespeare or Pope without talent, you will make an utter fool of yourself.

But if one has learned this much from the *Inferno*, there are other things to be learnt from the two successive divisions of the poem. From the *Purgatorio* one learns that a straightforward philosophical statement can be great poetry; from the *Paradiso*, that more and more rarefied and remote *states of beatitude* can be the material for great poetry. And gradually we come to admit that Shakespeare understands a greater extent and variety of human life than Dante; but that Dante understands deeper degrees of degradation and higher degrees of exaltation. And a further wisdom is reached when we see clearly that this indicates the equality of the two men.

On the one hand, the *Purgatorio* and the *Paradiso* belong, in the way of understanding, together. It is apparently easier to accept damnation as poetic material than purgation or beatitude; less is involved that is strange to the modern mind. I insist that the full meaning of the *Inferno* can only be extracted after appreciation of the two later parts, yet it has sufficient meaning in and by itself for the first few readings. Indeed, the

Purgatorio is, I think, the most difficult of the three parts. It cannot be enjoyed by itself like the *Inferno*, nor can it be enjoyed merely as a sequel to the *Inferno;* it requires appreciation of the *Paradiso* as well; which means that its first reading is arduous and apparently unremunerative. Only when we have read straight through to the end of the *Paradiso*, and re-read the *Inferno*, does the *Purgatorio* begin to yield its beauty. Damnation and even blessedness are more exciting than purgation.

By compensation, the *Purgatorio* has a few episodes which, so to speak, "let us up" (as the counterpart to letting down) more easily than the rest, from the *Inferno*. We must not stop to orient ourselves in the new astronomy of the Mount of Purgatory. We must linger first with the shades of Casella and Manfred slain, and especially Buonconte and La Pia, those whose souls were saved from Hell only at the last moment.

"Io fui di Montefeltro, io son Buonconte;
Giovanna o altri non ha di me cura;
perch' io vo tra costor con bassa fronte."
Ed io a lui: "Qual forza o qual ventura
ti traviò si fuor di Campaldino
che non si seppe mai tua sepoltura?"
"Oh," rispos' egli, "a piè del Casentino
traversa ur' acqua che ha nome l'Archiano,
che sopra l'Ermo nasce in Apennino.
Dove il vocabol suo diventa vano
arriva' io forato nella gola,
fuggendo a piede e sanguinando il piano.
Quivi perdei la vista, e la parola
nel nome di Maria finii: e quivi
caddi, e rimase la mia carne sola."

"I was of Montefeltro, I am Buonconte; neither Giovanna nor any other has care of me, wherefore I go with these, with lowered brow." I said to him: "What force or chance led you so far away from Campaldino that your place of sepulture has always been unknown?" "Oh," said he, "at the foot of Casentino a stream crosses, which is called Archiano, and rises in the Apennines above the Hermitage. There, where its name is lost, came I, jabbed in the throat, fleeing on foot, dripping blood over the plain. There my sight left me, and I ended speech with [crying on] the name of Mary. There I fell, and my flesh alone remained."

When Buonconte ends his story, the third spirit speaks:

"Deh, quando tu sarai tornato al mondo,
e riposato della lunga via,"
seguito il terzo spirito al secondo,

"ricorditi di me, che son la Pia;
Siena mi fe', disfecemi Maremma:
salsi colui che innanellata, pria
disposando, m'avea con la sua gemma."

"O pray, when you return to the world, and are rested from your long journey," followed the third spirit after the second, "remember me, who am La Pia. Siena made me, Maremma unmade me: this is known to him who after due engagement wedded me with his ring."

The next episode that impresses the reader coming fresh from the *Inferno* is the meeting with Sordello the poet (Canto VI), the soul who appeared

altera e disdegnosa
e nel mover degli occhi onesta e tarda!

Proud and disdainful, superb and slow in the movement of his eyes!

E il dolce duca incominciava:
"Mantova" . . . e l'ombra, tutta in sè romita,
surse ver lui del loco ove pria stava,
dicendo: "O Mantovano, io son Sordello
della tua terra." E l'un l'altro abbracciava.

The gentle guide [Virgil] began: "Mantua" . . . and the shade, suddenly rapt, leapt towards him from the place where first it was, saying, "O Mantuan, I am Sordello of thy very soil." And the one embraced the other.

The meeting with Sordello *a guisa di leon quando si posa*, like a couchant lion, is no more affecting than that with the poet Statius, in Canto XXI. Statius, when he recognizes his master Virgil, stoops to clasp his feet, but Virgil answers–the lost soul speaking to the saved:

"Frate,
non far, chè tu se' ombra, ed ombra vedi."
Ed ei surgendo: "Or puoi la quantitate
comprender dell' amor ch' a te mi scalda,
quando dismento nostra vanitate,
trattando l'ombre come cosa salda."

"Brother! refrain, for you are but a shadow, and a shadow is but what you see." Then the other, rising: "Now can you understand the quantity of love that warms me towards you, so that I forget our vanity, and treat the shadows like the solid thing."

The last "episode" at all comparable to those of the *Inferno* is the meeting with Dante's predecessors, Guido Guinizelli and Arnaut Daniel (Canto XXVI). In this canto the Lustful are purged in flame, yet we see clearly how the flame of purgatory differs from that of hell. In hell, the torment issues from the very nature of the damned themselves, expresses their essence; they writhe in the torment of their own perpetually perverted nature. In purgatory the torment of flame is deliberately and consciously accepted by the penitent. When Dante approaches with Virgil these souls in purgatory flame, they crowd towards him:

> *Poi verso me, quanto potevan farsi,*
> *certi si feron, sempre con riguardo*
> *di non uscir dove non fossero arsi.*

> Then certain of them made towards me, so far as they could, but ever watchful not to come so far that they should not be in the fire.

The souls in purgatory suffer because they *wish to suffer*, for purgation. And observe that they suffer more actively and keenly, being souls preparing for blessedness, than Virgil suffers in eternal limbo. In their suffering is hope, in the anaesthesia of Virgil is hopelessness; that is the difference. The canto ends with the superb verses of Arnaut Daniel in his Provençal tongue:

> *"Ieu sui Arnaut, que plor e vau cantan;*
> *consiros vei la passada folor,*
> *e vei jausen lo jorn, qu' esper, denan.*
> *Ara vos prec, per aquella valor*
> *que vos guida al som de l'escalina,*
> *sovegna vos a temps de ma dolor."*
> POI S' ASCOSE NEL FOCO CHE GLI AFFINA.

> "I am Arnold, who weeps and goes singing. I see in thought all the past folly. And I see with joy the day for which I hope, before me. And so I pray you, by that Virtue which leads you to the topmost of the stair—be mindful in due time of my pain." Then dived he back into that fire which refines them.

These are the high episodes, to which the reader initiated by the *Inferno* must first cling, until he reaches the shore of Lethe, and Matilda, and the first sight of Beatrice. In the last cantos (XXIX-XXXIII) of the *Purgatorio* we are already in the world of the *Paradiso*.

But in between these episodes is the narrative of the ascent of the Mount, with meetings, visions, and philosophical expositions, all impor-

tant, and all difficult for the uninstructed reader who finds it less exciting than the continuous phantasmagoria of the *Inferno*. The allegory in the *Inferno* was easy to swallow or ignore, because we could, so to speak, grasp the concrete end of it, its solidification into imagery; but as we ascend from Hell to Heaven we are more and more required to grasp the whole from idea to image.

Here I must make a diversion, before tackling a specifically philosophical passage of the *Purgatorio*, concerning the nature of Belief. I wish merely to indicate certain tentative conclusions of my own, which might affect one's reading of the *Purgatorio*.

Dante's debt to St. Thomas Aquinas, like his debt (a much smaller one) to Virgil, can be easily exaggerated; for it must not be forgotten that Dante read and made use of other great mediaeval philosophers as well. Nevertheless, the question of how much Dante took from Aquinas and how much from elsewhere is one which has been settled by others and is not relevant to my present essay. But the question of what Dante "believed" is always relevant. It would not matter, if the world were divided between those persons who are capable of taking poetry simply for what it is and those who cannot take it at all; if so, there would be no need to talk about this question to the former and no use in talking about it to the latter. But most of us are somewhat impure and apt to confuse issues: hence the justification of writing books about books, in the hope of straightening things out.

My point is that you cannot afford to *ignore* Dante's philosophical and theological beliefs, or to skip the passages which express them most clearly; but that on the other hand you are not called upon to believe them yourself. It is wrong to think that there are parts of the *Divine Comedy* which are of interest only to Catholics or to mediaevalists. For there is a difference (which here I hardly do more than assert) between philosophical *belief* and poetic *assent*. I am not sure that there is not as great a difference between philosophical belief and scientific belief; but that is a difference only now beginning to appear, and certainly inapposite to the thirteenth century. In reading Dante you must enter the world of thirteenth-century Catholicism: which is not the world of modern Catholicism, as his world of physics is not the world of modern physics. You are not called upon to believe what Dante believed, for your belief will not give you a groat's worth more of understanding and appreciation; but you are called upon more and more to understand it. If you can read poetry as poetry, you will "believe" in Dante's theology exactly as you believe in the physical reality of his journey; that is, you suspend both

belief and disbelief. I will not deny that it may be in practice easier for a Catholic to grasp the meaning, in many places, than for the ordinary agnostic; but that is not because the Catholic believes, but because he has been instructed. It is a matter of knowledge and ignorance, not of belief or scepticism. The vital matter is that Dante's poem is a whole; that you must in the end come to understand every part in order to understand any part.

Furthermore, we can make a distinction between what Dante believes as a poet and what he believed as a man. Practically, it is hardly likely that even so great a poet as Dante could have composed the *Comedy* merely with understanding and without belief; but his private belief becomes a different thing in becoming poetry. It is interesting to hazard the suggestion that this is truer of Dante than of any other philosophical poet. With Goethe, for instance, I often feel too acutely "this is what Goethe the man believed," instead of merely entering into a world which Goethe has created; with Lucretius also; less with the *Bhagavad-Gita,* which is the next greatest philosophical poem to the *Divine Comedy* within my experience. That is the advantage of a coherent traditional system of dogma and morals like the Catholic: it stands apart, for understanding and assent even without belief, from the single individual who propounds it. Goethe always arouses in me a strong sentiment of disbelief in what he believes: Dante does not. I believe that this is because Dante is the purer poet, not because I have more sympathy with Dante the man than Goethe the man.

We are not to take Dante for Aquinas or Aquinas for Dante. It would be a grievous error in psychology. The *belief attitude* of a man reading the *Summa* must be different from that of a man reading Dante, even when it is the same man, and that man a Catholic.

It is not necessary to have read the *Summa* (which usually means, in practice, reading some handbook) in order to understand Dante. But it is necessary to read the philosophical passages of Dante with the humility of a person visiting a new world, who admits that every part is essential to the whole. What is necessary to appreciate the poetry of the *Purgatorio* is not belief, but suspension of belief. Just as much effort is required of any modern person to accept Dante's allegorical method, as is required of the agnostic to accept his theology.

When I speak of understanding, I do not mean merely knowledge of books or words, any more than I mean belief: I mean a state of mind in which one sees certain beliefs, as the order of the deadly sins, in which

treachery and pride are greater than lust, and despair the greatest, as *possible*, so that we suspend our judgment altogether.

In the XVIth Canto of the *Purgatorio* we meet Marco Lombardo, who discourses at some length on the Freedom of the Will, and on the Soul:

Esce di mano a lui, che la vagheggia
prima che sia, a giusa di fanciulla
che piangendo e ridendo pargoleggia,
l'anima semplicetta, che sa nulla,
salvo che, mossa da lieto fattore,
volentier torna a ciò che la trastulla.
Di picciol bene in pria sente sapore;
quivi s'inganna, e retro ad esso corre,
se guida o fren non torce suo amore.
Onde convenne legge per fren porre;
convenne regge aver, che discernesse
della vera cittade almen la torre.

From the hands of Him who loves her before she is, there issues like a little child that plays, with weeping and langhter, the simple soul, that knows nothing except that, come from the hands of a glad creator, she turns willingly to everything that delights her. First she tastes the flavour of a trifling good; then is beguiled, and pursues it, if neither guide nor check withhold her. Therefore laws were needed as a curb; a ruler was needed, who should at least see afar the tower of the true City.

Later (Canto XVII) it is Virgil himself who instructs Dante in the nature of Love:

"Nè creator nè creatura mai,"
cominciò ei, "figiuol, fu senza amore,
o naturale o d'animo; e tu il sai.
Lo natural è sempre senza errore,
ma l'altro puote errar per malo obbietto,
o per poco o per troppo di vigore.
Mentre ch' egli è ne' primi ben diretto,
e ne' secondi sè stesso misura,
esser non può cagion di mal diletto;
ma, quando al mal si torce, o con più cura
o con men che non dee corre nel bene,
contra il fattore adopra sua fattura.
Quinci comprender puoi ch' esser conviene
amor sementa in voi d' ogni virtute,
e d' ogni operazion che merta pene.

> He began: "neither Creator, nor creature, my son, was ever without love, either natural or rational: and you know it. The natural is always without error; but the other may err through mistaking the object, or through excess or deficiency of force. While it is directed towards the primal goods, and in the secondary moderates itself, it cannot be the cause of delight of sin; but when turned to evil, or hurries towards the good with more or less solicitude than is right, then the creature works against the Creator. Accordingly you may understand how Love must be the seed in you both of every virtue and of every act that merits punishment."

I have quoted these two passages at some length, because they are of the sort that a reader might be inclined to skip, thinking that they are only for scholars, not for readers of poetry, or thinking that it is necessary to have studied the philosophy underlying them. It is not necessary to have traced the descent of this theory of the soul from Aristotle's *De Anima* in order to appreciate it as poetry. Indeed, if we worry too much about it at first as philosophy we are likely to prevent ourselves from receiving the poetic beauty. It is the philosophy of that world of poetry which we have entered.

But with the XXVIIth canto we have left behind the stage of punishment and the stage of dialectic, and approach the state of Paradise. The last cantos have the quality of the *Paradiso* and prepare us for it; they move straightforward, with no detour or delay. The three poets, Virgil, Statius, and Dante, pass through the wall of flame which separates Purgatory from the Earthly Paradise. Virgil dismisses Dante, who henceforth shall proceed with a higher guide, saying:

> *Non aspettar mio dir più, nè mio cenno.*
> *Libero, dritto e sano è tuo arbitrio,*
> *e fallo fora non fare a suo senno*:
> *per ch'io te sopra te corono e mitrio.*

> No more expect my word, or sign. Your Will is free, straight and whole and not to follow its direction would be sin: wherefore I crown and mitre you (king and bishop) over yourself.

I.e., Dante has now arrived at a condition, for the purposes of the rest of his journey, which is that of the blessed: for political and ecclesiastical organization are only required because of the imperfections of the human will. In the Earthly Paradise Dante encounters a lady named Matilda, whose identity need not at first bother us,

> *una donna soletta, che si gia*
> *cantando ed iscegliendo fior da fiore,*
> *ond' era pinta tutta la sua via.*

> A lady alone, who went singing and plucking flower after flower, wherewith her path was pied.

After some conversation and explanation by Matilda of the reason and nature of the place, there follows a "Divine Pageant." To those who dislike—not what are popularly called pageants—but the serious pageants of royalty, of the church, of military funerals—the "pageantry" which we find here and in the *Paradiso* will be tedious; and still more to those, if there be any, who are unmoved by the splendour of the Revelations of St. John. It belongs to the world of what I call the *high dream,* and the modern world seems capable only of the *low dream*. I arrived at accepting it, myself, only with some difficulty. There were at least two prejudices, one against pre-Raphaelite imagery, which was natural to one of my generation, and perhaps affects generations younger than mine. The other prejudice—which affects this end of the *Purgatorio* and the whole of the *Paradiso*—is the prejudice that poetry not only must be found *through* suffering but can find its material only *in* suffering. Everything else was cheerfulness, optimism, and hopefulness; and these words stood for a great deal of what one hated in the nineteenth century. It took me many years to recognize that the states of improvement and beatitude which Dante describes are still further from what the modern world can conceive as cheerfulness, than are his states of damnation. And little things put one off: Rossetti's *Blessed Damozel*, first by my rapture and next by my revolt, held up my appreciation of Beatrice by many years.

We cannot understand fully Canto XXX of the *Purgatorio* until we know the *Vita Nuova*, which in my opinion should be read after the *Divine Comedy*. But at least we can begin to understand how skilfully Dante expresses the recrudescence of an ancient passion in a new emotion, in a new situation, which comprehends, enlarges, and gives a meaning to it.

sopra candido vel cinta d'oliva
donna m'apparve, sotto verde manto,
vestita di color di fiamma viva.
E lo spirito mio, che già cotanto
tempo era stato che alla sua presenza
non era di stupor, tremando, affranto,
senza degli occhi aver più conoscenza,
per occulta virtù che da lei mosse,
d'antico amor sentì la gran potenza.
Tosto che nella vista mi percosse
l'alta virtù, che già m'avea trafitto
primo ch'io fuor di puerizia fosse,

volsemi alla sinistra col rispitto
col quale il fantolin corre alla mamma,
quando ha paura o quando egli è afflito,
per dicere a Virgilio: "Men che dramma
di sangue m' è rimaso, che non tremi;
conosco i segni dell' antica fiamma."

> Olive-crowned over a white veil, a lady appeared to me, clad under a green mantle in colour of living flame. And my spirit, after so many years since trembling in her presence it had been broken with awe, without further knowledge by my eyes, felt, through hidden power which went out from her, the great strength of the old love. As soon as that lofty power struck my sense, which already had transfixed me before my adolescence, I turned leftwards with the trust of the little child who runs to his mama when he is frightened or distressed, to say to Virgil: "Hardly a drop of blood in my body does not shudder: I know the tokens of the ancient flame."

And in the dialogue that follows we see the passionate conflict of the old feelings with the new; the effort and triumph of a new renunciation, greater than renunciation at the grave, because a renunciation of feelings that persist beyond the grave. In a way, these cantos are those of the greatest *personal* intensity in the whole poem. In the *Paradiso* Dante himself, save for the Cacciaguida episode, becomes de- or super-personalized; and it is in these last cantos of the *Purgatorio,* rather than in the *Paradiso,* that Beatrice appears most clearly. But the Beatrice theme is essential to the understanding of the whole, *not* because we need to know Dante's biography—not, for instance, as the Wesendonck history is supposed to cast light upon *Tristan*—but because of Dante's *philosophy* of it. This, however, concerns more our examination of the *Vita Nuova*.

The *Purgatorio* is the most difficult because it is the *transitional* canto: the *Inferno* is one thing, comparatively easy; the *Paradiso* is another thing, more difficult as a whole than the *Purgatorio,* because more a whole. Once we have got the hang of the kind of feeling in it no one part is difficult. The *Purgatorio,* here and there, might be called "dry": the *Paradiso* is never dry, it is either incomprehensible or intensely exciting. With the exception of the episode of Cacciaguida—a pardonable exhibition of family and personal pride, because it provides splendid poetry—it is not episodic. All the other characters have the best credentials. At first, they seem less distinct than the earlier unblessed people; they seem ingeniously varied but fundamentally monotonous variations of insipid blessedness. It is a matter of gradual adjustment of our vision. We have

(whether we know it or not) a prejudice against beatitude as material for poetry. The eighteenth and nineteenth centuries knew nothing of it; even Shelley, who knew Dante well and who towards the end of his life was beginning to profit by it, the one English poet of the nineteenth century who could even have begun to follow those footsteps, was able to enounce the proposition that our sweetest songs are those which sing of saddest thought. The early work of Dante might confirm Shelley; the *Paradiso* provides the counterpart, though a different counterpart from the philosophy of Browning.

The *Paradiso* is not monotonous. It is as various as any poem. And take the *Comedy* as a whole, you can compare it to nothing but the *entire* dramatic work of Shakespeare. The comparison of the *Vita Nuova* with the *Sonnets* is another, and interesting, occupation. Dante and Shakespeare divide the modern world between them; there is no third.

We should begin by thinking of Dante fixing his gaze on Beatrice:

> *Nel suo aspetto tal dentro mi fei,*
> *qual si fe' Glauco nel gustar dell' erba,*
> *che il fe' consorto in mar degli altri dei.*
> *Trasumanar significar* per verba
> *non si poria; pero l'esemplo basti*
> *a cui esperienza grazia serba.*

> Gazing on her, so I became within, as did Glaucus, on tasting of the grass which made him sea-fellow of the other gods. To transcend humanity may not be told in words, wherefore let the instance suffice for him for whom that experience is reserved by Grace.

And as Beatrice says to Dante: *"You make yourself dull with false fancy";* warns him, that here there are divers sorts of blessedness, as settled by Providence.

If this is not enough, Dante is informed by Piccarda (Canto III) in words which even those who know no Dante know:

> *la sua voluntade è nostra pace.*
>
> His will is our peace.

It is the mystery of the inequality, and of the indifference of that inequality, in blessedness, of the blessed. It is all the same, and yet each degree differs.

Shakespeare gives the greatest *width* of human passion; Dante the greatest altitude and greatest depth. They complement each other. It is futile to ask which undertook the more difficult job. But certainly the

"difficult passages" in the *Paradiso* are Dante's difficulties rather than ours: his difficulty in making us apprehend sensuously the various states and stages of blessedness. Thus the long oration of Beatrice about the Will (Canto IV) is really directed at making us *feel* the reality of the condition of Piccarda; Dante has to educate our senses as he goes along. The insistence throughout is upon states of feeling; the reasoning takes only its proper place as a means of reaching these states. We get constantly verses like

> *Beatrice mi guardò con gli occhi pieni*
> *di faville d' amor cosi divini,*
> *che, vinta, mia virtù diedi le reni,*
> *e quasi mi perdei con gli occhi chini.*

> Beatrice looked on me with eyes so divine filled with sparks of love, that my vanquished power turned away, and I became as lost, with downcast eyes.

The whole difficulty is in admitting that this is something that we are meant to feel, not merely decorative verbiage. Dante gives us every aid of images, as when

> *Come in peschiera, ch' è tranquilla e pura,*
> *traggonsi i pesci a a ciò che vien di fuori*
> *per modo che lo stiman lor pastura;*
> *sì vid' io ben più di mille splendori*
> *trarsi ver noi, ed in ciascun s'udia*:
> Ecco che crescerà li nostri amori.

> As in a fishpond still and clear, the fishes draw near to anything that falls from without in such a way as to make them think it something to eat, so I saw more than a thousand splendours draw towards us, and in each was heard: Lo! here is one that shall increase our loves.

About the persons whom Dante meets in the several spheres, we need only to enquire enough to consider why Dante placed them where he did.

When we have grasped the strict *utility* of the minor images, such as the one given above, or even the simple comparison admired by Landor:

> *Quale alledetta che in aere si spazia*
> *primo cantando, e poi tace contenta*
> *dell' ultima dolcezza che la sazia,*

> Like the lark which soars in the air, first singing, and then ceases, content with the last sweetness that sates her,

we may study with respect the more elaborate imagery, such as that of the figure of the Eagle composed by the spirits of the just, which extends from Canto XVII onwards for some space. Such figures are not merely antiquated rhetorical devices, but serious and practical means of making the spiritual visible. An understanding of the rightness of such imagery is a preparation for apprehending the last and greatest canto, the most tenuous and most intense. Nowhere in poetry has experience so remote from ordinary experience been expressed so concretely, by a masterly use of that imagery of *light* which is the form of certain types of mystical experience.

Nel suo profondo vidi che s'interna,
legato con amore in un volume,
ciò che per l'universo si squaderna;
sustanzia ed accidenti, e lor costume,
quasi conflati insieme per tal modo,
che ciò ch' io dico è un semplice lume.
La forma universal di questo nodo
credo ch' io vidi, perchè più di largo,
dicendo questo, mi sento ch' io godo.
Un punto solo m' è maggior letargo,
che venticinque secoli alla impresa,
che fe' Nettuno ammirar l'ombra d'Argo.

Within its depths I saw ingathered, bound by love in one mass, the scattered leaves of the universe: substance and accidents and their relations, as though together fused, so that what I speak of is one simple flame. The universal form of this complex I think I saw, because, as I say this, more largely I feel myself rejoice. One single moment to me is more lethargy than twenty-five centuries upon the enterprise which made Neptune wonder at the shadow of the Argo (passing over him).

One can feel only awe at the power of the master who could thus at every moment realize the inapprehensible in visual images. And I do not know anywhere in poetry more authentic sign of greatness than the power of association which could in the last line, when the poet is speaking of the divine vision, yet introduce the Argo passing over the head of wondering Neptune. Such association is utterly different from that of Marino speaking in one breath of the beauty of the Magdalen and the opulence of Cleopatra (so that you are not quite sure what adjectives apply to which). It is the real right thing, the power of establishing relations between beauty of the most diverse sorts; it is the utmost power of the poet.

O quanto è corto il dire, e come fioco
al mio concetto!

How scant the speech, and how faint, for my conception!

In writing of the *Divine Comedy* I have tried to keep to a few very simple points of which I am convinced. First that the poetry of Dante is the one universal school of style for the writing of poetry in any language. There is much, naturally, which can profit only those who write Dante's own Tuscan language; but there is no poet in any tongue–not even in Latin or Greek–who stands so firmly as a model for all poets. I tried to illustrate his universal mastery in the use of images. In the actual writing I went so far as to say that he is safer to follow, even for us, than any English poet, including Shakespeare. My second point is that Dante's "allegorical" method has great advantages for the writing of *poetry*: it simplifies the diction, and makes clear and precise the images. That in good allegory, like Dante's, it is not necessary to understand the meaning first to enjoy the poetry, but that our enjoyment of the poetry makes us want to understand the meaning. And the third point is that the *Divine Comedy* is a complete scale of the *depths* and *heights* of human emotion; that the *Purgatorio* and *Paradiso* are to be read as extensions of the ordinarily very limited human range. Every degree of the feeling of humanity, from lowest to highest, has, moreover, an intimate relation to the next above and below, and all fit together according to the logic of sensibility.

I have only now to make certain observations on the *Vita Nuova*, which may also amplify what I have suggested about the mediaeval mind expressed in allegory.

NOTE TO SECTION II

The theory of poetic belief and understanding here employed for a particular study is similar to that maintained by Mr. I. A. Richards (see his *Practical Criticism,* pp. 179 ff. and pp. 271 ff.). I say "similar," because my own *general* theory is still embryonic, and Mr. Richards' also is capable of much further development. I cannot therefore tell how far the similarity extends; but for those who are interested in the subject, I should point out one respect in which my view differs from that of Mr. Richards; and then proceed to qualifv my own tentative conclusions.

I am in agreement with Mr. Richards' statement on p. 271 (*op. cit.*). I agree for the reason that if you hold any contradictory theory you deny, I believe, the existence of "literature" as well as of "literary criticism." We mav raise the

question whether "literature" exists; but for certain purposes, such as the purpose of this essay on Dante, we must assume that there is literature and literary appreciation; we must assume that the reader can obtain the full "literary" or (if you will) "aesthetic" enjoyment without sharing the beliefs of the author. *If* there is "literature," *if* there is "poetry," then it must be possible to have full literary or poetic appreciation without sharing the beliefs of the poet. That is as far as my thesis goes in the present essay. It may be argued whether there is literature, whether there is poetry, and whether there is any meaning in the term "full appreciation." But I have assumed for this essay that these things exist and that these terms are understood.

I deny, in short, that the reader must share the beliefs of the poet in order to enjoy the poetry fully. I have also asserted that we can distinguish between Dante's beliefs as a man and his beliefs as a poet. But we are forced to believe that there is a particular relation between the two, and that the poet "means what he says." If we learned, for instance, that *De Rerum Natura* was a Latin exercise which Dante had composed for relaxation after completing the *Divine Comedy*, and published under the name of one Lucretius, I am sure that our capacity for enjoying either poem would be mutilated. Mr. Richards' statement (*Science and Poetry*, p. 76 footnote) that a certain writer has effected "a complete severance between his poetry and *all* beliefs" is to me incomprehensible.

If you deny the theory that full poetic appreciation is possible without belief in what the poet believed, you deny the existence of "poetry" as well as "criticism"; and if you push this denial to its conclusion, you will be forced to admit that there is very little poetry that you can appreciate, and that your appreciation of it will be a function of your philosophy or theology or something else. If, on the other hand, I push *my* theory to the extreme, I find myself in as great a difficulty. I am quite aware of the ambiguity of the word "understand." In one sense, it means to understand without believing, for unless you can understand a view of life (let us say) without believing in it, the word "understand" loses all meaning, and the act of choice between one view and another is reduced to caprice. But if you yourself are convinced of a certain view of life, then you irresistibly and inevitably believe that if any one else comes to "understand" it fully, his understanding *must* terminate in belief. It is possible, and sometimes necessary, to argue that full understanding must identify itself with full belief. A good deal, it thus turns out, hangs on the meaning, if any, of this short word *full*.

In short, both the view I have taken in this essay, and the view which contradicts it, are, if pushed to the end, what I call heresies (not, of course, in the theological, but in a more general sense). Each is true only within a limited field of discourse, but unless you limit fields of discourse, you can have no discourse at all. Orthodoxy can only be found in such contradictions, though it must be remembered that a pair of contradictions may *both* be false, and that not all pairs of contradictions make up a truth.

And I confess to considerable difficulty in analysing my own feelings, a difficulty which makes me hesitate to accept Mr. Richards' theory of "pseudo-statements." On reading the line which he uses,

Beauty is truth, truth beauty . . .

I am at first inclined to agree with him, because this statement of equivalence means nothing to me. But on re-reading the whole Ode, this line strikes me as a serious blemish on a beautiful poem; and the reason must be either that I fail to understand it, or that it is a statement which is untrue. And I suppose that Keats meant something by it, however remote his truth and his beauty may have been from these words in ordinary use. And I am sure that he would have repudiated any explanation of the line which called it a pseudo-statement. On the other hand the line I have often quoted of Shakespeare,

Ripeness is all,

or the line I have quoted of Dante,

la sua voluntade è nostra pace,

strikes very differently on my ear. I observe that the propositions in these words are very different in kind, not only from that of Keats, but from each other. The statement of Keats seems to me meaningless: or perhaps, the fact that it is grammatically meaningless conceals another meaning from me. The statement of Shakespeare seems to me to have profound emotional meaning, with, at least, no literal fallacy. And the statement of Dante seems to me *literally true*. And I confess that it has more beauty for me now, when my own experience has deepened its meaning, than it did when I first read it. So I can only conclude that I cannot, in practice, wholly separate my poetic appreciation from my personal beliefs. Also that the distinction between a statement and a pseudo-statement is not always, in particular instances, possible to establish. The theory of Mr. Richards is, I believe, incomplete until he defines the species of religious, philosophical, scientific, and other beliefs, as well as that of "everyday" belief.

I have tried to make clear some of the difficulties inhering in my own theory. Actually, one probably has more pleasure in the poetry when one shares the beliefs of the poet. On the other hand there is a distinct pleasure in enjoying poetry as poetry when one does *not* share the beliefs, analogous to the pleasure of "mastering" other men's philosophical systems. It would appear that "literary appreciation" is an abstraction, and pure poetry a phantom; and that both in creation and enjoyment much always enters which is, from the point of view of "Art," irrelevant.

III. THE "VITA NUOVA"

All of Dante's "minor works" are important, because they are works of Dante; but the *Vita Nuova* has a special importance, because it does

more than any of the others help us to a fuller understanding of the *Divine Comedy*. I do not suggest that the others may be neglected; the *Convivio* is important, and also the *De Volgari Eloquio*: and every part of Dante's writings can give us some light on other parts. But the *Vita Nuova* is a youthful work, in which some of the method and design, and explicitly the intention, of the *Divine Comedy* are shown. Because it is an immature work, it requires some knowledge of the masterpiece to understand; and at the same time helps particularly towards understanding of the *Comedy*.

A great deal of scholarship has been directed upon examination of the early life of Dante, in connexion with the *Vita Nuova*. Critics may be roughly divided into those who regard it as primarily biographical, and those who regard it as primarily allegorical. It is much easier for the second group to make a good case than for the first. If this curious medley of verse and prose is biographical, then the biography has unquestionably been manipulated almost out of recognition to fit into conventional forms of allegory. The imagery of much of it is certainly in a very ancient tradition of vision literature: just as the scheme of the *Divine Comedy* has been shown to be closely similar to similar supernatural peregrination stories in Arabic and in old Persian literature–to say nothing of the descents of Ulysses and Aeneas–so there are parallels to the visions of the *Vita Nuova* such as the *Shepherd of Hermas* in Greek. And as the book is obviously not a literal statement, whether of vision or delusion, it is easy to make out a case for its being an entire allegory: for asserting, that is, that Beatrice is merely a personification of an abstract virtue, intellectual or moral.

I wish to make clear that my own opinions are opinions founded only upon reading the text. I do not think that they are such as can either be verified or refuted by scholars; I mean to restrict my comments to the unprovable and the irrefutable.

It appears likely, to any one who reads the *Vita Nuova* without prejudice, that it is a mixture of biography and allegory; but a mixture according to a recipe not available to the modern mind. When I say the "modern mind," I mean the minds of those who have read or could have read such a document as Rousseau's *Confessions*. The modern mind can understand the "confession," that is, the literal account of oneself, varying only in degree of sincerity and self-understanding, and it can understand "allegory" in the abstract. Nowadays "confessions," of an insignificant sort, pour from the press; every one *met son cœur à nu* [bares his heart], or pretends to; "personalities" succeed one another in interest. It is difficult to conceive of an age (of many ages) when human beings

cared somewhat about the salvation of the "soul," but not about each other as "personalities." Now Dante, I believe, had experiences which seemed to him of some importance; not of importance because they had happened to him and because he, Dante Alighieri, was an important person who kept press-cutting bureaux busy; but important in themselves; and therefore they seemed to him to have some philosophical and impersonal value. I find in it an account of a particular kind of experience: that is, of something which had actual experience (the experience of the "confession" in the modern sense) *and* intellectual and imaginative experience (the experience of thought and the experience of dream) as its materials; and which became a third kind. It seems to me of importance to grasp the simple fact that the *Vita Nuova* is neither a "confession" nor an "indiscretion" in the modern sense, nor is it a piece of Pre-Raphaelite tapestry. If you have that sense of intellectual and spiritual realities that Dante had, then a form of expression like the *Vita Nuova* cannot be classed either as "truth" or "fiction."

In the first place, the type of sexual experience which Dante describes as occurring to him at the age of nine years is by no means impossible or unique. My only doubt (in which I found myself confirmed by a distinguished psychologist) is whether it could have taken place so *late* in life as the age of nine years. The psychologist agreed with me that it is more likely to occur at about five or six years of age. It is possible that Dante developed rather late, and it is also possible that he altered the dates to employ some other significance of the number nine. But to me it appears obvious that the *Vita Nuova* could only have been written around a personal experience. If so, the details do not matter: whether the lady was the Portinari or not, I do not care; it is quite as likely that she is a blind for some one else, even for a person whose name Dante may have forgotten or never known. But I cannot find it incredible that what has happened to others should have happened to Dante with much greater intensity.

The same experience, described in Freudian terms, would be instantly accepted as fact by the modern public. It is merely that Dante, quite reasonably, drew other conclusions and used another mode of expression, which arouses incredulity. And we are inclined to think–as Remy de Gourmont, for once misled by his prejudices into the pedantic attitude, thought–that if an author like Dante follows closely a form of vision that has a long history, it proves that the story is mere allegory (in the modern sense) or fake. I find a much greater difference in sensibility between the *Vita Nuova* and the *Shepherd of Hermas* than Gourmont did. It is not

at all the simple difference between the genuine and the fraud; it is a difference in mind between the humble author of early Christian times and the poet of the thirteenth century, perhaps as great as that between the latter and ourselves. The similarities might prove that a certain *habit* in dream-imagery can persist throughout many changes of civilization. Gourmont would say that Dante borrowed; but that is imputing our own mind to the thirteenth century. I merely suggest that possibly Dante, in his place and time, was following something more essential than merely a "literary" tradition.

The attitude of Dante to the fundamental experience of the *Vita Nuova* can only be understood by accustoming ourselves to find meaning in *final causes* rather than in origins. It is not, I believe, meant as a description of what he *consciously* felt on his meeting with Beatrice, but rather as a description of what that meant on mature reflection upon it. The final cause is the attraction towards God. A great deal of sentiment has been spilt, especially in the eighteenth and nineteenth centuries, upon idealizing the reciprocal feelings of man and woman towards each other, which various realists have been irritated to denounce: this sentiment ignoring the fact that the love of man and woman (or for that matter of man and man) is only explained and made reasonable by the higher love, or else is simply the coupling of animals.

Let us entertain the theory that Dante, meditating on the astonishment of an experience at such an age, which no subsequent experience abolished or exceeded, found meanings in it which we should not be likely to find ourselves. His account is then just as reasonable as our own; and he is simply prolonging the experience in a different direction from that which we, with different mental habits and prejudices, are likely to take.

We cannot, as a matter of fact, understand the *Vita Nuova* without some saturation in the poetry of Dante's Italian contemporaries, or even in the poetry of his Provençal predecessors. Literary parallels are most important, but we must be on guard not to take them in a purely literary and literal way. Dante wrote more or less, at first, like other poets, not simply because he had read their works, but because his modes of feeling and thought were much like theirs. As for the Provencal poets, I have not the knowledge to read them at first hand. That mysterious people had a religion of their own which was thoroughly and painfully extinguished by the Inquisition; so that we hardly know more about them than about the Sumerians. I suspect that the difference between this unknown, and possibly maligned, Albigensianism and Catholicism has some correspondence with the difference between the poetry of the Provençal

school and the Tuscan. The system of Dante's organization of sensibility—the contrast between higher and lower carnal love, the transition from Beatrice living to Beatrice dead, rising to the Cult of the Virgin, seems to me to be his own.

At any rate, the *Vita Nuova*, besides being a sequence of beautiful poems connected by a curious vision-literature prose, is, I believe, a very sound psychological treatise on something related to what is now called "sublimation." There is also a practical sense of realities behind it, which is antiromantic: not to expect more from *life* than it can give or more from *human* beings than they can give; to look to *death* for what life cannot give. The *Vita Nuova* belongs to "vision literature"; but its philosophy is the Catholic philosophy of disillusion.

Understanding of the book is greatly advanced by acquaintance with Guido Guinicelli, Cavalcanti, Cino, and others. One ought, indeed, to study the development of the art of love from the Provençal poets onwards, paying just attention to both resemblances and differences in spirit; as well as the development of verse form and stanza form and vocabulary. But such study is vain unless we have first made the conscious attempt, as difficult and hard as rebirth, to pass through the looking-glass into a world which is just as reasonable as our own. When we have done that, we begin to wonder whether the world of Dante is not both larger and more solid than our own. When we repeat

Tutti li miei penser parlan d'Amore

[All my thoughts speak of love]

we must stop to think what *amore* means—something different from its Latin original, its French equivalent, or its definition in a modern Italian dictionary.

It is, I repeat, for several reasons necessary to read the *Divine Comedy* first. The first reading of the *Vita Nuova* gives nothing but Pre-Raphaelite quaintness. The *Comedy* initiates us into the world of mediaeval imagery, in the *Inferno* most apprehensible, in the *Paradiso* most rarefied. It initiates us also into the world of mediaeval thought and dogma: far easier for those who have had the college discipline of Plato and Aristotle, but possible even without that. The *Vita Nuova* plunges us direct into mediaeval sensibility. It is not, for Dante, a masterpiece, so that it is safer for us to read it, the first time, for the light it can throw on the *Comedy* than for itself.

Read in this way, it can be more useful than a dozen commentaries.

The effect of many books about Dante is to give the impression that it is more necessary to read about him than to read what he has written. But the next step after reading Dante again and again should be to read some of the books that he read, rather than modern books about his work and life and times, however good. We may easily be distracted by following up the histories of Emperors and Popes. With a poet like Shakespeare, we are less likely to ignore the text for the commentary. With Dante there is just as much need for concentrating on the text, and all the more because Dante's mind is more remote from the ways of thinking and feeling in which we have been brought up. What we need is not information but knowledge: the first step to knowledge is to recognize the differences between his form of thought and feeling and ours. Even to attach great importance to Thomism, or to Catholicism, may lead us astray, in attracting us too much to such differences as are entirely capable of intellectual formulation. The English reader needs to remember that even had Dante not been a good Catholic, even had he treated Aristotle or Thomas with sceptical indifference, his mind would still be no easier to understand; the forms of imagination, phantasmagoria, and sensibility would be just as strange to us. We have to learn to accept these forms: and this *acceptance* is more important than anything that can be called belief. There is almost a definite moment of acceptance at which the New Life begins.

What I have written is, as I promised, not an "introduction" to the study but a brief account of my own introduction to it. In extenuation, it may be observed that to write in this way of men like Dante or Shakespeare is really less presumptuous than to write of smaller men. The very vastness of the subject leaves a possibility that one may have something to say worth saying; whereas with smaller men, only minute and special study is likely to justify writing about them at all.

Tradition and the Individual Talent

In English writing we seldom speak of tradition, though we occasionally apply its name in deploring its absence. We cannot refer to "the tradition" or to "a tradition"; at most, we employ the adjective in saying that the poetry of So-and-so is "traditional" or even "too traditional." Seldom, perhaps, does the word appear except in a phrase of censure. If otherwise, it is vaguely approbative, with the implication, as to the work approved, of some pleasing archaeological reconstruction. You can hardly make the word agreeable to English ears without this comfortable reference to the reassuring science of archaeology.

Certainly the word is not likely to appear in our appreciations of living or dead writers. Every nation, every race, has not only its own creative, but its own critical turn of mind; and is even more oblivious of the shortcomings and limitations of its critical habits than of those of its creative genius. We know, or think we know, from the enormous mass of critical writing that has appeared in the French language the critical method or habit of the French; we only conclude (we are such unconscious people) that the French are "more critical" than we, and sometimes even plume ourselves a little with the fact, as if the French were the less spontaneous. Perhaps they are; but we might remind ourselves that criticism is as inevitable as breathing, and that we should be none the worse for articulating what passes in our minds when we read a book and feel an emotion about it, for criticizing our own minds in their work of criticism. One of the facts that might come to light in this process is our tendency to insist, when we praise a poet, upon those aspects of his work in which he least resembles any one else. In these aspects or parts of his work we pretend to find what is individual, what is the peculiar essence of the man. We dwell with satisfaction upon the poet's difference from his predecessors, especially his immediate predecessors; we endeavour to

find something that can be isolated in order to be enjoyed. Whereas if we approach a poet without this prejudice we shall often find that not only the best, but the most individual parts of his work may be those in which the dead poets, his ancestors, assert their immortality most vigorously. And I do not mean the impressionable period of adolescence, but the period of full maturity.

Yet if the only form of tradition, of handing down, consisted in following the ways of the immediate generation before us in a blind or timid adherence to its successes, "tradition" should positively be discouraged. We have seen many such simple currents soon lost in the sand; and novelty is better than repetition. Tradition is a matter of much wider significance. It cannot be inherited, and if you want it you must obtain it by great labour. It involves, in the first place, the historical sense, which we may call nearly indispensable to any one who would continue to be a poet beyond his twenty-fifth year; and the historical sense involves a perception, not only of the pastness of the past, but of its presence; the historical sense compels a man to write not merely with his own generation in his bones, but with a feeling that the whole of the literature of Europe from Homer and within it the whole of the literature of his own country has a simultaneous existence and composes a simultaneous order. This historical sense, which is a sense of the timeless as well as of the temporal and of the timeless and of the temporal together, is what makes a writer traditional. And it is at the same time what makes a writer most acutely conscious of his place in time, of his own contemporaneity.

No poet, no artist of any art, has his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. You cannot value him alone; you must set him, for contrast and comparison, among the dead. I mean this as a principle of aesthetic, not merely historical, criticism. The necessity that he shall conform, that he shall cohere, is not one-sided; what happens when a new work of art is created is something that happens simultaneously to all the works of art which preceded it. The existing monuments form an ideal order among themselves, which is modified by the introduction of the new (the really new) work of art among them. The existing order is complete before the new work arrives; for order to persist after the supervention of novelty, the *whole* existing order must be, if ever so slightly, altered; and so the relations, proportions, values of each work of art towards the whole are readjusted; and this is conformity between the old and the new. Whoever has approved this idea of order, of the

form of European, of English literature will not find it preposterous that the past should be altered by the present as much as the present is directed by the past. And the poet who is aware of this will be aware of great difficulties and responsibilities.

In a peculiar sense he will be aware also that he must inevitably be judged by the standards of the past. I say judged, not amputated, by them; not judged to be as good as, or worse or better than, the dead; and certainly not judged by the canons of dead critics. It is a judgment, a comparison, in which two things are measured by each other. To conform merely would be for the new work not really to conform at all; it would not be new, and would therefore not be a work of art. And we do not quite say that the new is more valuable because it fits in; but its fitting in is a test of its value—a test, it is true, which can only be slowly and cautiously applied, for we are none of us infallible judges of conformity. We say: it appears to conform, and is perhaps individual, or it appears individual, and many conform; but we are hardly likely to find that it is one and not the other.

To proceed to a more intelligible exposition of the relation of the poet to the past: he can neither take the past as a lump, an indiscriminate bolus, nor can he form himself wholly on one or two private admirations, nor can he form himself wholly upon one preferred period. The first course is inadmissible, the second is an important experience of youth, and the third is a pleasant and highly desirable supplement. The poet must be very conscious of the main current, which does not at all flow invariably through the most distinguished reputations. He must be quite aware of the obvious fact that art never improves, but that the material of art is never quite the same. He must be aware that the mind of Europe—the mind of his own country—a mind which he learns in time to be much more important than his own private mind—is a mind which changes, and that this change is a development which abandons nothing *en route*, which does not superannuate either Shakespeare, or Homer, or the rock drawing of the Magdalenian draughtsmen. That this development, refinement perhaps, complication certainly, is not, from the point of view of the artist, any improvement. Perhaps not even an improvement from the point of view of the psychologist or not to the extent which we imagine; perhaps only in the end based upon a complication in economics and machinery. But the difference between the present and the past is that the conscious present is an awareness of the past in a way and to an extent which the past's awareness of itself cannot show.

Some one said: "The dead writers are remote from us because we

know so much more than they did." Precisely, and they are that which we know.

I am alive to a usual objection to what is clearly part of my program for the *métier* of poetry. The objection is that the doctrine requires a ridiculous amount of erudition (pedantry), a claim which can be rejected by appeal to the lives of poets in any pantheon. It will even be affirmed that much learning deadens or perverts poetic sensibility. While, however, we persist in believing that a poet ought to know as much as will not encroach upon his necessary receptivity and necessary laziness, it is not desirable to confine knowledge to whatever can be put into a useful shape for examinations, drawing-rooms, or the still more pretentious modes of publicity. Some can absorb knowledge, the more tardy must sweat for it. Shakespeare acquired more essential history from Plutarch than most men could from the whole British Museum. What is to be insisted upon is that the poet must develop or procure the consciousness of the past and that he should continue to develop this consciousness throughout his career.

What happens is a continual surrender of himself as he is at the moment to something which is more valuable. The progress of an artist is a continual self-sacrifice, a continual extinction of personality.

There remains to define this process of depersonalization and its relation to the sense of tradition. It is in this depersonalization that art may be said to approach the condition of science. I, therefore, invite you to consider, as a suggestive analogy, the action which takes place when a bit of finely filiated platinum is introduced into a chamber containing oxygen and sulphur dioxide.

Honest criticism and sensitive appreciation are directed not upon the poet but upon the poetry. If we attend to the confused cries of the newspaper critics and the susurrus of popular repetition that follows, we shall hear the names of poets in great numbers; if we seek not Blue-book knowledge but the enjoyment of poetry, and ask for a poem, we shall seldom find it. I have tried to point out the importance of the relation of the poem to other poems by other authors, and suggested the conception of poetry as a living whole of all the poetry that has ever been written. The other aspect of this Impersonal theory of poetry is the relation of the poem to its author. And I hinted, by an analogy, that the mind of the mature poet differs from that of the immature one not precisely in any valuation of "personality," not being necessarily more interesting, or having "more to say," but rather by being a more finely perfected me-

dium in which special, or very varied, feelings are at liberty to enter into new combinations.

The analogy was that of the catalyst. When the two gases previously mentioned are mixed in the presence of a filament of platinum, they form sulphurous acid. This combination takes place only if the platinum is present; nevertheless the newly formed acid contains no trace of platinum, and the platinum itself is apparently unaffected; has remained inert, neutral, and unchanged. The mind of the poet is the shred of platinum. It may partly or exclusively operate upon the experience of the man himself; but, the more perfect the artist, the more completely separate in him will be the man who suffers and the mind which creates; the more perfectly will the mind digest and transmute the passions which are its material.

The experience, you will notice, the elements which enter the presence of the transforming catalyst, are of two kinds: emotions and feelings. The effect of a work of art upon the person who enjoys it is an experience different in kind from any experience not of art. It may be formed out of one emotion, or may be a combination of several; and various feelings, inhering for the writer in particular words or phrases or images, may be added to compose the final result. Or great poetry may be made without the direct use of any emotion whatever: composed out of feelings solely. Canto XV of the *Inferno* (Brunetto Latini) is a working up of the emotion evident in the situation; but the effect, though single as that of any work of art, is obtained by considerable complexity of detail. The last quatrain gives an image, a feeling attaching to an image, which "came," which did not develop simply out of what precedes, but which was probably in suspension in the poet's mind until the proper combination arrived for it to add itself to. The poet's mind is in fact a receptacle for seizing and storing up numberless feelings, phrases, images, which remain there until all the particles which can unite to form a new compound are present together.

If you compare several representative passages of the greatest poetry you see how great is the variety of types of combination, and also how completely any semi-ethical criterion of "sublimity" misses the mark. For it is not the "greatness," the intensity, of the emotions, the components, but the intensity of the artistic process, the pressure, so to speak, under which the fusion takes place, that counts. The episode of Paolo and Francesca employs a definite emotion, but the intensity of the poetry is something quite different from whatever intensity in the supposed experience it may give the impression of. It is no more intense,

furthermore, than Canto XXVI, the voyage of Ulysses, which has not the direct dependence upon an emotion. Great variety is possible in the process of transmutation of emotion: the murder of Agamemnon, or the agony of Othello, gives an artistic effect apparently closer to a possible original than the scenes from Dante. In the *Agamemnon*, the artistic emotion approximates to the emotion of an actual spectator; in *Othello* to the emotion of the protagonist himself. But the difference between art and the event is always absolute; the combination which is the murder of Agamemnon is probably as complex as that which is the voyage of Ulysses. In either case there has been a fusion of elements. The ode of Keats contains a number of feelings which have nothing particular to do with the nightingale, but which the nightingale, partly, perhaps, because of its attractive name, and partly because of its reputation, served to bring together.

The point of view which I am struggling to attack is perhaps related to the metaphysical theory of the substantial unity of the soul: for my meaning is, that the poet has, not a "personality" to express, but a particular medium, which is only a medium and not a personality, in which impressions and experiences combine in peculiar and unexpected ways. Impressions and experiences which are important for the man may take no place in the poetry, and those which become important in the poetry may play quite a negligible part in the man, the personality.

I will quote a passage which is unfamiliar enough to be regarded with fresh attention in the light–or darkness–of these observations:

> And now methinks I could e'en chide myself
> For doating on her beauty, though her death
> Shall be revenged after no common action.
> Does the silkworm expend her yellow labours
> For thee? For thee does she undo herself?
> Are lordships sold to maintain ladyships
> For the poor benefit of a bewildering minute?
> Why does yon fellow falsify highways,
> And put his life between the judge's lips,
> To refine such a thing–keeps horse and men
> To beat their valours for her? . . .

In this passage (as is evident if it is taken in its context) there is a combination of positive and negative emotions: an intensely strong attraction towards beauty and an equally intense fascination by the ugliness which is contrasted with it and which destroys it. This balance of contrasted emotion is in the dramatic situation to which the speech is

pertinent, but that situation alone is inadequate to it. This is, so to speak, the structural emotion, provided by the drama. But the whole effect, the dominant tone, is due to the fact that a number of floating feelings, having an affinity to this emotion by no means superficially evident, have combined with it to give us a new art emotion.

It is not in his personal emotions, the emotions provoked by particular events in his life, that the poet is in any way remarkable or interesting. His particular emotions may be simple, or crude, or flat. The emotion in his poetry will be a very complex thing, but not with the complexity of the emotions of people who have very complex or unusual emotions in life. One error, in fact, of eccentricity in poetry is to seek for new human emotions to express; and in this search for novelty in the wrong place it discovers the perverse. The business of the poet is not to find new emotions, but to use the ordinary ones and, in working them up into poetry, to express feelings which are not in actual emotions at all. And emotions which he has never experienced will serve his turn as well as those familiar to him. Consequently, we must believe that "emotion recollected in tranquillity" is an inexact formula. For it is neither emotion, nor recollection, nor, without distortion of meaning, tranquillity. It is a concentration, and a new thing resulting from the concentration, of a very great number of experiences which to the practical and active person would not seem to be experiences at all; it is a concentration which does not happen consciously or of deliberation. These experiences are not "recollected," and they finally unite in an atmosphere which is "tranquil" only in that it is a passive attending upon the event. Of course this is not quite the whole story. There is a great deal, in the writing of poetry, which must be conscious and deliberate. In fact, the bad poet is usually unconscious where he ought to be conscious, and conscious where he ought to be unconscious. Both errors tend to make him "personal." Poetry is not a turning loose of emotion, but an escape from emotion; it is not the expression of personality, but an escape from personality. But, of course, only those who have personality and emotions know what it means to want to escape from these things.

[*Ho de nous isos theioteron ti kai apathes estin.*]

[But the mind is in a way more godlike and suffers fewer changes.]

This essay proposes to halt at the frontier of metaphysics or mysticism, and confine itself to such practical conclusions as can be applied by the responsible person interested in poetry. To divert interest from the poet

to the poetry is a laudable aim: for it would conduce to a juster estimation of actual poetry, good and bad. There are many people who appreciate the expression of sincere emotion in verse, and there is a smaller number of people who can appreciate technical excellence. But very few know when there is an expression of *significant* emotion, emotion which has its life in the poem and not in the history of the poet. The emotion of art is impersonal. And the poet cannot reach this impersonality without surrendering himself wholly to the work to be done. And he is not likely to know what is to be done unless he lives in what is not merely the present, but the present moment of the past, unless he is conscious, not of what is dead, but of what is already living.

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John Stuart Mill

1806–1873

First son of the Scottish philosopher James Mill, John Stuart Mill [1] was born in London, May 20, 1806. The elder Mill, prompted by the schemes of Bentham and Helvétius, took his son's education in hand (see below). At three, young Mill was put to learning Greek. By the time he was thirteen, he had done more than enough work to earn a university degree.

After a year in France, where he branched out into chemistry, botany, advanced mathematics, and the French language, he read law and studied Condillac, Helvétius, and Dumont's treatise on Bentham. This led to writing for the newspapers and to the founding of the Utilitarian Society, dedicated to "the greatest good of the greatest number."

When young Mill was seventeen, his father got him a job with the India House, where he himself worked. From 1836, the year his father died, to 1856, J. S. Mill administered the company's relations with the native Indian states. His real career—as philosopher, political economist, logician, ethical theorist, and promoter of ideas—went on outside office hours.

He became the leader of social reform. His name appeared in every review. Wherever social neglect or abuse could be found, Mill attacked at once. His group played a strong hand in the English reform bills all through the century. His energy was prodigious. In one decade, the 1840's, among other books, Mill published his *Principles of Political Economy* and *System of Logic,* both two-volume works.

In 1851 he married Mrs. Harriet Taylor, his friend for twenty

[1] John Stuart Mill's *On Liberty, Representative Government,* and *Utilitarianism* are in *Great Books of the Western World.*

years. She died some seven years later. *On the Subjection of Women* expressed their common view. Mill retired to a villa near Avignon, France, where she was buried. Except for one term in Parliament, he spent most of his later years there. During that period he wrote the famous *On Liberty, Considerations on Representative Government,* and the *Autobiography,* published after his death. He died in Avignon, May 8, 1873.

Our Me," Carlyle wrote, "the only reality." His friend Mill would not have agreed with him. Mill's *Autobiography* is only in small part the story of a man. It stands largely as the history of a "continued mental progress," of the branching and flowering of ideas, and of what fruit they bore in the world.

The first three chapters of the *Autobiography* are reprinted here. In these chapters Mill looks back on his education. Not his childhood. He had no childhood in the ordinary sense—or at least he tells us of none. Augustine's *Confessions* is much occupied with his mother; Mill does not even mention his. He had no school, no playmates—or even play. The younger children in the family were his pupils. In the forefront of the book looms the gigantic presence of his father. Young Mill lived solely in his light, as eldest son, pupil, apprentice, and disciple. They worked at the same table, took the same walks together, and discussed the same ideas. But their relationship was moral and intellectual, not affectionate.

By the time he was eight, young Mill had learned arithmetic and read, in the Greek, Aesop's *Fables,* Herodotus, Xenophon's *Anabasis,* six dialogues of Plato, and other works. "But my father," he writes, "in all his teaching, demanded of me not only the utmost that I could do, but much that I could by no possibility have done." At

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Notes from the artist: "An angular portrait of Mill resting above three figures representing his background and his work. At left is his father, James Mill, the sole tutor and teacher of Mill's youth. At center is Jeremy Bentham, an important source of the doctrine of Utilitarianism. At right is a cartoon reflecting Mill's interest in suffrage for women, a position he probably took at the behest of his wife, whom he adored. The quotation is from On Liberty*."*

John Stuart Mill
We can never be sure that the opinion we are endeavouring to stifle is a false opinion; and if we were sure, stifling it would be an evil still.
FRANCHISE FOR FEMALES

the same time he was reading and reporting on dozens of histories: Hume, Gibbon, Plutarch, even the *Annual Register,* a year-by-year chronicle of events, founded by Edmund Burke. Then he took up Latin, Euclid, and algebra, and at twelve began a rigorous term of scholastic logic, plus Aristotle.[2]

Small wonder, then, that at the age of twenty Mill had a nervous crisis. This was not so much what we should call a breakdown as a breaking away–from the domination of his father, of the intellect itself. He discovered that he liked poetry, the poetry of Wordsworth in particular. The whole life of feeling opened to him. He became what he had never been trained to be: a whole man. His education might well have produced a neurotic, a monster, or a mere "intellectual machine set to grind certain tunes." Instead, by some miracle of recovered balance, it helped to produce one of the most brilliant men of his generation.

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[2] The writings of many of the authors mentioned above are to be found either in *Great Books of the Western World* or in this set of books.

Childhood and Youth

from *Autobiography*

It seems proper that I should prefix to the following biographical sketch, some mention of the reasons which have made me think it desirable that I should leave behind me such a memorial of so uneventful a life as mine. I do not for a moment imagine that any part of what I have to relate can be interesting to the public as a narrative, or as being connected with myself. But I have thought that in an age in which education and its improvement are the subject of more, if not of profounder, study than at any former period of English history, it may be useful that there should be some record of an education which was unusual and remarkable, and which, whatever else it may have done, has proved how much more than is commonly supposed may be taught, and well taught, in those early years which, in the common modes of what is called instruction, are little better than wasted. It has also seemed to me that in an age of transition in opinions, there may be somewhat both of interest and of benefit in noting the successive phases of any mind which was always pressing forward, equally ready to learn and to unlearn either from its own thoughts or from those of others. But a motive which weighs more with me than either of these, is a desire to make acknowledgment of the debts which my intellectual and moral development owes to other persons; some of them of recognized eminence, others less known than they deserve to be, and the one to whom most of all is due, one whom the world had no opportunity of knowing. The reader whom these things do not interest has only himself to blame if he reads farther, and I do not desire any other indulgence from him than that of bearing in mind, that for him these pages were not written.

I was born in London, on the 20th of May, 1806, and was the eldest son of James Mill, the author of *The History of British India*. My father, the son of a petty tradesman and (I believe) small farmer, at North-

water Bridge, in the county of Angus, was, when a boy, recommended by his abilities to the notice of Sir John Stuart, of Fettercairn, one of the Barons of the Exchequer in Scotland, and was, in consequence, sent to the University of Edinburgh at the expense of a fund established by Lady Jane Stuart (the wife of Sir John Stuart) and some other ladies for educating young men for the Scottish church. He there went through the usual course of study, and was licensed as a preacher, but never followed the profession; having satisfied himself that he could not believe the doctrines of that or any other church. For a few years he was a private tutor in various families in Scotland, among others that of the Marquis of Tweeddale; but ended by taking up his residence in London, and devoting himself to authorship. Nor had he any other means of support until 1819, when he obtained an appointment in the India House.

In this period of my father's life there are two things which it is impossible not to be struck with: one of them unfortunately a very common circumstance, the other a most uncommon one. The first is, that in his position, with no resource but the precarious one of writing in periodicals, he married and had a large family; conduct than which nothing could be more opposed, both as a matter of good sense and of duty, to the opinions which, at least at a later period of life, he strenuously upheld. The other circumstance is the extraordinary energy which was required to lead the life he led, with the disadvantages under which he laboured from the first, and with those which he brought upon himself by his marriage. It would have been no small thing, had he done no more than to support himself and his family during so many years by writing, without ever being in debt, or in any pecuniary difficulty; holding, as he did, opinions, both in politics and in religion, which were more odious to all persons of influence, and to the common run of prosperous Englishmen in that generation than either before or since; and being not only a man whom nothing would have induced to write against his convictions, but one who invariably threw into everything he wrote, as much of his convictions as he thought the circumstances would in any way permit: being, it must also be said, one who never did anything negligently; never undertook any task, literary or other, on which he did not conscientiously bestow all the labour necessary for performing it adequately. But he, with these burdens on him, planned, commenced, and completed the *History of India;* and this in the course of about ten years, a shorter time than has been occupied (even by writers who had no other employment) in the production of almost any other historical work of equal bulk, and of anything approaching to the same amount of reading and research.

And to this is to be added that, during the whole period, a considerable part of almost every day was employed in the instruction of his children: in the case of one of whom, myself, he exerted an amount of labour, care, and perseverance rarely, if ever, employed for a similar purpose, in endeavouring to give, according to his own conception, the highest order of intellectual education.

A man who, in his own practice, so vigorously acted up to the principle of losing no time, was likely to adhere to the same rule in the instruction of his pupil. I have no remembrance of the time when I began to learn Greek. I have been told that it was when I was three years old. My earliest recollection on the subject is that of committing to memory what my father termed vocables, being lists of common Greek words, with their signification in English, which he wrote out for me on cards. Of grammar, until some years later, I learnt no more than the inflections of the nouns and verbs, but, after a course of vocables, proceeded at once to translation; and I faintly remember going through Aesop's *Fables,* the first Greek book which I read. The *Anabasis,* which I remember better, was the second. I learnt no Latin until my eighth year. At that time I had read, under my father's tuition, a number of Greek prose authors, among whom I remember the whole of Herodotus, and of Xenophon's *Cyropaedia* and *Memorials of Socrates;* some of the lives of the philosophers by Diogenes Laertius; part of Lucian, and Isocrates' *ad Demonicum* and *ad Nicoclem.* I also read, in 1813, the first six dialogues (in the common arrangement) of Plato, from the *Euthyphro* to the *Theaetetus* inclusive: which last dialogue, I venture to think, would have been better omitted, as it was totally impossible I should understand it. But my father, in all his teaching, demanded of me not only the utmost that I could do, but much that I could by no possibility have done. What he was himself willing to undergo for the sake of my instruction may be judged from the fact that I went through the whole process of preparing my Greek lessons in the same room and at the same table at which he was writing: and as in those days Greek and English lexicons were not, and I could make no more use of a Greek and Latin lexicon than could be made without having yet begun to learn Latin, I was forced to have recourse to him for the meaning of every word which I did not know. This incessant interruption, he, one of the most impatient of men, submitted to, and wrote under that interruption several volumes of his History and all else that he had to write during those years.

The only thing besides Greek that I learnt as a lesson in this part of my childhood was arithmetic: this also my father taught me: it was the task

of the evenings, and I well remember its disagreeableness. But the lessons were only a part of the daily instruction I received. Much of it consisted in the books I read by myself, and my father's discourses to me, chiefly during our walks. From 1810 to the end of 1813 we were living in Newington Green, then an almost rustic neighbourhood. My father's health required considerable and constant exercise, and he walked habitually before breakfast, generally in the green lanes towards Hornsey. In these walks I always accompanied him, and with my earliest recollections of green fields and wild flowers is mingled that of the account I gave him daily of what I had read the day before. To the best of my remembrance, this was a voluntary rather than a prescribed exercise. I made notes on slips of paper while reading, and from these, in the morning walks, I told the story to him; for the books were chiefly histories, of which I read in this manner a great number: Robertson's histories, Hume, Gibbon; but my greatest delight, then and for long afterwards, was Watson's Philip the Second and Third. The heroic defence of the Knights of Malta against the Turks, and of the revolted provinces of the Netherlands against Spain, excited in me an intense and lasting interest. Next to Watson, my favourite historical reading was Hooke's History of Rome. Of Greece I had seen at that time no regular history, except school abridgments and the last two or three volumes of a translation of Rollin's *Ancient History,* beginning with Philip of Macedon. But I read with great delight Langhorne's translation of Plutarch. In English history, beyond the time at which Hume leaves off, I remember reading Burnet's *History of His Own Time,* though I cared little for anything in it except the wars and battles; and the historical part of the *Annual Register,* from the beginning to about 1788, when the volumes my father borrowed for me from Mr. Bentham left off. I felt a lively interest in Frederic of Prussia during his difficulties, and in Paoli, the Corsican patriot; but when I came to the American war, I took my part, like a child as I was (until set right by my father) on the wrong side, because it was called the English side. In these frequent talks about the books I read, he used, as opportunity offered, to give me explanations and ideas respecting civilization, government, morality, mental cultivation, which he required me afterwards to restate to him in my own words. He also made me read, and give him a verbal account of, many books which would not have interested me sufficiently to induce me to read them of myself: among others, Millar's *Historical View of the English Government,* a book of great merit for its time, and which he highly valued; Mosheim's *Ecclesiastical History,* McCrie's *Life of John Knox,* and even Sewel's and Rutty's his-

tories of the Quakers. He was fond of putting into my hands books which exhibited men of energy and resource in unusual circumstances, struggling against difficulties and overcoming them: of such works I remember Beaver's *African Memoranda,* and Collins's account of the first settlement of New South Wales. Two books which I never wearied of reading were Anson's *Voyage,* so delightful to most young persons, and a Collection (Hawkesworth's, I believe) of Voyages round the World, in four volumes, beginning with Drake and ending with Cook and Bougainville. Of children's books, any more than of playthings, I had scarcely any, except an occasional gift from a relation or acquaintance: among those I had, *Robinson Crusoe* was pre-eminent, and continued to delight me through all my boyhood. It was no part however of my father's system to exclude books of amusement, though he allowed them very sparingly. Of such books he possessed at that time next to none, but he borrowed several for me; those which I remember are the *Arabian Nights,* Cazotte's Arabian Tales, *Don Quixote,* Miss Edgeworth's *Popular Tales,* and a book of some reputation in its day, Brooke's *Fool of Quality*.

In my eighth year I commenced learning Latin, in conjunction with a younger sister, to whom I taught it as I went on, and who afterwards repeated the lessons to my father: and from this time, other sisters and brothers being successively added as pupils, a considerable part of my day's work consisted of this preparatory teaching. It was a part which I greatly disliked; the more so, as I was held responsible for the lessons of my pupils, in almost as full a sense as for my own: I however derived from this discipline the great advantage of learning more thoroughly and retaining more lastingly the things which I was set to teach: perhaps, too, the practice it afforded in explaining difficulties to others may even at that age have been useful. In other respects, the experience of my boyhood is not favourable to the plan of teaching children by means of one another. The teaching, I am sure, is very inefficient as teaching, and I well knew that the relation between teacher and taught is not a good moral discipline to either. I went in this manner through the Latin grammar, and a considerable part of Cornelius Nepos and Caesar's *Commentaries,* but afterwards added to the superintendence of these lessons, much longer ones of my own.

In the same year in which I began Latin, I made my first commencement in the Greek poets with the *Iliad.* After I had made some progress in this, my father put Pope's translation into my hands. It was the first English verse I had cared to read, and it became one of the books in which for many years I most delighted: I think I must have read it from

twenty to thirty times through. I should not have thought it worthwhile to mention a taste apparently so natural to boyhood, if I had not, as I think, observed that the keen enjoyment of this brilliant specimen of narrative and versification is not so universal with boys, as I should have expected both *a priori* and from my individual experience. Soon after this time I commenced Euclid, and somewhat later, algebra, still under my father's tuition.

From my eighth to my twelfth year the Latin books which I remember reading were, the *Bucolics* of Virgil, and the first six books of the *Aeneid;* all Horace except the *Epodes;* the *Fables* of Phaedrus; the first five books of Livy (to which from my love of the subject I voluntarily added, in my hours of leisure, the remainder of the first decade); all Sallust; a considerable part of Ovid's *Metamorphoses;* some plays of Terence; two or three books of Lucretius; several of the Orations of Cicero, and of his writings on oratory; also his letters to Atticus, my father taking the trouble to translate to me from the French the historical explanations in Mongault's notes. In Greek I read the *Iliad* and *Odyssey* through; one or two plays of Sophocles, Euripides, and Aristophanes, though by these I profited little; all Thucydides; the *Hellenics* of Xenophon; a great part of Demosthenes, Aeschines, and Lysias; Theocritus; Anacreon; part of the *Anthology;* a little of Dionysius; several books of Polybius; and lastly Aristotle's *Rhetoric,* which, as the first expressly scientific treatise on any moral or psychological subject which I had read, and containing many of the best observations of the ancients on human nature and life, my father made me study with peculiar care, and throw the matter of it into synoptic tables. During the same years I learnt elementary geometry and algebra thoroughly, the differential calculus and other portions of the higher mathematics far from thoroughly: for my father, not having kept up this part of his early acquired knowledge, could not spare time to qualify himself for removing my difficulties, and left me to deal with them, with little other aid than that of books; while I was continually incurring his displeasure by my inability to solve difficult problems for which he did not see that I had not the necessary previous knowledge.

As to my private reading, I can only speak of what I remember. History continued to be my strongest predilection, and most of all ancient history. Mitford's *Greece* I read continually; my father had put me on my guard against the Tory prejudices of this writer, and his perversions of facts for the whitewashing of despots, and blackening of popular institutions. These points he discoursed on, exemplifying them from the Greek orators and historians, with such effect that in reading Mitford my sym-

pathies were always on the contrary side to those of the author, and I could, to some extent, have argued the point against him: yet this did not diminish the ever new pleasure with which I read the book. Roman history, both in my old favourite, Hooke, and in Ferguson, continued to delight me. A book which, in spite of what is called the dryness of its style, I took great pleasure in, was the *Ancient Universal History,* through the incessant reading of which I had my head full of historical details concerning the obscurest ancient people, while about modern history, except detached passages, such as the Dutch war of independence, I knew and cared comparatively little. A voluntary exercise, to which throughout my boyhood I was much addicted, was what I called writing histories. I successively composed a Roman history, picked out of Hooke; an abridgment of the *Ancient Universal History*; a History of Holland, from my favourite Watson and from an anonymous compilation; and in my eleventh and twelfth year I occupied myself with writing what I flattered myself was something serious. This was no less than a history of the Roman Government, compiled (with the assistance of Hooke) from Livy and Dionysius: of which I wrote as much as would have made an octavo volume, extending to the epoch of the Licinian Laws. It was, in fact, an account of the struggles between the patricians and plebeians, which now engrossed all the interest in my mind which I had previously felt in the mere wars and conquests of the Romans. I discussed all the constitutional points as they arose: though quite ignorant of Niebuhr's researches, I, by such lights as my father had given me, vindicated the Agrarian Laws on the evidence of Livy, and upheld to the best of my ability the Roman democratic party. A few years later, in my contempt of my childish efforts, I destroyed all these papers, not then anticipating that I could ever feel any curiosity about my first attempts at writing and reasoning. My father encouraged me in this useful amusement, though, as I think judiciously, he never asked to see what I wrote; so that I did not feel that in writing it I was accountable to any one, nor had the chilling sensation of being under a critical eye.

But though these exercises in history were never a compulsory lesson, there was another kind of composition which was so, namely, writing verses, and it was one of the most disagreeable of my tasks. Greek and Latin verses I did not write, nor learnt the prosody of those languages. My father, thinking this not worth the time it required, contented himself with making me read aloud to him, and correcting false quantities. I never composed at all in Greek, even in prose, and but little in Latin. Not that my father could be indifferent to the value of this practice, in giving

a thorough knowledge of those languages, but because there really was not time for it. The verses I was required to write were English. When I first read Pope's Homer, I ambitiously attempted to compose something of the same kind, and achieved as much as one book of a continuation of the *Iliad*. There, probably, the spontaneous promptings of my poetical ambition would have stopped; but the exercise, begun from choice, was continued by command. Conformably to my father's usual practice of explaining to me, as far as possible, the reasons for what he required me to do, he gave me, for this, as I well remember, two reasons highly characteristic of him: one was, that some things could be expressed better and more forcibly in verse than in prose: this, he said, was a real advantage. The other was, that people in general attached more value to verse than it deserved, and the power of writing it, was, on this account, worth acquiring. He generally left me to choose my own subjects, which, as far as I remember, were mostly addresses to some mythological personage or allegorical abstractions; but he made me translate into English verse many of Horace's shorter poems: I also remember his giving me Thomson's "Winter" to read, and afterwards making me attempt (without book) to write something myself on the same subject. The verses I wrote were, of course, the merest rubbish, nor did I ever attain any facility of versification, but the practice may have been useful in making it easier for me, at a later period, to acquire readiness of expression.[1] I had read, up to this time, very little English poetry; Shakespeare my father had put into my hands, chiefly for the sake of the historical plays, from which, however, I went on to the others. My father never was a great admirer of Shakespeare, the English idolatry of whom he used to attack with some severity. He cared little for any English poetry except Milton (for whom he had the highest admiration), Goldsmith, Burns, and Gray's "Bard," which he preferred to his *Elegy*: perhaps I may add Cowper and Beattie. He had some value for Spenser, and I remember his reading to me (unlike his usual practice of making me read to him), the first book of the *Fairie Queene*; but I took little pleasure in it. The poetry of the present century he saw scarcely any merit in, and I hardly became acquainted with any of it till I was grown up to manhood, except the metrical romances of Walter Scott, which I read at his recommendation and was intensely delighted with; as I always was with animated narrative. Dry-

1. In a subsequent stage of boyhood, when these exercises had ceased to be compulsory, like most youthful writers I wrote tragedies; under the inspiration not so much of Shakespeare as of Joanna Baillie, whose *Constantine Paleologus* in particular appeared to me one of the most glorious of human compositions. I still think it one of the best dramas of the last two centuries.

den's *Poems* were among my father's books, and many of these he made me read, but I never cared for any of them except "Alexander's Feast," which, as well as many of the songs in Walter Scott, I used to sing internally, to a music of my own: to some of the latter, indeed, I went so far as to compose airs, which I still remember. Cowper's short poems I read with some pleasure, but never got far into the longer ones; and nothing in the two volumes interested me like the prose account of his three hares. In my thirteenth year I met with Campbell's *Poems,* among which "Lochiel," "Hohenlinden," the "Exile of Erin," and some others, gave me sensations I had never before experienced from poetry. Here, too, I made nothing of the longer poems, except the striking opening of *Gertrude of Wyoming,* which long kept its place in my feelings as the perfection of pathos.

During this part of my childhood, one of my greatest amusements was experimental science; in the theoretical, however, not the practical sense of the word; not trying experiments–a kind of discipline which I have often regretted not having had–nor even seeing, but merely reading about them. I never remember being so wrapt up in any book, as I was in Joyce's *Scientific Dialogues*; and I was rather recalcitrant to my father's criticisms of the bad reasoning respecting the first principles of physics, which abounds in the early part of that work. I devoured treatises on chemistry, especially that of my father's early friend and school-fellow, Dr. Thomson, for years before I attended a lecture or saw an experiment.

From about the age of twelve, I entered into another and more advanced stage in my course of instruction; in which the main object was no longer the aids and appliances of thought, but the thoughts themselves. This commenced with logic, in which I began at once with the *Organon,* and read it to the *Analytics* inclusive, but profited little by the *Posterior Analytics,* which belongs to a branch of speculation I was not yet ripe for. Contemporaneously with the *Organon,* my father made me read the whole or parts of several of the Latin treatises on the scholastic logic; giving each day to him, in our walks, a minute account of what I had read, and answering his numerous and searching questions. After this, I went in a similar manner through the *Computatio sive Logica* of Hobbes, a work of a much higher order of thought than the books of the school logicians, and which he estimated very highly; in my own opinion beyond its merits, great as these are. It was his invariable practice, whatever studies he exacted from me, to make me as far as possible understand and feel the utility of them: and this he deemed peculiarly fitting in

the case of the syllogistic logic, the usefulness of which had been impugned by so many writers of authority. I well remember how, and in what particular walk, in the neighbourhood of Bagshot Heath (where we were on a visit to his old friend Mr. Wallace, then one of the mathematical professors at Sandhurst) he first attempted by questions to make me think on the subject, and frame some conception of what constituted the utility of the syllogistic logic, and when I had failed in this, to make me understand it by explanations. The explanations did not make the matter at all clear to me at the time; but they were not therefore useless; they remained as a nucleus for my observations and reflections to crystallize upon; the import of his general remarks being interpreted to me, by the particular instances which came under my notice afterwards. My own consciousness and experience ultimately led me to appreciate quite as highly as he did, the value of an early practical familiarity with the school logic. I know nothing, in my education, to which I think myself more indebted for whatever capacity of thinking I have attained. The first intellectual operation in which I arrived at any proficiency was dissecting a bad argument, and finding in what part the fallacy lay: and though whatever capacity of this sort I attained was due to the fact that it was an intellectual exercise in which I was most perseveringly drilled by my father, yet it is also true that the school logic, and the mental habits acquired in studying it, were among the principal instruments of this drilling. I am persuaded that nothing, in modern education, tends so much, when properly used, to form exact thinkers, who attach a precise meaning to words and propositions, and are not imposed on by vague, loose, or ambiguous terms. The boasted influence of mathematical studies is nothing to it; for in mathematical processes, none of the real difficulties of correct ratiocination occur. It is also a study peculiarly adapted to an early stage in the education of philosophical students, since it does not presuppose the slow process of acquiring, by experience and reflection, valuable thoughts of their own. They may become capable of disentangling the intricacies of confused and self-contradictory thought, before their own thinking faculties are much advanced; a power which, for want of some such discipline, many otherwise able men altogether lack; and when they have to answer opponents, only endeavour, by such arguments as they can command, to support the opposite conclusion, scarcely even attempting to confute the reasonings of their antagonists; and, therefore, at the utmost, leaving the question, as far as it depends on argument, a balanced one.

During this time, the Latin and Greek books which I continued to read

with my father were chiefly such as were worth studying, not for the language merely, but also for the thoughts. This included much of the orators, and especially Demosthenes, some of whose principal orations I read several times over, and wrote out, by way of exercise, a full analysis of them. My father's comments on these orations when I read them to him were very instructive to me. He not only drew my attention to the insight they afforded into Athenian institutions, and the principles of legislation and government which they often illustrated, but pointed out the skill and art of the orator—how everything important to his purpose was said at the exact moment when he had brought the minds of his audience into the state most fitted to receive it; how he made steal into their minds, gradually and by insinuation, thoughts which if expressed in a more direct manner would have aroused their opposition. Most of these reflections were beyond my capacity of full comprehension at the time; but they left seed behind, which germinated in due season. At this time I also read the whole of Tacitus, Juvenal, and Quintilian. The latter, owing to his obscure style and to the scholastic details of which many parts of his treatise are made up, is little read, and seldom sufficiently appreciated. His book is a kind of encyclopaedia of the thoughts of the ancients on the whole field of education and culture; and I have retained through life many valuable ideas which I can distinctly trace to my reading of him, even at that early age. It was at this period that I read, for the first time, some of the most important dialogues of Plato, in particular the *Gorgias,* the *Protagoras,* and the *Republic.* There is no author to whom my father thought himself more indebted for his own mental culture, than Plato, or whom he more frequently recommended to young students. I can bear similar testimony in regard to myself. The Socratic method, of which the Platonic dialogues are the chief example, is unsurpassed as a discipline for correcting the errors, and clearing up the confusions incident to the *intellectus sibi permissus,* the understanding which has made up all its bundles of associations under the guidance of popular phraseology. The close, searching *elenchus* by which the man of vague generalities is constrained either to express his meaning to himself in definite terms, or to confess that he does not know what he is talking about; the perpetual testing of all general statements by particular instances; the siege in form which is laid to the meaning of large abstract terms, by fixing upon some still larger class-name which includes that and more, and dividing down to the thing sought—marking out its limits and definition by a series of accurately drawn distinctions between it and each of the cognate objects which are successively parted off from it—all

this, as an education for precise thinking, is inestimable, and all this, even at that age, took such hold of me that it became part of my own mind. I have felt ever since that the title of Platonist belongs by far better right to those who have been nourished in, and have endeavoured to practise Plato's mode of investigation, than to those who are distinguished only by the adoption of certain dogmatical conclusions, drawn mostly from the least intelligible of his works, and which the character of his mind and writings makes it uncertain whether he himself regarded as anything more than poetic fancies, or philosophic conjectures.

In going through Plato and Demosthenes, since I could now read these authors, as far as the language was concerned, with perfect ease, I was not required to construe them sentence by sentence, but to read them aloud to my father, answering questions when asked: but the particular attention which he paid to elocution (in which his own excellence was remarkable) made this reading aloud to him a most painful task. Of all things which he required me to do, there was none which I did so constantly ill, or in which he so perpetually lost his temper with me. He had thought much on the principles of the art of reading, especially the most neglected part of it, the inflections of the voice, or *modulation* as writers on elocution call it (in contrast with *articulation* on the one side, and *expression* on the other), and had reduced it to rules, grounded on the logical analysis of a sentence. These rules he strongly impressed upon me, and took me severely to task for every violation of them: but I even then remarked (though I did not venture to make the remark to him) that though he reproached me when I read a sentence ill, and *told* me how I ought to have read it, he never, by reading it himself, *showed* me how it ought to be read. A defect running through his otherwise admirable modes of instruction, as it did through all his modes of thought, was that of trusting too much to the intelligibleness of the abstract, when not embodied in the concrete. It was at a much later period of my youth, when practising elocution by myself, or with companions of my own age, that I for the first time understood the object of his rules, and saw the psychological grounds of them. At that time I and others followed out the subject into its ramifications and could have composed a very useful treatise, grounded on my father's principles. He himself left those principles and rules unwritten. I regret that when my mind was full of the subject, from systematic practice, I did not put them, and our improvements of them, into a formal shape.

A book which contributed largely to my education, in the best sense of the term, was my father's *History of India*. It was published in the be-

ginning of 1818. During the year previous, while it was passing through the press, I used to read the proof sheets to him; or rather, I read the manuscript to him while he corrected the proofs. The number of new ideas which I received from this remarkable book, and the impulse and stimulus as well as guidance given to my thoughts by its criticisms and disquisitions on society and civilization in the Hindu part, on institutions and the acts of governments in the English part, made my early familiarity with it eminently useful to my subsequent progress. And though I can perceive deficiencies in it now as compared with a perfect standard, I still think it, if not the most, one of the most instructive histories ever written, and one of the books from which most benefit may be derived by a mind in the course of making up its opinions.

The Preface, among the most characteristic of my father's writings, as well as the richest in materials of thought, gives a picture which may be entirely depended on, of the sentiments and expectations with which he wrote the History. Saturated as the book is with the opinions and modes of judgment of a democratic radicalism then regarded as extreme; and treating with a severity, at that time most unusual, the English Constitution, the English law, and all parties and classes who possessed any considerable influence in the country; he may have expected reputation, but certainly not advancement in life, from its publication; nor could he have supposed that it would raise up anything but enemies for him in powerful quarters: least of all could he have expected favour from the East India Company, to whose commercial privileges he was unqualifiedly hostile, and on the acts of whose government he had made so many severe comments: though, in various parts of his book, he bore a testimony in their favour, which he felt to be their just due, namely, that no government had on the whole given so much proof, to the extent of its lights, of good intention towards its subjects; and that if the acts of any other government had the light of publicity as completely let in upon them, they would, in all probability, still less bear scrutiny.

On learning, however, in the spring of 1819, about a year after the publication of the History, that the East India Directors desired to strengthen the part of their home establishment which was employed in carrying on the correspondence with India, my father declared himself a candidate for that employment, and, to the credit of the Directors, successfully. He was appointed one of the assistants of the Examiner of India Correspondence; officers whose duty it was to prepare drafts of despatches to India, for consideration by the Directors, in the principal departments of administration. In this office, and in that of Examiner,

which he subsequently attained, the influence which his talents, his reputation, and his decision of character gave him, with superiors who really desired the good government of India, enabled him to a great extent to throw into his drafts of despatches, and to carry through the ordeal of the Court of Directors and Board of Control, without having their force much weakened, his real opinions on Indian subjects. In his History he had set forth, for the first time, many of the true principles of Indian administration: and his despatches, following his History, did more than had ever been done before to promote the improvement of India, and teach Indian officials to understand their business. If a selection of them were published, they would, I am convinced, place his character as a practical statesman fully on a level with his eminence as a speculative writer.

This new employment of his time caused no relaxation in his attention to my education. It was in this same year, 1819, that he took me through a complete course of political economy. His loved and intimate friend, Ricardo, had shortly before published the book which formed so great an epoch in political economy; a book which never would have been published or written, but for the entreaty and strong encouragement of my father; for Ricardo, the most modest of men, though firmly convinced of the truth of his doctrines, deemed himself so little capable of doing them justice in exposition and expression, that he shrank from the idea of publicity. The same friendly encouragement induced Ricardo, a year or two later, to become a member of the House of Commons; where, during the few remaining years of his life, unhappily cut short in the full vigour of his intellect, he rendered so much service to his and my father's opinions both on political economy and on other subjects.

Though Ricardo's great work was already in print, no didactic treatise embodying its doctrines, in a manner fit for learners, had yet appeared. My father, therefore, commenced instructing me in the science by a sort of lectures, which he delivered to me in our walks. He expounded each day a portion of the subject, and I gave him next day a written account of it, which he made me rewrite over and over again until it was clear, precise, and tolerably complete. In this manner I went through the whole extent of the science; and the written outline of it which resulted from my daily *compte rendu,* served him afterwards as notes from which to write his *Elements of Political Economy*. After this I read Ricardo, giving an account daily of what I read, and discussing, in the best manner I could, the collateral points which offered themselves in our progress.

On Money, as the most intricate part of the subject, he made me read

in the same manner Ricardo's admirable pamphlets, written during what was called the Bullion controversy; to these succeeded Adam Smith; and in this reading it was one of my father's main objects to make me apply to Smith's more superficial view of political economy, the superior lights of Ricardo, and detect what was fallacious in Smith's arguments, or erroneous in any of his conclusions. Such a mode of instruction was excellently calculated to form a thinker; but it required to be worked by a thinker as close and vigorous as my father. The path was a thorny one, even to him, and I am sure it was so to me, notwithstanding the strong interest I took in the subject. He was often, and much beyond reason, provoked by my failures in cases where success could not have been expected; but in the main his method was right, and it succeeded. I do not believe that any scientific teaching ever was more thorough, or better fitted for training the faculties, than the mode in which logic and political economy were taught to me by my father. Striving, even in an exaggerated degree, to call forth the activity of my faculties, by making me find out everything for myself, he gave his explanations not before, but after, I had felt the full force of the difficulties; and not only gave me an accurate knowledge of these two great subjects, as far as they were then understood, but made me a thinker on both. I thought for myself almost from the first, and occasionally thought differently from him, though for a long time only on minor points, and making his opinion the ultimate standard. At a later period I even occasionally convinced him, and altered his opinion on some points of detail: which I state to his honour, not my own. It at once exemplifies his perfect candour, and the real worth of his method of teaching.

At this point concluded what can properly be called my lessons: when I was about fourteen I left England for more than a year; and after my return, though my studies went on under my father's general direction, he was no longer my schoolmaster. I shall therefore pause here, and turn back to matters of a more general nature connected with the part of my life and education included in the preceding reminiscences.

In the course of instruction which I have partially retraced, the point most superficially apparent is the great effort to give during the years of childhood an amount of knowledge in what are considered the higher branches of education, which is seldom acquired (if acquired at all) until the age of manhood. The result of the experiment shows the ease with which this may be done, and places in a strong light the wretched waste of so many precious years as are spent in acquiring the modicum of Latin and Greek commonly taught to schoolboys; a waste, which has led so

many educational reformers to entertain the ill-judged proposal of discarding these languages altogether from general education. If I had been by nature extremely quick of apprehension, or had possessed a very accurate and retentive memory, or were of a remarkably active and energetic character, the trial would not be conclusive; but in all these natural gifts I am rather below than above par; what I could do, could assuredly be done by any boy or girl of average capacity and healthy physical constitution: and if I have accomplished anything, I owe it, among other fortunate circumstances, to the fact that through the early training bestowed on me by my father, I started, I may fairly say, with an advantage of a quarter of a century over my contemporaries.

There was one cardinal point in this training, of which I have already given some indication, and which, more than anything else, was the cause of whatever good it effected. Most boys or youths who have had much knowledge drilled into them, have their mental capacities not strengthened, but overlaid by it. They are crammed with mere facts, and with the opinions or phrases of other people, and these are accepted as a substitute for the power to form opinions of their own: and thus the sons of eminent fathers, who have spared no pains in their education, so often grow up mere parroters of what they have learnt, incapable of using their minds except in the furrows traced for them. Mine, however, was not an education of cram. My father never permitted anything which I learnt to degenerate into a mere exercise of memory. He strove to make the understanding not only go along with every step of the teaching, but, if possible, precede it. Anything which could be found out by thinking I never was told, until I had exhausted my efforts to find it out for myself. As far as I can trust my remembrance, I acquitted myself very lamely in this department; my recollection of such matters is almost wholly of failures, hardly ever of success. It is true the failures were often in things in which success in so early a stage of my progress was almost impossible. I remember at some time in my thirteenth year, on my happening to use the word idea, he asked me what an idea was; and expressed some displeasure at my ineffectual efforts to define the word: I recollect also his indignation at my using the common expression that something was true in theory but required correction in practice; and how, after making me vainly strive to define the word theory, he explained its meaning, and showed the fallacy of the vulgar form of speech which I had used; leaving me fully persuaded that in being unable to give a correct definition of Theory, and in speaking of it as something which might be at variance with practice, I had shown unparalleled ignorance. In this he seems, and

perhaps was, very unreasonable; but I think, only in being angry at my failure. A pupil from whom nothing is ever demanded which he cannot do, never does all he can.

One of the evils most liable to attend on any sort of early proficiency, and which often fatally blights its promise, my father most anxiously guarded against. This was self-conceit. He kept me, with extreme vigilance, out of the way of hearing myself praised, or of being led to make self-flattering comparisons between myself and others. From his own intercourse with me I could derive none but a very humble opinion of myself; and the standard of comparison he always held up to me was not what other people did, but what a man could and ought to do. He completely succeeded in preserving me from the sort of influences he so much dreaded. I was not at all aware that my attainments were anything unusual at my age. If I accidentally had my attention drawn to the fact that some other boy knew less than myself–which happened less often than might be imagined–I concluded, not that I knew much, but that he, for some reason or other, knew little, or that his knowledge was of a different kind from mine. My state of mind was not humility, but neither was it arrogance. I never thought of saying to myself, I am, or I can do, so and so. I neither estimated myself highly nor lowly: I did not estimate myself at all. If I thought anything about myself, it was that I was rather backward in my studies, since I always found myself so, in comparison with what my father expected from me. I assert this with confidence, though it was not the impression of various persons who saw me in my childhood. They, as I have since found, thought me greatly and disagreeably self-conceited; probably because I was disputatious, and did not scruple to give direct contradictions to things which I heard said. I suppose I acquired this bad habit from having been encouraged in an unusual degree to talk on matters beyond my age, and with grown persons, while I never had inculcated in me the usual respect for them. My father did not correct this ill-breeding and impertinence, probably from not being aware of it, for I was always too much in awe of him to be otherwise than extremely subdued and quiet in his presence. Yet with all this I had no notion of any superiority in myself; and well was it for me that I had not. I remember the very place in Hyde Park where, in my fourteenth year, on the eve of leaving my father's house for a long absence, he told me that I should find, as I got acquainted with new people, that I had been taught many things which youths of my age did not commonly know; and that many persons would be disposed to talk to me of this, and to compliment me upon it. What other things he said on this topic I remember very imper-

fectly; but he wound up by saying that whatever I knew more than others could not be ascribed to any merit in me, but to the very unusual advantage which had fallen to my lot, of having a father who was able to teach me, and willing to give the necessary trouble and time; that it was no matter of praise to me, if I knew more than those who had not had a similar advantage, but the deepest disgrace to me if I did not. I have a distinct remembrance that the suggestion thus for the first time made to me, that I knew more than other youths who were considered well educated, was to me a piece of information, to which, as to all other things which my father told me, I gave implicit credence, but which did not at all impress me as a personal matter. I felt no disposition to glorify myself upon the circumstance that there were other persons who did not know what I knew; nor had I ever flattered myself that my acquirements, whatever they might be, were any merit of mine: but, now when my attention was called to the subject, I felt that what my father had said respecting my peculiar advantages was exactly the truth and common sense of the matter, and it fixed my opinion and feeling from that time forward.

It is evident that this, among many other of the purposes of my father's scheme of education, could not have been accomplished if he had not carefully kept me from having any great amount of intercourse with other boys. He was earnestly bent upon my escaping not only the ordinary corrupting influence which boys exercise over boys, but the contagion of vulgar modes of thought and feeling; and for this he was willing that I should pay the price of inferiority in the accomplishments which schoolboys in all countries chiefly cultivate. The deficiencies in my education were principally in the things which boys learn from being turned out to shift for themselves, and from being brought together in large numbers. From temperance and much walking, I grew up healthy and hardy, though not muscular; but I could do no feats of skill or physical strength, and knew none of the ordinary bodily exercises. It was not that play, or time for it, was refused me. Though no holidays were allowed, lest the habit of work should be broken, and a taste for idleness acquired, I had ample leisure in every day to amuse myself; but as I had no boy companions, and the animal need of physical activity was satisfied by walking, my amusements, which were mostly solitary, were in general of a quiet, if not a bookish turn, and gave little stimulus to any other kind even of mental activity than that which was already called forth by my studies: I consequently remained long, and in a less degree have always remained, inexpert in anything requiring manual dexterity; my mind as well as my hands did its work very lamely when it was applied, or ought to have

been applied, to the practical details which, as they are the chief interest of life to the majority of men, are also the things in which whatever mental capacity they have chiefly shows itself: I was constantly meriting reproof by inattention, inobservance, and general slackness of mind in matters of daily life. My father was the extreme opposite in these particulars: his senses and mental faculties were always on the alert; he carried decision and energy of character in his whole manner and into every action of life: and this, as much as his talents, contributed to the strong impression which he always made upon those with whom he came into personal contact. But the children of energetic parents frequently grow up unenergetic, because they lean on their parents, and the parents are energetic for them. The education which my father gave me was in itself much more fitted for training me to *know* than to *do*. Not that he was unaware of my deficiencies; both as a boy and as a youth I was incessantly smarting under his severe admonitions on the subject. There was anything but insensibility or tolerance on his part towards such shortcomings: but, while he saved me from the demoralizing effects of school life, he made no effort to provide me with any sufficient substitute for its practicalizing influences. Whatever qualities he himself, probably, had acquired without difficulty or special training, he seems to have supposed that I ought to acquire as easily. He had not, I think, bestowed the same amount of thought and attention on this, as on most other branches of education; and here, as well as in some other points of my tuition, he seems to have expected effects without causes.

MORAL INFLUENCES IN EARLY YOUTH. MY FATHER'S CHARACTER AND OPINIONS

In my education, as in that of everyone, the moral influences, which are so much more important than all others, are also the most complicated, and the most difficult to specify with any approach to completeness. Without attempting the hopeless task of detailing the circumstances by which, in this respect, my early character may have been shaped, I shall confine myself to a few leading points, which form an indispensable part of any true account of my education.

I was brought up from the first without any religious belief, in the ordinary acceptation of the term. My father, educated in the creed of Scotch presbyterianism, had by his own studies and reflections been early led to reject not only the belief in revelation, but the foundations of what is commonly called Natural Religion. I have heard him say that the turning-

point of his mind on the subject was reading Butler's *Analogy*. That work, of which he always continued to speak with respect, kept him, as he said, for some considerable time, a believer in the divine authority of Christianity; by proving to him, that whatever are the difficulties in believing that the Old and New Testaments proceed from, or record the acts of, a perfectly wise and good being, the same and still greater difficulties stand in the way of the belief, that a being of such a character can have been the Maker of the universe. He considered Butler's argument as conclusive against the only opponents for whom it was intended. Those who admit an omnipotent as well as perfectly just and benevolent maker and ruler of such a world as this can say little against Christianity but what can, with at least equal force, be retorted against themselves. Finding, therefore, no halting place in Deism, he remained in a state of perplexity, until, doubtless after many struggles, he yielded to the conviction that concerning the origin of things nothing whatever can be known. This is the only correct statement of his opinion; for dogmatic atheism he looked upon as absurd; as most of those whom the world has considered atheists have always done. These particulars are important, because they show that my father's rejection of all that is called religious belief was not, as many might suppose, primarily a matter of logic and evidence: the grounds of it were moral, still more than intellectual. He found it impossible to believe that a world so full of evil was the work of an Author combining infinite power with perfect goodness and righteousness. His intellect spurned the subtleties by which men attempt to blind themselves to this open contradiction. The Sabaean, or Manichaean theory of a Good and Evil Principle, struggling against each other for the government of the universe, he would not have equally condemned; and I have heard him express surprise, that no one revived it in our time. He would have regarded it as a mere hypothesis; but he would have ascribed to it no depraving influence. As it was, his aversion to religion, in the sense usually attached to the term, was of the same kind with that of Lucretius: he regarded it with the feelings due not to a mere mental delusion, but to a great moral evil. He looked upon it as the greatest enemy of morality: first, by setting up factitious excellencies–belief in creeds, devotional feelings, and ceremonies not connected with the good of human kind–and causing these to be accepted as substitutes for genuine virtues: but above all, by radically vitiating the standard of morals; making it consist in doing the will of a being, on whom it lavishes indeed all the phrases of adulation, but whom in sober truth it depicts as eminently hateful. I have a hundred times heard him say, that all ages and nations have represented their gods as

wicked, in a constantly increasing progression, that mankind have gone on adding trait after trait till they reached the most perfect conception of wickedness which the human mind can devise, and have called this God, and prostrated themselves before it. This *ne plus ultra* of wickedness he considered to be embodied in what is commonly presented to mankind as the creed of Christianity. Think (he used to say) of a being who would make a Hell—who would create the human race with the infallible foreknowledge, and therefore with the intention, that the great majority of them were to be consigned to horrible and everlasting torment. The time, I believe, is drawing near when this dreadful conception of an object of worship will be no longer identified with Christianity; and when all persons with any sense of moral good and evil will look upon it with the same indignation with which my father regarded it. My father was as well aware as anyone that Christians do not, in general, undergo the demoralizing consequences which seem inherent in such a creed, in the manner or to the extent which might have been expected from it. The same slovenliness of thought, and subjection of the reason to fears, wishes, and affections which enable them to accept a theory involving a contradiction in terms, prevents them from perceiving the logical consequences of the theory. Such is the facility with which mankind believe at one and the same time things inconsistent with one another, and so few are those who draw from what they receive as truths, any consequences but those recommended to them by their feelings, that multitudes have held the undoubting belief in an Omnipotent Author of Hell, and have nevertheless identified that being with the best conception they were able to form of perfect goodness. Their worship was not paid to the demon which such a being as they imagined would really be, but to their own idea of excellence. The evil is, that such a belief keeps the ideal wretchedly low; and opposes the most obstinate resistance to all thought which has a tendency to raise it higher. Believers shrink from every train of ideas which would lead the mind to a clear conception and an elevated standard of excellence, because they feel (even when they do not distinctly see) that such a standard would conflict with many of the dispensations of nature, and with much of what they are accustomed to consider as the Christian creed. And thus morality continues a matter of blind tradition, with no consistent principle, nor even any consistent feeling, to guide it.

It would have been wholly inconsistent with my father's ideas of duty to allow me to acquire impressions contrary to his convictions and feelings respecting religion: and he impressed upon me from the first that the manner in which the world came into existence was a subject on which

nothing was known: that the question, "Who made me?" cannot be answered, because we have no experience or authentic information from which to answer it; and that any answer only throws the difficulty a step further back, since the question immediately presents itself, Who made God? He, at the same time, took care that I should be acquainted with what had been thought by mankind on these impenetrable problems. I have mentioned at how early an age he made me a reader of ecclesiastical history; and he taught me to take the strongest interest in the Reformation, as the great and decisive contest against priestly tyranny for liberty of thought.

I am thus one of the very few examples, in this country, of one who has not thrown off religious belief but never had it: I grew up in a negative state with regard to it. I looked upon the modern exactly as I did upon the ancient religion, as something which in no way concerned me. It did not seem to me more strange that English people should believe what I did not, than that the men I read of in Herodotus should have done so. History had made the variety of opinions among mankind a fact familiar to me, and this was but a prolongation of that fact. This point in my early education had, however, incidentally one bad consequence deserving notice. In giving me an opinion contrary to that of the world, my father thought it necessary to give it as one which could not prudently be avowed to the world. This lesson of keeping my thoughts to myself, at that early age, was attended with some moral disadvantages; though my limited intercourse with strangers, especially such as were likely to speak to me on religion, prevented me from being placed in the alternative of avowal or hypocrisy. I remember two occasions in my boyhood, on which I felt myself in this alternative, and in both cases I avowed my disbelief and defended it. My opponents were boys, considerably older than myself: one of them I certainly staggered at the time, but the subject was never renewed between us: the other who was surprised, and somewhat shocked, did his best to convince me for some time, without effect.

The great advance in liberty of discussion, which is one of the most important differences between the present time and that of my childhood, has greatly altered the moralities of this question; and I think that few men of my father's intellect and public spirit, holding with such intensity of moral conviction as he did, unpopular opinions on religion, or on any other of the great subjects of thought, would now either practise or inculcate the withholding of them from the world, unless in the cases, becoming fewer every day, in which frankness on these subjects would either risk the loss of means of subsistence, or would amount to exclusion from

some sphere of usefulness peculiarly suitable to the capacities of the individual. On religion in particular the time appears to me to have come when it is the duty of all who being qualified in point of knowledge, have on mature consideration satisfied themselves that the current opinions are not only false but hurtful, to make their dissent known; at least, if they are among those whose station or reputation, gives their opinion a chance of being attended to. Such an avowal would put an end, at once and for ever, to the vulgar prejudice that what is called, very improperly, unbelief is connected with any bad qualities either of mind or heart. The world would be astonished if it knew how great a proportion of its brightest ornaments—of those most distinguished even in popular estimation for wisdom and virtue—are complete sceptics in religion; many of them refraining from avowal, less from personal considerations, than from a conscientious, though now in my opinion a most mistaken apprehension, lest by speaking out what would tend to weaken existing beliefs, and by consequence (as they suppose) existing restraints, they should do harm instead of good.

Of unbelievers (so called) as well as of believers, there are many species, including almost every variety of moral type. But the best among them, as no one who has had opportunities of really knowing them will hesitate to affirm (believers rarely have that opportunity), are more genuinely religious, in the best sense of the word religion, than those who exclusively arrogate to themselves the title. The liberality of the age, or in other words the weakening of the obstinate prejudice which makes men unable to see what is before their eyes because it is contrary to their expectations, has caused it to be very commonly admitted that a Deist may be truly religious: but if religion stands for any graces of character and not for mere dogma, the assertion may equally be made of many whose belief is far short of Deism. Though they may think the proof incomplete that the universe is a work of design, and though they assuredly disbelieve that it can have an Author and Governor who is absolute in power as well as perfect in goodness, they have that which constitutes the principal worth of all religions whatever, an ideal conception of a Perfect Being, to which they habitually refer as the guide of their conscience; and this ideal of Good is usually far nearer to perfection than the objective Deity of those who think themselves obliged to find absolute goodness in the author of a world so crowded with suffering and so deformed by injustice as ours.

My father's moral convictions, wholly dissevered from religion, were very much of the character of those of the Greek philosophers; and were

delivered with the force and decision which characterized all that came from him. Even at the very early age at which I read with him the *Memorabilia* of Xenophon, I imbibed from that work and from his comments a deep respect for the character of Socrates, who stood in my mind as a model of ideal excellence: and I well remember how my father at that time impressed upon me the lesson of the "Choice of Hercules." At a somewhat later period the lofty moral standard exhibited in the writings of Plato operated upon me with great force. My father's moral inculcations were at all times mainly those of the *Socratici viri*; justice, temperance (to which he gave a very extended application), veracity, perseverance, readiness to encounter pain and especially labour; regard for the public good; estimation of persons according to their merits, and of things according to their intrinsic usefulness; a life of exertion in contradiction to one of self-indulgent sloth. These and other moralities he conveyed in brief sentences, uttered as occasion arose, of grave exhortation, or stern reprobation and contempt.

But though direct moral teaching does much, indirect does more; and the effect my father produced on my character did not depend solely on what he said or did with that direct object, but also, and still more, on what manner of man he was.

In his views of life he partook of the character of the Stoic, the Epicurean, and the Cynic, not in the modern but the ancient sense of the word. In his personal qualities the Stoic predominated. His standard of morals was Epicurean, inasmuch as it was utilitarian, taking as the exclusive test of right and wrong, the tendency of actions to produce pleasure or pain. But he had (and this was the Cynic element) scarcely any belief in pleasure; at least in his later years, of which alone, on this point, I can speak confidently. He was not insensible to pleasures; but he deemed very few of them worth the price which, at least in the present state of society, must be paid for them. The greater number of miscarriages in life, he considered to be attributable to the overvaluing of pleasures. Accordingly, temperance, in the large sense intended by the Greek philosophers—stopping short at the point of moderation in all indulgences—was with him, as with them, almost the central point of educational precept. His inculcations of this virtue fill a large place in my childish remembrances. He thought human life a poor thing at best, after the freshness of youth and of unsatisfied curiosity had gone by. This was a topic on which he did not often speak, especially, it may be supposed, in the presence of young persons: but when he did, it was with an air of settled and profound conviction. He would sometimes say that if life were made what it might be, by

good government and good education, it would be worth having: but he never spoke with anything like enthusiasm even of that possibility. He never varied in rating intellectual enjoyments above all others, even in value as pleasures, independently of their ulterior benefits. The pleasures of the benevolent affections he placed high in the scale; and used to say that he had never known a happy old man, except those who were able to live over again in the pleasures of the young. For passionate emotions of all sorts, and for everything which has been said or written in exaltation of them, he professed the greatest contempt. He regarded them as a form of madness. "The intense" was with him a by-word of scornful disapprobation. He regarded as an aberration of the moral standard of modern times, compared with that of the ancients, the great stress laid upon feeling. Feelings, as such, he considered to be no proper subjects of praise or blame. Right and wrong, good and bad, he regarded as qualities solely of conduct—of acts and omissions; there being no feeling which may not lead, and does not frequently lead, either to good or to bad actions: conscience itself, the very desire to act right, often leading people to act wrong. Consistently carrying out the doctrine that the object of praise and blame should be the discouragement of wrong conduct and the encouragement of right, he refused to let his praise or blame be influenced by the motive of the agent. He blamed as severely what he thought a bad action, when the motive was a feeling of duty, as if the agents had been consciously evil-doers. He would not have accepted as a plea in mitigation for inquisitors, that they sincerely believed burning heretics to be an obligation of conscience. But though he did not allow honesty of purpose to soften his disapprobation of actions, it had its full effect on his estimation of characters. No one prized conscientiousness and rectitude of intention more highly, or was more incapable of valuing any person in whom he did not feel assurance of it. But he disliked people quite as much for any other deficiency, provided he thought it equally likely to make them act ill. He disliked, for instance, a fanatic in any bad cause, as much or more than one who adopted the same cause from self-interest, because he thought him even more likely to be practically mischievous. And thus, his aversion to many intellectual errors, or what he regarded as such, partook, in a certain sense, of the character of a moral feeling. All this is merely saying that he, in a degree once common, but now very unusual, threw his feelings into his opinions; which truly it is difficult to understand how any one who possesses much of both can fail to do. None but those who do not care about opinions will confound it with intolerance. Those who, having opinions which they hold to be immensely im-

portant, and their contraries to be prodigiously hurtful, have any deep regard for the general good, will necessarily dislike, as a class and in the abstract, those who think wrong what they think right, and right what they think wrong: though they need not therefore be, nor was my father, insensible to good qualities in an opponent, nor governed in their estimation of individuals by one general presumption, instead of by the whole of their character. I grant that an earnest person, being no more infallible than other men, is liable to dislike people on account of opinions which do not merit dislike; but if he neither himself does them any ill office, nor connives at its being done by others, he is not intolerant: and the forbearance which flows from a conscientious sense of the importance to mankind of the equal freedom of all opinions is the only tolerance which is commendable, or, to the highest moral order of minds, possible.

It will be admitted that a man of the opinions and the character above described was likely to leave a strong moral impression on any mind principally formed by him, and that his moral teaching was not likely to err on the side of laxity or indulgence. The element which was chiefly deficient in his moral relation to his children was that of tenderness. I do not believe that this deficiency lay in his own nature. I believe him to have had much more feeling than he habitually showed, and much greater capacities of feeling than were ever developed. He resembled most Englishmen in being ashamed of the signs of feeling, and by the absence of demonstration starving the feelings themselves. If we consider further that he was in the trying position of sole teacher, and add to this that his temper was constitutionally irritable, it is impossible not to feel true pity for a father who did, and strove to do, so much for his children, who would have so valued their affection, yet who must have been constantly feeling that fear of him was drying it up at its source. This was no longer the case later in life, and with his younger children. They loved him tenderly: and if I cannot say so much of myself, I was always loyally devoted to him. As regards my own education, I hesitate to pronounce whether I was more a loser or gainer by his severity. It was not such as to prevent me from having a happy childhood. And I do not believe that boys can be induced to apply themselves with vigour, and what is so much more difficult, perseverance, to dry and irksome studies, by the sole force of persuasion and soft words. Much must be done, and much must be learnt, by children, for which rigid discipline and known liability to punishment are indispensable as means. It is, no doubt, a very laudable effort, in modern teaching, to render as much as possible of what the young are required to learn easy and interesting to them. But when this principle is pushed to

the length of not requiring them to learn anything *but* what has been made easy and interesting, one of the chief objects of education is sacrificed. I rejoice in the decline of the old brutal and tyrannical system of teaching, which, however, did succeed in enforcing habits of application; but the new, as it seems to me, is training up a race of men who will be incapable of doing anything which is disagreeable to them. I do not, then, believe that fear, as an element in education, can be dispensed with; but I am sure that it ought not to be the main element; and when it predominates so much as to preclude love and confidence on the part of the child to those who should be the unreservedly trusted advisers of after-years, and perhaps to seal up the fountains of frank and spontaneous communicativeness in the child's nature, it is an evil for which a large abatement must be made from the benefits, moral and intellectual, which may flow from any other part of the education.

During this first period of my life, the habitual frequenters of my father's house were limited to a very few persons, most of them little known to the world, but whom personal worth, and more or less of congeniality with at least his political opinions (not so frequently to be met with then as since) inclined him to cultivate; and his conversations with them I listened to with interest and instruction. My being an habitual inmate of my father's study made me acquainted with the dearest of his friends, David Ricardo, who by his benevolent countenance, and kindliness of manner, was very attractive to young persons, and who, after I became a student of political economy, invited me to his house and to walk with him in order to converse on the subject. I was a more frequent visitor (from about 1817 or 1818) to Mr. Hume, who, born in the same part of Scotland as my father, and having been, I rather think, a younger schoolfellow or college companion of his, had on returning from India renewed their youthful acquaintance, and who coming like many others greatly under the influence of my father's intellect and energy of character, was induced partly by that influence to go into Parliament, and there adopt the line of conduct which has given him an honourable place in the history of his country. Of Mr. Bentham I saw much more, owing to the close intimacy which existed between him and my father. I do not know how soon after my father's first arrival in England they became acquainted. But my father was the earliest Englishman of any great mark who thoroughly understood, and in the main adopted, Bentham's general views of ethics, government and law: and this was a natural foundation for sympathy between them, and made them familiar companions in a period of Bentham's life during which he admitted much fewer visitors than was the case subsequently.

At this time Mr. Bentham passed some part of every year at Barrow Green House, in a beautiful part of the Surrey hills, a few miles from Godstone, and there I each summer accompanied my father in a long visit. In 1813, Mr. Bentham, my father, and I made an excursion, which included Oxford, Bath and Bristol, Exeter, Plymouth, and Portsmouth. In this journey I saw many things which were instructive to me, and acquired my first taste for natural scenery, in the elementary form of fondness for a "view." In the succeeding winter we moved into a house very near Mr. Bentham's, which my father rented from him, in Queen Square, Westminster. From 1814 to 1817 Mr. Bentham lived during half of each year at Ford Abbey, in Somersetshire (or rather in a part of Devonshire surrounded by Somersetshire), which intervals I had the advantage of passing at that place. This sojourn was, I think, an important circumstance in my education. Nothing contributes more to nourish elevation of sentiments in a people than the large and free character of their habitations. The middle-age architecture, the baronial hall, and the spacious and lofty rooms of this fine old place, so unlike the mean and cramped externals of English middle class life, gave the sentiment of a large and freer existence, and were to me a sort of poetic cultivation, aided also by the character of the grounds in which the Abbey stood; which were riant and secluded, umbrageous, and full of the sound of falling waters.

I owed another of the fortunate circumstances in my education, a year's residence in France, to Mr. Bentham's brother, General Sir Samuel Bentham. I had seen Sir Samuel Bentham and his family at their house near Gosport in the course of the tour already mentioned (he being then Superintendent of the Dockyard at Portsmouth), and during a stay of a few days which they made at Ford Abbey shortly after the peace, before going to live on the Continent. In 1820 they invited me for a six months' visit to them in the South of France, which their kindness ultimately prolonged to nearly a twelvemonth. Sir Samuel Bentham, though of a character of mind different from that of his illustrous brother, was a man of very considerable attainments and general powers, with a decided genius for mechanical art. His wife, a daughter of the celebrated chemist, Dr. Fordyce, was a woman of strong will and decided character, much general knowledge, and great practical good sense of the Edgeworth kind: she was the ruling spirit of the household, as she deserved, and was well qualified, to be. Their family consisted of one son (the eminent botanist) and three daughters, the youngest about two years my senior. I am indebted to them for much and various instruction, and for an almost parental interest in my welfare. When I first joined them, in May 1820, they occu-

pied the Château of Pompignan (still belonging to a descendant of Voltaire's enemy) on the heights overlooking the plain of the Garonne between Montauban and Toulouse. I accompanied them in an excursion to the Pyrenees, including a stay of some duration at Bagnères de Bigorre, a journey to Pau, Bayonne, and Bagnères de Luchon, and an ascent of the Pic du Midi de Bigorre.

This first introduction to the highest order of mountain scenery made the deepest impression on me, and gave a colour to my tastes through life. In October we proceeded by the beautiful mountain route of Castres and St. Pons, from Toulouse to Montpellier, in which last neighbourhood Sir Samuel had just bought the estate of Restinclière, near the foot of the singular mountain of St. Loup. During this residence in France I acquired a familiar knowledge of the French language, and acquaintance with the ordinary French literature; I took lessons in various bodily exercises, in none of which however I made any proficiency; and at Montpellier I attended the excellent winter courses of lectures at the Faculté des Sciences, those of M. Anglada on chemistry, of M. Provençal on zoology, and of a very accomplished representative of the eighteenth century metaphysics, M. Gergonne, on logic, under the name of Philosophy of the Sciences. I also went through a course of the higher mathematics under the private tuition of M. Lenthéric, a professor at the Lycée of Montpellier. But the greatest, perhaps, of the many advantages which I owed to this episode in my education was that of having breathed for a whole year the free and genial atmosphere of Continental life. This advantage was not the less real though I could not then estimate, nor even consciously feel it. Having so little experience of English life, and the few people I knew being mostly such as had public objects, of a large and personally disinterested kind, at heart, I was ignorant of the low moral tone of what, in England, is called society; the habit of, not indeed professing, but taking for granted in every mode of implication, that conduct is of course always directed towards low and petty objects; the absence of high feelings which manifests itself by sneering depreciation of all demonstrations of them, and by general abstinence (except among a few of the stricter religionists) from professing any high principles of action at all, except in those preordained cases in which such profession is put on as part of the costume and formalities of the occasion. I could not then know or estimate the difference between this manner of existence, and that of a people like the French, whose faults, if equally real, are at all events different; among whom sentiments, which by comparison at least may be called elevated, are the current coin of human intercourse, both

in books and in private life; and though often evaporating in profession, are yet kept alive in the nation at large by constant exercise, and stimulated by sympathy, so as to form a living and active part of the existence of great numbers of persons, and to be recognized and understood by all. Neither could I then appreciate the general culture of the understanding, which results from the habitual exercise of the feelings, and is thus carried down into the most uneducated classes of several countries on the Continent, in a degree not equalled in England among the so-called educated, except where an unusual tenderness of conscience leads to a habitual exercise of the intellect on questions of right and wrong. I did not know the way in which, among the ordinary English, the absence of interest in things of an unselfish kind, except occasionally in a special thing here and there, and the habit of not speaking to others, nor much even to themselves, about the things in which they do feel interest, causes both their feelings and their intellectual faculties to remain undeveloped, or to develop themselves only in some single and very limited direction; reducing them, considered as spiritual beings, to a kind of negative existence. All these things I did not perceive till long afterwards; but I even then felt, though without stating it clearly to myself, the contrast between the frank sociability and amiability of French personal intercourse, and the English mode of existence in which everybody acts as if everybody else (with few, or no exceptions) was either an enemy or a bore. In France, it is true, the bad as well as the good points, both of individual and of national character, come more to the surface, and break out more fearlessly in ordinary intercourse, than in England: but the general habit of the people is to show, as well as to expect, friendly feeling in every one towards every other, wherever there is not some positive cause for the opposite. In England it is only of the best-bred people, in the upper or upper middle ranks, that anything like this can be said.

In my way through Paris, both going and returning, I passed some time in the house of M. Say, the eminent political economist, who was a friend and correspondent of my father, having become acquainted with him on a visit to England a year or two after the peace. He was a man of the later period of the French Revolution, a fine specimen of the best kind of French Republican, one of those who had never bent the knee to Bonaparte though courted by him to do so; a truly upright, brave, and enlightened man. He lived a quiet and studious life, made happy by warm affections, public and private. He was acquainted with many of the chiefs of the Liberal party, and I saw various noteworthy persons while staying at his house; among whom I have pleasure in the recollection of having once

seen Saint-Simon, not yet the founder either of a philosophy or a religion, and considered only as a clever *original*. The chief fruit which I carried away from the society I saw was a strong and permanent interest in Continental Liberalism, of which I ever afterwards kept myself *au courant,* as much as of English politics: a thing not at all usual in those days with Englishmen, and which had a very salutary influence on my development, keeping me free from the error always prevalent in England, and from which even my father with all his superiority to prejudice was not exempt, of judging universal questions by a merely English standard. After passing a few weeks at Caen with an old friend of my father's, I returned to England in July 1821; and my education resumed its ordinary course.

LAST STAGE OF EDUCATION AND FIRST OF SELF-EDUCATION

For the first year or two after my visit to France, I continued my old studies, with the addition of some new ones. When I returned, my father was just finishing for the press his "Elements of Political Economy," and he made me perform an exercise on the manuscript, which Mr. Bentham practised on all his own writings, making what he called, "marginal contents"; a short abstract of every paragraph, to enable the writer more easily to judge of, and improve, the order of the ideas, and the general character of the exposition. Soon after, my father put into my hands Condillac's *Traité des Sensations,* and the logical and metaphysical volumes of his *Cours d'Études*; the first (notwithstanding the superficial resemblance between Condillac's psychological system and my father's) quite as much for a warning as for an example. I am not sure whether it was in this winter or the next that I first read a history of the French Revolution. I learnt with astonishment that the principles of democracy, then apparently in so insignificant and hopeless a minority everywhere in Europe, had borne all before them in France thirty years earlier, and had been the creed of the nation. As may be supposed from this, I had previously a very vague idea of that great commotion. I knew only that the French had thrown off the absolute monarchy of Louis XIV and XV, had put the King and Queen to death, guillotined many persons, one of whom was Lavoisier, and had ultimately fallen under the despotism of Bonaparte. From this time, as was natural, the subject took an immense hold of my feelings. It allied itself with all my juvenile aspirations to the character of a democratic champion. What had happened so lately seemed as if it might easily happen

again: and the most transcendant glory I was capable of conceiving was that of figuring, successful or unsuccessful, as a Girondist in an English Convention.

During the winter of 1821–2, Mr. John Austin, with whom at the time of my visit to France my father had but lately become acquainted, kindly allowed me to read Roman law with him. My father, notwithstanding his abhorrence of the chaos of barbarism called English Law, had turned his thoughts towards the bar as on the whole less ineligible for me than any other profession: and these readings with Mr. Austin, who had made Bentham's best ideas his own, and added much to them from other sources and from his own mind, were not only a valuable introduction to legal studies, but an important portion of general education. With Mr. Austin I read Heineccius on the Institutes, his *Roman Antiquities,* and part of his exposition of the Pandects; to which was added a considerable portion of Blackstone. It was at the commencement of these studies that my father, as a needful accompaniment to them, put into my hands Bentham's principal speculations, as interpreted to the Continent, and indeed to all the world, by Dumont, in the *Traité de Législation.* The reading of this book was an epoch in my life, one of the turning points in my mental history.

My previous education had been, in a certain sense, already a course of Benthamism. The Benthamic standard of "the greatest happiness" was that which I had always been taught to apply; I was even familiar with an abstract discussion of it, forming an episode in an unpublished dialogue on "Government," written by my father on the Platonic model. Yet in the first pages of Bentham it burst upon me with all the force of novelty. What thus impressed me was the chapter in which Bentham passed judgment on the common modes of reasoning in morals and legislation, deduced from phrases like "law of nature," "right reason," "the moral sense," "natural rectitude," and the like, and characterized them as dogmatism in disguise, imposing its sentiments upon others under cover of sounding expressions which convey no reason for the sentiment, but set up the sentiment as its own reason. It had not struck me before that Bentham's principle put an end to all this. The feeling rushed upon me, that all previous moralists were superseded, and that here indeed was the commencement of a new era in thought. This impression was strengthened by the manner in which Bentham put into scientific form the application of the happiness principle to the morality of actions, by analysing the various classes and orders of their consequences. But what struck me at the time most of all, was the Classification of Offences, which is much

more clear, compact and imposing in Dumont's *rédaction* than in the original work of Bentham from which it was taken. Logic and the dialectics of Plato, which had formed so large a part of my previous training, had given me a strong relish for accurate classification. This taste had been strengthened and enlightened by the study of botany, on the principles of what is called the Natural Method, which I had taken up with great zeal, though only as an amusement, during my stay in France; and when I found scientific classification applied to the great and complex subject of Punishable Acts, under the guidance of the ethical principle of Pleasurable and Painful Consequences, followed out in the method of detail introduced into these subjects by Bentham, I felt taken up to an eminence from which I could survey a vast mental domain, and see stretching out into the distance intellectual results beyond all computation. As I proceeded further, there seemed to be added to this intellectual clearness, the most inspiring prospects of practical improvements in human affairs. To Bentham's general view of the construction of a body of law I was not altogether a stranger, having read with attention that admirable compendium, my father's article "Jurisprudence": but I had read it with little profit and scarcely any interest, no doubt from its extremely general and abstract character, and also because it concerned the form more than the substance of the *corpus juris,* the logic rather than the ethics of law. But Bentham's subject was Legislation, of which Jurisprudence is only the formal part: and at every page he seemed to open a clearer and broader conception of what human opinions and institutions ought to be, how they might be made what they ought to be, and how far removed from it they now are. When I laid down the last volume of the *Traité,* I had become a different being. The "principle of utility" understood as Bentham understood it, and applied in the manner in which he applied it through these three volumes, fell exactly into its place as the keystone which held together the detached and fragmentary component parts of my knowledge and beliefs. It gave unity to my conceptions of things. I now had opinions; a creed, a doctrine, a philosophy; in one among the best senses of the word, a religion; the inculcation and diffusion of which could be made the principal outward purpose of a life. And I had a grand conception laid before me of changes to be effected in the condition of mankind through that doctrine. The *Traité de Législation* wound up with what was to me a most impressive picture of human life as it would be made by such opinions and such laws as were recommended in the treatise. The anticipations of practicable improvement were studiously moderate, deprecating and discountenancing as reveries of vague enthusiasm many

things which will one day seem so natural to human beings, that injustice will probably be done to those who once thought them chimerical. But, in my state of mind, this appearance of superiority to illusion added to the effect which Bentham's doctrines produced on me, by heightening the impression of mental power, and the vista of improvement which he did open was sufficiently large and brilliant to light up my life, as well as to give a definite shape to my aspirations.

After this I read, from time to time, the most important of the other works of Bentham which had then seen the light, either as written by himself or as edited by Dumont. This was my private reading: while, under my father's direction, my studies were carried into the higher branches of analytic psychology. I now read Locke's *Essay,* and wrote out an account of it, consisting of a complete abstract of every chapter, with such remarks as occurred to me: which was read by, or (I think) to, my father, and discussed throughout. I performed the same process with Helvétius' *De l'Esprit,* which I read of my own choice. This preparation of abstracts, subject to my father's censorship, was of great service to me, by compelling precision in conceiving and expressing psychological doctrines, whether accepted as truths or only regarded as the opinion of others. After Helvétius, my father made me study what he deemed the really master-production in the philosophy of mind, Hartley's *Observations on Man.* This book, though it did not, like the *Traité de Législation,* give a new colour to my existence, made a very similar impression on me in regard to its immediate subject. Hartley's explanation, incomplete as in many points it is, of the more complex mental phenomena by the law of association, commended itself to me at once as a real analysis, and made me feel by contrast the insufficiency of the merely verbal generalizations of Condillac, and even of the instructive gropings and feelings about for psychological explanations of Locke. It was at this very time that my father commenced writing his *Analysis of the Mind,* which carried Hartley's mode of explaining the mental phenomena to so much greater length and depth. He could only command the concentration of thought necessary for this work during the complete leisure of his holiday of a month or six weeks annually: and he commenced it in the summer of 1822, in the first holiday he passed at Dorking; in which neighbourhood, from that time to the end of his life, with the exception of two years, he lived, as far as his official duties permitted, for six months of every year. He worked at the *Analysis* during several successive vacations, up to the year 1829 when it was published, and allowed me to read the manuscript, portion by portion, as it advanced. The other principal English writers on mental

philosophy I read as I felt inclined, particularly Berkeley, Hume's *Essays,* Reid, Dugald Stewart and Brown on *Cause and Effect.* Brown's *Lectures* I did not read until two or three years later, nor at that time had my father himself read them.

Among the works read in the course of this year, which contributed materially to my development, I ought to mention a book (written on the foundation of some of Bentham's manuscripts and published under the pseudonym of Philip Beauchamp) entitled *Analysis of the Influence of Natural Religion on the Temporal Happiness of Mankind.* This was an examination not of the truth, but of the usefulness of religious belief, in the most general sense, apart from the peculiarities of any special Revelation; which, of all the parts of the discussion concerning religion, is the most important in this age, in which real belief in any religious doctrine is feeble and precarious, but the opinion of its necessity for moral and social purposes almost universal; and when those who reject revelation very generally take refuge in an optimistic Deism, a worship of the order of Nature and the supposed course of Providence at least as full of contradictions, and perverting to the moral sentiments, as any of the forms of Christianity, if only it is as completely realized. Yet, very little, with any claim to a philosophical character, has been written by sceptics against the usefulness of this form of belief. The volume bearing the name of Philip Beauchamp had this for its special object. Having been shown to my father in manuscript, it was put into my hands by him, and I made a marginal analysis of it as I had done of the *Elements of Political Economy*. Next to the *Traité de Législation,* it was one of the books which by the searching character of its analysis produced the greatest effect upon me. On reading it lately after an interval of many years, I find it to have some of the defects as well as the merits of the Benthamic modes of thought, and to contain, as I now think, many weak arguments, but with a great overbalance of sound ones, and much good material for a more completely philosophic and conclusive treatment of the subject.

I have now, I believe, mentioned all the books which had any considerable effect on my early mental development. From this point I began to carry on my intellectual cultivation by writing still more than by reading. In the summer of 1822 I wrote my first argumentative essay. I remember very little about it, except that it was an attack on what I regarded as the aristocratic prejudice, that the rich were, or were likely to be, superior in moral qualities to the poor. My performance was entirely argumentative, without any of the declamation which the subject would admit of, and might be expected to suggest to a young writer. In that department how-

ever I was, and remained, very inapt. Dry argument was the only thing I could manage, or willingly attempted; though passively I was very susceptible to the effect of all composition, whether in the form of poetry or oratory, which appealed to the feelings on any basis of reason. My father, who knew nothing of this essay until it was finished, was well satisfied, and as I learnt from others, even pleased with it; but, perhaps from a desire to promote the exercise of other mental faculties than the purely logical, he advised me to make my next exercise in composition one of the oratorical kind: on which suggestion, availing myself of my familiarity with Greek history and ideas and with the Athenian orators, I wrote two speeches, one an accusation, the other a defence of Pericles, on a supposed impeachment for not marching out to fight the Lacedaemonians on their invasion of Attica. After this I continued to write papers on subjects often very much beyond my capacity, but with great benefit both from the exercise itself, and from the discussions which it led to with my father.

I had now also begun to converse, on general subjects, with the instructed men with whom I came in contact: and the opportunities of such contact naturally became more numerous. The two friends of my father from whom I derived most, and with whom I most associated, were Mr. Grote and Mr. John Austin. The acquaintance of both with my father was recent, but had ripened rapidly into intimacy. Mr. Grote was introduced to my father by Mr. Ricardo, I think in 1819 (being then about twenty-five years old), and sought assiduously his society and conversation. Already a highly instructed man, he was yet, by the side of my father, a tyro on the great subjects of human opinion; but he rapidly seized on my father's best ideas; and in the department of political opinion he made himself known as early as 1820, by a pamphlet in defence of Radical Reform, in reply to a celebrated article by Sir James Mackintosh, then lately published in the *Edinburgh Review*. Mr. Grote's father, the banker, was, I believe, a thorough Tory, and his mother intensely Evangelical; so that for his liberal opinions he was in no way indebted to home influences. But, unlike most persons who have the prospect of being rich by inheritance, he had, though actively engaged in the business of banking, devoted a great portion of time to philosophic studies; and his intimacy with my father did much to decide the character of the next stage in his mental progress. Him I often visited, and my conversations with him on political, moral, and philosophical subjects gave me, in addition to much valuable instruction, all the pleasure and benefit of sympathetic communion with a man of the high intellectual and moral eminence which his life and writings have since manifested to the world.

Mr. Austin, who was four or five years older than Mr. Grote, was the eldest son of a retired miller in Suffolk, who had made money by contracts during the war, and who must have been a man of remarkable qualities, as I infer from the fact that all his sons were of more than common ability and all eminently gentlemen. The one with whom we are now concerned, and whose writings on jurisprudence have made him celebrated, was for some time in the army, and served in Sicily under Lord William Bentinck. After the peace he sold his commission and studied for the bar, to which he had been called for some time before my father knew him. He was not, like Mr. Grote, to any extent a pupil of my father, but he had attained, by reading and thought, a considerable number of the same opinions, modified by his own very decided individuality of character. He was a man of great intellectual powers which in conversation appeared at their very best; from the vigour and richness of expression with which, under the excitement of discussion, he was accustomed to maintain some view or other of most general subjects; and from an appearance of not only strong, but deliberate and collected will; mixed with a certain bitterness, partly derived from temperament, and partly from the general cast of his feelings and reflections. The dissatisfaction with life and the world, felt more or less in the present state of society and intellect by every discerning and highly conscientious mind, gave in his case a rather melancholy tinge to the character, very natural to those whose passive moral susceptibilities are more than proportioned to their active energies. For it must be said, that the strength of will of which his manner seemed to give such strong assurance expended itself principally in manner. With great zeal for human improvement, a strong sense of duty, and capacities and acquirements the extent of which is proved by the writings he has left, he hardly ever completed any intellectual task of magnitude. He had so high a standard of what ought to be done, so exaggerated a sense of deficiencies in his own performances, and was so unable to content himself with the amount of elaboration sufficient for the occasion and the purpose, that he not only spoilt much of his work for ordinary use by overlabouring it, but spent so much time and exertion in superfluous study and thought, that when his task ought to have been completed, he had generally worked himself into an illness without having half finished what he undertook. From this mental infirmity (of which he is not the sole example among the accomplished and able men whom I have known), combined with liability to frequent attacks of disabling though not dangerous ill-health, he accomplished, through life, little in comparison with what he seemed capable of; but what he did produce is held in the very

highest estimation by the most competent judges; and, like Coleridge, he might plead as a set-off that he had been to many persons, through his conversation, a source not only of much instruction but of great elevation of character. On me his influence was most salutary. It was moral in the best sense. He took a sincere and kind interest in me, far beyond what could have been expected towards a mere youth from a man of his age, standing, and what seemed austerity of character. There was in his conversation and demeanour a tone of highmindedness which did not show itself so much, if the quality existed as much, in any of the other persons with whom at that time I associated. My intercourse with him was the more beneficial, owing to his being of a different mental type from all other intellectual men whom I frequented, and he from the first set himself decidedly against the prejudices and narrownesses which are almost sure to be found in a young man formed by a particular mode of thought or a particular social circle.

His younger brother, Charles Austin, of whom at this time and for the next year or two I saw much, had also a great effect on me, though of a very different description. He was but a few years older than myself, and had then just left the University, where he had shone with great éclat as a man of intellect and a brilliant orator and converser. The effect he produced on his Cambridge contemporaries deserves to be accounted an historical event; for to it may in part be traced the tendency towards Liberalism in general, and the Benthamic and politico-economic form of it in particular, which showed itself in a portion of the more active-minded young men of the higher classes from this time to 1830. The Union Debating Society, at that time at the height of its reputation, was an arena where what were then thought extreme opinions, in politics and philosophy, were weekly asserted, face to face with their opposites, before audiences consisting of the élite of the Cambridge youth: and though many persons afterwards of more or less note (of whom Lord Macaulay is the most celebrated), gained their first oratorical laurels in those debates, the really influential mind among these intellectual gladiators was Charles Austin. He continued, after leaving the University, to be, by his conversation and personal ascendancy, a leader among the same class of young men who had been his associates there; and he attached me among others to his car. Through him I became acquainted with Macaulay, Hyde and Charles Villiers, Strutt (now Lord Belper), Romilly (now Lord Romilly and Master of the Rolls); and various others who subsequently figured in literature or politics, and among whom I heard discus-

sions on many topics, as yet to a certain degree new to me. The influence of Charles Austin over me differed from that of the persons I have hitherto mentioned, in being not the influence of a man over a boy, but that of an elder contemporary. It was through him that I first felt myself, not a pupil under teachers, but a man among men. He was the first person of intellect whom I met on a ground of equality, though as yet much his inferior on that common ground. He was a man who never failed to impress greatly those with whom he came in contact, even when their opinions were the very reverse of his. The impression he gave was that of boundless strength, together with talents which, combined with such apparent force of will and character, seemed capable of dominating the world. Those who knew him, whether friendly to him or not, always anticipated that he would play a conspicuous part in public life. It is seldom that men produce so great an immediate effect by speech, unless they, in some degree, lay themselves out for it; and he did this in no ordinary degree. He loved to strike, and even to startle. He knew that decision is the greatest element of effect, and he uttered his opinions with all the decision he could throw into them, never so well pleased as when he astonished any one by their audacity. Very unlike his brother, who made war against the narrower interpretations and applications of the principles they both professed, he, on the contrary, presented the Benthamic doctrines in the most startling form of which they were susceptible, exaggerating everything in them which tended to consequences offensive to any one's preconceived feelings. All which, he defended with such verve and vivacity, and carried off by a manner so agreeable as well as forcible, that he always either came off victor, or divided the honours of the field. It is my belief that much of the notion popularly entertained of the tenets and sentiments of what are called Benthamites or Utilitarians had its origin in paradoxes thrown out by Charles Austin. It must be said, however, that his example was followed, *haud passibus aequis* [without restraint], by younger proselytes, and that to *outrer* whatever was by anybody considered offensive in the doctrines and maxims of Benthamism became at one time the badge of a small coterie of youths. All of these who had anything in them, myself among others, quickly outgrew this boyish vanity; and those who had not, became tired of differing from other people, and gave up both the good and the bad part of the heterodox opinions they had for some time professed.

It was in the winter of 1822–3 that I formed the plan of a little society, to be composed of young men agreeing in fundamental principles–ac-

knowledging Utility as their standard in ethics and politics, and a certain number of the principal corollaries drawn from it in the philosophy I had accepted—and meeting once a fortnight to read essays and discuss questions conformably to the premises thus agreed on. The fact would hardly be worth mentioning, but for the circumstance that the name I gave to the society I had planned was the Utilitarian Society. It was the first time that any one had taken the title of Utilitarian; and the term made its way into the language from this humble source. I did not invent the word, but found it in one of Galt's novels, the *Annals of the Parish,* in which the Scotch clergyman, of whom the book is a supposed autobiography, is represented as warning his parishioners not to leave the Gospel and become utilitarians. With a boy's fondness for a name and a banner I seized on the word, and for some years called myself and others by it as a sectarian appellation; and it came to be occasionally used by some others holding the opinions which it was intended to designate. As those opinions attracted more notice, the term was repeated by strangers and opponents, and got into rather common use just about the time when those who had originally assumed it, laid down that along with other sectarian characteristics. The Society so called consisted at first of no more than three members, one of whom, being Mr. Bentham's amanuensis, obtained for us permission to hold our meetings in his house. The number never, I think, reached ten, and the society was broken up in 1826. It had thus an existence of about three years and a half. The chief effect of it as regards myself, over and above the benefit of practice in oral discussion, was that of bringing me in contact with several young men at that time less advanced than myself, among whom, as they professed the same opinions, I was for some time a sort of leader, and had considerable influence on their mental progress. Any young man of education who fell in my way, and whose opinions were not incompatible with those of the Society, I endeavoured to press into its service; and some others I probably should never have known, had they not joined it. Those of the members who became my intimate companions—no one of whom was in any sense of the word a disciple, but all of them independent thinkers on their own basis—were William Eyton Tooke, son of the eminent political economist, a young man of singular worth both moral and intellectual, lost to the world by an early death; his friend William Ellis, an original thinker in the field of political economy, now honourably known by his apostolic exertions for the improvement of education; George Graham, afterwards an official assignee of the Bankruptcy Court, a thinker of originality and power on almost all abstract subjects; and (from the time

when he came first to England to study for the bar in 1824 or 1825) a man who has made considerably more noise in the world than any of these, John Arthur Roebuck.

In May 1823, my professional occupation and status for the next thirty-five years of my life were decided by my father's obtaining for me an appointment from the East India Company, in the office of the Examiner of India Correspondence, immediately under himself. I was appointed in the usual manner, at the bottom of the list of clerks, to rise, at least in the first instance, by seniority; but with the understanding that I should be employed from the beginning in preparing drafts of despatches, and be thus trained up as a successor to those who then filled the higher departments of the office. My drafts of course required, for some time, much revision from my immediate superiors, but I soon became well acquainted with the business, and by my father's instructions and the general growth of my own powers, I was in a few years qualified to be, and practically was, the chief conductor of the correspondence with India in one of the leading departments, that of the Native States. This continued to be my official duty until I was appointed Examiner, only two years before the time when the abolition of the East India Company as a political body determined my retirement. I do not know any one of the occupations by which a subsistence can now be gained, more suitable than such as this to any one who, not being in independent circumstances, desires to devote a part of the twenty-four hours to private intellectual pursuits. Writing for the press cannot be recommended as a permanent resource to any one qualified to accomplish anything in the higher departments of literature or thought: not only on account of the uncertainty of this means of livelihood, especially if the writer has a conscience, and will not consent to serve any opinions except his own, but also because the writings by which one can live are not the writings which themselves live, and are never those in which the writer does his best. Books destined to form future thinkers take too much time to write, and when written come, in general, too slowly into notice and repute, to be relied on for subsistence. Those who have to support themselves by their pen must depend on literary drudgery, or at best on writings addressed to the multitude; and can employ in the pursuits of their own choice only such time as they can spare from those of necessity; which is generally less than the leisure allowed by office occupations, while the effect on the mind is far more enervating and fatiguing. For my own part I have, through life, found office duties an actual rest from the other mental occupations which I have carried on simultaneously with them. They

were sufficiently intellectual not to be a distasteful drudgery, without being such as to cause any strain upon the mental powers of a person used to abstract thought, or to the labour of careful literary composition. The drawbacks, for every mode of life has its drawbacks, were not, however, unfelt by me. I cared little for the loss of the chances of riches and honours held out by some of the professions, particularly the bar, which had been, as I have already said, the profession thought of for me. But I was not indifferent to exclusion from Parliament, and public life: and I felt very sensibly the more immediate unpleasantness of confinement to London; the holiday allowed by India-house practice not exceeding a month in the year, while my taste was strong for a country life, and my sojourn in France had left behind it an ardent desire of travelling. But though these tastes could not be freely indulged, they were at no time entirely sacrificed. I passed most Sundays, throughout the year, in the country, taking long rural walks on that day even when residing in London. The month's holiday was, for a few years, passed at my father's house in the country: afterwards a part or the whole was spent in tours, chiefly pedestrian, with some one or more of the young men who were my chosen companions; and, at a later period, in longer journeys or excursions, alone or with other friends. France, Belgium, and Rhenish Germany were within easy reach of the annual holiday: and two longer absences, one of three, the other of six months, under medical advice, added Switzerland, the Tyrol, and Italy to my list. Fortunately, also, both these journeys occurred rather early, so as to give the benefit and charm of the remembrance to a large portion of life.

I am disposed to agree with what has been surmised by others, that the opportunity which my official position gave me of learning by personal observation the necessary conditions of the practical conduct of public affairs has been of considerable value to me as a theoretical reformer of the opinions and institutions of my time. Not, indeed, that public business transacted on paper, to take effect on the other side of the globe, was of itself calculated to give much practical knowledge of life. But the occupation accustomed me to see and hear the difficulties of every course, and the means of obviating them, stated and discussed deliberately with a view to execution; it gave me opportunities of perceiving when public measures, and other political facts, did not produce the effects which had been expected of them, and from what causes; above all, it was valuable to me by making me, in this portion of my activity, merely one wheel in a machine, the whole of which had to work together. As a speculative writer, I should have had no one to consult but myself, and should have

encountered in my speculations none of the obstacles which would have started up whenever they came to be applied to practice. But as a secretary conducting political correspondence, I could not issue an order or express an opinion, without satisfying various persons very unlike myself that the thing was fit to be done. I was thus in a good position for finding out by practice the mode of putting a thought which gives it easiest admittance into minds not prepared for it by habit; while I became practically conversant with the difficulties of moving bodies of men, the necessities of compromise, the art of sacrificing the non-essential to preserve the essential. I learnt how to obtain the best I could, when I could not obtain everything; instead of being indignant or dispirited because I could not have entirely my own way, to be pleased and encouraged when I could have the smallest part of it; and when even that could not be, to bear with complete equanimity the being overruled altogether. I have found, through life, these acquisitions to be of the greatest possible importance for personal happiness, and they are also a very necessary condition for enabling any one, either as theorist or as practical man, to effect the greatest amount of good compatible with his opportunities.

The foregoing consists of Chapters I–III of John Stuart Mill's AUTOBIOGRAPHY.

Mark Twain[1]

1835–1910

In 1883, when Mark Twain was already a famous author, he could look back with longing on his career as a river-boat pilot. "I loved the profession far better than any I have followed since," he wrote. What had been the great appeal? In *Life on the Mississippi* he explains.

The sleepy town of Hannibal, Missouri, was galvanized each day by the arrival of the packet boat. All was turmoil and excitement, and Mark Twain and other small boys raced to the dock, as to a circus. For them the desire to be a steamboat pilot was as fond a dream as being an airplane pilot or an astronaut is for boys today. Such dreams are achieved only by determination and courage.

Mark Twain's apprenticeship under his pilot chief was grueling, and he tells us that if he had known what was required he "should not have had the courage to begin." He was taught to recognize the changing shape of the river, the deadly shoals appearing overnight, the feel of the boat, and the face of the water. His memory had to be quick, his judgment alert, and he had to have the courage and confidence to rely on them. "Every trivial detail of twelve hundred miles of river" had to be known "with absolute exactness."

At the wheel on one occasion he was ordered to "shave those steamships as close as you'd peel an apple." It was certainly hair raising, for he knew that one little error could be fatal. Ship, cargo, and all hands and passengers, if there were any, would be swallowed up by the treacherous river. Yet Twain took "a measureless pride" in the profession, once he had learned it. The river-boat pilot, he said, is the most independent being on earth–more so than a king,

[1] For a biography of Mark Twain, see Vol. 2, pp. 342–344, in this set.

who is, after all, a servant of parliament. Once the ship is under way, the pilot's word is law, and not even a king would dare to contradict him.

Today we can read stories of aviation written by such flyers as Saint-Exupery and Charles Lindbergh. Our newspapers and magazines give us minute accounts of the astronauts' flights. Thousands of boys are stirred by the daring skill and absolute command of these modern heroes, as they were in Mark Twain's day by the lonely courage of the pilot.

Life on the Mississippi is unique as the saga of the nineteenth-century pilot on the majestic old river, and it is notable for its humorous realism. Rudyard Kipling had Mark Twain's humor in mind when he said, "Cervantes was a relation of his." As you read, you might keep a lookout for this alleged similarity.

Learning the River
from *Life on the Mississippi*

THE RIVER AND ITS HISTORY

The Mississippi is well worth reading about. It is not a commonplace river, but on the contrary is in all ways remarkable. Considering the Missouri its main branch, it is the longest river in the world–four thousand three hundred miles. It seems safe to say that it is also the crookedest river in the world, since in one part of its journey it uses up one thousand three hundred miles to cover the same ground that the crow would fly over in six hundred and seventy-five. It discharges three times as much water as the St. Lawrence, twenty-five times as much as the Rhine, and three hundred and thirty-eight times as much as the Thames. No other river has so vast a drainage basin; it draws its water supply from twenty-eight states and territories; from Delaware on the Atlantic seaboard, and from all the country between that and Idaho on the Pacific slope–a spread of forty-five degrees of longitude. The Mississippi receives and carries to the Gulf water from fifty-four subordinate rivers that are navigable by steamboats, and from some hundreds that are navigable by flats and keels. The area of its drainage basin is as great as the combined areas of England, Wales, Scotland, Ireland, France, Spain, Portugal, Germany, Austria, Italy, and Turkey; and almost all this wide region is fertile; the Mississippi valley, proper, is exceptionally so.

It is a remarkable river in this: that instead of widening toward its mouth, it grows narrower; grows narrower and deeper. From the junction of the Ohio to a point halfway down to the sea, the width averages a mile in high water; thence to the sea the width steadily diminishes, until, at the "Passes," above the mouth, it is but little over half a mile. At the junction of the Ohio the Mississippi's depth is eighty-seven feet; the depth increases gradually, reaching one hundred and twenty-nine just above the mouth.

The difference in rise and fall is also remarkable—not in the upper, but in the lower river. The rise is tolerably uniform down to Natchez (three hundred and sixty miles above the mouth)—about fifty feet. But at Bayou La Fourche the river rises only twenty-four feet; at New Orleans only fifteen, and just above the mouth only two and one-half.

An article in the New Orleans *Times-Democrat,* based upon reports of able engineers, states that the river annually empties four hundred and six million tons of mud into the Gulf of Mexico—which brings to mind Captain Marryat's rude name for the Mississippi—"the Great Sewer." This mud, solidified, would make a mass a mile square and two hundred and forty-one feet high.

The mud deposit gradually extends the land—but only gradually; it has extended it not quite a third of a mile in the two hundred years which have elapsed since the river took its place in history.

The belief of the scientific people is that the mouth used to be at Baton Rouge, where the hills cease, and that the two hundred miles of land between there and the Gulf was built by the river. This gives us the age of that piece of country, without any trouble at all—one hundred and twenty thousand years. Yet it is much the youthfulest batch of country that lies around there anywhere.

The Mississippi is remarkable in still another way—its disposition to make prodigious jumps by cutting through narrow necks of land, and thus straightening and shortening itself. More than once it has shortened itself thirty miles at a single jump!

These cutoffs have had curious effects: they have thrown several river towns out into the rural districts, and built up sand bars and forests in front of them. The town of Delta used to be three miles below Vicksburg; a recent cutoff has radically changed the position, and Delta is now *two miles above* Vicksburg.

Both of these river towns have been retired to the country by that cutoff. A cutoff plays havoc with boundary lines and jurisdictions: for instance, a man is living in the state of Mississippi today, a cutoff occurs tonight, and tomorrow the man finds himself and his land over on the other side of the river, within the boundaries and subject to the laws of the state of Louisiana! Such a thing, happening in the upper river in the old times, could have transferred a slave from Missouri to Illinois and made a free man of him.

The Mississippi does not alter its locality by cutoffs alone; it is always changing its habitat *bodily*—is always moving bodily *sidewise*. At Hard Times, Louisiana, the river is two miles west of the region it used to oc-

cupy. As a result, the original site of that settlement is not now in Louisiana at all, but on the other side of the river, in the state of Mississippi. *Nearly the whole of that one thousand three hundred miles of old Mississippi River which La Salle floated down in his canoes, two hundred years ago, is good solid dry ground now.* The river lies to the right of it, in places, and to the left of it in other places.

Although the Mississippi's mud builds land but slowly, down at the mouth, where the Gulf's billows interfere with its work, it builds fast enough in better-protected regions higher up: for instance, Prophet's Island contained one thousand five hundred acres of land thirty years ago; since then the river has added seven hundred acres to it.

THE BOY'S AMBITION

When I was a boy, there was but one permanent ambition among my comrades in our village [1] on the west bank of the Mississippi River. That was, to be a steamboatman. We had transient ambitions of other sorts, but they were only transient. When a circus came and went, it left us all burning to become clowns; the first Negro minstrel show that ever came to our section left us all suffering to try that kind of life; now and then we had a hope that, if we lived and were good, God would permit us to be pirates. These ambitions faded out, each in its turn; but the ambition to be a steamboatman always remained.

Once a day a cheap, gaudy packet arrived upward from St. Louis, and another downward from Keokuk. Before these events, the day was glorious with expectancy; after them, the day was a dead and empty thing. Not only the boys, but the whole village, felt this. After all these years I can picture that old time to myself now, just as it was then: the white town drowsing in the sunshine of a summer's morning; the streets empty, or pretty nearly so; one or two clerks sitting in front of the Water Street stores, with their splint-bottomed chairs tilted back against the walls, chins on breasts, hats slouched over their faces, asleep–with shingle-shavings enough around to show what broke them down; a sow and a litter of pigs loafing along the sidewalk, doing a good business in watermelon rinds and seeds; two or three lonely little freight piles scattered about the "levee"; a pile of "skids" on the slope of the stone-paved wharf, and the fragrant town drunkard asleep in the shadow of them; two or three wood flats at the head of the wharf, but nobody to listen to the

1. Hannibal, Missouri.

peaceful lapping of the wavelets against them; the great Mississippi, the majestic, the magnificent Mississippi, rolling its mile-wide tide along, shining in the sun; the dense forest away on the other side; the "point" above the town, and the "point" below, bounding the river glimpse and turning it into a sort of sea, and withal a very still and brilliant and lonely one. Presently a film of dark smoke appears above one of those remote "points"; instantly a Negro drayman, famous for his quick eye and prodigious voice, lifts up the cry, "S-t-e-a-m-boat a-comin'!" and the scene changes! The town drunkard stirs, the clerks wake up, a furious clatter of drays follows, every house and store pours out a human contribution, and all in a twinkling the dead town is alive and moving. Drays, carts, men, boys, all go hurrying from many quarters to a common center, the wharf. Assembled there, the people fasten their eyes upon the coming boat as upon a wonder they are seeing for the first time. And the boat *is* rather a handsome sight, too. She is long and sharp and trim and pretty; she has two tall, fancy-topped chimneys, with a gilded device of some kind swung between them; a fanciful pilothouse, all glass and "gingerbread," perched on top of the "texas" deck behind them; the paddle boxes are gorgeous with a picture or with gilded rays above the boat's name; the boiler deck, the hurricane deck, and the texas deck are fenced and ornamented with clean white railings; there is a flag gallantly flying from the jack staff; the furnace doors are open and the fires glaring bravely; the upper decks are black with passengers; the captain stands by the big bell, calm, imposing, the envy of all; great volumes of the blackest smoke are rolling and tumbling out of the chimneys—a husbanded grandeur created with a bit of pitch pine just before arriving at a town; the crew are grouped on the forecastle; the broad stage is run far out over the port bow, and an envied deck hand stands picturesquely on the end of it with a coil of rope in his hand; the pent steam is screaming through the gauge cocks; the captain lifts his hand, a bell rings, the wheels stop; then they turn back, churning the water to foam, and the steamer is at rest. Then such a scramble as there is to get aboard, and to get ashore, and to take in freight and to discharge freight, all at one and the same time; and such a yelling and cursing as the mates facilitate it all with! Ten minutes later the steamer is under way again, with no flag on the jack staff and no black smoke issuing from the chimneys. After ten more minutes the town is dead again, and the town drunkard asleep by the skids once more.

My father was a justice of the peace, and I supposed he possessed the power of life and death over all men, and could hang anybody that of-

fended him. This was distinction enough for me as a general thing; but the desire to be a steamboatman kept intruding, nevertheless. I first wanted to be a cabin boy, so that I could come out with a white apron on and shake a tablecloth over the side, where all my old comrades could see me: later I thought I would rather be the deck hand who stood on the end of the stage plank with the coil of rope in his hand, because he was particularly conspicuous. But these were only daydreams–they were too heavenly to be contemplated as real possibilities. By and by one of our boys went away. He was not heard of for a long time. At last he turned up as apprentice engineer or "striker" on a steamboat. This thing shook the bottom out of all my Sunday-school teachings. That boy had been notoriously worldly, and I just the reverse; yet he was exalted to this eminence, and I left in obscurity and misery. There was nothing generous about this fellow in his greatness. He would always manage to have a rusty bolt to scrub while his boat tarried at our town, and he would sit on the inside guard and scrub it, where we all could see him and envy him and loathe him. And whenever his boat was laid up he would come home and swell around the town in his blackest and greasiest clothes, so that nobody could help remembering that he was a steamboatman; and he used all sorts of steamboat technicalities in his talk, as if he were so used to them that he forgot common people could not understand them. He would speak of the "labboard" side of a horse in an easy, natural way that would make one wish he was dead. And he was always talking about "St. Looy" like an old citizen; he would refer casually to occasions when he was "coming down Fourth Street," or when he was "passing by the Planter's House," or when there was a fire and he took a turn on the brakes of "the old Big Missouri"; and then he would go on and lie about how many towns the size of ours were burned down there that day. Two or three of the boys had long been persons of consideration among us because they had been to St. Louis once and had a vague general knowledge of its wonders, but the day of their glory was over now. They lapsed into a humble silence, and learned to disappear when the ruthless "cub"-engineer approached. This fellow had money, too, and hair oil. Also an ignorant silver watch and a showy brass watch chain. He wore a leather belt and used no suspenders. If ever a youth was cordially admired and hated by his comrades, this one was. No girl could withstand his charms. He "cut out" every boy in the village. When his boat blew up at last, it diffused a tranquil contentment among us such as we had not known for months. But when he came home the next week, alive, renowned, and appeared in church all battered up and

bandaged, a shining hero, stared at and wondered over by everybody, it seemed to us that the partiality of Providence for an undeserving reptile had reached a point where it was open to criticism.

This creature's career could produce but one result, and it speedily followed. Boy after boy managed to get on the river. The minister's son became an engineer. The doctor's and the postmaster's sons became "mud clerks"; the wholesale liquor dealer's son became a barkeeper on a boat; four sons of the chief merchant, and two sons of the county judge, became pilots. Pilot was the grandest position of all. The pilot, even in those days of trivial wages, had a princely salary—from a hundred and fifty to two hundred and fifty dollars a month, and no board to pay. Two months of his wages would pay a preacher's salary for a year. Now some of us were left disconsolate. We could not get on the river—at least our parents would not let us.

So, by and by, I ran away. I said I would never come home again till I was a pilot and could come in glory. But somehow I could not manage it. I went meekly aboard a few of the boats that lay packed together like sardines at the long St. Louis wharf, and humbly inquired for the pilots, but got only a cold shoulder and short words from mates and clerks. I had to make the best of this sort of treatment for the time being, but I had comforting daydreams of a future when I should be a great and honored pilot, with plenty of money, and could kill some of these mates and clerks and pay for them.

A CUB-PILOT'S EXPERIENCE

What with lying on the rocks four days at Louisville, and some other delays, the poor old *Paul Jones* fooled away about two weeks in making the voyage from Cincinnati to New Orleans. This gave me a chance to get acquainted with one of the pilots, and he taught me how to steer the boat, and thus made the fascination of river life more potent than ever for me.

It also gave me a chance to get acquainted with a youth who had taken deck passage—more's the pity; for he easily borrowed six dollars of me on a promise to return to the boat and pay it back to me the day after we should arrive. But he probably died or forgot, for he never came. It was doubtless the former, since he had said his parents were wealthy, and he only traveled deck passage because it was cooler.[2]

2. "Deck" passage—*i. e.,* steerage passage.

I soon discovered two things. One was that a vessel would not be likely to sail for the mouth of the Amazon under ten or twelve years; and the other was that the nine or ten dollars still left in my pocket would not suffice for so impossible an exploration as I had planned, even if I could afford to wait for a ship. Therefore it followed that I must contrive a new career. The *Paul Jones* was now bound for St. Louis. I planned a siege against my pilot, and at the end of three hard days he surrendered. He agreed to teach me the Mississippi River from New Orleans to St. Louis for five hundred dollars, payable out of the first wages I should receive after graduating. I entered upon the small enterprise of "learning" twelve or thirteen hundred miles of the great Mississippi River with the easy confidence of my time of life. If I had really known what I was about to require of my faculties, I should not have had the courage to begin. I supposed that all a pilot had to do was to keep his boat in the river, and I did not consider that that could be much of a trick, since it was so wide.

The boat backed out from New Orleans at four in the afternoon, and it was "our watch" until eight. Mr. Bixby, my chief, "straightened her up," plowed her along past the sterns of the other boats that lay at the Levee, and then said, "Here, take her; shave those steamships as close as you'd peel an apple." I took the wheel, and my heartbeat fluttered up into the hundreds; for it seemed to me that we were about to scrape the side off every ship in the line, we were so close. I held my breath and began to claw the boat away from the danger; and I had my own opinion of the pilot who had known no better than to get us into such peril, but I was too wise to express it. In half a minute I had a wide margin of safety intervening between the *Paul Jones* and the ships; and within ten seconds more I was set aside in disgrace, and Mr. Bixby was going into danger again and flaying me alive with abuse of my cowardice. I was stung, but I was obliged to admire the easy confidence with which my chief loafed from side to side of his wheel, and trimmed the ships so closely that disaster seemed ceaselessly imminent. When he had cooled a little he told me that the easy water was close ashore and the current outside, and therefore we must hug the bank, upstream, to get the benefit of the former, and stay well out, downstream, to take advantage of the latter. In my own mind I resolved to be a downstream pilot and leave the upstreaming to people dead to prudence.

Now and then Mr. Bixby called my attention to certain things. Said he, "This is Six-Mile Point." I assented. It was pleasant enough information, but I could not see the bearing of it. I was not conscious that it was a

matter of any interest to me. Another time he said, "This is Nine-Mile Point." Later he said, "This is Twelve-Mile Point." They were all about level with the water's edge; they all looked about alike to me; they were monotonously unpicturesque. I hoped Mr. Bixby would change the subject. But no; he would crowd up around a point, hugging the shore with affection, and then say: "The slack water ends here, abreast this bunch of China trees; now we cross over." So he crossed over. He gave me the wheel once or twice, but I had no luck. I either came near chipping off the edge of a sugar plantation, or I yawed too far from shore, and so dropped back into disgrace again and got abused.

The watch was ended at last, and we took supper and went to bed. At midnight the glare of a lantern shone in my eyes, and the night watchman said:

"Come, turn out!"

And then he left. I could not understand this extraordinary procedure; so I presently gave up trying to, and dozed off to sleep. Pretty soon the watchman was back again, and this time he was gruff. I was annoyed. I said:

"What do you want to come bothering around here in the middle of the night for? Now, as like as not, I'll not get to sleep again tonight."

The watchman said:

"Well, if this ain't good, I'm blessed."

The "off-watch" was just turning in, and I heard some brutal laughter from them, and such remarks as "Hello, watchman! ain't the new cub turned out yet? He's delicate, likely. Give him some sugar in a rag, and send for the chambermaid to sing 'Rock-a-by Baby' to him?"

About this time Mr. Bixby appeared on the scene. Something like a minute later I was climbing the pilothouse steps with some of my clothes on and the rest in my arms. Mr. Bixby was close behind, commenting. Here was something fresh—this thing of getting up in the middle of the night to go to work. It was a detail in piloting that had never occurred to me at all. I knew that boats ran all night, but somehow I had never happened to reflect that somebody had to get up out of a warm bed to run them. I began to fear that piloting was not quite so romantic as I had imagined it was; there was something very real and worklike about this new phase of it.

It was a rather dingy night, although a fair number of stars were out. The big mate was at the wheel, and he had the old tub pointed at a star and was holding her straight up the middle of the river. The shores on either hand were not much more than half a mile apart, but they

seemed wonderfully far away and ever so vague and indistinct. The mate said:

"We've got to land at Jones's plantation, sir."

The vengeful spirit in me exulted. I said to myself, "I wish you joy of your job, Mr. Bixby; you'll have a good time finding Mr. Jones's plantation such a night as this; and I hope you never *will* find it as long as you live."

Mr. Bixby said to the mate:

"Upper end of the plantation, or the lower?"

"Upper."

"I can't do it. The stumps there are out of water at this stage. It's no great distance to the lower, and you'll have to get along with that."

"All right, sir. If Jones don't like it, he'll have to lump it, I reckon."

And then the mate left. My exultation began to cool and my wonder to come up. Here was a man who not only proposed to find this plantation on such a night, but to find either end of it you preferred. I dreadfully wanted to ask a question, but I was carrying about as many short answers as my cargo room would admit of, so I held my peace. All I desired to ask Mr. Bixby was the simple question whether he was ass enough to really imagine he was going to find that plantation on a night when all plantations were exactly alike and all of the same color. But I held in. I used to have fine inspirations of prudence in those days.

Mr. Bixby made for the shore and soon was scraping it, just the same as if it had been daylight. And not only that, but singing:

Father in heaven, the day is declining, etc.

It seemed to me that I had put my life in the keeping of a peculiarly reckless outcast. Presently he turned on me and said:

"What's the name of the first point above New Orleans?"

I was gratified to be able to answer promptly, and I did. I said I didn't know.

"Don't *know?*"

This manner jolted me. I was down at the foot again, in a moment. But I had to say just what I had said before.

"Well, you're a smart one!" said Mr. Bixby. "What's the name of the *next* point?"

Once more I didn't know.

"Well, this beats anything. Tell me the name of *any* point or place I told you."

I studied awhile and decided that I couldn't.

"Look here! What do you start out from, above Twelve-Mile Point, to cross over?"

"I–I–don't know."

"You–you–don't know?" mimicking my drawling manner of speech. "What *do* you know?"

"I–I–nothing, for certain."

"By the great Caesar's ghost, I believe you! You're the stupidest dunderhead I ever saw or ever heard of, so help me Moses! The idea of *you* being a pilot–*you!* Why, you don't know enough to pilot a cow down a lane."

Oh, but his wrath was up! He was a nervous man, and he shuffled from one side of his wheel to the other as if the floor was hot. He would boil awhile to himself, and then overflow and scald me again.

"Look here! What do you suppose I told you the names of those points for?"

I tremblingly considered a moment, and then the devil of temptation provoked me to say:

"Well, to–to–be entertaining, I thought."

This was a red rag to the bull. He raged and stormed so (he was crossing the river at the time) that I judged it made him blind, because he ran over the steering oar of a trading scow. Of course the traders sent up a volley of red-hot profanity. Never was a man so grateful as Mr. Bixby was; because he was brimful, and here were subjects who could *talk back*. He threw open a window, thrust his head out, and such an irruption followed as I never had heard before. The fainter and farther away the scowmen's curses drifted, the higher Mr. Bixby lifted his voice and the weightier his adjectives grew. When he closed the window he was empty. You could have drawn a seine through his system and not caught curses enough to disturb your mother with. Presently he said to me in the gentlest way:

"My boy, you must get a little memorandum book; and every time I tell you a thing, put it down right away. There's only one way to be a pilot, and that is to get this entire river by heart. You have to know it just like A B C."

That was a dismal revelation to me; for my memory was never loaded with anything but blank cartridges. However, I did not feel discouraged long. I judged that it was best to make some allowances, for doubtless Mr. Bixby was "stretching." Presently he pulled a rope and struck a few strokes on the big bell. The stars were all gone now, and the night was as black as ink. I could hear the wheels churn along the bank, and I was

not entirely certain that I could see the shore. The voice of the invisible watchman called up from the hurricane deck:

"What's this, sir?"

"Jones's plantation."

I said to myself, "I wish I might venture to offer a small bet that it isn't." But I did not chirp. I only waited to see. Mr. Bixby handled the engine bells, and in due time the boat's nose came to the land, a torch glowed from the forecastle, a man skipped ashore, a darky's voice on the bank said: "Gimme de k'yarpetbag, Mass' Jones," and the next moment we were standing up the river again, all serene. I reflected deeply awhile, and then said–but not aloud–"Well, the finding of that plantation was the luckiest accident that ever happened; but it couldn't happen again in a hundred years." And I fully believed it *was* an accident, too.

By the time we had gone seven or eight hundred miles up the river, I had learned to be a tolerably plucky upstream steersman, in daylight; and before we reached St. Louis I had made a trifle of progress in night work, but only a trifle. I had a notebook that fairly bristled with the names of towns, "points," bars, islands, bends, reaches, etc.; but the information was to be found only in the notebook–none of it was in my head. It made my heart ache to think I had only got half of the river set down; for as our watch was four hours off and four hours on, day and night, there was a long four-hour gap in my book for every time I had slept since the voyage began.

My chief was presently hired to go on a big New Orleans boat, and I packed my satchel and went with him. She was a grand affair. When I stood in her pilothouse I was so far above the water that I seemed perched on a mountain; and her decks stretched so far away, fore and aft, below me, that I wondered how I could ever have considered the little *Paul Jones* a large craft. There were other differences, too. The *Paul Jones's* pilothouse was a cheap, dingy, battered rattletrap, cramped for room; but here was a sumptuous glass temple; room enough to have a dance in; showy red and gold window curtains; an imposing sofa; leather cushions and a back to the high bench where visiting pilots sit, to spin yarns and "look at the river"; bright, fanciful "cuspidors," instead of a broad wooden box filled with sawdust; nice new oilcloth on the floor; a hospitable big stove for winter; a wheel as high as my head, costly with inlaid work; a wire tiller rope; bright brass knobs for the bells; and a tidy, white-aproned, black "texas-tender," to bring up tarts and ices and coffee during midwatch, day and night. Now this was "something like"; and so I began to take heart once more to believe that piloting was a romantic sort

of occupation after all. The moment we were under way I began to prowl about the great steamer and fill myself with joy. She was as clean and as dainty as a drawing room; when I looked down her long, gilded saloon, it was like gazing through a splendid tunnel; she had an oil picture, by some gifted sign painter, on every stateroom door; she glittered with no end of prism-fringed chandeliers; the clerk's office was elegant, the bar was marvelous, and the barkeeper had been barbered and upholstered at incredible cost. The boiler deck (*i. e.,* the second story of the boat, so to speak) was as spacious as a church, it seemed to me; so with the forecastle; and there was no pitiful handful of deck hands, firemen, and roustabouts down there, but a whole battalion of men. The fires were fiercely glaring from a long row of furnaces, and over them were eight huge boilers! This was unutterable pomp. The mighty engines—but enough of this. I had never felt so fine before. And when I found that the regiment of natty servants respectfully "sir'd" me, my satisfaction was complete.

A DARING DEED

When I returned to the pilothouse St. Louis was gone, and I was lost. Here was a piece of river which was all down in my book, but I could make neither head nor tail of it; you understand, it was turned around. I had seen it when coming upstream, but I had never faced about to see how it looked when it was behind me. My heart broke again, for it was plain that I had got to learn this troublesome river *both* ways.

The pilothouse was full of pilots, going down to "look at the river." What is called the "upper river" (the two hundred miles between St. Louis and Cairo, where the Ohio comes in) was low; and the Mississippi changes its channel so constantly that the pilots used to always find it necessary to run down to Cairo to take a fresh look, when their boats were to lie in port a week; that is, when the water was at a low stage. A deal of this "looking at the river" was done by poor fellows who seldom had a berth, and whose only hope of getting one lay in their being always freshly posted and therefore ready to drop into the shoes of some reputable pilot, for a single trip, on account of such pilot's sudden illness, or some other necessity. And a good many of them constantly ran up and down inspecting the river, not because they ever really hoped to get a berth, but because (they being guests of the boat) it was cheaper to "look at the river" than stay ashore and pay board. In time these fellows grew dainty in their tastes, and only infested boats that had an estab-

lished reputation for setting good tables. All visiting pilots were useful, for they were always ready and willing, winter or summer, night or day, to go out in the yawl and help buoy the channel or assist the boat's pilots in any way they could. They were likewise welcomed because all pilots are tireless talkers, when gathered together, and as they talk only about the river they are always understood and are always interesting. Your true pilot cares nothing about anything on earth but the river, and his pride in his occupation surpasses the pride of kings.

We had a fine company of these river inspectors along this trip. There were eight or ten, and there was abundance of room for them in our great pilothouse. Two or three of them wore polished silk hats, elaborate shirt fronts, diamond breastpins, kid gloves, and patent-leather boots. They were choice in their English, and bore themselves with a dignity proper to men of solid means and prodigious reputation as pilots. The others were more or less loosely clad, and wore upon their heads tall felt cones that were suggestive of the days of the Commonwealth.

I was a cipher in this august company, and felt subdued, not to say torpid. I was not even of sufficient consequence to assist at the wheel when it was necessary to put the tiller hard down in a hurry; the guest that stood nearest did that when occasion required–and this was pretty much all the time, because of the crookedness of the channel and the scant water. I stood in a corner; and the talk I listened to took the hope all out of me. One visitor said to another:

"Jim, how did you run Plum Point, coming up?"

"It was in the night, there, and I ran it the way one of the boys on the *Diana* told me; started out about fifty yards above the woodpile on the false point, and held on the cabin under Plum Point till I raised the reef–quarter less twain–then straightened up for the middle bar till I got well abreast the old one-limbed cottonwood in the bend, then got my stern on the cottonwood, and head on the low place above the point, and came through a-booming–nine and a half."

"Pretty square crossing, an't it?"

"Yes, but the upper bar's working down fast."

Another pilot spoke up and said:

"I had better water than that, and ran it lower down; started out from the false point–mark twain–raised the second reef abreast the big snag in the bend, and had quarter less twain."

One of the gorgeous ones remarked:

"I don't want to find fault with your leadsmen, but that's a good deal of water for Plum Point, it seems to me."

There was an approving nod all around as this quiet snub dropped on the boaster and "settled" him. And so they went on talk-talk-talking. Meantime, the thing that was running in my mind was, "Now, if my ears hear aright, I have not only to get the names of all the towns and islands and bends, and so on, by heart, but I must even get up a warm personal acquaintanceship with every old snag and one-limbed cottonwood and obscure woodpile that ornaments the banks of this river for twelve hundred miles; and more than that, I must actually know where these things are in the dark, unless these guests are gifted with eyes that can pierce through two miles of solid blackness. I wish the piloting business was in Jericho and I had never thought of it."

At dusk Mr. Bixby tapped the big bell three times (the signal to land), and the captain emerged from his drawing room in the forward end of the "texas," and looked up inquiringly. Mr. Bixby said:

"We will lay up here all night, captain."

"Very well, sir."

That was all. The boat came to shore and was tied up for the night. It seemed to me a fine thing that the pilot could do as he pleased, without asking so grand a captain's permission. I took my supper and went immediately to bed, discouraged by my day's observations and experiences. My late voyage's notebooking was but a confusion of meaningless names. It had tangled me all up in a knot every time I had looked at it in the daytime. I now hoped for respite in sleep; but no, it reveled all through my head till sunrise again, a frantic and tireless nightmare.

Next morning I felt pretty rusty and low-spirited. We went booming along, taking a good many chances, for we were anxious to "get out of the river" (as getting out to Cairo was called) before night should overtake us. But Mr. Bixby's partner, the other pilot, presently grounded the boat, and we lost so much time getting her off that it was plain the darkness would overtake us a good long way above the mouth. This was a great misfortune, especially to certain of our visiting pilots, whose boats would have to wait for their return, no matter how long that might be. It sobered the pilothouse talk a good deal. Coming upstream, pilots did not mind low water or any kind of darkness; nothing stopped them but fog. But downstream work was different; a boat was too nearly helpless, with a stiff current pushing behind her; so it was not customary to run downstream at night in low water.

There seemed to be one small hope, however: if we could get through the intricate and dangerous Hat Island crossing before night, we could venture the rest, for we would have plainer sailing and better water. But

it would be insanity to attempt Hat Island at night. So there was a deal of looking at watches all the rest of the day, and a constant ciphering upon the speed we were making. Hat Island was the eternal subject; sometimes hope was high and sometimes we were delayed in a bad crossing, and down it went again. For hours all hands lay under the burden of this suppressed excitement; it was even communicated to me, and I got to feeling so solicitous about Hat Island, and under such an awful pressure of responsibility, that I wished I might have five minutes on shore to draw a good, full, relieving breath, and start over again. We were standing no regular watches. Each of our pilots ran such portions of the river as he had run when coming upstream, because of his greater familiarity with it; but both remained in the pilothouse constantly.

An hour before sunset Mr. Bixby took the wheel, and Mr. W. stepped aside. For the next thirty minutes every man held his watch in his hand and was restless, silent, and uneasy. At last somebody said, with a doomful sigh:

"Well, yonder's Hat Island—and we can't make it."

All the watches closed with a snap, everybody sighed and muttered something about its being "too bad, too bad—ah, if we could *only* have got here half an hour sooner!" and the place was thick with the atmosphere of disappointment. Some started to go out, but loitered, hearing no bell-tap to land. The sun dipped behind the horizon, the boat went on. Inquiring looks passed from one guest to another; and one who had his hand on the doorknob and had turned it, waited, then presently took away his hand and let the knob turn back again. We bore steadily down the bend. More looks were exchanged, and nods of surprised admiration—but no words. Insensibly the men drew together behind Mr. Bixby, as the sky darkened and one or two dim stars came out. The dead silence and sense of waiting became oppressive. Mr. Bixby pulled the cord, and two deep, mellow notes from the big bell floated off on the night. Then a pause, and one more note was struck. The watchman's voice followed, from the hurricane deck:

"Labboard lead, there! Stabboard lead!"

The cries of the leadsmen began to rise out of the distance, and were gruffly repeated by the word-passers on the hurricane deck.

"M-a-r-k three! M-a-r-k three! Quarter-less-three! Half twain! Quarter twain! M-a-r-k twain! Quarter-less—"

Mr. Bixby pulled two bell ropes, and was answered by faint jinglings far below in the engine room, and our speed slackened. The steam began

to whistle through the gauge cocks. The cries of the leadsmen went on—and it is a weird sound, always, in the night. Every pilot in the lot was watching now, with fixed eyes, and talking under his breath. Nobody was calm and easy but Mr. Bixby. He would put his wheel down and stand on a spoke, and as the steamer swung into her (to me) utterly invisible marks—for we seemed to be in the midst of a wide and gloomy sea—he would meet and fasten her there. Out of the murmur of half-audible talk, one caught a coherent sentence now and then—such as:

"There; she's over the first reef all right!"

After a pause, another subdued voice:

"Her stern's coming down just *exactly* right, by *George!*"

"Now she's in the marks; over she goes!"

Somebody else muttered:

"Oh, it was done beautiful—*beautiful!*"

Now the engines were stopped altogether, and we drifted with the current. Not that I could see the boat drift, for I could not, the stars being all gone by this time. This drifting was the dismalest work; it held one's heart still. Presently I discovered a blacker gloom than that which surrounded us. It was the head of the island. We were closing right down upon it. We entered its deeper shadow, and so imminent seemed the peril that I was likely to suffocate; and I had the strongest impulse to do *something,* anything, to save the vessel. But still Mr. Bixby stood by his wheel, silent, intent as a cat, and all the pilots stood shoulder to shoulder at his back.

"She'll not make it!" somebody whispered.

The water grew shoaler and shoaler, by the leadsman's cries, till it was down to:

"Eight-and-a-half! E-i-g-h-t feet! E-i-g-h-t feet! Seven-and—"

Mr. Bixby said warningly through his speaking tube to the engineer:

"Stand by, now!"

"Ay, ay, sir!"

"Seven-and-a-half! Seven feet! *Six*-and—"

We touched bottom! Instantly Mr. Bixby set a lot of bells ringing, shouted through the tube, "*Now,* let her have it—every ounce you've got!" then to his partner, "Put her hard down! snatch her! snatch her!" The boat rasped and ground her way through the sand, hung upon the apex of disaster a single tremendous instant, and then over she went! And such a shout as went up at Mr. Bixby's back never loosened the roof of a pilothouse before.

There was no more trouble after that. Mr. Bixby was a hero that night; and it was some little time, too, before his exploit ceased to be talked about by rivermen.

Fully to realize the marvelous precision required in laying the great steamer in her marks in that murky waste of water, one should know that not only must she pick her intricate way through snags and blind reefs, and then shave the head of the island so closely as to brush the overhanging foliage with her stern, but at one place she must pass almost within arm's reach of a sunken and invisible wreck that would snatch the hull timbers from under her if she should strike it, and destroy a quarter of a million dollars' worth of steamboat and cargo in five minutes, and maybe a hundred and fifty human lives into the bargain.

The last remark I heard that night was a compliment to Mr. Bixby, uttered in soliloquy and with unction by one of our guests. He said:

"By the Shadow of Death, but he's a lightning pilot!"

PERPLEXING LESSONS

At the end of what seemed a tedious while, I had managed to pack my head full of islands, towns, bars, "points," and bends; and a curiously inanimate mass of lumber it was, too. However, inasmuch as I could shut my eyes and reel off a good long string of these names without leaving out more than ten miles of river in every fifty, I began to feel that I could take a boat down to New Orleans if I could make her skip those little gaps. But of course my complacency could hardly get start enough to lift my nose a trifle into the air, before Mr. Bixby would think of something to fetch it down again. One day he turned on me suddenly with this settler:

"What is the shape of Walnut Bend?"

He might as well have asked me my grandmother's opinion of protoplasm. I reflected respectfully, and then said I didn't know it had any particular shape. My gunpowdery chief went off with a bang, of course, and then went on loading and firing until he was out of adjectives.

I had learned long ago that he only carried just so many rounds of ammunition, and was sure to subside into a very placable and even remorseful old smoothbore as soon as they were all gone. That word "old" is merely affectionate; he was not more than thirty-four. I waited. By and by he said:

"My boy, you've got to know the *shape* of the river perfectly. It is all there is left to steer by on a very dark night. Everything else is blotted

out and gone. But mind you, it hasn't the same shape in the night that it has in the daytime."

"How on earth am I ever going to learn it, then?"

"How do you follow a hall at home in the dark? Because you know the shape of it. You can't see it."

"Do you mean to say that I've got to know all the million trifling variations of shape in the banks of this interminable river as well as I know the shape of the front hall at home?"

"On my honor, you've got to know them *better* than any man ever did know the shapes of the halls in his own house."

"I wish I was dead!"

"Now, I don't want to discourage you, but–"

"Well, pile it on me; I might as well have it now as another time."

"You see, this has got to be learned; there isn't any getting around it. A clear starlight night throws such heavy shadows that, if you didn't know the shape of a shore perfectly, you would claw away from every bunch of timber, because you would take the black shadow of it for a solid cape; and you see you would be getting scared to death every fifteen minutes by the watch. You would be fifty yards from shore all the time when you ought to be within fifty feet of it. You can't see a snag in one of those shadows, but you know exactly where it is, and the shape of the river tells you when you are coming to it. Then there's your pitch-dark night; the river is a very different shape on a pitch-dark night from what it is on a starlight night. All shores seem to be straight lines, then, and mighty dim ones, too; and you'd *run* them for straight lines, only you know better. You boldly drive your boat right into what seems to be a solid, straight wall (you knowing very well that in reality there is a curve there), and that wall falls back and makes way for you. Then there's your gray mist. You take a night when there's one of these grisly, drizzly, gray mists, and then there isn't *any* particular shape to a shore. A gray mist would tangle the head of the oldest man that ever lived. Well, then, different kinds of *moonlight* change the shape of the river in different ways. You see–"

"Oh, don't say any more, please! Have I got to learn the shape of the river according to all these five hundred thousand different ways? If I tried to carry all that cargo in my head it would make me stoop-shouldered."

"*No!* you only learn *the* shape of the river; and you learn it with such absolute certainty that you can always steer by the shape that's *in your head,* and never mind the one that's before your eyes."

"Very well, I'll try it; but, after I have learned it, can I depend on it? Will it keep the same form and not go fooling around?"

Before Mr. Bixby could answer, Mr. W. came in to take the watch, and he said:

"Bixby, you'll have to look out for President's Island, and all that country clear away up above the Old Hen and Chickens. The banks are caving and the shape of the shores changing like everything. Why, you wouldn't know the point above 40. You can go up inside [3] the old sycamore snag, now."

So that question was answered. Here were leagues of shore changing shape. My spirits were down in the mud again. Two things seemed pretty apparent to me. One was that in order to be a pilot a man had got to learn more than any one man ought to be allowed to know; and the other was that he must learn it all over again in a different way every twenty-four hours.

That night we had the watch until twelve. Now it was an ancient river custom for the two pilots to chat a bit when the watch changed. While the relieving pilot put on his gloves and lit his cigar, his partner, the retiring pilot, would say something like this:

"I judge the upper bar is making down a little at Hale's Point; had quarter twain with the lower lead and mark twain [4] with the other."

"Yes, I thought it was making down a little, last trip. Meet any boats?"

"Met one abreast the head of 21, but she was away over hugging the bar, and I couldn't make her out entirely. I took her for the *Sunny South*– hadn't any skylights forward of the chimneys."

And so on. And as the relieving pilot took the wheel his partner [5] would mention that we were in such-and-such a bend, and say we were abreast of such-and-such a man's woodyard or plantation. This was courtesy; I supposed it was *necessity*. But Mr. W. came on watch full twelve minutes late on this particular night–a tremendous breach of etiquette; in fact, it is the unpardonable sin among pilots. So Mr. Bixby gave him no greeting whatever, but simply surrendered the wheel and marched out of the pilothouse without a word. I was appalled; it was a villainous night for blackness, we were in a particularly wide and blind part of the river, where there was no shape or substance to anything, and it seemed incredible that Mr. Bixby should have left that poor fellow to kill the boat,

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3. It may not be necessary, but still it can do no harm to explain that "inside" means between the snag and the shore.–M. T.
4. Two fathoms. Quarter twain is 2¼ fathoms, 13½ feet. Mark three is three fathoms.
5. "Partner" is technical for "the other pilot."

trying to find out where he was. But I resolved that I would stand by him anyway. He should find that he was not wholly friendless. So I stood around, and waited to be asked where we were. But Mr. W. plunged on serenely through the solid firmament of black cats that stood for an atmosphere, and never opened his mouth. "Here is a proud devil!" thought I; "here is a limb of Satan that would rather send us all to destruction than put himself under obligations to me, because I am not yet one of the salt of the earth and privileged to snub captains and lord it over everything dead and alive in a steamboat." I presently climbed up on the bench; I did not think it was safe to go to sleep while this lunatic was on watch.

However, I must have gone to sleep in the course of time, because the next thing I was aware of was the fact that day was breaking, Mr. W. gone, and Mr. Bixby at the wheel again. So it was four o'clock and all well–but me; I felt like a skinful of dry bones, and all of them trying to ache at once.

Mr. Bixby asked me what I had stayed up there for. I confessed that it was to do Mr. W. a benevolence–tell him where he was. It took five minutes for the entire preposterousness of the thing to filter into Mr. Bixby's system, and then I judge it filled him nearly up to the chin; because he paid me a compliment–and not much of a one either. He said:

"Well, taking you by and large, you do seem to be more different kinds of an ass than any creature I ever saw before. What did you suppose he wanted to know for?"

I said I thought it might be a convenience to him.

"Convenience! D–– nation! Didn't I tell you that a man's got to know the river in the night the same as he'd know his own front hall?"

"Well, I can follow the front hall in the dark if I know it *is* the front hall; but suppose you set me down in the middle of it in the dark and not tell me which hall it is; how am *I* to know?"

"Well, you've *got* to, on the river!"

"All right. Then I'm glad I never said anything to Mr. W."

"I should say so! Why, he'd have slammed you through the window and utterly ruined a hundred dollars' worth of window sash and stuff."

I was glad this damage had been saved, for it would have made me unpopular with the owners. They always hated anybody who had the name of being careless and injuring things.

I went to work now to learn the shape of the river; and of all the eluding and ungraspable objects that ever I tried to get mind or hands on, that was the chief. I would fasten my eyes upon a sharp, wooded

point that projected far into the river some miles ahead of me, and go to laboriously photographing its shape upon my brain; and just as I was beginning to succeed to my satisfaction, we would draw up toward it and the exasperating thing would begin to melt away and fold back into the bank! If there had been a conspicuous dead tree standing upon the very point of the cape, I would find that tree inconspicuously merged into the general forest, and occupying the middle of a straight shore, when I got abreast of it! No prominent hill would stick to its shape long enough for me to make up my mind what its form really was, but it was as dissolving and changeful as if it had been a mountain of butter in the hottest corner of the tropics. Nothing ever had the same shape when I was coming downstream that it had borne when I went up. I mentioned these little difficulties to Mr. Bixby. He said:

"That's the very main virtue of the thing. If the shapes didn't change every three seconds they wouldn't be of any use. Take this place where we are now, for instance. As long as that hill over yonder is only one hill, I can boom right along the way I'm going; but the moment it splits at the top and forms a V, I know I've got to scratch to starboard in a hurry, or I'll bang this boat's brains out against a rock; and then the moment one of the prongs of the V swings behind the other, I've got to waltz to larboard again, or I'll have a misunderstanding with a snag that would snatch the keelson out of this steamboat as neatly as if it were a sliver in your hand. If that hill didn't change its shape on bad nights there would be an awful steamboat graveyard around here inside of a year."

It was plain that I had got to learn the shape of the river in all the different ways that could be thought of–upside down, wrong end first, inside out, fore-and-aft, and "thortships"–and then know what to do on gray nights when it hadn't any shape at all. So I set about it. In the course of time I began to get the best of this knotty lesson, and my self-complacency moved to the front once more. Mr. Bixby was all fixed, and ready to start it to the rear again. He opened on me after this fashion:

"How much water did we have in the middle crossing at Hole-in-the-Wall, trip before last?"

I considered this an outrage. I said:

"Every trip, down and up, the leadsmen are singing through that tangled place for three-quarters of an hour on a stretch. How do you reckon I can remember such a mess as that?"

"My boy, you've got to remember it. You've got to remember the exact

spot and the exact marks the boat lay in when we had the shoalest water, in every one of the five hundred shoal places between St. Louis and New Orleans; and you mustn't get the shoal soundings and marks of one trip mixed up with the shoal soundings and marks of another, either, for they're not often twice alike. You must keep them separate."

When I came to myself again, I said.

"When I get so that I can do that, I'll be able to raise the dead, and then I won't have to pilot a steamboat to make a living. I want to retire from this business. I want a slush bucket and a brush; I'm only fit for a roustabout. I haven't got brains enough to be a pilot; and if I had I wouldn't have strength enough to carry them around, unless I went on crutches."

"Now drop that! When I say I'll learn [6] a man the river, I mean it. And you can depend on it, I'll learn him or kill him."

CONTINUED PERPLEXITIES

There was no use in arguing with a person like this. I promptly put such a strain on my memory that by and by even the shoal water and the countless crossing marks began to stay with me. But the result was just the same. I never could more than get one knotty thing learned before another presented itself. Now I had often seen pilots gazing at the water and pretending to read it as if it were a book; but it was a book that told me nothing. A time came at last, however, when Mr. Bixby seemed to think me far enough advanced to bear a lesson on water-reading. So he began:

"Do you see that long, slanting line on the face of the water? Now, that's a reef. Moreover, it's a bluff reef. There is a solid sand bar under it that is nearly as straight up and down as the side of a house. There is plenty of water close up to it, but mighty little on top of it. If you were to hit it you would knock the boat's brains out. Do you see where the line fringes out at the upper end and begins to fade away?"

"Yes, sir."

"Well, that is a low place; that is the head of the reef. You can climb over there, and not hurt anything. Cross over, now, and follow along close under the reef–easy water there–not much current."

I followed the reef along till I approached the fringed end. Then Mr. Bixby said:

"Now get ready. Wait till I give the word. She won't want to mount

6. "Teach" is not in the river vocabulary.

the reef; a boat hates shoal water. Stand by–wait–*wait*–keep her well in hand. *Now* cramp her down! Snatch her! snatch her!"

He seized the other side of the wheel and helped to spin it around until it was hard down, and then we held it so. The boat resisted, and refused to answer for a while, and next she came surging to starboard, mounted the reef, and sent a long, angry ridge of water foaming away from her bows.

"Now watch her; watch her like a cat, or she'll get away from you. When she fights strong and the tiller slips a little, in a jerky, greasy sort of way, let up on her a trifle; it is the way she tells you at night that the water is too shoal; but keep edging her up, little by little, toward the point. You are well up on the bar now; there is a bar under every point, because the water that comes down around it forms an eddy and allows the sediment to sink. Do you see those fine lines on the face of the water that branch out like the ribs of a fan? Well, those are little reefs; you want to just miss the ends of them, but run them pretty close. Now look out–look out! Don't you crowd that slick, greasy-looking place; there ain't nine feet there; she won't stand it. She begins to smell it; look sharp, I tell you! Oh, blazes, there you go! Stop the starboard wheel! Quick! Ship up to back! Set her back!"

The engine bells jingled and the engines answered promptly, shooting white columns of steam far aloft out of the 'scapepipes, but it was too late. The boat had "smelt" the bar in good earnest; the foamy ridges that radiated from her bows suddenly disappeared, a great swell came rolling forward, and swept ahead of her, she careened far over to larboard, and went tearing away toward the shore as if she were about scared to death. We were a good mile from where we ought to have been when we finally got the upper hand of her again.

During the afternoon watch the next day, Mr. Bixby asked me if I knew how to run the next few miles. I said:

"Go inside the first snag above the point, outside the next one, start out from the lower end of Higgins's woodyard, make a square crossing, and–"

"That's all right. I'll be back before you close up on the next point."

But he wasn't. He was still below when I rounded it and entered upon a piece of the river which I had some misgivings about. I did not know that he was hiding behind a chimney to see how I would perform. I went gaily along, getting prouder and prouder, for he had never left the boat in my sole charge such a length of time before. I even got to

"setting" her and letting the wheel go entirely, while I vaingloriously turned my back and inspected the stern marks and hummed a tune, a sort of easy indifference which I had prodigiously admired in Bixby and other great pilots. Once I inspected rather long, and when I faced to the front again my heart flew into my mouth so suddenly that if I hadn't clapped my teeth together I should have lost it. One of those frightful bluff reefs was stretching its deadly length right across our bows! My head was gone in a moment; I did not know which end I stood on; I gasped and could not get my breath; I spun the wheel down with such rapidity that it wove itself together like a spider's web; the boat answered and turned square away from the reef, but the reef followed her! I fled, but still it followed, still it kept—right across my bows! I never looked to see where I was going, I only fled. The awful crash was imminent. Why didn't that villain come? If I committed the crime of ringing a bell I might get thrown overboard. But better that than kill the boat. So in blind desperation, I started such a rattling "shivaree" down below as never had astounded an engineer in this world before, I fancy. Amidst the frenzy of the bells the engines began to back and fill in a curious way, and my reason forsook its throne—we were about to crash into the woods on the other side of the river. Just then Mr. Bixby stepped calmly into view on the hurricane deck. My soul went out to him in gratitude. My distress vanished; I would have felt safe on the brink of Niagara with Mr. Bixby on the hurricane deck. He blandly and sweetly took his toothpick out of his mouth between his fingers, as if it were a cigar—we were just in the act of climbing an overhanging big tree, and the passengers were scudding astern like rats—and lifted up these commands to me ever so gently:

"Stop the starboard! Stop the larboard! Set her back on both!"

The boat hesitated, halted, pressed her nose among the boughs a critical instant, then reluctantly began to back away.

"Stop the larboard! Come ahead on it! Stop the starboard! Come ahead on it! Point her for the bar!"

I sailed away as serenely as a summer's morning. Mr. Bixby came in and said, with mock simplicity:

"When you have a hail, my boy, you ought to tap the big bell three times before you land, so that the engineers can get ready"

I blushed under the sarcasm, and said I hadn't had any hail.

"Ah! Then it was for wood, I suppose. The officer of the watch will tell you when he wants to wood up."

I went on consuming, and said I wasn't after wood.

"Indeed? Why? what could you want over here in the bend, then? Did you ever know of a boat following a bend upstream at this stage of the river?"

"No, sir—and *I* wasn't trying to follow it. I was getting away from a bluff reef."

"No, it wasn't a bluff reef; there isn't one within three miles of where you were."

"But I saw it. It was as bluff as that one yonder."

"Just about. Run over it!"

"Do you give it as an order?"

"Yes. Run over it!"

"If I don't, I wish I may die."

"All right; I am taking the responsibility."

I was just as anxious to kill the boat, now, as I had been to save it before. I impressed my orders upon my memory, to be used at the inquest, and made a straight break for the reef. As it disappeared under our bows I held my breath; but we slid over it like oil.

"Now, don't you see the difference? It wasn't anything but a *wind* reef. The wind does that."

"So I see. But it is exactly like a bluff reef. How am I ever going to tell them apart?"

"I can't tell you. It is an instinct. By and by you will just naturally *know* one from the other, but you never will be able to explain why or how you know them apart."

It turned out to be true. The face of the water, in time, became a wonderful book—a book that was a dead language to the uneducated passenger, but which told its mind to me without reserve, delivering its most cherished secrets as if it uttered them with a voice. And it was not a book to be read once and thrown aside, for it had a new story to tell every day. Throughout the long twelve hundred miles there was never a page that was void of interest, never one that you could leave unread without loss, never one that you would want to skip, thinking you could find higher enjoyment in some other thing. There never was so wonderful a book written by man; never one whose interest was so absorbing, so unflagging, so sparklingly renewed with every reperusal. The passenger who could not read it was charmed with a peculiar sort of faint dimple on its surface (on the rare occasions when he did not overlook it altogether); but to the pilot that was an *italicized* passage; indeed, it was more than

that, it was a legend of the largest capitals, with a string of shouting exclamation points at the end of it, for it meant that a wreck or a rock was buried there that could tear the life out of the strongest vessel that ever floated. It is the faintest and simplest expression the water ever makes, and the most hideous to a pilot's eye. In truth, the passenger who could not read this book saw nothing but all manner of pretty pictures in it, painted by the sun and shaded by the clouds, whereas to the trained eye these were not pictures at all, but the grimmest and most dead-earnest of reading matter.

Now when I had mastered the language of this water, and had come to know every trifling feature that bordered the great river as familiarly as I knew the letters of the alphabet, I had made a valuable acquisition. But I had lost something, too. I had lost something which could never be restored to me while I lived. All the grace, the beauty, the poetry, had gone out of the majestic river! I still kept in mind a certain wonderful sunset which I witnessed when steamboating was new to me. A broad expanse of the river was turned to blood; in the middle distance the red hue brightened into gold, through which a solitary log came floating, black and conspicuous; in one place a long, slanting mark lay sparkling upon the water; in another the surface was broken by boiling, tumbling rings, that were as many-tinted as an opal; where the ruddy flush was faintest, was a smooth spot that was covered with graceful circles and radiating lines, ever so delicately traced; the shore on our left was densely wooded, and the somber shadow that fell from this forest was broken in one place by a long, ruffled trail that shone like silver; and high above the forest wall a clean-stemmed dead tree waved a single leafy bough that glowed like a flame in the unobstructed splendor that was flowing from the sun. There were graceful curves, reflected images, woody heights, soft distances; and over the whole scene, far and near, the dissolving lights drifted steadily, enriching it every passing moment with new marvels of coloring.

I stood like one bewitched. I drank it in, in a speechless rapture. The world was new to me, and I had never seen anything like this at home. But as I have said, a day came when I began to cease from noting the glories and the charms which the moon and the sun and the twilight wrought upon the river's face; another day came when I ceased altogether to note them. Then, if that sunset scene had been repeated, I should have looked upon it without rapture, and should have commented upon it, inwardly, after this fashion: "This sun means that we are

going to have wind tomorrow; that floating log means that the river is rising, small thanks to it; that slanting mark on the water refers to a bluff reef which is going to kill somebody's steamboat one of these nights if it keeps on stretching out like that; those tumbling 'boils' show a dissolving bar and a changing channel there; the lines and circles in the slick water over yonder are a warning that that troublesome place is shoaling up dangerously; that silver streak in the shadow of the forest is the 'break' from a new snag, and he has located himself in the very best place he could have found to fish for steamboats; that tall dead tree, with a single living branch, is not going to last long, and then how is a body ever going to get through this blind place at night without the friendly old landmark?"

No, the romance and beauty were all gone from the river. All the value any feature of it had for me now was the amount of usefulness it could furnish toward compassing the safe piloting of a steamboat. Since those days, I have pitied doctors from my heart. What does the lovely flush in a beauty's cheek mean to a doctor but a "break" that ripples above some deadly disease? Are not all her visible charms sown thick with what are to him the signs and symbols of hidden decay? Does he ever see her beauty at all, or doesn't he simply view her professionally, and comment upon her unwholesome condition all to himself? And doesn't he sometimes wonder whether he has gained most or lost most by learning his trade?

COMPLETING MY EDUCATION

Whoever has done me the courtesy to read my chapters which have preceded this may possibly wonder that I deal so minutely with piloting as a science. It was the prime purpose of those chapters; and I am not quite done yet. I wish to show, in the most patient and painstaking way, what a wonderful science it is. Ship channels are buoyed and lighted, and therefore it is a comparatively easy undertaking to learn to run them; clear-water rivers with gravel bottoms change their channels very gradually, and therefore one needs to learn them but once; but piloting becomes another matter when you apply it to vast streams like the Mississippi and the Missouri, whose alluvial banks cave and change constantly, whose snags are always hunting up new quarters, whose sand bars are never at rest, whose channels are forever dodging and shirking, and whose obstructions must be confronted in all nights and all weathers without the aid of a single lighthouse or a single buoy; for

there is neither light nor buoy to be found anywhere in all this three or four thousand miles of villainous river.[7] I feel justified in enlarging upon this great science for the reason that I feel sure no one has ever yet written a paragraph about it who had piloted a steamboat himself, and so had a practical knowledge of the subject. If the theme was hackneyed, I should be obliged to deal gently with the reader; but since it is wholly new, I have felt at liberty to take up a considerable degree of room with it.

When I had learned the name and position of every visible feature of the river; when I had so mastered its shape that I could shut my eyes and trace it from St. Louis to New Orleans; when I had learned to read the face of the water as one would cull the news from the morning paper; and finally, when I had trained my dull memory to treasure up an endless array of soundings and crossing marks, and keep fast hold on them, I judged that my education was complete; so I got to tilting my cap to the side of my head, and wearing a toothpick in my mouth at the wheel. Mr. Bixby had his eye on these airs. One day he said:

"What is the height of that bank yonder, at Burgess's?"

"How can I tell, sir? It is three-quarters of a mile away."

"Very poor eye—very poor. Take the glass."

I took the glass and presently said:

"I can't tell. I suppose that the bank is about a foot and a half high."

"Foot and a half? That's a six-foot bank. How high was the bank along here last trip?"

"I don't know; I never noticed."

"You didn't? Well, you must always do it hereafter."

"Why?"

"Because you'll have to know a good many things that it tells you. For one thing, it tells you the stage of the river—tells you whether there's more water or less in the river along here than there was last trip."

"The leads tell me that." I rather thought I had the advantage of him there.

"Yes, but suppose the leads lie? The bank would tell you so, and then you would stir those leadsmen up a bit. There was a ten-foot bank here last trip, and there is only a six-foot bank here now. What does that signify?"

"That the river is four feet higher than it was last trip."

"Very good. Is the river rising or falling?"

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7. True at the time referred to; not true now (1882).

"Rising."

"No, it ain't."

"I guess I am right, sir. Yonder is some driftwood floating down the stream."

"A rise *starts* the driftwood, but then it keeps on floating awhile after the river is done rising. Now the bank will tell you about this. Wait till you come to a place where it shelves a little. Now here: do you see this narrow belt of fine sediment? That was deposited while the water was higher. You see the driftwood begins to strand, too. The bank helps in other ways. Do you see that stump on the false point?"

"Ay, ay, sir."

"Well, the water is just up to the roots of it. You must make a note of that."

"Why?"

"Because that means that there's seven feet in the chute of 103."

"But 103 is a long way up the river yet."

"That's where the benefit of the bank comes in. There is water enough in 103 *now,* yet there may not be by the time we get there, but the bank will keep us posted all along. You don't run close chutes on a falling river, upstream, and there are precious few of them that you are allowed to run at all downstream. There's a law of the United States against it. The river may be rising by the time we get to 103, and in that case we'll run it. We are drawing—how much?"

"Six feet aft—six and a half forward."

"Well, you do seem to know something."

"But what I particularly want to know is, if I have got to keep up an everlasting measuring of the banks of this river, twelve hundred miles, month in and month out?"

"Of course!"

My emotions were too deep for words for a while. Presently I said:

"And how about these chutes? Are there many of them?"

"I should say so! I fancy we sha'n't run any of the river this trip as you've ever seen it run before—so to speak. If the river begins to rise again, we'll go up behind bars that you've always seen standing out of the river, high and dry, like a roof of a house; we'll cut across low places that you've never noticed at all, right through the middle of bars that cover three hundred acres of river; we'll creep through cracks where you've always thought was solid land; we'll dart through the woods and leave twenty-five miles of river off to one side; we'll see the hindside of every island between New Orleans and Cairo."

"Then I've got to go to work and learn just as much more river as I already know."

"Just about twice as much more, as near as you can come at it."

"Well, one lives to find out. I think I was a fool when I went into this business."

"Yes, that is true. And you are yet. But you'll not be when you've learned it."

"Ah, I never can learn it."

"I will see that you *do*."

By and by I ventured again:

"Have I got to learn all this thing just as I know the rest of the river–shapes and all–and so I can run it at night?"

"Yes. And you've got to have good fair marks from one end of the river to the other, that will help the bank tell you when there is water enough in each of these countless places–like that stump, you know. When the river first begins to rise, you can run half a dozen of the deepest of them; when it rises a foot more you can run another dozen; the next foot will add a couple of dozen, and so on: so you see you have to know your banks and marks to a dead moral certainty, and never get them mixed; for when you start through one of those cracks, there's no backing out again, as there is in the big river; you've got to go through, or stay there six months if you get caught on a falling river. There are about fifty of these cracks which you can't run at all except when the river is brimful and over the banks."

"This new lesson is a cheerful prospect."

"Cheerful enough. And mind what I've just told you; when you start into one of those places you've got to go through. They are too narrow to turn around in, too crooked to back out of, and the shoal water is always *up at the head*; never elsewhere. And the head of them is always likely to be filling up, little by little, so that the marks you reckon their depth by, this season, may not answer for next."

"Learn a new set, then, every year?"

"Exactly. Cramp her up to the bar! What are you standing up through the middle of the river for?"

The next few months showed me strange things. On the same day that we held the conversation above narrated we met a great rise coming down the river. The whole vast face of the stream was black with drifting dead logs, broken boughs, and great trees that had caved in and been washed away. It required the nicest steering to pick one's way through this rushing raft, even in the daytime, when crossing from point to

point; and at night the difficulty was mightily increased; every now and then a huge log, lying deep in the water, would suddenly appear right under our bows, coming head-on; no use to try to avoid it then; we could only stop the engines, and one wheel would walk over that log from one end to the other, keeping up a thundering racket and careening the boat in a way that was very uncomfortable to passengers. Now and then we would hit one of these sunken logs a rattling bang, dead in the center, with a full head of steam, and it would stun the boat as if she had hit a continent. Sometimes this log would lodge and stay right across our nose, and back the Mississippi up before it; we would have to do a little crawfishing, then, to get away from the obstruction. We often hit *white* logs in the dark, for we could not see them until we were right on them, but a black log is a pretty distinct object at night. A white snag is an ugly customer when the daylight is gone.

Of course, on the great rise, down came a swarm of prodigious timber rafts from the headwaters of the Mississippi, coal barges from Pittsburgh, little trading scows from everywhere, and broadhorns from "Posey County," Indiana, freighted with "fruit and furniture"—the usual term for describing it, though in plain English the freight thus aggrandized was hoop-poles and pumpkins. Pilots bore a mortal hatred to these craft, and it was returned with usury. The law required all such helpless traders to keep a light burning, but it was a law that was often broken. All of a sudden, on a murky night, a light would hop up, right under our bows, almost, and an agonized voice, with the backwoods "whang" to it, would wail out:

"Whar'n the—— you goin' to! Cain't you see nothin', you dash-dashed aig-suckin', sheep-stealin', one-eyed son of a stuffed monkey!"

Then for an instant, as he whistled by, the red glare from our furnaces would reveal the scow and the form of the gesticulating orator, as if under a lightning flash, and in that instant our firemen and deck hands would send and receive a tempest of missiles and profanity, one of our wheels would walk off with the crashing fragments of a steering oar, and down the dead blackness would shut again. And that flatboatman would be sure to go into New Orleans and sue our boat, swearing stoutly that he had a light burning all the time, when in truth his gang had the lantern down below to sing and lie and drink and gamble by, and no watch on deck. Once at night, in one of those forest-bordered crevices (behind an island) which steamboatmen intensely describe with the phrase "as dark as the inside of a cow," we should have eaten up a Posey County family,

fruit, furniture, and all, but that they happened to be fiddling down below and we just caught the sound of the music in time to sheer off, doing no serious damage, unfortunately, but coming so near it that we had good hopes for a moment. These people brought up their lantern, then, of course; and as we backed and filled to get away, the precious family stood in the light of it–both sexes and various ages–and cursed us till everything turned blue. Once a coal-boatman sent a bullet through our pilothouse where we borrowed a steering oar of him in a very narrow place.

THE RIVER RISES

During this big rise these small-fry craft were an intolerable nuisance. We were running chute after chute–a new world to me and if there was a particularly cramped place in a chute, we would be pretty sure to meet a broadhorn there; and if he failed to be there, we would find him in a still worse locality, namely, the head of the chute, on the shoal water. And then there would be no end of profane cordialities exchanged.

Sometimes, in the big river, when we would be feeling our way cautiously along through a fog, the deep hush would suddenly be broken by yells and a clamor of tin pans, and all in an instant a log raft would appear vaguely through the webby veil, close upon us; and then we did not wait to swap knives, but snatched our engine bells out by the roots and piled on all the steam we had, to scramble out of the way! One doesn't hit a rock or a solid log raft with a steamboat when he can get excused.

You will hardly believe it, but many steamboat clerks always carried a large assortment of religious tracts with them in those old departed steamboating days. Indeed they did! Twenty times a day we would be cramping up around a bar, while a string of these small-fry rascals were drifting down into the head of the bend away above and beyond us a couple of miles. Now a skiff would dart away from one of them, and come fighting its laborious way across the desert of water. It would "ease all" in the shadow of our forecastle, and the panting oarsmen would shout, "Gimme a pa-a-per!" as the skiff drifted swiftly astern. The clerk would throw over a file of New Orleans journals. If these were picked up *without comment,* you might notice that now a dozen other skiffs had been drifting down upon us without saying anything. You understand, they had been waiting to see how No. 1 was going to fare. No. 1 making

no comment, all the rest would bend to their oars and come on now; and as fast as they came the clerk would heave over neat bundles of religious tracts, tied to shingles. The amount of hard swearing which twelve packages of religious literature will command when impartially divided up among twelve raftsmen's crews, who have pulled a heavy skiff two miles on a hot day to get them, is simply incredible.

As I have said, the big rise brought a new world under my vision. By the time the river was over its banks we had forsaken our old paths and were hourly climbing over bars that had stood ten feet out of water before; we were shaving stumpy shores, like that at the foot of Madrid Bend, which I had always seen avoided before; we were clattering through chutes like that of 82, where the opening at the foot was an unbroken wall of timber till our nose was almost at the very spot. Some of these chutes were utter solitudes. The dense, untouched forest overhung both banks of the crooked little crack, and one could believe that human creatures had never intruded there before. The swinging grapevines, the grassy nooks and vistas glimpsed as we swept by, the flowering creepers waving their red blossoms from the tops of dead trunks, and all the spendthrift richness of the forest foliage, were wasted and thrown away there. The chutes were lovely places to steer in; they were deep, except at the head; the current was gentle; under the "points" the water was absolutely dead, and the invisible banks so bluff that where the tender willow thickets projected you could bury your boat's broadside in them as you tore along, and then you seemed fairly to fly.

Behind other islands we found wretched little farms, and wretcheder little log cabins; there were crazy rail fences sticking a foot or two above the water, with one or two jean-clad, chills-racked, yellow-faced male miserables roosting on the top rail, elbows on knees, jaws in hands, grinding tobacco and discharging the result at floating chips through crevices left by lost teeth; while the rest of the family and the few farm animals were huddled together in an empty wood flat riding at her moorings close at hand. In this flatboat the family would have to cook and eat and sleep for a lesser or greater number of days (or possibly weeks), until the river should fall two or three feet and let them get back to their log cabins and their chills again—chills being a merciful provision of an all-wise Providence to enable them to take exercise without exertion. And this sort of watery camping out was a thing which these people were rather liable to be treated to a couple of times a year: by the December rise out of the Ohio, and the June rise out of the Mis-

sissippi. And yet these were kindly dispensations, for they at least enabled the poor things to rise from the dead now and then, and look upon life when a steamboat went by. They appreciated the blessing, too, for they spread their mouths and eyes wide open and made the most of these occasions. Now what *could* these banished creatures find to do to keep from dying of the blues during the low-water season!

Once, in one of these lovely island chutes, we found our course completely bridged by a great fallen tree. This will serve to show how narrow some of the chutes were. The passengers had an hour's recreation in a virgin wilderness, while the boat hands chopped the bridge away; for there was no such thing as turning back, you comprehend.

From Cairo to Baton Rouge, when the river is over its banks, you have no particular trouble in the night; for the thousand-mile wall of dense forest that guards the two banks all the way is only gapped with a farm or woodyard opening at intervals, and so you can't "get out of the river" much easier than you could get out of a fenced lane; but from Baton Rouge to New Orleans it is a different matter. The river is more than a mile wide, and very deep–as much as two hundred feet, in places. Both banks, for a good deal over a hundred miles, are shorn of their timber and bordered by continuous sugar plantations, with only here and there a scattering sapling or a row of ornamental China trees. The timber is shorn off clear to the rear of the plantations, from two to four miles. When the first frost threatens to come, the planters snatch off their crops in a hurry. When they have finished grinding the cane, they form the refuse of the stalks (which they call *bagasse*) into great piles and set fire to them, though in other sugar countries the bagasse is used for fuel in the furnaces of the sugar mills. Now the piles of damp bagasse burn slowly, and smoke like Satan's own kitchen.

An embankment ten or fifteen feet high guards both banks of the Mississippi all the way down that lower end of the river, and this embankment is set back from the edge of the shore from ten to perhaps a hundred feet, according to circumstances; say thirty or forty feet, as a general thing. Fill that whole region with an impenetrable gloom of smoke from a hundred miles of burning bagasse piles, when the river is over the banks, and turn a steamboat loose along there at midnight and see how she will feel. And see how you will feel, too! You find yourself away out in the midst of a vague, dim sea that is shoreless, that fades out and loses itself in the murky distances; for you cannot discern the thin rib of embankment, and you are always imagining you see a

straggling tree when you don't. The plantations themselves are transformed by the smoke, and look like a part of the sea. All through your watch you are tortured with the exquisite misery of uncertainty. You hope you are keeping in the river, but you do not know. All that you are sure about is that you are likely to be within six feet of the bank *and* destruction, when you think you are a good half mile from shore. And you are sure, also, that if you chance suddenly to fetch up against the embankment and topple your chimneys overboard, you will have the small comfort of knowing that it is about what you were expecting to do. One of the great Vicksburg packets darted out into a sugar plantation one night, at such a time, and had to stay there a week. But there was no novelty about it; it had often been done before.

I thought I had finished this chapter, but I wish to add a curious thing, while it is in my mind. It is only relevant in that it is connected with piloting. There used to be an excellent pilot on the river, a Mr. X, who was a somnambulist. It was said that if his mind was troubled about a bad piece of river, he was pretty sure to get up and walk in his sleep and do strange things. He was once fellow pilot for a trip or two with George Ealer, on a great New Orleans passenger packet. During a considerable part of the first trip George was uneasy, but got over it by and by, as X seemed content to stay in his bed when asleep. Late one night the boat was approaching Helena, Ark.; the water was low, and the crossing above the town in a very blind and tangled condition. X had seen the crossing since Ealer had, and as the night was particularly drizzly, sullen, and dark, Ealer was considering whether he had not better have X called to assist in running the place, when the door opened and X walked in. Now, on very dark nights, light is a deadly enemy to piloting; you are aware that if you stand in a lighted room, on such a night, you cannot see things in the street to any purpose; but if you put out the lights and stand in the gloom you can make out objects in the street pretty well. So, on very dark nights, pilots do not smoke; they allow no fire in the pilothouse stove, if there is a crack which can allow the least ray to escape; they order the furnaces to be curtained with huge tarpaulins and the skylights to be closely blinded. Then no light whatever issues from the boat. The undefinable shape that now entered the pilothouse had Mr. X's voice. This said:

"Let me take her, George; I've seen this place since you have, and it is so crooked that I reckon I can run it myself easier than I could tell you how to do it."

"It is kind of you, and I swear *I* am willing. I haven't got another drop

of perspiration left in me. I have been spinning around and around the wheel like a squirrel. It is so dark I can't tell which way she is swinging till she is coming around like a whirligig."

So Ealer took a seat on the bench, panting and breathless. The black phantom assumed the wheel without saying anything, steadied the waltzing steamer with a turn or two, and then stood at ease, coaxing her a little to this side and then to that, as gently and as sweetly as if the time had been noonday. When Ealer observed this marvel of steering, he wished he had not confessed! He stared, and wondered, and finally said:

"Well, I thought I knew how to steer a steamboat, but that was another mistake of mine."

X said nothing, but went serenely on with his work. He rang for the leads; he rang to slow down the steam; he worked the boat carefully and neatly into invisible marks, then stood at the center of the wheel and peered blandly out into the blackness, fore and aft, to verify his position; as the leads shoaled more and more, he stopped the engines entirely, and the dead silence and suspense of "drifting" followed; when the shoalest water was struck, he cracked on the steam, carried her handsomely over, and then began to work her warily into the next system of shoal marks; the same patient, heedful use of leads and engines followed, the boat slipped through without touching bottom, and entered upon the third and last intricacy of the crossing; imperceptibly she moved through the gloom, crept by inches into her marks, drifted tediously till the shoalest water was cried, and then, under a tremendous head of steam, went swinging over the reef and away into deep water and safety!

Ealer let his long-pent breath pour in a great relieving sigh, and said:

"That's the sweetest piece of piloting that was ever done on the Mississippi River! I wouldn't believe it could be done, if I hadn't seen it."

There was no reply, and he added:

"Just hold her five minutes longer, partner, and let me run down and get a cup of coffee."

A minute later Ealer was biting into a pie, down in the "texas," and comforting himself with coffee. Just then the night watchman happened in, and was about to happen out again, when he noticed Ealer and exclaimed:

"Who is at the wheel, sir?"

"X."

"Dart for the pilothouse, quicker than lightning!"

The next moment both men were flying up the pilothouse companionway, three steps at a jump! Nobody there! The great steamer was

whistling down the middle of the river at her own sweet will! The watchman shot out of the place again; Ealer seized the wheel, set an engine back with power, and held his breath while the boat reluctantly swung away from a "towhead," which she was about to knock into the middle of the Gulf of Mexico!

By and by the watchman came back and said:

"Didn't that lunatic tell you he was asleep, when he first came up here?"

"No."

"Well, he was. I found him walking along on top of the railings, just as unconcerned as another man would walk a pavement; and I put him to bed; now just this minute there he was again, away astern, going through that sort of tightrope deviltry the same as before."

"Well, I think I'll stay by next time he has one of those fits. But I hope he'll have them often. You just ought to have seen him take this boat through Helena crossing. *I* never saw anything so gaudy before. And if he can do such a gold-leaf, kid-glove, diamond-breastpin piloting when he is sound asleep, what *couldn't* he do if he was dead!"

SOUNDING

When the river is very low, and one's steamboat is "drawing all the water" there is in the channel—or a few inches more, as was often the case in the old times—one must be painfully circumspect in his piloting. We used to have to "sound" a number of particularly bad places almost every trip when the river was at a very low stage.

Sounding is done in this way: The boat ties up at the shore, just above the shoal crossing; the pilot not on watch takes his "cub" or steersman and a picked crew of men (sometimes an officer also), and goes out in the yawl—provided the boat has not that rare and sumptuous luxury, a regularly devised "sounding-boat"—and proceeds to hunt for the best water, the pilot on duty watching his movements through a spyglass, meantime, and in some instances assisting by signals of the boat's whistle, signifying "try higher up" or "try lower down"; for the surface of the water, like an oil painting, is more expressive and intelligible when inspected from a little distance than very close at hand. The whistle signals are seldom necessary, however; never, perhaps, except when the wind confuses the significant ripples upon the water's surface. When the yawl has reached the shoal place, the speed is slackened, the pilot begins to sound the depth with a pole ten or twelve feet long, and the steersman at the tiller

obeys the order to "hold her up to starboard"; so "let her fall off to larboard";[8] or "steady—steady as you go."

When the measurements indicate that the yawl is approaching the shoalest part of the reef, the command is given to "Ease all!" Then the men stop rowing and the yawl drifts with the current. The next order is, "Stand by with the buoy!" The moment the shallowest point is reached, the pilot delivers the order, "Let go the buoy!" and over she goes. If the pilot is not satisfied, he sounds the place again; if he finds the water higher up or lower down, he removes the buoy to that place. Being finally satisfied, he gives the order, and all the men stand their oars straight up in the air, in line; a blast from the boat's whistle indicates that the signal has been seen; then the men "give away" on their oars and lay the yawl alongside the buoy; the steamer comes creeping carefully down, is pointed straight at the buoy, husbands her power for the coming struggle, and presently, at the critical moment, turns on all her steam and goes grinding and wallowing over the buoy and the sand; and gains the deep water beyond. Or maybe she doesn't; maybe she "strikes and swings." Then she has to while away several hours (or days) sparring herself off.

Sometimes a buoy is not laid at all, but the yawl goes ahead, hunting the best water, and the steamer follows along in its wake. Often there is a deal of fun and excitement about sounding, especially if it is a glorious summer day, or a blustering night. But in winter the cold and the peril take most of the fun out of it.

A buoy is nothing but a board four or five feet long, with one end turned up; it is a reversed schoolhouse bench, with one of the supports left and the other removed. It is anchored on the shoalest part of the reef by a rope with a heavy stone made fast to the end of it. But for the resistance of the turned-up end of the reversed bench, the current would pull the buoy under water. At night, a paper lantern with a candle in it is fastened on top of the buoy, and this can be seen a mile or more, a little glimmering spark in the waste of blackness.

Nothing delights a cub so much as an opportunity to go out sounding. There is such an air of adventure about it; often there is danger; it is so gaudy and man-of-warlike to sit up in the stern sheets and steer a swift yawl; there is something fine about the exultant spring of the boat when an experienced old sailor crew throw their souls into the oars; it is lovely to see the white foam stream away from the bows; there is music

8. The term "larboard" is never used at sea, now, to signify the left hand; but was always used on the river in my time.

in the rush of the water; it is deliciously exhilarating, in summer, to go speeding over the breezy expanses of the river when the world of wavelets is dancing in the sun. It is such grandeur, too, to the cub, to get a chance to give an order; for often the pilot will simply say, "Let her go about!" and leave the rest to the cub, who instantly cries, in his sternest tone of command, "Ease starboard! Strong on the larboard! Starboard, give way! With a will, men!" The cub enjoys sounding for the further reason that the eyes of the passengers are watching all the yawl's movements with absorbing interest, if the time be daylight; and if it be night, he knows that those same wondering eyes are fastened upon the yawl's lantern as it glides out into the gloom and dims away in the remote distance.

One trip a pretty girl of sixteen spent her time in our pilothouse with her uncle and aunt, every day and all day long. I fell in love with her. So did Mr. Thornburg's cub, Tom G. Tom and I had been bosom friends until this time; but now a coolness began to arise. I told the girl a good many of my river adventures, and made myself out a good deal of a hero; Tom tried to make himself appear to be a hero, too, and succeeded to some extent, but then he always had a way of embroidering. However, virtue is its own reward, so I was a barely perceptible trifle ahead in the contest. About this time something happened which promised handsomely for me: the pilots decided to sound the crossing at the head of 21. This would occur about nine or ten o'clock at night, when the passengers would be still up; it would be Mr. Thornburg's watch, therefore my chief would have to do the sounding. We had a perfect love of a sounding boat–long, trim, graceful, and as fleet as a greyhound; her thwarts were cushioned; she carried twelve oarsmen; one of the mates was always sent in her to transmit orders to her crew, for ours was a steamer where no end of "style" was put on.

We tied up at the shore above 21, and got ready. It was a foul night, and the river was so wide there that a landsman's uneducated eyes could discern no opposite shore through such a gloom. The passengers were alert and interested; everything was satisfactory. As I hurried through the engine room, picturesquely gotten up in storm toggery, I met Tom, and could not forbear delivering myself of a mean speech:

"Ain't you glad *you* don't have to go out sounding?"

Tom was passing on, but he quickly turned, and said:

"Now just for that, you can go and get the sounding pole yourself. I was going after it, but I'd see you in Halifax, now, before I'd do it."

"Who wants you to get it? I don't. It's in the sounding boat."

"It ain't, either. It's been new-painted; and it's been up on the ladies' cabin guards two days, drying."

I flew back, and shortly arrived among the crowd of watching and wondering ladies just in time to hear the command:

"Give way, men!"

I looked over, and there was the gallant sounding boat booming away, the unprincipled Tom presiding at the tiller, and my chief sitting by him with the sounding pole which I had been sent on a fool's errand to fetch. Then that young girl said to me:

"Oh, how awful to have to go out in that little boat on such a night! Do you think there is any danger?"

I would rather have been stabbed. I went off, full of venom, to help in the pilothouse. By and by the boat's lantern disappeared, and after an interval a wee spark glimmered upon the face of the water a mile away. Mr. Thornburg blew the whistle in acknowledgment, backed the steamer out, and made for it. We flew along for a while, then slackened steam and went cautiously gliding toward the spark. Presently Mr. Thornburg exclaimed:

"Hello, the buoy lantern's out!"

He stopped the engines. A moment or two later he said:

"Why, there it is again!"

So he came ahead on the engines once more, and rang for the leads. Gradually the water shoaled up, and then began to deepen again! Mr. Thornburg muttered:

"Well, I don't understand this. I believe that buoy has drifted off the reef. Seems to be a little too far to the left. No matter, it is safest to run over it, anyhow."

So, in that solid world of darkness we went creeping down on the light. Just as our bows were in the act of plowing over it, Mr. Thornburg seized the bell ropes, rang a startling peal, and exclaimed:

"My soul, it's the sounding boat!"

A sudden chorus of wild alarms burst out far below—a pause—and then a sound of grinding and crashing followed. Mr. Thornburg exclaimed:

"There! The paddle wheel has ground the sounding boat to lucifer matches! Run! See who is killed!"

I was on the main deck in the twinkling of an eye. My chief and the third mate and nearly all the men were safe. They had discovered their danger when it was too late to pull out of the way; then, when the great guards overshadowed them a moment later, they were prepared and

knew what to do; at my chief's order they sprang at the right instant, seized the guard, and were hauled aboard. The next moment the sounding yawl swept aft to the wheel and was struck and splintered to atoms. Two of the men and the cub Tom were missing–a fact which spread like wildfire over the boat. The passengers came flocking to the forward gangway, ladies and all, anxious-eyed, white-faced, and talked in awed voices of the dreadful thing. And often and again I heard them say, "Poor fellows! poor boy, poor boy!"

By this time the boat's yawl was manned and away, to search for the missing. Now a faint call was heard, off to the left. The yawl had disappeared in the other direction. Half the people rushed to one side to encourage the swimmer with their shouts; the other half rushed the other way to shriek to the yawl to turn about. By the callings the swimmer was approaching, but some said the sound showed failing strength. The crowd massed themselves against the boiler-deck railings, leaning over and staring into the gloom; and every faint and fainter cry wrung from them such words as "Ah, poor fellow, poor fellow! is there *no* way to save him?"

But still the cries held out, and drew nearer, and presently the voice said pluckily:

"I can make it! Stand by with a rope!"

What a rousing cheer they gave him! The chief mate took his stand in the glare of a torch basket, a coil of rope in his hand, and his men grouped about him. The next moment the swimmer's face appeared in the circle of light, and in another one the owner of it was hauled aboard, limp and drenched, while cheer on cheer went up. It was that devil Tom.

The yawl crew searched everywhere, but found no sign of the two men. They probably failed to catch the guard, tumbled back, and were struck by the wheel and killed. Tom had never jumped for the guard at all, but had plunged headfirst into the river and dived under the wheel. It was nothing; I could have done it easy enough, and I said so; but everybody went on just the same, making a wonderful to-do over that ass, as if he had done something great. That girl couldn't seem to have enough of that pitiful "hero" the rest of the trip; but little I cared; I loathed her, anyway.

The way we came to mistake the sounding boat's lantern for the buoy light was this: My chief said that after laying the buoy he fell away and watched it till it seemed to be secure; then he took up a position a few hundred yards below it and a little to one side of the steamer's course,

headed the sounding boat upstream, and waited. Having to wait some time, he and the officer got to talking; he looked up when he judged that the steamer was about on the reef; saw that the buoy was gone, but supposed that the steamer had already run over it; he went on with his talk; he noticed that the steamer was getting very close down to him, but that was the correct thing; it was her business to shave him closely, for convenience in taking him aboard; he was expecting her to sheer off, until the last moment; then it flashed upon him that she was trying to run him down, mistaking his lantern for the buoy light; so he sang out, "Stand by to spring for the guard, men!" and the next instant the jump was made.

A PILOT'S NEEDS

But I am wandering from what I was intending to do; that is, make plainer than perhaps appears in the previous chapters some of the peculiar requirements of the science of piloting. First of all, there is one faculty which a pilot must incessantly cultivate until he has brought it to absolute perfection. Nothing short of perfection will do. That faculty is memory. He cannot stop with merely thinking a thing is so and so; he must *know* it; for this is eminently one of the "exact" sciences. With what scorn a pilot was looked upon, in the old times, if he ever ventured to deal in that feeble phrase "I think," instead of the vigorous one, "I know!" One cannot easily realize what a tremendous thing it is to know every trivial detail of twelve hundred miles of river and know it with absolute exactness. If you will take the longest street in New York, and travel up and down it, conning its features patiently until you know every house and window and lamppost and big and little sign by heart, and know them so accurately that you can instantly name the one you are abreast of when you are set down at random in that street in the middle of an inky black night, you will then have a tolerable notion of the amount and the exactness of a pilot's knowledge who carries the Mississippi River in his head. And then, if you will go on until you know every street crossing, the character, size, and position of the crossing stones, and the varying depth of mud in each of these numberless places, you will have some idea of what the pilot must know in order to keep a Mississippi steamer out of trouble. Next, if you will take half of the signs in that long street, and *change their places* once a month, and still manage to know their new positions accurately on dark nights, and keep up with these repeated changes without making any mistakes,

you will understand what is required of a pilot's peerless memory by the fickle Mississippi.

I think a pilot's memory is about the most wonderful thing in the world. To know the Old and New Testaments by heart, and be able to recite them glibly, forward or backward, or begin at random anywhere in the book and recite both ways and never trip or make a mistake, is no extravagant mass of knowledge, and no marvelous facility, compared to a pilot's massed knowledge of the Mississippi and his marvelous facility in the handling of it. I make this comparison deliberately, and believe I am not expanding the truth when I do it. Many will think my figure too strong, but pilots will not.

And how easily and comfortably the pilot's memory does its work; how placidly effortless is its way; how *unconsciously* it lays up its vast stores, hour by hour, day by day, and never loses or mislays a single valuable package of them all! Take an instance. Let a leadsman cry, "Half twain! half twain! half twain! half twain! half twain!" until it becomes as monotonous as the ticking of a clock; let conversation be going on all the time, and the pilot be doing his share of the talking, and no longer consciously listening to the leadsman; and in the midst of this endless string of half twains let a single "quarter twain!" be interjected, without emphasis, and then the half-twain cry go on again, just as before; two or three weeks later that pilot can describe with precision the boat's position in the river when that quarter twain was uttered, and give you such a lot of head marks, stern marks, and side marks to guide you, that you ought to be able to take the boat there and put her in that same spot again yourself! The cry of "quarter twain" did not really take his mind from his talk, but his trained faculties instantly photographed the bearings, noted the change of depth, and laid up the important details for future reference without requiring any assistance from *him* in the matter. If you were walking and talking with a friend, and another friend at your side kept up a monotonous repetition of the vowel sound A, for a couple of blocks, and then in the midst interjected an R, thus, A, A, A, A, A, R, A, A, A, etc., and gave the R no emphasis, you would not be able to state, two or three weeks afterward, that the R had been put in, nor be able to tell what objects you were passing at the moment it was done. But you could if your memory had been patiently and laboriously trained to do that sort of thing mechanically.

Give a man a tolerably fair memory to start with, and piloting will develop it into a very colossus of capability. But *only in the matters it is daily drilled in.* A time would come when the man's faculties could not

help noticing landmarks and soundings, and his memory could not help holding on to them with the grip of a vise; but if you asked that same man at noon what he had had for breakfast, it would be ten chances to one that he could not tell you. Astonishing things can be done with the human memory if you will devote it faithfully to one particular line of business.

At the time that wages soared so high on the Missouri River, my chief, Mr. Bixby, went up there and learned more than a thousand miles of that stream with an ease and rapidity that were astonishing. When he had seen each division *once* in the daytime and *once* at night, his education was so nearly complete that he took out a "daylight" license; a few trips later he took out a full license, and went to piloting day and night–and he ranked AI, too.

Mr. Bixby placed me as steersman for a while under a pilot whose feats of memory were a constant marvel to me. However, his memory was born in him, I think, not built. For instance, somebody would mention a name. Instantly Mr. Brown would break in:

"Oh, I knew *him.* Sallow-faced, redheaded fellow, with a little scar on the side of his throat, like a splinter under the flesh. He was only in the Southern trade six months. That was thirteen years ago. I made a trip with him. There was five feet in the upper river then; the *Henry Blake* grounded at the foot of Tower Island drawing four and a half; the *George Elliott* unshipped her rudder on the wreck of the *Sunflower*–"

"Why, the *Sunflower* didn't sink until–"

"*I* know when she sunk; it was three years before that, on the 2d of December; Asa Hardy was captain of her, and his brother John was first clerk; and it was his first trip in her, too; Tom Jones told me these things a week afterward in New Orleans; he was first mate of the *Sunflower.* Captain Hardy stuck a nail in his foot the 6th of July of the next year, and died of the lockjaw on the 15th. His brother John died two years after–3rd of March–erysipelas. I never saw either of the Hardys–they were Alleghany River men–but people who knew them told me all these things. And they said Captain Hardy wore yarn socks winter and summer just the same, and his first wife's name was Jane Shook–she was from New England–and his second one died in a lunatic asylum. It was in the blood. She was from Lexington, Kentucky. Name was Horton before she was married."

And so on, by the hour, the man's tongue would go. He could *not* forget anything. It was simply impossible. The most trivial details remained as distinct and luminous in his head, after they had lain there for

years, as the most memorable events. His was not simply a pilot's memory; its grasp was universal. If he were talking about a trifling letter he had received seven years before, he was pretty sure to deliver you the entire screed from memory. And then, without observing that he was departing from the true line of his talk, he was more than likely to hurl in a long-drawn parenthetical biography of the writer of that letter; and you were lucky indeed if he did not take up that writer's relatives, one by one, and give you their biographies, too.

Such a memory as that is a great misfortune. To it, all occurrences are of the same size. Its possessor cannot distinguish an interesting circumstance from an uninteresting one. As a talker, he is bound to clog his narrative with tiresome details and make himself an insufferable bore. Moreover, he cannot stick to his subject. He picks up every little grain of memory he discerns in his way, and so is led aside. Mr. Brown would start out with the honest intention of telling you a vastly funny anecdote about a dog. He would be "so full of laugh" that he could hardly begin; then his memory would start with the dog's breed and personal appearance; drift into a history of his owner; of his owner's family, with descriptions of weddings and burials that had occurred in it, together with recitals of congratulatory verses and obituary poetry provoked by the same; then this memory would recollect that one of these events occurred during the celebrated "hard winter" of such-and-such a year, and a minute description of that winter would follow, along with the names of people who were frozen to death, and statistics showing the high figures which pork and hay went up to. Pork and hay would suggest corn and fodder; corn and fodder would suggest cows and horses; cows and horses would suggest the circus and certain celebrated bareback riders; the transition from the circus to the menagerie was easy and natural; from the elephant to equatorial Africa was but a step; then of course the heathen savages would suggest religion; and at the end of three or four hours' tedious jaw, the watch would change, and Brown would go out of the pilothouse muttering extracts from sermons he had heard years before about the efficacy of prayer as a means of grace. And the original first mention would be all you had learned about that dog, after all this waiting and hungering.

A pilot must have a memory; but there are two higher qualities which he must also have. He must have good and quick judgment and decision, and a cool, calm courage that no peril can shake. Give a man the merest trifle of pluck to start with, and by the time he has become a pilot he

cannot be unmanned by any danger a steamboat can get into; but one cannot quite say the same for judgment. Judgment is a matter of brains, and a man must *start* with a good stock of that article or he will never succeed as a pilot.

The growth of courage in the pilothouse is steady all the time, but it does not reach a high and satisfactory condition until some time after the young pilot has been "standing his own watch" alone and under the staggering weight of all the responsibilities connected with the position. When the apprentice has become pretty thoroughly acquainted with the river, he goes clattering along so fearlessly with his steamboat, night or day, that he presently begins to imagine that it is *his* courage that animates him; but the first time the pilot steps out and leaves him to his own devices he finds out it was the other man's. He discovers that the article has been left out of his own cargo altogether. The whole river is bristling with exigencies in a moment; he is not prepared for them; he does not know how to meet them; all his knowledge forsakes him; and within fifteen minutes he is as white as a sheet and scared almost to death. Therefore pilots wisely train these cubs by various strategic tricks to look danger in the face a little more calmly. A favorite way of theirs is to play a friendly swindle upon the candidate.

Mr. Bixby served me in this fashion once, and for years afterward I used to blush, even in my sleep, when I thought of it. I had become a good steersman; so good, indeed, that I had all the work to do on our watch, night and day. Mr. Bixby seldom made a suggestion to me; all he ever did was to take the wheel on particularly bad nights or in particularly bad crossings, land the boat when she needed to be landed, play gentleman of leisure nine-tenths of the watch, and collect the wages. The lower river was about bankfull, and if anybody had questioned my ability to run any crossing between Cairo and New Orleans without help or instruction, I should have felt irreparably hurt. The idea of being afraid of any crossing in the lot, in the *daytime,* was a thing too preposterous for contemplation. Well, one matchless summer's day I was bowling down the bend above Island 66, brimful of self-conceit and carrying my nose as high as a giraffe's, when Mr. Bixby said:

"I am going below awhile. I suppose you know the next crossing?"

This was almost an affront. It was about the plainest and simplest crossing in the whole river. One couldn't come to any harm, whether he ran it right or not; and as for depth, there never had been any bottom there. I knew all this, perfectly well.

"Know how to *run* it? Why, I can run it with my eyes shut."

"How much water is there in it?"

"Well, that is an odd question. I couldn't get bottom there with a church steeple."

"You think so, do you?"

The very tone of the question shook my confidence. That was what Mr. Bixby was expecting. He left, without saying anything more. I began to imagine all sorts of things. Mr. Bixby, unknown to me, of course, sent somebody down to the forecastle with some mysterious instructions to the leadsmen, another messenger was sent to whisper among the officers, and then Mr. Bixby went into hiding behind a smokestack where he could observe results. Presently the captain stepped out on the hurricane deck; next the chief mate appeared; then a clerk. Every moment or two a straggler was added to my audience; and before I got to the head of the island I had fifteen or twenty people assembled down there under my nose. I began to wonder what the trouble was. As I started across, the captain glanced aloft at me and said, with a sham uneasiness in his voice:

"Where is Mr. Bixby?"

"Gone below, sir."

But that did the business for me. My imagination began to construct dangers out of nothing, and they multiplied faster than I could keep the run of them. All at once I imagined I saw shoal water ahead! The wave of coward agony that surged through me then came near dislocating every joint in me. All my confidence in that crossing vanished. I seized the bell rope; dropped it, ashamed; seized it again; dropped it once more; clutched it tremblingly once again, and pulled it so feebly that I could hardly hear the stroke myself. Captain and mate sang out instantly, and both together:

"Starboard lead there! and quick about it!"

This was another shock. I began to climb the wheel like a squirrel; but I would hardly get the boat started to port before I would see new dangers on that side, and away I would spin to the other; only to find perils accumulating to starboard, and be crazy to get to port again. Then came the leadsman's sepulchral cry:

"D-e-e-p four!"

Deep four in a bottomless crossing! The terror of it took my breath away.

"M-a-r-k three! M-a-r-k three! Quarter-less-three! Half twain!"

This was frightful! I seized the bell ropes and stopped the engines.

"Quarter twain! Quarter twain! *Mark* twain!"

I was helpless. I did not know what in the world to do. I was quaking

from head to foot, and I could have hung my hat on my eyes, they stuck out so far.

"Quarter-*less*-twain! Nine-and-a-*half*!"

We were *drawing* nine! My hands were in a nerveless flutter. I could not ring a bell intelligibly with them. I flew to the speaking tube and shouted to the engineer:

"Oh, Ben, if you love me, *back* her! Quick, Ben! Oh, back the immortal *soul* out of her!"

I heard the door close gently. I looked around, and there stood Mr. Bixby, smiling a bland, sweet smile. Then the audience on the hurricane deck sent up a thundergust of humiliating laughter. I saw it all, now, and I felt meaner than the meanest man in human history. I laid it in the lead, set the boat in her marks, came ahead on the engines, and said:

"It was a fine trick to play on an orphan, *wasn't* it? I suppose I'll never hear the last of how I was ass enough to heave the lead at the head of 66."

"Well, no, you won't, maybe. In fact I hope you won't; for I want you to learn something by that experience. Didn't you *know* there was no bottom in that crossing?"

"Yes, sir, I did."

"Very well, then. You shouldn't have allowed me or anybody else to shake your confidence in that knowledge. Try to remember that. And another thing: when you get into a dangerous place, don't turn coward. That isn't going to help matters any."

It was a good enough lesson, but pretty hardly learned. Yet about the hardest part of it was that for months I so often had to hear a phrase which I had conceived a particular distaste for. It was, "Oh, Ben, if you love me, back her!"

RANK AND DIGNITY OF PILOTING

In my preceding chapters I have tried, by going into the minutiae of the science of piloting, to carry the reader step by step to a comprehension of what the science consists of; and at the same time I have tried to show him that it is a very curious and wonderful science, too, and very worthy of his attention. If I have seemed to love my subject, it is no surprising thing, for I loved the profession far better than any I have followed since, and I took a measureless pride in it. The reason is plain: a pilot, in those days, was the only unfettered and entirely independent human being that lived in the earth. Kings are but the hampered servants of parliament and the people; parliaments sit in chains forged by their constituency; the editor of a newspaper cannot be independent, but

must work with one hand tied behind him by party and patrons, and be content to utter only half or two-thirds of his mind; no clergyman is a free man and may speak the whole truth, regardless of his parish's opinions; writers of all kinds are manacled servants of the public. We write frankly and fearlessly, but then we "modify" before we print. In truth, every man and woman and child has a master, and worries and frets in servitude; but, in the day I write of, the Mississippi pilot had *none*. The captain could stand upon the hurricane deck, in the pomp of a very brief authority, and give him five or six orders while the vessel backed into the stream, and then that skipper's reign was over. The moment that the boat was under way in the river, she was under the sole and unquestioned control of the pilot. He could do with her exactly as he pleased, run her when and whither he chose, and tie her up to the bank whenever his judgment said that that course was best. His movements were entirely free; he consulted no one, he received commands from nobody, he promptly resented even the merest suggestions. Indeed, the law of the United States forbade him to listen to commands or suggestions, rightly considering that the pilot necessarily knew better how to handle the boat than anybody could tell him. So here was the novelty of a king without a keeper, an absolute monarch who was absolute in sober truth and not by a fiction of words. I have seen a boy of eighteen taking a great steamer serenely into what seemed almost certain destruction, and the aged captain standing mutely by, filled with apprehension but powerless to interfere. His interference, in that particular instance, might have been an excellent thing, but to permit it would have been to establish a most pernicious precedent. It will easily be guessed, considering the pilot's boundless authority, that he was a great personage in the old steamboating days. He was treated with marked courtesy by the captain and with marked deference by all the officers and servants; and this deferential spirit was quickly communicated to the passengers, too. I think pilots were about the only people I ever knew who failed to show, in some degree, embarrassment in the presence of traveling foreign princes. But then, people in one's own grade of life are not usually embarrassing objects.

The foregoing consists of Chapters 1, 4, and 6 through 14 of Mark Twain's LIFE ON THE MISSISSIPPI.

La Bruyère

1645–1696

The French critic and essayist Jean de la Bruyère was born in Paris in 1645, the son of a commoner who was a government official. He studied at the University of Orléans and passed the bar examination, but he never practiced law. In 1673 he bought a post in the Revenue Department at Caen that conferred prestige and an income. He sold the post fourteen years later and returned to Paris.

A few years earlier, La Bruyère had been introduced to the Condé household by the influential historian and theologian Bishop Bossuet. The Prince de Condé was one of the great nobles of France, and La Bruyère was engaged to tutor Condé's grandson, Louis, due de Bourbon. He also taught the young man's child wife, Mlle de Nantes, a daughter of Louis XIV.

At the age of forty, soon after entering the Condé household, La Bruyère published the first edition of his great work, the *Characters*. The work consisted of short portrait sketches, some of them translated from the Greek of Theophrastus, some original with La Bruyère.

Many of the portraits, though they were given classical names, depicted courtiers and literary figures of the time. La Bruyère made many enemies, but the friendship of Bossuet and the influence of Condé were sufficient protection. La Bruyère continued to bring out new editions of his book, each containing more biting and satirical characters than the last. The books were read avidly, if indignantly, and a series of "keys" were circulated in manuscript purporting to identify the persons he described.

Because so many powerful literary figures were offended by his work, La Bruyère was turned down by the French Academy on three different occasions. Finally, in 1693, his friends pushed through

his election. His speech of admission, thoroughly unrepentant, was criticized as sharply as his books. This speech, a few letters to Condé, a disputed posthumous treatise, and the successive editions of the *Characters* are all that survive of what was probably a considerable body of writings. La Bruyère died suddenly on May 10, 1696.

His classical model, Theophrastus (371/370–288/287 B.C.), the Greek philosopher and scientist, was a friend and student of both Plato and Aristotle, and the latter's successor as director of the Lyceum at Athens. He produced two extant works of botany and a collection of ethical *Characters*–brief, witty delineations of moral types. The publication of the *Characters* in 1592, in a Latin version by Casaubon, immediately created a vogue. Scores of authors, both in England and France, began to produce books of characters. Some imitated the moral, philosophical tone of Theophrastus, but others were sharp and satirical. Many writers saw in the Theophrastian characters an ideal way to express their criticisms of society–and of their enemies.

No one, perhaps, was a more successful writer of characters than La Bruyère, whose work had the advantage of appearing after nearly a century of experiment with the form. He learned from his predecessors, particularly what should be avoided in a character, and added to this knowledge an extremely ready wit, a precise faculty of observation, and the capacity to write what is called classical French style better than any other French writer, it is said, with the single exception of Racine.

La Bruyère was a conservative man. In "the battle of the books," he took the side of the ancients, holding that their books excelled those of the moderns. He respected royalty and would not tolerate revolutionary or even critical ideas in politics or religion. As a tutor in the household of a great prince, however, he could observe at firsthand the corruption of high society and court life. The pretensions of hypocritical courtiers, of would-be intellectuals, sanctimonious churchmen, and the newly rich all lay before him.

La Bruyère was too intelligent and independent to tolerate the vice, wastefulness, and stupidity that he saw all around him. But he satirized individuals rather than the traditions and institutions. He showed his sympathy with the poor by ridiculing the people who

exploited them, but he did not attack the institutions which kept them impoverished. He exposed the monumental selfishness of the high official Champagne, who wallowed in luxuries while depriving the poor of bread; but he said nothing against the venal system of government in which Champagne held office.

It is perhaps this shortcoming in La Bruyère which has kept him from being ranked with such great essayists and social critics as Montaigne and Voltaire. He did not examine into causes, as they did, but only exposed their symptoms on the surface of life. On the other hand, La Bruyère has much of Montaigne's urbane wit, and there are flashes of bitter truth in his *Characters* that would do credit to Voltaire. He reminds us often of a great artist who requires only half a dozen lines to draw a portrait. In swiftness and skill, his characterizations have never been surpassed.

Characters

ARSÈNE

rsène contemplates mankind from the summit of his mind and, seen from that eminence, men frighten him, so to speak, by their littleness. Praised and exalted to the skies by certain people who have arranged to admire each other reciprocally, he believes he possesses not only the good qualities he really has but all a man can have, which he will never have; thus occupied and filled with his sublime thoughts he barely gives himself time to deliver a few oracular statements; uplifted above human judgments by his character, he leaves to common minds the merit of an orderly, coherent life, and is himself responsible for his irregularities only to the circle of friends who regard them in a spirit of idolatry. They alone are competent to judge, can think and write; they alone ought to be writers. There is no other literary work, however well received in the world, however universally enjoyed by men of taste, which he–I will not say approves–but even condescends to read. He cannot be reformed by this portrait, for he will not read it.

CLÉANTE

Cléante is a gentleman; he chose a wife who is the most agreeable and reasonable woman in the world. Both are the delight and pleasure of the society they frequent; it would be impossible to find more probity and politeness anywhere else. To-morrow they leave each other and their deed of separation is drawn up at the notary's. Indeed, there are some merits which are not made to go together, there are certain incompatible virtues.

CHAMPAGNE

Champagne, at the moment he leaves a long dinner which inflates his belly, in the agreeable fumes of Avenay and Sillery wines, signs an order

someone presents to him by which a whole province will be deprived of bread, unless it is countermanded. He is excusable; how can anyone in the first hour of digestion understand that people somewhere else may die of hunger?

GITON

Giton has a fresh complexion, a full face and bulging cheeks, a fixed and assured gaze, broad shoulders, a projecting stomach, a firm and deliberate tread. He speaks with confidence; he makes those who converse with him repeat what they have said and he only moderately enjoys what is said. He unfolds an ample handkerchief and blows his nose noisily; he spits to a great distance and sneezes very loudly. He sleeps by day, he sleeps by night; he snores in company. At table and in walking he occupies more room than anyone else. He takes the centre and walks with his equals; he stops and they stop; he walks on and they walk on; all regulate themselves by him. He interrupts and corrects those who are talking; he is not interrupted, he is listened to as long as he likes to talk; his opinion is accepted, the rumours he spreads are believed. If he sits down you will see him settle into an arm-chair, cross his legs, frown, pull his hat over his eyes and see no one, or lift it up again and show his brow from pride and audacity. He is cheerful, a hearty laugher, impatient, presumptuous, quick to anger, irreligious, politic, mysterious about current affairs; he believes he has talents and wit.

He is rich.

PHÉDON

Phédon has hollow eyes, a bilious complexion, a dry body and a thin face; he sleeps little and his slumber is very light; he is abstracted, dreamy and with all his wit seems stupid; he forgets to say what he knows or to speak of events which are known to him; and if he does so sometimes he comes out badly, he thinks he is a nuisance to those he speaks to, he relates things briefly but frigidly; he is not listened to, he does not stir laughter. He applauds, he smiles at what others say to him, he is of their opinion; he runs, he flies to render them little services. He is complaisant, flattering, eager, he is mysterious about his own affairs, sometimes a liar; he is superstitious, scrupulous, timid. He walks gently and lightly, he seems afraid to touch the ground; he walks with lowered eyes and dares not raise them to the passers-by. He is never among those who

form a circle for discussion; he places himself behind the person who is speaking, furtively gathers what he says and goes away if he is looked at. He occupies no space, claims no place; he walks with hunched shoulders, his hat pulled over his eyes so as not to be seen; he shrinks and hides himself in his cloak; there are no streets or galleries so overcrowded and filled with people but that he finds a means of traversing them easily, of slipping through them without being noticed. If he is asked to sit down, he places himself just on the edge of the chair; he speaks in a low tone in conversation and articulates badly; yet with his friends he is open about public affairs, bitter against the age, very little disposed in favour of the ministers of state and the government. He never opens his mouth except to reply; he coughs and blows his nose behind his hat; he spits almost on himself, and he waits until he is alone to sneeze, or if it happens to him it is unperceived by the company present: he costs nobody a salute or a compliment.

He is poor.

DÉMOPHILE

Démophile, at my right, laments and exclaims: "All is lost, the country is done for, at least it is on the road to destruction. How can so strong, so general a coalition be resisted? What means are there, I do not say to overcome, but even to resist so many powerful enemies? There is no precedent for it in the monarchy. A hero, an Achilles, would succumb to it. Grievous faults have been committed (he goes on), I know what I am saying, it is my occupation, I have seen war and history has taught me a great deal." Then he speaks with admiration of Olivier Le Daim and Jacques Coeur: "There were men!" says he, "There were ministers!" He relates the worst and most unlucky news which could be invented; sometimes a party of our troops have been lured into an ambush and cut to pieces; sometimes certain troops besieged in a castle have surrendered unconditionally and have all been slaughtered: if you say the rumour is false and has not been confirmed, he does not listen, he adds that such a general has been killed; and although it is true that the general has only been slightly wounded and you assure him of the fact, he deplores his death, pities his widow, his children, the state; he pities himself: "He has lost a good friend and a powerful protector." He says that the German cavalry is invincible and grows pale at the very name of the Emperor's cuirassiers. "If such a place is attacked," he continues, "the siege will be raised. Either we shall remain on the defensive without risking battle;

or, if we fight, we shall lose, and if we lose it, there is the enemy at the frontier." And as Démophile gives the enemy wings, here he is in the heart of the kingdom: already he hears the tocsin sounding from the belfries and the call to arms; he thinks of his property and his estates; where will he place his money, his furniture, his family? Where will he fly to? Switzerland or Venice?

The foregoing consists
of a selection of sketches
from La Bruyère's CHARACTERS.

Thomas Carlyle

1795–1881

Thomas Carlyle, the prophet of heroes and hero worship, was born of humble parents in Ecclefechan, Scotland, in 1795. His father, a stonemason and small farmer, strained the family resources to provide his talented son with an education. The family bonds of the Carlyles were to remain strong through thick and thin—mostly thin—and Thomas later gave much financial assistance to his brothers.

At the age of fourteen, Thomas walked ninety miles to the University of Edinburgh, where he enrolled to study the ministry. Things turned out differently. He was attracted to mathematics and even more to literature, became a teacher for a spell, and then, in 1818, a hack writer for Edinburgh publications. It was about this time that he fell in love with the writings and the personality of Goethe, and read voraciously in German authors of the time, who were little known in England. In 1823–24, he published a life of the poet Schiller and a translation of Goethe's *Wilhelm Meister's Apprenticeship*. He was fast becoming, with Coleridge, the interpreter of German thinkers in England. He was himself profoundly influenced by the philosophy of Kant and Fichte. He thenceforth looked for the reality and divinity of men, especially heroes, behind the appearances. Clothes do not make the man, he wrote in his *Sartor Resartus*; they conceal the spiritual self. Neither is the world to be

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Notes from the artist: "The quiet mood of Carlyle reading in his garden is interrupted by the dynamic figure of Oliver Cromwell, and that of the symbol of 'Liberty' in the French Revolution. These are two examples of the 'strong-man' concept, which so attracted Carlyle. The quotation is from his book on this subject, On Heroes, Hero-Worship, and the Heroic in History.*"*

In books lies the soul of the whole Past Time; the articulate audible voice of the Past, when the body and material substance of it has altogether vanished like a dream.
T. Carlyle

judged by its sordid strivings for pleasure and economic gains–its mere outer garment.

In 1826 Carlyle had married the brilliant Jane Baillie Welsh, and soon after settled down with her on a lonely farm at Craigenputtock, where he lived inexpensively and wrote for periodicals. There Ralph Waldo Emerson paid him a visit, and the two men remained close friends for life. In 1834 John Stuart Mill persuaded Carlyle to come to London, where materials for his work in progress, *The French Revolution,* would be available. When the first volume was completed, he gave it to Mill to read, but a foolish servant girl used it to make a fire. Carlyle was undaunted. "It will be good for the character," he reflected; and he wrote the whole volume over again. The finished work, published in 1837, was immensely popular and established Carlyle's fame on firm ground.

Carlyle's theme is the divinely inspired hero-king. He is no ordinary hereditary monarch; without him the nation falters and disintegrates. He is the "Ablest Man . . . the truest hearted, justest, the Noblest Man." The Anglo-Saxon word for king is *Könning,* which means Able-man. He is the man who is able to direct the scattered forces of the nation, torn by jealousies and special interests, to an ideal goal.

The first problem is to find this man. Although there are many counterfeit heroes, Carlyle warns us against skepticism and fault-finding. It is better that the leader make mistakes than that there should be no leader at all. A second problem which crops up is whether leaders or laws are the best safeguard of our liberties and welfare. Sometimes the fate of a country seems to depend on a single man, a Washington or a Lincoln. Yet we see to it that laws are passed to which all heroes and would-be heroes must bow. There is no doubt how Carlyle would stand on this issue.

Of the two heroes whom Carlyle portrays in the essay which follows, Napoleon had a much better reputation than Cromwell. Carlyle reverses this judgment, and makes a stirring defense of the real Cromwell–so much misunderstood and maligned. Even his rigors and cruelties were virtues–marks of an indomitable will to do what had to be done. Napoleon was also an "Able-man." Yet in the end he betrayed his cause for a throne, whereas Cromwell remained true to the Revolution, and could not be tempted.

What are the moving forces of history? is the question that has been raised. It cannot be avoided if we are to understand the things that are going on today, and what the future is likely to bring. In the nineteenth century several theories were advanced. For Hegel world history was a battleground of ideas and spiritual forces; for Marx it was a battleground of classes, technologies, and economic forces. Hegel saw history progressing toward something like the Prussian monarchy, whereas for Marx the goal is the classless society.

Carlyle's interpretation was altogether different. The decisive and constructive forces in history are its great men and heroes. Every era and every crisis of history has its superlative men, who are able to take the helm and to convert chaos and destruction into something meaningful and worthy. But they must be given a chance. They must be recognized for what they are. When doubt, distrust, and envy stifle the natural inclination to revere and obey true leaders, stagnation and degeneracy follow. This was what had happened in his own time, Carlyle thought. Petty men, calculation, meanness dominated the national scene.

The very opposite view was put forward by Tolstoy a few years later. In his novel *War and Peace,* he argues that the leaders supposed to have shaped history were actually its pawns—and heartless egoists at that. He shows us Napoleon on the battlefield and Napoleon grunting in his bathtub. In neither role is he exceptional or admirable.

Such clashes of opposing judgments help us to find the truth for ourselves.

The Hero as King

We come now to the last form of Heroism, that which we call Kingship. The Commander over men, he to whose will our wills are to be subordinated, and loyally surrender themselves, and find their welfare in doing so, may be reckoned the most important of Great Men. He is practically the summary for us of all the various figures of Heroism; Priest, Teacher, whatsoever of earthly or of spiritual dignity we can fancy to reside in a man, embodies itself here, to command over us, to furnish us with constant practical teaching, to tell us for the day and hour what we are to do. He is called *Rex,* Regulator, *Roi*; our own name is still better: King, *Könning,* which means *Can*-ning, Able-man.

Numerous considerations, pointing towards deep, questionable, and indeed unfathomable regions, present themselves here: on the most of which we must resolutely for the present forbear to speak at all. As Burke said that perhaps fair trial by jury was the soul of government, and that all legislation, administration, parliamentary debating, and the rest of it, went on, in "order to bring twelve impartial men into a jury-box"; so, by much stronger reason, may I say here that the finding of your Ableman and getting him invested with the symbols of ability, with dignity, worship (worth-ship), royalty, kinghood, or whatever we call it, so that he may actually have room to guide according to his faculty of doing it, is the business, well or ill accomplished, of all social procedure whatsoever in this world! Hustings speeches, parliamentary motions, Reform Bills, French Revolutions, all mean at heart this; or else nothing. Find in any country the Ablest Man that exists there; raise him to the supreme place, and loyally reverence him: you have a perfect government for that country; no ballot-box, parliamentary eloquence, voting, constitution-building, or other machinery whatsoever can improve it a whit. It is in the perfect state: an ideal country. The Ablest Man; he means also the

truest hearted, justest, the Noblest Man: what he tells us to do must be precisely the wisest, fittest that we could anywhere or anyhow learn: the thing which it will in all ways behove us, with right loyal thankfulness, and nothing doubting, to do! Our doing and life were then, so far as government could regulate it, well regulated; that were the ideal of constitutions.

Alas, we know very well that Ideals can never be completely embodied in practice. Ideals must ever lie a very great way off; and we will right thankfully content ourselves with any not intolerable approximation thereto! Let no man, as Schiller says, too querulously "measure by a scale of perfection the meagre product of reality" in this poor world of ours. We will esteem him no wise man; we will esteem him a sickly, discontented, foolish man. And yet, on the other hand, it is never to be forgotten that Ideals do exist; that if they be not approximated to at all, the whole matter goes to wreck! Infallibly. No bricklayer builds a wall perfectly perpendicular; mathematically this is not possible; a certain degree of perpendicularity suffices him; and he, like a good bricklayer, who must have done with his job, leaves it so. And yet if he sway too much from the perpendicular; above all, if he throw plummet and level quite away from him, and pile brick on brick heedless, just as it comes to hand! Such bricklayer, I think, is in a bad way. He has forgotten himself: but the Law of Gravitation does not forget to act on him; he and his wall rush down into confused welter of ruin!

This is the history of all rebellions, French Revolutions, social explosions in ancient or modern times. You have put the too Unable man at the head of affairs! The too ignoble, unvaliant, fatuous man. You have forgotten that there is any rule, or natural necessity whatever, of putting the Able Man there. Brick must lie on brick as it may and can. Unable Simulacrum of Ability, quack, in a word, must adjust himself with quack, in all manner of administration of human things–which accordingly lie unadministered, fermenting into unmeasured masses of failure, of indigent misery: in the outward, and in the inward or spiritual, miserable millions stretch out the hand for their due supply, and it is not there. The law of gravitation acts; Nature's laws do none of them forget to act. The miserable millions burst forth into Sansculottism, or some other sort of madness; bricks and bricklayers lie as a fatal chaos!

Much sorry stuff, written some hundred years ago or more, about the Divine right of Kings, moulders unread now in the Public Libraries of this country. Far be it from us to disturb the calm process by which it is disappearing harmlessly from the earth, in those repositories! At the

same time, not to let the immense rubbish go without leaving us, as it ought, some soul of it behind–I will say that it did mean something; something true, which it is important for us and all men to keep in mind. To assert that in whatever man you chose to lay hold of (by this or the other plan of clutching at him); and clapped a round piece of metal on the head of, and called King–there straightway came to reside a divine virtue, so that he became a kind of God, and a Divinity inspired him with faculty and right to rule over you to all lengths: this–what can we do with this but leave it to rot silently in the Public Libraries? But I will say withal, and that is what these Divine-right men meant, that in Kings, and in all human authorities, and relations that men god-created can form among each other, there is verily either a Divine Right or else a Diabolic Wrong: one or the other of these two! For it is false altogether what the last Sceptical Century taught us, that this world is a steam engine. There is a God in this world; and a God's-sanction, or else the violation of such, does look out from all ruling and obedience, from all moral acts of men. There is no act more moral between men than that of rule and obedience. Woe to him that claims obedience when it is not due; woe to him that refuses it when it is! God's law is in that, I say, however the Parchment laws may run: there is a Divine Right or else a Diabolic Wrong at the heart of every claim that one man makes upon another.

It can do none of us harm to reflect on this: in all the relations of life it will concern us; in Loyalty and Royalty, the highest of these. I esteem the modern error, that all goes by self-interest and the checking and balancing of greedy knaveries, and that, in short, there is nothing divine whatever in the association of men, a still more despicable error, natural as it is to an unbelieving century, than that of a divine right in people called Kings. I say, find me the true *Könning,* King, or Able-man, and he has a divine right over me. That we knew in some tolerable measure how to find him, and that all men were ready to acknowledge his divine right when found: this is precisely the healing which a sick world is everywhere, in these ages, seeking after! The true King, as guide of the practical, has ever something of the Pontiff in him–guide of the spiritual, from which all practice has its rise. This too is a true saying, That the King is head of the Church. But we will leave the Polemic stuff of a dead century to lie quiet on its bookshelves.

Certainly it is a fearful business, that of having your Ableman to seek, and not knowing in what manner to proceed about it! That is the world's sad predicament in these times of ours. They are times of Revolution, and

have long been. The bricklayer with his bricks, no longer heedful of plummet or the law of gravitation, have toppled, tumbled, and it all welters as we see! But the beginning of it was not the French Revolution; that is rather the end, we can hope. It were truer to say, the beginning was three centuries farther back: in the Reformation of Luther. That the thing which still called itself Christian Church had become a Falsehood, and brazenly went about pretending to pardon men's sins for metallic coined money, and to do much else which in the everlasting truth of Nature it did not now do: here lay the vital malady. The inward being wrong, all outward went ever more and more wrong. Belief died away; all was Doubt, Disbelief. The builder cast away his plummet; said to himself, "What is gravitation? Brick lies on brick there!" Alas, does it not still sound strange to many of us, the assertion that there is a God's truth in the business of god-created men; that all is not a kind of grimace, an "expediency," diplomacy, one knows not what!

From that first necessary assertion of Luther's, "You, self-styled *Papa,* you are no Father in God at all; you are—a Chimera, whom I know not how to name in polite language!"—from that onward to the shout which rose round Camille Desmoulins in the Palais Royal, *"Aux armes!"* when the people had burst up against all manner of Chimeras—I find a natural historical sequence. That shout too, so frightful, half-infernal, was a great matter. Once more the voice of awakened nations; starting confusedly, as out of nightmare, as out of death-sleep, into some dim feeling that Life was real; that God's world was not an expediency and diplomacy! Infernal; yes, since they would not have it otherwise. Infernal, since not celestial or terrestrial! Hollowness, insincerity has to cease; sincerity of some sort has to begin. Cost what it may, reigns of terror, horrors of French Revolution or what else, we have to return to truth. Here is a Truth, as I said: a Truth clad in hell-fire, since they would not but have it so!

A common theory among considerable parties of men in England and elsewhere used to be that the French Nation had, in those days, as it were gone mad; that the French Revolution was a general act of insanity, a temporary conversion of France and large sections of the world into a kind of Bedlam. The event had risen and raged; but was a madness and nonentity, gone now happily into the region of Dreams and the Picturesque! To such comfortable philosophers, the Three Days of July 1830 must have been a surprising phenomenon. Here is the French Nation risen again, in musketry and death-struggle, out shooting and being shot, to make that same mad French Revolution good! The sons and grandsons

of those men, it would seem, persist in the enterprise: they do not disown it; they will have it made good; will have themselves shot, if it be not made good! To philosophers who had made up their life-system on that "madness" quietus, no phenomenon could be more alarming. Poor Niebuhr, they say, the Prussian professor and historian, fell broken-hearted in consequence; sickened, if we can believe it, and died of the Three Days! It was surely not a very heroic death: little better than Racine's, dying because Louis XIV looked sternly on him once. The world had stood some considerable shocks, in its time; might have been expected to survive the Three Days too, and be found turning on its axis after even them! The Three Days told all mortals that the old French Revolution, mad as it might look, was not a transitory ebullition of Bedlam, but a genuine product of this Earth where we all live; that it was verily a fact, and that the world in general would do well everywhere to regard it as such.

Truly, without the French Revolution, one would not know what to make of an age like this at all. We will hail the French Revolution, as shipwrecked mariners might the sternest rock, in a world otherwise all of baseless sea and waves. A true Apocalypse, though a terrible one, to this false withered artificial time; testifying once more that Nature is preternatural; if not divine, then diabolic; that Semblance is not reality; that it has to become reality, or the world will take fire under it—burn it into what it is, namely Nothing! Plausibility has ended; empty Routine has ended; much has ended. This, as with a Trump of Doom, has been proclaimed to all men. They are the wisest who will learn it soonest. Long confused generations before it be learned; peace impossible till it be! The earnest man, surrounded, as ever, with a world of inconsistencies, can await patiently, patiently strive to do his work, in the midst of that. Sentence of Death is written down in Heaven against all that; sentence of Death is now proclaimed on the Earth against it: this he with his eyes may see. And surely, I should say, considering the other side of the matter, what enormous difficulties lie there, and how fast, fearfully fast, in all countries, the inexorable demand for solution of them is pressing on—he may easily find other work to do than labouring in the Sansculottic province at this time of day!

To me, in these circumstances, that of "Hero worship" becomes a fact inexpressibly precious—the most solacing fact one sees in the world at present. There is an everlasting hope in it for the management of the world. Had all traditions, arrangements, creeds, societies that men ever instituted sunk away, this would remain. The certainty of heroes being sent us; our faculty, our necessity, to reverence heroes when sent: it shines

like a polestar through smoke-clouds, dust-clouds, and all manner of downrushing and conflagration.

Hero worship would have sounded very strange to those workers and fighters in the French Revolution. Not reverence for Great Men; not any hope or belief, or even wish, that Great Men could again appear in the world! Nature, turned into a "Machine," was as if effete now; could not any longer produce Great Men: I can tell her, she may give up the trade altogether, then; we cannot do without Great Men! But neither have I any quarrel with that of "Liberty and Equality"; with the faith that, wise great men being impossible, a level immensity of foolish small men would suffice. It was a natural faith then and there. "Liberty and Equality; no Authority needed any longer. Hero worship, reverence for such Authorities, has proved false, is itself a falsehood; no more of it! We have had such forgeries, we will now trust nothing. So many base plated coins passing in the market, the belief has now become common that no gold any longer exists—and even that we can do very well without gold!" I find this, among other things, in that universal cry of Liberty and Equality; and find it very natural, as matters then stood.

And yet surely it is but the transition from false to true. Considered as the whole truth, it is false altogether—the product of entire sceptical blindness, as yet only struggling to see. Hero worship exists forever, and everywhere: not Loyalty alone; it extends from divine adoration down to the lowest practical regions of life. "Bending before men," if it is not to be a mere empty grimace, better dispensed with than practised, is Hero worship—a recognition that there does dwell in that presence of our brother something divine; that every created man, as Novalis said, is a "revelation in the Flesh." They were Poets too that devised all those graceful courtesies which make life noble! Courtesy is not a falsehood or grimace; it need not be such. And Loyalty, religious Worship itself, are still possible; nay still inevitable.

May we not say, moreover, while so many of our late heroes have worked rather as revolutionary men, that nevertheless every Great Man, every genuine man, is by the nature of him a son of order, not of disorder? It is a tragical position for a true man to work in revolutions. He seems an anarchist; and indeed a painful element of anarchy does encumber him at every step—him to whose whole soul anarchy is hostile, hateful. His mission is order; every man's is. He is here to make what was disorderly, chaotic, into a thing ruled, regular. He is the missionary of order. Is not all work of man in this world a making of order? The carpenter finds rough trees: shapes them, constrains them into square

fitness, into purpose and use. We are all born enemies of disorder: it is tragical for us all to be concerned in image-breaking and down-pulling; for the Great Man, more a man than we, it is doubly tragical.

Thus too all human things, maddest French Sansculottisms, do and must work towards order. I say, there is not a man in them, raging in the thickest of the madness, but is impelled withal, at all moments, towards order. His very life means that; disorder is dissolution, death. No chaos but it seeks a centre to revolve round. While man is man, some Cromwell or Napoleon is the necessary finish of a Sansculottism. Curious: in those days when Hero worship was the most incredible thing to every one, how it does come out nevertheless, and assert itself practically, in a way which all have to credit. Divine right, take it on the great scale, is found to mean divine might withal! While old false formulas are getting trampled everywhere into destruction, new genuine substances unexpectedly unfold themselves indestructible. In rebellious ages, when Kingship itself seems dead and abolished, Cromwell, Napoleon step forth again as Kings. The history of these men is what we have now to look at, as our last phasis of Heroism. The old ages are brought back to us; the manner in which Kings were made, and Kingship itself first took rise, is again exhibited in the history of these two.

We have had many civil wars in England; wars of Red and White Roses, wars of Simon de Montfort; wars enough which are not very memorable. But that war of the Puritans has a significance which belongs to no one of the others. Trusting to your candour, which will suggest on the other side what I have not room to say, I will call it a section once more of that great universal war which alone makes up the true history of the world—the war of belief against unbelief! The struggle of men intent on the real essence of things, against men intent on the semblances and forms of things. The Puritans, to many, seem mere savage iconoclasts, fierce destroyers of forms; but it were more just to call them haters of untrue forms. I hope we know how to respect Laud and his King as well as them. Poor Laud seems to me to have been weak and ill-starred, not dishonest—an unfortunate pedant rather than anything worse. His "dreams" and superstitions, at which they laugh so, have an affectionate, lovable kind of character. He is like a college tutor, whose whole world is forms, college rules; whose notion is that these are the life and safety of the world. He is placed suddenly, with that unalterable luckless notion of his, at the head not of a college but of a nation, to regulate the most complex deep-reaching interests of men. He thinks they ought to go by the old

decent regulations; nay that their salvation will lie in extending and improving these. Like a weak man, he drives with spasmodic vehemence towards his purpose; cramps himself to it, heeding no voice of prudence, no cry of pity: He will have his college rules obeyed by his collegians; that first; and till that, nothing. He is an ill-starred pedant, as I said. He would have it the world was a college of that kind, and the world *was not* that. Alas, was not his doom stern enough? Whatever wrongs he did, were they not all frightfully avenged on him?

It is meritorious to insist on forms; Religion and all else naturally clothes itself in forms. Everywhere the formed world is the only habitable one. The naked formlessness of Puritanism is not the thing I praise in the Puritans; it is the thing I pity—praising only the spirit which had rendered that inevitable! All substances clothe themselves in forms: but there are suitable true forms, and then there are untrue unsuitable. As the briefest definition, one might say, forms which *grow* round a substance, if we rightly understand that, will correspond to the real nature and purport of it, will be true, good; forms which are consciously *put* round a substance, bad. I invite you to reflect on this. It distinguishes true from false in ceremonial form, earnest solemnity from empty pageant, in all human things.

There must be a veracity, a natural spontaneity in forms. In the commonest meeting of men, a person making what we call "set speeches," is not he an offence? In the mere drawing-room, whatsoever courtesies you see to be grimaces, prompted by no spontaneous reality within, are a thing you wish to get away from. But suppose now it were some matter of vital concernment, some transcendent matter (as Divine Worship is), about which your whole soul, struck dumb with its excess of feeling, knew not how to *form* itself into utterance at all, and preferred formless silence to any utterance there possible—what should we say of a man coming forward to represent or utter it for you in the way of upholsterer-mummery? Such a man—let him depart swiftly, if he love himself! You have lost your only son; are mute, struck down, without even tears: an importunate man importunately offers to celebrate funeral games for him in the manner of the Greeks! Such mummery is not only not to be accepted—it is hateful, unendurable. It is what the old prophets called "idolatry," worshipping of hollow shows; what all earnest men do and will reject. We can partly understand what those poor Puritans meant. Laud dedicating that St. Catherine Creed's Church, in the manner we have it described, with his multiplied ceremonial bowings, gesticulations, exclamations: surely it is rather the rigorous formal pedant, intent on his

"college rules," than the earnest prophet, intent on the essence of the matter!

Puritanism found such forms insupportable; trampled on such forms; we have to excuse it for saying, No form at all rather than such! It stood preaching in its bare pulpit, with nothing but the Bible in its hand. Nay, a man preaching from his earnest soul into the earnest souls of men: is not this virtually the essence of all Churches whatsoever? The nakedest, savagest reality, I say, is preferable to any semblance, however dignified. Besides, it will clothe itself with due semblance by and by, if it be real. No fear of that; actually no fear at all. Given the living man, there will be found clothes for him; he will find himself clothes. But the suit of clothes pretending that *it* is both clothes and man! We cannot "fight the French" by three hundred thousand red uniforms; there must be *men* in the inside of them! Semblance, I assert, must actually *not* divorce itself from Reality. If Semblance do, why then there must be men found to rebel against Semblance, for it has become a lie! These two antagonisms at war here, in the case of Laud and the Puritans, are as old nearly as the world. They went to fierce battle over England in that age; and fought out their confused controversy to a certain length, with many results for all of us.

In the age which directly followed that of the Puritans, their cause or themselves were little likely to have justice done them. Charles II and his Rochesters were not the kind of men you would set to judge what the worth or meaning of such men might have been. That there could be any faith or truth in the life of a man was what these poor Rochesters, and the age they ushered in, had forgotten. Puritanism was hung on gibbets, like the bones of the leading Puritans. Its work nevertheless went on accomplishing itself. All true work of a man, hang the author of it on what gibbet you like, must and will accomplish itself. We have our *habeas corpus,* our free representation of the people; acknowledgment, wide as the world, that all men are, or else must, shall, and will become, what we call free men; men with their life grounded on reality and justice, not on tradition, which has become unjust and a chimera! This in part and much besides this was the work of the Puritans.

And indeed, as these things became gradually manifest, the character of the Puritans began to clear itself. Their memories were, one after another, taken down from the gibbet; nay a certain portion of them are now, in these days, as good as canonized. Eliot, Hampden, Pym, nay Ludlow, Hutchinson, Vane himself, are admitted to be a kind of Heroes; political Conscript Fathers, to whom in no small degree we owe what

makes us a free England: it would not be safe for anybody to designate these men as wicked now. Few Puritans of note but find their apologists somewhere, and have a certain reverence paid them by earnest men. One Puritan, I think, and almost he alone, our poor Cromwell, seems to hang yet on the gibbet, and find no hearty apologist anywhere. Him neither saint nor sinner will acquit of great wickedness. A man of ability, infinite talent, courage, and so forth: but he betrayed the cause. Selfish ambition, dishonesty, duplicity; a fierce, coarse, hypocritical *Tartuffe;* turning all that noble struggle for constitutional liberty into a sorry farce played for his own benefit: this and worse is the character they give of Cromwell. And then there come contrasts with Washington and others; above all, with these noble Pyms and Hampdens, whose noble work he stole for himself, and ruined into a futility and deformity.

This view of Cromwell seems to me the not unnatural product of a century like the eighteenth. As we said of the valet, so of the sceptic: He does not know a Hero when he sees him! The valet expected purple mantles, gilt sceptres, body-guards and flourishes of trumpets: the sceptic of the eighteenth century looks for regulated respectable formulas, principles, or what else he may call them; a style of speech and conduct which has got to seem "respectable," which can plead for itself in a handsome articulate manner, and gain the suffrages of an enlightened sceptical eighteenth century! It is, at bottom, the same thing that both the valet and he expect: the garnitures of some acknowledged royalty, which then they will acknowledge! The King coming to them in the rugged unformulistic state shall be no King.

For my own share, far be it from me to say or insinuate a word of disparagement against such characters as Hampden, Eliot, Pym, whom I believe to have been right worthy and useful men. I have read diligently what books and documents about them I could come at—with the honestest wish to admire, to love and worship them like Heroes; but I am sorry to say, if the real truth must be told, with very indifferent success! At bottom, I found that it would not do. They are very noble men, these; step along in their stately way, with their measured euphemisms, philosophies, parliamentary eloquences, ship-moneys, *Monarchies of Man:* a most constitutional, unblamable, dignified set of men. But the heart remains cold before them; the fancy alone endeavours to get up some worship of them. What man's heart does, in reality, break forth into any fire of brotherly love for these men? They are become dreadfully dull men! One breaks down often enough in the constitutional eloquence of the admirable Pym, with his "seventhly and lastly." You find that it may be

the admirablest thing in the world, but that it is heavy–heavy as lead, barren as brick-clay; that, in a word, for you there is little or nothing now surviving there! One leaves all these nobilities standing in their niches of honour: the rugged outcast Cromwell, he is the man of them all in whom one still finds human stuff. The great savage Baresark: he could write no euphemistic *Monarchy of Man;* did not speak, did not work with glib regularity; had no straight story to tell for himself anywhere. But he stood bare, not cased in euphemistic coat of mail; he grappled like a giant, face to face, heart to heart, with the naked truth of things! That, after all, is the sort of man for one. I plead guilty to valuing such a man beyond all other sorts of men. Smooth-shaven Respectabilities not a few one finds, that are not good for much. Small thanks to a man for keeping his hands clean, who would not touch the work but with gloves on!

Neither, on the whole, does this constitutional tolerance of the eighteenth century for the other happier Puritans seem to be a very great matter. One might say it is but a piece of Formulism and Scepticism, like the rest. They tell us it was a sorrowful thing to consider that the foundation of our English Liberties should have been laid by "superstition." These Puritans came forward with Calvinistic incredible Creeds, Anti-Laudisms, Westminster Confessions; demanding, chiefly of all, that they should have liberty to worship in their own way. Liberty to tax themselves: that was the thing they should have demanded! It was superstition, fanaticism, disgraceful ignorance of constitutional philosophy to insist on the other thing! Liberty to tax oneself? Not to pay out money from your pocket except on reason shown? No century, I think, but a rather barren one would have fixed on that as the first right of man! I should say, on the contrary, a just man will generally have better cause than money in what shape soever, before deciding to revolt against his government. Ours is a most confused world, in which a good man will be thankful to see any kind of government maintain itself in a not insupportable manner; and here in England, to this hour, if he is not ready to pay a great many taxes which he can see very small reason in, it will not go well with him, I think! He must try some other climate than this. Taxgatherer? Money? He will say: "Take my money, since you can, and it is so desirable to you; take it, and take yourself away with it; and leave me alone to my work here. *I* am still here; can still work, after all the money you have taken from me!" But if they come to him, and say, "Acknowledge a lie; pretend to say you are worshipping God, when you are not doing it: believe not the thing that *you* find true, but the thing

that I find, or pretend to find true!" He will answer: "No; by God's help, no! You may take my purse; but I cannot have my moral Self annihilated. The purse is any highwayman's who might meet me with a loaded pistol: but the Self is mine and God my maker's; it is not yours; and I will resist you to the death, and revolt against you, and, on the whole, front all manner of extremities, accusations and confusions, in defence of that!"

Really, it seems to me the one reason which could justify revolting, this of the Puritans. It has been the soul of all just revolts among men. Not hunger alone produced even the French Revolution: no, but the feeling of the insupportable all-pervading falsehood which had now embodied itself in hunger, in universal material scarcity and nonentity, and thereby become indisputably false in the eyes of all! We will leave the eighteenth century with its "liberty to tax itself." We will not astonish ourselves that the meaning of such men as the Puritans remained dim to it. To men who believe in no reality at all, how shall a real human soul, the intensest of all realities, as it were the Voice of this world's Maker still speaking to us, be intelligible? What it cannot reduce into constitutional doctrines relative to "taxing," or other the like material interest, gross, palpable to the sense, such a century will needs reject as an amorphous heap of rubbish. Hampdens, Pyms, and ship-money will be the theme of much constitutional eloquence, striving to be fervid–which will glitter, if not as fire does, then as ice does: and the irreducible Cromwell will remain a chaotic mass of "madness," "hypocrisy," and much else.

From of old, I will confess, this theory of Cromwell's falsity has been incredible to me. Nay I cannot believe the like of any Great Man whatever. Multitudes of Great Men figure in history as false, selfish men; but if we will consider it, they are but figures for us, unintelligible shadows; we do not see into them as men that could have existed at all. A superficial unbelieving generation only, with no eye but for the surfaces and semblances of things, could form such notions of Great Men. Can a great soul be possible without a conscience in it, the essence of all real souls, great or small? No, we cannot figure Cromwell as a falsity and fatuity; the longer I study him and his career, I believe this the less. Why should we? There is no evidence of it. Is it not strange that, after all the mountains of calumny this man has been subject to, after being represented as the very prince of liars, who never, or hardly ever, spoke truth, but always some cunning counterfeit of truth, there should not yet have been one falsehood

brought clearly home to him? A prince of liars, and no lie spoken by him. Not one that I could yet get sight of. It is like Pococke asking Grotius, Where is your proof of Mohammed's Pigeon? No proof! Let us leave all these calumnious chimeras, as chimeras ought to be left. They are not portraits of the man; they are distracted phantasms of him, the joint product of hatred and darkness.

Looking at the man's life with our own eyes, it seems to me, a very different hypothesis suggests itself. What little we know of his earlier obscure years, distorted as it has come down to us, does it not all betoken an earnest, affectionate, sincere kind of man? His nervous melancholic temperament indicates rather a seriousness *too* deep for him. Of those stories of "Spectres"; of the white Spectre in broad daylight, predicting that he should be King of England, we are not bound to believe much; probably no more than of the other black Spectre, or Devil in person, to whom the officer saw him sell himself before Worcester Fight! But the mournful, over-sensitive, hypochondriac humour of Oliver, in his young years, is otherwise indisputably known. The Huntingdon Physician told Sir Philip Warwick himself, he had often been sent for at midnight; Mr. Cromwell was full of hypochondria, thought himself near dying, and "had fancies about the Town-cross." These things are significant. Such an excitable deep-feeling nature, in that rugged stubborn strength of his, is not the symptom of falsehood; it is the symptom and promise of quite other than falsehood!

The young Oliver is sent to study law; falls, or is said to have fallen, for a little period, into some of the dissipations of youth; but if so, speedily repents, abandons all this: not much above twenty, he is married, settled as an altogether grave and quiet man. "He pays-back what money he had won at gambling," says the story; he does not think any gain of that kind could be really his. It is very interesting, very natural, this "conversion," as they well name it; this awakening of a great true soul from the worldly slough, to see into the awful truth of things; to see that time and its shows all rested on eternity, and this poor Earth of ours was the threshold either of Heaven or of Hell! Oliver's life at St. Ives or Ely, as a sober industrious farmer, is it not altogether as that of a true and devout man? He has renounced the world and its ways; its prizes are not the thing that can enrich him. He tills the earth; he reads his Bible; daily assembles his servants round him to worship God. He comforts persecuted ministers, is fond of preachers; nay can himself preach–exhorts his neighbours to be wise, to redeem the time. In all this what "hypocrisy," "ambition," "cant," or other falsity? The man's hopes, I do believe, were fixed on the other

Higher World; his aim to get well thither, by walking well through his humble course in this world. He courts no notice: what could notice here do for him? "Ever in his great Taskmaster's eye."

It is striking, too, how he comes out once into public view; he, since no other is willing to come: in resistance to a public grievance. I mean, in that matter of the Bedford Fens. No one else will go to law with authority; therefore he will. That matter once settled, he returns back into obscurity, to his Bible and his plough. Gain influence? His influence is the most legitimate; derived from personal knowledge of him, as a just, religious, reasonable and determined man. In this way he has lived till past forty; old age is now in view of him, and the earnest portal of death and eternity; it was at this point that he suddenly became "ambitious"! I do not interpret his parliamentary mission in that way!

His successes in parliament, his successes through the war, are honest successes of a brave man who has more resolution in the heart of him, more light in the head of him than other men. His prayers to God; his spoken thanks to the God of Victory, who had preserved him safe, and carried him forward so far, through the furious clash of a world all set in conflict, through desperate looking envelopments at Dunbar; through the death-hail of so many battles; mercy after mercy; to the "crowning mercy" of Worcester Fight: all this is good and genuine for a deep-hearted Calvinistic Cromwell. Only to vain unbelieving Cavaliers, worshipping not God but their own "lovelocks," frivolities and formalities, living quite apart from contemplations of God, living without God in the world, need it seem hypocritical.

Nor will his participation in the King's death involve him in condemnation with us. It is a stern business killing of a King! But if you once go to war with him, it lies there; this and all else lies there. Once at war, you have made wager of battle with him: it is he to die, or else you. Reconciliation is problematic; may be possible, or, far more likely, is impossible. It is now pretty generally admitted that the parliament, having vanquished Charles I, had no way of making any tenable arrangement with him. The large Presbyterian party, apprehensive now of the Independents, were most anxious to do so; anxious indeed as for their own existence; but it could not be. The unhappy Charles, in those final Hampton Court negotiations, shows himself as a man fatally incapable of being dealt with. A man who, once for all, could not and would not understand: whose thought did not in any measure represent to him the real fact of the matter; nay worse, whose *word* did not at all represent his thought. We may say this of him without cruelty, with deep pity rather: but it is

true and undeniable. Forsaken there of all but the name of Kingship, he still, finding himself treated with outward respect as a King, fancied that he might play off party against party, and smuggle himself into his old power by deceiving both. Alas, they both discovered that he was deceiving them. A man whose word will not inform you at all what he means or will do is not a man you can bargain with. You must get out of that man's way, or put him out of yours! The Presbyterians, in their despair, were still for believing Charles, though found false, unbelievable again and again. Not so Cromwell: "For all our fighting," says he, "we are to have a little bit of paper?" No!

In fact, everywhere we have to note the decisive practical eye of this man; how he drives toward the practical and practicable; has a genuine insight into what *is* fact. Such an intellect, I maintain, does not belong to a false man: the false man sees false shows, plausibilities, expediences: the true man is needed to discern even practical truth. Cromwell's advice about the parliament's Army, early in the contest, how they were to dismiss their city tapsters, flimsy riotous persons, and choose substantial yeomen, whose heart was in the work, to be soldiers for them: this is advice by a man who *saw*. Fact answers, if you see into fact. Cromwell's Ironsides were the embodiment of this insight of his; men fearing God; and without any other fear. No more conclusively genuine set of fighters ever trod the soil of England, or of any other land.

Neither will we blame greatly that word of Cromwell's to them; which was so blamed: "If the King should meet me in battle, I would kill the King." Why not? These words were spoken to men who stood as before a Higher than Kings. They had set more than their own lives on the cast. The parliament may call it, in official language, a fighting "*for* the King"; but we, for our share, cannot understand that. To us it is no dilettante work, no sleek officiality; it is sheer rough death and earnest. They have brought it to the calling forth of war; horrid internecine fight, man grappling with man in fire-eyed rage–the infernal element in man called forth, to try it by that! *Do* that therefore; since that is the thing to be done. The successes of Cromwell seem to me a very natural thing! Since he was not shot in battle, they were an inevitable thing. That such a man, with the eye to see, with the heart to dare, should advance, from post to post, from victory to victory, till the Huntingdon Farmer became, by whatever name you might call him, the acknowledged Strongest Man in England, virtually the King of England, requires no magic to explain it!

Truly it is a sad thing for a people, as for a man, to fall into scepticism,

into dilettantism, insincerity; not to know a sincerity when they see it. For this world, and for all worlds, what curse is so fatal? The heart lying dead, the eye cannot see. What intellect remains is merely the vulpine intellect. That a true King be sent them is of small use; they do not know him when sent. They say scornfully, Is this your King? The Hero wastes his heroic faculty in bootless contradiction from the unworthy; and can accomplish little. For himself he does accomplish a heroic life, which is much, which is all; but for the world he accomplishes comparatively nothing. The wild rude sincerity, direct from Nature, is not glib in answering from the witness-box; in your small-debt *piepowder* court, he is scouted as a counterfeit. The vulpine intellect "detects" him. For being a man worth any thousand men, the response, your Knox, your Cromwell gets, is an argument for two centuries, whether he was a man at all. God's greatest gift to this Earth is sneeringly flung away. The miraculous talisman is a paltry plated coin, not fit to pass in the shops as a common guinea.

Lamentable this! I say, this must be remedied. Till this be remedied in some measure, there is nothing remedied. "Detect quacks"? Yes do, for Heaven's sake; but know withal the men that are to be trusted! Till we know that, what is all our knowledge; how shall we even so much as "detect"? For the vulpine sharpness, which considers itself to be knowledge, and "detects" in that fashion, is far mistaken. Dupes indeed are many: but, of all dupes, there is none so fatally situated as he who lives in undue terror of being duped. The world does exist; the world has truth in it or it would not exist! First recognize what is true, we shall then discern what is false; and properly never till then.

"Know the men that are to be trusted": alas, this is yet, in these days, very far from us. The sincere alone can recognize sincerity. Not a Hero only is needed, but a world fit for him; a world not of valets—the Hero comes almost in vain to it otherwise! Yes, it is far from us: but it must come; thank God, it is visibly coming. Till it do come, what have we? Ballot-boxes, suffrages, French Revolutions: if we are as valets, and do not know the Hero when we see him, what good are all these? A heroic Cromwell comes; and for a hundred and fifty years he cannot have a vote from us. Why, the insincere, unbelieving world is the natural property of the quack, and of the father of quacks and quackeries! Misery, confusion, unveracity are alone possible there. By ballot-boxes we alter the figure of our quack; but the substance of him continues. The valet world has to be governed by the sham hero, by the King merely dressed in King gear. It is his; he is its! In brief, one of two things: We shall either learn to

know a Hero, a true governor and captain, somewhat better when we see him; or else go on to be forever governed by the unheroic; had we ballot-boxes clattering at every street-corner, there were no remedy in these.

Poor Cromwell, great Cromwell! The inarticulate prophet; prophet who could not speak. Rude, confused, struggling to utter himself, with his savage depth, with his wild sincerity; and he looked so strange, among the elegant euphemisms, dainty little Falklands, didactic Chillingworths, diplomatic Clarendons! Consider him. An outer hull of chaotic confusion, visions of the Devil, nervous dreams, almost semi-madness; and yet such a clear determinate man's energy working in the heart of that. A kind of chaotic man. The ray as of pure starlight and fire, working in such an element of boundless hypochondria, unformed black of darkness! And yet withal this hypochondria, what was it but the very greatness of the man? The depth and tenderness of his wild affections: the quantity of sympathy he had with things—the quantity of insight he would yet get into the heart of things, the mastery he would yet get over things: this was his hypochondria. The man's misery, as man's misery always does, came of his greatness. Samuel Johnson too is that kind of man. Sorrow-stricken, half-distracted; the wide element of mournful black enveloping him—wide as the world. It is the character of a prophetic man; a man with his whole soul *seeing,* and struggling to see.

On this ground, too, I explain to myself Cromwell's reputed confusion of speech. To himself the internal meaning was sun-clear; but the material with which he was to clothe it in utterance was not there. He had lived silent; a great unnamed sea of thought round him all his days; and in his way of life little call to attempt naming or uttering that. With his sharp power of vision, resolute power of action, I doubt not he could have learned to write books withal, and speak fluently enough: he did harder things than writing of books. This kind of man is precisely he who is fit for doing manfully all things you will set him on doing. Intellect is not speaking and logicizing; it is seeing and ascertaining. Virtue, *Vir-tus,* manhood, *hero*-hood, is not fair-spoken immaculate regularity; it is first of all what the Germans well name it, *Tugend* (*Taugend, dow*-ing or *Dough*-tiness), Courage and the Faculty to *do*. This basis of the matter Cromwell had in him.

One understands moreover how, though he could not speak in parliament, he might preach, rhapsodic preaching; above all, how he might be great in extempore prayer. These are the free outpouring utterances of what is in the heart: method is not required in them; warmth, depth, sincerity are all that is required. Cromwell's habit of prayer is a notable feature of him. All his great enterprises were commenced with prayer.

In dark inextricable-looking difficulties, his officers and he used to assemble, and pray alternately, for hours, for days, till some definite resolution rose among them, some "door of hope," as they would name it, disclosed itself. Consider that. In tears, in fervent prayers, and cries to the great God, to have pity on them, to make His light shine before them. They, armed Soldiers of Christ, as they felt themselves to be; a little band of Christian Brothers, who had drawn the sword against a great black devouring world not Christian, but Mammonish, Devilish–they cried to God in their straits, in their extreme need, not to forsake the Cause that was His. The light which now rose upon them–how could a human soul, by any means at all, get better light? Was not the purpose so formed like to be precisely the best, wisest, the one to be followed without hesitation any more? To them it was as the shining of Heaven's own splendour in the waste-howling darkness; the Pillar of Fire by night that was to guide them on their desolate perilous way. Was it not such? Can a man's soul, to this hour, get guidance by any other method than intrinsically by that same–devout prostration of the earnest struggling soul before the Highest, the Giver of all Light; be such prayer a spoken, articulate, or be it a voiceless, inarticulate one? There is no other method. "Hypocrisy"? One begins to be weary of all that. They who call it so have no right to speak on such matters. They never formed a purpose, what one can call a purpose. They went about balancing expediences, plausibilities; gathering votes, advices; they never were alone with the truth of a thing at all. Cromwell's prayers were likely to be "eloquent," and much more than that. His was the heart of a man who *could* pray.

But indeed his actual speeches, I apprehend, were not nearly so ineloquent, incondite, as they look. We find he was, what all speakers aim to be, an impressive speaker, even in parliament; one who, from the first, had weight. With that rude passionate voice of his, he was always understood to mean something, and men wished to know what. He disregarded eloquence, nay despised and disliked it; spoke always without premeditation of the words he was to use. The reporters, too, in those days seem to have been singularly candid; and to have given the printer precisely what they found on their own notepaper. And withal, what a strange proof is it of Cromwell's being the premeditative ever-calculating hypocrite, acting a play before the world, That to the last he took no more charge of his speeches! How came he not to study his words a little, before flinging them out to the public? If the words were true words, they could be left to shift for themselves.

But with regard to Cromwell's "lying," we will make one remark. This, I suppose, or something like this, to have been the nature of it. All parties

found themselves deceived in him; each party understood him to be meaning this, heard him even say so, and behold he turns out to have been meaning that! He was, cry they, the chief of liars. But now, intrinsically, is not all this the inevitable fortune, not of a false man in such times, but simply of a superior man? Such a man must have reticences in him. If he walk wearing his heart upon his sleeve for daws to peck at, his journey will not extend far! There is no use for any man's taking up his abode in a house built of glass. A man always is to be himself the judge how much of his mind he will show to other men; even to those he would have work along with him. There are impertinent inquiries made: your rule is to leave the inquirer *un*informed on that matter; not, if you can help it, *mis*informed; but precisely as dark as he was! This, could one hit the right phrase of response, is what the wise and faithful man would aim to answer in such a case.

Cromwell, no doubt of it, spoke often in the dialect of small subaltern parties; uttered to them a part of his mind. Each little party thought him all its own. Hence their rage, one and all, to find him not of their party, but of his own party! Was it his blame? At all seasons of his history he must have felt, among such people, how, if he explained to them the deeper insight he had, they must either have shuddered aghast at it, or believing it, their own little compact hypothesis must have gone wholly to wreck. They could not have worked in his province any more; nay perhaps they could not now have worked in their own province. It is the inevitable position of a great man among small men. Small men, most active, useful, are to be seen everywhere, whose whole activity depends on some conviction which to you is palpably a limited one, imperfect, what we call an error. But would it be a kindness always, is it a duty always or often, to disturb them in that? Many a man, doing loud work in the world, stands only on some thin traditionality, conventionality; to him indubitable, to you incredible: break that beneath him, he sinks to endless depths! "I might have my hand full of truth," said Fontenelle, "and open only my little finger."

And if this be the fact even in matters of doctrine, how much more in all departments of practice! He that cannot withal keep his mind to himself cannot practise any considerable thing whatever. And we call it "dissimulation," all this? What would you think of calling the general of an army a dissembler because he did not tell every corporal and private soldier, who pleased to put the question, what his thoughts were about everything? Cromwell, I should rather say, managed all this in a manner we must admire for its perfection. An endless vortex of such questioning

"corporals" rolled confusedly round him through his whole course whom he did answer. It must have been as a great true-seeing man that he managed this too. Not one proved falsehood, as I said; not one! Of what man that ever wound himself through such a coil of things will you say so much?

But in fact there are two errors, widely prevalent, which pervert to the very basis our judgments formed about such men as Cromwell; about their "ambition," "falsity," and suchlike. The first is what I might call substituting the goal of their career for the course and starting point of it. The vulgar historian of a Cromwell fancies that he had determined on being Protector of England at the time when he was ploughing the marsh lands of Cambridgeshire. His career lay all mapped out: a program of the whole drama which he then step by step dramatically unfolded, with all manner of cunning, deceptive dramaturgy, as he went on—the hollow, scheming ὑποκριτής [*hypokrites*] or play-actor that he was! This is a radical perversion; all but universal in such cases. And think for an instant how different the fact is! How much does one of us foresee of his own life? Short way ahead of us it is all dim; an unwound skein of possibilities, of apprehensions, attemptabilities, vague-looming hopes. This Cromwell had not his life lying all in that fashion of program, which he needed then, with that unfathomable cunning of his, only to enact dramatically, scene after scene! Not so. We see it so; but to him it was in no measure so. What absurdities would fall away of themselves, were this one undeniable fact kept honestly in view by history! Historians indeed will tell you that they do keep it in view; but look whether such is practically the fact! Vulgar history, as in this Cromwell's case, omits it altogether; even the best kinds of history only remember it now and then. To remember it duly with rigorous perfection, as in the fact it stood, requires indeed a rare faculty; rare, nay impossible. A very Shakespeare for faculty; or more than Shakespeare; who could enact a brother man's biography, see with the brother man's eyes at all points of his course what things he saw; in short, know his course and him, as few "historians" are like to do. Half or more of all the thick-plied perversions which distort our image of Cromwell will disappear if we honestly so much as try to represent them so; in sequence, as they were; not in the lump, as they are thrown down before us.

But a second error, which I think the generality commit, refers to this same "ambition" itself. We exaggerate the ambition of Great Men; we mistake what the nature of it is. Great Men are not ambitious in that

sense; he is a small poor man that is ambitious so. Examine the man who lives in misery because he does not shine above other men; who goes about producing himself, pruriently anxious about his gifts and claims; struggling to force everybody, as it were begging everybody for God's sake to acknowledge him a great man, and set him over the heads of men! Such a creature is among the wretchedest sights seen under this sun. A great man? A poor, morbid, prurient, empty man; fitter for the ward of a hospital than for a throne among men. I advise you to keep out of his way. He cannot walk on quiet paths; unless you will look at him, wonder at him, write paragraphs about him, he cannot live. It is the emptiness of the man, not his greatness. Because there is nothing in himself, he hungers and thirsts that you would find something in him. In good truth, I believe no great man, not so much as a genuine man who had health and real substance in him of whatever magnitude, was ever much tormented in this way.

Your Cromwell, what good could it do him to be "noticed" by noisy crowds of people? God his Maker already noticed him. He, Cromwell, was already there; no notice would make him other than he already was. Till his hair was grown grey; and Life from the downhill slope was all seen to be limited, not infinite but finite, and all a measurable matter how it went–he had been content to plough the ground, and read his Bible. He in his old days could not support it any longer, without selling himself to falsehood that he might ride in gilt carriages to Whitehall, and have clerks with bundles of papers haunting him, "Decide this, decide that," which in utmost sorrow of heart no man can perfectly decide! What could gilt carriages do for this man? From of old, was there not in his life a weight of meaning, a terror and a splendour as of Heaven itself? His existence there as man set him beyond the need of gilding. Death, Judgment and Eternity: these already lay as the background of whatsoever he thought or did. All his life lay begirt as in a sea of nameless thoughts, which no speech of a mortal could name. God's word, as the Puritan prophets of that time had read it: this was great, and all else was little to him. To call such a man "ambitious," to figure him as the prurient windbag described above, seems to me the poorest solecism. Such a man will say: "Keep your gilt carriages and huzzaing mobs, keep your red-tape clerks, your influentialities, your important businesses. Leave me alone, leave me alone; there is too much of life in me already!" Old Samuel Johnson, the greatest soul in England in his day, was not ambitious. "Corsica Boswell" flaunted at public shows with printed ribbons round his hat; but the great old Samuel stayed at home. The world-

wide soul wrap-up in its thoughts, in its sorrows; what could paradings, and ribbons in the hat, do for it?

Ah yes, I will say again: The great silent men! Looking round on the noisy inanity of the world, words with little meaning, actions with little worth, one loves to reflect on the great Empire of Silence. The noble silent men, scattered here and there, each in his department; silently thinking, silently working; whom no morning newspaper makes mention of! They are the salt of the Earth. A country that has none or few of these is in a bad way. Like a forest which had no roots, which had all turned into leaves and boughs; which must soon wither and be no forest. Woe for us if we had nothing but what we can show, or speak. Silence, the great Empire of Silence: higher than the stars; deeper than the Kingdoms of Death! It alone is great; all else is small. I hope we English will long maintain our *grand talent pour le silence*. Let others that cannot do without standing on barrel-heads, to spout, and be seen of all the marketplace, cultivate speech exclusively–become a most green forest without roots! Solomon says, there is a time to speak; but also a time to keep silence. Of some great silent Samuel, not urged to writing, as old Samuel Johnson says he was, by want of money, and nothing other, one might ask, "Why do not you too get up and speak; promulgate your system, found your sect?" "Truly," he will answer, "I am continent of my thought hitherto; happily I have yet had the ability to keep it in me, no compulsion strong enough to speak it. My "system" is not for promulgation first of all; it is for serving myself to live by. That is the great purpose of it to me. And then the "honour"? Alas, yes; but as Cato said of the statue: "So many statues in that Forum of yours, may it not be better if they ask, Where is Cato's statue?"

But, now, by way of counterpoise to this of silence, let me say that there are two kinds of ambition; one wholly blamable, the other laudable and inevitable. Nature has provided that the great silent Samuel shall not be silent too long. The selfish wish to shine over others, let it be accounted altogether poor and miserable. "Seekest thou great things, seek them not": this is most true. And yet, I say, there is an irrepressible tendency in every man to develop himself according to the magnitude which Nature has made him of; to speak out, to act out, what Nature has laid in him. This is proper, fit, inevitable; nay it is a duty, and even the summary of duties for a man. The meaning of life here on earth might be defined as consisting in this: To unfold your self, to work what thing you have the faculty for. It is a necessity for the human being, the first law of our existence. Coleridge beautifully remarks that the infant learns to

speak by this necessity it feels. We will say therefore: To decide about ambition, whether it is bad or not, you have two things to take into view Not the coveting of the place alone, but the fitness of the man for the place withal: that is the question. Perhaps the place was his; perhaps he had a natural right, and even obligation, to seek the place! Mirabeau's ambition to be Prime Minister, how shall we blame it, if he were "the only man in France that could have done any good there"? Hopefuler perhaps had he not so clearly felt how much good he could do! But a poor Necker, who could do no good, and had even felt that he could do none, yet sitting broken-hearted because they had flung him out, and he was now quit of it, well might Gibbon mourn over him. Nature, I say, has provided amply that the silent great man shall strive to speak withal; *too* amply, rather!

Fancy, for example, you had revealed to the brave old Samuel Johnson, in his shrouded-up existence, that it was possible for him to do priceless divine work for his country and the whole world. That the perfect Heavenly Law might be made law on this earth; that the prayer he prayed daily, "Thy kingdom come," was at length to be fulfilled! If you had convinced his judgment of this; that it was possible, practicable; that he the mournful silent Samuel was called to take a part in it! Would not the whole soul of the man have flamed up into a divine clearness, into noble utterance and determination to act; casting all sorrows and misgivings under his feet, counting all affliction and contradiction small– the whole dark element of his existence blazing into articulate radiance of light and lightning? It were a true ambition this! And think now how it actually was with Cromwell. From of old, the sufferings of God's Church, true zealous preachers of the truth flung into dungeons, whipped, set on pillories, their ears cropped off, God's Gospel-cause trodden under foot of the unworthy: all this had lain heavy on his soul. Long years he had looked upon it, in silence, in prayer; seeing no remedy on Earth; trusting well that a remedy in Heaven's goodness would come– that such a course was false, unjust, and could not last forever. And now behold the dawn of it; after twelve years silent waiting, all England stirs itself; there is to be once more a parliament, the Right will get a voice for itself: inexpressible well-grounded hope has come again into the Earth. Was not such a parliament worth being a member of? Cromwell threw down his ploughs and hastened thither.

He spoke there–rugged bursts of earnestness, of a self-seen truth, where we get a glimpse of them. He worked there; he fought and strove, like a strong true giant of a man, through cannon tumult and all else–

on and on, till the Cause triumphed, its once so formidable enemies all swept from before it, and the dawn of hope had become clear light of victory and certainty. That *he* stood there as the strongest soul of England, the undisputed Hero of all England—what of this? It was possible that the law of Christ's Gospel could now establish itself in the world! The Theocracy which John Knox in his pulpit might dream of as a "devout imagination," this practical man, experienced in the whole chaos of most rough practice, dared to consider as capable of being realized. Those that were highest in Christ's Church, the devoutest wisest men, were to rule the land: in some considerable degree, it might be so and should be so. Was it not true, God's truth? And if true, was it not then the very thing to do? The strongest practical intellect in England dared to answer, Yes! This I call a noble true purpose; is it not, in its own dialect, the noblest that could enter into the heart of statesman or man? For a Knox to take it up was something; but for a Cromwell, with his great sound sense and experience of what our world was—history, I think, shows it only this once in such a degree. I account it the culminating point of Protestantism; the most heroic phasis that "Faith in the Bible" was appointed to exhibit here below. Fancy it: that it were made manifest to one of us, how we could make the Right supremely victorious over Wrong, and all that we had longed and prayed for, as the highest good to England and all lands, an attainable fact!

Well, I must say, the vulpine intellect, with its knowingness, its alertness and expertness in "detecting hypocrites," seems to me a rather sorry business. We have had one such statesman in England; one may, that I can get sight of, who never had in the heart of him any such purpose at all. One man, in the course of fifteen hundred years; and this was his welcome. He had adherents by the hundred or the ten; opponents by the million. Had England rallied all round him—why, then, England might have been a Christian land! As it is, vulpine knowingness sits yet at its hopeless problem, "Given a world of Knaves, to educe an Honesty from their united action"; how cumbrous a problem, you may see in Chancery Law-Courts, and some other places! Till at length, by Heaven's just anger, but also by Heaven's great grace, the matter begins to stagnate; and this problem is becoming to all men a palpably hopeless one.

But with regard to Cromwell and his purposes: Hume and a multitude following him come upon me here with an admission that Cromwell was sincere at first; a sincere "Fanatic" at first, but gradually became a "Hypocrite" as things opened round him. This of the Fanatic-Hypocrite

is Hume's theory of it; extensively applied since—to Mohammed and many others. Think of it seriously, you will find something in it—not much, not at all, very far from all. Sincere hero hearts do not sink in this miserable manner. The Sun flings forth impurities, gets balefully incrusted with spots; but it does not quench itself, and become no Sun at all, but a mass of Darkness! I will venture to say that such never befell a great, deep Cromwell; I think, never. Nature's own lion-hearted son! Antaeus-like, his strength is got by touching the Earth, his mother; lift him up from the Earth, lift him up into hypocrisy, inanity, his strength is gone. We will not assert that Cromwell was an immaculate man; that he fell into no faults, no insincerities among the rest. He was no dilettante professor of "perfections," "immaculate conducts." He was a rugged Orson, rending his rough way through actual true work—doubtless with many a fall therein. Insincerities, faults, very many faults daily and hourly: it was too well known to him; known to God and him! The Sun was dimmed many a time; but the Sun had not himself grown a Dimness. Cromwell's last words, as he lay waiting for death, are those of a Christian heroic man. Broken prayers to God, that He would judge him and this cause, He since man could not, in justice yet in pity. They are most touching words. He breathed out his wild great soul, its toils and sins all ended now, into the presence of his Maker, in this manner.

I, for one, will not call the man a Hypocrite! Hypocrite, mummer, the life of him a mere theatricality; empty barren quack, hungry for the shouts of mobs? The man had made obscurity do very well for him till his head was grey; and now he was, there as he stood recognized unblamed, the virtual King of England. Cannot a man do without King's coaches and cloaks? Is it such a blessedness to have clerks forever pestering you with bundles of papers in red-tape? A simple Diocletian prefers planting of cabbages; a George Washington, no very immeasurable man, does the like. One would say, it is what any genuine man could do; and would do. The instant his real work were out in the matter of Kingship—away with it!

Let us remark, meanwhile, how indispensable everywhere a King is, in all movements of men. It is strikingly shown, in this very War, what becomes of men when they cannot find a Chief Man, and their enemies can. The Scotch nation was all but unanimous in Puritanism, zealous and of one mind about it, as in this English end of the Island was far from being the case. But there was no great Cromwell among them; poor tremulous, hesitating, diplomatic Argyles and suchlike; none of them had a heart true enough for the truth, or durst commit himself to the truth.

They had no leader; and the scattered Cavalier party in that country had one: Montrose, the noblest of all the Cavaliers; an accomplished, gallant-hearted, splendid man; what one may call the Hero-Cavalier. Well, look at it; on the one hand subjects without a King; on the other a King without subjects! The subjects without King can do nothing; the subjectless King can do something. This Montrose, with a handful of Irish or Highland savages, few of them so much as guns in their hands, dashes at the drilled Puritan armies like a wild whirlwind; sweeps them, time after time, some five times over, from the field before him. He was at one period, for a short while, master of all Scotland. One man; but he was a man: a million zealous men, but without the one; they against him were powerless! Perhaps of all the persons in that Puritan struggle, from first to last, the single indispensable one was verily Cromwell. To see and dare, and decide; to be a fixed pillar in the welter of uncertainty; a King among them, whether they called him so or not.

Precisely here, however, lies the rub for Cromwell. His other proceedings have all found advocates, and stand generally justified; but this dismissal of the Rump Parliament and assumption of the Protectorship is what no one can pardon him. He had fairly grown to be King in England; Chief Man of the victorious party in England: but it seems he could not do without the King's cloak, and sold himself to perdition in order to get it. Let us see a little how this was.

England, Scotland, Ireland, all lying now subdued at the feet of the Puritan Parliament, the practical question arose, What was to be done with it? How will you govern these nations, which Providence in a wondrous way has given up to your disposal? Clearly those hundred surviving members of the Long Parliament, who sit there as supreme authority, cannot continue for ever to sit. What is to be done? It was a question which theoretical constitution-builders may find easy to answer; but to Cromwell, looking there into the real practical facts of it, there could be none more complicated. He asked of the Parliament, What it was they would decide upon? It was for the Parliament to say. Yet the Soldiers too, however contrary to formula, they who had purchased this victory with their blood, it seemed to them that they also should have something to say in it! We will not "For all our fighting have nothing but a little piece of paper." We understand that the Law of God's Gospel, to which He through us has given the victory, shall establish itself, or try to establish itself, in this land!

For three years, Cromwell says, this question had been sounded in the

ears of the Parliament. They could make no answer; nothing but talk, talk. Perhaps it lies in the nature of parliamentary bodies; perhaps no Parliament could in such case make any answer but even that of talk, talk! Nevertheless the question must and shall be answered. You sixty men there, becoming fast odious, even despicable, to the whole nation, whom the nation already calls Rump Parliament, you cannot continue to sit there: who or what then is to follow? "Free Parliament," right of Election, constitutional formulas of one sort or the other–the thing is a hungry fact coming on us, which we must answer or be devoured by it! And who are you that prate of constitutional formulas, rights of parliament? You have had to kill your King, to make Pride's Purges, to expel and banish by the law of the stronger whosoever would not let your cause prosper: there are but fifty or three-score of you left there, debating in these days. Tell us what we shall do; not in the way of formula, but of practicable fact!

How they did finally answer remains obscure to this day. The diligent Godwin himself admits that he cannot make it out. The likeliest is that this poor parliament still would not and indeed could not dissolve and disperse; that when it came to the point of actually dispersing, they again, for the tenth or twentieth time, adjourned it–and Cromwell's patience failed him. But we will take the favourablest hypothesis ever started for the Parliament; the favourablest, though I believe it is not the true one, but too favourable.

According to this version: At the uttermost crisis, when Cromwell and his officers were met on the one hand, and the fifty or sixty Rump Members on the other, it was suddenly told Cromwell that the Rump in its despair *was* answering in a very singular way; that in their splenetic envious despair, to keep out the army at least, these men were hurrying through the House a kind of Reform Bill–Parliament to be chosen by the whole of England; equable electoral division into districts; free suffrage, and the rest of it! A very questionable, or indeed for them an unquestionable thing. Reform Bill, free suffrage of Englishmen? Why, the Royalists themselves, silenced indeed but not exterminated, perhaps out-number us; the great numerical majority of England was always indifferent to our cause, merely looked at it and submitted to it. It is in weight and force, not by counting of heads, that we are the majority! And now with your formulas and Reform Bills, the whole matter, sorely won by our swords, shall again launch itself to sea; become a mere hope, and likelihood, small even as a likelihood? And it is not a likelihood; it is a certainty, which we have won, by God's strength and our own right hands, and do now hold here. Cromwell walked down to these refractory

members; interrupted them in that rapid speed of their Reform Bill; ordered them to begone, and talk there no more. Can we not forgive him? Can we not understand him? John Milton, who looked on it all near at hand, could applaud him. The Reality had swept the formulas away before it. I fancy most men who were realities in England might see into the necessity of that.

The strong daring man, therefore, has set all manner of Formulas and logical superficialities against him; has dared appeal to the genuine fact of this England, Whether it will support him or not? It is curious to see how he struggles to govern in some constitutional way; find some Parliament to support him; but cannot. His first parliament, the one they call Barebones's Parliament, is, so to speak, a Convocation of the Notables. From all quarters of England the leading Ministers and chief Puritan officials nominate the men most distinguished by religious reputation, influence and attachment to the true cause: these are assembled to shape out a plan. They sanctioned what was past; shaped as they could what was to come. They were scornfully called Barebones's Parliament, the man's name, it seems, was not Barebones, but Barbone–a good enough man. Nor was it a jest, their work; it was a most serious reality–a trial on the part of these Puritan notables how far the law of Christ could become the law of this England. There were men of sense among them, men of some quality; men of deep piety I suppose the most of them were. They failed, it seems, and broke down, endeavouring to reform the Court of Chancery! They dissolved themselves, as incompetent; delivered up their power again into the hands of the Lord-General Cromwell, to do with it what he liked and could.

What will he do with it? The Lord-General Cromwell, "Commander-in-Chief of all the Forces raised and to be raised"; he hereby sees himself, at this unexampled juncture, as it were the one available Authority left in England, nothing between England and utter Anarchy but him alone. Such is the undeniable fact of his position and England's, there and then. What will he do with it? After deliberation, he decides that he will accept it; will formally, with public solemnity, say and vow before God and men, "Yes, the fact is so, and I will do the best I can with it!" Protectorship, Instrument of Government–these are the external forms of the thing; worked out and sanctioned as they could in the circumstances be, by the judges, by the leading official people, "Council of Officers and Persons of Interest in the Nation"; and as for the thing itself, undeniably enough, at the pass matters had now come to, there *was* no alternative but anarchy or that. Puritan England might accept it or not; but Puritan

England was, in real truth, saved from suicide thereby! I believe the Puritan people did, in an inarticulate, grumbling, yet on the whole grateful and real way, accept this anomalous act of Oliver's; at least, he and they together made it good, and always better to the last. But in their parliamentary articulate way, they had their difficulties, and never knew fully what to say to it!

Oliver's second parliament, properly his *first* regular parliament, chosen by the rule laid down in the Instrument of Government, did assemble, and worked; but got, before long, into bottomless questions as to the Protector's right, as to "usurpation," and so forth; and had at the earliest legal day to be dismissed. Cromwell's concluding speech to these men is a remarkable one. So likewise to his third parliament, in similar rebuke for their pedantries and obstinacies. Most rude, chaotic, all these speeches are; but most earnest-looking. You would say, it was a sincere helpless man; not used to speak the great inorganic thought of him, but to act it rather! A helplessness of utterance, in such bursting fulness of meaning. He talks much about "births of Providence." All these changes, so many victories and events, were not forethoughts, and theatrical contrivances of men, of me or of men; it is blind blasphemers that will persist in calling them so! He insists with a heavy sulphurous wrathful emphasis on this. As he well might. As if a Cromwell in that dark, huge game he had been playing, the world wholly thrown into chaos round him, had foreseen it all, and played it all off like a precontrived puppet-show by wood and wire! These things were foreseen by no man, he says; no man could tell what a day would bring forth: they were "births of Providence," God's finger guided us on, and we came at last to clear height of victory, God's Cause triumphant in these nations; and you as a parliament could assemble together, and say in what manner all this could be organized, reduced into rational feasibility among the affairs of men. You were to help with your wise counsel in doing that. "You have had such an opportunity as no parliament in England ever had." Christ's Law, the Right and True, was to be in some measure made the law of this land. In place of that, you have got into your idle pedantries, constitutionalities, bottomless cavillings and questionings about written laws for my coming here; and would send the whole matter into chaos again, because I have no notary's parchment, but only God's voice from the battle whirlwind, for being President among you! That opportunity is gone; and we know not when it will return. You have had your constitutional Logic; and Mammon's Law, not Christ's Law, rules yet in this land. "God be judge between you and me!" These are his final words to them: Take you your

constitution formulas in your hand; and I my informal struggles, purposes, realities and acts; and "God be judge between you and me!"

We said above what shapeless, involved chaotic things the printed speeches of Cromwell are. Wilfully ambiguous, unintelligible, say the most: a hypocrite shrouding himself in confused Jesuitic jargon! To me they do not seem so. I will say rather, they afforded the first glimpses I could ever get into the reality of this Cromwell, nay into the possibility of him. Try to believe that he means something, search lovingly what that may be: you will find a real *speech* lying imprisoned in these broken rude tortuous utterances; a meaning in the great heart of this inarticulate man! You will, for the first time, begin to see that he was a man; not an enigmatic chimera, unintelligible to you, incredible to you. The histories and biographies written of this Cromwell, written in shallow sceptical generations that could not know or conceive of a deep believing man, are far more obscure than Cromwell's speeches. You look through them only into the infinite vague of Black and the Inane. "Heats and Jealousies," says Lord Clarendon himself: "heats and jealousies," mere crabbed whims, theories and crochets; these induced slow, sober, quiet Englishmen to lay down their ploughs and work; and fly into red fury of confused war against the best-conditioned of Kings! Try if you can find that true Scepticism writing about belief may have great gifts; but it is really *ultra vires* there. It is blindness laying down the laws of optics.

Cromwell's third Parliament split on the same rock as his second. Ever the constitutional Formula: How came *you* there? Show us some notary parchment! Blind pedants: "Why, surely the same power which makes you a Parliament, that, and something more, made me a Protector!" If my Protectorship is nothing, what in the name of wonder is your Parliamenteership, a reflex and creation of that?

Parliaments having failed, there remained nothing but the way of despotism. Military dictators, each with his district, to coerce the Royalists and other gainsayers, to govern them, if not by act of parliament, then by the sword. Formula shall not carry it, while the reality is here! I will go on, protecting oppressed Protestants abroad, appointing just judges, wise managers, at home, cherishing true Gospel ministers; doing the best I can to make England a Christian England, greater than old Rome, the Queen of Protestant Christianity; I, since you will not help me; I while God leaves me life! Why did he not give it up; retire into obscurity again, since the law would not acknowledge him? cry several. That is where they mistake. For him there was no giving of it up! Prime Ministers have governed countries, Pitt, Pombal, Choiseul; and their word was a law

while it held: but this Prime Minister was one that could not get resigned. Let him once resign, Charles Stuart and the Cavaliers waited to kill him; to kill the Cause and him. Once embarked, there is no retreat, no return. This Prime Minister could retire nowhither except into his tomb.

One is sorry for Cromwell in his old days. His complaint is incessant of the heavy burden Providence has laid on him. Heavy; which he must bear till death. Old Colonel Hutchinson, as his wife relates it, Hutchinson, his old battle-mate, coming to see him on some indispensable business, much against his will–Cromwell "follows him to the door," in a most fraternal, domestic, conciliatory style; begs that he would be reconciled to him, his old brother in arms; says how much it grieves him to be misunderstood, deserted by true fellow-soldiers, dear to him from of old: the rigorous Hutchinson, cased in his republican formula, sullenly goes his way. And the man's head now white; his strong arm growing weary with its long work! I think always too of his poor mother, now very old, living in that palace of his; a right brave woman: as indeed they lived all an honest God-fearing Household there: if she heard a shot go off, she thought it was her son killed. He had to come to her at least once a day that she might see with her own eyes that he was yet living. The poor old mother! What had this man gained; what had he gained? He had a life of sore strife and toil, to his last day. Fame, ambition, place in history? His dead body was hung in chains; his "place in history"–place in history forsooth!–has been a place of ignominy, accusation, blackness and disgrace; and here, this day, who knows if it is not rash in me to be among the first that ever ventured to pronounce him not a knave and a liar, but a genuinely honest man! Peace to him. Did he not, in spite of all, accomplish much for us? We walk smoothly over his great rough heroic life; step over his body sunk in the ditch there. We need not spurn it, as we step on it! Let the Hero rest. It was not to men's judgment that he appealed; nor have men judged him very well.

Precisely a century and a year after this of Puritanism had got itself hushed up into decent composure, and its results made smooth in 1688, there broke out a far deeper explosion, much more difficult to hush up, known to all mortals, and like to be long known, by the name of French Revolution. It is properly the third and final act of Protestantism; the explosive confused return of mankind to reality and fact, now that they were perishing of semblance and sham. We call our English Puritanism the second act: "Well then, the Bible is true; let us go by the Bible!" "In Church," said Luther; "In Church and State," said Cromwell, "let us go by what actually is God's Truth." Men have to return to reality; they

cannot live on semblance. The French Revolution, or third act, we may well call the final one; for lower than that savage Sansculottism men cannot go. They stand there on the nakedest haggard fact, undeniable in all seasons and circumstances; and may and must begin again confidently to build up from that. The French explosion, like the English one, got its King—who had no notary parchment to show for himself. We have still to glance for a moment at Napoleon, our second modern King.

Napoleon does by no means seem to me so great a man as Cromwell. His enormous victories which reached over all Europe, while Cromwell abode mainly in our little England, are but as the high stilts on which the man is seen standing; the stature of the man is not altered thereby. I find in him no such sincerity as in Cromwell; only a far inferior sort. No silent walking, through long years, with the Awful Unnamable of this Universe; "walking with God," as he called it; and faith and strength in that alone: latent thought and valour, content to lie latent, then burst out as in blaze of Heaven's lightning! Napoleon lived in an age when God was no longer believed; the meaning of all silence, latency was thought to be nonentity: he had to begin not out of the Puritan Bible, but out of poor sceptical *Encyclopédies*. This was the length the man carried it. Meritorious to get so far. His compact, prompt, everyway articulate character is in itself perhaps small, compared with our great chaotic inarticulate Cromwell's. Instead of "dumb Prophet struggling to speak," we have a portentous mixture of the Quack withal! Hume's notion of the Fanatic-Hypocrite, with such truth as it has, will apply much better to Napoleon than it did to Cromwell, to Mohammed or the like—where indeed taken strictly it has hardly any truth at all. An element of blamable ambition shows itself, from the first, in this man; gets the victory over him at last, and involves him and his work in ruin.

"False as a bulletin" became a proverb in Napoleon's time. He makes what excuse he could for it: that it was necessary to mislead the enemy, to keep up his own men's courage, and so forth. On the whole, there are no excuses. A man in no case has liberty to tell lies. It had been, in the long run, better for Napoleon too if he had not told any. In fact, if a man have any purpose reaching beyond the hour and day, meant to be found extant next day, what good can it ever be to promulgate lies? The lies are found out; ruinous penalty is exacted for them. No man will believe the liar next time even when he speaks truth, when it is of the last importance that he be believed. The old cry of wolf! A Lie is *no*-thing; you cannot of nothing make something; you make *nothing* at last, and lose your labour into the bargain.

Yet Napoleon had a sincerity; we are to distinguish between what is

superficial and what is fundamental in insincerity. Across these outer manoeuverings and quackeries of his, which were many and most blamable, let us discern withal that the man had a certain instinctive ineradicable feeling for reality; and did base himself upon fact, so long as he had any basis. He has an instinct of Nature better than his culture was. His *savants,* Bourrienne tells us, in that voyage to Egypt were one evening busily occupied arguing that there could be no God. They had proved it, to their satisfaction, by all manner of logic. Napoleon looking up into the stars, answers, "Very ingenious, Messieurs: but who made all that?" The atheistic logic runs off from him like water; the great fact stares him in the face: "Who made all that?" So too in practice: he, as every man that can be great, or have victory in this world, sees, through all entanglements, the practical heart of the matter; drives straight towards that. When the steward of his Tuileries Palace was exhibiting the new upholstery, with praises, and demonstration how glorious it was, and how cheap withal, Napoleon, making little answer, asked for a pair of scissors, clipped one of the gold tassels from a window-curtain, put it in his pocket, and walked on. Some days afterwards, he produced it at the right moment, to the horror of his upholstery functionary; it was not gold but tinsel! In Saint Helena, it is notable how he still, to his last days, insists on the practical, the real. "Why talk and complain; above all, why quarrel with one another? There is no result in it; it comes to nothing that one can do. Say nothing, if one can do nothing!" He speaks often so, to his poor discontented followers; he is like a piece of silent strength in the middle of their morbid querulousness there.

And accordingly was there not what we can call a faith in him, genuine so far as it went? That this new enormous democracy asserting itself here in the French Revolution is an insuppressible fact, which the whole world, with its old forces and institutions cannot put down; this was a true insight of his, and took his conscience and enthusiasm along with it–a faith. And did he not interpret the dim purport of it well? "*La carrière ouverte aux talens,* The implements to him who can handle them": this actually is the truth, and even the whole truth; it includes whatever the French Revolution, or any Revolution, could mean. Napoleon, in his first period, was a true democrat. And yet by the nature of him, fostered too by his military trade, he knew that democracy, if it were a true thing at all, could not be an anarchy: the man had a heart-hatred for anarchy. On that twentieth of June (1792), Bourrienne and he sat in a coffee-house as the mob rolled by: Napoleon expresses the deepest contempt for persons in authority that they do not restrain this rabble. On the tenth of

August he wonders why there is no man to command these poor Swiss; they would conquer if there were. Such a faith in democracy, yet hatred of Anarchy, it is that carries Napoleon through all his great work. Through his brilliant Italian Campaigns, onwards to the Peace of Leoben, one would say, his inspiration is: "Triumph to the French Revolution; assertion of it against these Austrian Simulacra that pretend to call it a Simulacrum!" Withal, however, he feels, and has a right to feel, how necessary a strong authority is; how the Revolution cannot prosper or last without such. To bridle in that great devouring, self-devouring French Revolution; to tame it, so that its intrinsic purpose can be made good, that it may become organic, and be able to live among other organisms and formed things, not as a wasting destruction alone: is not this still what he partly aimed at, as the true purport of his life; nay what he actually managed to do? Through Wagrams, Austerlitzes; triumph after triumph—he triumphed so far. There was an eye to see in this man, a soul to dare and do. He rose naturally to be the King. All men saw that he *was* such. The common soldiers used to say on the march: "These babbling *avocats,* up at Paris; all talk and no work! What wonder it runs all wrong? We shall have to go and put our *Petit Caporal* there!" They went, and put him there; they and France at large. Chief-consulship, Emperorship, victory over Europe; till the poor Lieutenant of *La Fère,* not unnaturally, might seem to himself the greatest of all men that had been in the world for some ages.

But at this point, I think, the fatal charlatan element got the upper hand. He apostatized from his old faith in facts: took to believing in semblances; strove to connect himself with Austrian dynasties, Popedoms, with the old false feudalities which he once saw clearly to be false; considered that he would found "his dynasty" and so forth; that the enormous French Revolution meant only that! The man was "given-up to strong delusion, that he should believe a lie"; a fearful but most sure thing. He did not know true from false now when he looked at them—the fearfulest penalty a man pays for yielding to untruth of heart. Self and false ambition had now become his god: self-deception once yielded to, all other deceptions follow naturally more and more. What a paltry patchwork of theatrical paper mantles, tinsel and mummery had this man wrapped his own great reality in, thinking to make it more real thereby! His hollow Pope's-Concordat, pretending to be a re-establishment of Catholicism, felt by himself to be the method of extirpating it, *la vaccine de la religion:* his ceremonial coronations, consecrations by the old Italian chimera in Notre Dame—"wanting nothing to complete the pomp of it," as Augereau

said, "nothing but the half-million of men who had died to put an end to all that"! Cromwell's inauguration was by the sword and Bible; what we must call a genuinely true one. Sword and Bible were borne before him, without any chimera: were not these the real emblems of Puritanism; its true decoration and insignia? It had used them both in a very real manner, and pretended to stand by them now! But this poor Napoleon mistook: he believed too much in the dupeability of men; saw no fact deeper in men than hunger and this! He was mistaken. Like a man that should build upon cloud; his house and he fall down in confused wreck, and depart out of the world.

Alas, in all of us this charlatan element exists; and might be developed, were the temptation strong enough. "Lead us not into temptation"! But it is fatal, I say, that it be developed. The thing into which it enters as a cognisable ingredient is doomed to be altogether transitory, and, however huge it may look, is in itself small. Napoleon's working, accordingly, what was it with all the noise it made? A flash as of gunpowder widespread; a blazing up as of dry heath. For an hour the whole Universe seems wrapped in smoke and flame; but only for an hour. It goes out: the Universe with its old mountains and streams, its stars above and kind soil beneath is still there.

The Duke of Weimar told his friends always, To be of courage; this Napoleonism was unjust, a falsehood, and could not last. It is true doctrine. The heavier this Napoleon trampled on the world, holding it tyrannously down, the fiercer would the world's recoil against him be, one day. Injustice pays itself with frightful compound interest. I am not sure but he had better have lost his best park of artillery, or had his best regiment drowned in the sea, than shot that poor German bookseller, Palm! It was a palpable tyrannous murderous injustice, which no man, let him paint an inch thick, could make out to be other. It burnt deep into the hearts of men, it and the like of it; suppressed fire flashed in the eyes of men, as they thought of it–waiting their day! Which day came: Germany rose round him. What Napoleon did will in the long-run amount to what he did justly; what Nature with her laws will sanction. To what of reality was in him; to that and nothing more. The rest was all smoke and waste. *La carrière ouverte aux talens:* that great true message, which has yet to articulate and fulfil itself everywhere, he left in a most inarticulate state. He was a great *ébauche,* a rude draught never completed; as indeed what great man is other? Left in *too* rude a state, alas!

His notions of the world, as he expresses them there at Saint Helena, are almost tragical to consider. He seems to feel the most unaffected sur-

prise that it has all gone so; that he is flung out on the rock here, and the world is still moving on its axis. France is great, and all great; and at bottom, he is France. England itself, he says, is by nature only an appendage of France; "another Isle of Oleron to France." So it was by nature, by Napoleon-nature; and yet look how in fact–here am I! He cannot understand it: inconceivable that the reality has not corresponded to his program of it; that France was not all great, that he was not France. "Strong delusion," that he should believe the thing to be which *is* not! The compact, clear-seeing, decisive Italian nature of him, strong, genuine, which he once had, has enveloped itself, half-dissolved itself, in a turbid atmosphere of French fanfaronade. The world was not disposed to be trodden down underfoot; to be bound into masses, and built together, as he liked, for a pedestal to France and him: the world had quite other purposes in view! Napoleon's astonishment is extreme. But alas, what help now? He had gone that way of his; and Nature also had gone her way. Having once parted with reality, he tumbles helpless in vacuity; no rescue for him. He had to sink there, mournfully as man seldom did; and break his great heart, and die–this poor Napoleon: a great implement too soon wasted, till it was useless: our last Great Man!

The foregoing consists of Lecture VI
in Carlyle's
ON HEROES, HERO-WORSHIP, AND THE HEROIC IN HISTORY.

Ralph Waldo Emerson

1803–1882

Descended from a line of Massachusetts clergymen, Ralph Waldo Emerson was born in Boston, May 25, 1803. His father, a Unitarian minister, died when he was a small boy. All but penniless, Emerson finished Harvard with honors at eighteen, taught and preached his way through divinity school, and in 1829 was ordained minister of the Second Church in Boston. A little later he married Ellen Tucker. When she died in 1831, he was already known as a preacher second only to the famous William Ellery Channing.

This was his point of crisis. He left the ministry and set up shop as lay preacher to America and the world. He wanted new ideas, new men, a new age. In England he visited Wordsworth and Coleridge, and became a lifelong friend of Carlyle. Settled in Concord and married again, he lived by lecturing and published an anonymous first book, *Nature,* in 1836. In it most of his chief ideas were laid out for use. His 1837 Harvard address, "The American Scholar," announced his broad program.

This was regarded as "the latest form of infidelity." He was a rebel, and attracted others. The Transcendentalist movement, derived in part from Coleridge, Carlyle, and the German philosophers, began to be talked about. By 1849, when he had published *Representative Men* and the first and second series of *Essays,* Emerson

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Notes from the artist: "The standing figure of Emerson is set in a fantasy of figures and objects significant in his life and work. Below the quotation from the essay Self-Reliance *is Thoreau, who put into practice the principles of Transcendentalism. At lower left is a Phi Beta Kappa key, recalling 'The American Scholar' address. Next to the key is Louisa May Alcott, another admirer of Emerson. Other symbols suggest the New England countryside and Emerson's early manifesto* Nature."

To believe your own thought, to believe that what is true for you in your private heart is true for all men, that is genius.
R. Waldo Emerson
ΦBK

was known in Europe and already accepted as a great figure in his own country. His reputation was still building when he died, after years of fading health, on April 27, 1882. What now seems to us his best work survives in a few of the poems, his vigorous and solid *English Traits,* several studies of character, and the *Journals.*

Emerson's essay on Henry David Thoreau was written after his friend's death. It is a shrewd and vivid picture, made with fresh colors, and touched here and there with humor. Beyond that, we may find a little comedy of provincial character in it.

They had both grown up in poor families (Emerson's mother was left with six children, and Thoreau's mother kept a boardinghouse). They were both Massachusetts men and Concord men (one of Emerson's ancestors had helped found the town and Thoreau was born there). They were both educated at Harvard (Emerson tells us how highhandedly Thoreau treated his old college), both poets and writer-philosophers.

"The other world is all my art; my pencils will draw no other," said Thoreau, echoing Plato's vision of the ideal. It was perhaps the one basic idea that he shared with Emerson. Beyond that, in their views of the world and universe, they were more often than not widely apart. Each came from one of the sharply marked classes in early New England: Emerson from the ruling professional class and Thoreau from the laboring and farming class. Emerson made a living at lecturing, where Thoreau failed. Surveying and pencil making earned Thoreau what little money he needed. Emerson felt that it was enough to expound his ideas; Thoreau believed that his must be acted out. He could build a boat; it was all Emerson could do to row one. Emerson meant to take the world for his province; Thoreau made his province the world. Like Whitman, Emerson said *yes* to his time; Thoreau, like Melville, said *no.*

How then could they understand each other? There lies the comedy. It is remarkable how much Emerson did understand. He gives us a clear and affectionate view of Thoreau as the "born protestant," a man who could be a hedgehog to his neighbors. But how much of this *was* downright oddity of character, and how much a deliberate acting out of his ideas? He refused to pay taxes to what he considered an unjust government and went to jail for it. (A friend paid the fine without letting him know.) *Was* this defiant individualism,

or was it a truly social act? Did it come out of a sense, higher than most men could boast, of what citizen and government should demand of each other?

Emerson does not mention how he tried to take care of the younger man. He "provided the acres" for Thoreau's experiment at Walden. But he was doubtful. These were the years in which all America seemed to be moving westward. Thoreau, who might have been one of the leaders, was wasted as "the captain of a huckleberry party." Was it true? Was he, in fact, a potential Audubon and Kit Carson, with a larger grasp than either? Did he need a glimpse of Lake Chad, or even Grand Lake in Colorado, to give him the relative scale of his Walden Pond? Or was he right in believing that if he could live deeply with his own countryside, get his own bass tree and muskrat and dragonfly down on the page, that would be enough for any man's lifetime? Emerson gives us the means to ask these questions. He does not answer them.

Thoreau

Henry David Thoreau was the last male descendant of a French ancestor who came to this country from the Isle of Guernsey. His character exhibited occasional traits drawn from this blood, in singular combination with a very strong Saxon genius.

He was born in Concord, Massachusetts, on the 12th of July, 1817. He was graduated at Harvard College in 1837, but without any literary distinction. An iconoclast in literature, he seldom thanked colleges for their service to him, holding them in small esteem, while yet his debt to them was important. After leaving the university he joined his brother in teaching a private school, which he soon renounced. His father was a manufacturer of lead pencils, and Henry applied himself for a time to this craft, believing he could make a better pencil than was then in use. After completing his experiments, he exhibited his work to chemists and artists in Boston, and having obtained their certificates to its excellence and to its equality with the best London manufacture, he returned home contented. His friends congratulated him that he had now opened his way to fortune. But he replied that he should never make another pencil. "Why should I? I would not do again what I have done once." He resumed his endless walks and miscellaneous studies, making every day some new acquaintance with Nature, though as yet never speaking of zoology or botany, since, though very studious of natural facts, he was incurious of technical and textual science.

At this time, a strong, healthy youth fresh from college, while all his companions were choosing their profession or eager to begin some lucrative employment, it was inevitable that his thoughts should be exercised on the same question, and it required rare decision to refuse all the accustomed paths and keep his solitary freedom at the cost of disappointing the natural expectations of his family and friends: all the more difficult that he had a perfect probity, was exact in securing his own independence, and in holding every man to the like duty. But Thoreau

never faltered. He was a born protestant. He declined to give up his large ambition of knowledge and action for any narrow craft or profession, aiming at a much more comprehensive calling, the art of living well. If he slighted and defied the opinions of others, it was only that he was more intent to reconcile his practice with his own belief. Never idle or self-indulgent, he preferred, when he wanted money, earning it by some piece of manual labor agreeable to him, as building a boat or a fence, planting, grafting, surveying or other short work, to any long engagements. With his hardy habits and few wants, his skill in woodcraft, and his powerful arithmetic, he was very competent to live in any part of the world. It would cost him less time to supply his wants than another. He was therefore secure of his leisure.

A natural skill for mensuration, growing out of his mathematical knowledge and his habit of ascertaining the measures and distances of objects which interested him, the size of trees, the depth and extent of ponds and rivers, the height of mountains and the air-line distance of his favorite summits—this, and his intimate knowledge of the territory about Concord, made him drift into the profession of land surveyor. It had the advantage for him that it led him continually into new and secluded grounds, and helped his studies of Nature. His accuracy and skill in this work were readily appreciated, and he found all the employment he wanted.

He could easily solve the problems of the surveyor, but he was daily beset with graver questions, which he manfully confronted. He interrogated every custom, and wished to settle all his practice on an ideal foundation. He was a protestant *à outrance,* and few lives contain so many renunciations. He was bred to no profession; he never married; he lived alone; he never went to church; he never voted; he refused to pay a tax to the state; he ate no flesh, he drank no wine, he never knew the use of tobacco; and, though a naturalist, he used neither trap nor gun. He chose, wisely no doubt for himself, to be the bachelor of thought and Nature. He had no talent for wealth, and knew how to be poor without the least hint of squalor or inelegance. Perhaps he fell into his way of living without forecasting it much, but approved it with later wisdom. "I am often reminded," he wrote in his journal, "that if I had bestowed on me the wealth of Croesus, my aims must be still the same, and my means essentially the same." He had no temptations to fight against—no appetites, no passions, no taste for elegant trifles. A fine house, dress, the manners and talk of highly cultivated people were all thrown away on him. He much preferred a good Indian, and considered these refine-

ments as impediments to conversation, wishing to meet his companion on the simplest terms. He declined invitations to dinner parties, because there each was in everyone's way, and he could not meet the individuals to any purpose. "They make their pride," he said, "in making their dinner cost much; I make my pride in making my dinner cost little." When asked at table what dish he preferred, he answered, "The nearest." He did not like the taste of wine, and never had a vice in his life. He said–"I have a faint recollection of pleasure derived from smoking dried lily stems, before I was a man. I had commonly a supply of these. I have never smoked anything more noxious."

He chose to be rich by making his wants few, and supplying them himself. In his travels, he used the railroad only to get over so much country as was unimportant to the present purpose, walking hundreds of miles, avoiding taverns, buying a lodging in farmers' and fishermen's houses, as cheaper and more agreeable to him, and because there he could better find the men and the information he wanted.

There was somewhat military in his nature, not to be subdued, always manly and able, but rarely tender, as if he did not feel himself except in opposition. He wanted a fallacy to expose, a blunder to pillory, I may say required a little sense of victory, a roll of the drum, to call his powers into full exercise. It cost him nothing to say No; indeed he found it much easier than to say Yes. It seemed as if his first instinct on hearing a proposition was to controvert it, so impatient was he of the limitations of our daily thought. This habit, of course, is a little chilling to the social affections; and though the companion would in the end acquit him of any malice or untruth, yet it mars conversation. Hence, no equal companion stood in affectionate relations with one so pure and guileless. "I love Henry," said one of his friends, "but I cannot like him; and as for taking his arm, I should as soon think of taking the arm of an elm tree."

Yet, hermit and stoic as he was, he was really fond of sympathy, and threw himself heartily and childlike into the company of young people whom he loved, and whom he delighted to entertain, as he only could, with the varied and endless anecdotes of his experiences by field and river: and he was always ready to lead a huckleberry party or a search for chestnuts or grapes. Talking, one day, of a public discourse, Henry remarked that whatever succeeded with the audience was bad. I said, "Who would not like to write something which all can read, like Robinson Crusoe? and who does not see with regret that his page is not solid with a right materialistic treatment, which delights everybody?" Henry objected, of course, and vaunted the better lectures which reached only a few

persons. But at supper a young girl, understanding that he was to lecture at the Lyceum, sharply asked him, "Whether his lecture would be a nice, interesting story, such as she wished to hear, or whether it was one of those old philosophical things that she did not care about." Henry turned to her, and bethought himself, and, I saw, was trying to believe that he had matter that might fit her and her brother, who were to sit up and go to the lecture, if it was a good one for them.

He was a speaker and actor of the truth, born such, and was ever running into dramatic situations from this cause. In any circumstance it interested all bystanders to know what part Henry would take, and what he would say; and he did not disappoint expectation, but used an original judgment on each emergency. In 1845 he built himself a small framed house on the shores of Walden Pond, and lived there two years alone, a life of labor and study. This action was quite native and fit for him. No one who knew him would tax him with affectation. He was more unlike his neighbors in his thought than in his action. As soon as he had exhausted the advantages of that solitude, he abandoned it. In 1847, not approving some uses to which the public expenditure was applied, he refused to pay his town tax, and was put in jail. A friend paid the tax for him, and he was released. The like annoyance was threatened the next year. But as his friends paid the tax, notwithstanding his protest, I believe he ceased to resist. No opposition or ridicule had any weight with him. He coldly and fully stated his opinion without affecting to believe that it was the opinion of the company. It was of no consequence if every one present held the opposite opinion. On one occasion he went to the university library to procure some books. The librarian refused to lend them. Mr. Thoreau repaired to the President, who stated to him the rules and usages, which permitted the loan of books to resident graduates, to clergymen who were alumni, and to some others resident within a circle of ten miles' radius from the college. Mr. Thoreau explained to the President that the railroad had destroyed the old scale of distances—that the library was useless, yes, and President and college useless, on the terms of his rules—that the one benefit he owed to the college was its library—that, at this moment, not only his want of books was imperative, but he wanted a large number of books, and assured him that he, Thoreau, and not the librarian, was the proper custodian of these. In short, the President found the petitioner so formidable, and the rules getting to look so ridiculous, that he ended by giving him a privilege which in his hands proved unlimited thereafter.

No truer American existed than Thoreau. His preference of his country

and condition was genuine, and his aversation from English and European manners and tastes almost reached contempt. He listened impatiently to news or bon mots gleaned from London circles; and though he tried to be civil, these anecdotes fatigued him. The men were all imitating each other, and on a small mold. Why can they not live as far apart as possible, and each be a man by himself? What he sought was the most energetic nature; and he wished to go to Oregon, not to London. "In every part of Great Britain," he wrote in his diary, "are discovered traces of the Romans, their funereal urns, their camps, their roads, their dwellings. But New England, at least, is not based on any Roman ruins. We have not to lay the foundations of our houses on the ashes of a former civilization."

But idealist as he was, standing for abolition of slavery, abolition of tariffs, almost for abolition of government, it is needless to say he found himself not only unrepresented in actual politics, but almost equally opposed to every class of reformers. Yet he paid the tribute of his uniform respect to the Anti-Slavery party. One man, whose personal acquaintance he had formed, he honored with exceptional regard. Before the first friendly word had been spoken for Captain John Brown, he sent notices to most houses in Concord that he would speak in a public hall on the condition and character of John Brown, on Sunday evening, and invited all people to come. The Republican Committee, the Abolitionist Committee, sent him word that it was premature and not advisable. He replied: "I did not send to you for advice, but to announce that I am to speak." The hall was filled at an early hour by people of all parties, and his earnest eulogy of the hero was heard by all respectfully, by many with a sympathy that surprised themselves.

It was said of Plotinus that he was ashamed of his body, and 'tis very likely he had good reason for it–that his body was a bad servant, and he had not skill in dealing with the material world, as happens often to men of abstract intellect. But Mr. Thoreau was equipped with a most adapted and serviceable body. He was of short stature, firmly built, of light complexion, with strong, serious blue eyes, and a grave aspect–his face covered in the late years with a becoming beard. His senses were acute, his frame well-knit and hardy, his hands strong and skillful in the use of tools. And there was a wonderful fitness of body and mind. He could pace sixteen rods more accurately than another man could measure them with rod and chain. He could find his path in the woods at night, he said, better by his feet than his eyes. He could estimate the measure of a tree very well by his eye; he could estimate the weight of a calf or a

pig, like a dealer. From a box containing a bushel or more of loose pencils, he could take up with his hands fast enough just a dozen pencils at every grasp. He was a good swimmer, runner, skater, boatman, and would probably outwalk most countrymen in a day's journey. And the relation of body to mind was still finer than we have indicated. He said he wanted every stride his legs made. The length of his walk uniformly made the length of his writing. If shut up in the house he did not write at all.

He had a strong common sense, like that which Rose Flammock, the weaver's daughter in Scott's romance, commends in her father, as resembling a yardstick, which, while it measures dowlas and diaper, can equally well measure tapestry and cloth of gold. He had always a new resource. When I was planting forest trees, and had procured half a peck of acorns, he said that only a small portion of them would be sound, and proceeded to examine them and select the sound ones. But finding this took time, he said, "I think if you put them all into water the good ones will sink"; which experiment we tried with success. He could plan a garden or a house or a barn; would have been competent to lead a "Pacific Exploring Expedition"; could give judicious counsel in the gravest private or public affairs.

He lived for the day, not cumbered and mortified by his memory. If he brought you yesterday a new proposition, he would bring you today another not less revolutionary. A very industrious man, and setting, like all highly organized men, a high value on his time, he seemed the only man of leisure in town, always ready for any excursion that promised well or for conversation prolonged into late hours. His trenchant sense was never stopped by his rules of daily prudence, but was always up to the new occasion. He liked and used the simplest food, yet, when someone urged a vegetable diet, Thoreau thought all diets a very small matter, saying that "the man who shoots the buffalo lives better than the man who boards at the Graham House." He said, "You can sleep near the railroad and never be disturbed: Nature knows very well what sounds are worth attending to, and has made up her mind not to hear the railroad whistle. But things respect the devout mind, and a mental ecstasy was never interrupted." He noted what repeatedly befell him, that, after receiving from a distance a rare plant, he would presently find the same in his own haunts. And those pieces of luck which happen only to good players happened to him. One day, walking with a stranger, who inquired where Indian arrowheads could be found, he replied, "Everywhere," and, stooping forward, picked one on the instant from the

ground. At Mount Washington, in Tuckerman's Ravine, Thoreau had a bad fall and sprained his foot. As he was in the act of getting up from his fall, he saw for the first time the leaves of the *Arnica mollis*.

His robust common sense, armed with stout hands, keen perceptions and strong will, cannot yet account for the superiority which shone in his simple and hidden life. I must add the cardinal fact, that there was an excellent wisdom in him, proper to a rare class of men, which showed him the material world as a means and symbol. This discovery, which sometimes yields to poets a certain casual and interrupted light, serving for the ornament of their writing, was in him an unsleeping insight; and whatever faults or obstructions of temperament might cloud it, he was not disobedient to the heavenly vision. In his youth, he said, one day, "The other world is all my art; my pencils will draw no other; my jackknife will cut nothing else; I do not use it as a means." This was the muse and genius that ruled his opinions, conversation, studies, work and course of life. This made him a searching judge of men. At first glance he measured his companion and, though insensible to some fine traits of culture, could very well report his weight and caliber. And this made the impression of genius which his conversation sometimes gave.

He understood the matter in hand at a glance, and saw the limitations and poverty of those he talked with, so that nothing seemed concealed from such terrible eyes. I have repeatedly known young men of sensibility converted in a moment to the belief that this was the man they were in search of, the man of men, who could tell them all they should do. His own dealing with them was never affectionate, but superior, didactic, scorning their petty ways—very slowly conceding, or not conceding at all, the promise of his society at their houses, or even at his own. "Would he not walk with them?" "He did not know. There was nothing so important to him as his walk; he had no walks to throw away on company." Visits were offered him from respectful parties, but he declined them. Admiring friends offered to carry him at their own cost to the Yellowstone River—to the West Indies—to South America. But though nothing could be more grave or considered than his refusals, they remind one, in quite new relations, of that fop Brummel's reply to the gentleman who offered him his carriage in a shower, "But where will *you* ride, then?"—and what accusing silences, and what searching and irresistible speeches, battering down all defenses, his companions can remember!

Mr. Thoreau dedicated his genius with such entire love to the fields, hills and waters of his native town that he made them known and interesting to all reading Americans, and to people over the sea. The river

on whose banks he was born and died he knew from its springs to its confluence with the Merrimack. He had made summer and winter observations on it for many years, and at every hour of the day and night. The result of the recent survey of the water commissioners appointed by the State of Massachusetts he had reached by his private experiments several years earlier. Every fact which occurs in the bed, on the banks or in the air over it; the fishes, and their spawning and nests, their manners, their food; the shad flies which fill the air on a certain evening once a year, and which are snapped at by the fishes so ravenously that many of these die of repletion; the conical heaps of small stones on the river shallows; the huge nests of small fishes, one of which will sometimes overfill a cart; the birds which frequent the stream, heron, duck, sheldrake, loon, osprey; the snake, muskrat, otter, woodchuck and fox, on the banks; the turtle, frog, hyla and cricket, which make the banks vocal–were all known to him, and, as it were, townsmen and fellow creatures; so that he felt an absurdity or violence in any narrative of one of these by itself apart, and still more of its dimensions on an inch rule, or in the exhibition of its skeleton, or the specimen of a squirrel or a bird in brandy. He liked to speak of the manners of the river, as itself a lawful creature, yet with exactness, and always to an observed fact. As he knew the river, so the ponds in this region.

One of the weapons he used, more important to him than microscope, or alcohol receiver to other investigators, was a whim which grew on him by indulgence, yet appeared in gravest statement, namely, of extolling his own town and neighborhood as the most favored center for natural observation. He remarked that the flora of Massachusetts embraced almost all the important plants of America–most of the oaks, most of the willows, the best pines, the ash, the maple, the beech, the nuts. He returned Kane's Arctic Voyage to a friend of whom he had borrowed it, with the remark that "Most of the phenomena noted might be observed in Concord." He seemed a little envious of the Pole, for the coincident sunrise and sunset, or five minutes' day after six months: a splendid fact, which Annursnuc had never afforded him. He found red snow in one of his walks, and told me that he expected to find yet the *Victoria regia* in Concord. He was the attorney of the indigenous plants, and owned to a preference of the weeds to the imported plants, as of the Indian to the civilized man, and noticed, with pleasure, that the willow bean poles of his neighbor had grown more than his beans. "See these weeds," he said, "which have been hoed at by a million farmers all spring and summer, and yet have prevailed, and just now come out

triumphant over all lanes, pastures, fields and gardens, such is their vigor. We have insulted them with low names, too–as Pigweed, Wormwood, Chickweed, Shad-blossom." He says, "They have brave names, too–Ambrosia, Stellaria, Amelanchier, Amaranth, etc."

I think his fancy for referring everything to the meridian of Concord did not grow out of any ignorance or depreciation of other longitudes or latitudes, but was rather a playful expression of his conviction of the indifferency of all places, and that the best place for each is where he stands. He expressed it once in this wise: "I think nothing is to be hoped from you, if this bit of mold under your feet is not sweeter to you to eat than any other in this world, or in any world."

The other weapon with which he conquered all obstacles in science was patience. He knew how to sit immovable, a part of the rock he rested on, until the bird, the reptile, the fish, which had retired from him, should come back and resume its habits, nay, moved by curiosity, should come to him and watch him.

It was a pleasure and a privilege to walk with him. He knew the country like a fox or a bird, and passed through it as freely by paths of his own. He knew every track in the snow or on the ground, and what creature had taken this path before him. One must submit abjectly to such a guide, and the reward was great. Under his arm he carried an old music book to press plants; in his pocket, his diary and pencil, a spyglass for birds, microscope, jackknife and twine. He wore a straw hat, stout shoes, strong gray trousers, to brave scrub oaks and smilax, and to climb a tree for a hawk's or a squirrel's nest. He waded into the pool for the water plants, and his strong legs were no insignificant part of his armor. On the day I speak of he looked for the Menyanthes, detected it across the wide pool, and, on examination of the florets, decided that it had been in flower five days. He drew out of his breast pocket his diary, and read the names of all the plants that should bloom on this day, whereof he kept account as a banker when his notes fall due. The Cypripedium not due till tomorrow. He thought that, if waked up from a trance, in this swamp, he could tell by the plants what time of the year it was within two days. The redstart was flying about, and presently the fine grosbeaks, whose brilliant scarlet "makes the rash gazer wipe his eye," and whose fine clear note Thoreau compared to that of a tanager which has got rid of its hoarseness. Presently he heard a note which he called that of the night warbler, a bird he had never identified, had been in search of twelve years, which always, when he saw it, was in the act of diving down into a tree or bush, and which it was vain to seek:

the only bird which sings indifferently by night and by day. I told him he must beware of finding and booking it, lest life should have nothing more to show him. He said, "What you seek in vain for, half your life, one day you come full upon, all the family at dinner. You seek it like a dream, and as soon as you find it you become its prey."

His interest in the flower or the bird lay very deep in his mind, was connected with Nature–and the meaning of Nature was never attempted to be defined by him. He would not offer a memoir of his observations to the Natural History Society. "Why should I? To detach the description from its connections in my mind would make it no longer true or valuable to me: and they do not wish what belongs to it." His power of observation seemed to indicate additional senses. He saw as with microscope, heard as with ear trumpet, and his memory was a photographic register of all he saw and heard. And yet none knew better than he that it is not the fact that imports, but the impression or effect of the fact on your mind. Every fact lay in glory in his mind, a type of the order and beauty of the whole.

His determination on Natural History was organic. He confessed that he sometimes felt like a hound or a panther, and, if born among Indians, would have been a fell hunter. But, restrained by his Massachusetts culture, he played out the game in this mild form of botany and ichthyology. His intimacy with animals suggested what Thomas Fuller records of Butler the apiologist, that "either he had told the bees things or the bees had told him." Snakes coiled round his legs; the fishes swam into his hand, and he took them out of the water; he pulled the woodchuck out of its hole by the tail, and took the foxes under his protection from the hunters. Our naturalist had perfect magnanimity; he had no secrets: he would carry you to the heron's haunt, or even to his most prized botanical swamp–possibly knowing that you could never find it again, yet willing to take his risks.

No college ever offered him a diploma, or a professor's chair; no academy made him its corresponding secretary, its discoverer or even its member. Perhaps these learned bodies feared the satire of his presence. Yet so much knowledge of Nature's secret and genius few others possessed; none in a more large and religious synthesis. For not a particle of respect had he to the opinions of any man or body of men, but homage solely to the truth itself; and as he discovered everywhere among doctors some leaning of courtesy, it discredited them. He grew to be revered and admired by his townsmen, who had at first known him only as an oddity. The farmers who employed him as a surveyor soon

discovered his rare accuracy and skill, his knowledge of their lands, of trees, of birds, of Indian remains and the like, which enabled him to tell every farmer more than he knew before of his own farm, so that he began to feel a little as if Mr. Thoreau had better rights in his land than he. They felt, too, the superiority of character which addressed all men with a native authority.

Indian relics abound in Concord–arrowheads, stone chisels, pestles and fragments of pottery; and on the riverbank, large heaps of clamshells and ashes mark spots which the savages frequented. These, and every circumstance touching the Indian, were important in his eyes. His visits to Maine were chiefly for love of the Indian. He had the satisfaction of seeing the manufacture of the bark canoe, as well as of trying his hand in its management on the rapids. He was inquisitive about the making of the stone arrowhead, and in his last days charged a youth setting out for the Rocky Mountains to find an Indian who could tell him that: "It was well worth a visit to California to learn it." Occasionally, a small party of Penobscot Indians would visit Concord, and pitch their tents for a few weeks in summer on the riverbank. He failed not to make acquaintance with the best of them, though he well knew that asking questions of Indians is like catechizing beavers and rabbits. In his last visit to Maine he had great satisfaction from Joseph Polis, an intelligent Indian of Oldtown, who was his guide for some weeks.

He was equally interested in every natural fact. The depth of his perception found likeness of law throughout Nature, and I know not any genius who so swiftly inferred universal law from the single fact. He was no pedant of a department. His eye was open to beauty, and his ear to music. He found these, not in rare conditions, but wheresoever he went. He thought the best of music was in single strains, and he found poetic suggestion in the humming of the telegraph wire.

His poetry might be bad or good; he no doubt wanted a lyric facility and technical skill, but he had the source of poetry in his spiritual perception. He was a good reader and critic, and his judgment on poetry was to the ground of it. He could not be deceived as to the presence or absence of the poetic element in any composition, and his thirst for this made him negligent and perhaps scornful of superficial graces. He would pass by many delicate rhythms, but he would have detected every live stanza or line in a volume and knew very well where to find an equal poetic charm in prose. He was so enamored of the spiritual beauty that he held all actual written poems in very light esteem in the comparison. He admired Aeschylus and Pindar; but when someone was com-

mending them, he said that Aeschylus and the Greeks, in describing Apollo and Orpheus, had given no song, or no good one. "They ought not to have moved trees, but to have chanted to the gods such a hymn as would have sung all their old ideas out of their heads, and new ones in." His own verses are often rude and defective. The gold does not yet run pure, is drossy and crude. The thyme and marjoram are not yet honey. But if he want lyric fineness and technical merits, if he have not the poetic temperament, he never lacks the causal thought, showing that his genius was better than his talent. He knew the worth of the Imagination for the uplifting and consolation of human life, and liked to throw every thought into a symbol. The fact you tell is of no value, but only the impression. For this reason his presence was poetic, always piqued the curiosity to know more deeply the secrets of his mind. He had many reserves, an unwillingness to exhibit to profane eyes what was still sacred in his own, and knew well how to throw a poetic veil over his experience. All readers of Walden will remember his mythical record of his disappointments: "I long ago lost a hound, a bay horse and a turtledove, and am still on their trail. Many are the travelers I have spoken concerning them, describing their tracks, and what calls they answered to. I have met one or two who have heard the hound, and the tramp of the horse, and even seen the dove disappear behind a cloud, and they seemed as anxious to recover them as if they had lost them themselves."

His riddles were worth the reading, and I confide that if at any time I do not understand the expression, it is yet just. Such was the wealth of his truth that it was not worth his while to use words in vain. His poem entitled "Sympathy" reveals the tenderness under that triple steel of stoicism, and the intellectual subtility it could animate. His classic poem on "Smoke" suggests Simonides, but is better than any poem of Simonides. His biography is in his verses. His habitual thought makes all his poetry a hymn to the Cause of causes, the Spirit which vivifies and controls his own:

> I hearing get, who had but ears,
> And sight, who had but eyes before;
> I moments live, who lived but years,
> And truth discern, who knew but learning's lore.

And still more in these religious lines:

> Now chiefly is my natal hour,
> And only now my prime of life;
> I will not doubt the love untold,

> Which not my worth nor want have bought,
> Which wooed me young, and woos me old,
> And to this evening hath me brought.

While he used in his writings a certain petulance of remark in reference to churches or churchmen, he was a person of a rare, tender and absolute religion, a person incapable of any profanation, by act or by thought. Of course, the same isolation which belonged to his original thinking and living detached him from the social religious forms. This is neither to be censured nor regretted. Aristotle long ago explained it, when he said, "One who surpasses his fellow citizens in virtue is no longer a part of the city. Their law is not for him, since he is a law to himself."

Thoreau was sincerity itself, and might fortify the convictions of prophets in the ethical laws by his holy living. It was an affirmative experience which refused to be set aside. A truth-speaker he, capable of the most deep and strict conversation; a physician to the wounds of any soul; a friend, knowing not only the secret of friendship, but almost worshipped by those few persons who resorted to him as their confessor and prophet, and knew the deep value of his mind and great heart. He thought that without religion or devotion of some kind nothing great was ever accomplished: and he thought that the bigoted sectarian had better bear this in mind.

His virtues, of course, sometimes ran into extremes. It was easy to trace to the inexorable demand on all for exact truth that austerity which made this willing hermit more solitary even than he wished. Himself of a perfect probity, he required not less of others. He had a disgust at crime, and no worldly success would cover it. He detected paltering as readily in dignified and prosperous persons as in beggars, and with equal scorn. Such dangerous frankness was in his dealing that his admirers called him "that terrible Thoreau," as if he spoke when silent, and was still present when he had departed. I think the severity of his ideal interfered to deprive him of a healthy sufficiency of human society.

The habit of a realist to find things the reverse of their appearance inclined him to put every statement in a paradox. A certain habit of antagonism defaced his earlier writings—a trick of rhetoric not quite outgrown in his later, of substituting for the obvious word and thought its diametrical opposite. He praised wild mountains and winter forests for their domestic air, in snow and ice he would find sultriness, and commended the wilderness for resembling Rome and Paris. "It was so dry, that you might call it wet."

The tendency to magnify the moment, to read all the laws of Nature

in the one object or one combination under your eye, is of course comic to those who do not share the philosopher's perception of identity. To him there was no such thing as size. The pond was a small ocean; the Atlantic, a large Walden Pond. He referred every minute fact to cosmical laws. Though he meant to be just, he seemed haunted by a certain chronic assumption that the science of the day pretended completeness, and he had just found out that the savants had neglected to discriminate a particular botanical variety, had failed to describe the seeds or count the sepals. "That is to say," we replied, "the blockheads were not born in Concord; but who said they were? It was their unspeakable misfortune to be born in London, or Paris, or Rome; but, poor fellows, they did what they could, considering that they never saw Bateman's Pond, or Nine-Acre Corner, or Becky Stow's Swamp; besides, what were you sent into the world for, but to add this observation?"

Had his genius been only contemplative, he had been fitted to his life, but with his energy and practical ability he seemed born for great enterprise and for command; and I so much regret the loss of his rare powers of action that I cannot help counting it a fault in him that he had no ambition. Wanting this, instead of engineering for all America, he was the captain of a huckleberry party. Pounding beans is good to the end of pounding empires one of these days; but if, at the end of years, it is still only beans!

But these foibles, real or apparent, were fast vanishing in the incessant growth of a spirit so robust and wise, and which effaced its defeats with new triumphs. His study of Nature was a perpetual ornament to him, and inspired his friends with curiosity to see the world through his eyes, and to hear his adventures. They possessed every kind of interest.

He had many elegancies of his own, while he scoffed at conventional elegance. Thus, he could not bear to hear the sound of his own steps, the grit of gravel; and therefore never willingly walked in the road, but in the grass, on mountains and in woods. His senses were acute, and he remarked that by night every dwelling house gives out bad air, like a slaughterhouse. He liked the pure fragrance of melilot. He honored certain plants with special regard, and, over all, the pond lily—then, the gentian, and the *Mikania scandens,* and "life-everlasting," and a bass tree which he visited every year when it bloomed, in the middle of July. He thought the scent a more oracular inquisition than the sight—more oracular and trustworthy. The scent, of course, reveals what is concealed from the other senses. By it he detected earthiness. He de-

lighted in echoes, and said they were almost the only kind of kindred voices that he heard. He loved Nature so well, was so happy in her solitude, that he became very jealous of cities and the sad work which their refinements and artifices made with man and his dwelling. The axe was always destroying his forest. "Thank God," he said, "they cannot cut down the clouds!" "All kinds of figures are drawn on the blue ground with this fibrous white paint."

I subjoin a few sentences taken from his unpublished manuscripts, not only as records of his thought and feeling, but for their power of description and literary excellence:

Some circumstantial evidence is very strong, as when you find a trout in the milk.

The chub is a soft fish, and tastes like boiled brown paper salted.

The youth gets together his materials to build a bridge to the moon, or, perchance, a palace or temple on the earth, and, at length the middle-aged man concludes to build a woodshed with them.

The locust z-ing.

Devil's-needles zigzagging along the Nut-Meadow brook.

Sugar is not so sweet to the palate as sound to the healthy ear.

I put on some hemlock boughs, and the rich salt crackling of their leaves was like mustard to the ear, the crackling of uncountable regiments. Dead trees love the fire.

The bluebird carries the sky on his back.

The tanager flies through the green foliage as if it would ignite the leaves.

If I wish for a horsehair for my compass sight I must go to the stable; but the hairbird, with her sharp eyes, goes to the road.

Immortal water, alive even to the superficies.

Fire is the most tolerable third party.

Nature made ferns for pure leaves, to show what she could do in that line.

No tree has so fair a bole and so handsome an instep as the beech.

How did these beautiful rainbow tints get into the shell of the fresh-water clam, buried in the mud at the bottom of our dark river?

Hard are the times when the infant's shoes are second foot.

We are strictly confined to our men to whom we give liberty.

Nothing is so much to be feared as fear. Atheism may comparatively be popular with God himself.

Of what significance the things you can forget? A little thought is sexton to all the world.

How can we expect a harvest of thought who have not had a seed-time of character?

> Only he can be trusted with gifts who can present a face of bronze to expectations.
>
> I ask to be melted. You can only ask of the metals that they be tender to the fire that melts them. To nought else can they be tender.

There is a flower known to botanists, one of the same genus with our summer plant called "Life-Everlasting," a *Gnaphalium* like that, which grows on the most inaccessible cliffs of the Tyrolese mountains, where the chamois dare hardly venture, and which the hunter, tempted by its beauty, and by his love (for it is immensely valued by the Swiss maidens), climbs the cliffs to gather, and is sometimes found dead at the foot, with the flower in his hand. It is called by botanists the *Gnaphalium leontopodium,* but by the Swiss *Edelweisse,* which signifies *Noble Purity*. Thoreau seemed to me living in the hope to gather this plant, which belonged to him of right. The scale on which his studies proceeded was so large as to require longevity, and we were the less prepared for his sudden disappearance. The country knows not yet, or in the least part, how great a son it has lost. It seems an injury that he should leave in the midst his broken task which none else can finish, a kind of indignity to so noble a soul that he should depart out of Nature before yet he has been really shown to his peers for what he is. But he, at least, is content. His soul was made for the noblest society; he had in a short life exhausted the capabilities of this world; wherever there is knowledge, wherever there is virtue, wherever there is beauty, he will find a home.

Nathaniel Hawthorne[1]

1804–1864

Hawthorne's sketch of Lincoln is one of the most famous face-to-face impressions of the President ever written. It described Lincoln as he appeared in 1862, a year after he took office. At this time he was not generally popular nor even well known. He had been elected to the presidency in what Hawthorne called a "jumble of human vicissitudes." He had won the Republican nomination in 1860, though Seward had been expected to be named, and he had won the presidential election because the vote was split among four candidates.

After a year in office, the war, which Lincoln had reluctantly declared against his countrymen, had gone steadily against the North. Lincoln had not yet been able to unify the command of the armed forces, nor find good generals. But he had suspended constitutional rights, established conscription, and levied huge sums to carry on the war. Such things, though unavoidable, did not tend to make Lincoln popular.

What Hawthorne would say about Lincoln, however, depended not only on the existing situation but upon Hawthorne's appraisal–his vision and faith. How would the fastidious scholar and novelist, representing the oldest and proudest cultural tradition of New England, size up the ungainly backwoods lawyer who had been catapulted into the highest office in the land? Lincoln was "the homeliest man I ever saw," Hawthorne wrote. "The whole physiognomy is as coarse a one as you would meet anywhere. . . ." His manners were uncouth, his clothes a little disreputable, and his innumerable yarns and anecdotes smacked of "frontier freedom." He was clearly lack-

[1] For a biography of Hawthorne, see Vol. 3, pp. 124–126, in this set.

ing in refinement and "bookish cultivation." On the other hand, he possessed a natural dignity, kindness, subtlety, and an unpretentious wisdom. And, in short, Hawthorne would as soon have "Uncle Abe for a ruler" as any man in the country. Even his backwoods faults were piquant and exciting.

Hawthorne could not have known, at this time, that some of Lincoln's speeches would be rated as the best in the English language. He missed many points of his greatness. Yet his estimate of the President was as glowing and affirmative as that of Walt Whitman,[2] who wrote after Lincoln's death. One thing that Hawthorne loved in Lincoln was his basic humility and humanity. What he disliked most in human beings, as his novels and tales show, was pride and pretense.

A year after writing the sketch of Lincoln, Hawthorne insisted on standing by his friend, Franklin Pierce, then regarded as a traitor to the North. He knew he would lose friends and money by it but nevertheless insisted. Yet he does not want to be regarded as a hero or martyr. "I always measure out my heroism very accurately according to the exigencies of the occasion," he wrote, "and should be the last man in the world to throw away a bit of it needlessly."

It was a similar ironic humor, and dislike of pretense, that Hawthorne saw in Lincoln.

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[2] See *Death of Abraham Lincoln*, Vol. 6, pp. 174–183, in this set.

Sketch of Abraham Lincoln

Of course, there was one other personage, in the class of statesmen, whom I should have been truly mortified to leave Washington without seeing; since (temporarily, at least, and by force of circumstances) he was the man of men. But a private grief had built up a barrier about him, impeding the customary free intercourse of Americans with their chief magistrate; so that I might have come away without a glimpse of his very remarkable physiognomy, save for a semiofficial opportunity of which I was glad to take advantage. The fact is, we were invited to annex ourselves, as supernumeraries, to a deputation that was about to wait upon the President, from a Massachusetts whip factory, with a present of a splendid whip.

Our immediate party consisted only of four or five (including Major Ben Perley Poore, with his notebook and pencil), but we were joined by several other persons, who seemed to have been lounging about the precincts of the White House, under the spacious porch, or within the hall, and who swarmed in with us to take the chances of a presentation. Nine o'clock had been appointed as the time for receiving the deputation, and we were punctual to the moment; but not so the President, who sent us word that he was eating his breakfast, and would come as soon as he could. His appetite, we were glad to think, must have been a pretty fair one; for we waited about half an hour in one of the antechambers, and then were ushered into a reception room, in one corner of which sat the secretaries of War and of the Treasury, expecting, like ourselves, the termination of the Presidential breakfast. During this interval there were several new additions to our group, one or two of whom were in a working garb, so that we formed a very miscellaneous collection of people, mostly unknown to each other, and without any common sponsor, but all with an equal right to look our head servant in the face.

By and by there was a little stir on the staircase and in the passageway,[1] [and in lounged a tall, loose-jointed figure, as of an exaggerated Yankee port and demeanor, whom (as being about the homeliest man I ever saw, yet by no means repulsive or disagreeable) it was impossible not to recognize as Uncle Abe.

Unquestionably, Western man though he be, and Kentuckian by birth, President Lincoln is the essential representative of all Yankees, and the veritable specimen, physically, of what the world seems determined to regard as our characteristic qualities. It is the strangest and yet the fittest thing in the jumble of human vicissitudes that he, out of so many millions, unlocked for, unselected by any intelligible process that could be based upon his genuine qualities, unknown to those who chose him, and unsuspected of what endowments may adapt him for his tremendous responsibility, should have found the way open for him to fling his lank personality into the chair of state–where, I presume, it was his first impulse to throw his legs on the council table, and tell the Cabinet ministers a story. There is no describing his lengthy awkwardness, nor the uncouthness of his movement; and yet it seemed as if I had been in the habit of seeing him daily, and had shaken hands with him a thousand times in some village street; so true was he to the aspect of the pattern American, though with a certain extravagance which, possibly, I exaggerated still further by the delighted eagerness with which I took it in. If put to guess his calling and livelihood, I should have taken him for a country schoolmaster as soon as anything else. He was dressed in a rusty black frock coat and pantaloons, unbrushed, and worn so faithfully that the suit had adapted itself to the curves and angularities of his figure, and had grown to be an outer skin of the man. He had shabby slippers on his feet. His hair was black, still unmixed with gray, stiff, somewhat bushy, and had apparently been acquainted with neither brush nor comb that morning, after the disarrangement of the pillow; and as to a nightcap, Uncle Abe probably knows nothing of such effeminacies. His complexion is dark and sallow, betokening, I fear, an insalubrious atmosphere around

1. We are compelled to omit two or three pages, in which the author describes the interview, and gives his idea of the personal appearance and deportment of the President. The sketch appears to have been written in a benign spirit, and perhaps conveys a not inaccurate impression of its august subject; but it lacks *reverence,* and it pains us to see a gentleman of ripe age, and who has spent years under the corrective influence of foreign institutions, falling into the characteristic and most ominous fault of Young America. [This footnote, the apparent addition of a genteel editor, was actually written by Hawthorne himself for a version of the *Sketch* in which part of his portrait of Lincoln was omitted (*Atlantic Monthly,* July, 1862). The suppressed passage was subsequently printed in the *Atlantic* and in this text is set off by brackets (Ed.).]

the White House; he has thick black eyebrows and an impending brow; his nose is large, and the lines about his mouth are very strongly defined.

The whole physiognomy is as coarse a one as you would meet anywhere in the length and breadth of the States; but, withal, it is redeemed, illuminated, softened, and brightened by a kindly though serious look out of his eyes, and an expression of homely sagacity, that seems weighted with rich results of village experience. A great deal of native sense; no bookish cultivation, no refinement; honest at heart, and thoroughly so, and yet, in some sort, sly—at least, endowed with a sort of tact and wisdom that are akin to craft, and would impel him, I think, to take an antagonist in flank, rather than to make a bull-run at him right in front. But, on the whole, I like this sallow, queer, sagacious visage, with the homely human sympathies that warmed it; and, for my small share in the matter, would as lief have Uncle Abe for a ruler as any man whom it would have been practicable to put in his place.

Immediately on his entrance the President accosted our member of Congress, who had us in charge, and, with a comical twist of his face, made some jocular remark about the length of his breakfast. He then greeted us all round, not waiting for an introduction, but shaking and squeezing everybody's hand with the utmost cordiality, whether the individual's name was announced to him or not. His manner towards us was wholly without pretense, but yet had a kind of natural dignity, quite sufficient to keep the forwardest of us from clapping him on the shoulder and asking him for a story. A mutual acquaintance being established, our leader took the whip out of its case, and began to read the address of presentation. The whip was an exceedingly long one, its handle wrought in ivory (by some artist in the Massachusetts State Prison, I believe), and ornamented with a medallion of the President, and other equally beautiful devices; and along its whole length there was a succession of golden bands and ferrules. The address was shorter than the whip, but equally well made, consisting chiefly of an explanatory description of these artistic designs, and closing with a hint that the gift was a suggestive and emblematic one, and that the President would recognize the use to which such an instrument should be put.

This suggestion gave Uncle Abe rather a delicate task in his reply, because, slight as the matter seemed, it apparently called for some declaration, or intimation, or faint foreshadowing of policy in reference to the conduct of the war, and the final treatment of the Rebels. But the President's Yankee aptness and not-to-be-caughtness stood him in good stead, and he jerked or wiggled himself out of the dilemma with an uncouth

dexterity that was entirely in character; although, without his gesticulation of eye and mouth—and especially the flourish of the whip, with which he imagined himself touching up a pair of fat horses—I doubt whether his words would be worth recording, even if I could remember them. The gist of the reply was, that he accepted the whip as an emblem of peace, not punishment; and, this great affair over, we retired out of the presence in high good humor, only regretting that we could not have seen the President sit down and fold up his legs (which is said to be a most extraordinary spectacle), or have heard him tell one of those delectable stories for which he is so celebrated. A good many of them are afloat upon the common talk of Washington, and are certainly the aptest, pithiest, and funniest little things imaginable; though, to be sure, they smack of the frontier freedom, and would not always bear repetition in a drawing room, or on the immaculate page of the *Atlantic*].

Good Heavens! what liberties have I been taking with one of the potentates of the earth, and the man on whose conduct more important consequences depend than on that of any other historical personage of the century! But with whom is an American citizen entitled to take a liberty, if not with his own chief magistrate? However, lest the above allusions to President Lincoln's little peculiarities (already well known to the country and to the world) should be misinterpreted, I deem it proper to say a word or two in regard to him, of unfeigned respect and measurable confidence. He is evidently a man of keen faculties, and, what is still more to the purpose, of powerful character. As to his integrity, the people have that intuition of it which is never deceived. Before he actually entered upon his great office, and for a considerable time afterwards, there is no reason to suppose that he adequately estimated the gigantic task about to be imposed on him, or, at least, had any distinct idea how it was to be managed; and I presume there may have been more than one veteran politician who proposed to himself to take the power out of President Lincoln's hands into his own, leaving our honest friend only the public responsibility for the good or ill success of the career. The extremely imperfect development of his statesmanly qualities, at that period, may have justified such designs. But the President is teachable by events, and has now spent a year in a very arduous course of education; he has a flexible mind, capable of much expansion, and convertible towards far loftier studies and activities than those of his early life; and if he came to Washington a backwoods humorist, he has already transformed himself into as good a statesman (to speak moderately) as his prime minister.

Walt Whitman[1]

1819–1892

This lecture on Lincoln was first given fifteen years after the assassination of the sixteenth President. The popularity of Abraham Lincoln had risen to the highest pinnacle. What words could Whitman find in any way worthy of the Great Emancipator? Would not any praise or tribute, so close to the unbelievable tragedy, sound paltry and insincere?

In Whitman's case there was a special difficulty. He had no use for histories which see the meaning of events "in single eminent persons," and was impatient with Carlyle's *Cromwell* and with hero worship in general. Speaking of the Civil War heroes, including Lincoln, he warned against giving undue weight to personalities. It is easy to exaggerate the role of saviors and "exceptional men." The real heroes of the Civil War in Whitman's poetry were the rank and file soldiers and the embattled people. His *Leaves of Grass* began with:

> One's-self I sing, a simple separate person,
> Yet utter the word Democratic, the word En-Masse.

Whitman was no hero-worshiper; he was the apostle of the average man, or of every man.

> The sum of all known reverence I add up to you, whoever you are.

How then can Whitman give the greatest hero in American history his due?

There is no use trying to anticipate too closely what your reaction to this speech will be, but one or two general impressions may help

[1] For a biography of Whitman, see Vol. 5, pp. 243–245 in this set.

you to form yours. We are given only one close-up picture of Lincoln; it is imposing but also touching. We see him in 1861, just before he took office—a tall, ungainly figure, stretching his long limbs with composure as he faced the curious gaze of thirty or forty thousand men, unknown to him, and stared back with equal curiosity. They wanted to see the man who had been placed in command, and would take on his shoulders the vast impending conflict. And when they had seen him, they went quietly away.

The story of the murder of the President is told with moving and vivid simplicity—as if by an eyewitness. We also see the tragedy in the perspective of other great martyrs. The course of history had been altered when Socrates was given the hemlock and when Caesar was cut down in the Senate House. The death of Lincoln had already left its mark on America, consecrating and strengthening the Union so dearly paid for in blood and sacrifice.

Yet throughout Whitman's speech we hear little of Lincoln's wisdom, courage, magnanimity, shrewdness, humor, and humanity. His great personal gifts and achievements are scarcely mentioned, never praised. Whitman's theme seems rather to be the national struggle for the preservation of the Union, a struggle enmeshing the lives of the soldiers in the battlefield, and all the men and women who worked and suffered through the long years at home. The tribute to Lincoln thus tends to become a tribute to the people whom he led to victory. They are the heroes, collectively, and Lincoln is one with them; when they suffer he suffers and their achievement is his achievement.

Whitman called himself the poet of democracy. Do you think that in his democratic outlook Lincoln loses something of greatness and appeal? Is there perhaps a gain in realism and conviction?

Death of Abraham Lincoln

How often since that dark and dripping Saturday—that chilly April day, now fifteen years bygone—my heart has entertained the dream, the wish, to give of Abraham Lincoln's death its own special thought and memorial. Yet now the sought-for opportunity offers, I find my notes incompetent (why, for truly profound themes, is statement so idle? why does the right phrase never offer?) and the fit tribute I dreamed of waits unprepared as ever. My talk here indeed is less because of itself or anything in it, and nearly altogether because I feel a desire, apart from any talk, to specify the day, the martyrdom. It is for this, my friends, I have called you together. Oft as the rolling years bring back this hour, let it again, however briefly, be dwelt upon. For my own part, I hope and desire, till my own dying day, whenever the 14th or 15th of April comes, to annually gather a few friends and hold its tragic reminiscence. No narrow or sectional reminiscence. It belongs to these states in their entirety—not the North only, but the South—perhaps belongs most tenderly and devoutly to the South, of all; for there, really, this man's birth-stock. There and thence his antecedent stamp. Why should I not say that thence his manliest traits—his universality—his canny, easy ways and words upon the surface—his inflexible determination and courage at heart? Have you never realized it, my friends, that Lincoln, though grafted on the West, is essentially, in personnel and character, a Southern contribution?

And though by no means proposing to resume the secession war tonight, I would briefly remind you of the public conditions preceding that contest. For twenty years, and especially during the four or five before the war actually began, the aspect of affairs in the United States, though without the flash of military excitement, presents more than the survey of a battle, or any extended campaign, or series, even of Nature's convulsions. The hot passions of the South—the strange mixture at the North

of inertia, incredulity, and conscious power—the incendiarism of the abolitionists—the rascality and *grip* of the politicians, unparalleled in any land, any age. To these I must not omit adding the honesty of the essential bulk of the people everywhere—yet with all the seething fury and contradiction of their natures more aroused than the Atlantic's waves in wildest equinox. In politics, what can be more ominous (though generally unappreciated then), what more significant than the Presidentiads of Fillmore and Buchanan? proving conclusively that the weakness and wickedness of elected rulers are just as likely to afflict us here, as in the countries of the Old World, under their monarchies, emperors, and aristocracies. In that Old World were everywhere heard underground rumblings that died out, only to again surely return. While in America the volcano, though civic yet, continued to grow more and more convulsive—more and more stormy and threatening.

In the height of all this excitement and chaos, hovering on the edge at first, and then merged in its very midst, and destined to play a leading part, appears a strange and awkward figure. I shall not easily forget the first time I ever saw Abraham Lincoln. It must have been about the 18th or 19th of February, 1861. It was rather a pleasant afternoon, in New York City, as he arrived there from the West, to remain a few hours, and then pass on to Washington, to prepare for his inauguration. I saw him in Broadway, near the site of the present post office. He came down, I think from Canal Street, to stop at the Astor House. The broad spaces, sidewalks, and street in the neighborhood, and for some distance, were crowded with solid masses of people, many thousands. The omnibuses and other vehicles had all been turned off, leaving an unusual hush in that busy part of the city. Presently two or three shabby hack barouches made their way with some difficulty through the crowd, and drew up at the Astor House entrance. A tall figure stepped out of the center of these barouches, paused leisurely on the sidewalk, looked up at the granite walls and looming architecture of the grand old hotel—then, after a relieving stretch of arms and legs, turned round for over a minute to slowly and good-humoredly scan the appearance of the vast and silent crowds. There were no speeches—no compliments—no welcome—as far as I could hear, not a word said. Still much anxiety was concealed in that quiet. Cautious persons had feared some marked insult or indignity to the President-elect, for he possessed no personal popularity at all in New York City, and very little political. But it was evidently tacitly agreed that if the few political supporters of Mr. Lincoln present would entirely

abstain from any demonstration on their side, the immense majority, who were anything but supporters, would abstain on their side also. The result was a sulky, unbroken silence, such as certainly never before characterized so great a New York crowd.

Almost in the same neighborhood I distinctly remembered seeing La Fayette on his visit to America in 1825. I had also personally seen and heard, various years afterward, how Andrew Jackson, Clay, Webster, Hungarian Kossuth, Filibuster Walker, the Prince of Wales on his visit, and other celebres, native and foreign, had been welcomed there—all that indescribable human roar and magnetism, unlike any other sound in the universe—the glad exulting thundershouts of countless unloosed throats of men! But on this occasion, not a voice—not a sound. From the top of an omnibus (driven up one side, close by, and blocked by the curbstone and the crowds), I had, I say, a capital view of it all, and especially of Mr. Lincoln, his look and gait—his perfect composure and coolness—his unusual and uncouth height, his dress of complete black, stovepipe hat pushed back on the head, dark-brown complexion, seamed and wrinkled yet canny-looking face, black, bushy head of hair, disproportionately long neck, and his hands held behind as he stood observing the people. He looked with curiosity upon that immense sea of faces, and the sea of faces returned the look with similar curiosity. In both there was a dash of comedy, almost farce, such as Shakespeare puts in his blackest tragedies. The crowd that hemmed around consisted I should think of thirty to forty thousand men, not a single one his personal friend—while I have no doubt (so frenzied were the ferments of the time) many an assassin's knife and pistol lurked in hip or breast pocket there, ready, soon as break and riot came.

But no break or riot came. The tall figure gave another relieving stretch or two of arms and legs; then with moderate pace, and accompanied by a few unknown-looking persons, ascended the portico steps of the Astor House, disappeared through its broad entrance—and the dumb show ended.

I saw Abraham Lincoln often the four years following that date. He changed rapidly and much during his presidency—but this scene, and him in it, are indelibly stamped upon my recollection. As I sat on the top of my omnibus and had a good view of him, the thought, dim and inchoate then, has since come out clear enough, that four sorts of genius, four mighty and primal hands, will be needed to the complete limning of this man's future portrait—the eyes and brains and finger touch of Plutarch and Aeschylus and Michelangelo, assisted by Rabelais.

And now–(Mr. Lincoln passing on from this scene to Washington, where he was inaugurated, amid armed cavalry, and sharpshooters at every point–the first instance of the kind in our history–and I hope it will be the last)–now the rapid succession of well-known events (too well known–I believe, these days, we almost hate to hear them mentioned)–the national flag fired on at Sumter–the uprising of the North, in paroxysms of astonishment and rage–the chaos of divided councils–the call for troops–the first Bull Run–the stunning cast-down, shock, and dismay of the North–and so in full flood the secession war. Four years of lurid, bleeding, murky, murderous war. Who paint those years, with all their scenes?–the hard-fought engagements–the defeats, plans, failures–the gloomy hours, days, when our nationality seemed hung in pall of doubt, perhaps death–the Mephistophelean sneers of foreign lands and attachés–the dreaded Scylla of European interference, and the Charybdis of the tremendously dangerous latent strata of secession sympathizers throughout the free States (far more numerous than is supposed)–the long marches in summer–the hot sweat, and many a sunstroke, as on the rush to Gettysburg in '63–the night battles in the woods, as under Hooker at Chancellorsville–the camps in winter–the military prisons–the hospitals–(alas! alas! the hospitals).

The secession war? Nay, let me call it the Union war. Though whatever called, it is even yet too near us–too vast and too closely overshadowing–its branches unformed yet (but certain) shooting too far into the future–and the most indicative and mightiest of them yet ungrown. A great literature will yet arise out of the era of those four years, those scenes–era compressing centuries of native passion, first-class pictures, tempests of life and death–an inexhaustible mine for the histories, drama, romance, and even philosophy of peoples to come–indeed the vertebre of poetry and art (of personal character too) for all future America–far more grand, in my opinion, to the hands capable of it, than Homer's siege of Troy, or the French wars to Shakespeare.

But I must leave these speculations, and come to the theme I have assigned and limited myself to. Of the actual murder of President Lincoln, though so much has been written, probably the facts are yet very indefinite in most persons' minds. I read from my memoranda, written at the time, and revised frequently and finally since.

The day, April 14, 1865, seems to have been a pleasant one throughout the whole land–the moral atmosphere pleasant too–the long storm, so dark, so fratricidal, full of blood and doubt and gloom, over and ended at last by the sunrise of such an absolute national victory, and utter

breakdown of secessionism—we almost doubted our own senses! Lee had capitulated beneath the apple tree of Appomattox. The other armies, the flanges of the revolt, swiftly followed. And could it really be, then? Out of all the affairs of this world of woe and failure and disorder, was there really come the confirmed, unerring sign of plan, like a shaft of pure light—of rightful rule—of God? So the day, as I say, was propitious. Early herbage, early flowers were out. (I remember where I was stopping at the time, the season being advanced, there were many lilacs in full bloom. By one of those caprices that enter and give tinge to events without being at all a part of them, I find myself always reminded of the great tragedy of that day by the sight and odor of these blossoms. It never fails.)

But I must not dwell on accessories. The deed hastens. The popular afternoon paper of Washington, the little *Evening Star,* had spattered all over its third page, divided among the advertisements in a sensational manner, in a hundred different places, *The President and his Lady will be at the Theatre this evening*. . . . (Lincoln was fond of the theatre. I have myself seen him there several times. I remember thinking how funny it was that he, in some respects the leading actor in the stormiest drama known to real history's stage through centuries, should sit there and be so completely interested and absorbed in those human jackstraws, moving about with their silly little gestures, foreign spirit, and flatulent text.)

On this occasion the theatre was crowded, many ladies in rich and gay costumes, officers in their uniforms, many well-known citizens, young folks, the usual clusters of gaslights, the usual magnetism of so many people, cheerful, with perfumes, music of violins and flutes (and over all, and saturating all, that vast, vague wonder, *Victory,* the nation's victory, the triumph of the Union, filling the air, the thought, the sense, with exhilaration more than all music and perfumes).

The President came betimes, and, with his wife, witnessed the play from the large stage boxes of the second tier, two thrown into one, and profusely draped with the national flag. The acts and scenes of the piece—one of those singularly written compositions which have at least the merit of giving entire relief to an audience engaged in mental action or business excitements and cares during the day, as it makes not the slightest call on either the moral, emotional, aesthetic, or spiritual nature—a piece (*Our American Cousin*) in which, among other characters, so called, a Yankee, certainly such a one as was never seen, or the least like it ever seen, in North America, is introduced in England, with a varied

fol-de-rol of talk, plot, scenery, and such phantasmagoria as goes to make up a modern popular drama—had progressed through perhaps a couple of its acts, when in the midst of this comedy, or nonesuch, or whatever it is to be called, and to offset it, or finish it out, as if in Nature's and the great Muse's mockery of those poor mimes, came interpolated that scene, not really or exactly to be described at all (for on the many hundreds who were there it seems to this hour to have left a passing blur, a dream, a blotch)—and yet partially to be described as I now proceed to give it. There is a scene in the play representing a modern parlor, in which two unprecedented English ladies are informed by the impossible Yankee that he is not a man of fortune, and therefore undesirable for marriage-catching purposes; after which, the comments being finished, the dramatic trio make exit, leaving the stage clear for a moment. At this period came the murder of Abraham Lincoln. Great as all its manifold train, circling round it, and stretching into the future for many a century, in the politics, history, art, etc., of the New World, in point of fact the main thing, the actual murder, transpired with the quiet and simplicity of any commonest occurrence—the bursting of a bud or pod in the growth of vegetation, for instance. Through the general hum following the stage pause, with the change of positions, came the muffled sound of a pistol shot, which not one-hundredth part of the audience heard at the time—and yet a moment's hush—somehow, surely, a vague startled thrill—and then, through the ornamented, draperied, starred and striped space-way of the President's box, a sudden figure, a man, raises himself with hands and feet, stands a moment on the railing, leaps below to the stage (a distance of perhaps fourteen or fifteen feet), falls out of position, catching his boot heel in the copious drapery (the American flag), falls on one knee, quickly recovers himself, rises as if nothing had happened (he really sprains his ankle, but unfelt then)—and so the figure, Booth, the murderer, dressed in plain black broad-cloth, bareheaded, with full, glossy, raven hair, and his eyes like some mad animal's flashing with light and resolution, yet with a certain strange calmness, holds aloft in one hand a large knife—walks along not much back from the footlights—turns fully toward the audience his face of statuesque beauty, lit by those basilisk eyes, flashing with desperation, perhaps insanity—launches out in a firm and steady voice the words *Sic semper tyrannis*—and then walks with neither slow nor very rapid pace diagonally across to the back of the stage, and disappears. (Had not all this terrible scene—making the mimic ones preposterous—had it not all been rehearsed, in blank, by Booth, beforehand?)

A moment's hush–a scream–the cry of *murder*–Mrs. Lincoln leaning out of the box, with ashy cheeks and lips, with involuntary cry, pointing to the retreating figure, *He has killed the President.* And still a moment's strange, incredulous suspense–and then the deluge!–then that mixture of horror, noises, uncertainty–(the sound, somewhere back, of a horse's hoofs clattering with speed)–the people burst through chairs and railings, and break them up–there is inextricable confusion and terror–women faint–quite feeble persons fall, and are trampled on–many cries of agony are heard–the broad stage suddenly fills to suffocation with a dense and motley crowd, like some horrible carnival–the audience rush generally upon it, at least the strong men do–the actors and actresses are all there in their play-costumes and painted faces, with mortal fright showing through the rouge–the screams and calls, confused talk–redoubled, trebled–two or three manage to pass up water from the stage to the President's box–others try to clamber up–etc., etc.

In the midst of all this, the soldiers of the President's guard, with others, suddenly drawn to the scene, burst in–(some two hundred altogether)–they storm the house, through all the tiers, especially the upper ones, inflamed with fury, literally charging the audience with fixed bayonets, muskets and pistols, shouting *Clear out! clear out! you sons of* ––. . . . Such the wild scene, or a suggestion of it rather, inside the playhouse that night.

Outside, too, in the atmosphere of shock and craze, crowds of people, filled with frenzy, ready to seize any outlet for it, come near committing murder several times on innocent individuals. One such case was especially exciting. The infuriated crowd, through some chance, got started against one man, either for words he uttered, or perhaps without any cause at all, and were proceeding at once to actually hang him on a neighboring lamppost, when he was rescued by a few heroic policemen, who placed him in their midst, and fought their way slowly and amid great peril toward the station house. It was a fitting episode of the whole affair. The crowd rushing and eddying to and fro–the night, the yells, the pale faces, many frightened people trying in vain to extricate themselves–the attacked man, not yet freed from the jaws of death, looking like a corpse–the silent, resolute, half-dozen policemen, with no weapons but their little clubs, yet stern and steady through all those eddying swarms–made a fitting side-scene to the grand tragedy of the murder. They gained the station house with the protected man, whom they placed in security for the night, and discharged him in the morning.

And in the midst of that pandemonium, infuriated soldiers, the au-

dience and the crowd, the stage, and all its actors and actresses, its paintpots, spangles, and gaslights—the life blood from those veins, the best and sweetest of the land, drips slowly down, and death's ooze already begins its little bubbles on the lips.

Thus the visible incidents and surroundings of Abraham Lincoln's murder, as they really occurred. Thus ended the attempted secession of these States; thus the four years' war. But the main things come subtly and invisibly afterward, perhaps long afterward—neither military, political, nor (great as those are) historical. I say, certain secondary and indirect results, out of the tragedy of this death, are, in my opinion, greatest. Not the event of the murder itself. Not that Mr. Lincoln strings the principal points and personages of the period, like beads, upon the single string of his career. Not that his idiosyncrasy, in its sudden appearance and disappearance, stamps this Republic with a stamp more marked and enduring than any yet given by any one man—(more even than Washington's)—but, joined with these, the immeasurable value and meaning of that whole tragedy lies, to me, in senses finally dearest to a nation (and here all our own)—the imaginative and artistic senses—the literary and dramatic ones. Not in any common or low meaning of those terms, but a meaning precious to the race, and to every age. A long and varied series of contradictory events arrives at last at its highest poetic, single, central, pictorial denouement. The whole involved, baffling, multiform whirl of the secession period comes to a head, and is gathered in one brief flash of lightning-illumination—one simple, fierce deed. Its sharp culmination, and as it were solution, of so many bloody and angry problems illustrates those climax-moments on the stage of universal Time, where the historic Muse at one entrance and the tragic Muse at the other, suddenly ringing down the curtain, close an immense act in the long drama of creative thought, and give it radiation, tableau, stranger than fiction. Fit radiation—fit close! How the imagination—how the student loves these things! America, too, is to have them. For not in all great deaths, nor far or near—not Caesar in the Roman senate-house, or Napoleon passing away in the wild night storm at St. Helena—not Paleologus, falling, desperately fighting, piled over dozens deep with Grecian corpses—not calm old Socrates, drinking the hemlock—outvies that terminus of the secession war, in one man's life, here in our midst, in our own time—that seal of the emancipation of three million slaves—that parturition and delivery of our at last really free Republic, born again, henceforth to commence its career of genuine homogeneous Union, compact, consistent with itself.

Nor will ever future American patriots and Unionists, indifferently over the whole land, or North or South, find a better moral to their lesson. The final use of the greatest men of a nation is, after all, not with reference to their deeds in themselves, or their direct bearing on their times or lands. The final use of a heroic-eminent life–especially of a heroic-eminent death–is its indirect filtering into the nation and the race, and to give, often at many removes, but unerringly, age after age, color and fiber to the personalism of the youth and maturity of that age, and of mankind. Then there is a cement to the whole people, subtler, more underlying, than any thing in written constitution, or courts or armies–namely, the cement of a death identified thoroughly with that people, at its head, and for its sake. Strange (is it not?) that battles, martyrs, agonies, blood, even assassination, should so condense–perhaps only really, lastingly condense–a nationality.

I repeat it–the grand deaths of the race–the dramatic deaths of every nationality–are its most important inheritance value–in some respects beyond its literature and art–(as the hero is beyond his finest portrait, and the battle itself beyond its choicest song or epic). Is not here indeed the point underlying all tragedy? the famous pieces of the Grecian masters–and all masters? Why, if the old Greeks had had this man, what trilogies of plays–what epics–would have been made out of him! How the rhapsodes would have recited him! How quickly that quaint tall form would have entered into the region where men vitalize gods, and gods divinify men! But Lincoln, his times, his death–great as any, any age–belong altogether to our own, and our autochthonic. (Sometimes indeed I think our American days, our own stage–the actors we know and have shaken hands, or talked with–more fateful than any thing in Aeschylus–more heroic than the fighters around Troy–afford kings of men for our democracy prouder than Agamemnon–models of character cute and hardy as Ulysses–deaths more pitiful than Priam's.)

When, centuries hence (as it must, in my opinion, be centuries hence before the life of these States, or of democracy, can be really written and illustrated), the leading historians and dramatists seek for some personage, some special event, incisive enough to mark with deepest cut, and mnemonize, this turbulent nineteenth century of ours (not only these states, but all over the political and social world)–something, perhaps, to close that gorgeous procession of European feudalism, with all its pomp and caste prejudices (of whose long train we in America are yet so inextricably the heirs)–something to identify with terrible identification, by far the greatest revolutionary step in the history of the United

States (perhaps the greatest of the world, our century)—the absolute extirpation and erasure of slavery from the States—those historians will seek in vain for any point to serve more thoroughly their purpose, than Abraham Lincoln's death.

Dear to the Muse—thrice dear to nationality—to the whole human race—precious to this Union—precious to democracy—unspeakably and forever precious—their first great Martyr Chief.

Virginia Woolf [1]

1882–1941

The Art of Biography is not a manual for biographers, any more than Lucian's *The Way to Write History* is a manual for historians. Both raise more questions than they answer. This is particularly true of Mrs. Woolf's essay, which, despite its title, is concerned to ask whether biography can be considered an art at all. But if it is not an art, Virginia Woolf wonders, is it then a science? Or if not that, a craft?

Great English biographies did not appear, she says, until the later eighteenth century–long after there were great poets, novelists, and other literary artists. She seems to consider only three biographers as of the highest class: Johnson, for his *Lives of the English Poets;* Boswell, for his *Life of Johnson;* and John Gibson Lockhart, for his *Life of Sir Walter Scott.*

Why are great biographies so rare? The answer, says Mrs. Woolf, lies in the limitations of the genre itself. The biographer is caught in a kind of trap. If he decides to be bound by such facts about his subject as he can discover from written records and from his subject's friends and relations, he soon discovers that there are gaps in the story that must either be left unfilled or be filled by his own intuitions and knowledge of general human nature. On the other hand, if he decides to "create," in an artistic sense, a unified, meaningful character out of his subject, he will find that this character is in some cases, at least, contradicted by the facts. It is the biographer's misfortune, she suggests, that something is known about everybody, but not everything about anybody. The biographer is thus limited in his use of facts, and frustrated in the use of his imagination.

[1] For a biography of Virginia Woolf, see Vol. 5, pp. 1–3, in this set.

In addition to this, Virginia Woolf points out, popular opinion about great men is bound to change. The reader of Macaulay's essay on Machiavelli or Carlyle's on Cromwell will not fail to see that different generations have different views of the same men. The biographer "must go ahead of the rest of us. . . . His sense of truth must be alive and on tiptoe." But since this is so, she is saying, biography cannot be called a science.

There remains the question whether biography can be called an art. Even such superb biographies as Boswell's *Johnson* cannot, Virginia Woolf says, be compared with Shakespeare's characterization of Falstaff, for example, or Dickens' portrait of Mr. Micawber. The poet or novelist is free. Biography, on the other hand, is too restricted by facts to be a creative art.

Is this not an exaggeration? Was Shakespeare free in creating Falstaff? In combining his traits he had to preserve plausibility, and make him fit in with the other characters of *Henry IV*. And once he had created this lovable rascal, he was bound to see that he continued to act in character. The poet is not entirely free, then, nor the biographer completely bound by facts. Are there not gaps in any life which must be creatively supplied by the biographer? These are questions that are likely to occur to you. But Mrs. Woolf is persuasive. She is also disarming when she admits that, though biography is not an art, the biographer "does more to stimulate the imagination than any poet or novelist save the very greatest."

The Art of Biography

The art of biography, we say—but at once we go on to ask, Is biography an art? The question is foolish perhaps, and ungenerous certainly, considering the keen pleasure that biographers have given us. But the question asks itself so often that there must be something behind it. There it is, whenever a new biography is opened, casting its shadow on the page; and there would seem to be something deadly in that shadow, for after all, of the multitude of lives that are written, how few survive!

But the reason for this high death rate, the biographer might argue, is that biography, compared with the arts of poetry and fiction, is a young art. Interest in ourselves and in other people's selves is a late development of the human mind. Not until the eighteenth century in England did that curiosity express itself in writing the lives of private people. Only in the nineteenth century was biography fully grown and hugely prolific. If it is true that there have been only three great biographers—Johnson, Boswell, and Lockhart—the reason, he argues, is that the time was short; and his plea, that the art of biography has had but little time to establish itself and develop itself, is certainly borne out by the textbooks. Tempting as it is to explore the reason—why, that is, the self that writes a book of prose came into being so many centuries after the self that writes a poem, why Chaucer preceded Henry James—it is better to leave that insoluble question unasked, and so pass to his next reason for the lack of masterpieces. It is that the art of biography is the most restricted of all the arts. He has his proof ready to hand. Here it is in the preface in which Smith, who has written the life of Jones, takes this opportunity of thanking old friends who have lent letters, and "last but not least" Mrs. Jones, the widow, for that help "without which," as he puts it, "this biography could not have been written." Now the novelist, he points out, simply says in his foreword, "Every character in this book is fictitious." The novelist is free; the biographer is tied.

There, perhaps, we come within hailing distance of that very difficult, again perhaps insoluble, question: What do we mean by calling a book a work of art? At any rate, here is a distinction between biography and fiction—a proof that they differ in the very stuff of which they are made. One is made with the help of friends, of facts; the other is created without any restrictions save those that the artist, for reasons that seem good to him, chooses to obey. That is a distinction; and there is good reason to think that in the past biographers have found it not only a distinction but a very cruel distinction.

The widow and the friends were hard taskmasters. Suppose, for example, that the man of genius was immoral, ill-tempered, and threw the boots at the maid's head. The widow would say, "Still I loved him—he was the father of my children; and the public, who love his books, must on no account be disillusioned. Cover up; omit." The biographer obeyed. And thus the majority of Victorian biographies are like the wax figures now preserved in Westminster Abbey, that were carried in funeral processions through the street—effigies that have only a smooth superficial likeness to the body in the coffin.

Then, towards the end of the nineteenth century, there was a change. Again for reasons not easy to discover, widows became broader-minded, the public keener-sighted; the effigy no longer carried conviction or satisfied curiosity. The biographer certainly won a measure of freedom. At least he could hint that there were scars and furrows on the dead man's face. Froude's Carlyle is by no means a wax mask painted rosy red. And following Froude there was Sir Edmund Gosse, who dared to say that his own father was a fallible human being. And following Edmund Gosse in the early years of the present century came Lytton Strachey.

The figure of Lytton Strachey is so important a figure in the history of biography that it compels a pause. For his three famous books, *Eminent Victorians, Queen Victoria,* and *Elizabeth and Essex,* are of a stature to show both what biography can do and what biography cannot do. Thus they suggest many possible answers to the question whether biography is an art, and if not, why it fails.

Lytton Strachey came to birth as an author at a lucky moment. In 1918, when he made his first attempt, biography, with its new liberties, was a form that offered great attractions. To a writer like himself, who had wished to write poetry or plays but was doubtful of his creative power, biography seemed to offer a promising alternative. For at last it was possible to tell the truth about the dead; and the Victorian age was rich in re-

markable figures many of whom had been grossly deformed by the effigies that had been plastered over them. To recreate them, to show them as they really were, was a task that called for gifts analogous to the poet's or the novelist's, yet did not ask for that inventive power in which he found himself lacking.

It was well worth trying. And the anger and the interest that his short studies of Eminent Victorians aroused showed that he was able to make Manning, Florence Nightingale, Gordon, and the rest live as they had not lived since they were actually in the flesh. Once more they were the centre of a buzz of discussion. Did Gordon really drink, or was that an invention? Had Florence Nightingale received the Order of Merit in her bedroom or in her sitting-room? He stirred the public, even though a European war was raging, to an astonishing interest in such minute matters. Anger and laughter mixed; and editions multiplied.

But these were short studies with something of the over-emphasis and the foreshortening of caricatures. In the lives of the two great Queens, Elizabeth and Victoria, he attempted a far more ambitious task. Biography had never had a fairer chance of showing what it could do. For it was now being put to the test by a writer who was capable of making use of all the liberties that biography had won: he was fearless; he had proved his brilliance; and he had learned his job. The result throws great light upon the nature of biography. For who can doubt that after reading the two books again, one after the other, that the *Victoria* is a triumphant success, and that the *Elizabeth* by comparison is a failure? But it seems too, as we compare them, that it was not Lytton Strachey who failed; it was the art of biography. In the *Victoria* he treated biography as a craft; he submitted to its limitations. In the *Elizabeth* he treated biography as an art; he flouted its limitations.

But we must go on to ask how we have come to this conclusion and what reasons support it. In the first place it is clear that the two Queens present very different problems to their biographer. About Queen Victoria everything was known. Everything she did, almost everything she thought, was a matter of common knowledge. No one has ever been more closely verified and exactly authenticated than Queen Victoria. The biographer could not invent her, because at every moment some document was at hand to check his invention. And, in writing of Victoria, Lytton Strachey submitted to the conditions. He used to the full the biographer's power of selection and relation, but he kept strictly within the world of fact. Every statement was verified; every fact was authenticated. And the result is a life which, very possibly, will do for the

old Queen what Boswell did for the old dictionary maker. In time to come Lytton Strachey's Queen Victoria will be Queen Victoria, just as Boswell's Johnson is now Dr. Johnson. The other versions will fade and disappear. It was a prodigious feat, and no doubt, having accomplished it, the author was anxious to press further. There was Queen Victoria, solid, real, palpable. But undoubtedly she was limited. Could not biography produce something of the intensity of poetry, something of the excitement of drama, and yet keep also the peculiar virtue that belongs to fact—its suggestive reality, its own, proper creativeness?

Queen Elizabeth seemed to lend herself perfectly to the experiment. Very little was known about her. The society in which she lived was so remote that the habits, the motives, and even the actions of the people of that age were full of strangeness and obscurity. "By what art are we to worm our way into those strange spirits? those even stranger bodies? The more clearly we perceive it, the more remote that singular universe becomes," Lytton Strachey remarked on one of the first pages. Yet there was evidently a "tragic history" lying dormant, half-revealed, half-concealed, in the story of the Queen and Essex. Everything seemed to lend itself to the making of a book that combined the advantages of both worlds, that gave the artist freedom to invent, but helped his invention with the support of facts—a book that was not only a biography but also a work of art.

Nevertheless, the combination proved unworkable; fact and fiction refused to mix. Elizabeth never became real in the sense that Queen Victoria had been real, yet she never became fictitious in the sense that Cleopatra or Falstaff is fictitious. The reason would seem to be that very little was known—he was urged to invent; yet something was known—his invention was checked. The Queen thus moves in an ambiguous world, between fact and fiction, neither embodied nor disembodied. There is a sense of vacancy and effort, of a tragedy that has no crisis, of characters that meet but do not clash.

If this diagnosis is true we are forced to say that the trouble lies with biography itself. It imposes conditions, and those conditions are that it must be based upon fact. And by fact in biography we mean facts that can be verified by other people besides the artist. If he invents facts as an artist invents them—facts that no one else can verify—and tries to combine them with facts of the other sort, they destroy each other.

Lytton Strachey himself seems in the *Queen Victoria* to have realized the necessity of this condition, and to have yielded to it instinctively. "The first forty-two years of the Queen's life," he wrote, "are illumi-

nated by a great and varied quantity of authentic information. With Albert's death a veil descends." And when with Albert's death the veil descended and authentic information failed, he knew that the biographer must follow suit. "We must be content with a brief and summary relation," he wrote and the last years are briefly disposed of. But the whole of Elizabeth's life was lived behind a far thicker veil than the last years of Victoria. And yet, ignoring his own admission, he went on to write, not a brief and summary relation, but a whole book about those strange spirits and even stranger bodies of whom authentic information was lacking. On his own showing, the attempt was doomed to failure.

It seems, then, that when the biographer complained that he was tied by friends, letters, and documents he was laying his finger upon a necessary element in biography; and that it is also a necessary limitation. For the invented character lives in a free world where the facts are verified by one person only—the artist himself. Their authenticity lies in the truth of his own vision. The world created by that vision is rarer, intenser, and more wholly of a piece than the world that is largely made of authentic information supplied by other people. And because of this difference the two kinds of fact will not mix; if they touch they destroy each other. No one, the conclusion seems to be, can make the best of both worlds; you must choose, and you must abide by your choice.

But though the failure of *Elizabeth and Essex* leads to this conclusion, that failure, because it was the result of a daring experiment carried out with magnificent skill, leads the way to further discoveries. Had he lived, Lytton Strachey would no doubt himself have explored the vein that he had opened. As it is, he has shown us the way in which others may advance. The biographer is bound by facts—that is so; but, if it is so, he has the right to all the facts that are available. If Jones threw boots at the maid's head, had a mistress in Islington, or was found drunk in a ditch after a night's debauch, he must be free to say so—so far at least as the law of libel and human sentiment allow.

But these facts are not like the facts of science—once they are discovered, always the same. They are subject to changes of opinion; opinions change as the times change. What was thought a sin is now known, by the light of facts won for us by the psychologists, to be perhaps a misfortune; perhaps a curiosity; perhaps neither one nor the other, but a trifling foible of no great importance one way or the other. The accent on sex has changed within living memory. This leads to the destruction of a great deal of dead matter still obscuring the true features of the

human face. Many of the old chapter headings–life at college, marriage, career–are shown to be very arbitrary and artificial distinctions. The real current of the hero's existence took, very likely, a different course.

Thus the biographer must go ahead of the rest of us, like the miner's canary, testing the atmosphere, detecting falsity, unreality, and the presence of obsolete conventions. His sense of truth must be alive and on tiptoe. Then again, since we live in an age when a thousand cameras are pointed, by newspapers, letters, and diaries, at every character from every angle, he must be prepared to admit contradictory versions of the same face. Biography will enlarge its scope by hanging up looking glasses at odd corners. And yet from all this diversity it will bring out, not a riot of confusion, but a richer unity. And again, since so much is known that used to be unknown, the question now inevitably asks itself, whether the lives of great men only should be recorded. Is not anyone who has lived a life, and left a record of that life, worthy of biography–the failures as well as the successes, the humble as well as the illustrious? And what is greatness? And what smallness? He must revise our standards of merit and set up new heroes for our admiration.

Biography thus is only at the beginning of its career; it has a long and active life before it, we may be sure–a life full of difficulty, danger, and hard work. Nevertheless, we can also be sure that it is a different life from the life of poetry and fiction–a life lived at a lower degree of tension. And for that reason its creations are not destined for the immortality which the artist now and then achieves for his creations.

There would seem to be certain proof of that already. Even Dr. Johnson as created by Boswell will not live as long as Falstaff as created by Shakespeare. Micawber and Miss Bates we may be certain will survive Lockhart's Sir Walter Scott and Lytton Strachey's Queen Victoria. For they are made of more enduring matter. The artist's imagination at its most intense fires out what is perishable in fact; he builds with what is durable; but the biographer must accept the perishable, build with it, imbed it in the very fabric of his work. Much will perish; little will live. And thus we come to the conclusion, that he is a craftsman, not an artist; and his work is not a work of art, but something betwixt and between.

Yet on that lower level the work of the biographer is invaluable; we cannot thank him sufficiently for what he does for us. For we are incapable of living wholly in the intense world of the imagination. The imagination is a faculty that soon tires and needs rest and refreshment.

But for a tired imagination the proper food is not inferior poetry or minor fiction–indeed they blunt and debauch it–but sober fact, that "authentic information" from which, as Lytton Strachey has shown us, good biography is made. When and where did the real man live; how did he look; did he wear laced boots or elastic-sided; who were his aunts, and his friends; how did he blow his nose; whom did he love, and how; and when he came to die did he die in his bed like a Christian, or . . .

By telling us the true facts, by sifting the little from the big, and shaping the whole so that we perceive the outline, the biographer does more to stimulate the imagination than any poet or novelist save the very greatest. For few poets and novelists are capable of that high degree of tension which gives us reality. But almost any biographer, if he respects facts, can give us much more than another fact to add to our collection. He can give us the creative fact; the fertile fact; the fact that suggests and engenders. Of this, too, there is certain proof. For how often, when a biography is read and tossed aside, some scene remains bright, some figure lives on in the depths of the mind, and causes us, when we read a poem or a novel, to feel a start of recognition, as if we remembered something that we had known before.

Xenophon

c. 430–355 B.C.

Xenophon, the Greek historian and essayist, was born in Athens about 430 B.C., of an aristocratic family. He made the acquaintance of the philosopher Socrates, who at the time was instructing the youth of Athens through his brilliant conversations. He may have taken part in the war with Sparta, which ended, in 404, with the downfall of the Athenian empire. In 401 he was asked, along with other Greeks, to join the expedition of the younger Cyrus against the latter's brother Artaxerxes, who, according to Cyrus, had usurped the Persian throne. Xenophon appears to have accepted the invitation with alacrity, partly, no doubt, because the venture held promise of riches and honor, but also because it gave him an opportunity to escape from the uncongenial atmosphere of democratic Athens. His book, the *Anabasis* (or "Upcountry March"), is a description of the events that occurred on this expedition.

After the main body of the Greeks returned home, Xenophon remained in Asia and served with troops fighting the Persians. He captured a wealthy Persian near Pergamum and the ransom he obtained gave him an income for life.

In Greece once more, Xenophon, rather than return to Athens, went into the service of Agesilous, king of Sparta. He fought in a battle against his fellow citizens and was banished by them. The Spartans gave him a home in Elis, where he lived for a time in retirement, hunting, enjoying country life, and writing his memoirs and histories. When Athens and Sparta later became allies, Xenophon's banishment was repealed. He did not return to Athens, however, but spent his last years at Corinth.

The *Anabasis* is Xenophon's most famous book, but he also wrote the *Cyropaedia,* an account of the youth and training of Cyrus, the

Hellenica, a continuation of Thucydides' history to 362, the *Memorabilia*, a portrait and defense of Socrates, and numerous other works on country life, hunting, military training, and politics.

The Persian expedition that Xenophon describes in the *Anabasis* started from Sardis in 401. Ten thousand Greeks marched inland to Cunaxa, where a great battle was fought in which Cyrus was killed. The Greeks then attempted to negotiate a safe return with the Persian satrap, Tissaphernes, but their officers were treacherously murdered and they were left leaderless, deep in enemy country, without knowledge of the terrain and almost totally without money or supplies. Faced with disaster, the Greeks maintained strict discipline and elected new officers, one of whom was Xenophon. It was he, more than any other leader in that long retreat, who invented the stratagems and maintained the morale of the troops.

The selection reprinted here covers the most dramatic part of the journey. It had been decided to march up the valley of the Tigris River and to make for the shores of the Euxine (Black) Sea, where there were several Greek colonies. Part of the way led through the wilds of Kurdistan, where the ten thousand had to defend themselves against almost constant raids by savage tribesmen; and part of the way led through the forbidding and desolate highlands of Armenia and Georgia. The Greeks were a sea-faring, island people, and this march over a thousand miles of rough country was bitter and hard. Many times, Xenophon says, they wanted to give up, but he inspired them to take heart, and they went on. Finally they reached Trebizond. Xenophon, at the center of the line, could hear the vanguard shouting something. He gathered together some cavalry and "rode forward to give support, and, quite soon, they heard the soldiers shouting 'The sea! The sea!' and passing the word down the column. Then certainly they all began to run . . . and when they had all got to the top, the soldiers, with tears in their eyes, embraced each other and their generals and captains."

This scene is one of the most famous in all literature. It bears comparison with Prescott's [1] account of Cortés' first view of the valley of Mexico and the story, in the Bible, of Moses and his people

[1] See Vol. 6, pp. 231–243, in this set.

looking down on the land of Canaan. Indeed, for these Greeks the sea was the Promised Land.

The selection from the *Memorabilia* portrays Socrates at the zenith and close of his career. For Xenophon, Socrates is the perfect man, the embodiment of the highest humanity and morality. Justice, courage, self-restraint, piety, patriotism were combined in him with affability and kindness, and with a rare ability to impart these qualities to others. It is easy to see that Xenophon is defending Socrates against the charges that had been brought against him at his trial and after. He is saying, in effect: How could such a man have been guilty of "atheism," of "corrupting the youth," and of "making the worse appear the better cause"?

Plato is also concerned to defend the good name of Socrates. In his dialogues, especially the *Phaedo, Crito,* and *Apology,*[2] he also describes Socrates as a model of virtue. In other respects, however, Plato's portrait is strikingly different from Xenophon's. Socrates becomes highly complex and subtle, full of charm, ironic humor and paradox–close to common sense, but also to mysticism. His eloquence is said to have paralyzed and bewitched his listeners. Those reputed to be wise ended by bowing to his wisdom, the enchanting youth were themselves enchanted, and the revelers were drunk under the table by the imperturbable Socrates, who continued meanwhile his customary philosophical discourse.

A similar contrast is seen in the accounts given of Socrates' moral teachings. For Plato they are subtle proposals backed by ingenious arguments. For Xenophon they are simply common sense rules of morality and piety.

Which of these contrasting reports of Socrates and his teachings is nearer the truth? Most authorities favor Plato's version. But could not both accounts be valid in a sense? Plato, the greatest pupil of Socrates, would have the closest view and understanding. But Xenophon's impression was that of a soldier and popular historian, and was intelligible to everyone. It was very effective in clearing Socrates' name of the false charges that had led to his execution.

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[2] See *Great Books of the Western World.*

The March to the Sea

from *The Persian Expedition*

THE ENTRY INTO KURDISTAN

t about the last watch, with enough of the night remaining for them to be able to cross the plain under cover of darkness, they got up when the signal was given and marched toward the mountain, which they reached at dawn. Chirisophus then took the lead with his own troops and also all the light troops; Xenophon brought up the rear with the hoplites of the rear-guard, but with no light troops at all, as there seemed to be no danger of any attack being made on them from the rear while they were on the ascent.

Chirisophus reached the summit before any of the enemy realized what was happening. He then went steadily forward, and as the various contingents of the army crossed the pass they followed him into the villages which lay in the folds and recesses of the mountains. The Carduchi immediately abandoned their houses and fled into the mountains with their women and children. Plenty of food remained for the Greeks to take, and there were a lot of brazen utensils in the furniture of the houses too. The Greeks did not take any of these, or pursue the people. They wished to behave leniently on the chance that the Carduchi, since they were enemies of the King, might be willing for them to go through their country peaceably. Food, however, was a matter of necessity, and they took whatever they came across. The Carduchi paid no attention when they called out to them, and indeed gave no signs at all of friendly feeling.

It was already dark when the last of the Greeks had come down from the summit to the villages, since, owing to the narrowness of the road, the ascent and descent had taken up the whole day. At this point some of

the Carduchi got together in a body and made an attack on the last of the Greeks. They killed some and wounded others with stones and arrows, though they were not in great numbers, as the Greek army had come upon them unexpectedly. Indeed, if more of them had got together on this occasion, a large part of the army might possibly have been wiped out.

So for that night they encamped as they were in the villages, and the Carduchi lit a number of beacons on the mountains all round them as signals to each other. At dawn it was decided at a meeting of the Greek generals and captains to take on the march only the strongest and most essential of the baggage animals, and to leave the rest behind; also to let go all the slaves in the army that had been captured recently. This was because the great numbers of baggage animals and slaves slowed up the march, and there were numbers of men who were in charge of these and so were out of action; and with so many people on the march, they had to provide and transport double the necessary quantity of supplies. After having made this decision, they gave orders by herald that it was to be carried into effect.

When they had had breakfast and started on their way, the generals stationed themselves in a narrow part of the road and took away from the soldiers any of the proscribed articles which they found had not been left behind. The men did as they were told, though there were some cases of people getting away with things, cases when a soldier was in love with a particularly good-looking boy or woman. For that day, then, they went ahead, having a certain amount of fighting to do and resting from time to time.

On the next day there was a great storm, but they had to go forward as there were not sufficient supplies. Chirisophus was leading the march and Xenophon was with the rear-guard. The enemy made violent attacks and in the narrow passes came to close range with their bows and slings with the result that they had to travel slowly, as they were constantly chasing the enemy off and then returning again. Xenophon had often to order a halt when the enemy launched his violent attacks; and on these occasions Chirisophus, when the word was passed forward, halted his men too; but on one occasion he did not stop, but led on fast, passing back the word to follow him. It was obvious that something was the matter, but there was no time to go forward and see what was the cause of this haste. The result was that for the rear-guard the march almost turned into a full retreat. Here a gallant Spartan soldier, called Leonymus, was

killed by an arrow which went into the side of his body through the shield and the jerkin, and Basias the Arcadian was also killed, shot clean through the head.

When they reached the place where they were to camp, Xenophon went just as he was to Chirisophus and blamed him for not waiting, the result of which had been that the soldiers had had to fight at the same time as they were retreating. "And now," he said, "two most gallant fellows have been killed, and we could not recover their bodies or bury them."

Chirisophus replied: "Look at the mountains. See how impassable they are in every direction. This one road, which you see, is a steep one, and you can see that there are men on it, a great crowd, who have occupied the pass and are on guard there. That is why I was in a hurry and so did not wait for you. I thought there was a chance of being able to get there first, before the pass was seized. The guides we have say that there is no other road."

Xenophon said: "I have got two men. When the enemy were giving us trouble, we set an ambush—which also gave us a chance of getting our breath back—and we killed some of them, and made up our minds to take a few alive just for this very reason, to have the services of guides who know the country."

At once they brought the two men and questioned them separately, to see if they knew of any other road apart from the obvious one. One of the two, although he was threatened in every kind of way, said that he did not know of any other road. Since he said nothing that was of any help he was killed, with the other man looking on. The survivor then said that the reason why the other man had denied knowledge of another road was that he happened to have a daughter who had been married to somebody in that direction. He declared that he would lead them by a road that was a possible one for animals as well as men. He was then asked whether there was any part of the road which was difficult to get past, and he replied that there was one height which it would be impossible to pass, unless it was occupied in advance. It was then decided to call a meeting of the captains, peltasts and hoplites as well, to give them an account of the situation, and ask who was willing to do a good job and come forward as a volunteer for the expedition. The hoplites who came forward were Aristonymus the Methydrian and Agasias the Stymphalian, and Callimachus of Parrhasia put forward a separate claim for himself, saying that he was willing to go, if he could take with him volunteers from the whole army. "Personally," he said, "I am sure

that a lot of the young men will follow if I am their leader." Then they asked if any of the officers of the light-armed troops would volunteer to join with the others. Aristeas of Chios came forward, a man who, on many occasions of this sort, was worth a lot to the army.

FIGHTING IN THE MOUNTAINS

It was now afternoon, and they told the volunteers to have their food and then start. They bound the guide and handed him over to them, and made arrangements that, if they took the height, they should guard the position for the night and give a trumpet signal at dawn: those on the height should then make an attack on the Carduchi holding the regular way out of the valley, while the rest of them should proceed as quickly as they could and join up with them.

After agreeing on this plan, the volunteers set out, a force of about two thousand. There was a lot of rain at the time. Xenophon, with the rear-guard, led on towards the regular exit from the valley, in order that the enemy might give their attention to this part of the road and that the party which was making a detour might, as far as possible, escape detection. However, when the rear-guard got to a watercourse which they had to cross to make their way up to the higher ground, the natives at this point rolled down boulders big enough to fill a wagon, some bigger, some smaller, which came crashing down against the rocks and ricocheted off, so that it was absolutely impossible even to get near the pass. Some of the captains, finding things impossible in one direction, tried somewhere else, and continued their efforts until it became dark. Then, when they thought that their retreat would be unobserved, they went back for supper. Those of them who had been in the rear-guard had not had any breakfast either. The enemy, however, went on rolling down stones all through the night, as was evident from the noise.

Meanwhile the men who had taken the guide went round in a detour and came upon the guards sitting round their campfire. They killed some of them and drove the others downhill, and then stayed there under the impression that they were occupying the height. This, however, was not the case. Above them there was a small hill, past which ran the narrow road where the guard had been stationed. Nevertheless there was a way from this position to where the enemy was stationed on the regular road.

They passed the night where they were, and, at the first sign of dawn, formed up and marched in silence against the enemy. As there was a mist they got close up to them without being noticed. Then, as soon as they

came into sight of each other, the trumpet sounded, and they raised their war-cry and charged down on the men, who did not wait for them, but abandoned the road and fled. Only a few were killed, as they were quick on their feet.

Meanwhile Chirisophus' men, on hearing the trumpet, immediately attacked uphill along the regular road; and some of the generals advanced along little-used paths, just where they happened to find themselves, climbing up as best they could and pulling each other up with their spears. These were the first ones to join up with the party that had previously occupied the position.

Xenophon, with half the rear-guard, went by the same way as those who had the guide, as it was the easiest going for the baggage animals. He had placed the other half of his men in the rear of the animals. As they went forward they came to a ridge commanding the road and found it occupied by the enemy. They had either to dislodge them or else be cut off from the rest of the Greeks. They themselves might have gone by the same road as the others, but this was the only possible route for the baggage animals. Then they shouted out words of encouragement to each other and made an assault on the ridge with the companies in column. They did not attack from every direction but left the enemy a way of escape, if he wanted to run away. So long as they were climbing up, each man by the best route he could find, the natives shot arrows at them and hurled down stones; but they made no attack when it came to close quarters, and, in the end, abandoned the position and fled.

The Greeks had no sooner got past this hill when they saw in front of them another hill, also occupied by the enemy. They decided to make an assault on this hill too, but Xenophon realized that, if they left the hill which they had just taken unguarded, the enemy might reoccupy it and make an attack on the baggage animals as they were going past. (The baggage train extended a long way, as it was going along a narrow road.) He therefore left on the hill the captains Cephisodorus, the son of Cephisophon, an Athenian, and Archagoras, an exile from Argos, while he himself advanced with the rest upon the second hill and took it too by the same methods as before.

There was still a third hill left to deal with, and much the steepest of the three. It was the one that overlooked the guard who had been surprised at their fire during the night by the volunteers. However, when the Greeks got close to it, the natives gave up this hill without putting up a fight, a thing which surprised everyone and made them think that they had abandoned the hill through fear of being cut off and surrounded. Ac-

tually they had seen from the top what had happened further down the road and had all gone off to attack the rear-guard.

Xenophon climbed to the summit with the youngest of his men, and ordered the rest to lead on slowly, so that the companies in the rear could join up with them, and he told them to halt under arms on level ground when they had gone a little way along the road. At this point Archagoras of Argos came running with the news that his men had been driven off the hill and that Cephisodorus and Amphicrates had been killed together with all the rest who had not managed to jump down from the rock and reach the rear-guard. After achieving this success, the natives appeared on a ridge opposite the third hill. Xenophon spoke to them through an interpreter. He suggested a truce and asked them to hand over the dead. They replied that they would give back the bodies on condition that the Greeks did not burn their houses, and Xenophon agreed to this. However, while this conversation was going on and the rest of the army was going forward, all the natives in the district had rushed up: and when the Greeks began to come down from the hill and make their way towards the rest where they were standing by their arms, then, in great numbers and with terrific shouting, the enemy launched an attack. On reaching the summit of the hill from which Xenophon was descending, they began to roll down rocks. They broke one man's leg, and the man who was carrying Xenophon's shield ran away, taking the shield with him. Eurylochus of Lusia, however, a hoplite, ran up and held his shield in front of both of them during the retreat. The rest rejoined their comrades who were already in battle order.

The whole Greek army was now together again. They camped where they were and found a number of comfortable houses and plenty of food. There was a lot of wine, so much so that the people stored it in cellars which were plastered over the top. Xenophon and Chirisophus came to an arrangement with the enemy by which they got back the dead bodies and gave up their guide. For the dead they did, to the best of their ability, everything that is usually done at the burial of brave men. On the next day they set out without a guide, and the enemy fought back at them, and tried to stop their march by occupying any narrow passes there might be ahead of them. Whenever they got in the way of the vanguard, Xenophon led his men up into the mountains from the rear and made the road-block in front of the vanguard ineffectual by trying to get on to higher ground than those who were manning it; and whenever they made an attack on the rear-guard, Chirisophus rendered this attempt to block the march ineffectual by altering direction and trying to get on to

higher ground than those who were attempting it. So they were continually coming to each other's help and giving each other the most valuable support. There were times, too, when the natives gave a lot of trouble to the parties who had climbed up to higher ground, when they were on their way down again. The natives were quick on their feet, and so could get away even when they did not start running until we were right on top of them. Their only arms were bows and slings, and as bowmen they were very good. The bows they had were between four and five feet long and their arrows were of more than three feet. When they shot they put out the left foot and rested the bottom of the bow against it as they drew back the string. Their arrows went through shields and breastplates. When the Greeks got hold of any, they fitted them with straps and used them as javelins. In this type of country the Cretans were extremely useful. Stratocles, a Cretan himself, was their commander.

THE CROSSING INTO ARMENIA

They camped for this day in the villages overlooking the plain of the river Centrites, which is about two hundred feet across, and forms the boundary between Armenia and the country of the Carduchi. The Greeks rested here and were glad to see the plain. The river was more than half a mile distant from the Carduchian mountains. They felt very pleased, then, as they camped here, with plenty of provisions, and often talked over the hardships they had been through; for they had been fighting continually through all the seven days during which they had been going through the country of the Carduchi, and had suffered more than they had suffered in all their engagements with the King and with Tissaphernes. Consequently the thought that they had escaped from all this made them sleep well.

At dawn, however, they saw that on the other side of the river there were cavalry, ready for action, and prepared to prevent them crossing over: on the high ground above the cavalry were infantry formations to stop them getting into Armenia. These were Armenian, Mardian and Chaldaean mercenaries in the service of Orontas and Artouchas. The Chaldaeans were said to be a free nation and good fighting men. They were armed with long wicker shields and spears. The high ground, on which the infantry was formed up, was three or four hundred feet away from the river. The only visible road led uphill and looked as though it had been specially built.

It was at this point that the Greeks attempted to cross; but, on making

the attempt, they found that the water rose above their breasts, and the river-bed was uneven, covered with large slippery boulders. It was impossible for them to hold their arms in the water and, if they tried, the river swept them off their feet, while, if one held one's arms above one's head, one was left with no defence against the arrows and other missiles. They therefore withdrew and camped where they were on the bank of the river. They then saw that great numbers of the Carduchi had got together under arms and were occupying the position on the mountain where they had been themselves on the previous night. At this point the Greeks certainly felt very downhearted: they saw how difficult the river was to cross, and they saw also the troops ready to stop them crossing, and now the Carduchi waiting to set upon them from the rear if they attempted it. So for that day and the following night they stayed where they were, not knowing what to do.

Xenophon had a dream. He dreamed that he was bound in fetters, but the fetters fell off of their own accord, so that he was free and recovered the complete use of his limbs. Just before dawn he went to Chirisophus and told him that he felt confident that things would be all right, and he related his dream. Chirisophus was delighted, and at the first sign of dawn all the generals assembled and offered a sacrifice. The appearance of the victims was favourable from the very first. Then the generals and captains left the sacrifice and passed round the word to the troops to have their breakfast.

While Xenophon was having breakfast two young men came running up to him. Everyone knew that it was permissible to come to him whether he was in the middle of breakfast or supper, or to wake him from his sleep and talk to him, if they had anything to say which had a bearing on the fighting. These young men now told him that they had been collecting kindling for their fire, and had then seen on the other side of the river, on the rocks that went right down to the water, an old man and a woman and some girls storing away what looked like bundles of clothing in a hollow rock. On seeing this, they had come to the conclusion that this was a safe place to get across, as the ground there was inaccessible to the enemy's cavalry. So they had undressed and taken their daggers and gone across naked, expecting that they would have to swim. However, they went ahead and got to the other side without the water ever reaching up to the crutch. Once on the other side they made off with the clothing and came back again.

Xenophon at once poured a libation and gave directions for the young men to join in it and pray to the gods who had sent the dream and re-

vealed the ford, that they should bring what remained to a happy fulfilment. As soon as he had made the libation he took the young men to Chirisophus and they told their story to him. Chirisophus, after hearing it, also made a libation, and, when the libations were over, they gave instructions for the soldiers to pack their belongings, while they themselves called a meeting of the generals and discussed the question of how to make the crossing as efficient as possible, and how they could defeat the enemy in front and at the same time suffer no losses from those in the rear. They decided that Chirisophus should go first with half the army, while the other half stayed behind with Xenophon, and that the baggage animals and the general crowd should go across between the two.

When things were in order, they set off, and the two young men led the way, keeping the river on their left. The way to the ford was a distance of less than half a mile and, as they marched, the enemy's cavalry formations on the other bank kept pace with them. On reaching the bank of the river where the ford was, they grounded arms, and then Chirisophus himself first put a ceremonial wreath on his head, threw aside his cloak and took up his arms, telling the rest to follow his example. He ordered the captains to lead their companies across in columns, some on the left and others on the right of him. The soothsayers then cut the throats of the animals over the river, and meanwhile the enemy were shooting arrows and slinging. However, they were still out of range. The appearance of the victims was pronounced favourable, and then all the soldiers sang the paean and raised the battle-cry, and all the women joined in the cry; for a number of the soldiers had their mistresses with them in the army.

Chirisophus and his men then went into the river. Xenophon, with those of the rear-guard who were quickest on their feet, ran back at full speed to the ford opposite the road into the Armenian mountains. He was trying to give the impression that he intended to make a crossing there and so cut off the cavalry on the river-bank. When the enemy saw that Chirisophus' men were getting across the river easily and that Xenophon's men were running back on their tracks, they became frightened of being cut off and fled at full speed in the direction, apparently, of the river crossing further up. However, on reaching the road, they turned uphill into the mountains. Lycius, who was in command of the cavalry formation, and Aeschines, who was in command of the formation of peltasts that accompanied Chirisophus, gave pursuit as soon as they saw the enemy in full retreat, and the soldiers shouted out to each other

not to stay behind but to go on after them into the mountains. However, when Chirisophus had got across he did not pursue the cavalry, but immediately went up on to the high ground that went down to the river to attack the enemy who were up there. They, seeing their own cavalry in flight and hoplites moving up to attack them, abandoned the heights overlooking the river.

When Xenophon saw that things were going well on the other side, he made his way back as quickly as he could to that part of the army which had crossed, for there were also the Carduchi to think of, and they were evidently coming down into the plain with the intention of making an attack on the rear. Chirisophus was now holding the high ground, and Lycius, who with a few men had made an attempt at a pursuit, had captured some of their baggage animals, which they had abandoned, and some fine clothing and some drinking cups as well. The Greek baggage train and the general crowd was actually engaged in crossing. Xenophon then brought his men round and halted them in battle order, facing the Carduchi. He ordered the captains to split up their companies into sections of twenty-five men and bring each section round into line on the left: the captains and the section commanders were then to advance towards the Carduchi while those in the rear were to halt facing the river.

As soon as the Carduchi saw that the troops in the rear of the general crowd were thinning out and that there appeared now to be only a few of them, they began to come on faster, chanting their songs as they came. Chirisophus, however, when his own position was secure, sent Xenophon the peltasts and slingers and archers, and told them to do what they were ordered. Xenophon saw them coming across, and sent a messenger to tell them not to cross, but to stay on the further bank: when his own men started to cross over, they were to go into the river on each side of them as though they intended to cross to the other side, the javelin throwers with their weapons at the ready, and the archers with arrows fitted to their bowstrings; but they were not to go far into the river. The orders he gave to his own men were that, when they were within range of the enemy slingers and could hear the stones rattling on the shields, they were to sing the paean and charge: when the enemy ran away and the trumpeter sounded the attack from the river, the men in the rear were to wheel right and go first, and then they were all to run to the river and get across as fast as they could, each at the point opposite his own position, so as not to get in each other's way: the best man would be the one who got to the other side first.

The Carduchi saw that there were now not many left in the baggage train; for a number even of those who had been detailed to remain behind had gone over to see what was happening either to the animals or to their kit or to their mistresses. Consequently the Carduchi came on with confidence and began to sling stones and shoot arrows. The Greeks then sang the paean and advanced on them at the double. The natives could not stand up to them, since, though they were armed well enough for quick attacks and retreats in the mountains, when it came to standing up to close fighting they were insufficiently armed. At this point the trumpeter sounded the attack, and the enemy ran away all the faster, while the Greeks turned about and escaped across the river as quickly as they could. Some of the enemy saw what they were doing and ran back again to the river where they wounded a few men with their arrows; but the majority of them were obviously still running away even when the Greeks had got to the other side. The relieving party, in their desire to show off their courage, had gone into the water further than they should, and came back across the river after Xenophon's party. A few of these men too were wounded.

THEY SACK THE CAMP OF TIRIBAZUS

After crossing the river they formed up in order about midday and marched at least fifteen miles through Armenia, over country that was entirely flat, with gently sloping hills. Because of the wars between the Armenians and the Carduchi there were no villages near the river; but the one which they reached at the end of their march was a big one, containing a palace belonging to the satrap; most of the houses were built like fortresses and there were plenty of provisions. Then a two days' march of thirty miles took them past the sources of the river Tigris, and from here a three days' march of forty-five miles brought them to the Teleboas, a beautiful river, but not a large one. There were a number of villages near the river, and all this part is called Western Armenia. Its governor was Tiribazus who was a personal friend of the King, and when he was present no one else had the right to assist the King in mounting his horse. He now rode up to the Greeks with a cavalry escort and sent forward an interpreter to say that he would like to speak with their commanders. The generals thought it best to hear what he had to say and, going forward till they were within hearing distance, asked him what he wanted. He replied that he would like to come to terms by which he would undertake to do the Greeks no harm and they would

undertake not to burn the houses, though they could take any supplies which they needed. The generals agreed to this and made a treaty on these terms.

After this came a three days' march of forty-five miles over level ground. Tiribazus with his force kept pace with them, with about a mile between the armies. In the course of the march they came to a palace with a number of villages, full of all kinds of supplies, in the vicinity. There was a heavy fall of snow in the night, while they were in camp here, and at dawn it was decided that troops with their officers should take up quarters separately in the villages. There were no enemies in sight, and it seemed a safe thing to do because of the quantity of snow that had fallen. In these quarters they had all kinds of good food—meat, corn, old wines with a delicious bouquet, raisins, and all sorts of vegetables. However, some of the soldiers who had wandered off some way from the camp reported that at night they had clearly seen a number of camp-fires. The generals then decided that it was not safe for the troops to be in separate quarters, and that the whole army should be brought together again. Consequently they camped all together; and it looked also as though the weather was clearing up. However, while they were spending the night here, there was a tremendous fall of snow, so much of it that it covered over both the arms and the men lying on the ground. The baggage animals too were embedded in the snow. The soldiers felt very reluctant to get to their feet, as, when they were lying down, the snow which fell on them and did not slip off kept them warm. But when Xenophon was tough enough to get up and, without putting his clothes on, to start splitting logs, someone else soon got up too and took over the job of splitting the wood from him. Then others also got up and lit fires and rubbed themselves down with ointment. A lot of ointment was found in this place and they used it instead of olive oil. It was made of hog's lard, sesame, bitter almonds and turpentine. A perfumed oil, too, made from the same ingredients, was found here.

After the snowstorm it was decided to take up separate quarters again under cover, and the soldiers went back with a lot of shouting and jubilation to the houses and the stores of food. The ones who, when they had left the houses, had acted like hooligans and burned them down, now had to pay for it by having uncomfortable quarters. The generals gave a detachment of men to Democrates of Temenus, and sent him out from here by night to the mountains where those who had been out of camp had said they had seen the fires. They chose him because he had already on previous occasions won the reputation for bringing in accurate

information on subjects like this. When he said something was there, it was there; and when he said it wasn't, it wasn't. He now went out to the mountains and said that he had not seen any fires, but he returned with a prisoner who was armed with a Persian bow and quiver and a battle-ax like those which the Amazons carry. This prisoner was questioned as to where he came from, and said that he was a Persian and was going from Tiribazus' army to get provisions. They then asked him what was the size of the army and what was the purpose for which it had been mobilized. He replied that Tiribazus had under him his own force together with mercenary troops from the Chalybes and Taochi: his plan was to attack the Greeks, as they crossed the mountain, in a narrow pass through which went their only possible road.

When they heard this the generals decided to bring the army together again. They left a guard, with Sophaenetus the Stymphalian in command of those who stayed behind, and immediately set out, with the man who had been captured to show them the way. After they had crossed the mountains, the peltasts went forward, and, coming in sight of the enemy's camp, raised a shout and charged down on it without waiting for the hoplites. When the natives heard the noise, they did not stand their ground, but took to flight. In spite of this, some of them were killed and about twenty horses were captured, as was Tiribazus' own tent which contained some couches with silver legs and some drinking vessels; also some men who said that they were his bakers and cup-bearers.

As soon as the generals of the hoplites found out what had occurred, they decided to return to their camp as quickly as possible, in case an attack might be made on those who had been left behind. So they sounded the trumpet to call the men back, set off and got back to their camp on the same day.

MARCHING THROUGH THE SNOW

Next day they decided that they ought to get away as fast as they could, before the native army could reassemble and occupy the pass. They packed their belongings at once and, taking a number of guides with them, set off through deep snow. On the same day they passed the height where Tiribazus had intended to attack them, and then pitched camp. From here a three days' march of forty-five miles through desert country brought them to the river Euphrates, which they crossed without getting wet beyond the navel. The source of the river was said to be not far from here.

Next came a three days' march of forty-five miles over level ground

and through deep snow. The third day's march was a hard one, with a north wind blowing into their faces, cutting into absolutely everything like a knife and freezing people stiff. One of the soothsayers then proposed making a sacrifice to the wind and his suggestion was carried out. It was agreed by all that there was then a distinct falling off in the violence of the wind. The snow was six feet deep and many of the animals and the slaves perished in it, as did about thirty of the soldiers. They kept their fires going all night, as there was plenty of wood in the place where they camped, though those who came up late got no wood. The ones who had arrived before and had lit the fires would not let the latecomers approach their fire unless they gave them a share of their corn or any other foodstuff they had. So each shared with the other party what he had. When the fires were made, great pits were formed reaching down to the ground as the snow melted. This gave one a chance of measuring the depth of the snow.

The whole of the next day's march from here was through the snow, and a number of the soldiers suffered from bulimia. Xenophon, who, as he commanded the rear-guard, came upon men who had collapsed, did not know what the disease was. However, someone who had had experience of it told him that it was a clear case of bulimia, and that if they had something to eat they would be able to stand up. So he went through the baggage train and distributed to the sufferers any edibles that he could find there, and also sent round those who were able to run with more supplies to them. As soon as they had had something to eat they stood up and went on marching.

On this march Chirisophus came to a village about nightfall, and found by the well some women and girls, who had come out of the village in front of the fortification to get water. They asked the Greeks who they were, and the interpreter replied in Persian and said they were on their way from the King to the satrap. The women answered that he was not there, and said that he was about three miles away. Since it was late, they went inside the fortification with the water-carriers to see the head-man of the village. So Chirisophus and as many of the troops as could camped there, but as for the rest of the soldiers, those who were unable to finish the march spent the night without food and without fires, and some died in the course of it. Some of the enemy too had formed themselves into bands and seized upon any baggage animals that could not make the journey, fighting among themselves for the animals. Soldiers who had lost the use of their eyes through snow-blindness or whose toes had dropped off from frost-bite were left behind.

It was a relief to the eyes against snow-blindness if one held something

black in front of the eyes while marching; and it was a help to the feet if one kept on the move and never stopped still, and took off one's shoes at night. If one slept with one's shoes on, the straps sank into the flesh and the soles of the shoes froze to the feet. This was the more likely to happen since, when their old shoes were worn out, they had made themselves shoes of undressed leather from the skins of oxen that had just been flayed. Some soldiers who were suffering from these kinds of complaints were left behind. They had seen a piece of ground that looked black because the snow had gone from it, and they imagined that the snow there had melted–as it actually had done–this being the effect of a fountain which was sending up vapour in a wooded hollow near by. The soldiers turned aside here, sat down, and refused to go any further.

As soon as Xenophon, who was with the rear-guard, heard of this, he begged them, using every argument he could think of, not to get left behind. He told them that there were large numbers of the enemy, formed into bands, who were coming up in the rear, and in the end he got angry. They told him to kill them on the spot, for they could not possibly go on. Under the circumstances the best thing to do seemed to be to scare, if possible, the enemy who were coming up and so prevent them from falling upon the soldiers in their exhausted condition. By this time it was already dark, and the enemy were making a lot of noise as they advanced, quarrelling over the plunder which they had. Then the rear-guard, since they had the use of their limbs, jumped up and charged the enemy at the double, while the sick men shouted as hard as they could and clashed their shields against their spears. The enemy were panic-stricken and threw themselves down through the snow into the wooded hollows, and not a sound was heard from them afterwards. Xenophon and his troops told the sick men that a detachment would come to help them on the next day, and he then proceeded with the march. However, before they had gone half a mile they came across some more soldiers resting by the road in the snow, all covered up, with no guard posted. Xenophon's men roused them up, but they said that the troops in front were not going forward. Xenophon then went past them and sent on the most able-bodied of the peltasts to find out what was holding them up. They reported back that the whole army was resting in this way; so Xenophon's men posted what guards they could, and also spent the night there, without a fire and without supper. When it was near daybreak Xenophon sent the youngest of his men back to the sick with instructions to make them get up and force them to march on. At this point Chirisophus sent a detachment from his troops in the

village to see what was happening to the troops in the rear. Xenophon's men were glad to see them and handed over the sick to them to escort to the camp. They then went on themselves and, before they had marched two miles, got to the village where Chirisophus was camping. Now that they had joined forces again, it seemed safe for the troops to take up their quarters in the villages. Chirisophus stayed where he was, and the other officers drew lots for the villages which were in sight, and each went with his men to the one he got.

On this occasion Polycrates, an Athenian captain, asked leave to go on independently and, taking with him the men who were quickest on their feet, ran to the village which had been allotted to Xenophon and surprised all the villagers, with their head-man, inside the walls, together with seventeen colts which were kept there for tribute to the King, and the head-man's daughter, who had only been married nine days ago. Her husband had gone out to hunt hares and was not captured in the village.

The houses here were built underground; the entrances were like wells, but they broadened out lower down. There were tunnels dug in the ground for the animals, while the men went down by ladder. Inside the houses there were goats, sheep, cows and poultry with their young. All these animals were fed on food that was kept inside the houses. There was also wheat, barley, beans and barley-wine in great bowls. The actual grains of barley floated on top of the bowls, level with the brim, and in the bowls there were reeds of various sizes and without joints in them. When one was thirsty, one was meant to take a reed and suck the wine into one's mouth. It was a very strong wine, unless one mixed it with water, and, when one got used to it, it was a very pleasant drink.

Xenophon invited the chief of the village to have supper with him, and told him to be of good heart, as he was not going to be deprived of his children, and that, if he showed himself capable of doing the army a good turn until they reached another tribe, they would restock his house with provisions when they went away. He promised to co-operate and, to show his good intentions, told them of where some wine was buried. So for that night all the soldiers were quartered in the villages and slept there with all sorts of food around them, setting a guard over the head-man of the village and keeping a watchful eye on his children too.

On the next day Xenophon visited Chirisophus and took the head-man with him. Whenever he went past a village he turned into it to see those who were quartered there. Everywhere he found them feasting and merry-

making, and they would invariably refuse to let him go before they had given him something for breakfast. In every single case they would have on the same table lamb, kid, pork, veal and chicken, and a number of loaves, both wheat and barley. When anyone wanted, as a gesture of friendship, to drink to a friend's health, he would drag him to a huge bowl, over which he would have to lean, sucking up the drink like an ox. They invited the head-man too to take what he liked, but he refused their invitations, only, if he caught sight of any of his relatives, he would take them along with him.

When they came to Chirisophus, they found his men also feasting, with wreaths of hay round their heads, and with Armenian boys in native dress waiting on them. They showed the boys what to do by signs, as though they were deaf mutes. After greeting each other, Chirisophus and Xenophon together interrogated the head-man through the interpreter who spoke Persian, and asked him what country this was. He replied that it was Armenia. Then they asked him for whom the horses were being kept, and he said that they were a tribute paid to the King. The next country, he said, was the land of the Chalybes, and he told them the way there.

Xenophon then went away and took the head-man back to his own people. He gave him back the horse (rather an old one) which he had taken, and told him to fatten it up and sacrifice it. This was because he had heard that it was sacred to the sun and he was afraid that it might die, as the journey had done it no good. He took some of the colts himself, and gave one colt to each of the generals and captains. The horses in this part of the world were smaller than the Persian horses, but much more finely bred. The head-man told the Greeks to tie small bags round the feet of the horses and baggage animals whenever they made them go through snow, as, without these bags, they sank in up to their bellies.

THEY CAPTURE A PASS BY A MANOEUVRE

When the eighth day came, Xenophon handed over the head-man of the village to Chirisophus for a guide. He left behind all his family for him in the village, except for his son, who was just growing up. He gave the young man to Plisthenes of Amphipolis to look after, with the idea that, if the father was a reliable guide, he could take back his son too when he left them. They brought all the provisions they could into the head-man's house, and then packed their belongings and set out.

The head-man was not put under any restraint and led them on

through the snow. When they had already marched for three days Chirisophus got angry with him for not having brought them to any villages. The man said that there were none in this part of the country. Chirisophus then struck him, but did not have him bound. As a result of this he ran away and escaped in the night, leaving his son behind. This affair—ill-treating the guide and then not taking adequate precautions—was the only occasion on the march when Chirisophus and Xenophon fell out. Plisthenes was devoted to the young man, took him home with him, and found him a most trusty companion.

They then marched for seven days, doing fifteen miles a day, to the river Phasis, which was a hundred feet across. Next came a two days' march of thirty miles. At the pass which led down into the plain there were Chalybes, Taochi and Phasians to bar their way, and, when Chirisophus saw that the enemy was holding the pass, he came to a halt, keeping about three miles away from them, so as not to approach them while marching in column. He sent orders to the other officers to bring up their companies on his flank, so that the army should be in line. When the rear-guard had got into position he called a meeting of the generals and captains, and spoke as follows: "As you see, the enemy are holding the pass over the mountain. Now is the time to decide what is the best method of dealing with them. What I suggest is that we give orders to the troops to have a meal, and meanwhile decide whether it is best to cross the mountain to-day or to-morrow."

"I think, on the other hand," said Cleanor, "that we should get ready for battle and make an attack, as soon as we have finished our meal. My reason is that, if we let this day go by, the enemy who are now watching us will gain confidence and, if they do, others will probably join them in greater numbers."

Xenophon spoke next, and said: "This is my view. If we have to fight a battle, what we must see to is how we may fight with the greatest efficiency. But if we want to get across the mountain with the minimum of inconvenience, then, I think, what we must consider is how to ensure that our casualties in dead and wounded are as light as possible. The mountain, so far as we can see, extends for more than six miles, but except just for the part on our road, there is no evidence anywhere of men on guard against us. It would be a much better plan, then, for us to try to steal a bit of the undefended mountain from them when they are not looking, and to capture it from them, if we can, by taking the initiative, than to fight an action against a strong position and against troops who are waiting ready for us. It is much easier to march uphill

without fighting than to march on the level when one has enemies on all sides; and one can see what is in front of one's feet better by night, when one is not fighting, than by day, if one is; and rough ground is easier for the feet, if one is not fighting as one marches, than level ground is, when there are weapons flying round one's head. I do not think that it is impossible for us to steal this ground from them. We can go by night, so as to be out of their observation; and we can keep far enough away from them to give them no chance of hearing us. And I would suggest that, if we make a feint at attacking here, we should find the rest of the mountain even less defended, as the enemy would be likely to stay here in a greater concentration. But I am not the person who ought to be talking about stealing. I gather that you Spartans, Chirisophus–I mean the real officer class–study how to steal from your earliest boyhood, and think that so far from it being a disgrace it is an actual distinction to steal anything that is not forbidden by law. And, so that you may become expert thieves and try to get away with what you steal, it is laid down by law that you get a beating if you are caught stealing. Here then is an excellent opportunity for you to give an exhibition of the way in which you were brought up, and to preserve us from blows, by seeing to it that we are not caught stealing our bit of mountain."

"Well," said Chirisophus, "what I have gathered about you Athenians is that you are remarkably good at stealing public funds, even though it is a very risky business for whoever does so; and your best men are the greatest experts at it, that is if it is your best men who are considered the right people to be in the government. So here is a chance for you too to give an exhibition of the way in which you were brought up."

"Then," said Xenophon, "I am prepared, as soon as we have had our meal, to take the rear-guard and go to seize the position in the mountains. I have got guides already, as my light troops ambushed and made prisoners of a few of the natives who have been following behind to pick up what they could. I have also been informed by them that the mountains are not impassable: they provide pasture for goats and cattle. If, therefore, we once get hold of a part of the range, there will be a possible route for our baggage animals as well. I do not expect either that the enemy will stand their ground when they see that we are holding the heights and on a level with them, as they show no willingness at the moment to come down on to a level with us."

"But why," said Chirisophus, "should you go and leave vacant the command of the rear-guard? It would be better to send others, that is if some good soldiers do not come forward as volunteers."

Then Aristonymus of Methydria, a commander of hoplites, and Aristeas of Chios, and Nicomachus of Oeta, commanders of light infantry, came forward, and it was agreed that they would light a number of fires as soon as they had seized the heights. When this was settled they had their meal, and afterwards Chirisophus led the army forward about a mile in the direction of the enemy, so as to give the impression that it was at this point that he intended to attack.

When they had had supper and it became dark, the troops detailed for the job set off and seized the mountain height, while the others rested where they were. As soon as the enemy realized that the heights had been occupied, they were on the look out and kept a number of fires burning through the night. At daybreak Chirisophus offered sacrifices and then advanced on the road, while the troops who had seized the mountain ridge made an attack along the heights. Most of the enemy stood their ground at the pass, but part of them went to engage the troops on the heights. However, before the main bodies came to close quarters, the troops on the heights were in action and the Greeks were winning and driving the enemy back. At the same moment in the plain the Greek peltasts advanced at the double against the enemy's battle line, and Chirisophus with the hoplites followed at a quick march behind. However, when the enemy guarding the road saw that their troops higher up were being defeated, they took to flight. Not many of them were killed, but a very great number of shields were captured. The Greeks cut these shields up with their swords and so made them useless. When they reached the summit, they offered sacrifices and set up a trophy. Then they descended into the plain and came among villages full of plenty of good food.

THE GREEKS CATCH SIGHT OF THE SEA

Next came a five days' march of ninety miles into the country of the Taochi, and here provisions began to run short. The Taochi lived behind strong fortifications inside which they had all their provisions stored up. The Greeks arrived at one of these fortifications, which had no city or dwellings attached to it, but into which men and women and a lot of cattle had got together, and Chirisophus, as soon as he reached the place, launched an attack on it. When the first body of attackers became tired, another body of troops relieved them, and then another, since it was impossible to surround the place with the whole lot together, as there was precipitous ground all round it. On the arrival of Xenophon with the

rear-guard, both hoplites and peltasts, Chirisophus exclaimed: "You have come where you are needed. This position must be taken. If we fail to do so, there are no supplies for the army."

They then discussed the situation together, and, when Xenophon asked what it was that was stopping them from getting inside, Chirisophus said: "This approach, which you see, is the only one there is. But when one tries to get in by that way, they roll down boulders from that rock which overhangs the position. Whoever gets caught by one, ends up like this." And he pointed out some men who had had their legs and ribs broken.

"But," said Xenophon, "when they have used up their boulders, what is there to stop us getting inside? In front of us we see only these few men, and of these only two or three who are armed. And, as you can see yourself, the piece of ground where we are bound to be exposed to the stones, as we go over it, is about a hundred and fifty feet in length. Of this distance, about a hundred feet is covered with large pine trees spaced at intervals. If the men take shelter against their trunks, what damage could come to them either from the rolling stones or the stones flying through the air? All that is left is fifty feet, over which we must run when the stones cease coming at us."

"But," said Chirisophus, "as soon as we begin to advance towards the wooded part, great numbers of stones are hurled down at us."

"That," said Xenophon, "is just what we want. They will use up their stones all the quicker. Let us advance, then, to the point from which we shall not have far to run forward if we are to do so, and from which we can easily retreat if we want to."

Then Chirisophus and Xenophon went forward, accompanied by one of the captains, Callimachus of Parrhasia, since on that day he held the position of chief officer among the captains of the rear-guard. The other captains stayed behind in safety. Afterwards about seventy men reached the shelter of the trees, not in a body, but one by one, each man looking after himself as well as he could. Agasias of Stymphalus and Aristonymus of Methydria (also captains of the rear-guard) with some others were standing by outside the trees, as it was not safe for more than one company to stand among them.

Callimachus had a good scheme. He kept running forward two or three paces from the tree under which he was sheltering, and, when the stones came down on him, he nimbly drew back again. Each time he ran forward more than ten wagon-loads of stones were used. Agasias saw that the whole army was watching what Callimachus was doing, and feared that he would not be the first man to get into the fortification; so,

without calling in the help of Aristonymus, who was next to him, or of Eurylochus of Lusia, though both of them were friends of his, he went ahead by himself and got beyond everyone. When Callimachus saw that he was going past him he seized hold of him by his shield. Meantime Aristonymus of Methydria ran past them, and after him Eurylochus of Lusia. All of these men were keen rivals of each other in doing brave things, and so, struggling amongst themselves, they took the place. For, once they were inside, no more stones were thrown down from above.

Then it was certainly a terrible sight. The women threw their children down from the rocks and then threw themselves after them, and the men did the same. While this was going on Aeneas of Stymphalus, a captain, saw one of them, who was wearing a fine garment, running to throw himself down, and he caught hold of him in order to stop him; but the man dragged him with him and they both went hurtling down over the rocks and were killed. Consequently very few prisoners were taken, but there were great numbers of oxen and asses and sheep.

Then came a seven days' march of a hundred and fifty miles through the country of the Chalybes. These were the most warlike of all the tribes on their way, and they fought with the Greeks at close quarters. They had body-armour of linen, reaching down to the groin, and instead of skirts to their armour they wore thick twisted cords. They also wore greaves and helmets, and carried on their belts a knife of about the size of the Spartan dagger. With these knives they cut the throats of those whom they managed to overpower, and then would cut off their heads and carry them as they marched, singing and dancing whenever their enemies were likely to see them. They also carried a spear with one point, about twenty feet long. They used to stay inside their settlements, and then, when the Greeks had gone past, they would follow behind and were always ready for a fight. They had their houses in fortified positions, and had brought all their provisions inside the fortifications. Consequently the Greeks could take nothing from them, but lived on the supplies which they had seized from the Taochi.

The Greeks arrived next at the river Harpasus which was four hundred feet across. Then they marched through the territory of the Scytheni, a four days' march of sixty miles over level ground until they came to some villages, where they stayed for three days and renewed their stocks of provisions. Then a four days' march of sixty miles brought them to a large, prosperous and inhabited city, which was called Gymnias. The governor of the country sent the Greeks a guide from this city, with the idea that he should lead them through country which was at war with

his own people. When the guide arrived, he said that in five days he would lead them to a place from which they could see the sea; and he said he was ready to be put to death if he failed to do so. So he led the way, and, when they had crossed the border into his enemies' country, he urged them to burn and lay waste the land, thus making it clear that it was for this purpose that he had come to them, and not because of any goodwill to the Greeks.

They came to the mountain on the fifth day, the name of the mountain being Thekes. When the men in front reached the summit and caught sight of the sea there was great shouting. Xenophon and the rear-guard heard it and thought that there were some more enemies attacking in the front, since there were natives of the country they had ravaged following them up behind, and the rear-guard had killed some of them and made prisoners of others in an ambush, and captured about twenty raw ox-hide shields, with the hair on. However, when the shouting got louder and drew nearer, and those who were constantly going forward started running towards the men in front who kept on shouting, and the more there were of them the more shouting there was, it looked then as though this was something of considerable importance. So Xenophon mounted his horse and, taking Lycius and the cavalry with him, rode forward to give support, and, quite soon, they heard the soldiers shouting out "The sea! The sea!" and passing the word down the column. Then certainly they all began to run, the rear-guard and all, and drove on the baggage animals and the horses at full speed; and when they had all got to the top, the soldiers, with tears in their eyes, embraced each other and their generals and captains. In a moment, at somebody or other's suggestion, they collected stones and made a great pile of them. On top they put a lot of raw ox-hides and staves and the shields which they had captured. The guide himself cut the shields into pieces and urged the others to do so too. Afterwards the Greeks sent the guide back and gave him as presents from the common store a horse, and a silver cup and a Persian robe and ten darics. What he particularly wanted was the rings which the soldiers had and he got a number of these from them. He pointed out to them a village where they could camp, and showed them the road by which they had to go to the country of the Macrones. It was then evening and he went away, traveling by night.

THEY ARRIVE AT TRAPEZUS

Then the Greeks did a three days' march of thirty miles through the country of the Macrones. On the first day they came to the river which

forms the boundary between the territories of the Macrones and the Scytheni. On their right there was a defensive position which looked a very awkward one, and on the left there was another river, into which flowed the river that formed the boundary and which they had to cross. The banks of this river were covered with trees which, though not large, were growing thickly together. The Greeks cut the trees down when they came up to them, being anxious to get away from the place as quickly as they could. The Macrones, armed with shields and spears, and wearing hair tunics, were drawn up in battle order facing the crossing-place. They kept shouting to each other and hurling stones which fell harmlessly into the river as they failed to reach the other side.

At this point one of the peltasts came up to Xenophon. He said that he had been a slave in Athens and that he knew the language of these people. "Indeed," he went on, "I think that this is my own country. If there is no objection, I should like to speak to them."

"There is no objection at all," Xenophon said. "Speak to them and find out first of all who they are."

He asked them this, and they replied that they were Macrones.

"Now ask them," said Xenophon, "why they are drawn up to oppose us and why they want to be our enemies."

Their reply to this was: "Because it is you who are invading our country."

The generals then told the man to say, "We are not coming with any hostile intentions. We have been making war on the King, and now we are going back to Greece and want to get to the sea."

The Macrones asked whether the Greeks would give pledges that they meant what they said, and they replied that they would like both to give and to receive pledges. The Macrones then gave the Greeks a native spear, and the Greeks gave them a Greek one, as they said that these were the usual pledges. Both sides called on the gods to witness the agreement.

After exchanging pledges, the Macrones immediately helped the Greeks to cut down the trees and made a path for them in order to help them across. They mixed freely with the Greeks and provided them, as well as they could, with opportunities for buying food, and led them through their country for three days, until they brought them to the Colchian frontier. There were mountains here, which, though high, were not steep, and the Colchians were drawn up in battle order on the mountains. At first the Greeks formed up opposite them in line, with the intention of advancing on the mountain in that formation; but in the end the generals decided to meet and discuss what would be the best

method of making the attack. Xenophon then expressed the opinion that it would be better to break up their present formation and to advance in columns. "The line," he said, "will lose its cohesion directly, since we shall find some parts of the mountain easy going and other parts difficult. It will immediately make the men lose heart, if after being drawn up in line they see the line broken. Then, if we advance in a line many ranks deep, the enemy will have men on both our flanks, and can use them however they like. On the other hand, if we go forward in a line which is only a few ranks deep, there would be nothing surprising in our line being broken through, with masses of missiles and men all falling on us together. And if this takes place at any single point, the whole line will suffer for it. No, I propose that we should form up with the companies in column, spaced out so as to cover the ground in such a way that the companies on our extreme flanks are beyond the two wings of the enemy. By adopting this plan we shall outflank the enemy's line, and, as we are advancing in columns, our bravest men will be the first to engage the enemy, and each officer will lead his company by the easiest route. As for the gaps between the columns, it will not be easy for the enemy to infiltrate, when there are companies both on his right and left; and it will not be easy to break through a company that is advancing in column. If any company is in difficulties, the nearest one will give support; and if at any point any one company can reach the summit, you can be sure that not a man among the enemy will stand his ground any longer."

This plan was agreed upon, and they formed the companies into columns. Xenophon rode along from the right wing to the left and said to the soldiers: "My friends, these people whom you see are the last obstacle which stops us from being where we have so long struggled to be. We ought, if we could, to eat them up alive."

When everyone was in position and they had formed the companies, there were about eighty companies of hoplites, each company with roughly the strength of a hundred. They formed up the peltasts and the archers in three divisions, one beyond the left flank, one beyond the right, and one in the centre, each division being about six hundred strong. The order was then passed along for the soldiers to make their vows and to sing the paean. When this was done, they moved forward. Chirisophus and Xenophon, with the peltasts attached to them, were advancing outside the flanks of the enemy's line, and, when the enemy observed this, they ran to meet them, some to the right, some to the left, and lost cohesion, leaving a great gap in the centre of their line. The peltasts in the Arcadian division, commanded by Aeschines the Acarna-

nian, thinking that the enemy were running away, raised their battle-cry and advanced at the double. They were the first to get to the top of the mountain, and the Arcadian hoplites, commanded by Cleanor of Orchomenus, came after them. As soon as they charged, the enemy failed to stand their ground and ran away in a disorganized flight.

The Greeks ascended the mountain and camped in a number of villages which were well stocked with food. There was nothing remarkable about them, except that there were great numbers of beehives in these parts, and all the soldiers who ate the honey went off their heads and suffered from vomiting and diarrhoea and were unable to stand upright. Those who had only eaten a little behaved as though they were drunk, and those who had eaten a lot were like mad people. Some actually died. So there were numbers of them lying on the ground, as though after a defeat, and there was a general state of despondency. However, they were all alive on the next day, and came to themselves at about the same hour as they had eaten the honey the day before. On the third and fourth days they were able to get up, and felt just as if they had been taking medicine.

A two days' march of twenty-one miles from here brought them to the sea at Trapezus, an inhabited Greek city on the Euxine, a colony of Sinope in Colchian territory. They stayed here, camping in the Colchian villages, for about thirty days, and, using these villages as their base, they ravaged the Colchian country. The people of Trapezus provided the Greeks with facilities for buying food, and gave them presents of oxen and barley and wine. They also negotiated with them on behalf of the Colchians in the neighbourhood, particularly those who lived in the plain, and from them too there arrived presents of oxen.

Then the Greeks prepared to offer the sacrifice which they had vowed. Enough cattle had come in for them to be able to sacrifice to Zeus the Saviour and to Heracles, for safe guidance, and to make the offerings which they had vowed to the other gods. They also held atheltic sports on the mountain where they were camping. They elected as organizer and president of the sports the Spartan Dracontius, who had been an exile from his home since boyhood because he had accidentally killed another boy with a dagger.

When the sacrifice was finished, they gave the hides to Dracontius and told him to lead the way to the place where he had set out the course. He then pointed to the ground where they were actually standing, and said: "This hill is an excellent place for running, wherever one likes."

"But how," they asked, "will people be able to wrestle on ground that

is so hard and rough?" To which he replied: "All the worse for the man who gets thrown." Boys, mostly from among the prisoners, competed in the short-distance race, and more than sixty Cretans ran in the race over a long distance. There were also wrestling and boxing events, and all-in wrestling. It was a very fine performance, as there were many entrants for the events, and, with their comrades as spectators, the rivalry was keen. There was also a horse race in which they had to gallop down a steep bit of ground, turn round in the sea, and ride back to the altar. On the way down most of them had a thorough shaking, and on the way up, when the ground got very steep, the horses could scarcely get along at walking pace. So there was a lot of noise and laughter and people shouting out encouragements.

The foregoing is Book IX
of Xenophon's ANABASIS *or* THE PERSIAN EXPEDITION
translated by Rex Warner.

The Character of Socrates

from *Memorabilia*

I think that I have said enough to show that Socrates stated his own opinion plainly to those who consorted with him. I will now show that he also took pains to make them independent in doing the work that they were fitted for. For I never knew a man who was so careful to discover what each of his companions knew. Whatever it befits a gentleman to know he taught most zealously, so far as his own knowledge extended; if he was not entirely familiar with a subject, he took them to those who knew. He also taught them how far a well-educated man should make himself familiar with any given subject.

For instance, he said that the study of geometry should be pursued until the student was competent to measure a parcel of land accurately in case he wanted to take over, convey or divide it, or to compute the yield; and this knowledge was so easy to acquire, that anyone who gave his mind to mensuration knew the size of the piece and carried away a knowledge of the principles of land measurement. He was against carrying the study of geometry so far as to include the more complicated figures, on the ground that he could not see the use of them. Not that he was himself unfamiliar with them, but he said that they were enough to occupy a lifetime, to the complete exclusion of many other useful studies.

Similarly he recommended them to make themselves familiar with astronomy, but only so far as to be able to find the time of night, month and year, in order to use reliable evidence when planning a journey by land or sea, or setting the watch, and in all other affairs that are done in the night or month or year, by distinguishing the times and seasons aforesaid. This knowledge, again, was easily to be had from night hunters and pilots and others who made it their business to know such things. But he strongly deprecated studying astronomy so far as to include the knowledge of bodies revolving in different courses, and of planets and

comets, and wearing oneself out with the calculation of their distance from the earth, their periods of revolution and the causes of these. Of such researches, again he said that he could not see what useful purpose they served. He had indeed attended lectures on these subjects too; but these again, he said, were enough to occupy a lifetime to the complete exclusion of many useful studies.

In general, with regard to the phenomena of the heavens, he deprecated curiosity to learn how the deity contrives them: he held that their secrets could not be discovered by man, and believed that any attempt to search out what the gods had not chosen to reveal must be displeasing to them. He said that he who meddles with these matters runs the risk of losing his sanity as completely as Anaxagoras, who took an insane pride in his explanation of the divine machinery.

For that sage, in declaring the sun to be fire, ignored the facts that men can look at fire without inconvenience, but cannot gaze steadily at the sun; that their skin is blackened by the sun's rays, but not by fire. Further, he ignored the fact that sunlight is essential to the health of all vegetation, whereas if anything is heated by fire it withers. Again, when he pronounced the sun to be a red-hot stone, he ignored the fact that a stone in fire neither glows nor can resist it long, whereas the sun shines with unequalled brilliance forever.

He also recommended the study of arithmetic. But in this case as in the others he recommended avoidance of vain application; and invariably, whether theories or ascertained facts formed the subject of his conversation, he limited it to what was useful.

He also strongly urged his companions to take care of their health. "You should find out all you can," he said, "from those who know. Everyone should watch himself throughout his life, and notice what sort of meat and drink and what form of exercise suit his constitution, and how he should regulate them in order to enjoy good health. For by such attention to yourselves you can discover better than any doctor what suits your constitution."

When anyone was in need of help that human wisdom was unable to give he advised him to resort to divination; for he who knew the means whereby the gods give guidance to men concerning their affairs never lacked divine counsel.

As for his claim that he was forewarned by "the deity" what he ought to do and what not to do, some may think that it must have been a delusion because he was condemned to death. But they should remember two facts. First, he had already reached such an age that, had he not

died then, death must have come to him soon after. Secondly, he escaped the most irksome stage of life and the inevitable diminution of mental powers, and instead won glory by the moral strength revealed in the wonderful honesty and frankness and probity of his defence, and in the equanimity and manliness with which he bore the sentence of death.

In fact it is admitted that there is no record of death more nobly borne. For he was forced to live for thirty days after the verdict was given, because it was the month of the Delia, and the law did not allow any public execution to take place until the sacred embassy had returned from Delos. During this interval, as all his intimate acquaintances could see, he continued to live exactly as before; and, in truth, before that time he had been admired above all men for his cheerfulness and serenity. How, then, could man die more nobly? Or what death could be nobler than the death most nobly faced? What death more blessed than the noblest? Or what dearer to the gods than the most blessed?

I will repeat what Hermogenes, son of Hipponicus, told me about him. "When Meletus had actually formulated his indictment," he said, "Socrates talked freely in my presence, but made no reference to the case. I told him that he ought to be thinking about his defence. His first remark was, 'Don't you think that I have been preparing for it all my life?' And when I asked him how, he said that he had been constantly occupied in the consideration of right and wrong, and in doing what was right and avoiding what was wrong, which he regarded as the best preparation for a defence. Then I said, 'Don't you see, Socrates, that the juries in our courts are apt to be misled by argument, so that they often put the innocent to death, and acquit the guilty?' 'Ah, yes, Hermogenes,' he answered, 'but when I did try to think out my defence to the jury, the deity at once resisted.' 'Strange words,' said I; and he, 'Do you think it strange if it seems better to God that I should die now? Don't you see that to this day I never would acknowledge that any man had lived a better or a pleasanter life than I? For they live best, I think, who strive best to become as good as possible: and the pleasantest life is theirs who are conscious that they are growing in goodness. And to this day that has been my experience; and mixing with others and closely comparing myself with them, I have held without ceasing to this opinion of myself. And not I only, but my friends cease not to feel thus towards me, not because of their love for me (for why does not love make others feel thus towards their friends?), but because they think that they too would rise highest in goodness by being with me. But if I am to live on, haply I may be forced to pay the old man's forfeit—to become sand-blind and deaf and dull of

wit, slower to learn, quicker to forget, outstripped now by those who were behind me. Nay, but even were I unconscious of the change, life would be a burden to me; and if I knew, misery and bitterness would surely be my lot.

" 'But now, if I am to die unjustly, they who unjustly kill me will bear the shame of it. For if to do injustice is shameful, whatever is unjustly done must surely bring shame. But to me what shame is it that others fail to decide and act justly concerning me? I see that posterity judges differently of the dead according as they did or suffered injustice. I know that men will remember me too, and, if I die now, not as they will remember those who took my life. For I know that they will ever testify of me that I wronged no man at any time, nor corrupted any man, but strove ever to make my companions better.' "

This was the tenor of his conversation with Hermogenes and with the others. All who knew what manner of man Socrates was and who seek after virtue continue to this day to miss him beyond all others, as the chief of helpers in the quest of virtue. For myself, I have described him as he was: so religious that he did nothing without counsel from the gods; so just that he did no injury, however small, to any man, but conferred the greatest benefits on all who dealt with him; so self-controlled that he never chose the pleasanter rather than the better course; so wise that he was unerring in his judgment of the better and the worse, and needed no counsellor, but relied on himself for his knowledge of them; masterly in expounding and defining such things; no less masterly in putting others to the test, and convincing them of error and exhorting them to follow virtue and gentleness. To me then he seemed to be all that a truly good and happy man must be. But if there is any doubter, let him set the character of other men beside these things; then let him judge.

The foregoing consists of Chapters VII–VIII
taken from Book IV
of Xenophon's MEMORABILIA.

William H. Prescott

1796–1859

William Hickling Prescott was born of a well-to-do New England family in Salem, Massachusetts, on May 4, 1796. His grandfather, Colonel William Prescott, had commanded the Colonial troops in the Battle of Bunker Hill. His father was a well-known lawyer.

While Prescott was at Harvard College, he was the victim of an accident that affected his entire later life. At the Commons dining hall, a fellow student threw a crust of bread across the table. It struck Prescott and blinded him in one eye. In spite of this he managed to complete his college education and was graduated with honors in 1814. He attempted after that to enter his father's law office, but doctors both at home and abroad felt that he must preserve the dimming vision in his remaining eye.

Prescott therefore withdrew from the law office and embarked on a literary career. He worked in a darkened study while assistants read aloud to him from source materials. He took notes with the help of a machine known as a noctograph, a frame with guide wires strung across it, which enabled him to write without running lines together. The assistant then read his notes back to him and Prescott committed them to memory. With the material firmly in his mind, he was able to shape and organize it during his everyday activities of walking or driving.

His first book, a *History of the Reign of Ferdinand and Isabella*, established his fame as a historian. With this background in Spanish history, Prescott turned next to *The Conquest of Mexico*. This was followed by the *History of the Conquest of Peru*, both books being translated into many languages. Prescott was working on an ambitious history of Philip II of Spain when he suffered a stroke in

1858. He continued working until January 28, 1859, when he died of another stroke.

Because of his infirmity, Prescott developed a memory for details as remarkable as Macaulay's. In this vivid chapter from *The Conquest of Mexico*, one can almost believe that Prescott was there when the Spanish soldiers under Hernando Cortés descended the mountains into the Valley of Mexico. The scene they beheld was so beautiful that Prescott writes: "In the warm glow of their feelings, they cried out 'It is the promised land!'" It was the island city of Tenochtitlán, or Mexico City, set in the midst of glimmering lakes. So explicit is Prescott's description that it is hard to realize that it was never seen by Prescott. Within a generation after Cortés conquered Mexico, this city was wrecked, its gardens destroyed, and the retreating waters had left desolate swamps behind. Prescott's account is based entirely on eyewitness records of the conquest, but it is as glowing as if he had been there himself.

The beauty, art, and wealth of the great Inca capital, which make the conquistadors themselves uneasily aware that they face more than ignorant savages, were to be ruthlessly destroyed or shipped to Spain. The tragic loss is felt throughout Prescott's book. In an early chapter he says: "The difficulty that meets us in the outset is, to find a justification of the right of conquest at all." On the other hand, he concedes that the Spaniards' zeal to convert the heathen Indians may have been as strong a motive as their personal greed and ambition.

Prescott shows us that the Aztec Empire was in its death throes. Montezuma, the product of generations of Aztec warrior kings, awaits Cortés in a paralysis of fear. Knowing the Spaniard can be merciless, he is yet incapable of a resolute defense. The Emperor prays now for his aged and feeble citizens and wonders how to protect them. He is lord of a domain which stretches from the

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Notes from the artist: "Prescott is shown wearing an Aztec ceremonial bird costume. The surrounding illustrations depict Indian interpretations of Cortés' battles with the Aztecs."

prescott

Atlantic to the Pacific. Outlying cities pay unwilling tribute to his capital; young men and women are sent as human sacrifices to his gods. It is fatal for an empire to overextend itself, Gibbon said. Is this what the Aztecs have done? The cities which were conquered by Montezuma's ancestors are restless under his tyranny. But the gods Montezuma worships demand greater and greater sacrifices, which means more and more conquest.

Like the Romans, too, Montezuma and his noblemen have been softened by their own luxurious civilization. Only one prince wants to fight the Spaniards; the others want to treat with them, to bribe them to go away. Perhaps the Aztec Empire is declining, perhaps the warrior princes have lost faith in their own religion. They may have viewed Cortés and his men as another species of god. Certainly the horses and guns, which had never been seen before, evoked awe and consternation.

Somehow a handful of Spaniards had been able to overthrow a rich and numerous nation, and to bring an end to a whole civilization. The Spaniards were favored by a more advanced military art. They also knew exactly what they wanted, and were single and united in their purpose under Cortés, whereas the Indians were sadly divided. Was this perhaps the decisive factor? Could the Spaniards have succeeded against a united country? We can also ask ourselves whether the British could have conquered India without substantial aid from the Indians themselves? As we read history, we naturally form hypotheses. What is yours?

The Land of Montezuma

from *The Conquest of Mexico*

1519

Everything being now restored to quiet in Cholula, the allied army of Spaniards and Tlascalans set forward in high spirits, and resumed the march on Mexico. The road lay through the beautiful savannas and luxuriant plantations that spread out for several leagues in every direction. On the march, they were met occasionally by embassies from the neighboring places, anxious to claim the protection of the white men, and to propitiate them by gifts, especially of gold, for which their appetite was generally known throughout the country.

Some of these places were allies of the Tlascalans, and all showed much discontent with the oppressive rule of Montezuma. The natives cautioned the Spaniards against putting themselves in his power by entering his capital; and they stated, as evidence of his hostile disposition, that he had caused the direct road to it to be blocked up, that the strangers might be compelled to choose another, which, from its narrow passes and strong positions, would enable him to take them at great disadvantage.

The information was not lost on Cortés, who kept a strict eye on the movements of the Mexican envoys, and redoubled his own precautions against surprise. Cheerful and active, he was ever where his presence was needed, sometimes in the van, at others in the rear, encouraging the weak, stimulating the sluggish, and striving to kindle in the breasts of others the same courageous spirit which glowed in his own. At night he never omitted to go the rounds, to see that every man was at his post. On one occasion, his vigilance had well-nigh proved fatal to him. He approached so near a sentinel that the man, unable to distinguish his person in the dark, leveled his crossbow at him, when fortunately an exclamation of the general, who gave the watchword of the night, arrested a movement which might else have brought the campaign to a close, and given a respite for some time longer to the empire of Montezuma.

The army came at length to the place mentioned by the friendly Indians, where the road forked, and one arm of it was found, as they had foretold, obstructed with large trunks of trees, and huge stones which had been strewn across it. Cortés inquired the meaning of this from the Mexican ambassadors. They said it was done by the emperor's orders, to prevent their taking a route which, after some distance, they would find nearly impracticable for the cavalry. They acknowledged, however, that it was the most direct road; and Cortés declaring that this was enough to decide him in favor of it, as the Spaniards made no account of obstacles, commanded the rubbish to be cleared away. Some of the timber might still be seen by the roadside, as Bernal Díaz tells us, many years after. The event left little doubt in the general's mind of the meditated treachery of the Mexicans. But he was too polite to betray his suspicions.

They were now leaving the pleasant champaign country, as the road wound up the bold sierra which separates the great plateaus of Mexico and Puebla. The air, as they ascended, became keen and piercing; and the blasts, sweeping down the frozen sides of the mountains, made the soldiers shiver in their thick harness of cotton, and benumbed the limbs of both men and horses.

They were passing between two of the highest mountains on the North American continent; Popocatépetl, "the hill that smokes," and Iztaccihuatl [Ixtacihuatl], or "white woman," a name suggested, doubtless, by the bright robe of snow spread over its broad and broken surface. A puerile supersitition of the Indians regarded these celebrated mountains as gods, and Iztaccihuatl as the wife of her more formidable neighbor. A tradition of a higher character described the northern volcano as the abode of the departed spirits of wicked rulers, whose fiery agonies, in their prison house, caused the fearful bellowings and convulsions in times of eruption. It was the classic fable of antiquity. These superstitious legends had invested the mountain with a mysterious horror that made the natives shrink from attempting its ascent, which, indeed, was from natural causes a work of incredible difficulty.

The great *volcan*, as Popocatépetl was called, rose to the enormous height of 17,852 feet above the level of the sea; more than 2,000 feet above the "monarch of mountains"—the highest elevation in Europe.[1]

1. By "the highest elevation in Europe" Prescott means Mont Blanc, in the French Alps. It is 15,771 feet high. Modern geographers, however, include the Caucasus among European mountains. Thus Mt. Elbrus, at 18,481 feet, is now said to be the highest point in Europe.

   The height of Popocatépetl has been established as 17,887 feet. The highest point in Mexico is Citlaltepetl, at 18,701 feet [Ed.].

During the present century, it has rarely given evidence of its volcanic origin, and "the hill that smokes" has almost forfeited its claim to the appellation. But at the time of the Conquest it was frequently in a state of activity, and raged with uncommon fury while the Spaniards were at Tlascala; an evil omen, it was thought, for the natives of Anahuac. Its head, gathered into a regular cone by the deposit of successive eruptions, wore the usual form of volcanic mountains, when not disturbed by the falling in of the crater. Soaring towards the skies, with its silver sheet of everlasting snow, it was seen far and wide over the broad plains of Mexico and Puebla, the first object which the morning sun greeted in his rising, the last where his evening rays were seen to linger, shedding a glorious effulgence over its head, that contrasted strikingly with the ruinous waste of sand and lava immediately below, and the deep fringe of funereal pines that shrouded its base.

The mysterious terrors which hung over the spot, and the wild love of adventure, made some of the Spanish cavaliers desirous to attempt the ascent, which the natives declared no man could accomplish and live. Cortés encouraged them in the enterprise, willing to show the Indians that no achievement was above the dauntless daring of his followers. One of his captains, accordingly, Diego Ordaz, with nine Spaniards, and several Tlascalans, encouraged by their example, undertook the ascent. It was attended with more difficulty than had been anticipated.

The lower region was clothed with a dense forest, so thickly matted that in some places it was scarcely possible to penetrate it. It grew thinner, however, as they advanced, dwindling, by degrees, into a straggling, stunted vegetation, till, at the height of somewhat more than thirteen thousand feet, it faded away altogether. The Indians who had held on thus far, intimidated by the strange subterraneous sounds of the volcano, even then in a state of combustion, now left them. The track opened on a black surface of glazed volcanic sand and of lava, the broken fragments of which, arrested in its boiling progress in a thousand fantastic forms, opposed continual impediments to their advance. Amidst these, one huge rock, the *Pico del Fraile*, a conspicuous object from below, rose to the perpendicular height of a hundred and fifty feet, compelling them to take a wide circuit. They soon came to the limits of perpetual snow, where new difficulties presented themselves, as the treacherous ice gave an imperfect footing, and a false step might precipitate them into the frozen chasms that yawned around. To increase their distress, respiration in these aerial regions became so difficult that every effort was attended with sharp pains in the head and limbs. Still they pressed on, till, drawing nearer the crater, such volumes of smoke, sparks and cinders were

belched forth from its burning entrails, and driven down the sides of the mountain, as nearly suffocated and blinded them. It was too much even for their hardy frames to endure, and, however reluctantly, they were compelled to abandon the attempt on the eve of its completion. They brought back some huge icicles—a curious sight in these tropical regions—as a trophy of their achievement, which, however imperfect, was sufficient to strike the minds of the natives with wonder by showing that with the Spaniards the most appalling and mysterious perils were only as pastimes. The undertaking was eminently characteristic of the bold spirit of the cavalier of that day, who, not content with the dangers that lay in his path, seems to court them from the mere Quixotic love of adventure. A report of the affair was transmitted to the emperor Charles V, and the family of Ordaz was allowed to commemorate the exploit by assuming a burning mountain on their escutcheon.

The general was not satisfied with the result. Two years after, he sent up another party, under Francisco Montaño, a cavalier of determined resolution. The object was to obtain sulphur to assist in making gunpowder for the army. The mountain was quiet at this time, and the expedition was attended with better success. The Spaniards, five in number, climbed to the very edge of the crater, which presented an irregular ellipse at its mouth, more than a league in circumference. Its depth might be from eight hundred to a thousand feet. A lurid flame burned gloomily at the bottom, sending up a sulphurous steam, which, cooling as it rose, was precipitated on the sides of the cavity. The party cast lots, and it fell on Montaño himself to descend in a basket into this hideous abyss, into which he was lowered by his companions to the depth of four hundred feet! This was repeated several times, till the adventurous cavalier had collected a sufficient quantity of sulphur for the wants of the army. This doughty enterprise excited general admiration at the time. Cortés concludes his report of it to the emperor with the judicious reflection that it would be less inconvenient, on the whole, to import their powder from Spain.

But it is time to return from our digression, which may, perhaps, be excused as illustrating, in a remarkable manner, the chimerical spirit of enterprise—not inferior to that in his own romances of chivalry—which glowed in the breast of the Spanish cavalier in the sixteenth century.

The army held on its march through the intricate gorges of the sierra. The route was nearly the same as that pursued at the present day by the courier from the capital to Puebla, by the way of Mecameca. It was not that usually taken by travelers from Veracruz, who follow the more cir-

cuitous road round the northern base of Iztaccihuatl as less fatiguing than the other, though inferior in picturesque scenery and romantic points of view. The icy winds that now swept down the sides of the mountains brought with them a tempest of arrowy sleet and snow, from which the Christians suffered even more than the Tlascalans, reared from infancy among the wild solitudes of their own native hills. As night came on, their sufferings would have been intolerable, but they luckily found a shelter in the commodious stone buildings which the Mexican government had placed at stated intervals along the roads for the accommodation of the traveler and their own couriers. It little dreamed it was providing a protection for its enemies.

The troops, refreshed by a night's rest, succeeded, early on the following day, in gaining the crest of the sierra of Ahualco, which stretches like a curtain between the two great mountains on the north and south. Their progress was now comparatively easy, and they marched forward with a buoyant step, as they felt they were treading the soil of Montezuma.

They had not advanced far, when, turning an angle of the sierra, they suddenly came on a view which more than compensated the toils of the preceding day. It was that of the Valley of Mexico, or Tenochtitlán, as more commonly called by the natives, which, with its picturesque assemblage of water, woodland, and cultivated plains, its shining cities and shadowy hills, was spread out like some gay and gorgeous panorama before them. In the highly rarefied atmosphere of these upper regions, even remote objects have a brilliancy of coloring and a distinctness of outline which seem to annihilate distance.[2] Stretching far away at their feet, were seen noble forests of oak, sycamore, and cedar, and beyond, yellow fields of maize and the towering maguey, intermingled with orchards and blooming gardens; for flowers, in such demand for their religious festivals, were even more abundant in this populous valley than in other parts of Anahuac. In the center of the great basin were beheld the lakes, occupying then a much larger portion of its surface than at present, their borders thickly studded with towns and hamlets, and, in the midst—like some Indian empress with her corona of pearls—the fair city of Mexico, with her white towers and pyramidal temples, reposing, as it were, on the bosom of the waters—the far-famed "Venice of the Aztecs." High over all rose the royal hill of Chapultepec, the residence of the Mexican monarchs, crowned with the same grove of gigantic cypresses which at this day fling their broad shadows over the land. In the distance beyond the

2. The lake of Tezcuco, on which the capital of Mexico stood, is nearly 7,500 feet above sea level. The modern Mexico City is at an altitude of 7,349 feet [Ed.].

blue waters of the lake, and nearly screened by intervening foliage, was seen a shining speck, the rival capital of Tezcuco, and, still further on, the dark belt of porphyry, girdling the valley around, like a rich setting which Nature had devised for the fairest of her jewels.

Such was the beautiful vision which broke on the eyes of the conquerors. And even now, when so sad a change has come over the scene; when the stately forests have been laid low, and the soil, unsheltered from the fierce radiance of a tropical sun, is in many places abandoned to sterility; when the waters have retired, leaving a broad and ghastly margin white with the incrustation of salts, while the cities and hamlets on their borders have moldered into ruins;—even now that desolation broods over the landscape; so indestructible are the lines of beauty which Nature has traced on its features that no traveler, however cold, can gaze on them with any other emotions than those of astonishment and rapture.

What, then, must have been the emotions of the Spaniards when, after working their toilsome way into the upper air, the cloudy tabernacle parted before their eyes, and they beheld these fair scenes in all their pristine magnificence and beauty! It was like the spectacle which greeted the eyes of Moses from the summit of Pisgah, and, in the warm glow of their feelings, they cried out, "It is the promised land!"

But these feelings of admiration were soon followed by others of a very different complexion as they saw in all this the evidences of a civilization and power far superior to anything they had yet encountered. The more timid, disheartened by the prospect, shrunk from a contest so unequal, and demanded, as they had done on some former occasions, to be led back again to Veracruz. Such was not the effect produced on the sanguine spirit of the general. His avarice was sharpened by the display of the dazzling spoil at his feet; and, if he felt a natural anxiety at the formidable odds, his confidence was renewed as he gazed on the lines of his veterans, whose weather-beaten visages and battered armor told of battles won and difficulties surmounted, while his bold barbarians, with appetites whetted by the view of their enemies' country, seemed like eagles on the mountains, ready to pounce upon their prey. By argument, entreaty, and menace, he endeavored to restore the faltering courage of the soldiers, urging them not to think of retreat, now that they had reached the goal for which they had panted and the golden gates were opened to receive them. In these efforts, he was well seconded by the brave cavaliers, who held honor as dear to them as fortune, until the dullest spirits caught somewhat of the enthusiasm of their leaders, and the general had

the satisfaction to see his hesitating columns, with their usual buoyant step, once more on their march down the slopes of the sierra.

With every step of their progress, the woods became thinner; patches of cultivated land more frequent; and hamlets were seen in the green and sheltered nooks, the inhabitants of which, coming out to meet them, gave the troops a kind reception. Everywhere they heard complaints of Montezuma, especially of the unfeeling manner in which he carried off their young men to recruit his armies, and their maidens for his harem. These symptoms of discontent were noticed with satisfaction by Cortés, who saw that Montezuma's "mountain-throne," as it was called, was, indeed, seated on a volcano, with the elements of combustion so active within that it seemed as if any hour might witness an explosion. He encouraged the disaffected natives to rely on his protection, as he had come to redress their wrongs. He took advantage, moreover, of their favorable dispositions to scatter among them such gleams of spiritual light as time and the preaching of Father Olmedo could afford.

He advanced by easy stages, somewhat retarded by the crowd of curious inhabitants gathered on the highways to see the strangers, and halting at every spot of interest or importance. On the road, he was met by another embassy from the capital. It consisted of several Aztec lords, freighted, as usual, with a rich largess of gold, and robes of delicate furs and feathers. The message of the emperor was couched in the same deprecatory terms as before. He even condescended to bribe the return of the Spaniards, by promising, in that event, four loads[3] of gold to the general, and one to each of the captains, with a yearly tribute to their sovereign. So effectually had the lofty and naturally courageous spirit of the barbarian monarch been subdued by the influence of superstition!

But the man, whom the hostile array of armies could not daunt, was not to be turned from his purpose by a woman's prayers. He received the embassy with his usual courtesy, declaring, as before, that he could not answer it to his own sovereign if he were now to return without visiting the emperor in his capital. It would be much easier to arrange matters by a personal interview than by distant negotiation. The Spaniards came in the spirit of peace. Montezuma would so find it, but, should their presence prove burdensome to him, it would be easy for them to relieve him of it.

The Aztec monarch, meanwhile, was a prey to the most dismal apprehensions. It was intended that the embassy above noticed should reach

3. A load was about 50 pounds, or 800 ounces of gold—worth, at the present rate of $35.00 to an ounce, about $28,000 [Ed.].

the Spaniards before they crossed the mountains. When he learned that this was accomplished, and that the dread strangers were on their march across the valley, the very threshold of his capital, the last spark of hope died away in his bosom. Like one who suddenly finds himself on the brink of some dark and yawning gulf, he was too much bewildered to be able to rally his thoughts, or even to comprehend his situation. He was the victim of an absolute destiny, against which no foresight or precautions could have availed. It was as if the strange beings, who had thus invaded his shores, had dropped from some distant planet, so different were they from all he had ever seen, in appearance and manners; so superior—though a mere handful, in numbers—to the banded nations of Anahuac in strength and science, and all the fearful accompaniments of war! They were now in the valley. The huge mountain screen, which nature had so kindly drawn around it, for its defense, had been overleaped. The golden visions of security and repose, in which he had so long indulged, the lordly sway descended from his ancestors, his broad imperial domain, were all to pass away. It seemed like some terrible dream—from which he was now, alas! to awake to a still more terrible reality.

In a paroxysm of despair, he shut himself up in his palace, refused food, and sought relief in prayer and in sacrifice. But the oracles were dumb. He then adopted the more sensible expedient of calling a council of his principal and oldest nobles. Here was the same division of opinion which had before prevailed. Cacama, the young king of Tezcuco, his nephew, counseled him to receive the Spaniards courteously, as ambassadors, so styled by themselves, of a foreign prince. Cuitlahua, Montezuma's more warlike brother, urged him to muster his forces on the instant, and drive back the invaders from his capital, or die in its defense. But the monarch found it difficult to rally his spirits for this final struggle. With downcast eye and dejected mien, he exclaimed, "Of what avail is resistance, when the gods have declared themselves against us! Yet I mourn most for the old and infirm, the women and children, too feeble to fight or to fly. For myself and the brave men around me, we must bare our breasts to the storm, and meet it as we may!" Such are the sorrowful and sympathetic tones in which the Aztec emperor is said to have uttered the bitterness of his grief. He would have acted a more glorious part had he put his capital in a posture of defense, and prepared, like the last of the Palaeologi, to bury himself under its ruins.

He straightway prepared to send a last embassy to the Spaniards, with his nephew, the lord of Tezcuco, at its head, to welcome them to Mexico.

The Christian army, meanwhile, had advanced as far as Amaquemecan, a well-built town of several thousand inhabitants. They were kindly received by the cacique, lodged in large, commodious, stone buildings, and at their departure presented, among other things, with gold to the amount of three thousand *castellanos*. Having halted there a couple of days, they descended among flourishing plantations of maize and of maguey, the latter of which might be called the Aztec vineyards, towards the lake of Chalco. Their first resting place was Ajotzinco, a town of considerable size, with a great part of it then standing on piles in the water. It was the first specimen which the Spaniards had seen of this maritime architecture. The canals which intersected the city, instead of streets, presented an animated scene, from the number of barks which glided up and down freighted with provisions and other articles for the inhabitants. The Spaniards were particularly struck with the style and commodious structure of the houses, built chiefly of stone, and with the general aspect of wealth and even elegance which prevailed there.

Though received with the greatest show of hospitality, Cortés found some occasion for distrust in the eagerness manifested by the people to see and approach the Spaniards. Not content with gazing at them in the roads, some even made their way stealthily into their quarters, and fifteen or twenty unhappy Indians were shot down by the sentinels as spies. Yet there appears, as well as we can judge, at this distance of time, to have been no real ground for such suspicion. The undisguised jealousy of the Court, and the cautions he had received from his allies, while they very properly put the general on his guard, seem to have given an unnatural acuteness, at least in the present instance, to his perceptions of danger.

Early on the following morning, as the army was preparing to leave the place, a courier came, requesting the general to postpone his departure till after the arrival of the king of Tezcuco, who was advancing to meet him. It was not long before he appeared, borne in a palanquin or litter, richly decorated with plates of gold and precious stones, having pillars curiously wrought, supporting a canopy of green plumes, a favorite color with the Aztec princes. He was accompanied by a numerous suite of nobles and inferior attendants. As he came into the presence of Cortés, the lord of Tezcuco descended from his palanquin, and the obsequious officers swept the ground before him as he advanced. He appeared to be a young man of about twenty-five years of age, with a comely presence, erect and stately in his deportment. He made the Mexican saluta-

tion usually addressed to persons of high rank, touching the earth with his right hand, and raising it to his head. Cortés embraced him as he rose, when the young prince informed him that he came as the representative of Montezuma to bid the Spaniards welcome to his capital. He then presented the general with three pearls of uncommon size and luster. Cortés, in return, threw over Cacama's neck a chain of cut glass, which, where glass was as rare as diamonds, might be admitted to have a value as real as the latter. After this interchange of courtesies, and the most friendly and respectful assurances on the part of Cortés, the Indian prince withdrew, leaving the Spaniards strongly impressed with the superiority of his state and bearing over anything they had hitherto seen in the country.

Resuming its march, the army kept along the southern borders of the lake of Chalco, overshadowed, at that time, by noble woods, and by orchards glowing with autumnal fruits, of unknown names, but rich and tempting hues. More frequently it passed through cultivated fields waving with the yellow harvest, and irrigated by canals introduced from the neighboring lake, the whole showing a careful and economical husbandry, essential to the maintenance of a crowded population.

Leaving the mainland, the Spaniards came on the great dike or causeway which stretches some four or five miles in length, and divides Lake Chalco from Xochicalco on the west. It was a lance in breadth in the narrowest part, and in some places wide enough for eight horsemen to ride abreast. It was a solid structure of stone and lime, running directly through the lake, and struck the Spaniards as one of the most remarkable works which they had seen in the country.

As they passed along, they beheld the gay spectacle of multitudes of Indians darting up and down in their light pirogues, eager to catch a glimpse of the strangers, or bearing the products of the country to the neighboring cities. They were amazed, also, by the sight of the *chinampas*, or floating gardens—those wandering islands of verdure, to which we shall have occasion to return hereafter—teeming with flowers and vegetables, and moving like rafts over the waters. All round the margin, and occasionally far in the lake, they beheld little towns and villages, which, half-concealed by the foliage, and gathered in white clusters round the shore, looked in the distance like companies of wild swans riding quietly on the waves. A scene so new and wonderful filled their rude hearts with amazement. It seemed like enchantment; and they could find nothing to compare it with but the magical pictures in the *Amadis de Gaula*. Few

pictures, indeed, in that or any other legend of chivalry, could surpass the realities of their own experience. The life of the adventurer in the New World was romance put into action. What wonder, then, if the Spaniard of that day, feeding his imagination with dreams of enchantment at home, and with its realities abroad, should have displayed a Quixotic enthusiasm—a romantic exaltation of character, not to be comprehended by the colder spirits of other lands!

Midway across the lake the army halted at the town of Cuitlahuac, a place of moderate size, but distinguished by the beauty of the buildings,—the most beautiful, according to Cortés, that he had yet seen in the country. After taking some refreshment at this place, they continued their march along the dike. Though broader in this northern section, the troops found themselves much embarrassed by the throng of Indians, who, not content with gazing on them from the boats, climbed up the causeway, and lined the sides of the road. The general, afraid that his ranks might be disordered, and that too great familiarity might diminish a salutary awe in the natives, was obliged to resort not merely to command, but menace, to clear a passage. He now found, as he advanced, a considerable change in the feelings shown towards the government. He heard only of the pomp and magnificence, nothing of the oppressions, of Montezuma. Contrary to the usual fact, it seemed that the respect for the Court was greatest in its immediate neighborhood.

From the causeway, the army descended on that narrow point of land which divides the waters of the Chalco from the Tezcucan lake, but which in those days was overflowed for many a mile now laid bare. Traversing this peninsula, they entered the royal residence of Iztapalapan, a place containing twelve or fifteen thousand houses, according to Cortés. It was governed by Cuitlahua, the emperor's brother, who, to do greater honor to the general, had invited the lords of some neighboring cities, of the royal house of Mexico, like himself, to be present at the interview. This was conducted with much ceremony, and, after the usual present of gold and delicate stuffs, a collation was served to the Spaniards in one of the great halls of the palace. The excellence of the architecture here, also, excited the admiration of the general, who does not hesitate, in the glow of his enthusiasm, to pronounce some of the buildings equal to the best in Spain. They were of stone, and the spacious apartments had roofs of odorous cedarwood, while the walls were tapestried with fine cottons stained with brilliant colors.

But the pride of Iztapalapan, on which its lord had freely lavished his

care and his revenues, was its celebrated gardens. They covered an immense tract of land, were laid out in regular squares, and the paths intersecting them were bordered with trellises, supporting creepers and aromatic shrubs that loaded the air with their perfumes. The gardens were stocked with fruit trees imported from distant places, and with the gaudy family of flowers which belong to the Mexican flora, scientifically arranged, and growing luxuriant in the equable temperature of the tableland. The natural dryness of the atmosphere was counteracted by means of aqueducts and canals that carried water into all parts of the grounds.

In one quarter was an aviary, filled with numerous kinds of birds, remarkable in this region both for brilliancy of plumage and of song. The gardens were intersected by a canal communicating with the lake of Tezcuco, and of sufficient size for barges to enter from the latter. But the most elaborate piece of work was a huge reservoir of stone, filled to a considerable height with water well supplied with different sorts of fish. This basin was sixteen hundred paces in circumference, and was surrounded by a walk, made also of stone, wide enough for four persons to go abreast. The sides were curiously sculptured, and a flight of steps led to the water below, which fed the aqueducts above noticed, or, collected into fountains, diffused a perpetual moisture.

Such are the accounts transmitted of these celebrated gardens, at a period when similar horticultural establishments were unknown in Europe; and we might well doubt their existence in this semi-civilized land were it not a matter of such notoriety at the time, and so explicitly attested by the invaders. But a generation had scarcely passed after the Conquest before a sad change came over these scenes so beautiful. The town itself was deserted, and the shore of the lake was strewn with the wreck of buildings which once were its ornament and its glory. The gardens shared the fate of the city. The retreating waters withdrew the means of nourishment, converting the flourishing plains into a foul and unsightly morass, the haunt of loathsome reptiles; and the waterfowl built her nest in what had once been the palaces of princes!

In the city of Iztapalapan, Cortés took up his quarters for the night. We may imagine what a crowd of ideas must have pressed on the mind of the Conqueror, as, surrounded by these evidences of civilization, he prepared with his handful of followers to enter the capital of a monarch, who, as he had abundant reason to know, regarded him with distrust and aversion. This capital was now but a few miles distant, distinctly visible from Iztapalapan. And as its long lines of glittering edifices, struck by the

rays of the evening sun, trembled on the dark-blue waters of the lake, it looked like a thing of fairy creation, rather than the work of mortal hands. Into this city of enchantment Cortés prepared to make his entry on the following morning.

The foregoing is Chapter VIII
from Prescott's
THE CONQUEST OF MEXICO.

Haniel Long

1888–1956

The Power Within Us may be characterized as an adventure story, as history, as anthropology, as religion; and it will stand up under the scrutiny of all these disciplines. But its place as a classic is assured first of all by its beauty. It is a piece of prose that had to be written by a poet. It was.

Haniel Long was an American of our own day; he died in 1956, a respected critic, historian, and "minor" poet, unaware that in *The Power Within Us* he had produced a little book which should make, and continually magnify, his reputation. The son of a missionary, he was born in Rangoon, and brought up in Pittsburgh. After Exeter and Harvard, he did newspaper work and college teaching until 1929, when he moved with his family to Santa Fe, New Mexico.

There he remained, his heart committed to the American Southwest and to the Indians whose land it had been. Among them, and among their friends throughout the country, he was well known, both as a man of great feeling and also as a painstaking writer.

This masterpiece of feeling and writing is no longer than a long short story. As a story alone it is spellbinding in the heroic mold of *Robinson Crusoe*. A "civilized" man is shipwrecked and finds himself confronted with his naked condition, unarmed except by reason and faith. Lost to the sophisticated world in which he was reared, he encounters the true savage and, through this encounter, comes to know his own kind and himself.

Thus far, high adventure and wonderment. The Spaniard Nuñez Cabeza de Vaca crosses the United States—centuries before there was a United States—from Florida to the Pacific on foot. His eight-year odyssey (1528–36) ends in Spanish Mexico where, after having long since given up all idea of seeing country or countrymen again,

he is "rescued" by those gallants on horseback in whom he sees, to his horror, the man he once was. *The Power Within Us* is a report of his experience to his "Christian" master, the King of Spain.

But this is not fiction; it is truth. And Cabeza was no dreamy sailor boy of fiction equipped like an eagle scout with marvelous powers of improvisation and dexterity; he was a Spanish conquistador, a gentleman of that "irresistible" European culture bred to the mastery of armor and guns, of ships and horses, and of men. He was one of the officers of an imperial expedition of 578 glittering adventurers who believed that "on the pages of history we would share the glory of Cortés and his murderous band. . . ."

Wrecked on a coast they had intended to despoil, left to the mercy of natives they had thought to enslave, the 578 soon became 400, and then 40, and then four. There the story begins, the story of the human spirit stripped of all its fine disguises of power, pride, and pomp.

Through the whole tradition of the great books, beginning with the Greeks and the "barbarians," the meaning of civilization is pondered and the meeting of civilized and uncivilized man recited. And as often as not the civilized man comes off second best, not merely in conquest but even in history's long view of what is and is not civilized. Are the arts of civilization a net gain or a net loss? A loss, says Jean Jacques Rousseau, the French philosopher, who calls mankind back to the woods to enjoy the unadorned existence of the "noble savage."

Cabeza de Vaca's savages were not noble—nor were they ignoble. They were credulous, and their credulity awakened in the elegant Spaniard a nobility of soul which the life he had known had never aroused. Out of that surprised nobility—where else?—came power. In absolute helplessness, and in it alone, he found the strength to save others and thus himself, and to know himself, and to know what it is to be a man. *The Power Within Us*—a half hour or so of exciting reading—is a religious experience never to be forgotten.

The *Naufragios* ("Shipwrecks") of Cabeza de Vaca was published in Spain in the middle of the 16th century and went through many forms before Haniel Long took hold of the historical materials and put them in their present version. To the actual documentation of the terrible expedition Mr. Long added, from his knowledge of the country, the people, and of man himself, the true triumph of the conquistador—a man's conquest of himself in his search for the power to bear suffering.

The Power within Us

INTRODUCTORY NOTE

long in late November, 1528, a handful of Spaniards, survivors of an ill-starred expedition to Florida, were washed ashore in the Gulf of Mexico, some think near the present site of Galveston. One of these men was Nuñez Cabeza de Vaca, thirty-eight years old, the lieutenant of the expedition, an adaptable man with some secret of growth in him. Despite the privations he had endured, this Nuñez led two other Spaniards and a Moor on a journey across the entire continent, barefoot and naked, which occupied them eight years.

After he reached Mexico City, Nuñez wrote a letter to his King, relating what had befallen him. It begins as the usual story of a European adventurer who leaves home to exploit people. But Nuñez little by little finds out that people are his brothers and sisters, and feels genuine concern for them. Stories require the right audience, and he seems afraid that His Majesty might not be interested in what he has to say, for it is the story of a disaster in Spanish colonial history and in the King's personal finances. In the world of the individual, nonetheless, it is a story of triumph, however lackadaisical the manner of its telling.

My account of Nuñez is not the account he sent the King, apart of course from the actual facts. But I believe it to be the account he wished to send the King. I preserve the core of his narrative, as translated by Fanny Bandelier, and I try to show what, quite plainly, was happening to the spirit of the man. That is, I allow him to speak as though unafraid of his King and his times. I wish him to address us four hundred years later, in this world of ours where human relation is still the difficult problem, and exploitation the cancer.

Nuñez found the limitless within the narrowly limited. He helped

when he had no means of helping, and gave when he had nothing to give. So, what is interesting is that at a certain point he ceases to be a historical personage and becomes a symbol. If he were alive today, he would be free to bring into the open the inwardness of his adventure. Thus he would greatly concern the present western world and our entire human world, for we are his proper audience.

In his emergency Nuñez slides out of theories and prejudices which unfit one to live on. Possibly the capacity to survive depends upon courage of spirit to accept one's fate. Possibly also, danger can be a real benefit to the physical man. Nuñez was remarkably flexible; he had what seems unlimited courage, unlimited strength. To him life itself was not different from hardship and danger, life was *these things, and they are what make life good. His plight was hopeless, but he set in motion a train of thought and action which saved him. My attention wanders from the perfunctory narrative to the thing he refrains from confiding to the royal ear. That thing is a mystical feeling about the increase of life in a man from effort and from taking thought of his fellows. The weather-beaten explorer of the 16th century, lost in a thorny land among copper-colored savages and facing a blank future, discovered religion to be a reality of which he had never dreamed. His effort, his feeling for others, take novel paths; but underneath, quite apparently, lies an ageless and universal experience.*

Cabeza de Vaca's Relation of His Journey from Florida to the Pacific 1528–1536

Your Majesty, I am that Nuñez Cabeza de Vaca who lately sent you a Relation of his shipwrecks and mischances during the eight years he was absent from your dominions. In painful doubt whether my words were clear enough, I write again. My meanings being new to your Majesty and at a hasty glance unconcerned with your prestige, you might consider my narrative a poor occasion for exercising your serene power of understanding. The fault would then lie in me, not in what I have to say. Be my forgiving reader, your Majesty. Grant me your grace.

I was at the Battle of Ravenna in 1512. Between dawn and sunset that day perished a thousand score. Young as I was, Ravenna taught me something of how easy to tear asunder and destroy a man is, body and spirit. In the days that followed, in my desolation first confronted with slaughter, I saw a far-off light, heard a far-off strain of music. Such words serve as well as any: what can describe a happening in the shadows of the soul?

Again that far-off flicker of music came to me in the disorders at Seville in 1521, when I fought under the Duke of Medina-Sidonia.

Seven years passed without that flash of inward fire and I forgot about it. Seville was then a marvelous, disturbing world. I saw the heretics burning in the arms of the iron prophets. I saw Columbus as an old man, Magellan as a young man. The sailors came ashore with parrots and gold ingots and Indian girls.

Then I too sailed across the seas, Lord Treasurer of the expedition of Pámfilo Narvaez.

All that day when we were in sight of Tenerife I thought of my grandfather, the conqueror of the Grand Canary. In my childhood I was surrounded by the natives of that island, the Guanches, whom he brought home as slaves. I listened to their vague and melancholy singing, learned to be at ease with inarticulate people.

For the money to conquer the Grand Canary, perhaps your Majesty will remember, Pedro de Vera Mendoza had pawned to the Moor his two sons, my father and my uncle.

As I told your Majesty in my account of that journey, never had expedition more calamities than ours. Some of our ships foundered from hurricanes in the harbors of Cuba. The others we left behind deliberately in the lagoons of Florida.

Our greatest misfortune, aside from our greed and ignorance, lay in our commander, Pámfilo Narvaez himself. Pámfilo believed himself born under a lucky star, though nothing justified such a belief. Before Hernán Cortés he could have marched to Tenochtitlan. But he did not. When Cortés and his soldiers were richly quartered in the palaces of Montezuma, he could have replaced him in command. For that purpose was he dispatched from Havana by Velásquez. But Cortés came flying on horseback all the way to Veracruz, and talked Pámfilo's soldiers away from under his very nose. Pámfilo was not without a magnetism. But he was cocksure, a braggart, and what was worse, uncertain of the line between dream and reality. He forgot that Cortés burned his ships only after studying the jeweled emissaries of Montezuma, and becoming sure of the value of the quarry. Pámfilo had nothing to be sure of. And yet he pictured himself another Cortés, he pictured another Tenochtitlan concealed in the fronds of Florida. Having pictured these things he was as certain that they existed as of the vein in his neck.

Your Majesty is at liberty to picture *us* under this aging, adipose, credulous commander. Across that steaming land we marched with our armor glittering and our horses covered with gaudy trappings, 578 of us, towards utter ruin. Believing that on the page of history we would share the glory of Cortés and his murderous band . . .

Pámfilo would summon the copper-colored natives and tell them with gestures that he was searching for a city of the size and value of Tenochtitlan. The Indians had never heard of Tenochtitlan nor of Montezuma. But they had heard of a big town and pointed northward exclaiming, "Apaláchee!"

We marched and we marched, and had fevers and fevers. Yes, your Majesty is at liberty to picture us.

Apaláchee was no Tenochtitlan . . . We found it. It was in an immense swamp, a large impoverished settlement of thatched huts, a place of unbearable squalor.

There was nothing for it but seek the sea again and sail back to Cuba. Our arms and armor made us feel like dolts, and we wished we had pierced the jungle carrying carpenter's tools. For now, without ax, adz, or hammer, we had to build ourselves boats.

This is the tale of what men can and cannot do when they must do something or die. We built nine open boats. During the weeks it required, some of us went with scant food, and those whose palates allowed it devoured the horses.

Our 580 men had become 400 when at last we set sail and left behind us the Indian marksmen and the snakes, neither of which in Florida err when they strike.

Day after day tide and wind washed us out to sea and then washed us in to land, along a dazzling and uncertain coast. From thirst, and from the exposure to the frightful sun, our 400 became 40.

Who knows what was lost in these boats? Another Magellan, another Camões, another Cervantes, another St. John of the Cross. . .

No one has so sympathetic an imagination as your Majesty. You will understand what I am not telling you; that I saw men jump overboard, mad from thirst and sun. That I saw them swell and die slowly in delirium, heard their words and songs pour out the pitiful contents of their minds. That I saw men gnaw at corpses. And that these were Spanish gentlemen.

It is curious to have so graphic a lesson in what life may become. We had been a proud band, relying on our united strength, our armor, and our horses. Slowly our strength disunited, until nothing that we had in common remained to help any of us.

As I say, it is curious when one has nobody and nothing to rely upon outside of oneself.

Yet again that music, that fitful run and flash of brightness I first heard on the battlefield of Ravenna. Your Majesty is renowned as a patron of music; here was a music it is possible you may never have heard.

Somewhere on that coast a handful of us crawled ashore, and were fed and tended by kindly Indians till we regathered nervous vitality for the hopeless voyage to Cuba. We stripped and launched the boat, first putting our clothes aboard her. But a great comber capsized the rotten heavy hulk, imprisoning and drowning three of us. The others emerged mother-naked on the beach, shivering in the November wind of that overcast afternoon.

The Indians came back and found us as naked as they were, and our barge gone, and in tears. They sat down beside us and cried, too. I cried

all the harder, to think people so miserable had pity for us. I have informed your Majesty of their tears and mine. These simple Indians were the first relenting of nature to us in months and months. That evening, for fear we might die on the way, the Indians made fires at intervals along the path to their village, warming us at each fire. That night and many nights after we slept beside them on the oyster shells which floor their huts, wrapped in hides against the cold winds from the sea.

While we were subjects of your Majesty, we had everything life offers, and now we had nothing. To understand what it means to have nothing one must have nothing. No clothing against the weather might appear the worst. But for us poor skeletons who survived it, it was not.

The worst lay in parting little by little with the thoughts that clothe the soul of a European, and most of all of the idea that a man attains strength through dirk and dagger, and serving in your Majesty's guard. We had to surrender such fantasies till our inward nakedness was the nakedness of an unborn babe, starting life anew in a womb of sensations which in themselves can mysteriously nourish. Several years went by before I could relax in that living plexus for which even now I have no name; but only when at last I relaxed, could I see the possibilities of a life in which to be deprived of Europe was not to be deprived of too much.

Tempests came, we could pull no more roots from the sea channels, the canebrake yielded no more fish. People died in the flimsy lodges. News came that five Spaniards further down the coast, men from another barge, had eaten one another up till but one remained. This deed startled the innocence of our Indians. They debated whether to kill us, to be rid of us. Instead, they made us their beasts of burden.

In April the Indians went down to the sea taking us with them; for a whole month we ate the blackberries of the sand dunes. The Indians danced incessantly. They asked us to cure their sick. When we said we did not know how to cure, they withheld our food from us. We began to watch the procedure of their medicine men. It seemed to us both irreligious and uninstructed. Besides, we found the notion of healing Indians somewhat repellent, as your Majesty will understand. But we had to heal them or die. So we prayed for strength. We prayed on bended knees and in an agony of hunger. Then over each ailing Indian we made the sign of the Cross, and recited the Ave Maria and a Pater Noster. To our amazement the ailing said they were well. And not only they but the whole tribe went without food so that we might have it. Yet so great was the lack of food for us all, it seemed impossible that life could last.

Truly, it was to our amazement that the ailing said they were well. Being Europeans, we thought we had given away to doctors and priests our ability to heal. But here it was, still in our possession, even if we had only Indians to exercise it upon. It was ours after all, we were more than we had thought we were.

I am putting my words together for whatever intelligence there may be in the world. There is no other reality among men than this intelligence; Sire, it is greatly to your glory that you can incarnate it.

To be more than I thought I was–a sensation utterly new to me . . .

Starvation, nakedness, slavery: sensations utterly new to me, also . . . The last of my fellow Spaniards on the island dies . . . Nothing to eat after the sea roots sprouted but the blackberries of the sand dunes. Nothing to protect me from the attack of the terrible frost, or the terrible sun. No one who knew my language . . . And it endured for months, for years maybe . . . Everyone I saw as starved as I was. The human body emaciated, the lean cheek, the burning eye–the ribs showing, each rib distinct–the taut skin, the weak loins, the shrunken haunch and pap. In the whole world there can be no poverty like the poverty of these people. I could not stand it. I ran away . . .

At this time, as I remember it, I began to think of Indians as fellow human beings. If I introduce this idea it is to prepare your Majesty for other ideas which came to me later, in consequence.

These were days when I reasserted the pictures of my childhood, as a child turns his kaleidoscope. I saw the Guanche slaves anew, and as though I were one of them. I saw my grandfather through the eyes of his slaves. I remembered, now without laughing, how he had tricked the Guanches into slavery. He pretended to enlist them to sail from the Grand Canary to conquer Tenerife, and when he had them below decks he battened down the hatches and set sail for Cádiz . . .

My grandfather's brutality earned him the public denunciation of Bishop Juan de Frías. This too I remembered.

In this wilderness I became a trader, and went to and fro on the coast and a little inland. I went inland with sea shells and cockles, and a certain shell used to cut beans, which the natives value. I came out with hides, and red ocher for the face and hair, flint for arrow points, and tassels of deer hide. I came to be well known among the tribes, and found out the lay of the land.

One day I heard someone calling me by name, "Alvar Nuñez, Alvar Nuñez!" It was Alonso del Castillo, one of the captains of the expedition. He said that Pámfilo's barge had drifted ashore among unfriendly Indians, and left of its occupants were only himself and Captain Andrés Dorantes, and Dorantes' blackamoor, Estevanico. We hid ourselves in a thicket and laid our plans.

That summer, when the coast tribes came together for the summer orgies, we four made good our escape westward.

Thus our 580 had become 400, our 400, forty, and our forty, four.

Certain natives came to Castillo. From ribs to cleft they were having spasms, and they begged him to cure them. He prayed, and required us anxiously to pray with him. When he had done praying he made the sign of the Cross over the Indians, and their spasms left off. We knelt down to give thanks for this new amazement.

Through this region there are no trails, and I lost my way. I found a burning tree to spend that very cold night beside. In the morning I loaded myself with dry wood, and took two burning sticks. Thus with fuel and fire, I went on for five days, seeing nobody, but having the sun with me by day and Mazzaroth and Arcturus by night. These five days I felt a numbness of those organs which keep one aware of the misery of existence. When curing sick Indians, I have struggled to shut out the thought of Andrés and Alonso (for we are self-conscious, knowing one another's sins); and in the effort of praying I have felt as though something in me had broken, to give me the power of healing. But alone in this wilderness no tissue of the body hindered the mysterious power.

Nothing of me, your Majesty, existed then outside of that music I first heard at Ravenna.

The sixth day I found my companions, who had concluded that a snake must have bitten me. I told them we ought not to be self-conscious with one another. That power we had felt flowing in us and through us could not, in the nature of things, be acutely conscious of us as individuals. It must come rather as wind comes to the trees of a forest, or as the ocean continues to murmur in the sea shell it has thrown ashore.

A gulf deeper than ocean yawns between the old world and the new; and what by now I was accustomed to would startle a burgher of Madrid or of Salamanca.

At Seville in my youth, as I have said, I saw the heretics burning in the arms of the iron prophets. This picture was with me often. Perhaps, like me, those heretics had had to pick up their notions of the Invisible as they went through life, and without the assistance of book or priest. What I myself was learning came from many blinding days in an open boat, while men died beside me crying for their mothers; and from living among these simple Indians, who insisted on our curing them of their ills. And so my notions of the Invisible may differ from what the books say. I mention it in passing, your Majesty.

When he assailed my grandfather openly in his cathedral, calling him coward and fiend, did Juan de Frías follow a lesson he had learned by rote? That good bishop had a heart and mind to which life itself could speak, and speak forcibly.

Indians came bringing five persons shriveled and paralyzed and very ill. Each of the five offered Castillo silently his bows and arrows. Castillo prayed, we with him; in the morning the five were cured . . .

Indians came from many places. But Castillo was always afraid his sins would interfere with his working miracles. The Indians turned to me. I told Castillo it was no moment for indulging the idea of being sinful, and then I followed the Indians to their ranch. The dying man was dead; Dorantes and I found him with eyes upturned, and no pulse. I removed the mat that covered him and prayed. At last the something in me like a membrane broke, and I was confident the old man would rise up again. As he did. During the night the natives came to tell us he had talked, eaten and walked about. They gave us many presents, and we left them the happiest people on earth, for they had given away their very best.

Your Majesty may by now have had enough of our cures and curing, exertions outside of Holy Church, and for the sole benefit of miserable Indians. Yet so profound is your courtesy, I know, that you will let me reveal all that is within my heart. We found ourselves so pressed that Dorantes and the Moor, who had little taste for it, had to become medicine men, too. Boys and girls, men and women, old men and women, human bodies deformed, starved, wasted by affliction (only rarely one sound and firm) . . . Their eyes followed us every moment. I do not forget those eyes . . . Your Majesty, since I addressed you first, you have become more mysterious to me and more majestic, and this increases my sense of freedom in speaking to you. To the understanding of such days and events this additional narrative becomes necessary, like a real figure

to walk beside a ghost. Those eyes . . . they thrust me out of myself, into a world where nothing, if done for another, seems impossible.

Months went by as in a dream. The nerve of vision no longer rendered plausible that European world of which we had been a part. That world grew fantastic, and fantastic our countrymen there. We ourselves were only too real. From lack of clothing we had big sores and deep skin fissures on our backs and shoulders, and it hurt us to carry the hides we slept in. And it hurt us to find firewood among the cactus. My thighs and arms bled so much I stood it only by remembering–and yet whom or what did I remember? Was it a Person–was it a quality of life–was it an emotion? Was it even a remembering, was it not perhaps a listening?

Often for a time it rained gently at dusk, soothing our thighs and arms. In one such dusk we encountered squinting women in an opening. They were afraid to run away from the three pale figures and the shadowy blackamoor, for they took us to be gods floating about in the mist and rain. They led us to a village of fifty huts. Here we cured, and cured . . .

Our journey westward was but a long series of encounters. Your Majesty, encounters have become my meditation. The moment one accosts a stranger or is accosted by him is above all in this life the moment of drama. The eyes of Indians who crossed my trail have searched me to the very depths to estimate my *power*. It is true the world over. It is true of a Spaniard meeting another on the road between Toledo and Salamanca. Whoever we meet watches us intently at the quick strange moment of meeting, to see whether we are disposed to be friendly.

Seeing our bodies, seeing my own, and Alonso's, and Andrés', and the black Moor's, sometimes I think how once I was different, and we all were. What would Doña Alonza Maldonado and her husband Dr. Castillo of Salamanca think if they could see their little boy Alonso today, striding here ahead of me, lashed by starvation, scorched and baked by the sun, his hair and beard unkempt, small about the flanks, his body shriveled like a mummy?

In youth the human body drew me and was the object of my secret and natural dreams. But body after body has taken away from me that sensual phosphorescence which my youth delighted in. Within me is no disturbing interplay now, but only the steady currents of adaptation and of sympathy.

Your Majesty's piercing mind glides pliantly through what is interstitial and hidden. But upon me it was dawning only slowly that I had it in my discretion to grant life and health to others . . . Imagine me then perturbed; you are aware of what my training had been as one of your Majesty's soldiers.

Dark clouds rise to the south. To the west a great rainbow spreads its double arc. Alonso strides sturdily towards it. After him comes the Arab Negro from Azamor, whose black limbs endure every privation and still shine with superfluous sweat. For this blackamoor am I specially grateful. His reflections on our suffering do not reduce him to apathy. No adverse heats and chills deprive his loins of their strength. He is a sight to see, carrying a copper rattle in his hand, and on his shoulder a green and orange parrot.

There was the afternoon we crossed a big river, more than waist deep, as wide as the Guadalquivir at Seville, and with a swift current. I speak of it again because I loved it.

There was the village where each Indian wished to be the first to touch us, and we were squeezed almost to death in the sweating crowd . . .

. . . the village so solicitous to be blessed that Alonso fainted of exhaustion . . .

. . . the village where a new custom began: the Indians who came with us took from the villagers all their bows, arrows, shoes and beads. From that time on, those who accompanied us took tribute of those to whom they brought us. It made us uneasy, but the victims reassured us. They said they were too glad to see us to feel the loss of their property—and besides, they could make good their losses at the next village, who were very rich Indians. . .

. . . the plain where first we saw mountains, very low, like white sheep lying down . . .

. . . the village where they were so pertinacious about touching us all over that in three hours we could not get through with them . . .

. . . the village where many had one eye clouded, and others were totally blind from the same cause: which amazed us . . .

To clarify the same occurrences, words can be arranged differently, as no one knows better than your Majesty. It was a drunkenness, this feeling

I began to have of power to render life and happiness to others. Yet I was concerned about it. The concern was the important thing–not the wondering about the nature of the power, how widespread it might be, how deep, whether Andrés or Alonso or Estevanico had it in equal measure with me. What occupied me was whether I myself knew how to use it, whether I could master it, whether indeed it was for me to master–perhaps being a self-directing power that came through me. But after one accustoms oneself to the idea, it is good to be able to give out health and joy whether one man have it, or whether we all have it. Had this thought occurred to your Majesty? Never before had it occurred to me.

I said to Andrés, "If we reach Spain I shall petition His Majesty to return me to this land, with a troop of soldiers. And I shall teach the world how to conquer by gentleness, not by slaughter." "Why then a troop of soldiers?" asked Dorantes, smiling. "Soldiers look for Indian girls and gold." "Perhaps I could teach them otherwise." "They would kill you, or tie you to a tree and leave you. What a dunce you are, Alvar Nuñez!"

"And what will *you* do if we reach Spain again?" I asked Andrés. "It will be enough to reach Mexico," he answered. "I may look about for a rich widow, and spend the rest of my life as a rancher." "I could not care for such a life," I said. "To each his adventure," replied Andrés.

It occurred to me that Andrés might be afraid of the great power at this period within us. I inquired of him. "Yes, I am afraid–who would not be?" he answered, earnestly.

Another day, after he had been silent a long time, Andrés said to us: "If I could always heal these people and help them, I might be willing to stay among them. I don't know. But our present relation to them is caused by our novelty, our transiency, and the surprise at our good works. That state of things would wear off. Besides, it is not miracles these people need. They need everything fate has stripped us of in bringing us among them naked and on equal terms. Yet not quite equal. We can remember childhood and youth in a land where people live in stone houses, till the same fields year after year, build barns to store the harvests in. The towns are related to one another and support the mutual good. Each nobleman and alcalde is an avenue leading to the king; and king, alcalde, thief, and villager all bow to the will of God through Holy Church."

I take my time thinking these words over. They are true and yet I cannot assent to them. Then I answer Andrés: "When these Indians call upon

us to have mercy and heal them, is the power they feel in us derived from stone houses, barns and tilled fields–from alcalde or nobleman, or from Holy Church, for that matter? Let the truth be said, Andrés: All that we learned across the water we have had to throw away. Only what we learned as babes in our mothers' arms has stayed with us to help others." "And what did we learn in our mothers' arms, good dunce?" asked Andrés, putting his arm round my shoulder.

. . . a mountain seven leagues long, the stones of which were iron slags . . .

. . . a night when the moon was round, and in its light a multitude of dwellings beside an unexpected and charming river . . .

. . . a man who some years since had been shot through the left side of the back with an arrow. He told me the wound make him feel sick all the while. I observed that the head of the arrow lay in the cartilage. I prayed for an hour, and then grasped the very sharp thin stone which served me as a knife, and cut open the breast. Feeling for the arrow-head, I thrust my hand into the palpitating tissue of the body. Your Majesty, that we human beings should be made of limp wet meat appeared to me as strange as that we should be also air and spirit; and in that hour nausea and a quick curiosity mingled with my pity. . . .

This cure was a misfortune to us; it gained us fame in every direction. We soon had with us three or four thousand persons. It went past human endurance to breathe on and make the sign of the Cross over every morsel they ate. In these parts mountain deer, quail, birds, rabbits abounded, and what they killed the Indians set before us. They would not touch it and would have died of hunger had we not yielded the blessing they asked for. Besides, they asked our permission for various things they felt like doing, and it soon wore us out. Even doing good, it appears, can lead to ennui, even the sight of the happiness one causes can satiate. And yet your Majesty will rejoice that heaven vouchsafed us a weariness such as this, perhaps never before experienced by a European.

Tribe after tribe, language after language . . . nobody's memory could recall them all. Always they robbed one another, but those who lost and those who gained were equally content.

Estevanico, the good black, the good link between the aloofness of white men and the warm spermatic life of the Indians. Men, women and children joked and played with him. What matter what he did, he

was not wearied of it. What matter what he did, the mystery failed not to act through him to heal and restore.

. . . fifty leagues through a land of desert, with nothing to eat and little to drink. Through villages where the women dressed in white deerskin and people lived in real houses . . . people the best formed we had seen, the liveliest and most capable, and those who best understood us . . .

. . . moonlight in another adobe village, and we four alternately standing or lying down in the center of the plaza, and the Indians running to us from all the houses with gifts, touching us and running back to their houses for more gifts, running to us again and touching us—a living glistening cobweb of runners in the moon—keeping up for hours this naked flash to and fro from center to periphery, periphery to center.

Your Majesty, such were the scenes in which I found myself treating all human beings alike. I screw up my courage to confess it. Perhaps it is the secret thing which life has it in itself to become—a long, long march on the road, meeting people, thrown into relations with them, having to meet demands often terrible and without the aid of mysterious power impossible: demands of healing and understanding, and constantly the exorcism of fear.

With a reasonable man and a timorous man and a carnal man as my companions and even part of me. And who is any of us that without starvation he can go through the kingdoms of starvation?

And seventeen successive days of starvation.

And a sunset, on a plain between very high mountains, with a people who for four months of the year eat only powdered straw . . .

And more starvation . . .

And permanent houses once more, where maize is harvested, and where they gave us brightly decorated blankets. For a hundred leagues good houses and harvested crops, the women better treated than anywhere else. They wear shoes, and blouses open in front and tied with deer string. At sunrise these people lift their clasped hands to the horizon and pass them over their bodies. At sunset they repeat the gesture. As I watched them at these devotions, I recalled a youngster from Cádiz, one of those who died of thirst beside me in the open boat. That boy drank in the beauty of Florida, watched palm and headland along the coast even

in his final delirium. I was sorry he had not lived on to see these natives laving their golden figures in the gold of dawn.

At last we found a sign of our countrymen–what through months and years we had been praying for. On the neck of an Indian a little silver buckle from a sword belt, with a horseshoe nail sewed inside it. . . . We questioned him. He said that men with beards like ours had come from heaven to that river; that they had horses, lances, and swords, and had lanced two Indians.

The country grew more and more doleful. The natives had fled to the mountains, leaving their fields. The land was fertile and full of streams, but the people were wan. They told us our countrymen had burned all the villages, taking with them half the men and all the women and children . . .

Then a day when Indians said that on the night before they had watched the Christians from behind some trees. They saw them take along many persons in chains.

Our countrymen, these slave catchers, were startled when they saw us approaching. Yet almost with their first words they began to recite their troubles. For many days they had been unable to find Indians to capture. They did not know what to do, and were on the point of starvation. The idea of enslaving our Indians occurred to them in due course, and they were vexed at us for preventing it. They had their interpreter make a fine speech. He told our Indians that we were as a matter of fact Christians too, but had gone astray for a long while, and were people of no luck and little heart. But the Christians on horseback were real Christians, and the lords of the land to be obeyed and served. Our Indians considered this point of view. They answered that the real Christians apparently lied, that we could not possibly be Christians. For we appeared out of sunrise, they out of sunset; we cured the sick, while they killed even the healthy; we went naked and barefoot, while they wore clothes, and rode horseback and stuck people with lances; we asked for nothing and gave away all we were given, while they never gave anybody anything and had no other aim than to steal.

Your Majesty will remember my indignation in my first narrative that Christians should be so wicked, especially such as had the advantages of being your subjects. I did not at the time understand the true source of my indignation. I do now, and I will explain it. In facing these marauders

I was compelled to face the Spanish gentleman I myself had been eight years before. It was not easy to think of it. Andrés and Alonso agreed that it was not easy. What, your Majesty, is so melancholy as to confront one's former unthinking and unfeeling self?

It was many days before I could endure the touch of clothing, many a night before I could sleep in a bed.

Shoes were the worst. In the Spanish settlements I dared not go barefoot, for provincials are the most easily shocked of Spaniards. I had not valued enough the pressure of earth on my naked feet while permitted that refreshment.

At first I did not notice other ways in which our ancient civilization was affecting me. Yet soon I observed a certain reluctance in me to do good to others. I would say to myself, "Need I exert what is left of me, I who have undergone tortures in an open boat and every privation and humiliation among the Indians, when there are strong healthy men about me, fresh from Holy Church and from school, who know their Christian duty?" We Europeans all talk this way to ourselves. It has become second nature to us. Each nobleman and alcalde and villager is an avenue that leads us to this way of talking; we can admit it privately, your Majesty, can we not? If a man need a cloak, we do not give it to him if we have our wits about us; nor are we to be caught stretching out our finger in aid of a miserable woman. Someone else will do it, we say. Our communal life dries up our milk: we are barren as the fields of Castile. We regard our native land as a power which acts of itself, and relieves us each of exertion. While with them I thought only about doing the Indians good. But back among my fellow countrymen, I had to be on my guard not to do them positive harm. If one lives where all suffer and starve, one acts on one's own impulse to help. But where plenty abounds, we surrender our generosity, believing that our country replaces us each and several. This is not so, and indeed a delusion. On the contrary the power or mamtaining life in others lives within each of us, and from each of us does it recede when unused. It is a concentrated power. If you are not acquainted with it, your Majesty can have no inkling of what it is like, what it portends, or the ways in which it slips from one. In the name of God, your Majesty,

FAREWELL.

Pliny the Younger

c. 61–*c.* 113

Pliny the Younger (Gaius Plinius Caecilius Secundus) was born in A.D. 61 or 62 in Novum Comum, now the Como region of Italy. He was a member of a distinguished Roman family. His mother was Plinia, sister of Pliny the Elder; the latter adopted the boy in his will, thus making him his heir. Pliny the Younger inherited all the possessions of his famous and affluent uncle, including his valuable library, and including also his name.

The young man was educated in rhetoric under the celebrated Quintilian and had also as his guardian L.Verginius Rufus, who three times declined to become emperor. Thus, when at eighteen Pliny began his career as an advocate, he did so under the most favorable auspices. He held various and important public offices. He was a tribune of the plebs, or representative of the people in the Senate, a commissioner of the military treasury; and in the year 100, he was appointed a consul by the emperor Trajan. Tacitus and possibly Plutarch were also honored in this way by Trajan.

In 111, Pliny was made Governor of Bithynia. There it is supposed that he remained until his death, which probably occurred in 113. His extant works consist of a panegyric on Trajan, delivered at the time of Pliny's elevation to the consulship, and ten volumes of published letters. The tenth of these comprises correspondence with Trajan on administrative matters in Bithynia. Several of the letters are of particular interest, for they contain some of the first descriptions of early Christian ritual and practice.

The younger Pliny was a friend of the historian Tacitus, and many of his published letters were addressed to him. There is no date on

the two letters to Tacitus that are reprinted below. The events which they relate occurred in A.D. 79, when Pliny was eighteen, but the letters were not published until nearly thirty years had passed. It is thus not known when they were written. Nevertheless, they sound as if they were written while Pliny's memory was fresh. It is possible that they were rewritten long after the event from first drafts or notes. In any event, Tacitus had asked Pliny to describe the circumstances of the death of his famous uncle, and the letters do so. The fact that this death occurred as a result of the eruption of Vesuvius gives us an eyewitness account of that famous and terrible disaster.

The first letter has a solemn tone, as if the author knew that it would be preserved for the record. The eruption of Vesuvius which destroyed Pompeii and Herculaneum appears in it only as the rather remote background that gives emphasis to the stoic nobility of the elder Pliny's death. The latter was an important public official as well as a celebrated writer, and his nephew treats him here accordingly.

In the second letter, however, Pliny the Younger's youthfulness emerges. Imitating his uncle's stoicism, he reads Livy under a shower of ashes; and, refusing to flee, strikes what appear to be self-consciously noble attitudes. Nevertheless, he frankly admits his fear. The Stoics and Epicureans held that the world would end in fire. The young Pliny confesses that he believed that the final day had come.

Both of Pliny's letters are self-conscious and a little self-complacent, too. He has been criticized for this; he never wrote with the freedom and naturalness of, for example, Cicero. He always seemed to have one eye on posterity; and, even in the second letter, his protests that his personal experiences are of no importance have a hollow ring. Nevertheless, the qualities emerge that have made Pliny readable throughout the ages, and that may have helped his letters to survive.

There are touches of vainglory that may make us laugh, but at the same time the letters are so modern that we can almost conceive of Pliny as a young college friend writing about a modern disaster. We have read of the last days of Pompeii in our history books, and some may have visited its excavated ruins. But nothing makes that historic tragedy more real than this clear and vivid account of it by a boy, still shaken by fright.

The Eruption of Vesuvius

from *Letters*

TO TACITUS

Your request that I would send you an account of my uncle's death, in order to transmit a more exact relation of it to posterity, deserves my acknowledgments; for, if this accident shall be celebrated by your pen, the glory of it, I am well assured, will be rendered for ever illustrious. And notwithstanding he perished by a misfortune, which, as it involved at the same time a most beautiful country in ruins, and destroyed so many populous cities, seems to promise him an everlasting remembrance; notwithstanding he has himself composed many and lasting works; yet I am persuaded the mentioning of him in your immortal writings will greatly contribute to render his name immortal. Happy I esteem those to be to whom by provision of the gods has been granted the ability either to do such actions as are worthy of being related or to relate them in a manner worthy of being read; but peculiarly happy are they who are blessed with both these uncommon talents: in the number of which my uncle, as his own writings and your history will evidently prove, may justly be ranked. It is with extreme willingness, therefore, that I execute your commands; and should indeed have claimed the task if you had not enjoined it. He was at that time with the fleet under his command at Misenum.[1] On the 24th of August, about one in the afternoon, my mother desired him to observe a cloud which appeared of a very unusual size and shape. He had just taken a turn in the sun,[2] and,

1. In the Bay of Naples.
2. The Romans used to lie or walk naked in the sun after anointing their bodies with oil, which was esteemed as greatly contributing to health, and therefore daily practiced by them. This custom, however, of anointing themselves is inveighed against by the satirists as in the number of their luxurious indulgences; but since we find the elder Pliny here, and the amiable Spurinna in a former letter, practicing

after bathing himself in cold water, and making a light luncheon, gone back to his books: he immediately arose and went out upon a rising ground from whence he might get a better sight of this very uncommon appearance. A cloud, from which mountain was uncertain at this distance (but it was found afterwards to come from Mount Vesuvius), was ascending, the appearance of which I cannot give you a more exact description of than by likening it to that of a pine tree, for it shot up to a great height in the form of a very tall trunk, which spread itself out at the top into a sort of branches; occasioned, I imagine, either by a sudden gust of air that impelled it, the force of which decreased as it advanced upwards, or the cloud itself, being pressed back again by its own weight, expanded in the manner I have mentioned; it appeared sometimes bright and sometimes dark and spotted, according as it was either more or less impregnated with earth and cinders. This phenomenon seemed to a man of such learning and research as my uncle extraordinary and worth further looking into. He ordered a light vessel to be got ready, and gave me leave, if I liked, to accompany him. I said I had rather go on with my work; and it so happened he had himself given me something to write out. As he was coming out of the house, he received a note from Rectina, the wife of Bassus, who was in the utmost alarm at the imminent danger which threatened her, for her villa lying at the foot of Mount Vesuvius, there was no way of escape but by sea; she earnestly entreated him therefore to come to her assistance. He accordingly changed his first intention, and what he had begun from a philosophical, he now carries out in a noble and generous spirit. He ordered the galleys to be put to sea, and went himself on board with an intention of assisting not only Rectina, but the several other towns which lay thickly strewn along that beautiful coast. Hastening then to the place from whence others fled with the utmost terror, he steered his course direct to the point of danger, and with so much calmness and presence of mind as to be able to make and dictate his observations upon the motion and all the phenomena of that dreadful scene. He was now so close to the mountain that the cinders, which grew thicker and hotter the nearer he approached, fell into the ships, together with pumice stones and black pieces of burning rock; they were in danger too not only of being aground by the sudden retreat of the sea but also from the vast fragments which rolled down from the mountain and obstructed all the shore. Here he stopped to consider

this method, we cannot suppose the thing itself was esteemed unmanly, but only when it was attended with some particular circumstances of an overrefined delicacy [Translator].

whether he should turn back again; to which the pilot advising him, "Fortune," said he, "favours the brave; steer to where Pomponianus is." Pomponianus was then at Stabiae,[3] separated by a bay, which the sea, after several insensible windings, forms with the shore. He had already sent his baggage on board; for though he was not at that time in actual danger, yet being within sight of it, and indeed extremely near, if it should in the least increase, he was determined to put to sea as soon as the wind, which was blowing dead inshore, should go down. It was favourable, however, for carrying my uncle to Pomponianus, whom he found in the greatest consternation; he embraced him tenderly, encouraging and urging him to keep up his spirits, and, the more effectually to soothe his fears by seeming unconcerned himself, ordered a bath to be got ready, and then, after having bathed, sat down to supper with great cheerfulness, or at least (what is just as heroic) with every appearance of it. Meanwhile broad flames shone out in several places from Mount Vesuvius, which the darkness of the night contributed to render still brighter and clearer. But my uncle, in order to soothe the apprehensions of his friend, assured him it was only the burning of the villages, which the country people had abandoned to the flames; after this he retired to rest, and it is most certain he was so little disquieted as to fall into a sound sleep, for his breathing, which, on account of his corpulence, was rather heavy and sonorous, was heard by the attendants outside. The court which led to his apartment being now almost filled with stones and ashes, if he had continued there any time longer, it would have been impossible for him to have made his way out. So he was awoke and got up, and went to Pomponianus and the rest of his company, who were feeling too anxious to think of going to bed. They consulted together whether it would be most prudent to trust to the houses, which now rocked from side to side with frequent and violent concussions as though shaken from their very foundations; or fly to the open fields, where the calcined stones and cinders, though light indeed, yet fell in large showers, and threatened destruction. In this choice of dangers they resolved for the fields: a resolution which, while the rest of the company were hurried into by their fears, my uncle embraced upon cool and deliberate consideration. They went out then, having pillows tied upon their heads with napkins; and this was their whole defence against the storm of stones that fell round them. It was now day everywhere else, but *there* a deeper darkness prevailed than in the thickest night, which, however,

3. Now called Castellammare, in the Bay of Naples [Translator].

was in some degree alleviated by torches and other lights of various kinds. They thought proper to go farther down upon the shore to see if they might safely put out to sea, but found the waves still running extremely high and boisterous. There my uncle, laying himself down upon a sail-cloth, which was spread for him, called twice for some cold water, which he drank, when immediately the flames, preceded by a strong whiff of sulphur, dispersed the rest of the party, and obliged him to rise. He raised himself up with the assistance of two of his servants, and instantly fell down dead; suffocated, as I conjecture, by some gross and noxious vapour, having always had a weak throat, which was often inflamed. As soon as it was light again, which was not till the third day after this melancholy accident, his body was found entire, and without any marks of violence upon it, in the dress in which he fell, and looking more like a man asleep than dead. During all this time my mother and I, who were at Misenum—but this has no connection with your history, and you did not desire any particulars besides those of my uncle's death; so I will end here, only adding that I have faithfully related to you what I was either an eye-witness of myself or received immediately after the accident happened, and before there was time to vary the truth. You will pick out of this narrative whatever is most important, for a letter is one thing, a history another; it is one thing writing to a friend, another thing writing to the public. Farewell.

TO CORNELIUS TACITUS

The letter which, in compliance with your request, I wrote to you concerning the death of my uncle has raised, it seems, your curiosity to know what terrors and dangers attended me while I continued at Misenum, for there, I think, my account broke off:

> Though my shock'd soul recoils, my tongue shall tell.

My uncle having left us, I spent such time as was left on my studies (it was on their account indeed that I had stopped behind), till it was time for my bath. After which I went to supper, and then fell into a short and uneasy sleep. There had been noticed for many days before a trembling of the earth, which did not alarm us much, as this is quite an ordinary occurrence in Campania; but it was so particularly violent that night that it not only shook but actually overturned, as it would seem, everything about us. My mother rushed into my chamber, where she found me rising in order to awaken her. We sat down in the open court of the

house, which occupied a small space between the buildings and the sea. As I was at that time but eighteen years of age, I know not whether I should call my behaviour, in this dangerous juncture, courage or folly; but I took up Livy, and amused myself with turning over that author, and even making extracts from him, as if I had been perfectly at my leisure. Just then, a friend of my uncle's, who had lately come to him from Spain, joined us, and observing me sitting by my mother with a book in my hand, reproved her for her calmness, and me at the same time for my careless security: nevertheless I went on with my author. Though it was now morning, the light was still exceedingly faint and doubtful; the buildings all around us tottered, and though we stood upon open ground, yet as the place was narrow and confined, there was no remaining without imminent danger: we therefore resolved to quit the town. A panic-striken crowd followed us, and (as to a mind distracted with terror every suggestion seems more prudent than its own) pressed on us in dense array to drive us forward as we came out. Being at a convenient distance from the houses, we stood still, in the midst of a most dangerous and dreadful scene. The chariots, which we had ordered to be drawn out, were so agitated backwards and forwards, though upon the most level ground, that we could not keep them steady, even by supporting them with large stones. The sea seemed to roll back upon itself, and to be driven from its banks by the convulsive motion of the earth; it is certain at least the shore was considerably enlarged, and several sea animals were left upon it. On the other side, a black and dreadful cloud, broken with rapid, zigzag flashes, revealed behind it variously shaped masses of flame: these last were like sheet-lightning, but much larger. Upon this our Spanish friend, whom I mentioned above, addressing himself to my mother and me with great energy and urgency: "If your brother," he said, "if your uncle be safe, he certainly wishes you may be so too; but if he perished, it was his desire, no doubt, that you might both survive him: why therefore do you delay your escape a moment?" We could never think of our own safety, we said, while we were uncertain of his. Upon this our friend left us, and withdrew from the danger with the utmost precipitation. Soon afterwards, the cloud began to descend, and cover the sea. It had already surrounded and concealed the island of Capreae and the promontory of Misenum. My mother now besought, urged, even commanded me to make my escape at any rate, which, as I was young, I might easily do; as for herself, she said, her age and corpulency rendered all attempts of that sort impossible; however, she would willingly meet death if she could have the satisfaction of seeing that she was not

the occasion of mine. But I absolutely refused to leave her, and, taking her by the hand, compelled her to go with me. She complied with great reluctance, and not without many reproaches to herself for retarding my flight. The ashes now began to fall upon us, though in no great quantity. I looked back; a dense, dark mist seemed to be following us, spreading itself over the country like a cloud. "Let us turn out of the highroad," I said, "while we can still see, for fear that, should we fall in the road, we should be pressed to death in the dark by the crowds that are following us." We had scarcely sat down when night came upon us, not such as we have when the sky is cloudy, or when there is no moon, but that of a room when it is shut up, and all the lights put out. You might hear the shrieks of women, the screams of children, and the shouts of men; some calling for their children, others for their parents, others for their husbands, and seeking to recognize each other by the voices that replied; one lamenting his own fate, another that of his family; some wishing to die, from the very fear of dying; some lifting their hands to the gods; but the greater part convinced that there were now no gods at all, and that the final endless night of which we have heard had come upon the world.[4] Among these there were some who augmented the real terrors by others imaginary or wilfully invented. I remember some who declared that one part of Misenum had fallen, that another was on fire; it was false, but they found people to believe them. It now grew rather lighter, which we imagined to be rather the forerunner of an approaching burst of flames (as in truth it was) than the return of day; however, the fire fell at a distance from us: then again we were immersed in thick darkness, and a heavy shower of ashes rained upon us, which we were obliged every now and then to stand up to shake off, otherwise we should have been crushed and buried in the heap. I might boast that, during all this scene of horror, not a sigh, or expression of fear, escaped me: my support was grounded in that miserable, though mighty, consolation that all mankind were involved in the same calamity, and that I was perishing with the world itself. At last this dreadful darkness was dissipated by degrees, like a cloud or smoke; the real day returned, and even the sun shone out, though with a lurid light, as when an eclipse is coming on. Every object that presented itself to our eyes (which were extremely weakened) seemed changed, being covered deep with ashes as if with snow. We returned to Misenum, where we refreshed ourselves as well as we could, and passed

4. The Stoic and Epicurean philosophers held that the world was to be destroyed by fire, and all things fall again into original chaos; not excepting even the national gods themselves from the destruction of this general conflagration [Translator].

an anxious night between hope and fear; though, indeed, with a much larger share of the latter, for the earthquake still continued, while many frenzied persons ran up and down heightening their own and their friends' calamities by terrible predictions. However, my mother and I, notwithstanding the danger we had passed, and that which still threatened us, had no thoughts of leaving the place till we could receive some news of my uncle.

And now, you will read this narrative without any view of inserting it in your history, of which it is not in the least worthy; and, indeed, you must put it down to your own request if it should appear not worth even the trouble of a letter. Farewell.

The foregoing consists of Letters LXV and LXVI translated by William Melmoth.

Cornelius Tacitus

c. 55–*c.* 120

Tacitus (his given name may have been Publius or Gaius) was probably of noble Roman blood. Much of what little we can find out about him is in his own works and the letters of his friend, the Younger Pliny. "I know that your *Histories* will be immortal," said Pliny. They are.

Nine emperors, Nero among them, governed or misgoverned Rome in his lifetime. Three of these–Vespasian, Titus, Domitian–lifted Tacitus rank by rank in the public service. Fame touched him early, as an orator. He married the daughter of Julius Agricola. In A.D. 79 or 80, Agricola became the first general to put all Britain under Roman control. His name was loud in the city. Domitian feared him as a rival. Agricola died "in the prime of a vigorous manhood," probably poisoned.

Tacitus composed a burning memorial to his father-in-law (see below). Much earlier, he had published the *Dialogue on Orators*. Four years away from Rome may have given him the source for his *Germania*. This brings us our fullest early news of the Germans, as *Agricola* does of the Britons.

Under the insane terror of Domitian's last years, Tacitus was forced to look on at the imperial murder of friends and fellow officials. It marked his mind with blackness and shadowed his two major works. Of these, the *Histories* laid down events from A.D. 69 to 97; the *Annals* traced out the disorders of Rome from Tiberius to Nero's end in 68. These were written under the new "liberal" emperors, Nerva and Trajan.

In A.D. 97 Tacitus became a consul or chief magistrate. With his friend Pliny he convicted Marius Priscus, a notorious African governor accused of crimes against his subjects. An inscription found in

the twentieth century names Tacitus as proconsul of Asia Minor about 112. After that we hear no more of him.

Suppose you were a member of the Supreme Soviet under Joseph Stalin, dictator of Russia between 1927 and 1953. Day after day, during the state trials of the 1930's, you watched the old Bolsheviks, men whom you had lived and worked with, stand up and confess treason against the state. You yourself were forced to praise the dictator. You approved the death sentence. And all the while you knew that these acts of treason were unbelievable. You knew these men. They could never have betrayed their party and their country. It was a lie. Stalin feared them. He had ordered their destruction; and the whole engine of the state, even the accused themselves, moved to give a color of justice to what was in fact persecution and madness.

Then Stalin was dead, and after a while it became possible to tell at least some part of the truth. How would you feel? That is how Tacitus must have felt when the emperor Domitian was finally murdered. And what would you do? We know what Tacitus did. He set out to write the life story of one of Domitian's victims, an honorable man well known to him, his father-in-law and his friend. He called it *The Life of Gnaeus Julius Agricola.* He meant to make Agricola's name stand for all those other men of principle destroyed by the tyrant. Moreover, since Agricola had been a great Roman general, Tacitus would be writing history, too. History, he said, could do nothing better than "to let no worthy action be uncommemorated," to condemn "evil words and deeds" in the eyes of later ages.

His book would become in some measure a hymn of praise to a good soldier. He would, in fact, make Agricola a kind of ideal West Pointer. He would tell how he went to school at soldiering under Suetonius Paulinus in Britain; how "he would learn from the skillful, and keep pace with the bravest, would attempt nothing for display, would avoid nothing from fear." He would mention Agricola's term as governor of Asia, where he had to deal with a swindling proconsul, and his service in Aquitania. Then he would bring him back to Britain and show his talent as a soldier rising gradually to its crest at the battle of Mons Graupius. He would describe how Agricola returned to Rome, his prudent behavior in the face of great popularity, and his mysterious death. Tacitus' geography might be shaky,

and the speeches he gave to his characters were certainly made up; but he would be careful to set down only such matters as he believed to be fact, even as to the lack of evidence that Agricola had been poisoned.

Like his contemporary Plutarch, Tacitus was more a student of man than a historian; and in an age "so cruel, so hostile to all virtue," he was more moralist than either. What we have called the great ideas were well known to him. He lived by them. History? It was his trade. Tyranny? Who knew it better than Tacitus? War and peace? He could hardly tell one from another in his time. Plainly he belonged to an aristocracy, the Roman senatorial class. More often than not, this was also an oligarchy—a rule by the prosperous few. Like the best men of his class, he lived according to the principles of courage and honor. And virtue? He gave us proof of this in the great speech which ends his *Agricola*. Meant as praise of Agricola, it is also his own confession. See, he says, our shame. In the madness of Domitian, we were faced with a moral conflict we could not solve: a conflict between loyalty to the empire and loyalty to a class, to justice, to truth itself. We could not act, and because of this the best men in Rome died.

The Life of Gnaeus Julius Agricola

To bequeath to posterity a record of the deeds and characters of distinguished men is an ancient practice which even the present age, careless as it is of its own sons, has not abandoned whenever some great and conspicuous excellence has conquered and risen superior to that failing, common to petty and to great states, blindness and hostility to goodness. But in days gone by, as there was a greater inclination and a more open path to the achievement of memorable actions, so the man of highest genius was led by the simple reward of a good conscience to hand on without partiality or self-seeking the remembrance of greatness. Many too thought that to write their own lives showed the confidence of integrity rather than presumption. Of Rutilius and Scaurus no one doubted the honesty or questioned the motives. So true is it that merit is best appreciated by the age in which it thrives most easily. But in these days, I, who have to record the life of one who has passed away, must crave an indulgence, which I should not have had to ask had I only to inveigh against an age so cruel, so hostile to all virtue.

We have read that the panegyrics pronounced by Arulenus Rusticus on Thrasea Paetus, and by Herennius Senecio on Helvidius Priscus, were made capital crimes, that not only their persons but their very books were objects of rage, and that the triumvirs were commissioned to burn in the forum those works of splendid genius. They fancied, forsooth, that in that fire the voice of the Roman people, the freedom of the Senate, and the conscience of the human race were perishing, while at the same time they banished the teachers of philosophy, and exiled every noble pursuit, that nothing good might anywhere confront them. Certainly we showed a magnificent example of patience; as a former age had witnessed the extreme of liberty, so we witnessed the extreme of servitude, when the informer robbed us of the interchange of speech and hearing. We should

have lost memory as well as voice, had it been as easy to forget as to keep silence.

Now at last our spirit is returning. And yet, though at the dawn of a most happy age Nerva Caesar blended things once irreconcilable, sovereignty and freedom, though Nerva Trajan is now daily augmenting the prosperity of the time, and though the public safety has not only our hopes and good wishes, but has also the certain pledge of their fulfillment, still, from the necessary condition of human frailty, the remedy works less quickly than the disease. As our bodies grow but slowly, perish in a moment, so it is easier to crush than to revive genius and its pursuits. Besides, the charm of indolence steals over us, and the idleness which at first we loathed we afterwards love. What if during those fifteen years, a large portion of human life, many were cut off by ordinary casualties, and the ablest fell victims to the Emperor's rage, if a few of us survive, I may almost say, not only others but our own selves, survive, though there have been taken from the midst of life those many years which brought the young in dumb silence to old age, and the old almost to the very verge and end of existence! Yet we shall not regret that we have told, though in language unskillful and unadorned, the story of past servitude, and borne our testimony to present happiness. Meanwhile this book, intended to do honor to Agricola, my father-in-law, will, as an expression of filial regard, be commended, or at least excused.

Gnaeus Julius Agricola was born at the ancient and famous colony of Forum Julii. Each of his grandfathers was an Imperial procurator, that is, of the highest equestrian rank. His father, Julius Graecinus, a member of the Senatorian order, and distinguished for his pursuit of eloquence and philosophy, earned for himself by these very merits the displeasure of Caius Caesar. He was ordered to impeach Marcus Silanus, and because he refused was put to death. His mother was Julia Procilla, a lady of singular virtue. Brought up by her side with fond affection, he passed his boyhood and youth in the cultivation of every worthy attainment. He was guarded from the enticements of the profligate not only by his own good and straightforward character, but also by having, when quite a child, for the scene and guide of his studies, Massilia, a place where refinement and provincial frugality were blended and happily combined. I remember that he used to tell us how in his early youth he would have imbibed a keener love of philosophy than became a Roman and a senator, had not his mother's good sense checked his excited and ardent spirit. It was the case of a lofty and aspiring soul craving with more eagerness than caution the beauty and splendor of great and glorious renown. But

it was soon mellowed by reason and experience, and he retained from his learning that most difficult of lessons—moderation.

He served his military apprenticeship in Britain to the satisfaction of Suetonius Paulinus, a painstaking and judicious officer, who, to test his merits, selected him to share his tent. Without the recklessness with which young men often make the profession of arms a mere pastime, and without indolence, he never availed himself of his tribune's rank or his inexperience to procure enjoyment or to escape from duty. He sought to make himself acquainted with the province and known to the army; he would learn from the skillful, and keep pace with the bravest, would attempt nothing for display, would avoid nothing from fear, and would be at once careful and vigilant.

Never indeed had Britain been more excited, or in a more critical condition. Veteran soldiers had been massacred, colonies burnt, armies cut off. The struggle was then for safety; it was soon to be for victory. And though all this was conducted under the leadership and direction of another, though the final issue and the glory of having won back the province belonged to the general, yet skill, experience, and ambition were acquired by the young officer. His soul too was penetrated with the desire of warlike renown, a sentiment unwelcome to an age which put a sinister construction on eminent merit, and made glory as perilous as infamy.

From Britain he went to Rome, to go through the regular course of office, and there allied himself with Domitia Decidiana, a lady of illustrious birth. The marriage was one which gave a man ambitious of advancement distinction and support. They lived in singular harmony, through their mutual affection and preference of each other to self. However, the good wife deserves the greater praise, just as the bad incurs a heavier censure.

Appointed Quaestor, the ballot gave him Asia for his province, Salvius Titianus for his proconsul. Neither the one nor the other corrupted him, though the province was rich and an easy prey to the wrongdoer, while the proconsul, a man inclined to every species of greed, was ready by all manner of indulgence to purchase a mutual concealment of guilt.

A daughter was there added to his family to be his stay and comfort, for shortly after he lost the son that had before been born to him. The year between his quaestorship and tribunate, as well as the year of the tribunate itself, he passed in retirement and inaction, for he knew those times of Nero when indolence stood for wisdom. His praetorship was passed in the same consistent quietude, for the usual judicial functions

did not fall to his lot. The games and the pageantry of his office he ordered according to the mean between strictness and profusion, avoiding extravagance, but not missing distinction. He was afterwards appointed by Galba to draw up an account of the temple offerings, and his searching scrutiny relieved the conscience of the state from the burden of all sacrileges but those committed by Nero.

The following year inflicted a terrible blow on his affections and his fortunes. Otho's fleet, while cruising idly about, cruelly ravaged Intemelii, a district of Liguria; his mother, who was living there on her own estate, was murdered. The estate itself and a large part of her patrimony were plundered. This was indeed the occasion of the crime. Agricola, who instantly set out to discharge the duties of affection, was overtaken by the tidings that Vespasian was aiming at the throne. He at once joined his party. Vespasian's early policy, and the government of Rome were directed by Mucianus, for Domitian was a mere youth, and from his father's elevation sought only the opportunities of indulgence.

Agricola, having been sent by Mucianus to conduct a levy of troops, and having done his work with integrity and energy, was appointed to command the 20th Legion, which had been slow to take the new oath of allegiance, and the retiring officer of which was reported to be acting disloyally. It was a trying and formidable charge for even officers of consular rank, and the late praetorian officer, perhaps from his own disposition, perhaps from that of the soldiers, was powerless to restrain them. Chosen thus at once to supersede and to punish, Agricola, with a singular moderation, wished it to be thought that he had found rather than made an obedient soldiery.

Britain was then under Vettius Bolanus, who governed more mildly than suited so turbulent a province. Agricola moderated his energy and restrained his ardor, that he might not grow too important, for he had learned to obey, and understood well how to combine expediency with honor. Soon afterwards Britain received for its governor a man of consular rank, Petilius Cerialis. Agricola's merits had now room for display. Cerialis let him share at first indeed only the toils and dangers, but before long the glory of war, often by way of trial putting him in command of part of the army, and sometimes, on the strength of the result, of larger forces. Never to enhance his own renown did Agricola boast of his exploits; he always referred his success, as though he were but an instrument, to his general and director. Thus by his valor in obeying orders and by his modesty of speech he escaped jealousy without losing distinction.

As he was returning from the command of the legion, Vespasian ad-

mitted him into the patrician order, and then gave him the province of Aquitania, a pre-eminently splendid appointment both from the importance of its duties and the prospect of the consulate to which the Emperor destined him. Many think the genius of the soldier wants subtlety, because military law, which is summary and blunt, and apt to appeal to the sword, finds no exercise for the refinements of the forum. Yet Agricola, from his natural good sense, though called to act among civilians, did his work with ease and correctness. And, besides, the times of business and relaxation were kept distinct. When his public and judicial duties required it, he was dignified, thoughtful, austere, and yet often merciful; when business was done with, he wore no longer the official character. He was altogether without harshness, pride, or the greed of gain. With a most rare felicity, his good nature did not weaken his authority, nor his strictness the attachment of his friends. To speak of uprightness and purity in such a man would be an insult to his virtues. Fame itself, of which even good men are often weakly fond, he did not seek by an ostentation of virtue or by artifice. He avoided rivalry with his colleagues, contention with his procurator, thinking such victories no honor and defeat disgrace. For somewhat less than three years he was kept in his governorship, and was then recalled with an immediate prospect of the consulate. A general belief went with him that the province of Britain was to be his, not because he had himself hinted it, but because he seemed worthy of it. Public opinion is not always mistaken; sometimes even it chooses the right man. He was consul, and I but a youth, when he betrothed to me his daughter, a maiden even then of noble promise. After his consulate he gave her to me in marriage, and was then at once appointed to the government of Britain, with the addition of the sacred office of the pontificate.

The geography and inhabitants of Britain, already described by many writers, I will speak of, not that my research and ability may be compared with theirs, but because the country was then for the first time thoroughly subdued. And so matters, which as being still not accurately known my predecessors embellished with their eloquence, shall now be related on the evidence of facts.

Britain, the largest of the islands which Roman geography includes, is so situated that it faces Germany on the east, Spain on the west; on the south it is even within sight of Gaul; its northern extremities, which have no shores opposite to them, are beaten by the waves of a vast open sea. The form of the entire country has been compared by Livy and Fabius Rusticus, the most graphic among ancient and modern historians, to an

oblong shield or battle-ax. And this no doubt is its shape without Caledonia, so that it has become the popular description of the whole island. There is, however, a large and irregular tract of land which juts out from its furthest shores, tapering off in a wedgelike form. Round these coasts of remotest ocean the Roman fleet then for the first time sailed, ascertained that Britain is an island, and simultaneously discovered and conquered what are called the Orcades, islands hitherto unknown. Thule too was descried in the distance, which as yet had been hidden by the snows of winter. Those waters, they say, are sluggish, and yield with difficulty to the oar, and are not even raised by the wind as other seas. The reason, I suppose, is that lands and mountains, which are the cause and origin of storms, are here comparatively rare, and also that the vast depths of that unbroken expanse are more slowly set in motion. But to investigate the nature of the ocean and the tides is no part of the present work, and many writers have discussed the subject. I would simply add that nowhere has the sea a wider dominion, that it has many currents running in every direction, that it does not merely flow and ebb within the limits of the shore, but penetrates and winds far inland, and finds a home among hills and mountains as though in its own domain.

Who were the original inhabitants of Britain, whether they were indigenous or foreign, is, as usual among barbarians, little known. Their physical characteristics are various, and from these conclusions may be drawn. The red hair and large limbs of the inhabitants of Caledonia point clearly to a German origin. The dark complexion of the Silures, their usually curly hair, and the fact that Spain is the opposite shore to them, are an evidence that Iberians of a former date crossed over and occupied these parts. Those who are nearest to the Gauls are also like them, either from the permanent influence of original descent, or because in countries which run out so far to meet each other climate has produced similar physical qualities. But a general survey inclines me to believe that the Gauls established themselves in an island so near to them. Their religious belief may be traced in the strongly marked British superstition. The language differs but little; there is the same boldness in challenging danger, and, when it is near, the same timidity in shrinking from it. The Britons, however, exhibit more spirit, as being a people whom a long peace has not yet enervated. Indeed we have understood that even the Gauls were once renowned in war; but, after a while, sloth following on ease crept over them, and they lost their courage along with their freedom. This too has happened to the long-conquered tribes of Britain; the rest are still what the Gauls once were.

Their strength is in infantry. Some tribes fight also with the chariot. The higher in rank is the charioteer; the dependants fight. They were once ruled by kings, but are now divided under chieftains into factions and parties. Our greatest advantage in coping with tribes so powerful is that they do not act in concert. Seldom is it that two or three states meet together to ward off a common danger. Thus, while they fight singly, all are conquered.

Their sky is obscured by continual rain and cloud. Severity of cold is unknown. The days exceed in length those of our part of the world; the nights are bright, and in the extreme north so short that between sunlight and dawn you can perceive but a slight distinction. It is said that, if there are no clouds in the way, the splendor of the sun can be seen throughout the night, and that he does not rise and set, but only crosses the heavens. The truth is that the low shadow thrown from the flat extremities of the earth's surface does not raise the darkness to any height, and the night thus fails to reach the sky and stars.

With the exception of the olive and vine, and plants which usually grow in warmer climates, the soil will yield, and even abundantly, all ordinary produce. It ripens indeed slowly, but is of rapid growth, the cause in each case being the same, namely, the excessive moisture of the soil and of the atmosphere. Britain contains gold and silver and other metals, as the prize of conquest. The ocean, too, produces pearls, but of a dusky and bluish hue. Some think that those who collect them have not the requisite skill, as in the Red Sea the living and breathing pearl is torn from the rocks, while in Britain they are gathered just as they are thrown up. I could myself more readily believe that the natural properties of the pearls are in fault than our keenness for gain.

The Britons themselves bear cheerfully the conscription, the taxes, and the other burdens imposed on them by the Empire, if there be no oppression. Of this they are impatient; they are reduced to subjection, not as yet to slavery. The deified Julius, the very first Roman who entered Britain with an army, though by a successful engagement he struck terror into the inhabitants and gained possession of the coast, must be regarded as having indicated rather than transmitted the acquisition to future generations. Then came the civil wars, and the arms of our leaders were turned against their country, and even when there was peace, there was a long neglect of Britain. This Augustus spoke of as policy, Tiberius as an inherited maxim. That Caius Caesar meditated an invasion of Britain is perfectly clear, but his purposes, rapidly formed, were easily changed, and his vast attempts on Germany had failed. Claudius was the first to

renew the attempt, and conveyed over into the island some legions and auxiliaries, choosing Vespasian to share with him the campaign, whose approaching elevation had this beginning. Several tribes were subdued and kings made prisoners, and destiny learned to know its favorite.

Aulus Plautius was the first governor of consular rank, and Ostorius Scapula the next. Both were famous soldiers, and by degrees the nearest portions of Britain were brought into the condition of a province, and a colony of veterans was also introduced. Some of the states were given to King Cogidumnus, who lived down to our day a most faithful ally. So was maintained the ancient and long-recognized practice of the Roman people, which seeks to secure among the instruments of dominion even kings themselves. Soon after, Didius Gallus consolidated the conquests of his predecessors, and advanced a very few positions into parts more remote, to gain the credit of having enlarged the sphere of government. Didius was succeeded by Veranius, who died within the year. Then Suetonius Paulinus enjoyed success for two years; he subdued several tribes and strengthened our military posts. Thus encouraged, he made an attempt on the island of Mona, as a place from which the rebels drew reinforcements; but in doing this he left his rear open to attack.

Relieved from apprehension by the legate's absence, the Britons dwelt much among themselves on the miseries of subjection, compared their wrongs, and exaggerated them in the discussion. "All we get by patience," they said, "is that heavier demands are exacted from us, as from men who will readily submit. A single king once ruled us; now two are set over us; a legate to tyrannize over our lives, a procurator to tyrannize over our property. Their quarrels and their harmony are alike ruinous to their subjects. The centurions of the one, the slaves of the other, combine violence with insult. Nothing is now safe from their avarice, nothing from their lust. In war it is the strong who plunders; now, it is for the most part by cowards and poltroons that our homes are rifled, our children torn from us, the conscription enforced, as though it were for our country alone that we could not die. For, after all, what a mere handful of soldiers has crossed over, if we Britons look at our own numbers. Germany did thus actually shake off the yoke, and yet its defense was a river, not the ocean. With us, fatherland, wives, parents, are the motives to war; with them, only greed and profligacy. They will surely fly, as did the now deified Julius, if once we emulate the valor of our sires. Let us not be panic-stricken at the result of one or two engagements. The miserable have more fury and greater resolution. Now even the gods are beginning to pity us, for they are keeping away the Roman general, and detaining

his army far from us in another island. We have already taken the hardest step; we are deliberating. And indeed, in all such designs, to dare is less perilous than to be detected."

Rousing each other by this and like language, under the leadership of Boudicca, a woman of kingly descent (for they admit no distinction of sex in their royal successions), they all rose in arms. They fell upon our troops, which were scattered on garrison duty, stormed the forts, and burst into the colony itself, the headquarters, as they thought, of tyranny. In their rage and their triumph, they spared no variety of a barbarian's cruelty. Had not Paulinus on hearing of the outbreak in the province rendered prompt succor, Britain would have been lost. By one successful engagement, he brought it back to its former obedience, though many, troubled by the conscious guilt of rebellion and by particular dread of the legate, still clung to their arms. Excellent as he was in other respects, his policy to the conquered was arrogant, and exhibited the cruelty of one who was avenging private wrongs. Accordingly Petronius Turpilianus was sent out to initiate a milder rule. A stranger to the enemy's misdeeds and so more accessible to their penitence, he put an end to old troubles, and, attempting nothing more, handed the province over to Trebellius Maximus. Trebellius, who was somewhat indolent, and never ventured on a campaign, controlled the province by a certain courtesy in his administration. Even the barbarians now learned to excuse many attractive vices, and the occurrence of the civil war gave a good pretext for inaction. But we were sorely troubled with mutiny, as troops habituated to service grew demoralized by idleness. Trebellius, who had escaped the soldiers' fury by flying and hiding himself, governed henceforth on sufferance, a disgraced and humbled man. It was a kind of bargain; the soldiers had their license, the general had his life; and so the mutiny cost no bloodshed. Nor did Vettius Bolanus, during the continuance of the civil wars, trouble Britain with discipline. There was the same inaction with respect to the enemy, and similar unruliness in the camp, only Bolanus, an upright man, whom no misdeeds made odious, had secured affection in default of the power of control.

When however Vespasian had restored to unity Britain as well as the rest of the world, in the presence of great generals and renowned armies the enemy's hopes were crushed. They were at once panic-stricken by the attack of Petilius Cerialis on the state of the Brigantes, said to be the most prosperous in the entire province. There were many battles, some by no means bloodless, and his conquests, or at least his wars, embraced a large part of the territory of the Brigantes. Indeed he would have alto-

gether thrown into the shade the activity and renown of any other successor; but Julius Frontinus was equal to the burden, a great man as far as greatness was then possible, who subdued by his arms the powerful and warlike tribe of the Silures, surmounting the difficulties of the country as well as the valor of the enemy.

Such was the state of Britain, and such were the vicissitudes of the war, which Agricola found on his crossing over about midsummer. Our soldiers made it a pretext for carelessness, as if all fighting was over, and the enemy were biding their time. The Ordovices, shortly before Agricola's arrival, had destroyed nearly the whole of a squadron of allied cavalry quartered in their territory. Such a beginning raised the hopes of the country, and all who wished for war approved the precedent, and anxiously watched the temper of the new governor. Meanwhile Agricola, though summer was past and the detachments were scattered throughout the province, though the soldiers' confident anticipation of inaction for that year would be a source of delay and difficulty in beginning a campaign, and most advisers thought it best simply to watch all weak points, resolved to face the peril. He collected a force of veterans and a small body of auxiliaries; then as the Ordovices would not venture to descend into the plain, he put himself in front of the ranks to inspire all with the same courage against a common danger, and led his troops up a hill. The tribe was all but exterminated.

Well aware that he must follow up the prestige of his arms, and that in proportion to his first success would be the terror of the other tribes, he formed the design of subjugating the island of Mona, from the occupation of which Paulinus had been recalled, as I have already related, by the rebellion of the entire province. But, as his plans were not matured, he had no fleet. The skill and resolution of the general accomplished the passage. With some picked men of the auxiliaries, disencumbered of all baggage, who knew the shallows and had that national experience in swimming which enables the Britons to take care not only of themselves but of their arms and horses, he delivered so unexpected an attack that the astonished enemy who were looking for a fleet, a naval armament, and an assault by sea, thought that to such assailants nothing could be formidable or invincible. And so, peace having been sued for and the island given up, Agricola became great and famous as one who, when entering on his province, a time which others spend in vain display and a round of ceremonies, chose rather toil and danger. Nor did he use his success for self-glorification, or apply the name of campaigns and victories to the repression of a conquered people. He did not even describe his

achievements in a laureled letter. Yet by thus disguising his renown he really increased it, for men inferred the grandeur of his aspirations from his silence about services so great.

Next, with thorough insight into the feelings of his province, and taught also, by the experience of others, that little is gained by conquest if followed by oppression, he determined to root out the causes of war. Beginning first with himself and his dependants, he kept his household under restraint, a thing as hard to many as ruling a province. He transacted no public business through freedmen or slaves; no private leanings, no recommendations or entreaties of friends, moved him in the selection of centurions and soldiers, but it was ever the best man whom he thought most trustworthy. He knew everything, but did not always act on his knowledge. Trifling errors he treated with leniency, serious offenses with severity. Nor was it always punishment, but far oftener penitence, which satisfied him. He preferred to give office and power to men who would not transgress, rather than have to condemn a transgressor. He lightened the exaction of corn and tribute by an equal distribution of the burden, while he got rid of those contrivances for gain which were more intolerable than the tribute itself. Hitherto the people had been compelled to endure the farce of waiting by the closed granary and of purchasing corn unnecessarily and raising it to a fictitious price. Difficult byroads and distant places were fixed for them, so that states with a winter camp close to them had to carry corn to remote and inaccessible parts of the country, until what was within the reach of all became a source of profit to the few.

Agricola, by the repression of these abuses in his very first year of office, restored to peace its good name, when, from either the indifference or the harshness of his predecessors, it had come to be as much dreaded as war. When, however, summer came, assembling his forces, he continually showed himself in the ranks, praised good discipline, and kept the stragglers in order. He would himself choose the position of the camp, himself explore the estuaries and forests. Meanwhile he would allow the enemy no rest, laying waste his territory with sudden incursions, and, having sufficiently alarmed him, would then by forbearance display the allurements of peace. In consequence, many states, which up to that time had been independent, gave hostages, and laid aside their animosities; garrisons and forts were established among them with a skill and diligence with which no newly-acquired part of Britain had before been treated.

The following winter passed without disturbance, and was employed in salutary measures. For, to accustom to rest and repose through the charms of luxury a population scattered and barbarous and therefore inclined to war, Agricola gave private encouragement and public aid to the building of temples, courts of justice and dwelling houses, praising the energetic, and reproving the indolent. Thus an honorable rivalry took the place of compulsion. He likewise provided a liberal education for the sons of the chiefs, and showed such a preference for the natural powers of the Britons over the industry of the Gauls that they who lately disdained the tongue of Rome now coveted its eloquence. Hence, too, a liking sprang up for our style of dress, and the "toga" became fashionable. Step by step they were led to things which dispose to vice, the lounge, the bath, the elegant banquet. All this in their ignorance they called civilization, when it was but a part of their servitude.

The third year of his campaigns opened up new tribes, our ravages on the native population being carried as far as the Taus, an estuary so called. This struck such terror into the enemy that he did not dare to attack our army, harassed though it was by violent storms; and there was even time for the erection of forts. It was noted by experienced officers that no general had ever shown more judgment in choosing suitable positions, and that not a single fort established by Agricola was either stormed by the enemy or abandoned by capitulation or flight. Sorties were continually made; for these positions were secured from protracted siege by a year's supply. So winter brought with it no alarms, and each garrison could hold its own, as the baffled and despairing enemy, who had been accustomed often to repair his summer losses by winter successes, found himself repelled alike both in summer and winter.

Never did Agricola in a greedy spirit appropriate the achievements of others; the centurion and the prefect both found in him an impartial witness of their every action. Some persons used to say that he was too harsh in his reproofs, and that he was as severe to the bad as he was gentle to the good. But his displeasure left nothing behind it; reserve and silence in him were not to be dreaded. He thought it better to show anger than to cherish hatred.

The fourth summer he employed in securing what he had overrun. Had the valor of our armies and the renown of the Roman name permitted it, a limit to our conquests might have been found in Britain itself. Clota and Bodotria, estuaries which the tides of two opposite seas carry far back into the country, are separated by but a narrow strip of land.

This Agricola then began to defend with a line of forts, and, as all the country to the south was now occupied, the enemy were pushed into what might be called another island.

In the fifth year of the war Agricola, himself in the leading ship, crossed the Clota, and subdued in a series of victories tribes hitherto unknown. In that part of Britain which looks towards Ireland, he posted some troops, hoping for fresh conquests rather than fearing attack, inasmuch as Ireland, being between Britain and Spain and conveniently situated for the seas round Gaul, might have been the means of connecting with great mutual benefit the most powerful parts of the empire. Its extent is small when compared with Britain, but exceeds the islands of our seas. In soil and climate, in the disposition, temper, and habits of its population, it differs but little from Britain. We know most of its harbors and approaches, and that through the intercourse of commerce. One of the petty kings of the nation, driven out by internal faction, had been received by Agricola, who detained him under the semblance of friendship till he could make use of him. I have often heard him say that a single legion with a few auxiliaries could conquer and occupy Ireland, and that it would have a salutary effect on Britain for the Roman arms to be seen everywhere, and for freedom, so to speak, to be banished from its sight.

In the summer in which he entered on the sixth year of his office, his operations embraced the states beyond Bodotria, and, as he dreaded a general movement among the remoter tribes, as well as the perils which would beset an invading army, he explored the harbors with a fleet, which, at first employed by him as an integral part of his force, continued to accompany him. The spectacle of war thus pushed on at once by sea and land was imposing; while often infantry, cavalry, and marines, mingled in the same encampment and joyously sharing the same meals, would dwell on their own achievements and adventures, comparing, with a soldier's boastfulness, at one time the deep recesses of the forest and the mountain with the dangers of waves and storms, or, at another, battles by land with victories over the ocean. The Britons too, as we learned from the prisoners, were confounded by the sight of a fleet, as if, now that their inmost seas were penetrated, the conquered had their last refuge closed against them. The tribes inhabiting Caledonia flew to arms, and with great preparations, made greater by the rumors which always exaggerate the unknown, themselves advanced to attack our fortresses, and thus challenging a conflict, inspired us with alarm. To retreat south of the Bodotria, and to retire rather than to be driven out, was

the advice of timid pretenders to prudence, when Agricola learned that the enemy's attack would be made with more than one army. Fearing that their superior numbers and their knowledge of the country might enable them to hem him in, he too distributed his forces into three divisions, and so advanced.

This becoming known to the enemy, they suddenly changed their plan, and with their whole force attacked by night the ninth Legion, as being the weakest, and cutting down the sentries, who were asleep or panic-stricken, they broke into the camp. And now the battle was raging within the camp itself, when Agricola, who had learned from his scouts the enemy's line of march and had kept close on his track, ordered the most active soldiers of his cavalry and infantry to attack the rear of the assailants, while the entire army were shortly to raise a shout. Soon his standards glittered in the light of daybreak. A double peril thus alarmed the Britons, while the courage of the Romans revived; and feeling sure of safety, they now fought for glory. In their turn they rushed to the attack, and there was a furious conflict within the narrow passages of the gates till the enemy were routed. Both armies did their utmost, the one for the honor of having given aid, the other for that of not having needed support. Had not the flying enemy been sheltered by morasses and forests, this victory would have ended the war.

Knowing this, and elated by their glory, our army exclaimed that nothing could resist their valor–that they must penetrate the recesses of Caledonia, and at length after an unbroken succession of battles, discover the furthest limits of Britain. Those who but now were cautious and prudent became after the event eager and boastful. It is the singularly unfair peculiarity of war that the credit of success is claimed by all, while a disaster is attributed to one alone. But the Britons thinking themselves baffled, not so much by our valor as by our general's skillful use of an opportunity, abated nothing of their arrogant demeanor, arming their youth, removing their wives and children to a place of safety, and assembling together to ratify, with sacred rites, a confederacy of all their states. Thus, with angry feelings on both sides, the combatants parted.

The same summer a Usipian cohort, which had been levied in Germany and transported into Britain, ventured on a great and memorable exploit. Having killed a centurion and some soldiers, who, to impart military discipline, had been incorporated with their ranks and were employed at once to instruct and command them, they embarked on board three swift galleys with pilots pressed into their service. Under

the direction of one of them—for two of the three they suspected and consequently put to death—they sailed past the coast in the strangest way before any rumor about them was in circulation. After a while, dispersing in search of water and provisions, they encountered many of the Britons, who sought to defend their property. Often victorious, though now and then beaten, they were at last reduced to such an extremity of want as to be compelled to eat, at first, the feeblest of their number, and then victims selected by lot. Having sailed round Britain and lost their vessels from not knowing how to manage them, they were looked upon as pirates and were intercepted, first by the Suevi and then by the Frisii. Some who were sold as slaves in the way of trade, and were brought through the process of barter as far as our side of the Rhine, gained notoriety by the disclosure of this extraordinary adventure.

Early in the summer Agricola sustained a domestic affliction in the loss of a son born a year before, a calamity which he endured, neither with the ostentatious fortitude displayed by many brave men, nor, on the other hand, with womanish tears and grief. In his sorrow he found one source of relief in war. Having sent on a fleet, which by its ravages at various points might cause a vague and widespread alarm, he advanced with a lightly equipped force, including in its ranks some Britons of remarkable bravery, whose fidelity had been tried through years of peace, as far as the Grampian Mountains, which the enemy had already occupied. For the Britons, indeed, in no way cowed by the result of the late engagement, had made up their minds to be either avenged or enslaved, and convinced at length that a common danger must be averted by union, had, by embassies and treaties, summoned forth the whole strength of all their states. More than 30,000 armed men were now to be seen, and still there were pressing in all the youth of the country, with all whose old age was yet hale and vigorous, men renowned in war and bearing each decorations of his own. Meanwhile, among the many leaders, one superior to the rest in valor and in birth, Galgacus by name, is said to have thus harangued the multitude gathered around him and clamoring for battle:

"Whenever I consider the origin of this war and the necessities of our position, I have a sure confidence that this day, and this union of yours, will be the beginning of freedom to the whole of Britain. To all of us slavery is a thing unknown; there are no lands beyond us, and even the sea is not safe, menaced as we are by a Roman fleet. And thus in war and battle, in which the brave find glory, even the coward will find safety. Former contests, in which, with varying fortune, the Romans

were resisted, still left in us a last hope of succor, inasmuch as being the most renowned nation of Britain, dwelling in the very heart of the country, and out of sight of the shores of the conquered, we could keep even our eyes unpolluted by the contagion of slavery. To us who dwell on the uttermost confines of the earth and of freedom, this remote sanctuary of Britain's glory has up to this time been a defense. Now, however, the furthest limits of Britain are thrown open, and the unknown always passes for the marvelous. But there are no tribes beyond us, nothing indeed but waves and rocks, and the yet more terrible Romans, from whose oppression escape is vainly sought by obedience and submission. Robbers of the world, having by their universal plunder exhausted the land, they rifle the deep. If the enemy be rich, they are rapacious; if he be poor, they lust for dominion; neither the east nor the west has been able to satisfy them. Alone among men they covet with equal eagerness poverty and riches. To robbery, slaughter, plunder, they give the lying name of empire; they make a solitude and call it peace.

"Nature has willed that every man's children and kindred should be his dearest objects. Yet these are torn from us by conscriptions to be slaves elsewhere. Our wives and our sisters, even though they may escape violation from the enemy, are dishonored under the names of friendship and hospitality. Our goods and fortunes they collect for their tribute, our harvests for their granaries. Our very hands and bodies, under the lash and in the midst of insult, are worn down by the toil of clearing forests and morasses. Creatures born to slavery are sold once for all, and are, moreover, fed by their masters; but Britain is daily purchasing, is daily feeding, her own enslaved people. And as in a household the last comer among the slaves is always the butt of his companions, so we in a world long used to slavery, as the newest and the most contemptible, are marked out for destruction. We have neither fruitful plains, nor mines, nor harbors, for the working of which we may be spared. Valor, too, and high spirit in subjects, are offensive to rulers; besides, remoteness and seclusion, while they give safety, provoke suspicion. Since then you cannot hope for quarter, take courage, I beseech you, whether it be safety or renown that you hold most precious. Under a woman's leadership the Brigantes were able to burn a colony, to storm a camp, and had not success ended in supineness, might have thrown off the yoke. Let us, then, a fresh and unconquered people, never likely to abuse our freedom, show forthwith at the very first onset what heroes Caledonia has in reserve.

"Do you suppose that the Romans will be as brave in war as they are

licentious in peace? To our strifes and discords they owe their fame, and they turn the errors of an enemy to the renown of their own army, an army which, composed as it is of every variety of nations, is held together by success and will be broken up by disaster. These Gauls and Germans, and, I blush to say, these numerous Britons, who, though they lend their lives to support a stranger's rule, have been its enemies longer than its subjects, you cannot imagine to be bound by fidelity and affection. Fear and terror there certainly are, feeble bonds of attachment; remove them, and those who have ceased to fear will begin to hate. All the incentives to victory are on our side. The Romans have no wives to kindle their courage; no parents to taunt them with flight; many have either no country or one far away. Few in number, dismayed by their ignorance, looking around upon a sky, a sea, and forests which are all unfamiliar to them; hemmed in, as it were, and enmeshed, the Gods have delivered them into our hands. Be not frightened by idle display, by the glitter of gold and of silver, which can neither protect nor wound. In the very ranks of the enemy we shall find our own forces. Britons will acknowledge their own cause; Gauls will remember past freedom; the other Germans will abandon them, as but lately did the Usipii. Behind them there is nothing to dread. The forts are ungarrisoned; the colonies in the hands of aged men; what with disloyal subjects and oppressive rulers, the towns are ill-affected and rife with discord. On the one side you have a general and an army; on the other, tribute, the mines, and all the other penalties of an enslaved people. Whether you endure these forever, or instantly avenge them, this field is to decide. Think, therefore, as you advance to battle, at once of your ancestors and of your posterity."

They received his speech with enthusiasm, and as is usual among barbarians, with songs, shouts and discordant cries. And now was seen the assembling of troops and the gleam of arms, as the boldest warriors stepped to the front. As the line was forming, Agricola, who, though his troops were in high spirits and could scarcely be kept within the entrenchments, still thought it right to encourage them, spoke as follows–

"Comrades, this is the eighth year since, thanks to the greatness and good fortune of Rome and to your own loyalty and energy, you conquered Britain. In our many campaigns and battles, whether courage in meeting the foe, or toil and endurance in struggling, I may say, against nature herself, have been needed, I have ever been well satisfied with my soldiers, and you with your commander. And so you and I have passed beyond the limits reached by former armies or by former governors, and we now occupy the last confines of Britain, not merely in rumor

and report, but with an actual encampment and armed force. Britain has been both discovered and subdued. Often on the march, when morasses, mountains, and rivers were wearing out your strength, did I hear our bravest men exclaim, 'When shall we have the enemy before us?—when shall we fight?' He is now here, driven from his lair, and your wishes and your valor have free scope, and everything favors the conqueror, everything is adverse to the vanquished. For as it is a great and glorious achievement, if we press on, to have accomplished so great a march, to have traversed forests and to have crossed estuaries, so, if we retire, our present most complete success will prove our greatest danger. We have not the same knowledge of the country or the same abundance of supplies, but we have arms in our hands, and in them we have everything. For myself I have long been convinced that neither for an army nor for a general is retreat safe. Better, too, is an honorable death than a life of shame, and safety and renown are for us to be found together. And it would be no inglorious end to perish on the extreme confines of earth and of nature.

"If unknown nations and an untried enemy confronted you, I should urge you on by the example of other armies. As it is, look back upon your former honors, question your own eyes. These are the men who last year under cover of darkness attacked a single legion, whom you routed by a shout. Of all the Britons these are the most confirmed runaways, and this is why they have survived so long. Just as when the huntsman penetrates the forest and the thicket, all the most courageous animals rush out upon him, while the timid and feeble are scared away by the very sound of his approach, so the bravest of the Britons have long since fallen; and the rest are a mere crowd of spiritless cowards. You have at last found them, not because they have stood their ground, but because they have been overtaken. Their desperate plight, and the extreme terror that paralyzes them, have riveted their line to this spot, that you might achieve in it a splendid and memorable victory. Put an end to campaigns; crown your fifty years' service with a glorious day; prove to your country that her armies could never have been fairly charged with protracting a war or with causing a rebellion."

While Agricola was yet speaking, the ardor of the soldiers was rising to its height, and the close of his speech was followed by a great outburst of enthusiasm. In a moment they flew to arms. He arrayed his eager and impetuous troops in such a manner that the auxiliary infantry, 8,000 in number, strengthened his center, while 3,000 cavalry were posted on his wings. The legions were drawn up in front of the intrenched camp; his

victory would be vastly more glorious if won without the loss of Roman blood, and he would have a reserve in case of repulse. The enemy, to make a formidable display, had posted himself on high ground; his van was on the plain, while the rest of his army rose in an archlike form up the slope of a hill. The plain between resounded with the noise and with the rapid movements of chariots and cavalry. Agricola, fearing that from the enemy's superiority of force he would be simultaneously attacked in front and on the flanks, widened his ranks, and though his line was likely to be too extended, and several officers advised him to bring up the legions, yet, so sanguine was he, so resolute in meeting danger, he sent away his horse and took his stand on foot before the colors.

The action began with distant fighting. The Britons with equal steadiness and skill used their huge swords and small shields to avoid or to parry the missiles of our soldiers, while they themselves poured on us a dense shower of darts, till Agricola encouraged three Batavian and two Tungrian cohorts to bring matters to the decision of close fighting with swords. Such tactics were familiar to these veteran soldiers, but were embarrassing to an enemy armed with small bucklers and unwieldy weapons. The swords of the Britons are not pointed, and do not allow them to close with the foe, or to fight in the open field. No sooner did the Batavians begin to close with the enemy, to strike them with their shields, to disfigure their faces, and overthrowing the force on the plain to advance their line up the hill, than the other auxiliary cohorts joined with eager rivalry in cutting down all the nearest of the foe. Many were left behind half-dead, some even unwounded, in the hurry of victory. Meantime the enemy's cavalry had fled, and the charioteers had mingled in the engagement of the infantry. But although these at first spread panic, they were soon impeded by the close array of our ranks and by the inequalities of the ground. The battle had anything but the appearance of a cavalry action, for men and horses were carried along in confusion together, while chariots, destitute of guidance, and terrified horses without drivers dashed as panic urged them, sideways, or in direct collision against the ranks.

Those of the Britons who, having as yet taken no part in the engagement, occupied the hilltops, and who without fear for themselves sat idly disdaining the smallness of our numbers, had begun gradually to descend and to hem in the rear of the victorious army, when Agricola, who feared this very movement, opposed their advance with four squadrons of cavalry held in reserve by him for any sudden emergencies of battle. Their repulse and rout was as severe as their onset had been furious.

Thus the enemy's design recoiled on himself, and the cavalry which by the general's order had wheeled round from the van of the contending armies attacked his rear. Then, indeed, the open plain presented an awful and hideous spectacle. Our men pursued, wounded, made prisoners of the fugitives only to slaughter them when others fell in their way. And now the enemy, as prompted by their various dispositions, fled in whole battalions with arms in their hands before a few pursuers, while some, who were unarmed, actually rushed to the front and gave themselves up to death. Everywhere there lay scattered arms, corpses, and mangled limbs, and the earth reeked with blood. Even the conquered now and then felt a touch of fury and of courage. On approaching the woods, they rallied, and as they knew the ground, they were able to pounce on the foremost and least cautious of the pursuers. Had not Agricola, who was present everywhere, ordered a force of strong and lightly equipped cohorts, with some dismounted troopers for the denser parts of the forest, and a detachment of cavalry where it was not so thick, to scour the woods like a party of huntsmen, serious loss would have been sustained through the excessive confidence of our troops. When, however, the enemy saw that we again pursued them in firm and compact array, they fled no longer in masses as before, each looking for his comrade; but dispersing and avoiding one another, they sought the shelter of distant and pathless wilds. Night and weariness of bloodshed put an end to the pursuit. About 10,000 of the enemy were slain; on our side there fell 360 men, and among them Aulus Atticus, the commander of the cohort, whose youthful impetuosity and mettlesome steed had borne him into the midst of the enemy.

Elated by their victory and their booty, the conquerors passed a night of merriment. Meanwhile the Britons, wandering amidst the mingled wailings of men and women, were dragging off their wounded, calling to the unhurt, deserting their homes, and in their rage actually firing them, choosing places of concealment only instantly to abandon them. One moment they would take counsel together, the next, part company, while the sight of those who were dearest to them sometimes melted their hearts, but oftener roused their fury. It was an undoubted fact that some of them vented their rage on their wives and children, as if in pity for their lot. The following day showed more fully the extent of the calamity, for the silence of desolation reigned everywhere: the hills were forsaken, houses were smoking in the distance, and no one was seen by the scouts. These were dispatched in all directions; and it having been ascertained that the track of the flying enemy was uncertain, and that

there was no attempt at rallying, it being also impossible, as summer was now over, to extend the war, Agricola led back his army into the territory of the Boresti. He received hostages from them, and then ordered the commander of the fleet to sail round Britain. A force for this purpose was given him, which great panic everywhere preceded. Agricola himself, leading his infantry and cavalry by slow marches, so as to overawe the newly-conquered tribes by the very tardiness of his progress, brought them into winter quarters, while the fleet with propitious breezes and great renown entered the harbor of Trutulium, to which it had returned after having coasted along the entire southern shore of the island.

Of this series of events, though not exaggerated in the dispatches of Agricola by any boastfulness of language, Domitian heard, as was his wont, with joy in his face but anxiety in his heart. He felt conscious that all men laughed at his late mock triumph over Germany, for which there had been purchased from traders people whose dress and hair might be made to resemble those of captives, whereas now a real and splendid victory, with the destruction of thousands of the enemy, was being celebrated with just applause. It was, he thought, a very alarming thing for him that the name of a subject should be raised above that of the Emperor; it was to no purpose that he had driven into obscurity the pursuit of forensic eloquence and the graceful accomplishments of civil life, if another were to forestall the distinctions of war. To other glories he could more easily shut his eyes, but the greatness of a good general was a truly imperial quality. Harassed by these anxieties, and absorbed in an incommunicable trouble, a sure prognostic of some cruel purpose, he decided that it was best for the present to suspend his hatred until the freshness of Agricola's renown and his popularity with the army should begin to pass away.

For Agricola was still the governor of Britain. Accordingly the Emperor ordered that the usual triumphal decorations, the honor of a laureled statue, and all that is commonly given in place of the triumphal procession, with the addition of many laudatory expressions, should be decreed in the senate, together with a hint to the effect that Agricola was to have the province of Syria, then vacant by the death of Atilius Rufus, a man of consular rank, and generally reserved for men of distinction. It was believed by many persons that one of the freedmen employed on confidential services was sent to Agricola, bearing a dispatch in which Syria was offered him, and with instructions to deliver it should he be in Britain; that this freedman in crossing the straits met Agricola, and without even saluting him made his way back to Domitian;

though I cannot say whether the story is true, or is only a fiction invented to suit the Emperor's character.

Meanwhile Agricola had handed over his province in peace and safety to his successor. And not to make his entrance into Rome conspicuous by the concourse of welcoming throngs, he avoided the attentions of his friends by entering the city at night, and at night too, according to orders, proceeded to the palace, where, having been received with a hurried embrace and without a word being spoken, he mingled in the crowd of courtiers. Anxious henceforth to temper the military renown, which annoys men of peace, with other merits, he studiously cultivated retirement and leisure, simple in dress, courteous in conversation, and never accompanied but by one or two friends, so that the many who commonly judge of great men by their external grandeur, after having seen and attentively surveyed him, asked the secret of a greatness which but few could explain.

During this time he was frequently accused before Domitian in his absence, and in his absence acquitted. The cause of his danger lay not in any crime, nor in any complaint of injury, but in a ruler who was the foe of virtue, in his own renown, and in that worst class of enemies—the men who praise. And then followed such days for the commonwealth as would not suffer Agricola to be forgotten; days when so many of our armies were lost in Moesia, Dacia, Germany, and Pannonia, through the rashness or cowardice of our generals, when so many of our officers were besieged and captured with so many of our auxiliaries, when it was no longer the boundaries of empire and the banks of rivers which were imperiled, but the winter quarters of our legions and the possession of our territories. And so when disaster followed upon disaster, and the entire year was marked by destruction and slaughter, the voice of the people called Agricola to the command; for they all contrasted his vigor, firmness, and experience in war, with the inertness and timidity of other generals. This talk, it is quite certain, assailed the ears of the Emperor himself, while affection and loyalty in the best of his freedmen, malice and envy in the worst, kindled the anger of a prince ever inclined to evil. And so at once, by his own excellences and by the faults of others, Agricola was hurried headlong to a perilous elevation.

The year had now arrived in which the proconsulate of Asia or Africa was to fall to him by lot, and, as Civica had been lately murdered, Agricola did not want a warning, or Domitian a precedent. Persons well acquainted with the Emperor's feelings came to ask Agricola, as if on their own account, whether he would go. First they hinted their purpose

by praises of tranquillity and leisure; then offered their services in procuring acceptance for his excuses; and at last, throwing off all disguise, brought him by entreaties and threats to Domitian. The Emperor, armed beforehand with hypocrisy, and assuming a haughty demeanor, listened to his prayer that he might be excused, and having granted his request allowed himself to be formally thanked, nor blushed to grant so sinister a favor. But the salary usually granted to a proconsul, and which he had himself given to some governors, he did not bestow on Agricola, either because he was offended at its not having been asked, or was warned by his conscience that he might be thought to have purchased the refusal which he had commanded. It is, indeed, human nature to hate the man whom you have injured; yet the Emperor, notwithstanding his irascible temper and an implacability proportioned to his reserve, was softened by the moderation and prudence of Agricola, who neither by a perverse obstinacy nor an idle parade of freedom challenged fame or provoked his fate. Let it be known to those whose habit it is to admire the disregard of authority, that there may be great men even under bad emperors, and that obedience and submission, when joined to activity and vigor, may attain a glory which most men reach only by a perilous career, utterly useless to the state, and closed by an ostentatious death.

The end of his life, a deplorable calamity to us and a grief to his friends, was regarded with concern even by strangers and those who knew him not. The common people and this busy population continually inquired at his house, and talked of him in public places and in private gatherings. No man when he heard of Agricola's death could either be glad or at once forget it. Men's sympathy was increased by a prevalent rumor that he was destroyed by poison. For myself, I have nothing which I should venture to state for fact. Certainly during the whole of his illness the Emperor's chief freedmen and confidential physicians came more frequently than is usual with a court which pays its visits by means of messengers. This was, perhaps, solicitude, perhaps espionage. Certain it is, that on the last day the very agonies of his dying moments were reported by a succession of couriers, and no one believed that there would be such haste about tidings which would be heard with regret. Yet in his manner and countenance the Emperor displayed some signs of sorrow, for he could now forget his enmity, and it was easier to conceal his joy than his fear. It was well known that on reading the will, in which he was named coheir with Agricola's excellent wife and most dutiful daughter, he expressed delight, as if it had been a complimentary choice. So blinded and perverted was his mind by incessant flattery

that he did not know that it was only a bad Emperor whom a good father would make his heir.

Agricola was born on the 13th of June, in the third consulate of Caius Caesar; he died on the 23rd of August, during the consulate of Collega and Priscus, being in the fifty-sixth year of his age. Should posterity wish to know something of his appearance, it was graceful rather than commanding. There was nothing formidable in his appearance; a gracious look predominated. One would easily believe him a good man, and willingly believe him to be great. As for himself, though taken from us in the prime of a vigorous manhood, yet, as far as glory is concerned, his life was of the longest. Those true blessings, indeed, which consist in virtue, he had fully attained; and on one who had reached the honors of a consulate and a triumph, what more had fortune to bestow? Immense wealth had no attractions for him, and wealth he had, even to splendor. As his daughter and his wife survived him, it may be thought that he was even fortunate–fortunate, in that while his honors had suffered no eclipse, while his fame was at its height, while his kindred and his friends still prospered, he escaped from the evil to come. For, though to survive until the dawn of this most happy age and to see a Trajan on the throne was what he would speculate upon in previsions and wishes confided to my ears, yet he had this mighty compensation for his premature death, that he was spared those later years during which Domitian, leaving now no interval or breathing space of time, but, as it were, with one continuous blow, drained the lifeblood of the Commonwealth.

Agricola did not see the senate house besieged, or the senate hemmed in by armed men, or so many of our consulars falling at one single massacre, or so many of Rome's noblest ladies exiles and fugitives. Carus Metius had as yet the distinction of but one victory, and the noisy counsels of Messalinus were not heard beyond the walls of Alba, and Massa Baebius was then answering for his life. It was not long before our hands dragged Helvidius to prison, before we gazed on the dying looks of Manricus and Rusticus, before we were steeped in Senecio's innocent blood. Even Nero turned his eyes away, and did not gaze upon the atrocities which he ordered; with Domitian it was the chief part of our miseries to see and to be seen, to know that our sighs were being recorded, to have, ever ready to note the pallid looks of so many faces, that savage countenance reddened with the hue with which he defied shame.

Thou wast indeed fortunate, Agricola, not only in the splendor of thy life, but in the opportune moment of thy death. Thou submittedst to thy

fate, so they tell us who were present to hear thy last words, with courage and cheerfulness, seeming to be doing all thou couldst to give thine Emperor full acquittal. As for me and thy daughter, besides all the bitterness of a father's loss, it increases our sorrow that it was not permitted us to watch over thy failing health, to comfort thy weakness, to satisfy ourselves with those looks, those embraces. Assuredly we should have received some precepts, some utterances to fix in our inmost hearts. This is the bitterness of our sorrow, this the smart of our wound, that from the circumstance of so long an absence thou wast lost to us four years before. Doubtless, best of fathers, with that most loving wife at thy side, all the dues of affection were abundantly paid thee, yet with too few tears thou wast laid to thy rest, and in the light of thy last day there was something for which thine eyes longed in vain.

If there is any dwelling place for the spirits of the just; if, as the wise believe, noble souls do not perish with the body, rest thou in peace; and call us, thy family, from weak regrets and womanish laments to the contemplation of thy virtues, for which we must not weep nor beat the breast. Let us honor thee not so much with transitory praises as with our reverence, and, if our powers permit us, with our emulation. That will be true respect, that the true affection of thy nearest kin. This, too, is what I would enjoin on daughter and wife, to honor the memory of that father, that husband, by pondering in their hearts all his words and acts, by cherishing the features and lineaments of his character rather than those of his person. It is not that I would forbid the likenesses which are wrought in marble or in bronze; but as the faces of men, so all similitudes of the face are weak and perishable things, while the fashion of the soul is everlasting, such as may be expressed not in some foreign substance, or by the help of art, but in our own lives. Whatever we loved, whatever we admired in Agricola, survives, and will survive in the hearts of men, in the succession of the ages, in the fame that waits on noble deeds. Over many indeed, of those who have gone before, as over the inglorious and ignoble, the waves of oblivion will roll; Agricola, made known to posterity by history and tradition, will live forever.

François Guizot

1787–1874

François Pierre Guillaume Guizot is famous both as a historian and as a statesman. As a historian, he is the author of several important works on European history; as a statesman, he had a long and impressive political career, climaxed by his becoming chief minister of the government of France.

Guizot was born at Nîmes, France, in 1787. His father died on the scaffold in 1794, a victim of the Reign of Terror which followed the French Revolution. François and his mother fled to Geneva, where he remained until he was eighteen. In 1805 he went to Paris to study law. He soon abandoned the law to do literary and historical work, including an annotated translation of Gibbon's *Decline and Fall of the Roman Empire*.[1] His writings brought him considerable fame, and at the age of 25 he was appointed professor of modern history at the famous Sorbonne in Paris.

Guizot's political career began in 1814, when he became a member of the government formed under Louis XVIII, the restored monarch of France. Though he was a conservative and a monarchist, Guizot's political views were too liberal for the king, and he soon fell out of favor. In 1820 he left the government and returned to his lectures at the Sorbonne.

Guizot's political opinions were even less acceptable to Louis's successor, Charles X, and in 1822 he was forbidden to continue his lectures. During the next few years, he did his most important historical research and writing. His works of this period include: *History of Representative Government, History of the English Revolution, History of Civilization in Europe,* and *History of Civilization in*

[1] See *Great Books of the Western World.*

France. In 1828, as the result of a change in government, he was permitted to resume his lectures. He was enthusiastically received upon his return to the podium, and the lectures he gave during the next two years were very popular. His lecture on "Civilization" was the first of this series.

Guizot returned to political life in 1830, when he was elected to the Chamber of Deputies. He was appointed to various ministry positions during the next decade, and in 1840 he was named Minister of Foreign Affairs. This made him head of the government. He held that position until his government fell in 1848. One of his chief political opponents during this period was Alexis de Tocqueville. The downfall of Guizot's government is usually attributed to his unwillingness to make any concessions of principle.

Guizot never again took part in French politics. After a brief exile in London, he returned to France to write his memoirs and a history of France for young people. He died in 1874 at the age of 86.

Civilization and civilized are words we come across frequently in reading and in conversation. We usually pass over them quickly because we feel certain that we know what they mean. But how well do we understand them? Do we know what standards are used to determine whether a nation or a people is civilized? Do we know what qualities must be present in a culture for it to be considered a civilization? Most of us do not. No doubt it would be impossible to arrive at definitions for these terms which would satisfy everyone, but we can find out how a great historian of culture defines them by reading Guizot's lecture on "Civilization."

Guizot maintains that the most essential element in a civilization is progress: "The idea of progress, of development, appears to me the fundamental idea contained in the word civilization." The progress should be both social and individual. By social progress Guizot means a constant advance toward "an increasing production of the means of giving strength and happiness to society" and "a more equitable distribution, among individuals, of the strength." The progress of the individual is marked by "the development of the individual, internal life, the development of man himself, of his faculties, his sentiments, his ideas." Though at times it may appear that progress takes place in one of these areas and not in the other, Guizot insists that this cannot happen. "All the great developments of the

internal man," he writes, "have turned to the profit of society; all the great developments of the social state to the profit of individual man."

In recent years, when discussing nations and peoples, we have tried to avoid using such words as uncivilized and barbaric because they seem to suggest inferiority. Instead we use words like underdeveloped and emergent. In a similar fashion, we substitute advanced and industrialized for civilized. But these substituted words are almost as difficult to define as the words they replace. What are the characteristics of an underdeveloped nation? What is an advanced society? It is important that we find answers to questions like these, so that we will know in what direction we should attempt to lead the peoples of the emergent nations. Guizot's discussion of the concept of civilization will help us to answer them.

Civilization

from *History of Civilization in Europe* [1]

I have used the term European civilization, because it is evident that there is a European civilization; that a certain unity pervades the civilization of the various European states; that, notwithstanding infinite diversities of time, place and circumstance, this civilization takes its first rise in facts almost wholly similar, proceeds everywhere upon the same principles, and tends to produce well-nigh everywhere analogous results. There is, then, a European civilization, and it is to the subject of this aggregate civilization that I will request your attention.

Again, it is evident that this civilization cannot be traced back, that its history cannot be derived from the history of any single European state. If, on the one hand, it is manifestly characterized by brevity, on the other, its variety is no less prodigious; it has not developed itself with completeness in any one particular country. The features of its physiognomy are widespread; we must seek the elements of its history, now in France, now in England, now in Germany, now in Spain.

We of France occupy a favorable position for pursuing the study of European civilization. Flattery of individuals, even of our country, should be at all times avoided: it is without vanity, I think, we may say that France has been the center, the focus of European civilization. I do not pretend, it were monstrous to do so, that she has always, and in every direction, marched at the head of nations. At different epochs, Italy has taken the lead of her, in the arts; England, in political institutions; and there may be other respects under which, at particular periods, other European nations have manifested a superiority to her; but it is impossi-

1. Omitted here are the opening remarks in which Guizot announces to his lecture audience his intention to treat of the history of European civilization, its origin, its progress, its aim, and its character [Ed.].

ble to deny that whenever France has seen herself thus outstripped in the career of civilization, she has called up fresh vigor, has sprung forward with a new impulse, and has soon found herself abreast with, or in advance of, all the rest. And not only has this been the peculiar fortune of France, but we have seen that when the civilizing ideas and institutions which have taken their rise in other lands have sought to extend their sphere, to become fertile and general, to operate for the common benefit of European civilization, they have been necessitated to undergo, to a certain extent, a new preparation in France; and it has been from France, as from a second native country, that they have gone forth to the conquest of Europe. There is scarcely any great idea, any great principle of civilization which, prior to its diffusion, has not passed in this way through France.

And for this reason: there is in the French character something sociable, something sympathetic, something which makes its way with greater facility and effect than does the national genius of any other people; whether from our language, whether from the turn of our mind, of our manners, certain it is that our ideas are more popular than those of other people, present themselves more clearly and intelligibly to the masses and penetrate among them more readily; in a word, perspicuity, sociability, sympathy are the peculiar characteristics of France, of her civilization, and it is these qualities which rendered her eminently fit to march at the very head of European civilization.

In entering, therefore, upon the study of this great fact, it is no arbitrary or conventional choice to take France as the center of this study; we must needs do so if we would place ourselves, as it were, in the very heart of civilization, in the very heart of the fact we are about to consider.

I use the term *fact,* and I do so purposely; civilization is a fact like any other—a fact susceptible, like any other, of being studied, described, narrated.

For some time past, there has been much talk of the necessity of limiting history to the narration of facts: nothing can be more just; but we must always bear in mind that there are far more facts to narrate, and that the facts themselves are far more various in their nature than people are at first disposed to believe; there are material, visible facts, such as wars, battles, the official acts of governments; there are moral facts, none the less real that they do not appear on the surface; there are individual facts which have denominations of their own; there are general facts, without any particular designation, to which it is impossible to assign any precise date, which it is impossible to bring within strict limits, but which

are yet no less facts than the rest, historical facts, facts which we cannot exclude from history without mutilating history.

The very portion of history which we are accustomed to call its philosophy, the relation of events to each other, the connection which unites them, their causes and their effects—these are all facts, these are all history, just as much as the narratives of battles, and of other material and visible events. Facts of this class it is doubtless more difficult to disentangle and explain; we are more liable to error in giving an account of them, and it is no easy thing to give them life and animation, to exhibit them in clear and vivid colors; but this difficulty in no degree changes their nature; they are none the less an essential element of history.

Civilization is one of these facts; general, hidden, complex fact; very difficult, I allow, to describe, to relate, but which none the less for that exists, which none the less for that has a right to be described and related. We may raise as to this fact a great number of questions; we may ask, it has been asked, whether it is a good or an evil? Some bitterly deplore it; others rejoice at it. We may ask whether it is a universal fact, whether there is a universal civilization of the human species, a destiny of humanity; whether the nations have handed down from age to age something which has never been lost, which must increase, form a larger and larger mass, and thus pass on to the end of time? For my own part, I am convinced that there is, in reality, a general destiny of humanity, a transmission of the aggregate of civilization; and, consequently, a universal history of civilization to be written. But without raising questions so great, so difficult to solve, if we restrict ourselves to a definite limit of time and space, if we confine ourselves to the history of a certain number of centuries, of a certain people, it is evident that within these bounds, civilization is a fact which can be described, related—which is history. I will at once add that this history is the greatest of all, that it includes all.

And, indeed, does it not seem to yourselves that the fact civilization is the fact *par excellence*—the general and definitive fact, in which all the others terminate, into which they all resolve themselves? Take all the facts which compose the history of a nation, and which we are accustomed to regard as the elements of its life; take its institutions, its commerce, its industry, its wars, all the details of its government: when we would consider these facts in their aggregate, in their connection, when we would estimate them, judge them, we ask in what they have contributed to the civilization of that nation, what part they have taken in it, what influence they have exercised over it. It is in this way that we not only form a complete idea of them but measure and appreciate their

true value; they are, as it were, rivers, of which we ask what quantity of water it is they contribute to the ocean? For civilization is a sort of ocean, constituting the wealth of a people, and on whose bosom all the elements of the life of that people, all the powers supporting its existence, assemble and unite. This is so true that even facts, which from their nature are odious, pernicious, which weigh painfully upon nations, despotism, for example, and anarchy, if they have contributed in some way to civilization, if they have enabled it to make an onward stride, up to a certain point we pardon them, we overlook their wrongs, their evil nature; in a word, wherever we recognize civilization, whatever the facts which have created it, we are tempted to forget the price it has cost.

There are, moreover, facts which, properly speaking, we cannot call social; individual facts, which seem to interest the human soul rather than the public life: such are religious creeds and philosophical ideas, sciences, letters, arts. These facts appear to address themselves to man with a view to his moral perfection, his intellectual gratification; to have for their object his internal amelioration, his mental pleasure, rather than his social condition. But, here again, it is with reference to civilization that these very facts are often considered, and claim to be considered.

At all times, in all countries, religion has assumed the glory of having civilized the people; sciences, letters, arts, all the intellectual and moral pleasures, have claimed a share in this glory; and we have deemed it a praise and an honor to them when we have recognized this claim on their part. Thus, facts the most important and sublime in themselves, independently of all external result, and simply in their relations with the soul of man, increase in importance, rise in sublimity from their affinity with civilization. Such is the value of this general fact, that it gives value to everything it touches. And not only does it give value; there are even occasions when the facts of which we speak, religious creeds, philosophical ideas, letters, arts, are especially considered and judged of with reference to their influence upon civilization; an influence which becomes, up to a certain point and during a certain time, the conclusive measure of their merit, of their value.

What, then, I will ask, before undertaking its history, what, considered only in itself, what is this so grave, so vast, so precious fact, which seems the sum, the expression of the whole life of nations?

I shall take care here not to fall into pure philosophy; not to lay down some ratiocinative principle, and then deduce from it the nature of civilization as a result; there would be many chances of error in this method. And here again we have a fact to verify and describe.

For a long period, and in many countries, the word *civilization* has been in use; people have attached to the word ideas more or less clear, more or less comprehensive; but there it is in use, and those who use it attach some meaning or other to it. It is the general, human, popular meaning of this word that we must study. There is almost always in the usual acceptation of the most general terms more accuracy than in the definitions, apparently more strict, more precise, of science. It is common sense which gives to words their ordinary signification, and common sense is the characteristic of humanity. The ordinary signification of a word is formed by gradual progress and in the constant presence of facts; so that when a fact presents itself which seems to come within the meaning of a known term, it is received into it, as it were, naturally; the signification of the term extends itself, expands, and by degrees the various facts, the various ideas which from the nature of the things themselves men should include under this word, are included.

When the meaning of a word, on the other hand, is determined by science, this determination, the work of one individual, or of a small number of individuals, takes place under the influence of some particular fact which has struck upon the mind. Thus, scientific definitions are, in general, much more narrow, and, hence, much less accurate, much less true, at bottom, than the popular meanings of the terms. In studying as a fact the meaning of the word civilization, in investigating all the ideas which are comprised within it, according to the common sense of mankind, we shall make a much greater progress toward a knowledge of the fact itself than by attempting to give it ourselves a scientific definition, however more clear and precise the latter might appear at first.

I will commence this investigation by endeavoring to place before you some hypotheses: I will describe a certain number of states of society, and we will then inquire whether general instinct would recognize in them the condition of a people civilizing itself; whether we recognize in them the meaning which mankind attaches to the word civilization.

First, suppose a people whose external life is easy, is full of physical comfort; they pay few taxes, they are free from suffering; justice is well administered in their private relations—in a word, material existence is for them altogether happy and happily regulated. But at the same time, the intellectual and moral existence of this people is studiously kept in a state of torpor and inactivity; of, I will not say, oppression, for they do not understand the feeling, but of compression. We are not without instances of this state of things. There has been a great number of small aristocratic republics in which the people have been thus treated like flocks of sheep,

well kept and materially happy, but without moral and intellectual activity. Is this civilization? Is this a people civilizing itself?

Another hypothesis: here is a people whose material existence is less easy, less comfortable, but still supportable. On the other hand, moral and intellectual wants have not been neglected, a certain amount of mental pasture has been served out to them; elevated, pure sentiments are cultivated in them; their religious and moral views have attained a certain degree of development; but great care is taken to stifle in them the principle of liberty; the intellectual and moral wants, as in the former case the material wants, are satisfied; each man has meted out to him his portion of truth; no one is permitted to seek it for himself. Immobility is the characteristic of moral life; it is the state into which have fallen most of the populations of Asia; wherever theocratic dominations keep humanity in check; it is the state of the Hindus, for example. I ask the same question here as before; is this a people civilizing itself?

I change altogether the nature of the hypothesis: here is a people among whom is a great display of individual liberties, but where disorder and inequality are excessive: it is the empire of force and of chance; every man, if he is not strong, is oppressed, suffers, perishes; violence is the predominant feature of the social state. No one is ignorant that Europe has passed through this state. Is this a civilized state? It may, doubtless, contain principles of civilization which will develop themselves by successive degrees; but the fact which dominates in such a society is, assuredly, not that which the common sense of mankind calls civilization.

I take a fourth and last hypothesis: the liberty of each individual is very great, inequality among them is rare, and at all events, very transient. Every man does very nearly just what he pleases, and differs little in power from his neighbor; but there are very few general interests, very few public ideas, very little society—in a word, the faculties and existence of individuals appear and then pass away, wholly apart and without acting upon each other, or leaving any trace behind them; the successive generations leave society at the same point at which they found it: this is the state of savage tribes; liberty and equality are there, but assuredly not civilization.

I might multiply these hypotheses, but I think we have before us enough to explain what is the popular and natural meaning of the word civilization.

It is clear that none of the states I have sketched corresponds, according to the natural good sense of mankind, to this term. Why? It appears to me that the first fact comprised in the word civilization (and this re-

sults from the different examples I have rapidly placed before you) is the fact of progress, of development; it presents at once the idea of a people marching onward, not to change its place, but to change its condition; of a people whose culture is conditioning itself, and ameliorating itself. The idea of progress, of development, appears to me the fundamental idea contained in the word civilization. What is this progress? What this development? Herein is the greatest difficulty of all.

The etymology of the word would seem to answer in a clear and satisfactory manner: it says that it is the perfecting of civil life, the development of society, properly so called, of the relations of men among themselves.

Such is, in fact, the first idea which presents itself to the understanding when the word civilization is pronounced; we at once figure forth to ourselves the extension, the greatest activity, the best organization of the social relations: on the one hand, an increasing production of the means of giving strength and happiness to society; on the other, a more equitable distribution, among individuals, of the strength.

Is this all? Have we here exhausted all the natural, ordinary meaning of the word civilization? Does the fact contain nothing more than this?

It is almost as if we asked: Is the human species after all a mere anthill, a society in which all that is required is order and physical happiness, in which the greater the amount of labor, and the more equitable the division of the fruits of labor, the more surely is the object attained, the progress accomplished?

Our instinct at once feels repugnant to so narrow a definition of human destiny. It feels at the first glance that the word civilization comprehends something more extensive, more complex, something superior to the simple perfection of the social relations, of social power and happiness.

Fact, public opinion, the generally received meaning of the term, are in accordance with this instinct.

Take Rome in the palmy days of the republic, after the Second Punic War, at the time of its greatest virtues, when it was marching to the empire of the world, when its social state was evidently in progress. Then take Rome under Augustus, at the epoch when her decline began, when, at all events, the progressive movement of society was arrested, when evil principles were on the eve of prevailing: yet there is no one who does not think and say that the Rome of Augustus was more civilized than the Rome of Fabricius or of Cincinnatus.

Let us transport ourselves beyond the Alps: let us take the France of

the seventeenth and eighteenth centuries: it is evident that, in a social point of view, considering the actual amount and distribution of happiness among individuals, the France of the seventeenth and eighteenth centuries was inferior to some other countries of Europe, to Holland and to England, for example. I believe that in Holland and in England the social activity was greater, was increasing more rapidly, distributing its fruit more fully, than in France, yet ask general good sense, and it will say that the France of the seventeenth and eighteenth centuries was the most civilized country in Europe. Europe has not hesitated in her affirmative reply to the question: traces of this public opinion, as to France, are found in all the monuments of European literature.

We might point out many other states in which the prosperity is greater, is of more rapid growth, is better distributed among individuals than elsewhere, and in which, nevertheless, by the spontaneous instinct, the general good sense of men, the civilization is judged inferior to that of countries not so well portioned out in a purely social sense.

What does this mean; what advantages do these latter countries possess? What is it gives them, in the character of civilized countries, this privilege; what so largely compensates in the opinion of mankind for what they so lack in other respects?

A development other than that of social life has been gloriously manifested by them; the development of the individual, internal life, the development of man himself, of his faculties, his sentiments, his ideas. If society with them be less perfect than elsewhere, humanity stands forth in more grandeur and power. There remain, no doubt, many social conquests to be made; but immense intellectual and moral conquests are accomplished; worldly goods, social rights, are wanting to many men; but many great men live and shine in the eyes of the world. Letters, sciences, the arts, display all their splendor. Wherever mankind beholds these great signs, these signs glorified by human nature, wherever it sees created these treasures of sublime enjoyment, it there recognizes and names civilization.

Two facts, then, are comprehended in this great fact; it subsists on two conditions, and manifests itself by two symptoms: the development of social activity and that of individual activity; the progress of society and the progress of humanity. Wherever the external condition of man extends itself, vivifies, ameliorates itself; wherever the internal nature of man displays itself with luster, with grandeur; at these two signs, and often despite the profound imperfection of the social state, mankind with loud applause proclaims civilization.

Such, if I do not deceive myself, is the result of simple and purely common-sense examination of the general opinion of mankind. If we interrogate history, properly so called, if we examine what is the nature of the great crises of civilization, of those facts which, by universal consent, have propelled it onward, we shall constantly recognize one or other of the two elements I have just described. They are always crises of individual or social development, facts which have changed the internal man, his creed, his manners, or his external condition, his position in his relation with his fellows. Christianity, for example, not merely on its first appearance, but during the first stages of its existence, Christianity in no degree addressed itself to the social state; it announced aloud that it would not meddle with the social state; it ordered the slave to obey his master; it attacked none of the great evils, the great wrongs of the society of that period. Yet who will deny that Christianity was a great crisis of civilization? Why was it so? Because it changed the internal man, creeds, sentiments; because it regenerated the moral man, the intellectual man.

We have seen a crisis of another nature, a crisis which addressed itself, not to the internal man, but to his external condition; one which changed and regenerated society. This also was assuredly one of the decisive crises of civilization. Look through all history, you will find everywhere the same result; you will meet with no important fact instrumental in the development of civilization, which has not exercised one or other of the two sorts of influence I have spoken of.

Such, if I mistake not, is the natural and popular meaning of the term; you have here the fact, I will not say defined, but described, verified almost completely, or, at all events, in its general features. We have before us the two elements of civilization. Now comes the question, would one of these two suffice to constitute it; would the development of the social state, the development of the individual man, separately presented, be civilization? Would the human race recognize it as such, or have the two facts so intimate and necessary a relation between them, that if they are not simultaneously produced, they are notwithstanding inseparable, and sooner or later one brings on the other?

We might, as it appears to me, approach this question on three several sides. We might examine the nature itself of the two elements of civilization, and ask ourselves whether by that alone they are or are not closely united with, and necessary to, each other. We might inquire of history whether they had manifested themselves isolately, apart the one from the other, or whether they had invariably produced the one the other.

We may, lastly, consult upon this question the common opinion of mankind–common sense. I will address myself first to common sense.

When a great change is accomplished in the state of a country, when there is operated in it a large development of wealth and power, a revolution in the distribution of the social means, this new fact encounters adversaries, undergoes opposition: this is inevitable. What is the general cry of the adversaries of the change? They say that this progress of the social state does not ameliorate, does not regenerate in like manner, in a like degree, the moral, the internal state of man; that it is a false, delusive progress, the result of which is detrimental to morality, to man. The friends of social development energetically repel this attack; they maintain, on the contrary, that the progress of society necessarily involves and carries with it the progress of morality; that when the external life is better regulated, the internal life is refined and purified. Thus stands the question between the adversaries and partisans of the new state.

Reverse the hypothesis: suppose the moral development in progress: what do the laborers in this progress generally promise? What, in the origin of societies, have promised the religious rulers, the sages, the poets, who have labored to soften and to regulate men's manners? They have promised the amelioration of the social condition, the more equitable distribution of the social means. What, then, I ask you, is involved in these disputes, these promises? What do they mean? What do they imply?

They imply that in the spontaneous, instinctive conviction of mankind, the two elements of civilization, the social development and the moral development, are closely connected together; that at sight of the one, man at once looks forward to the other. It is to this natural instinctive conviction that those who are maintaining or combating one or other of the two developments address themselves, when they affirm or deny their union. It is well understood that if we can persuade mankind that the amelioration of the social state will be adverse to the internal progress of individuals, we shall have succeeded in decrying and enfeebling the revolution in operation throughout society. On the other hand, when we promise mankind the amelioration of society by means of the amelioration of the individual, it is well understood that the tendency is to place faith in these promises, and it is accordingly made use of with success. It is evidently, therefore, the instinctive belief of humanity that the movements of civilization are connected the one with the other, and reciprocally produce the one the other.

If we address ourselves to the history of the world, we shall receive the same answer. We shall find that all the great developments of the

internal man have turned to the profit of society; all the great developments of the social state to the profit of individual man. We find the one or other of the two facts predominating, manifesting itself with striking effect, and impressing upon the movement in progress a distinctive character. It is, sometimes, only after a very long interval of time, after a thousand obstacles, a thousand transformations, that the second fact, developing itself, comes to complete the civilization which the first had commenced. But if you examine them closely, you will soon perceive the bond which unites them. The march of Providence is not restricted to narrow limits; it is not bound, and it does not trouble itself, to follow out today the consequences of the principle which it laid down yesterday. The consequences will come in due course, when the hour for them has arrived, perhaps not till hundreds of years have passed away; though its reasoning may appear to us slow, its logic is none the less true and sound. To Providence, time is as nothing; it strides through time as the gods of Homer through space: it makes but one step, and ages have vanished behind it. How many centuries, what infinite events passed away before the regeneration of the moral man by Christianity exercised upon the regeneration of the social state its great and legitimate influence? Yet who will deny that it any the less succeeded?

If from history we extend our inquiries to the nature itself of the two facts which constitute civilization, we are infallibly led to the same result. There is no one who has not experienced this in his own case. When a moral change is operated in man, when he acquires an idea, or a virtue, or a faculty, more than he had before—in a word, when he develops himself individually, what is the desire, what the want, which at the same moment takes possession of him? It is the desire, the want, to communicate the new sentiment to the world about him, to give realization to his thoughts externally. As soon as a man acquires anything, as soon as his being takes in his own conviction a new development, assumes an additional value, forthwith he attaches to this new development, this fresh value, the idea of possession; he feels himself impelled, compelled, by his instinct, by an inward voice, to extend to others the change, the amelioration, which has been accomplished in his own person. We owe the great reformers solely to this cause; the mighty men who have changed the face of the world, after having changed themselves, were urged onward, were guided on their course, by no other want than this. So much for the alteration which is operated in the internal man; now to the other. A revolution is accomplished in the state of society; it is

better regulated, rights and property are more equitably distributed among its members—that is to say, the aspect of the world becomes purer and more beautiful, the action of government, the conduct of men in their mutual relations, more just, more benevolent. Do you suppose that this improved aspect of the world, this amelioration of external facts, does not react upon the interior of man, upon humanity? All that is said as to the authority of examples, of customs, of noble models, is founded upon this only: that an external fact, good, well regulated, leads sooner or later, more or less completely, to an internal fact of the same nature, the same merit; that a world better regulated, a world more just, renders man himself more just; that the inward is reformed by the outward, as the outward by the inward; that the two elements of civilization are closely connected the one with the other; that centuries, that obstacles of all sorts, may interpose between them; that it is possible they may have to undergo a thousand transformations in order to regain each other; but sooner or later they will rejoin each other: this is the law of their nature, the general fact of history, the instinctive faith of the human race.

I think I have thus not exhausted the subject, very far from it, but exhibited in a well-nigh complete, though cursory, manner, the fact of civilization; I think I have described it, settled its limits, and stated the principal, the fundamental questions to which it gives rise. I might stop here; but I cannot help touching upon a question which meets me at this point; one of those questions which are not historical questions, properly so called; which are questions, I will not call them hypothetical, but conjectural; questions of which man holds but one end, the other end being permanently beyond his reach; questions of which he cannot make the circuit, nor view on more than one side; and yet questions not the less real, not the less calling upon him for thought; for they present themselves before him, despite himself, at every moment.

Of those two developments of which we have spoken, and which constitute the fact of civilization, the development of society on the one hand and of humanity on the other, which is the end, which is the means? Is it to perfect his social condition, to ameliorate his existence on earth, that man develops himself, his faculties, sentiments, ideas, his whole being?—or rather, is not the amelioration of the social condition, the progress of society, society itself, the theater, the occasion, the *mobile,* of the development of the individual; in a word, is society made to serve the individual, or the individual to serve society? On the answer to this question inevitably depends that whether the destiny of man is purely social;

whether society drains up and exhausts the whole man; or whether he bears within him something intrinsic–something superior to his existence on earth.

A man whom I am proud to call my friend, a man who has passed though meetings like our own to assume the first place in assemblies less peaceable and more powerful, a man all whose words are engraven on the hearts of those who hear them, M. Royer-Collard, has solved this question according to his own conviction, at least, in his speech on the Sacrilege Bill. I find in that speech these two sentences: "Human societies are born, live and die, on the earth; it is there their destinies are accomplished. . . . But they contain not the whole man. After he has engaged himself to society, there remains to him the noblest part of himself, those high faculties by which he elevates himself to God, to a future life, to unknown felicity in an invisible world. . . . We, persons individual and indentical, veritable beings endowed with immortality, we have a different destiny from that of states."

I will add nothing to this; I will not undertake to treat the question itself; I content myself with stating it. It is met with at the history of civilization: when the history of civilization is completed, when there is nothing more to say as to our present existence, man inevitably asks himself whether all is exhausted, whether he has reached the end of all things. This then is the last, the highest of all those problems to which history of civilization can lead. It is sufficient for me to have indicated its position and its grandeur.

From all I have said it is evident that the history of civilization might be treated in two methods, drawn from two sources, considered under two different aspects. The historian might place himself in the heart of the human mind for a given period, a series of ages, or among the determinate people; he might study, describe, relate all the events, all the transformations, all the revolutions which had been accomplished in the internal man; and when he should arrive at the end he would have a history of civilization among the people, and in the period he had selected. He may proceed in another manner: instead of penetrating the internal man, he may take his stand–he may place himself in the midst of the world; instead of describing the vicissitudes of the ideas, the sentiments of the individual being, he may describe external facts, the events, the changes of the social state. These two portions, these two histories of civilization are closely connected with each other; they are the reflection, the image of each other. Yet, they may be separated; perhaps, indeed, they ought to be so, at least at the onset, in order that both the one and

the other may be treated of in detail, and with perspicuity. For my part I do not propose to study with you the history of civilization in the interior of the human soul; it is the history of external events of the visible and social world that I shall occupy myself with. I had wished, indeed, to exhibit to you the whole fact of civilization, such as I can conceive it in all its complexity and extent, to set forth before you all the high questions which may arise from it. At present I restrict myself; mark out my field of inquiry within narrower limits; it is only the history of the social state that I purpose investigating.

We shall begin by seeking all the elements of European civilization in its cradle at the fall of the Roman Empire; we will study with attention society, such as it was, in the midst of those famous ruins. We will endeavor not to resuscitate but to place its elements side by side, and when we have done so, we will endeavor to make them move and follow them in their developments through the fifteen centuries which have elapsed since that epoch.

I believe that when we have got but a very little way into this study, we shall acquire the conviction that civilization is as yet very young; that the world has by no means as yet measured the whole of its career. Assuredly human thought is at this time very far from being all that it is capable of becoming; we are very far from comprehending the whole future of humanity: let each of us descend into his own mind, let him interrogate himself as to the utmost possible good he has formed a conception of and hopes for; let him then compare his idea with what actually exists in the world; he will be convinced that society and civilization are very young; that notwithstanding the length of the road they have come, they have incomparably further to go. This will lessen nothing of the pleasure that we shall take in the contemplation of our actual condition. As I endeavor to place before you the great crises in the history of civilization in Europe during the last fifteen centuries, you will see to what a degree, even up in our own days, the condition of man has been laborious, stormy, not only in the outward and social state, but inwardly in the life of the soul. During all those ages, the human mind has had to suffer as much as the human race; you will see that in modern times, for the first time, perhaps, the human mind has attained a state, as yet very imperfect, but still a state in which reigns some peace, some harmony. It is the same with society; it has evidently made immense progress, the human condition is easy and just, compared with what it was previously; we may almost when thinking of our ancestors apply to ourselves the verses of Lucretius:

Suave mari magno, turbantibus æquora ventis,
E terrâ magnum alterius spectare laborem.

['Tis pleasant, in a great storm, to contemplate, from a safe position on shore, the perils of some ships tossed about by the furious winds and the stormy ocean.]

We may say of ourselves, without too much pride, as Sthenelus in Homer:

Thank Heaven, we are infinitely better than those who went before us.

Let us be careful, however, not to give ourselves up too much to the idea of our happiness and amelioration, or we may fall into two grave dangers, pride and indolence; we may conceive an overconfidence in the power and success of the human mind, in our own enlightenment, and, at the same time, suffer ourselves to become enervated by the luxurious ease of our condition. It appears to me that we are constantly fluctuating between a tendency to complain upon light grounds, on the one hand, and to be content without reason, on the other. We have a susceptibility of spirit, a craving, an unlimited ambition in the thought, in our desire, in the movement of the imagination; but when it comes to the practical work of life, when we are called upon to give ourselves any trouble, to make any sacrifices, to use any efforts to attain the object, our arms fall down listlessly by our sides, and we give the matter up in despair, with a facility equaled only by the impatience with which we had previously desired its attainment. We must beware how we allow ourselves to yield to either of these defects. Let us accustom ourselves duly to estimate beforehand the extent of our force, our capacity, our knowledge; and let us aim at nothing which we feel we cannot attain legitimately, justly, regularly, and with unfailing regard to the principles upon which our civilization itself rests. We seem at times tempted to adopt the principles which, as a general rule, we assail and hold up to scorn–the principles, the right of the strongest of barbarian Europe; the brute force, the violence, the downright lying which were matters of course, of daily occurrence, four or five hundred years ago. But when we yield for a moment to this desire, we find in ourselves neither the perseverance nor the savage energy of the men of that period, who, suffering greatly from their condition, were naturally anxious, and incessantly essaying, to emancipate themselves from it. We, of the present day, are content with our condition; let us not expose it to danger by indulging in vague desires, the time for realizing which has not come. Much has been given to us, much will be required of us; we must render to posterity a strict account

of our conduct; the public, the government, all are now subjected to discussion, examination, responsibility. Let us attach ourselves firmly, faithfully, undeviatingly, to the principles of our civilization–justice, legality, publicity, liberty; and let us never forget that while we ourselves require, and with reason, that all things shall be open to our inspection and inquiry, we ourselves are under the eye of the world, and shall, in our turn, be discussed, be judged.

The foregoing is Lecture I
from Guizot's HISTORY OF CIVILIZATION IN EUROPE.

Henry Adams

1838–1918

Henry Adams was born in Boston in 1838, the grandson of the sixth President of the United States and the great-grandson of the second. Although a man of such ancestry was more or less expected to seek a career in politics, neither Henry's times nor his temperament permitted him to do so. The sort of scholar-statesman he might have been was inconceivable in the later nineteenth century—the Gilded Age—while the analytical turn of mind that had been a family trait emerged in him as a fatal habit of self-doubt. He became instead a historian, spending his life in the study of the social forces over which he could have no active control.

In this profession, Adams achieved by common consent the highest rank among his countrymen. His writings, celebrated for their style, convey the witty and ironic detachment with which he viewed every subject, most of all himself. They show as well the scientific and philosophical concerns of his unresting intelligence. As such they have always seemed more than ordinarily interesting. Yet Adams scorned his work, or pretended to, believing that it had made no difference in his day. Convinced that his life had been a failure, he said so at the end of his autobiography, *The Education of Henry Adams*, the one book by which he has become best known. He was

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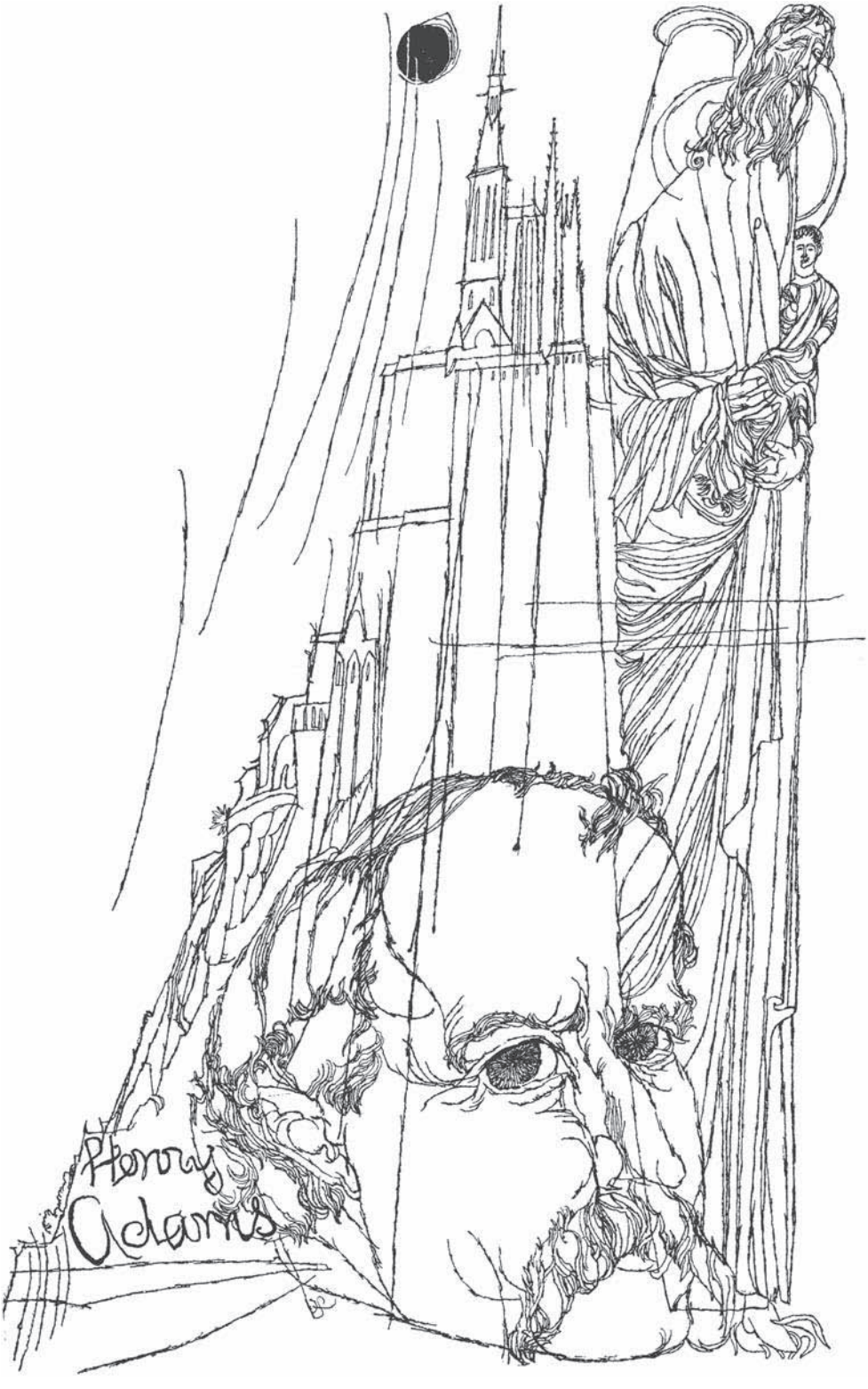
Notes from the artist: "The head of Adams, with a background suggesting his work Mont-Saint-Michel and Chartres. *At left is Mont-Saint-Michel atop its rock pinnacle; at right is a saint from the sculpture on the north porch of Chartres Cathedral."*


Henry
Adams

the author of a number of other books. He died in 1918 at Washington, D.C., where as a spectator of power he had chiefly lived.

Adams' *History of the United States* appeared, in nine volumes, 1889–91. It is one of the major achievements of American historical writing. Some modern historians suggest that it is deficient in not emphasizing the economic forces at work during the period, but all critics agree that the first six chapters of the work constitute one of the best and most illuminating social surveys of any epoch in American history. Two of these chapters—the first and sixth—are reprinted here.

The first chapter poses a problem. It recounts the physical and economic resources available to Americans in 1800—the reader will perhaps be surprised to discover how slim they actually were—and asks, implicity and on every page, how it was possible to make, in less than a century, the America which Henry Adams knew. To say nothing of the America we know! For, since Adams wrote, we have come as far again in the direction that he is discussing as his countrymen had come since the beginning of his century.

The sixth chapter suggests a possible solution to the problem. According to Adams, American society, despite its pathetically inadequate resources in men and money, was "sound and healthy in every part"—"except for Negro slavery." But, he tells us, that was not enough. There was something else about America which puzzled almost every visitor. This was, to put it very simply, a dream.

"What was it," Adams asks, echoing the question put by so many jaded Europeans in the early years of the last century, "that . . . turned the European peasant into a new man within half an hour after landing at New York?" It was something, evidently, that few or no educated foreigners could see. But Jefferson saw it. It was, essentially, an "emotion which caused the poorest peasant in Europe to see what was invisible to poet and philosopher—the dim outline of a mountain summit across the ocean, rising high above the mist and mud of American democracy." And the results of it we see ourselves.

Adams was a pessimist. In other works, he questioned the reality, or at least the direction, of social progress. His pessimism is not particularly evident here. He is as amazed and as full of admiration as any American must be who looks back on his country's relatively

short history. He feels that, despite our faults, despite our errors and mistakes, we have come a long way. Nevertheless, some trace of Adams' pessimism may be found in the last paragraph of the sixth chapter.

He asks a series of questions about the American dream, and about the American effort to achieve it. Could American society "produce," he wonders, "or was it compatible with, the differentiation of a higher variety of the human race?" He concludes that "nothing less than this was necessary for its complete success." He forces us to ask whether the American story is a success story after all. In spite of the distance we have come, have we come far enough? Have we done all that we could do? Or is the hardest victory still to be won?

The United States in 1800
from *History of the United States of America*

PHYSICAL AND ECONOMICAL CONDITIONS

ccording to the census of 1800, the United States of America contained 5,308,483 persons. In the same year the British Islands contained upwards of fifteen millions; the French Republic, more than twenty-seven millions. Nearly one-fifth of the American people were Negro slaves; the true political population consisted of four and a half million free whites, or less than one million able-bodied males, on whose shoulders fell the burden of a continent. Even after two centuries of struggle the land was still untamed; forest covered every portion, except here and there a strip of cultivated soil; the minerals lay undisturbed in their rocky beds, and more than two-thirds of the people clung to the seaboard within fifty miles of tidewater, where alone the wants of civilized life could be supplied. The center of population rested within eighteen miles of Baltimore, north and east of Washington. Except in political arrangement, the interior was little more civilized than in 1750, and was not much easier to penetrate than when La Salle and Hennepin found their way to the Mississippi more than a century before.

A great exception broke this rule. Two wagon roads crossed the Allegheny Mountains in Pennsylvania,—one leading from Philadelphia to Pittsburgh; one from the Potomac to the Monongahela; while a third passed through Virginia southwestward to the Holston River and Knoxville in Tennessee, with a branch through the Cumberland Gap into Kentucky. By these roads and by trails less passable from North and South Carolina, or by waterways from the lakes, between four and five hundred thousand persons had invaded the country beyond the Alleghenies. At Pittsburgh and on the Monongahela existed a society, already old,

numbering seventy or eighty thousand persons, while on the Ohio River the settlements had grown to an importance which threatened to force a difficult problem on the union of the older states. One hundred and eighty thousand whites, with forty thousand Negro slaves, made Kentucky the largest community west of the mountains; and about ninety thousand whites and fourteen thousand slaves were scattered over Tennessee. In the territory north of the Ohio less progress had been made. A New England colony existed at Marietta; some fifteen thousand people were gathered at Cincinnati; halfway between the two, a small town had grown up at Chillicothe, and other villages or straggling cabins were to be found elsewhere; but the whole Ohio territory contained only forty-five thousand inhabitants. The entire population, both free and slave, west of the mountains, reached not yet half a million; but already they were partly disposed to think themselves, and the old thirteen states were not altogether unwilling to consider them, the germ of an independent empire, which was to find its outlet, not through the Alleghenies to the seaboard, but by the Mississippi River to the Gulf.

Nowhere did eastern settlements touch the western. At least one hundred miles of mountainous country held the two regions everywhere apart. The shore of Lake Erie, where alone contact seemed easy, was still unsettled. The Indians had been pushed back to the Cuyahoga River, and a few cabins were built on the site of Cleveland; but in 1800, as in 1700, this intermediate region was only a portage where emigrants and merchandise were transferred from Lake Erie to the Muskingum and Ohio valleys. Even western New York remained a wilderness: Buffalo was not laid out; Indian titles were not extinguished; Rochester did not exist; and the county of Onondaga numbered a population of less than eight thousand. In 1799 Utica contained fifty houses, mostly small and temporary. Albany was still a Dutch city, with some five thousand inhabitants; and the tide of immigration flowed slowly through it into the valley of the Mohawk, while another stream from Pennsylvania, following the Susquehanna, spread toward the Genesee country.

The people of the old thirteen states, along the Atlantic seaboard, thus sent westward a wedge-shaped mass of nearly half a million persons, penetrating by the Tennessee, Cumberland, and Ohio rivers toward the western limit of the Union. The Indians offered sharp resistance to this invasion, exacting life for life, and yielding only as their warriors perished. By the close of the century the wedge of white settlements, with its apex at Nashville and its flanks covered by the Ohio and Tennessee rivers, nearly split the Indian country in halves. The northern half–con-

sisting of the later States of Wisconsin, Michigan, Illinois, and Indiana, and one third of Ohio—contained Wyandottes and Shawanese, Miamis, Kickapoos, and other tribes, able to send some five thousand warriors to hunt or fight. In the southern half, powerful confederates of Creeks, Cherokees, Chickasaws, and Choctaws lived and hunted where the states of Mississippi, Alabama, and the western parts of Georgia, Tennessee, and Kentucky were to extend; and so weak was the state of Georgia, which claimed the southwestern territory for its own, that a well-concerted movement of Indians might without much difficulty have swept back its white population of one hundred thousand toward the ocean or across the Savannah River. The Indian power had been broken in halves, but each half was still terrible to the colonists on the edges of their vast domain, and was used as a political weapon by the governments whose territory bounded the Union on the north and south. The governors general of Canada intrigued with the northwestern Indians that they might hold in check any aggression from Washington; while the Spanish governors of West Florida and Louisiana maintained equally close relations with the Indian confederacies of the Georgia territory.

With the exception that half a million people had crossed the Alleghenies and were struggling with difficulties all their own, in an isolation like that of Jutes or Angles in the fifth century, America, so far as concerned physical problems, had changed little in fifty years. The old landmarks remained nearly where they stood before. The same bad roads and difficult rivers, connecting the same small towns, stretched into the same forests in 1800 as when the armies of Braddock and Amherst pierced the western and northern wilderness, except that these roads extended a few miles farther from the seacoast. Nature was rather man's master than his servant, and the five million Americans struggling with the untamed continent seemed hardly more competent to their task than the beavers and buffalo which had for countless generations made bridges and roads of their own.

Even by water, along the seaboard, communication was as slow and almost as irregular as in colonial times. The wars in Europe caused a sudden and great increase in American shipping employed in foreign commerce, without yet leading to general improvement in navigation. The ordinary seagoing vessel carried a freight of about two hundred and fifty tons; the largest merchant ships hardly reached four hundred tons; the largest frigate in the United States navy, the "line-of-battle ship in disguise," had a capacity of fifteen hundred and seventy-six tons. Elabo-

rately rigged as ships or brigs, the small merchant craft required large crews and were slow sailers; but the voyage to Europe was comparatively more comfortable and more regular than the voyage from New York to Albany, or through Long Island Sound to Providence. No regular packet plied between New York and Albany. Passengers waited till a sloop was advertised to sail; they provided their own bedding and supplies; and within the nineteenth century Captain Elias Bunker won much fame by building the sloop "Experiment," of one hundred and ten tons, to start regularly on a fixed day for Albany, for the convenience of passengers only, supplying beds, wine, and provisions for the voyage of one hundred and fifty miles. A week on the North River or on the Sound was an experience not at all unknown to travelers.

While little improvement had been made in water travel, every increase of distance added to the difficulties of the westward journey. The settler who after buying wagon and horses hauled his family and goods across the mountains might buy or build a broad flat-bottomed ark, to float with him and his fortunes down the Ohio, in constant peril of upsetting or of being sunk; but only light boats with strong oars could mount the stream, or boats forced against the current by laboriously poling in shallow water. If he carried his tobacco and wheat down the Mississippi to the Spanish port of New Orleans, and sold it, he might return to his home in Kentucky or Ohio by a long and dangerous journey on horseback through the Indian country from Natchez to Nashville, or he might take ship to Philadelphia, if a ship were about to sail, and again cross the Alleghenies. Compared with river travel, the sea was commonly an easy and safe highway. Nearly all the rivers which penetrated the interior were unsure, liable to be made dangerous by freshets, and both dangerous and impassable by drought; yet such as they were, these streams made the main paths of traffic. Through the mountainous gorges of the Susquehanna the produce of western New York first found an outlet; the Cuyahoga and Muskingum were the first highway from the Lakes to the Ohio; the Ohio itself, with its great tributaries the Cumberland and the Tennessee, marked the lines of western migration; and every stream which could at high water float a boat was thought likely to become a path for commerce. As General Washington, not twenty years earlier, hoped that the brawling waters of the Cheat and Youghiogheny might become the channel of trade between Chesapeake Bay and Pittsburgh, so the Americans of 1800 were prepared to risk life and property on any streamlet that fell foaming down either flank of the Alleghenies. The experience of mankind proved trade to be dependent on

water communications, and as yet Americans did not dream that the experience of mankind was useless to them.

If America was to be developed along the lines of water communication alone, by such means as were known to Europe, Nature had decided that the experiment of a single republican government must meet extreme difficulties. The valley of the Ohio had no more to do with that of the Hudson, the Susquehanna, the Potomac, the Roanoke, and the Santee than the valley of the Danube with that of the Rhône, the Po, or the Elbe. Close communication by land could alone hold the great geographical divisions together either in interest or in fear. The union of New England with New York and Pennsylvania was not an easy task even as a problem of geography, and with an ocean highway; but the union of New England with the Carolinas, and of the seacoast with the interior, promised to be a hopeless undertaking. Physical contact alone could make one country of these isolated empires, but to the patriotic American of 1800, struggling for the continued existence of an embryo nation, with machinery so inadequate, the idea of ever bringing the Mississippi River, either by land or water, into close contact with New England, must have seemed wild. By water, an Erie Canal was already foreseen; by land, centuries of labor could alone conquer those obstacles which Nature permitted to be overcome.

In the minds of practical men, the experience of Europe left few doubts on this point. After two thousand years of public labor and private savings, even despotic monarchs, who employed the resources of their subjects as they pleased, could in 1800 pass from one part of their European dominions to another little more quickly than they might have done in the age of the Antonines. A few short canals had been made, a few bridges had been built, an excellent post road extended from Madrid to St. Petersburg; but the heavy diligence that rumbled from Calais to Paris required three days for its journey of one hundred and fifty miles, and if travelers ventured on a trip to Marseilles they met with rough roads and hardships like those of the Middle Ages. Italy was in 1800 almost as remote from the north of Europe as when carriage roads were first built. Neither in time nor in thought was Florence or Rome much nearer to London in Wordsworth's youth than in the youth of Milton or Gray. Indeed, such changes as had occurred were partly for the worse, owing to the violence of revolutionary wars during the last ten years of the eighteenth century. Horace Walpole at his life's close saw about him a world which in many respects was less civilized than when as a boy he made the grand tour of Europe.

While so little had been done on the great highways of European travel, these highways were themselves luxuries which furnished no sure measure of progress. The post horses toiled as painfully as ever through the sand from Hamburg to Berlin, while the coach between York and London rolled along an excellent road at the rate of ten miles an hour; yet neither in England nor on the Continent was the post road a great channel of commerce. No matter how good the road, it could not compete with water, nor could heavy freights in great quantities be hauled long distances without extravagant cost. Water communication was as necessary for European commerce in 1800 as it had been for the Phoenicians and Egyptians; the Rhine, the Rhône, the Danube, the Elbe were still the true commercial highways, and except for government post roads, Europe was as dependent on these rivers in the eighteenth century as in the thirteenth. No certainty could be offered of more rapid progress in the coming century than in the past; the chief hope seemed to lie in the construction of canals.

While Europe had thus consumed centuries in improving paths of trade, until merchandise could be brought by canal a few score miles from the Rhône to the Loire and Seine, to the Garonne and the Rhine, and while all her wealth and energy had not yet united the Danube with other river systems, America was required to construct, without delay, at least three great roads and canals, each several hundred miles long, across mountain ranges, through a country not yet inhabited, to points where no great markets existed–and this under constant peril of losing her political union, which could not even by such connections be with certainty secured. After this should be accomplished, the Alleghenies must still remain between the eastern and western states, and at any known rate of travel Nashville could not be reached in less than a fortnight or three weeks from Philadelphia. Meanwhile the simpler problem of bringing New England nearer to Virginia and Georgia had not advanced even with the aid of a direct ocean highway. In becoming politically independent of England, the old thirteen provinces developed little more commercial intercourse with each other in proportion to their wealth and population than they had maintained in colonial days. The material ties that united them grew in strength no more rapidly than the ties which bound them to Europe. Each group of states lived a life apart.

Even the lightly equipped traveler found a short journey no slight effort. Between Boston and New York was a tolerable highway, along which, thrice a week, light stagecoaches carried passengers and the mail, in three days. From New York a stagecoach started every weekday

for Philadelphia, consuming the greater part of two days in the journey; and the road between Paulus Hook, the modern Jersey City, and Hackensack was declared by the newspapers in 1802 to be as bad as any other part of the route between Maine and Georgia. South of Philadelphia the road was tolerable as far as Baltimore, but between Baltimore and the new city of Washington it meandered through forests; the driver chose the track which seemed least dangerous, and rejoiced if in wet seasons he reached Washington without miring or upsetting his wagon. In the northern states, four miles an hour was the average speed for any coach between Bangor and Baltimore. Beyond the Potomac the roads became steadily worse, until south of Petersburg even the mails were carried on horseback. Except for a stagecoach which plied between Charleston and Savannah, no public conveyance of any kind was mentioned in the three southernmost states.

The stagecoach was itself a rude conveyance, of a kind still familiar to experienced travelers. Twelve persons, crowded into one wagon, were jolted over rough roads, their bags and parcels, thrust inside, cramping their legs, while they were protected from the heat and dust of midsummer and the intense cold and driving snow of winter only by leather flaps buttoned to the roof and sides. In fine, dry weather this mode of travel was not unpleasant, when compared with the heavy vehicles of Europe and the hard English turnpikes; but when spring rains drew the frost from the ground the roads became nearly impassable, and in winter, when the rivers froze, a serious peril was added, for the Susquehanna or the North River at Paulus Hook must be crossed in an open boat—an affair of hours at best, sometimes leading to fatal accidents. Smaller annoyances of many kinds were habitual. The public, as a rule, grumbled less than might have been expected, but occasionally newspapers contained bitter complaints. An angry Philadelphian, probably a foreigner, wrote in 1796 that, "with a few exceptions, brutality, negligence, and filching are as naturally expected by people accustomed to traveling in America as a mouth, a nose, and two eyes are looked for in a man's face." This sweeping charge, probably unjust, and certainly supported by little public evidence, was chiefly founded on the experience of an alleged journey from New York:

> At Bordentown we went into a second boat where we met with very sorry accommodation. This was about four o'clock in the afternoon. We had about twenty miles down the Delaware to reach Philadelphia. The captain, who had a most provoking tongue, was a boy about eighteen years of age. He and a few companions despatched a dozen or eighteen

> bottles of porter. We ran three different times against other vessels that were coming up the stream. The women and children lay all night on the bare boards of the cabin floor. . . . We reached Arch Street wharf about eight o'clock on the Wednesday morning, having been about sixteen hours on a voyage of twenty miles.

In the southern states the difficulties and perils of travel were so great as to form a barrier almost insuperable. Even Virginia was no exception to this rule. At each interval of a few miles the horseman found himself stopped by a river, liable to sudden freshets, and rarely bridged. Jefferson in his frequent journeys between Monticello and Washington was happy to reach the end of the hundred miles without some vexatious delay. "Of eight rivers between here and Washington," he wrote to his attorney general in 1801, "five have neither bridges nor boats."

Expense caused an equally serious obstacle to travel. The usual charge in the northern states was six cents a mile by stage. In the year 1796, according to Francis Baily, president of the Royal Astronomical Society, three or four stages ran daily from Baltimore to Philadelphia, the fare six dollars, with charges amounting to two dollars and a quarter a day at the inns on the road. Baily was three days in making the journey. From Philadelphia to New York he paid the same fare and charges, arriving in one day and a half. The entire journey of two hundred miles cost him twenty-one dollars. He remarked that traveling on the main lines of road in the settled country was about as expensive as in England, and when the roads were good, about as rapid. Congress allowed its members six dollars for every twenty miles traveled. The actual cost, including hotel expenses, could hardly have fallen below ten cents a mile.

Heavy traffic never used stage routes if it could find cheaper. Commerce between one state and another, or even between the seaboard and the interior of the same state, was scarcely possible on any large scale unless navigable water connected them. Except the great highway to Pittsburgh, no road served as a channel of commerce between different regions of the country. In this respect New England east of the Connecticut was as independent of New York as both were independent of Virginia, and as Virginia in her turn was independent of Georgia and South Carolina. The chief value of interstate communication by land rested in the postal system; but the post furnished another illustration of the difficulties which barred progress. In the year 1800 one general mail route extended from Portland in Maine to Louisville in Georgia, the time required for the trip being twenty days. Between New York and Petersburg in Virginia was a daily service; between New York and Boston, and

also between Petersburg and Augusta, the mail was carried thrice a week. Branching from the main line at New York, a mail went to Canandaigua in ten days; from Philadelphia another branch line went to Lexington in sixteen days, to Nashville in twenty-two days. Thus more than twenty thousand miles of post road, with nine hundred post offices, proved the vastness of the country and the smallness of the result; for the gross receipts for postage in the year ending Oct. 1, 1801, were only $320,000.

Throughout the land the eighteenth century ruled supreme. Only within a few years had the New Englander begun to abandon his struggle with a barren soil, among granite hills, to learn the comforts of easier existence in the valleys of the Mohawk and Ohio; yet the New England man was thought the shrewdest and most enterprising of Americans. If the Puritans and the Dutch needed a century or more to reach the Mohawk, when would they reach the Mississippi? The distance from New York to the Mississippi was about one thousand miles; from Washington to the extreme southwestern military post, below Natchez, was about twelve hundred. Scarcely a portion of western Europe was three hundred miles distant from some sea, but a width of three hundred miles was hardly more than an outskirt of the United States. No civilized country had yet been required to deal with physical difficulties so serious, nor did experience warrant conviction that such difficulties could be overcome.

If the physical task which lay before the American people had advanced but a short way toward completion, little more change could be seen in the economical conditions of American life. The man who in the year 1800 ventured to hope for a new era in the coming century could lay his hand on no statistics that silenced doubt. The machinery of production showed no radical difference from that familiar to ages long past. The Saxon farmer of the eighth century enjoyed most of the comforts known to Saxon farmers of the eighteenth. The eorls and ceorls of Offa and Ecgbert could not read or write, and did not receive a weekly newspaper with such information as newspapers in that age could supply; yet neither their houses, their clothing, their food and drink, their agricultural tools and methods, their stock, nor their habits were so greatly altered or improved by time that they would have found much difficulty in accommodating their lives to that of their descendants in the eighteenth century. In this respect America was backward. Fifty or a hundred miles inland more than half the houses were log cabins, which might or might not enjoy the luxury of a glass window. Throughout the South and West houses showed little attempt at luxury; but even in New England the ordinary

farmhouse was hardly so well built, so spacious, or so warm as that of a well-to-do contemporary of Charlemagne. The cloth which the farmer's family wore was still homespun. The hats were manufactured by the village hatter; the clothes were cut and made at home; the shirts, socks, and nearly every other article of dress were also homemade. Hence came a marked air of rusticity which distinguished country from town—awkward shapes of hat, coat, and trousers, which gave to the Yankee caricature those typical traits that soon disappeared almost as completely as coats of mail and steel headpieces. The plow was rude and clumsy; the sickle as old as Tubal-cain, and even the cradle not in general use; the flail was unchanged since the Aryan exodus; in Virginia, grain was still commonly trodden out by horses. Enterprising gentlemen-farmers introduced threshing machines and invented scientific plows; but these were novelties. Stock was as a rule not only unimproved, but ill cared for. The swine ran loose; the cattle were left to feed on what pasture they could find, and even in New England were not housed until the severest frosts, on the excuse that exposure hardened them. Near half a century afterward a competent judge asserted that the general treatment of cows in New England was fair matter of presentment by a grand jury. Except among the best farmers, drainage, manures, and rotation of crops were uncommon. The ordinary cultivator planted his corn as his father had planted it, sowing as much rye to the acre, using the same number of oxen to plow, and getting in his crops on the same day. He was even known to remove his barn on account of the manure accumulated round it, although the New England soil was never so rich as to warrant neglect to enrich it. The money for which he sold his wheat and chickens was of the Old World; he reckoned in shillings or pistareens, and rarely handled an American coin more valuable than a large copper cent.

At a time when the wealth and science of London and Paris could not supply an article so necessary as a common sulphur match, the backwardness of remote country districts could hardly be exaggerated. Yet remote districts were not the only sufferers. Of the whole United States New England claimed to be the most civilized province, yet New England was a region in which life had yet gained few charms of sense and few advantages over its rivals. Wilson, the ornithologist, a Pennsylvania Scotchman, a confirmed grumbler, but a shrewd judge, and the most thorough of American travelers, said in 1808: "My journey through almost the whole of New England has rather lowered the Yankees in my esteem. Except a few neat academies, I found their schoolhouses equally ruinous and deserted with ours; fields covered with stones; stone fences; scrubby

oaks and pine trees; wretched orchards; scarcely one grainfield in twenty miles; the taverns along the road dirty, and filled with loungers brawling about lawsuits and politics; the people snappish and extortioners, lazy, and two hundred years behind the Pennsylvanians in agricultural improvements." The description was exaggerated, for Wilson forgot to speak of the districts where fields were not covered with stones, and where wheat could be grown to advantage. Twenty years earlier, Albert Gallatin, who knew Pennsylvania well, having reached Hartford on his way to Boston, wrote: "I have seen nothing in America equal to the establishments on the Connecticut River." Yet Wilson's account described the first general effect of districts in the New England states, where agriculture was backward and the country poor. The houses were thin wooden buildings, not well suited to the climate; the churches were unwarmed; the clothing was poor; sanitary laws were few, and a bathroom or a soil pipe was unknown. Consumption, typhoid, scarlet fever, diphtheria, and rheumatic fevers were common; habits of drinking were still a scourge in every family, and dyspepsia destroyed more victims than were consumed by drink. Population increased slowly, as though the conditions of life were more than usually hard. A century earlier, Massachusetts was supposed to contain sixty thousand inhabitants. Governor Hutchinson complained that while the other colonies quadrupled their numbers, Massachusetts failed to double its population in fifty years. In 1790 the state contained 378,000 people, not including the province of Maine; in 1800 the number rose to 423,000, which showed that a period of more rapid growth had begun, for the emigration into other states was also large.

A better measure of the difficulties with which New England struggled was given by the progress of Boston, which was supposed to have contained about eighteen thousand inhabitants as early as 1730, and twenty thousand in 1770. For several years after the Revolution it numbered less than twenty thousand, but in 1800 the census showed twenty-five thousand inhabitants. In appearance, Boston resembled an English market town, of a kind even then old-fashioned. The footways or sidewalks were paved, like the crooked and narrow streets, with round cobblestones, and were divided from the carriage way only by posts and a gutter. The streets were almost unlighted at night, a few oil lamps rendering the darkness more visible and the rough pavement rougher. Police hardly existed. The system of taxation was defective. The town was managed by selectmen, the elected instruments of town meetings whose jealousy of granting power was even greater than their objection to spending money, and whose hostility to city government was not to be overcome.

Although on all sides increase of ease and comfort was evident, and roads, canals, and new buildings, public and private, were already in course of construction on a scale before unknown, yet in spite of more than a century and a half of incessant industry, intelligent labor, and pinching economy Boston and New England were still poor. A few merchants enjoyed incomes derived from foreign trade, which allowed them to imitate in a quiet way the style of the English mercantile class; but the clergy and the lawyers, who stood at the head of society, lived with much economy. Many a country clergyman, eminent for piety and even for hospitality, brought up a family and laid aside some savings on a salary of five hundred dollars a year. President Dwight, who knew well the class to which he belonged, eulogizing the life of Abijah Weld, pastor of Attleborough, declared that on a salary of two hundred and twenty dollars a year Mr. Weld brought up eleven children, besides keeping a hospitable house and maintaining charity to the poor.

On the Exchange a few merchants had done most of the business of Boston since the peace of 1783, but a mail thrice a week to New York, and an occasional arrival from Europe or the departure of a ship to China, left ample leisure for correspondence and even for gossip. The habits of the commercial class had not been greatly affected by recent prosperity. Within ten or fifteen years before 1800 three banks had been created to supply the commercial needs of Boston. One of these was a branch Bank of the United States, which employed there whatever part of its capital it could profitably use; the two others were local banks, with capital of $1,600,000, toward which the state subscribed $400,000. Altogether the banking capital of Boston might amount to two millions and a half. A number of small banks, representing in all about two and a half millions more, were scattered through the smaller New England towns. The extraordinary prosperity caused by the French wars opened to Boston a new career. Wealth and population were doubling; the exports and imports of New England were surprisingly large, and the shipping was greater than that of New York and Pennsylvania combined; but Boston had already learned, and was to learn again, how fleeting were the riches that depended on foreign commerce, and conservative habits were not easily changed by a few years of accidental gain.

Of manufactures New England had many, but none on a large scale. The people could feed or clothe themselves only by household industry; their whale oil, salt fish, lumber, and rum were mostly sent abroad; but they freighted coasters with turners' articles, home-made linens and cloths, cheese, butter, shoes, nails, and what were called Yankee No-

tions of all sorts, which were sent to Norfolk and the Southern ports, and often peddled from the deck, as goods of every sort were peddled on the flatboats of the Ohio. Two or three small mills spun cotton with doubtful success; but England supplied ordinary manufactures more cheaply and better than Massachusetts could hope to do. A tri-weekly mail and a few coasting sloops provided for the business of New England with domestic ports. One packet sloop plied regularly to New York.

The state of New York was little in advance of Massachusetts and Maine. In 1800 for the first time New York gained the lead in population by the difference between 589,000 and 573,000. The valuation of New York for the direct tax in 1799 was $100,000,000; that of Massachusetts was $84,000,000. New York was still a frontier state, and although the city was European in its age and habits, travelers needed to go few miles from the Hudson in order to find a wilderness like that of Ohio and Tennessee. In most material respects the state was behind New England; outside the city was to be seen less wealth and less appearance of comfort. The first impression commonly received of any new country was from its inns, and on the whole few better tests of material condition then existed. President Dwight, though maintaining that the best old-fashioned inns of New England were in their way perfect, being in fact excellent private houses, could not wholly approve what he called the modern inns, even in Connecticut; but when he passed into New York he asserted that everything suffered an instant change for the worse. He explained that in Massachusetts the authorities were strict in refusing licenses to any but respectable and responsible persons, whereas in New York licenses were granted to anyone who would pay for them—which caused a multiplication of dramshops, bad accommodations, and a gathering of loafers and tipplers about every tavern porch, whose rude appearance, clownish manners, drunkenness, swearing, and obscenity confirmed the chief of Federalist clergymen in his belief that democracy had an evil influence on morals.

Far more movement was to be seen, and accumulation was more rapid than in colonial days; but little had yet been done for improvement, either by government or by individuals, beyond some provision for extending roads and clearing watercourses behind the advancing settlers. If Washington Irving was right, Rip Van Winkle, who woke from his long slumber about the year 1800, saw little that was new to him, except the head of President Washington where that of King George had once hung, and strange faces instead of familiar ones. Except in numbers, the city was relatively no farther advanced than the country. Between 1790 and

1800 its population rose from 33,000 to 60,000; and if Boston resembled an old-fashioned English market town, New York was like a foreign seaport, badly paved, undrained, and as foul as a town surrounded by the tides could be. Although the Manhattan Company was laying wooden pipes for a water supply, no sanitary regulations were enforced, and every few years—as in 1798 and 1803—yellow fever swept away crowds of victims, and drove the rest of the population, panic stricken, into the highlands. No day police existed; constables were still officers of the courts; the night police consisted of two captains, two deputies, and seventy-two men. The estimate for the city's expenses in 1800 amounted to $130,000. One marked advantage New York enjoyed over Boston, in the possession of a city government able to introduce reforms. Thus, although still medieval in regard to drainage and cleanliness, the town had taken advantage of recurring fires to rebuild some of the streets with brick sidewalks and curbstones. Travelers dwelt much on this improvement, which only New York and Philadelphia had yet adopted, and Europeans agreed that both had the air of true cities: that while Boston was the Bristol of America, New York was the Liverpool, and Philadelphia the London.

In respect to trade and capital, New York possessed growing advantages, supplying half New Jersey and Connecticut, a part of Massachusetts, and all the rapidly increasing settlements on the branches of the Hudson; but no great amount of wealth, no considerable industry or new creation of power was yet to be seen. Two banks, besides the branch Bank of the United States, supplied the business wants of the city, and employed about the same amount of capital in loans and discounts as was required for Boston. Besides these city institutions but two other banks existed in the state—at Hudson and at Albany.

The proportion of capital in private hands seemed to be no larger. The value of exports from New York in 1800 was but $14,000,000; the net revenue on imports for 1799 was $2,373,000, against $1,607,000 collected in Massachusetts. Such a foreign trade required little capital, yet these values represented a great proportion of all the exchanges. Domestic manufactures could not compete with foreign, and employed little bank credit. Speculation was slow, mostly confined to lands which required patience to exchange or sell. The most important undertakings were turnpikes, bridges such as Boston built across the Charles, or new blocks of houses; and a canal, such as Boston designed to the Merrimack, overstrained the resources of capital. The entire banking means of the United States in 1800 would not have answered the stockjobbing purposes of one great operator of Wall Street in 1875. The nominal capital of all the banks,

including the Bank of the United States, fell short of $29,000,000. The limit of credit was quickly reached, for only the richest could borrow more than fifteen or twenty thousand dollars at a time, and the United States government itself was gravely embarrassed whenever obliged to raise money. In 1798 the secretary of the treasury could obtain five million dollars only by paying eight per cent interest for a term of years; and in 1814 the government was forced to stop payments for the want of twenty millions.

The precise value of American trade was uncertain, but in 1800 the gross exports and imports of the United States may have balanced at about seventy-five million dollars. The actual consumption of foreign merchandise amounted perhaps to the value of forty or fifty million dollars, paid in wheat, cotton, and other staples, and by the profits on the shipping employed in carrying West India produce to Europe. The amount of American capital involved in a trade of fifty millions, with credits of three, six, and nine months, must have been small, and the rates of profit large.

As a rule American capital was absorbed in shipping or agriculture, whence it could not be suddenly withdrawn. No stock exchange existed, and no broker exclusively engaged in stockjobbing, for there were few stocks. The national debt, of about eighty millions, was held abroad, or as a permanent investment at home. States and municipalities had not learned to borrow. Except for a few banks and insurance offices, turnpikes, bridges, canals, and land companies, neither bonds nor stocks were known. The city of New York was so small as to make extravagance difficult; the Battery was a fashionable walk, Broadway a country drive, and Wall Street an uptown residence. Great accumulations of wealth had hardly begun. The patroon was still the richest man in the state. John Jacob Astor was a fur merchant living where the Astor House afterward stood, and had not yet begun those purchases of real estate which secured his fortune. Cornelius Vanderbilt was a boy six years old, playing about his father's ferryboat at Staten Island. New York City itself was what it had been for a hundred years past—a local market.

As a national capital New York made no claim to consideration. If Bostonians for a moment forgot their town meetings, or if Virginians overcame their dislike for cities and pavements, they visited and admired, not New York, but Philadelphia. "Philadelphia," wrote the Duc de Liancourt, "is not only the finest city in the United States, but may be deemed one of the most beautiful cities in the world." In truth, it surpassed any of its size on either side of the Atlantic for most of the comforts and some of the

elegancies of life. While Boston contained twenty-five thousand inhabitants and New York sixty thousand, the census of 1800 showed that Philadelphia was about the size of Liverpool–a city of seventy thousand people. The repeated ravages of yellow fever roused there a regard for sanitary precautions and cleanliness; the city, well paved and partly drained, was supplied with water in wooden pipes, and was the best-lighted town in America; its market was a model, and its jail was intended also for a model–although the first experiment proved unsuccessful, because the prisoners went mad or idiotic in solitary confinement. In and about the city flourished industries considerable for the time. The iron-works were already important; paper and gunpowder, pleasure carriages and many other manufactures were produced on a larger scale than elsewhere in the Union. Philadelphia held the seat of government until July, 1800, and continued to hold the Bank of the United States, with its capital of ten millions, besides private banking capital to the amount of five millions more. Public spirit was more active in Pennsylvania than in New York. More roads and canals were building; a new turnpike ran from Philadelphia to Lancaster, and the great highway to Pittsburgh was a more important artery of national life than was controlled by any other state. The exports of Pennsylvania amounted to $12,000,000, and the custom-house produced $1,350,000. The state contained six hundred thousand inhabitants–a population somewhat larger than that of New York.

Of all parts of the Union, Pennsylvania seemed to have made most use of her national advantages; but her progress was not more rapid than the natural increase of population and wealth demanded, while to deal with the needs of America, man's resources and his power over Nature must be increased in a ratio far more rapid than that which governed his numbers. Nevertheless, Pennsylvania was the most encouraging spectacle in the field of vision. Baltimore, which had suddenly sprung to a population and commerce greater than those of Boston, also offered strong hope of future improvement; but farther South the people showed fewer signs of change.

The city of Washington, rising in a solitude on the banks of the Potomac, was a symbol of American nationality in the southern states. The contrast between the immensity of the task and the paucity of means seemed to challenge suspicion that the nation itself was a magnificent scheme like the federal city, which could show only a few log cabins and Negro quarters where the plan provided for the traffic of London and the elegance of Versailles. When in the summer of 1800 the government was transferred to what was regarded by most persons as a fever-stricken morass, the half-finished White House stood in a naked field overlooking

the Potomac, with two awkward department buildings near it, a single row of brick houses and a few isolated dwellings within sight, and nothing more; until across a swamp, a mile and a half away, the shapeless, unfinished Capitol was seen, two wings without a body, ambitious enough in design to make more grotesque the nature of its surroundings. The conception proved that the United States understood the vastness of their task, and were willing to stake something on their faith in it. Never did hermit or saint condemn himself to solitude more consciously than Congress and the Executive in removing the government from Philadelphia to Washington: the discontented men clustered together in eight or ten boardinghouses as near as possible to the Capitol, and there lived, like a convent of monks, with no other amusement or occupation than that of going from their lodgings to the chambers and back again. Even private wealth could do little to improve their situation, for there was nothing which wealth could buy; there were in Washington no shops or markets, skilled labor, commerce, or people. Public efforts and lavish use of public money could alone make the place tolerable; but Congress doled out funds for this national and personal object with so sparing a hand that their Capitol threatened to crumble in pieces and crush Senate and House under the ruins, long before the building was complete.

A government capable of sketching a magnificent plan, and willing to give only a halfhearted pledge for its fulfilment; a people eager to advertise a vast undertaking beyond their present powers, which when completed would become an object of jealousy and fear—this was the impression made upon the traveler who visited Washington in 1800, and mused among the unraised columns of the Capitol upon the destiny of the United States. As he traveled farther south his doubts were strengthened, for across the Potomac he could detect no sign of a new spirit. Manufactures had no existence. Alexandria owned a bank with half a million of capital, but no other was to be found between Washington and Charleston, except the branch Bank of the United States at Norfolk, nor any industry to which loans and discounts could safely be made. Virginia, the most populous and powerful of all the States, had a white population of 514,000, nearly equal to that of Pennsylvania and New York, besides about 350,000 slaves. Her energies had pierced the mountains and settled the western territory before the slow-moving northern people had torn themselves from the safer and more comfortable life by the seaboard; but the Virginia ideal was patriarchal, and an American continent on the Virginia type might reproduce the virtues of Cato, and perhaps the eloquence of Cicero, but was little likely to produce anything more practical in the way

of modern progress. The Shenandoah Valley rivaled Pennsylvania and Connecticut in richness and skill of husbandry; but even agriculture, the favorite industry in Virginia, had suffered from the competition of Kentucky and Tennessee, and from the emigration which had drawn away fully one hundred thousand people. The land was no longer very productive. Even Jefferson, the most active-minded and sanguine of all Virginians–the inventor of the first scientific plow, the importer of the first threshing machine known in Virginia, the experimenter with a new drilling machine, the owner of one hundred and fifty slaves and ten thousand acres of land, whose Negroes were trained to carpentry, cabinetmaking, housebuilding, weaving, tailoring, shoemaking–claimed to get from his land no more than six or eight bushels of wheat to an acre, and had been forced to abandon the more profitable cultivation of tobacco. Except in a few favored districts like the Shenandoah Valley, land in Virginia did not average eight bushels of wheat to an acre. The cultivation of tobacco had been almost the sole object of landowners, and even where the lands were not exhausted, a bad system of agriculture and the force of habit prevented improvement.

The great planters lavished money in vain on experiments to improve their crops and their stock. They devoted themselves to the task with energy and knowledge; but they needed a diversity of interests and local markets, and except at Baltimore these were far from making their appearance. Neither the products, the markets, the relative amount of capital, nor the machinery of production had perceptibly changed. "The Virginians are not generally rich," said the Duc de Liancourt, "especially in net revenue. Thus one often finds a well-served table, covered with silver, in a room where for ten years half the window panes have been missing, and where they will be missed for ten years more. There are few houses in a passable state of repair, and of all parts of the establishment those best cared for are the stables." Wealth reckoned in slaves or land was plenty; but the best Virginians, from President Washington downward, were most outspoken in their warnings against the Virginia system both of slavery and agriculture.

The contrast between Virginia and Pennsylvania was the subject of incessant comment.

> In Pennsylvania [said Robert Sutcliffe, an English Friend who published travels made in 1804–1806] we meet great numbers of wagons drawn by four or more fine fat horses, the carriages firm and well made, and covered with stout good linen, bleached almost white; and it is not uncommon to see ten or fifteen together travelling cheerfully along the

> road, the driver riding on one of his horses. Many of these come more than three hundred miles to Philadelphia from the Ohio, Pittsburg, and other places, and I have been told by a respectable Friend, a native of Philadelphia, that more than one thousand covered carriages frequently come to Philadelphia market. . . . The appearance of things in the Slave States is quite the reverse of this. We sometimes meet a ragged black boy or girl driving a team consisting of a lean cow and a mule; sometimes a lean bull or an ox and a mule; and I have seen a mule, a bull, and a cow each miserable in its appearance, composing one team, with a half-naked black slave or two riding or driving as occasion suited. The carriage or wagon, if it may be called such, appeared in as wretched a condition as the team and its driver. Sometimes a couple of horses, mules, or cows would be dragging a hogshead of tobacco, with a pivot or axle driven into each end of the hogshead, and something like a shaft attached, by which it was drawn or rolled along the road. I have seen two oxen and two slaves pretty fully employed in getting along a single hogshead; and some of these come from a great distance inland.

In the middle of these primitive sights, Sutcliffe was startled by a contrast such as Virginia could always show. Between Richmond and Fredericksburg–

> In the afternoon, as our road lay through the woods, I was surprised to meet a family party travelling along in as elegant a coach as is usually met with in the neighborhood of London, and attended by several gayly dressed footmen.

The country south of Virginia seemed unpromising even to Virginians. In the year 1796 President Washington gave to Sir John Sinclair his opinion upon the relative value of American lands. He then thought the valley of Virginia the garden of America; but he would say nothing to induce others to settle in more southern regions.

> The uplands of North and South Carolina and Georgia are not dissimilar in soil [he wrote] but as they approach the lower latitudes are less congenial to wheat, and are supposed to be proportionably more unhealthy. Towards the seaboard of all the Southern States, and farther south more so, the lands are low, sandy, and unhealthy; for which reason I shall say little concerning them, for as I should not choose to be an inhabitant of them myself, I ought not to say anything that would induce others to be so. . . . I understand that from thirty to forty dollars per acre may be denominated the medium price in the vicinity of the Susquehanna in the State of Pennsylvania, from twenty to thirty on the Potomac in what is called the Valley, . . . and less, as I have noticed before, as you proceed southerly.

Whatever was the cause, the state of North Carolina seemed to offer few temptations to immigrants or capital. Even in white population ranking fifth among the sixteen states, her 478,000 inhabitants were unknown to the world. The beautiful upper country attracted travelers neither for pleasure nor for gain, while the country along the seacoast was avoided except by hardy wanderers. The grumbling Wilson, who knew every nook and corner of the United States, and who found New England so dreary, painted this part of North Carolina in colors compared with which his sketch of New England was gay. "The taverns are the most desolate and beggarly imaginable; bare, bleak, and dirty walls, one or two old broken chairs and a bench form all the furniture. The white females seldom make their appearance. At supper you sit down to a meal the very sight of which is sufficient to deaden the most eager appetite, and you are surrounded by half-a-dozen dirty, half-naked blacks, male and female, whom any man of common scent might smell a quarter of a mile off. The house itself is raised upon props four or five feet, and the space below is left open for the hogs, with whose charming vocal performance the wearied traveler is serenaded the whole night long." The landscape pleased him no better–"immense solitary pine savannahs, through which the road winds among stagnant ponds; dark, sluggish creeks of the color of brandy, over which are thrown high wooden bridges without railings," crazy and rotten.

North Carolina was relatively among the poorest states. The exports and imports were of trifling value, less than one-tenth of those returned for Massachusetts, which were more than twice as great as those of North Carolina and Virginia together. That under these conditions America should receive any strong impulse from such a quarter seemed unlikely; yet perhaps for the moment more was to be expected from the Carolinas than from Virginia. Backward as these states in some respects were, they possessed one new element of wealth which promised more for them than anything Virginia could hope. The steam engines of Watt had been applied in England to spinning, weaving, and printing cotton; an immense demand had risen for that staple, and the cotton gin had been simultaneously invented. A sudden impetus was given to industry; land which had been worthless and estates which had become bankrupt acquired new value, and in 1800 every planter was growing cotton, buying Negroes, and breaking fresh soil. North Carolina felt the strong flood of prosperity, but South Carolina, and particularly the town of Charleston, had most to hope. The exports of South Carolina were nearly equal in value to those of Massachusetts or Pennsylvania; the imports were equally large. Charles-

ton might reasonably expect to rival Boston, New York, Philadelphia, and Baltimore. In 1800 these cities still stood, as far as concerned their foreign trade, within some range of comparison; and between Boston, Baltimore, and Charleston, many plausible reasons could be given for thinking that the last might have the most brilliant future. The three towns stood abreast. If Charleston had but about eighteen thousand inhabitants, this was the number reported by Boston only ten years before, and was five thousand more than Baltimore then boasted. Neither Boston nor Baltimore saw about them a vaster region to supply, or so profitable a staple to export. A cotton crop of two hundred thousand pounds sent abroad in 1791 grew to twenty millions in 1801, and was to double again by 1803. An export of fifty thousand bales was enormous, yet was only the beginning. What use might not Charleston, the only considerable town in the entire South, make of this golden flood?

The town promised hopefully to prove equal to its task. Nowhere in the Union was intelligence, wealth, and education greater in proportion to numbers than in the little society of cotton and rice planters who ruled South Carolina; and they were in 1800 not behind—they hoped soon to outstrip—their rivals. If Boston was building a canal to the Merrimack, and Philadelphia one along the Schuylkill to the Susquehanna, Charleston had nearly completed another which brought the Santee River to its harbor, and was planning a road to Tennessee which should draw the whole interior within reach. Nashville was nearer to Charleston than to any other seaport of the Union, and Charleston lay nearest to the rich trade of the West Indies. Not even New York seemed more clearly marked for prosperity than this solitary southern city, which already possessed banking capital in abundance, intelligence, enterprise, the traditions of high culture and aristocratic ambition, all supported by slave labor, which could be indefinitely increased by the African slave trade.

If any portion of the United States might hope for a sudden and magnificent bloom, South Carolina seemed entitled to expect it. Rarely had such a situation, combined with such resources, failed to produce some wonderful result. Yet as Washington warned Sinclair, these advantages were counterbalanced by serious evils. The climate in summer was too relaxing. The sun was too hot. The seacoast was unhealthy, and at certain seasons even deadly to the whites. Finally, if history was a guide, no permanent success could be prophesied for a society like that of the low country in South Carolina, where some thirty thousand whites were surrounded by a dense mass of nearly one hundred thousand Negro slaves. Even Georgia, then only partially settled, contained sixty thousand slaves

and but one hundred thousand whites. The cotton states might still argue that if slavery, malaria, or summer heat barred civilization, all the civilization that was ever known must have been blighted in its infancy; but although the future of South Carolina might be brilliant, like that of other oligarchies in which only a few thousand freemen took part, such a development seemed to diverge far from the path likely to be followed by northern society, and bade fair to increase and complicate the social and economical difficulties with which Americans had to deal.

A probable valuation of the whole United States in 1800 was eighteen hundred million dollars, equal to $328 for each human being, including slaves; or $418 to each free white. This property was distributed with an approach to equality, except in a few of the southern states. In New York and Philadelphia a private fortune of one hundred thousand dollars was considered handsome, and three hundred thousand was great wealth. Inequalities were frequent; but they were chiefly those of a landed aristocracy. Equality was so far the rule that every white family of five persons might be supposed to own land, stock, or utensils, a house and furniture, worth about two thousand dollars; and as the only considerable industry was agriculture, their scale of life was easy to calculate—taxes amounting to little or nothing, and wages averaging about a dollar a day.

Not only were these slender resources, but they were also of a kind not easily converted to the ready uses required for rapid development. Among the numerous difficulties with which the Union was to struggle, and which were to form the interest of American history, the disproportion between the physical obstacles and the material means for overcoming them was one of the most striking.

AMERICAN IDEALS

Nearly every foreign traveler who visited the United States during these early years carried away an impression sober if not sad. A thousand miles of desolate and dreary forest, broken here and there by settlements; along the seacoast a few flourishing towns devoted to commerce; no arts, a provincial literature, a cancerous disease of Negro slavery, and differences of political theory fortified within geographical lines—what could be hoped for such a country except to repeat the story of violence and brutality which the world already knew by heart, until repetition for thousands of years had wearied and sickened mankind? Ages must probably pass before the interior could be thoroughly settled; even Jef-

ferson, usually a sanguine man, talked of a thousand years with acquiescence, and in his first Inaugural Address, at a time when the Mississippi River formed the western boundary, spoke of the country as having "room enough for our descendants to the hundredth and thousandth generation." No prudent person dared to act on the certainty that when settled, one government could comprehend the whole; and when the day of separation should arrive, and America should have her Prussia, Austria, and Italy, as she already had her England, France, and Spain, what else could follow but a return to the old conditions of local jealousies, wars, and corruption which had made a slaughterhouse of Europe?

The mass of Americans were sanguine and self-confident, partly by temperament, but partly also by reason of ignorance; for they knew little of the difficulties which surrounded a complex society. The Duc de Liancourt, like many critics, was struck by this trait. Among other instances, he met with one in the person of a Pennsylvania miller, Thomas Lea, "a sound American patriot, persuading himself that nothing good is done, and that no one has any brains, except in America; that the wit, the imagination, the genius of Europe are already in decrepitude"; and the duke added: "This error is to be found in almost all Americans,—legislators, administrators, as well as millers, and is less innocent there." In the year 1796 the House of Representatives debated whether to insert in the Reply to the President's Speech a passing remark that the nation was "the freest and most enlightened in the world," a nation as yet in swaddling clothes, which had neither literature, arts, sciences, nor history; nor even enough nationality to be sure that it was a nation. The moment was peculiarly ill-chosen for such a claim, because Europe was on the verge of an outburst of genius. Goethe and Schiller, Mozart and Haydn, Kant and Fichte, Cavendish and Herschel were making way for Walter Scott, Wordsworth, and Shelley, Heine and Balzac, Beethoven and Hegel, Oersted and Cuvier, great physicists, biologists, geologists, chemists, mathematicians, metaphysicians, and historians by the score. Turner was painting his earliest landscapes, and Watt completing his latest steam engine; Napoleon was taking command of the French armies, and Nelson of the English fleets; investigators, reformers, scholars, and philosophers swarmed, and the influence of enlightenment, even amid universal war, was working with an energy such as the world had never before conceived. The idea that Europe was in her decrepitude proved only ignorance and want of enlightenment, if not of freedom, on the part of Americans who could only excuse their error by pleading that notwithstanding these objections, in matters which for the moment most

concerned themselves Europe was a full century behind America. If they were right in thinking that the next necessity of human progress was to lift the average man upon an intellectual and social level with the most favored, they stood at least three generations nearer than Europe to their common goal. The destinies of the United States were certainly staked, without reserve or escape, on the soundness of this doubtful and even improbable principle, ignoring or overthrowing the institutions of church, aristocracy, family, army, and political intervention, which long experience had shown to be needed for the safety of society. Europe might be right in thinking that without such safeguards society must come to an end; but even Europeans must concede that there was a chance, if no greater than one in a thousand, that America might, at least for a time, succeed. If this stake of temporal and eternal welfare stood on the winning card; if man actually should become more virtuous and enlightened, by mere process of growth, without church or paternal authority; if the average human being could accustom himself to reason with the logical processes of Descartes and Newton!–what then?

Then, no one could deny that the United States would win a stake such as defied mathematics. With all the advantages of science and capital, Europe must be slower than America to reach the common goal. American society might be both sober and sad, but except for Negro slavery it was sound and healthy in every part. Stripped for the hardest work, every muscle firm and elastic, every ounce of brain ready for use, and not a trace of superfluous flesh on his nervous and supple body, the American stood in the world a new order of man. From Maine to Florida, society was in this respect the same, and was so organized as to use its human forces with more economy than could be approached by any society of the world elsewhere. Not only were artificial barriers carefully removed, but every influence that could appeal to ordinary ambition was applied. No brain or appetite active enough to be conscious of stimulants could fail to answer the intense incentive. Few human beings, however sluggish, could long resist the temptation to acquire power; and the elements of power were to be had in America almost for the asking. Reversing the Old World system, the American stimulant increased in energy as it reached the lowest and most ignorant class, dragging and whirling them upward as in the blast of a furnace. The penniless and homeless Scotch or Irish immigrant was caught and consumed by it; for every stroke of the ax and the hoe made him a capitalist, and made gentlemen of his children. Wealth was the strongest agent for moving the mass of mankind; but political power was hardly less tempting to the more intelligent and

better-educated swarms of American-born citizens, and the instinct of activity, once created, seemed heritable and permanent in the race.

Compared with this lithe young figure, Europe was actually in decrepitude. Mere class distinctions, the patois or dialect of the peasantry, the fixity of residence, the local costumes and habits marking a history that lost itself in the renewal of identical generations, raised from birth barriers which paralyzed half the population. Upon this mass of inert matter rested the Church and the State, holding down activity of thought. Endless wars withdrew many hundred thousand men from production, and changed them into agents of waste; huge debts, the evidence of past wars and bad government, created interests to support the system and fix its burdens on the laboring class; courts, with habits of extravagance that shamed common sense, helped to consume private economies. All this might have been borne; but behind this stood aristocracies, sucking their nourishment from industry, producing nothing themselves, employing little or no active capital or intelligent labor, but pressing on the energies and ambition of society with the weight of an incubus. Picturesque and entertaining as these social anomalies were, they were better fitted for the theatre or for a museum of historical costumes than for an active workshop preparing to compete with such machinery as America would soon command. From an economical point of view, they were as incongruous as would have been the appearance of a medieval knight in helmet and armor, with battle-ax and shield, to run the machinery of Arkwright's cotton mill; but besides their bad economy they also tended to prevent the rest of society from gaining a knowledge of its own capacities. In Europe, the conservative habit of mind was fortified behind power. During nearly a century Voltaire himself–the friend of kings, the wit and poet, historian and philosopher of his age–had carried on, in daily terror, in exile and excommunication, a protest against an intellectual despotism contemptible even to its own supporters. Hardly was Voltaire dead, when Priestley, as great a man if not so great a wit, trying to do for England what Voltaire tried to do for France, was mobbed by the people of Birmingham and driven to America. Where Voltaire and Priestley failed, common men could not struggle; the weight of society stifled their thought. In America the balance between conservative and liberal forces was close; but in Europe conservatism held the physical power of government. In Boston a young Buckminster might be checked for a time by his father's prayers or commands in entering that path that led toward freer thought; but youth beckoned him on, and every reward that society could offer was dangled before his eyes. In London or Paris,

Rome, Madrid, or Vienna, he must have sacrificed the worldly prospects of his life.

Granting that the American people were about to risk their future on a new experiment, they naturally wished to throw aside all burdens of which they could rid themselves. Believing that in the long run interest, not violence, would rule the world, and that the United States must depend for safety and success on the interests they could create, they were tempted to look upon war and preparations for war as the worst of blunders; for they were sure that every dollar capitalized in industry was a means of overthrowing their enemies more effective than a thousand dollars spent on frigates or standing armies. The success of the American system was, from this point of view, a question of economy. If they could relieve themselves from debts, taxes, armies, and government interference with industry, they must succeed in outstripping Europe in economy of production; and Americans were even then partly aware that if their machine were not so weakened by these economies as to break down in the working, it must of necessity break down every rival. If their theory was sound, when the day of competition should arrive, Europe might choose between American and Chinese institutions, but there would be no middle path; she might become a confederated democracy, or a wreck.

Whether these ideas were sound or weak, they seemed self-evident to those northern democrats who, like Albert Gallatin, were comparatively free from slave-owning theories, and understood the practical forces of society. If Gallatin wished to reduce the interference of government to a minimum, and cut down expenditures to nothing, he aimed not so much at saving money as at using it with the most certain effect. The revolution of 1800 was in his eyes chiefly political, because it was social; but as a revolution of society, he and his friends hoped to make it the most radical that had occurred since the downfall of the Roman Empire. Their ideas were not yet cleared by experience, and were confused by many contradictory prejudices, but wanted neither breadth nor shrewdness.

Many apparent inconsistencies grew from this undeveloped form of American thought, and gave rise to great confusion in the different estimates of American character that were made both at home and abroad.

That Americans should not be liked was natural; but that they should not be understood was more significant by far. After the downfall of the French Republic they had no right to expect a kind word from Europe, and during the next twenty years they rarely received one. The liberal movement of Europe was cowed, and no one dared express democratic

sympathies until the Napoleonic tempest had passed. With this attitude Americans had no right to find fault, for Europe cared less to injure them than to protect herself. Nevertheless, observant readers could not but feel surprised that none of the numerous Europeans who then wrote or spoke about America seemed to study the subject seriously. The ordinary traveler was apt to be little more reflective than a bee or an ant, but some of these critics possessed powers far from ordinary; yet Talleyrand alone showed that had he but seen America a few years later than he did, he might have suggested some sufficient reason for apparent contradictions that perplexed him in the national character. The other travelers—great and small, from the Duc de Liancourt to Basil Hall, a long and suggestive list—were equally perplexed. They agreed in observing the contradictions, but all, including Talleyrand, saw only sordid motives. Talleyrand expressed extreme astonishment at the apathy of Americans in the face of religious sectarians; but he explained it by assuming that the American ardor of the moment was absorbed in money-making. The explanation was evidently insufficient, for the Americans were capable of feeling and showing excitement, even to their great pecuniary injury, as they frequently proved; but in the foreigner's range of observation, love of money was the most conspicuous and most common trait of American character. "There is, perhaps, no civilized country in the world," wrote Félix de Beaujour, soon after 1800, "where there is less generosity in the souls, and in the heads fewer of those illusions which make the charm or the consolation of life. Man here weighs everything, calculates everything, and sacrifices everything to his interest." An Englishman named Fearon, in 1818, expressed the same idea with more distinctness: "In going to America, I would say generally, the emigrant must expect to find, not an economical or cleanly people; not a social or generous people; not a people of enlarged ideas; not a people of liberal opinions, or toward whom you can express your thoughts free as air; not a people friendly to the advocates of liberty in Europe; not a people who understand liberty from investigation and principle; not a people who comprehend the meaning of words 'honor' and 'generosity.'" Such quotations might be multiplied almost without limit. Rapacity was the accepted explanation of American peculiarities; yet every traveler was troubled by inconsistencies that required explanations of a different kind. "It is not in order to hoard that the Americans are rapacious," observed Liancourt as early as 1796. The extravagance, or what economical Europeans thought extravagance, with which American women were allowed and encouraged to spend money, was as notorious in 1790 as a

century later; the recklessness with which Americans often risked their money, and the liberality with which they used it, were marked even then, in comparison with the ordinary European habit. Europeans saw such contradictions, but made no attempt to reconcile them. No foreigner of that day—neither poet, painter, nor philosopher—could detect in American life anything higher than vulgarity; for it was something beyond the range of their experience, which education and culture had not framed a formula to express. Moore came to Washington, and found there no loftier inspiration than any Federalist rhymester of Dennie's school.

> Take Christians, Mohawks, democrats and all,
> From the rude wigwam to the Congress hall,—
> From man the savage, whether slaved or free,
> To man the civilized, less tame than he:
> 'T is one dull chaos, one unfertile strife
> Betwixt half-polished and half-barbarous life;
> Where every ill the ancient world can brew
> Is mixed with every grossness of the new;
> Where all corrupts, though little can entice,
> And nothing 's known of luxury but vice.

Moore's two small volumes of Epistles, printed in 1807, contained much more so-called poetry of the same tone—poetry more polished and less respectable than that of Barlow and Dwight; while, as though to prove that the Old World knew what grossness was, he embalmed in his lines the slanders which the Scotch libeler Callender invented against Jefferson:

> The weary statesman for repose hath fled
> From halls of council to his negro's shed;
> Where, blest, he woos some black Aspasia's grace,
> And dreams of freedom in his slave's embrace.

To leave no doubt of his meaning, he explained in a footnote that his allusion was to the President of the United States; and yet even Moore, trifler and butterfly as he was, must have seen, if he would, that between the morals of politics and society in America and those then prevailing in Europe, there was no room for comparison—there was room only for contrast.

Moore was but an echo of fashionable England in his day. He seldom affected moral sublimity; and had he in his wanderings met a race of embodied angels, he would have sung of them or to them in the slightly erotic notes which were so well received in the society he loved to fre-

quent and flatter. His remarks upon American character betrayed more temper than truth; but even in this respect he expressed only the common feeling of Europeans, which was echoed by the Federalist society of the United States. Englishmen especially indulged in unbounded invective against the sordid character of American society, and in shaping their national policy on this contempt they carried their theory into practice with so much energy as to produce its own refutation. To their astonishment and anger, a day came when the Americans, in defiance of self-interest and in contradiction of all the qualities ascribed to them, insisted on declaring war; and readers of this narrative will be surprised at the cry of incredulity, not unmixed with terror, with which Englishmen started to their feet when they woke from their delusion on seeing what they had been taught to call the meteor flag of England, which had burned terrific at Copenhagen and Trafalgar, suddenly waver and fall on the bloody deck of the "Guerriere." Fearon and Beaujour, with a score of other contemporary critics, could see neither generosity, economy, honor, nor ideas of any kind in the American breast; yet the obstinate repetition of these denials itself betrayed a lurking fear of the social forces whose strength they were candid enough to record. What was it that, as they complained, turned the European peasant into a new man within half an hour after landing at New York? Englishmen were never at a loss to understand the poetry of more prosaic emotions. Neither they nor any of their kindred failed in later times to feel the "large excitement" of the country boy, whose "spirit leaped within him to be gone before him," when the lights of London first flared in the distance; yet none seemed ever to feel the larger excitement of the American immigrant. Among the Englishmen who criticized the United States was one greater than Moore—one who thought himself at home only in the stern beauty of a moral presence. Of all poets, living or dead, Wordsworth felt most keenly what he called the still, sad music of humanity; yet the highest conception he could create of America was not more poetical than that of any Cumberland beggar he might have met in his morning walk:

> Long-wished-for sight, the Western World appeared;
> And when the ship was moored, I leaped ashore
> Indignantly,—resolved to be a man,
> Who, having o'er the past no power, would live
> No longer in subjection to the past,
> With abject mind—from a tyrannic lord
> Inviting penance, fruitlessly endured.
> So, like a fugitive whose feet have cleared

Some boundary which his followers may not cross
In prosecution of their deadly chase,
Respiring, I looked round. How bright the sun,
The breeze how soft! Can anything produced
In the Old World compare, thought I, for power
And majesty, with this tremendous stream
Sprung from the desert? And behold a city
Fresh, youthful, and aspiring! . . .
Sooth to say,
On nearer view, a motley spectacle
Appeared, of high pretensions—unreproved
But by the obstreperous voice of higher still;
Big passions strutting on a petty stage,
Which a detached spectator may regard
Not unamused. But ridicule demands
Quick change of objects; and to laugh alone,
. . . in the very centre of the crowd
To keep the secret of a poignant scorn,
. . . is least fit
For the gross spirit of mankind.

Thus Wordsworth, although then at his prime, indulging in what sounded like a boast that he alone had felt the sense sublime of something interfused, whose dwelling is the light of setting suns, and the round ocean, and the living air, and the blue sky, and in the mind of man—even he, to whose moods the heavy and the weary weight of all this unintelligible world was lightened by his deeper sympathies with nature and the soul, could do no better, when he stood in the face of American democracy, than "keep the secret of a poignant scorn."

Possibly the view of Wordsworth and Moore, of Weld, Dennie, and Dickens was right. The American democrat possessed little art of expression, and did not watch his own emotions with a view of uttering them either in prose or verse; he never told more of himself than the world might have assumed without listening to him. Only with diffidence could history attribute to such a class of men a wider range of thought or feeling than they themselves cared to proclaim. Yet the difficulty of denying or even ignoring the wider range was still greater, for no one questioned the force or the scope of an emotion which caused the poorest peasant in Europe to see what was invisible to poet and philosopher—the dim outline of a mountain summit across the ocean, rising high above the mist and mud of American democracy. As though to call attention to some such difficulty, European and American critics, while affirming that

Americans were a race without illusions or enlarged ideas, declared in the same breath that Jefferson was a visionary whose theories would cause the heavens to fall upon them. Year after year, with endless iteration, in every accent of contempt, rage, and despair, they repeated this charge against Jefferson. Every foreigner and Federalist agreed that he was a man of illusions, dangerous to society and unbounded in power of evil; but if this view of his character was right, the same visionary qualities seemed also to be a national trait, for everyone admitted that Jefferson's opinions, in one form or another, were shared by a majority of the American people.

Illustrations might be carried much further, and might be drawn from every social class and from every period in national history. Of all presidents, Abraham Lincoln has been considered the most typical representative of American society, chiefly because his mind, with all its practical qualities, also inclined, in certain directions, to idealism. Lincoln was born in 1809, the moment when American character stood in lowest esteem. Ralph Waldo Emerson, a more distinct idealist, was born in 1803. William Ellery Channing, another idealist, was born in 1780. Men like John Fitch, Oliver Evans, Robert Fulton, Joel Barlow, John Stevens, and Eli Whitney were all classed among visionaries. The whole society of Quakers belonged in the same category. The records of the popular religious sects abounded in examples of idealism and illusion to such an extent that the masses seemed hardly to find comfort or hope in any authority, however old or well established. In religion as in politics, Americans seemed to require a system which gave play to their imagination and their hopes.

Some misunderstanding must always take place when the observer is at cross purposes with the society he describes. Wordsworth might have convinced himself by a moment's thought that no country could act on the imagination as America acted upon the instincts of the ignorant and poor, without some quality that deserved better treatment than poignant scorn; but perhaps this was only one among innumerable cases in which the unconscious poet breathed an atmosphere which the self-conscious poet could not penetrate. With equal reason he might have taken the opposite view—that the hard, practical, money-getting American democrat, who had neither generosity nor honor nor imagination, and who inhabited cold shades where fancy sickened and where genius died, was in truth living in a world of dream, and acting a drama more instinct with poetry than all the avatars of the East, walking in gardens of emerald and rubies, in ambition already ruling the world and guiding

Nature with a kinder and wiser hand than had ever yet been felt in human history. From this point his critics never approached him–they stopped at a stone's throw; and at the moment when they declared that the man's mind had no illusions, they added that he was a knave or a lunatic. Even on his practical and sordid side, the American might easily have been represented as a victim to illusion. If the Englishman had lived as the American speculator did–in the future–the hyperbole of enthusiasm would have seemed less monstrous. "Look at my wealth!" cried the American to his foreign visitor. "See these solid mountains of salt and iron, of lead, copper, silver, and gold! See these magnificent cities scattered broadcast to the Pacific! See my cornfields rustling and waving in the summer breeze from ocean to ocean, so far that the sun itself is not high enough to mark where the distant mountains bound my golden seas! Look at this continent of mine, fairest of created worlds, as she lies turning up to the sun's never failing caress her broad and exuberant breasts, overflowing with milk for her hundred million children! See how she glows with youth, health, and love!" Perhaps it was not altogether unnatural that the foreigner, on being asked to see what needed centuries to produce, should have looked about him with bewilderment and indignation. "Gold! cities! cornfields! continents! Nothing of the sort! I see nothing but tremendous wastes, where sickly men and women are dying of homesickness or are scalped by savages! mountain ranges a thousand miles long, with no means of getting to them, and nothing in them when you get there! swamps and forests choked with their own rotten ruins! nor hope of better for a thousand years! Your story is a fraud, and you are a liar and swindler!"

Met in this spirit, the American, half-perplexed and half-defiant, retaliated by calling his antagonist a fool, and by mimicking his heavy tricks of manner. For himself he cared little, but his dream was his whole existence. The men who denounced him admitted that they left him in his forest swamp quaking with fever, but clinging in the delirium of death to the illusions of his dazzled brain. No class of men could be required to support their convictions with a steadier faith, or pay more devotedly with their persons for the mistakes of their judgment. Whether imagination or greed led them to describe more than actually existed, they still saw no more than any inventor or discoverer must have seen in order to give him the energy of success. They said to the rich as to the poor, "Come and share our limitless riches! Come and help us bring to light these unimaginable stores of wealth and power!" The poor came, and from them were seldom heard complaints of deception or delusion.

Within a moment, by the mere contact of a moral atmosphere, they saw the gold and jewels, the summer cornfields and the glowing continent. The rich for a long time stood aloof—they were timid and narrow-minded; but this was not all—between them and the American democrat was a gulf.

The charge that Americans were too fond of money to win the confidence of Europeans was a curious inconsistency; yet this was a common belief. If the American deluded himself and led others to their death by baseless speculations; if he buried those he loved in a gloomy forest where they quaked and died while he persisted in seeing there a splendid, healthy, and well-built city—no one could deny that he sacrificed wife and child to his greed for gain, that the dollar was his god, and a sordid avarice his demon. Yet had this been the whole truth, no European capitalist would have hesitated to make money out of his grave; for, avarice against avarice, no more sordid or meaner type existed in America than could be shown on every 'change in Europe. With much more reason Americans might have suspected that in America Englishmen found everywhere a silent influence, which they found nowhere in Europe, and which had nothing to do with avarice or with the dollar, but, on the contrary, seemed likely at any moment to sacrifice the dollar in a cause and for an object so illusory that most Englishmen could not endure to hear it discussed. European travelers who passed through America noticed that everywhere, in the White House at Washington and in log cabins beyond the Alleghenies, except for a few Federalists, every American, from Jefferson and Gallatin down to the poorest squatter, seemed to nourish an idea that he was doing what he could to overthrow the tyranny which the past had fastened on the human mind. Nothing was easier than to laugh at the ludicrous expressions of this simple-minded conviction, or to cry out against its coarseness, or grow angry with its prejudices; to see its nobler side, to feel the beatings of a heart underneath the sordid surface of a gross humanity, was not so easy. Europeans seemed seldom or never conscious that the sentiment could possess a noble side, but found only matter for complaint in the remark that every American democrat believed himself to be working for the overthrow of tyranny, aristocracy, hereditary privilege, and priesthood, wherever they existed. Even where the American did not openly proclaim this conviction in words, he carried so dense an atmosphere of the sentiment with him in his daily life as to give respectable Europeans an uneasy sense of remoteness.

Of all historical problems, the nature of a national character is the

most difficult and the most important. Readers will be troubled, at almost every chapter of the coming narrative,[1] by the want of some formula to explain what share the popular imagination bore in the system pursued by government. The acts of the American people during the administrations of Jefferson and Madison were judged at the time by no other test. According as bystanders believed American character to be hard, sordid, and free from illusion, they were severe and even harsh in judgment. This rule guided the governments of England and France. Federalists in the United States, knowing more of the circumstances, often attributed to the democratic instinct a visionary quality which they regarded as sentimentality, and charged with many bad consequences. If their view was correct, history could occupy itself to no better purpose than in ascertaining the nature and force of the quality which was charged with results so serious; but nothing was more elusive than the spirit of American democracy. Jefferson, the literary representative of the class, spoke chiefly for Virginians, and dreaded so greatly his own reputation as a visionary that he seldom or never uttered his whole thought. Gallatin and Madison were still more cautious. The press in no country could give shape to a mental condition so shadowy. The people themselves, although millions in number, could not have expressed their finer instincts had they tried, and might not have recognized them if expressed by others.

In the early days of colonization, every new settlement represented an idea and proclaimed a mission. Virginia was founded by a great, liberal movement aiming at the spread of English liberty and empire. The Pilgrims of Plymouth, the Puritans of Boston, the Quakers of Pennsylvania, all avowed a moral purpose, and began by making institutions that consciously reflected a moral idea. No such character belonged to the colonization of 1800. From Lake Erie to Florida, in long, unbroken line, pioneers were at work, cutting into the forests with the energy of so many beavers, and with no more express moral purpose than the beavers they drove away. The civilization they carried with them was rarely illumined by an idea; they sought room for no new truth, and aimed neither at creating, like the Puritans, a government of saints, nor, like the Quakers, one of love and peace; they left such experiments behind them, and wrestled only with the hardest problems of frontier life. No wonder that foreign observers, and even the educated, well-to-do Americans of the seacoast, could seldom see anything to admire in the ignorance and brutality of

1. Henry Adams is here referring to the later chapters of his *History of the United States* [Ed.].

frontiersmen, and should declare that virtue and wisdom no longer guided the United States! What they saw was not encouraging. To a new society, ignorant and semibarbarous, a mass of demagogues insisted on applying every stimulant that could inflame its worst appetites, while at the same instant taking away every influence that had hitherto helped to restrain its passions. Greed for wealth, lust for power, yearning for the blank void of savage freedom such as Indians and wolves delighted in—these were the fires that flamed under the caldron of American society, in which, as conservatives believed, the old, well-proven, conservative crust of religion, government, family, and even common respect for age, education, and experience was rapidly melting away, and was indeed already broken into fragments, swept about by the seething mass of scum ever rising in greater quantities to the surface.

Against this Federalist and conservative view of democratic tendencies, democrats protested in a thousand forms, but never in any mode of expression which satisfied them all, or explained their whole character. Probably Jefferson came nearest to the mark, for he represented the hopes of science as well as the prejudices of Virginia; but Jefferson's writings may be searched from beginning to end without revealing the whole measure of the man, far less of the movement. Here and there in his letters a suggestion was thrown out, as though by chance, revealing larger hopes—as in 1815, at a moment of despondency, he wrote: "I fear from the experience of the last twenty-five years that morals do not of necessity advance hand in hand with the sciences." In 1800, in the flush of triumph, he believed that his task in the world was to establish a democratic republic, with the sciences for an intellectual field, and physical and moral advancement keeping pace with their advance. Without an excessive introduction of more recent ideas, he might be imagined to define democratic progress, in the somewhat affected precision of his French philosophy: "Progress is either physical or intellectual. If we can bring it about that men are on the average an inch taller in the next generation than in this; if they are an inch larger round the chest; if their brain is an ounce or two heavier, and their life a year or two longer,—that is progress. If fifty years hence the average man shall invariably argue from two ascertained premises where he now jumps to a conclusion from a single supposed revelation,—that is progress! I expect it to be made here, under our democratic stimulants, on a great scale, until every man is potentially an athlete in body and an Aristotle in mind." To this doctrine the New Englander replied, "What will you do for moral progress?" Every possible answer to this question opened a chasm. No doubt

Jefferson held the faith that men would improve morally with their physical and intellectual growth; but he had no idea of any moral improvement other than that which came by nature. He could not tolerate a priesthood, a state church, or revealed religion. Conservatives, who could tolerate no society without such pillars of order, were, from their point of view, right in answering, "Give us rather the worst despotism of Europe—there our souls at least may have a chance of salvation!" To their minds vice and virtue were not relative, but fixed terms. The Church was a divine institution. How could a ship hope to reach port when the crew threw overboard sails, spars, and compass, unshipped their rudder, and all the long day thought only of eating and drinking? Nay, even should the new experiment succeed in a worldly sense, what was a man profited if he gained the whole world, and lost his own soul? The Lord God was a jealous God, and visited the sins of the parents upon the children; but what worse sin could be conceived than for a whole nation to join their chief in chanting the strange hymn with which Jefferson, a new false prophet, was deceiving and betraying his people: "It does me no injury for my neighbor to say there are twenty Gods or no God!"

On this ground conservatism took its stand, as it had hitherto done with success in every similar emergency in the world's history, and fixing its eyes on moral standards of its own, refused to deal with the subject as further open to argument. The two parties stood facing opposite ways, and could see no common ground of contact.

Yet even then one part of the American social system was proving itself to be rich in results. The average American was more intelligent than the average European, and was becoming every year still more active-minded as the new movement of society caught him up and swept him through a life of more varied experiences. On all sides the national mind responded to its stimulants. Deficient as the American was in the machinery of higher instruction; remote, poor; unable by any exertion to acquire the training, the capital, or even the elementary textbooks he needed for a fair development of his natural powers—his native energy and ambition already responded to the spur applied to them. Some of his triumphs were famous throughout the world; for Benjamin Franklin had raised high the reputation of American printers, and the actual President of the United States, who signed with Franklin the treaty of peace with Great Britain, was the son of a small farmer, and had himself kept a school in his youth. In both these cases social recognition followed success; but the later triumphs of the American mind were becoming more and

more popular. John Fitch was not only one of the poorest but one of the least-educated Yankees who ever made a name; he could never spell with tolerable correctness, and his life ended as it began–in the lowest social obscurity. Eli Whitney was better educated than Fitch, but had neither wealth, social influence, nor patron to back his ingenuity. In the year 1800 Eli Terry, another Connecticut Yankee of the same class, took into his employ two young men to help him make wooden clocks, and this was the capital on which the greatest clock manufactory in the world began its operations. In 1797 Asa Whittemore, a Massachusetts Yankee, invented a machine to make cards for carding wool, which "operated as if it had a soul," and became the foundation for a hundred subsequent patents. In 1790 Jacob Perkins, of Newburyport, invented a machine capable of cutting and turning out two hundred thousand nails a day; and then invented a process for transferring engraving from a very small steel cylinder to copper, which revolutionized cotton printing. The British traveler Weld, passing through Wilmington, stopped, as Liancourt had done before him, to see the great flour mills on the Brandywine. "The improvements," he said, "which have been made in the machinery of the flour mills in America are very great. The chief of these consist in a new application of the screw, and the introduction of what are called elevators, the idea of which was evidently borrowed from the chain-pump." This was the invention of Oliver Evans, a native of Delaware, whose parents were in very humble life, but who was himself, in spite of every disadvantage, an inventive genius of the first order. Robert Fulton, who in 1800 was in Paris with Joel Barlow, sprang from the same source in Pennsylvania. John Stevens, a native of New York, belonged to a more favored class, but followed the same impulses. All these men were the outcome of typical American society, and all their inventions transmuted the democratic instinct into a practical and tangible shape. Who would undertake to say that there was a limit to the fecundity of this teeming source? Who that saw only the narrow, practical, money-getting nature of the devices could venture to assert that as they wrought their end and raised the standard of millions, they would not also raise the creative power of those millions to a higher plane? If the priests and barons who set their names to Magna Carta had been told that in a few centuries every swineherd and cobbler's apprentice would write and read with an ease such as few kings could then command, and reason with better logic than any university could then practice, the priest and baron would have been more incredulous than any man who was told in 1800 that within another five centuries the plowboy would go afield whistling a

sonata of Beethoven, and figure out in quaternions the relation of his furrows. The American democrat knew so little of art that among his popular illusions he could not then nourish artistic ambition; but leaders like Jefferson, Gallatin, and Barlow might without extravagance count upon a coming time when the diffused ease and education should bring the masses into familiar contact with higher forms of human achievement, and their vast creative power, turned toward a nobler culture, might rise to the level of that democratic genius which found expression in the Parthenon; might revel in the delights of a new Buonarroti [Michelangelo] and a richer Titian; might create for five hundred million people the America of thought and art which alone could satisfy their omnivorous ambition.

Whether the illusions, so often affirmed and so often denied to the American people, took such forms or not, these were in effect the problems that lay before American society: Could it transmute its social power into the higher forms of thought? Could it provide for the moral and intellectual needs of mankind? Could it take permanent political shape? Could it give new life to religion and art? Could it create and maintain in the mass of mankind those habits of mind which had hitherto belonged to men of science alone? Could it physically develop the convolutions of the human brain? Could it produce, or was it compatible with, the differentiation of a higher variety of the human race? Nothing less than this was necessary for its complete success.

The foregoing consists of Chapters I and VI from Volume I of Henry Adams' HISTORY OF THE UNITED STATES OF AMERICA.

John Bagnell Bury

1861–1927

John Bagnell Bury, classicist and historian, was born at Monaghan, Ireland, in 1861, the son of an Anglican clergyman of more than ordinary learning. The boy was taught Greek and Latin at an early age. By the time he was ten he had exhausted the ingenuity of his tutor at Foyle College, Londonderry, who could find no question in Greek grammar too difficult for his pupil. Subsequently, Bury carried off all the prizes in classics at Trinity College, Dublin, from which he was graduated in 1882.

In 1885 he was made a fellow of the College, having achieved distinction as a philologist with two books on the *Odes* of Pindar. He had by then become interested in history, however, and in 1889 he published a work on the later Roman Empire that was received with high praise. In consequence of this, he was in 1895 appointed to a professorship in history. Thereafter he produced a steady stream of scholarly books, including an annotated edition of Gibbon in seven volumes (1896–1900), and a *History of Greece to the Death of Alexander the Great* (1900) which at once became a standard text.

As these works firmly established Bury's reputation, he was the logical choice for Regius Professor of Modern History at Cambridge when Lord Acton died; and, being appointed to that august chair in 1902, he occupied it until his death in 1927. Throughout his later

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Notes from the artist: "*The portrait of Bury is surrounded with Greek and Byzantine designs, reflecting his writings on early Mediterranean history. At the bottom is a small head of Gibbon, whose* Decline and Fall *was annotated by Bury in a seven-volume edition.*"

J. B. Bury
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life he continued to publish works which ranged from the most detailed monographs to the widely read *History of Freedom of Thought* (1913) and *The Idea of Progress* (1920). In all, his bibliography amounted to no less than 369 items, while his erudition extended to perhaps a dozen languages, including Hebrew, Sanskrit, and Hungarian.

In this chapter of *The Ancient Greek Historians*, Bury appraises the work of the "Father of History," as Herodotus has been called. He was not the first historian, however, any more than Hippocrates, who is termed the "Father of Medicine," was the first physician. So much does not come out of nothing. We are amazed at the complexity of the medical tradition that lay behind Hippocrates; we are surprised also by the amount of historical literature that had accumulated in fifth-century Greece, which Herodotus could have absorbed before he set out on his most important journeys to Babylonia and Egypt. Other much older civilizations, such as the Indian, had little sense of history, or even of chronology.

In explaining the long geographical sections of *The History*,[1] Bury says that Herodotus was following the example set by Hecataeus and his "school," and points out that the geography of Egypt and Scythia had a "practical interest" for Athenians. The geography is not something imported from outside, as had been supposed, but is a calculated part of the story. So also are the numerous digressions. They add piquancy and charm, and rest the mind from a too continuous narrative. The invented dialogues also enliven *The History*, lending verisimilitude and fascination. Herodotus' aim, unlike the modern scientific historian's, was to capture the mind of the ordinary reader.

In his dialogues, digressions, and epic sweep, Herodotus followed the model of his greatest master—the poet Homer. The *Iliad*, as you will remember, abounds in digressions and resounding speeches, and it also recounts the war of Greeks and Ionians. Herodotus' epic theme, in *The History*, is not merely the military conflict of Greece and Persia, but also the clash of two very different civilizations—the liberty of "Hellenic constitutionalism" v. "oriental autocracy." Although he was born in Ionia, under the sway of Persia, Herodotus'

[1] For *The History of Herodotus* see *Great Books of the Western World*, Vol. 6.

sympathies are clearly with the Greeks, or rather, the Athenians. In this respect also, as Bury implies, he was not a scientific historian.

Yet in spite of his bias, which most of us probably share, Herodotus wrote "universal history," depicting life on both sides of the trenches, and thus giving us "a lesson in the unity of history"–"the common history of man." He (and his immediate predecessors) also made an important advance in de-mythologizing human history. In the *Iliad*, the gods are the principal actors or at least pull the strings, whereas in *The History* they are gently pushed aside and deflated by irony. Not entirely, to be sure, for portents and other supernatural influences are still accepted, not only as reports, but as facts. Yet Herodotus' skepticism, though mixed with naïve, often piquant, gullibility, was a signal advance in the writing of history.

Bury thinks Herodotus' maxims of historical criticism are all valid. The historian should "suspect superhuman and miraculous occurrences, which contradict ordinary experience." When there is a conflict of evidence, he *should* "keep an open mind," and observations of results and "first-hand oral information" *are* more trustworthy than "stories at second hand." Bury regrets only that Herodotus did not follow his own maxims more consistently. He calls attention to numbers of glaring errors of fact and interpretation in *The History*, some of which are enough in themselves "to stamp Herodotus as more of an epic poet than a historian."

This judgment, in spite of Bury's praise, is so severe that the generous reader may want to make some defense of Herodotus. Could we not say that the business of the historian is not only to report the facts correctly, but also to construct a plausible picture of the past–to make it live? This is Herodotus' special talent. His version of the Persian War will outlive better-documented accounts, partly because it captures the true color and momentum of the period.

Herodotus

Of the life of Herodotus, son of Lyxes, of Halicarnassus, we know hardly anything except what may be gleaned from his own statements. Born early in the fifth century, he left his birthplace before 454 B.C., banished by Lygdamis the tyrant, who put his cousin Panyassis, the epic poet, to death. He stayed apparently for some time in Samos, and then went to Athens, whence he proceeded to Italy as one of the first citizens of the new colony of Thurii (443 B.C.). He survived the first years of the Peloponnesian War (431–0 B.C.). Into this framework we have to fit his travels, which included the coasts of the Euxine, Babylon, Phoenicia, Egypt, and probably Cyrene. It is not necessary to discuss the disputed subject of the chronology of his journeys. I need only say that his most important journeys, those to Babylonia and Egypt, were probably undertaken in the later period of his life, while he was a citizen of Thurii. The years which elapsed between his banishment from his native city and his departure for his new home seem to have been spent in Greece, perhaps chiefly at Athens, and to have been devoted, as we shall see, to investigating and composing the story of the invasion of Xerxes. Though he may naturally have visited Athens again, on his way to or from the East, there is no evidence to entitle us to presume, as some have thought, that he deserted Thurii permanently and dwelled at Athens during the last years of his life.

The argument of his history is a narrative of the relations between the Greeks and the oriental powers from the accession of Croesus to the capture of Sestos in 478 B.C.—a "modern" history in the fullest sense of the term. The division into nine books is not due to the author himself, for in his day such divisions had not yet come into fashion. But the Alexandrine editor who was responsible for it was a man of extraordinary insight. His distribution perfectly exhibits the construction of the book and could not be improved by any change. But it can be rendered more

perspicuous by observing that each of the nine books is truly a subdivision and that the primary partition is a threefold one. The work falls naturally into three sections, each consisting of three parts. The first section, or triad of books, comprises the reigns of Cyrus and Cambyses, and the accession of Darius; the second deals with the reign of Darius; the third with that of Xerxes. The first is mainly concerned with Asia including Egypt; the second with Europe; the third with Hellas. The first displays the rise and the triumphs of the power of Persia; the last relates the defeat of Persia by Greece; while the middle triad represents a chequered picture, Persian failure in Scythia and at Marathon, Greek failure in Ionia. And each of the nine subdivisions has a leading theme which constitutes a minor unity. Cyrus is the theme of the first book, Egypt of the second, Scythia of the fourth, the Ionian rebellion of the fifth, Marathon of the sixth. The seventh describes the invasion of Xerxes up to his success at Thermopylae; the eighth relates the reversal of fortune at Salamis; the final triumphs of Greece at Plataea and Mycale occupy the ninth. In the third alone the unity is less marked; yet there is a central interest in the dynastic revolution which set Darius on the throne. Thus the unity of the whole composition sharply displays itself in three parts, of which each again is threefold. The simplicity with which this architectural symmetry has been managed, without any apparent violence, constraint, or formality, was an achievement of consummate craft. The writer's management of the digressions, for which he is notorious, is hardly less striking, exhibiting a rare skill in the choice of the best and perhaps the only fitting places to stow away loose material he wished to make use of.

But, perfect as is the architectural unity of the work of Herodotus, it would seem that the plan as it was finally carried out was not conceived when he commenced to write, and that the unity was achieved not in conformity to a design thought out from the beginning, but by a process of expansion due to an afterthought. There is a variety of internal evidence which points convincingly to the conclusion that the last three books were composed before the first six, and there are indications that he wrote this portion between 456 and 445 B.C., before he began his travels. The natural inference is that he originally contemplated no more than a history of the invasion of Xerxes; and that it was in the course of his travels that he conceived the idea of a larger work, of which the "Invasion of Xerxes" should form the finale. The idea doubtless shaped itself gradually; and the first six books were not composed in the order in which they stand. But the author has worked with such skill that only a searching analysis has detected the series of facts which demonstrate the

priority of the last three books and make it clear that the Persian War was his original inspiration.

At whatever moment the idea of expanding his original history to its fuller compass presented itself, whether it was suggested by his journeys or prompted him to become a traveller, it was certainly connected closely with his travels, and the occurrence of long geographical excursus is one of the most striking features of the expansion.

So strongly marked indeed is the geographical element, so long are the geographical sections, in the work of Herodotus, that some critics have been led to think that considerable parts of it were originally intended to form part of a geography, and were afterwards incorporated in his history. There is nothing that compels us to adopt a hypothesis of this kind. Association with geography was a characteristic of the early historical literature of the Greeks, and these excursus in Herodotus attest the influence of the Hecataean school, and were natural in the work of a historian who was himself a traveller. And it is worth observing that when he was writing, both Egypt and Scythia, the subjects of his longest historico-geographical digressions, had a particular practical interest for the Athenians; and of the Greek public it was unquestionably the Athenians to whom the historian designed his work pre-eminently to appeal. I need only remind you of the Athenian adventure in Egypt in the middle of the fifth century and of the voyage of Pericles in the Euxine Sea. It has even been conjectured that this Periclean expedition (444 B.C.) was the occasion of the historian's visit to the Pontic regions. However this may be, it is not insignificant, in judging these digressions, that Egypt and Scythia possessed, at the time Herodotus wrote, an interest of a political kind, subordinate indeed to that of Persia, but distinctly actual.

It is also to be noted that the digressions in general had an artistic justification. They are an epic feature, deliberately designed; one of the epic notes of the work. Homer was the literary master of Herodotus; without imitating him in any obvious way, the first great master of prose studied and caught the secrets of his effects. By means of digressions he achieved epic variety. We cannot do better than read the observations of the accomplished literary critic Dionysius. "Herodotus knew that every narrative of great length wearies the ears of the hearer, if it dwell without a break on the same subject; but, if pauses are introduced at intervals, it affects the mind agreeably. And so he desired to lend variety to his work and imitated Homer. If we take up his book, we admire it to the last syllable, and always want more."

Besides diversifying his work with digressions and episodes, Herodotus

adopted another epic feature, not less characteristic. Like Homer, the historian makes his characters speak. He introduces not only short and pointed conversations, but dialogues and orations of considerable length. For instance, Xerxes, Mardonius, and Artabanus make each a speech in council before it is decided to invade Greece. I may recall the conversations of Solon with Croesus, of Xerxes with Artabanus and with Demaratus; and the speech made by the Corinthian envoy when the Spartans were considering the policy of forcing Athens to restore the Peisistratids. If the historian were charged with abusing this artifice by introducing in the Corinthian envoy's speech a long episode from Corinthian history, which is really quite irrelevant, he could appeal to the discourses of Phoenix and Nestor in Homer; and this case illustrates the fact that in introducing speeches he was influenced by the Ionian epic and not by the Athenian drama. It is impossible to say whether any of the older prose writers had adopted this practice, which makes the scenes vivid and the work alive. The bits of Hecataeus we possess are too brief to judge; but I may note that in one case at least he put words into the mouth of an actor.

The Homeric qualities of Herodotus, which communicate to his history an epic flavour, accord with the object to produce a work which like Homer should fascinate the minds of men. It was his aim to hold his audience or readers entertained; to do for his own world in prose what Homer had done for the ancient world in numbers. We cannot tell how far any of his prose predecessors had sought to make their works attractive or entertaining, or whether the influence of epic poetry affected their method of presentation. But we may confidently say that Herodotus was the first who discerned in "modern" history the possibilities of a treatment which was epic, and not Hesiodic but Homeric, in spirit and style.

His theme, the struggle of Greece with the Orient, possessed for him a deeper meaning than the political result of the Persian War. It was the contact and collision of two different types of civilization, of peoples of two different characters and different political institutions. In the last division of his work, where the final struggle of Persia and Greece is related, this contrast between the slavery of the barbarian and the liberty of the Greek, between oriental autocracy and Hellenic constitutionalism, is ever present and is forcibly brought out. But the contrast of Hellenic with oriental culture pervades the whole work; it informs the unity of the external theme with the deeper unity of an inner meaning. It is the key-note of the history of Herodotus. The digressions and stories which delay the action, besides their intrinsic interest, and besides their epic

use as pleasant pauses, have also the value of sounding that note, and of contributing distinctly, but without emphasis or iteration, towards impressing that contrast on the reader's mind. The interview, for example, of Croesus with Solon, the self-confident Eastern potentate with the thoughtful, self-controlled Greek, strikes this chord loudly; and most of the oriental and Hellenic stories are calculated to suggest the antithesis which finds its supreme expression, and is more elaborately wrought out, in the final collision of the Persian Wars.

In the execution of this conception the Herodotean work has assumed the character of a study in the history of civilization. Just as the Homeric poems present a large and living picture of the culture of ancient Greece, so the history of Herodotus gives us panoramic views in the Hellenic civilization of the sixth century, and describes the cultures of all the Eastern peoples who directly or indirectly come within range.

And if it is a study in the history of civilization, we may also say that it has certain features of a universal history. It is not universal either in space or in time. Not in time; it does not attempt to go back far in Greek history, and only touches upon the ancient period incidentally. Not in space, for it hardly touches upon the western Greeks at all, and does not include what Hecataeus would have supplied about the peoples of the western Mediterranean. But it has the higher quality of what we mean by universal history or *Weltgeschichte*, in focusing under one point of view, and fitting into a connected narrative, the histories of the various peoples who came into relations with one another, within a given range; so that they are drawn out of their isolation and recognized to have a meaning, greater or less, in the common history of man. Within that range, which is determined by his theme, Herodotus is irreproachably comprehensive; and his book, though he never formulates the idea, is a lesson in the unity of history.

Although Herodotus does not enter upon the history of the heroic period, he has frequently occasion to refer to mythical tradition, and here he shows himself distinctly a sceptic. Not that he was a rationalist in regard to theology generally, or had any clear and consistent philosophical view. He looked upon human life as under the control of superhuman powers, who in exercising their incalculable government were prompted by motives of envy and nemesis or righteous anger, who acted to some extent on principles of justice and retribution, and who might communicate knowledge to men by means of oracles, portents, or dreams. But any further converse of gods with men, any divine appearances alleged to have happened in recent times, Herodotus is not prepared to

accept, though he is never dogmatic. His philosophy was not strong enough to deny that the gods had ever carried on the sort of intercourse with men that is described in the epics, or generated human progeny; for his ultimate line between the divine and the human was not fast. But it was a great comfort for common sense and everyday experience, to push the age in which such things could happen as far back as possible. Herodotus reveals unmistakably his incredulity about all the mythical wonders in which, according to tradition, ancestors of living people, some fifteen or twenty generations back, played bright or shady parts. He accepted the genealogies, but when he got to Perseus or Hercules, he did not regard them as sons of a god. Hercules is the son of Amphitryon, Helen is the daughter of Tyndareus. Sometimes he relates legends or tells tales involving superhuman agency, but he never takes any responsibility for them, and occasionally treats them with delicate irony. He mentions a legend of the Thessalians that the ravine through which the Peneus makes its way to the sea was wrought by Poseidon. "Their tale is plausible; and any one who thinks that Poseidon shakes the earth and that clefts produced by earthquakes are the works of that god would on seeing this mountain-ravine ascribe it to Poseidon. For it appeared to me to be the result of an earthquake." Gibbon might have taken lessons in the art of irony from Herodotus as well as from Pascal. Consider again the admirable caution with which he speaks of the divine snake said to live on the Athenian Acropolis. "The Athenians say that a great snake lives in the Sanctuary as guardian of the citadel; and they present a honey-cake every month as to a creature existing." This commits him to nothing.

But though disposed to accept only what experience led him to regard as possible, in any given case, Herodotus, as I have said, did not draw theoretically a hard and fast line between the human and the divine; and he did not reject as ridiculous the notion that at one time gods moved visibly on the earth and consorted with men. Why then did he reject the divine parentage of heroes like Hercules and Perseus? It is important to comprehend the reason for this scepticism which he derived from Hecataeus. I touched on this point in the first lecture. It was not due to the canons of Ionian science or to the influence of Ionian philosophy. It was due to the study of comparative mythology which had opened for Hecataeus a new perspective of the world's history. The Egyptian studies which Herodotus pursued in the footsteps of the Milesian traveller taught him that human history in that country went back for thousands of years before the age of the gods was reached. The Egyptians, for

instance, had a god corresponding to Hercules, and they reckoned that 17,000 years had elapsed since he had appeared in Egypt. Hence the conclusion which Herodotus accepts that there was an ancient god Hercules, but that he must be sharply distinguished from the human son of Amphitryon, ancestor of the Heraclidae.[1] The Greek tradition that the age in which gods walked the earth was still current some eight or nine hundred years ago could not be true. For even apart from the suggestions of comparative mythology, it was inadmissible to suppose that while Egypt was in a prosaic age of mere men, Greece was trodden by deities and the scene of miracles; and the Egyptian tradition was vouched for by records. The argument demolished the received mythology of the heroic age so far as it was superhuman.

Herodotus deserves credit for having accepted the argument, to which contemporary writers like Pherecydes were deaf; and if he asks pardon from the gods and heroes for his boldness, this does not mean that he felt hesitation or reluctance; it was merely an insincere and graceful genuflection. He was doing what a Christian preacher sometimes does when having delivered an extremely heterodox sermon he winds up with a formal homage to orthodox dogma. Herodotus is extremely courteous, perhaps ironically courteous, to both parties. He says, as it were, to the gods and heroes, "Please, do not be angry with me—supposing you to exist. But at this time of day, you know, one must really draw the line somewhere." On the other hand he says to the infidels who disbelieve in oracular prophecy, "I know you will think me credulous. But still in this case the evidence is so remarkably clear that I do not see my way to resisting it." The mythological argument, however, of which I am speaking was not due to Herodotus himself. He may have put it in his own way, and added some points, but he owed it, as I have said, to Hecataeus. It has long been recognized that his description of Egypt is not an original work, put together exclusively from his own observations and inquiries, but largely reproduces the account which Hecataeus had given in his *Map of the World*. When Herodotus visited Egypt, he doubtless had the book of Hecataeus with him, and used it like a barrister's brief for cross-examining the temple-servants and guiding him in his investigations. He added corrections and new information, but the great Ionian supplied the groundwork. He does not say so; he does not acknowledge his debt to Hecataeus; for, as you know, the ancients had very different views from the moderns about literary obligations. It was not the fashion or etiquette

1. Similarly Pan son of Penelope, Dionysus son of Semele, are to be distinguished from the synonymous gods.

to name your authorities except for some special reason–for instance, to criticize them, or to display your own learning; and you were not considered a plagiarist if you plundered somebody else's work without mentioning his name. Hecataeus brought out the importance of the Nile by the striking phrase that Egypt was the gift of the river; Herodotus adopts the phrase as if it were his own. One of the most convincing tests by which suspected plagiarism can be established is the occurrence of the same mistakes. Now Herodotus reproduces the errors which Hecataeus had committed about the hippopotamus. But there are a whole series of points in which we can trace the contact between the two writers in regard to Egypt. As for the mythology, we are left in no doubt because Herodotus names Hecataeus in this connection. "When Hecataeus was in Thebes he told his pedigree to the priests and connected himself with a god in the sixteenth generation. And the priests did to him what they did to me, though *I* did not relate *my* pedigree. They took him into the hall of the temple and showed him wooden statues of the high priests. The high priesthood descends from father to son, and each high priest sets up his own statue in his lifetime. They counted 345 statues, and they set this genealogy against that of Hecataeus, but *they* did not derive their pedigree from a god or a hero."

The author's motive in naming his predecessor here is, obviously, to rally him for having "given himself away" by stating his own genealogy and divine ancestry to the priests. "*I* was not so incautious" is the implication. But we have no right to infer that Hecataeus had not already drawn the sceptical conclusions which Herodotus explains. The sceptical words with which Hecataeus introduced his *Genealogies* show that he was not deaf to the lessons in history which he learned in Egyptian temples. His very expression when he says that "the *logoi* of the Hellenes are absurd," not "the stories of the poets," suggests the contrast of non-Hellenes whose *logoi* he had compared. The distinction of what the Greeks say from what the Persians, Phoenicians, or Egyptians say often recurs in Herodotus, and is an echo, I believe, from Hecataeus. But we have another proof. Herodotus cites the Egyptian priests as dating the age of the gods in relation to the reign of Amasis [Ahmose]. As the visit of Hecataeus to Egypt would have fallen not long after the death of Amasis, the dating indicates that Herodotus was copying the statement of Hecataeus.

The note of scepticism, perhaps we may say the characteristic note of Ionian scepticism, is struck in the first paragraphs of the Herodotean work. It opens with the statement of a theory that the wars of the Greeks

and Persians were the manifestation of a secular antagonism between Asia and Europe—what our English historian, Freeman, was fond of calling the Eternal Question. This at least is the abstract way we should formulate the tenor of the statement which I may abbreviate as follows: "The quarrel began thus: Phoenician traders carried off from Argos Io, the king's daughter. Subsequently Greek adventurers from Crete carried off the princess Europa from Tyre. The next aggression came from the Greek side, when the Argonauts ravished Medea from Colchis. The Asiatic reply to this outrage was the rape of Helen by Paris. The Trojan War, which followed, generated in Asia a feeling of hostility to the Greeks, and the Persian War was the ultimate issue of this feeling." But the theory was not originated by Herodotus. He disavows all responsibility. It was a theory of the Persians, he tells us, and he states it only to set it aside in his ironical way.

The whole passage reads as if it might be the condensation of a friendly discussion between a Greek and a Persian as to the responsibility for the Persian War. It was undeniable that the Persians and not the Greeks had been the aggressors; the conquest of Ionia by Cyrus had been the beginning. The Persian advocate could only remove the blame from Asia by going farther back. The summary I gave of the argument does not reproduce its flavour, and I will take the liberty of throwing it into the form of a dialogue.

Persian. The Greeks had no business in Asia. They belong to Europe, and they should have stayed there. Their expedition against Troy was the first trespass; it began their encroachments on a continent which belongs to Asiatic peoples of whom the Persians are the heirs.

Greek. Oh, but you are forgetting that on that occasion the Trojans were the offenders; Paris carried off Helen.

Persian. That was no sufficient reason; but even if it were, the act of Paris was only a reprisal for the Greek crimes of carrying off Medea and Europa. And the Asiatics were far too sensible to make a *causa belli* of such foolish elopements.

Greek. Well, if you go back so far, you must go back farther still. What about the rape of Io from Argos?

Persian. Well, yes, I admit it. That was a Phoenician business, and we Persians must allow that the Phoenicians began the mischief, though we hold you really responsible, through your folly in taking such an affair seriously. Only fools would make war on account of such escapades. Men of the world know that, if these women were carried off, they were not more reluctant than they should be.

Evidently we have here an invention of Ionian *esprit*. The nature of the argument, dealing as it does entirely with Greek legend, shows that the Persian was a fictitious disputant; and the attribution of the theory to a Persian is an effect of literary subtlety quite in the manner of Voltaire. Though Herodotus thought little of this speculation about ancient wrongs, he seems to have taken it as seriously meant. "Whatever we think about all this," he says, "I will begin with the first Eastern monarch who undoubtedly committed injustice against Greece, Croesus, who subdued Ionia without provocation." But it is highly significant that he should place in the portals of his work a speculation which set mythical tradition in a ridiculous light.

The passage I have discussed is one of several that evince those acute tendencies in the Hellenic mind which culminated in the movement of the Sophists. For instance, the story of the wife of Intaphernes. She chose to save her brother rather than her husband or children, on the ground that husband and children might be replaced but she could never have another brother. That is a clever Ionian subtlety; there is no reason to suppose that it was invented in the period of the Sophists. Or take the demonstration of the power of custom by Darius. He dismayed some Greeks by the question what they would take to eat their dead fathers, and then equally horrified some Indians of a tribe who ate dead parents, by asking them how much they would take to cremate theirs. The immense power of custom was an observation redolent of the age of the Wise Men; Pindar, whom Herodotus quotes, designated Custom as king of the world; and the idea afterwards became the basis of sophistic theories. The story quoted by Herodotus is a drastic Ionian illustration.

Again, the famous discussion of the comparative merits of democracy, aristocracy, and monarchy by the seven Persian conspirators who overthrew the false Smerdis belongs also to pre-sophistic speculation. It is obviously a fiction; for the discussion was appropriate in the Greek world, but was quite out of place in Persia. But it was not a fiction of Herodotus, for he states expressly (careful though he generally is not to commit himself) that these opinions were really uttered by the Persian noblemen, although some of the Greeks consider this incredible. The historian was taken in, just as he was taken in by the persiflage about the rapes of the fair women of legend. There can hardly be much doubt that some publicist threw his reflections on the comparative merits of constitutions into the shape of this historical deliberation. The distinction of three fundamental types of constitution is older than the period of the Sophists; it is recognized in an ode of Pindar not later than 473 B.C., and

it was then probably a commonplace. We may suspect that we have to do with some publication of the first half of the fifth century.

Now there is one feature common to these passages. Greek ideas and reflections are transferred to an Eastern setting or connected with Persian history. Their origin was assuredly Ionian.[2] They betray the naïve interest of the Ionians in their masters, and show the Greek mind projecting its own reflections into a world of which it had only a half-knowledge, with the instinct of making that world more interesting and sympathetic.[3]

But I must return to the scepticism of Herodotus. I have already observed that in the historical post-Homeric period the mythopoeic faculty of the Greeks did not slumber, but myth now took the form of the historical anecdote, or, as the Germans call it, *historische Novelle*. Here they showed consummate felicity in constructing stories with historical background, historical actors, historical motives, and possessing, many of them, a perpetual value because they are seasoned with worldly wisdom and enshrine some criticism of life. These tales differ from the old myths not only in the tendency to point a moral but also in the circumstance that for the most part they do not involve physical impossibilities, though they may imply highly improbable coincidences, or what we may call psychical or political impossibilities. The work of Herodotus is richly furnished with these tales; he had a wonderful flair for a good story; and the gracious garrulity with which he tells historical anecdotes is one of the charms which will secure him readers till the world's end. Gibbon happily observed that Herodotus "sometimes writes for children and sometimes for philosophers"; the anecdotes he relates often appeal to both. He accepts them generally at their face value, and most of them have been taken as more or less literally true till very recent times. The story of the intercourse between Croesus and Solon was rejected as fiction only because it seemed impossible to reconcile it with chro-

2. The clear allusion of Otanes, in his defence of democracy, to the Athenian constitution under the lot-system does not necessitate by any means an Athenian origin. It may be conjectured that the peculiar privileged position which Otanes and his descendants were said to have held in the Persian realm suggested the idea of transferring this singularly Hellenic discussion to Susa. Otanes, it is said, was exempted from subjection to the kings because, though he was the leading organizer of the conspiracy, he resigned all claims to the throne which Darius secured. He was thus neither ruler nor subject, an anomalous position which in Greece had a sort of parallel in the membership of a democracy. Hence the suggestion that Otanes believed in democracy, and, when he did not convince his fellow-conspirators, obtained for himself personally and his family the freedom which a democracy bestows.
3. I have been here expressing dissent from the view of some critics that the passages enumerated indicate sophistic influence.

nology. But we are now more sceptical about good stories of this type, and we have come to see how often they are wrought upon, or woven into, some ancient *motif*, which is adapted to a historical setting. The tale of the funeral pyre of Croesus sprang from the burning of the Assyrian god Sandan; it was an up-to-date version of the legend of Sardanapalus. The story of the ring of Polycrates turns on an old motive, the finding of something lost in a fish's belly, but its point in connection with Polycrates has been explained only the other day. The casting of the ring into the sea was symbolic of thalassocracy; it was the same mythical ring as that of Minos, which in the poem of Bacchylides Theseus sought in the halls of Amphitrite; its recovery was fatal to the ruler of the seas.

Herodotus is the Homer of this later form of historical myths, in which the supernatural machinery consisted of oracles or significant dreams or marvellous coincidences. They corresponded to his wavering standard of the credible and probable, which generally excluded what seemed physically impossible. For instance, he positively refuses to believe that statues assumed a sitting posture. He duly records the story that a certain man dived under water a distance of several miles. It was the private opinion of Herodotus that that man arrived in a boat.

Perhaps the story of the miraculous deliverance of Delphi from the Persians may be taken to illustrate the ill-defined limits of his faith. Their oracle declared to the Delphian priests that the god would himself provide for the safety of his sanctuary, and when the Persians came they were repelled, with great havoc, by lightning and by the fall of huge boulders from Parnassus. Herodotus relates this without any hint of scepticism, though he emphasizes the miraculous nature of the events. Now you observe that there is nothing impossible in the alleged physical occurrences; the marvel lies in the opportunity of the coincidence and the fulfilment of the oracular announcement. Against a marvel of this order Herodotus had no prejudice. But another miracle was said to have happened on the same occasion. Certain sacred arms, which were preserved within the shrine and were too sacred to be profaned by human touch, were suddenly discovered lying in a heap in front of the temple. A rationalist–Euripides, for instance–would find no difficulty in such an occurrence, assuming the fact to be certain. Herodotus accepts it as a genuine marvel, without any suggestion that human agency, notwithstanding Delphic asseverations to the contrary, might have been concerned in the matter; and the notable thing is that he considers it less wonderful than the intervention of the physical forces which overwhelmed the Persians. If such a phenomenon as the removal of the arms

presented itself to us for criticism—supposing the fact were assured beyond a doubt, and supposing human agency were absolutely excluded by the circumstances—we should regard it as something incomparably more extraordinary than the unquestionably wonderful coincidence of the storm of lightning.[4] Here, in fact, Herodotus has failed to draw the line at what is physically impossible. The truth is that his faith and doubt are alike instinctive; he had never thought the problem out for himself; he had never clearly defined the border between the domains of the credible and the incredible. And so in this episode he has no sooner given us a lesson in faith than he relapses into reserve. For there was yet another marvel to be told. It was said that two armed warriors of superhuman stature pursued the flying Persians and dealt death among their broken ranks. But Herodotus carefully avoids the responsibility of accepting this story. He gives it on the authority of the Persians; he qualifies it by the phrase "as I am informed"; and he adds that the Delphians identified the two warriors with local heroes.

The contrast of the *naïveté* of Herodotus with his scepticism imparts to his epic a very piquant quality. Credulity alternates with a cautious reserve, which is especially noticeable when he is aware of more than one version of an occurrence. He is an expert in the art of not committing himself. He says in one passage, "I am bound to state what is said, but I am not bound to believe." Of the tale that Zalmoxis lived for three years in a subterranean chamber, he professes agnosticism: "I do not disbelieve nor do I absolutely believe it." Occasionally he criticizes and rejects a story, for instance the charge against the Alcmaeonids of treachery at Marathon; but his common practice is to state conflicting accounts and leave the matter there. This method, as it happens, is much more satisfactory to a modern critic than if Herodotus had selected one version, or had attempted to blend different versions together. But it shows him in the light of a collector of historical material, and an accomplished artist in arranging and presenting it, rather than as what we mean by a historian, who considers it his business to sift the evidence, and decide, if possible, between conflicting accounts.

We are often tempted to think of Herodotus as an Ionian, although he was not a native of Ionia. He wrote in Ionic; and he cannot be severed from the school of the Ionian historians, to whom his work owed a great deal more than appears on the surface. But if he had heard himself described as an Ionian writer, he would have been vastly indignant. He

4. I do not add the fall of the rocks; for this might have been engineered. The rocks were shown to Herodotus in the temple of Athena Pronaïa (ch. 39); this was just the sort of evidence which would impress him.

is at great pains to dissociate himself from Ionia and Ionian interests. In his account of the Ionian revolt and of the part which the Ionians played in the war with Xerxes, he shows a hardly veiled contempt for a people which, as he says, had been thrice enslaved. He tells us that the name "Ionian was one of no great repute." He is careful to record, without any comment, the Scythian opinion that the Ionians were the most cowardly and unmanly people in the world. He takes frequent opportunities of criticizing adversely the views of Ionian writers. Now I think we may say that this antagonistic attitude was not due entirely or principally to the fact that he belonged by birth to Dorian Halicarnassus. He does indeed insist on the difference of Dorian and Ionian, but the contrast on which his anti-Ionian feeling depended was one within the Ionian race itself–the distinction of the Athenians from the Ionians of Asia. We saw that Herodotus was at Athens before he went to Italy, and his connection with Athens impressed its mark on his political views. He was a warm admirer of the Athenians, and looked with favour and enthusiasm on their empire. He participated in their experiment of colonizing Thurii, became a citizen of their daughter-city. But even if we had not this external proof of his political sympathy, his work testifies to it abundantly. The whole account not only of the Marathonian campaign but of the war with Xerxes is one that redounds to the glory of Athens and flatters Athenian pride. It is, in fact, written mainly from the Athenian point of view, and represents largely, though not exclusively, the Athenian version. The Spartans and the part they took in the war are often handled with irony–for example, they were always arriving too late because they were celebrating a feast. The Corinthians are treated almost with malice. The story would have had a very different complexion if it had been written in the Spartan interest; and even though we have no philo-Spartan historian of the time, a very good case has been made out for the view that Sparta showed as true heroism as Athens. Further, Herodotus takes opportunities to set forth the mythistorical claims of Athens to a hegemony of the Greeks, and represents Athens as asserting those claims at the time of the Persian War. This is an anachronism. At that time Sparta was admittedly the leader and dictator; Athens was a member of the Peloponnesian confederacy, and the strife for supremacy had not begun. Thus the situation is construed in the light of the sequel; history is distorted in the interest of politics; and the grounds of the claim to hegemony which Herodotus ascribes to the Athenians of that time are the stock arguments which we find used in Athenian funeral orations to illustrate and justify the Athenian Empire. In the *Epitaphius* which Pericles pronounced over the citizens killed in the Samian War (439 B.C.) these arguments from

myth and history were doubtless marshalled; and that Herodotus was present and listened to it is a conjecture of Eduard Meyer, which has some plausibility, since we find that a famous picturesque phrase used by the orator, likening the dead soldiers to the spring taken out of the year, was adopted by the historian and placed in a new setting.

Admiration for the Athenian Empire in the third quarter of the fifth century meant admiration for Pericles, the chief inspirer of Athenian policy, and the sympathy of Herodotus with Pericles is revealed in the single passage in which he mentions him, where he records the anecdote of his mother's dream that a lion would be born to her. It is revealed, too, in sympathy with the Alcmaeonid family.[5]

His strong phil-Athenian feelings cannot be disconnected from his tone of prejudice and disparagement in treating the Ionians. When the immediate danger of Persian subjection was over, and the Ionian cities which had been leagued with Athens as an equal were brought to submit to her as a mistress, there was little love lost. The Ionian record of the war was one which would have failed to satisfy Athenian patriots as certainly as the Herodotean narrative must have failed to please the Ionians. Herodotus expressly argued that the Athenians were "truly the saviours of Greece"; but he did more: he gave currency and authority to a story which embodied Athenian tradition and justified Athenian Empire, and with such cunning and tact that it has been permanently effective. His admiration for Athens was bound up with his belief in democratic freedom. Until the Peisistratids were overthrown, he says, Athens was an ordinary undistinguished city; but when the Athenians abolished the tyranny and won their freedom, they became by far the first state in Greece.

Herodotus then was a phil-Athenian democrat. If the story is true that the Athenians bestowed on him ten talents (about 12,000 dollars) in recognition of the merits of his work, it was a small remuneration for the service he rendered to the renown of their city. But that he did this service does not degrade his work into anything that could be described as a partisan publication in the offensive sense. It was pragmatical; it reflected the author's political beliefs, and exhibited a strong bias in the preference given to Athenian sources. But it was the work of a historian

5. v. 71 rests on the Alcmaeonid tradition. It has been suggested that this sympathy of Herodotus may explain his curious treatment of Themistocles. To this statesman Athens chiefly owed the decisive role she played in the war, and though his good counsels are recognized, he is also treated in an unfriendly spirit of detraction, and represented as an intriguer rather than as a statesman. This looks as if the memory of Themistocles were under a cloud, and this partial obscuration were reflected in Herodotus. Afterwards, Thucydides made a point of doing him justice.

who cannot help being partial; it was not the work of a partisan who becomes a historian for the sake of his cause.

Something more particular must be said about the Herodotean story of the Persian invasion. A self-flattering version of the war had become a tradition at Athens. We have an early sketch of it, in a poetical form, in the *Persae* of Aeschylus (472 B.C.); but Herodotus was probably the first to write it down in a historical form, some twenty years later. Oral traditions (gathered at Athens, Sparta, Delphi, and elsewhere) appear profusely in his work, as every one knows. But he could not have constructed his history of the course of the war from oral traditions alone, or composed such a narrative of events, in which he was too young to take part, thirty years or so afterwards, without the help of some earlier record. We have seen that he depended on Hecataeus for Egypt, though this was just one of the portions of his work where autopsy, and information collected orally, might have sufficed. There is little doubt that Hecataeus was his main guide for early oriental history, and that the same writer was also used for the descriptions of Scythia and Libya, along with other geographical works of the Ionian school. When we come to the invasion of Darius and Xerxes, we find, as we might expect, clear indications that Herodotus here too had a written guide. Throughout the narrative, in the last three books, of the events after Marathon to the end of the second invasion, the historian has naturally to pass backwards and forwards from the Persians to the Greeks. Now there is a remarkable contrast between the character of the narrative when the writer takes us to Susa or to the Persian camp and when he transports us to the cities or tents of the Greeks. In the accounts of what the Greeks did, we are constantly confronted with more than one story, representing various oral traditions which reflect different local interests. But when we follow the movements of the Persians, we have a continuous chronological narrative, by no means always credible, but all of a piece and marked by enumerations and details which point to a more or less contemporary written source, and a source of which Persian, not Greek, history was formally the subject. This source contributes the main thread of the narrative, round which Herodotus has wrought all the additional supplementary and illustrative material he managed to collect. The chronology of Persian events after Marathon is orderly and distinct, contrasting with the uncertainties which beset the digressions on Greek history, such as that on the Spartan kings Cleomenes and Demaratus. Now we know of a history of the Persian War prior to Herodotus, the book of Dionysius of Miletus. I spoke of it in the last lecture, and I also pointed

out that the Persian history of Charon of Lampsacus may, not improbably, have come down to the invasion of Xerxes. Either of these books would satisfy the condition that the war was treated as an episode in Persian, not Greek, history, so that it is not unlikely that one of these may have been the source of Herodotus.

Into the warp thus furnished by an older writer is wrought a woof of Athenian tradition, varied here and there by tissue from other sources. And it is noteworthy how in the last three books, comprising the invasion of Xerxes, the imminence of a divine direction of human affairs is strongly accentuated. The sceptical tone is less apparent here than in other parts of the work. From the beginning of the seventh book the dominant note is changed, at least this is the impression I receive; the atmosphere becomes charged with a certain solemnity; it is, I think we might say, rather Athenian than Ionian. Is this difference due to the influence of those Athenian dramas which had glorified the subject, the tragedies of Phrynichus and Aeschylus?

The catastrophe which befalls the Persian expedition is not conceived as the work of jealous gods annoyed by the conspicuous wealth or success of mere mortals. It is rather a divine punishment of the insolence and rashness that are often born of prosperity. This is the Aeschylean doctrine:

> Zeus is a judge who visits heavily
> All whose self-glorious spirit vaults too high.

This Athenian influence in the last books of Herodotus accords with my conjecture that Athens was his headquarters during a part of the ten years or so which elapsed between his banishment and his sailing for Italy.

Herodotus then made a considerable use of older writers [6]—of whom he only names Hecataeus, and usually for the purpose of hinting something uncomplimentary. As the works of these writers have perished, it is very difficult to form a fair estimate of the achievements of Herodotus himself as a historical investigator—apart from his transcendent gifts as an artist

6. A complete library of Greek prose works on history would have been very small in 450 B.C., and it would not have been very much larger in 430 B.C. It is difficult to suppose that Herodotus would not have been acquainted with all the historical literature that had been published, or that the works of Dionysius and Charon could have escaped him. Besides Hecataeus the only historian to whom he refers is Scylax (iv. 44), but he mentions him as an explorer and not as an author, though obviously his brief account of the exploration is taken from the report of Scylax. Could he have failed to know the book of this Carian writer on Heraclides of Mylasa? It is remarkable that he ignores the part played by Heraclides of Artemisium. Heraclides is mentioned v. 121. The geographical works of the Ionians are referred to in iv. 36.

and man of letters. His great service consisted probably in the collection of unwritten material concerning modern Greek history; this floating matter he wrought with masterly skill into a framework of facts constructed by predecessors. His maxims of historical criticism may be set down as three: (1) Suspect superhuman and miraculous occurrences, which contradict ordinary experience. But this, in his application of it, leaves a wide room for portents, and it does not cover oracles and dreams. (2) When you are confronted by conflicting evidence or differing versions of the same event, keep an open mind; *audi alteram partem* [I have heard the other side]. But this does not save him from a biased acceptance of Athenian tradition. (3) Autopsy and first-hand oral information are superior to stories at second hand, whether written or oral.[7] This tends to take the naïve form, "I know, for I was there myself," and it placed the historian at the mercy of the vergers and guides in Egyptian temples.

I may illustrate by a couple of examples how Herodotus was sometimes unfortunate in his information gathered on the spot. When he visited Egypt he saw on the Great Pyramid inscriptions which disappeared in the Middle Ages. Probably they were of religious import, appropriate to a royal tomb. But Herodotus tells us that they enumerated the sums of money which were expended on the onions and leeks consumed by the workmen who built the pyramid. This was the interpretation with which the guide satisfied the Greek traveller's curiosity. The other instance I will quote appertains to Babylonian history. Herodotus saw at Babylon the great buildings of a king, with whose name even those of us who have not studied Babylonian annals are probably familiar–King Nebuchadrezzar. He is correctly informed as to the time at which they were built–five generations after the reign of Queen Sammuramat, whom he calls Semiramis. But autopsy did not keep him from falling into a droll error about the potentate who built them. Nebuchadrezzar has had rather bad luck. In the book of Daniel he is metamorphosed into a beast of the field; in Herodotus he is forced to masquerade as a woman. We have to discover his identity under the mask of Queen Nitocris.

We must give full credit to Herodotus for having recognized the principles of criticism which I have indicated, though his application of them is

7. Compare, *e.g.,* ii. 99. I have little doubt that Herodotus visited and examined the battle-field of Plataea. Our difficulties in reconstructing the battle (elucidated by Grundy, Woodhouse, and Macan) from his description are not an objection. We may remember that the account of the Battle of Lake Trasimenus by Polybius, who had visited the place and was a master of military science, lends itself to different interpretations. The features of the Pass of Thermopylae as described by Herodotus can be recognized by any traveller to-day; but he can hardly have been there, for he orients it N.S. instead of E.W.

unsatisfactory and sporadic. They are maxims of permanent validity; properly qualified they lie at the basis of the modern developments of what is called historical methodology. But notwithstanding the profession of these axioms of common sense, he was in certain ways so lacking in common sense that parts of his work might seem to have been written by a precocious child. He undertook to write the history of a great war; but he did not possess the most elementary knowledge of the conditions of warfare. His fantastic statement of the impossible numbers of the army of Xerxes exhibits an incompetence which is almost incredible and is alone enough to stamp Herodotus as more of an epic poet than a historian. It matters not whether he worked out the arithmetic for himself or accepted it entirely on authority; this is a case in which to accept is as heinous as to invent. Heinous for a historian; and if we judge Herodotus by the lowest standard as a historian of a war, this case invalidates his claim to competence. But as an epic story-teller he escapes triumphantly. His Catalogue of the Persian host is a counterpart to the Catalogue of the *Iliad*:

mython d' hos hot aoidos epistamenos katelexas.

[as when a bard skillfully recounts a tale.]

His incompetence in military matters is shown, in another way, in his account of the campaign of Thermopylae and Artemisium. The key to their actions lay—and it required no technical training or experience to discern this—in the close connection and interdependence of the Persian land army and the Persian fleet, a fact which governed the Greek measures for defence. Herodotus, though he mentions several things which imply this and enable us more or less to penetrate the strategy of the combatants, fails completely to realize the situation and treats the naval and the land operations as if they were independent.

In his relation of the Persian War, Herodotus does not neglect the chronology, and it is perhaps as satisfactory as we could expect. But it may fairly be questioned whether the credit for this is not to be imputed to an earlier writer—Dionysius or Charon—whom he had the discretion to follow. It is significant that he does not give any formal date which a Greek reader could easily interpret, until he mentions, almost by the way, that the Persian invasion of Attica occurred in the archonship of Calliades.[8]

8. He signalizes the years 490–481 by reference to the year of Marathon, but he does not mention the eponymous archon of that year. Even if he had done so a reader would have required a list of Attic archons in order to follow his dates intelligently. Herodotus does not assist his readers by reckoning back from a fixed point which they could realize. Thucydides saw that without such a point dates were entirely in the air, and he dated backward from the first year of the Peloponnesian War.

But while chronology fares pretty well in the last three books, the whole work shows that, while the author copied the dates which his sources supplied, he never attempted to grapple with the chronological difficulties of Greek history, although so many of the episodes which he related raised the problem of synchronizing Hellenic tradition with oriental records. We have no reason to suppose that he avoided the problem because he judged it insoluble; his indifference to it is another manifestation of his epic, quasi-historical mind.

The first phase of Greek historiography culminates and achieves its glory in Herodotus. He reflects its features–its eager research into geography and ethnography (the indispensable groundwork of history), and its predominant interest in the East. He adopts from Hecataeus a critical attitude towards the ancient myths, aided by a rudimentary comparative mythology. But these elements are transfigured by the magic of his epic art and the spell of a higher historical idea. He was the Homer of the Persian War, and that war originally inspired him. His work presents a picture of sixth-century civilization; and it is also a universal history in so far as it gathers the greater part of the known world into a narrative which is concentrated upon a single issue. It is fortunate for literature that he was not too critical; if his criticism had been more penetrating and less naïve, he could not have been a second Homer. He belonged entirely in temper and mentality to the period before the sophistic illumination, which he lived to see but not to understand. . . .

The foregoing consists of Lecture II
from Bury's THE ANCIENT GREEK HISTORIANS.

Lucian

c. 125–190

The Greek satirist Lucian was born at Samosata in northern Syria. The little we know about him comes mostly from his own writings. He tells how he was briefly apprenticed to an uncle, a sculptor, and one day was beaten for breaking a slab of marble. When he returned home he dreamed of two women—one representing Statuary, the other Literature. Each begged him to follow her, and he chose Literature.

After practicing law in Antioch for a time, he journeyed to Macedonia, Greece, Italy, and Gaul, as an itinerant rhetorician and sophist. Back in Athens around 165 A.D., he labored twenty years on his satirical dialogues and composed his best works. Late in his life he accepted a government post in Egypt, a step that took some explaining on his part, for he had previously denounced those who hire out their talents.

Lucian is credited with some eighty works, including dialogues, such as *Sale of Lives* and *Dialogues of the Dead*, and the Olympian fables, which ridicule the pretentions and absurdity of philosophers of the time. In *The True History* he parodies adventure stories. He also wrote romances and autobiographies. Of special interest are his references to the sincerity of the Christians and to that "great man" who was crucified in Palestine.

Some of the writings which go under the name of Lucian are of doubtful authenticity. His dialogues, however, his literary criticism, and such romances as *The True History* are undoubtedly his. They are a model of satirical style and are generally admired. It is easy to see why Gibbon was so fond of them, and how *The True History* could have been the inspiration of Swift's *Gulliver's Travels*.

Lucian has been described as a sophist, a skeptic, and a blasphemer. The Greek sophists were accused of "making the worse appear the better cause." Whether Lucian was a sophist in this sense would depend on your point of view—on which cause you regard as "the better." He certainly attacked cherished popular beliefs and customs relentlessly. His ideal was to show no mercy for shams, and to tell the truth always, and laughingly.

The Way to Write History opens with an account of an imaginary epidemic at Abdera, where the inhabitants had been infected with a melodramatic fever after watching a famous tragic actor. Another absurd epidemic has hit the educated class of his day, Lucian says—the fever to become a historian. These would-be historians have taken it upon themselves to imitate the classic style of Thucydides and Herodotus. They seek in this way to gain some credit for their inaccurate and garbled versions of Roman history. The examples he gives of their fatuous pretentions and stupidity—their bombast and self-seeking flattery—serve as amusing warnings of how history should *not* be written. Some think they have done a good job if they praise the "right" side or the "right" men, but history has no favorites. These writers confuse history with panegyric, Lucian says, and probably he would say the same of some of our present-day historians.

Nothing excuses inaccuracy, Lucian says, neither the pretext of entertaining the reader, nor the desire for poetic beauty. When poetry is confused with history, the result "is nothing but poetry without the wings." Nothing can replace facts, and "facts are not to be collected at haphazard, but with careful, laborious, repeated investigation." On the other hand, the facts are not to be recorded indiscriminately. Too much detail is wearisome and pointless. A selection must be made, but does Lucian give us a principle of selection? How are we to distinguish the essential facts from the incidental?

Lucian seems to say that no one can tell you in advance what facts will be the important ones. What is required is "political insight" and this is "a gift of nature, which can never be learned." You will have to decide for yourself how far this is true. The other main trait required by the historian—a good style—can be acquired, according to Lucian, by a loving study of the classics and diligent practice. Is a

lucid, forceful style, then, within reach of everyone? Courage, as would be expected, is a third essential of the historian.

Thucydides is Lucian's ideal historian, and he draws many lessons from *The Peloponnesian War*. It was Thucydides who drew the critical line between the bad and the good historian. Whereas the former makes "a bid for present reputation," the latter seeks to make his work "a possession forever," and to be of service to mankind if history should repeat itself. The issues are clearly drawn, and such questions as these confront us: Are good histories permanent, or do they have to be rewritten by later centuries in the light of new knowledge? And how far does history repeat itself, providing lessons for succeeding generations?

The Way to Write History

My dear Philo,

There is a story of a curious epidemic at Abdera, just after the accession of King Lysimachus. It began with the whole population's exhibiting feverish symptoms, strongly marked and unintermittent from the very first attack. About the seventh day, the fever was relieved, in some cases by a violent flow of blood from the nose, in others by perspiration not less violent. The mental effects, however, were most ridiculous; they were all stage-struck, mouthing blank verse and ranting at the top of their voices. Their favorite recitation was the *Andromeda* of Euripides; one after another would go through the great speech of Perseus; the whole place was full of pale ghosts, who were our seventh-day tragedians vociferating,

O Love, who lord'st it over Gods and men,

and the rest of it. This continued for some time, till the coming of winter put an end to their madness with a sharp frost. I find the explanation of the form it took in this fact: Archelaus was then the great tragic actor, and in the middle of the summer, during some very hot weather, he had played the *Andromeda* there; most of them took the fever in the theater, and convalescence was followed by a relapse—into tragedy, the *Andromeda* haunting their memories, and Perseus hovering, Gorgon's head in hand, before the mind's eye.

Well, to compare like with like, the majority of our educated class is now suffering from an Abderite epidemic. They are not stage-struck; indeed, that would have been a minor infatuation—to be possessed with other people's verses, not bad ones either. No, but from the beginning of the present excitements—the barbarian war, the Armenian disaster, the succession of victories—you cannot find a man but is writing history; nay,

everyone you meet is a Thucydides, a Herodotus, a Xenophon. The old saying must be true, and war be the father of all things, seeing what a litter of historians it has now teemed forth at a birth.

Such sights and sounds, my Philo, brought into my head that old anecdote about the Sinopean. A report that Philip was marching on the town had thrown all Corinth into a bustle; one was furbishing his arms, another wheeling stones, a third patching the wall, a fourth strengthening a battlement, everyone making himself useful somehow or other. Diogenes having nothing to do—of course, no one thought of giving *him* a job—was moved by the sight to gird up his philosopher's cloak and begin rolling his tub dwelling energetically up and down the Craneum; an acquaintance asked, and got, the explanation: "I do not want to be thought the only idler in such a busy multitude; I am rolling my tub to be like the rest."

I too am reluctant to be the only dumb man at so vociferous a season. I do not like walking across the stage, like a "super," in gaping silence; so I decided to roll *my* cask as best I could. I do not intend to write a history, or attempt actual narrative; I am not courageous enough for that; have no apprehensions on my account. I realize the danger of rolling the thing over the rocks, especially if it is only a poor little jar of brittle earthenware like mine; I should very soon knock against some pebble and find myself picking up the pieces. Come, I will tell you my idea for campaigning in safety, and keeping well out of range.

Give a wide berth to all that foam and spray,

and to the anxieties which vex the historian—that I shall be wise enough to do; but I propose to give a little advice, and lay down a few principles for the benefit of those who do venture. I shall have a share in their building, if not in the dedicatory inscription; my finger tips will at least have touched their wet mortar.

However, most of them see no need for advice here: *there might as well be an art of talking, seeing, or eating; history writing is perfectly easy, comes natural, is a universal gift; all that is necessary is the faculty of translating your thoughts into words.* But the truth is—you know it without my telling, old friend—it is *not* a task to be lightly undertaken, or carried through without effort; no, it needs as much care as any sort of composition whatever, if one means to create "a possession for ever," as Thucydides calls it. Well, I know I shall not get a hearing from many of them, and some will be seriously offended—especially any who have finished and produced their work; in cases where its first reception was

favorable, it would be folly to expect the authors to recast or correct. Has it not the stamp of finality? Is it not almost a state document? Yet even they may profit by my words; *we* are not likely to be attacked again; we have disposed of all our enemies; but there might be a Celto-Gothic or an Indo-Bactrian war; then our friends' composition might be improved by the application of my measuring rod—always supposing that they recognize its correctness. Failing that, let them do their own mensuration with the old foot rule; the doctor will not particularly mind, though all Abdera insists on spouting the *Andromeda.*

Advice has two provinces—one of choice, the other of avoidance; let us first decide what the historian is to avoid—of what faults he must purge himself—and then proceed to the measures he must take for putting himself on the straight high road. This will include the manner of his beginning, the order in which he should marshal his facts, the questions of proportion, of discreet silence, of full or cursory narration, of comment and connection. Of all that, however, later on; for the present we deal with the vices to which bad writers are liable. As to those faults of diction, construction, meaning, and general amateurishness, which are common to every kind of composition, to discuss them is neither compatible with my space nor relevant to my purpose.

But there are mistakes peculiar to history; your own observation will show you just those which a constant attendance at authors' readings [1] has impressed on me; you have only to keep your ears open at every opportunity. It will be convenient, however, to refer by the way to a few illustrations in recent histories. Here is a serious fault to begin with. It is the fashion to neglect the examination of facts, and give the space gained to eulogies of generals and commanders; those of their own side they exalt to the skies, the other side they disparage intemperately. They forget that between history and panegyric there is a great gulf fixed, barring communication; in musical phrase, the two things are a couple of octaves apart. The panegyrist has only one concern—to commend and gratify his living theme some way or other; if misrepresentation will serve his purpose, he has no objection to that. History, on the other hand, abhors the intrusion of any least scruple of falsehood; it is like the windpipe, which the doctors tell us will not tolerate a morsel of stray food.

1. These were very common in Roman Imperial times, for purposes of advertisement, of eliciting criticism, etc. "The audience at recitations may be compared with the modern literary reviews, discharging the functions of a preventive and emendatory, not merely of a correctional, tribunal. Before publication a work might thus be known to more hearers than it would now find readers." Mayor, *Juvenal,* iii. 9.

Another thing these gentlemen seem not to know is that poetry and history offer different wares, and have their separate rules. Poetry enjoys unrestricted freedom; it has but one law—the poet's fancy. He is inspired and possessed by the Muses; if he chooses to horse his car with winged steeds, or set others agalloping over the sea or standing corn, none challenges his right. His Zeus, with a single cord, may haul up earth and sea, and hold them dangling together—there is no fear the cord may break, the load come tumbling down and be smashed to atoms. In a complimentary picture of Agamemnon, there is nothing against his having Zeus's head and eyes, his brother Poseidon's chest, Ares' belt—in fact, the son of Atreus and Aërope will naturally be an epitome of all divinity; Zeus or Poseidon or Ares could not singly or severally provide the requisite perfections. But, if history adopts such servile arts, it is nothing but poetry without the wings; the exalted tones are missing; and imposition of other kinds without the assistance of meter is only the more easily detected. It is surely a great, a superlative weakness, this inability to distinguish history from poetry. What, bedizen history, like her sister, with tale and eulogy and their attendant exaggerations? As well take some mighty athlete with muscles of steel, rig him up with purple drapery and meretricious ornament, rouge and powder his cheeks; faugh, what an object would one make of him with such defilements!

I would not be understood to exclude eulogy from history altogether; it is to be kept to its place and, used with moderation, is not to tax the reader's patience. I shall presently show, indeed, that in all such matters an eye is to be had to posterity. It is true, there is a school which makes a pretty division of history into the agreeable and the useful, and defends the introduction of panegyric on the ground that it is agreeable, and pleases the general reader. But nothing could be further from the truth. In the first place the division is quite a false one; history has only one concern and aim, and that is the useful; which again has one single source, and that is truth. The agreeable is no doubt an addition, if it is present; so is beauty to an athlete; but a Nicostratus, who is a fine fellow and proves himself a better man than either of his opponents, gets his recognition as a Hercules, however ugly his face may be; and if one opponent is the handsome Alcaeus himself—handsome enough to make Nicostratus in love with him, says the story—that does not affect the issue. History too, if it can deal incidentally in the agreeable, will attract a multitude of lovers; but so long as it does its proper business efficiently—and that is the establishment of truth—it may be indifferent to beauty.

It is further to be remarked that in history sheer extravagance has not

even the merit of being agreeable; and the extravagance of eulogy is doubly repulsive, as extravagance and as eulogy; at least it is only welcome to the vulgar majority, not to that critical, that perhaps hypercritical, audience, whom no slip can escape, who are all eyes like Argus but keener than he, who test every word as a money-changer might his coins, rejecting the false on the spot but accepting the good and heavy and true. It is they that we should have in mind as we write history, and never heed the others, though they applaud till they crack their voices. If you neglect the critics, and indulge in the cloying sweetness of tales and eulogies and such baits, you will soon find your history a "Hercules in Lydia." No doubt you have seen some picture of him: he is Omphale's slave, dressed up in an absurd costume, his lion skin and club transferred to her, as though she were the true Hercules, while he, in saffron robe and purple jacket, is combing wool and wincing under Omphale's slipper. A degrading spectacle it is—the dress loose and flapping open, and all that was man in him turned to woman.

The vulgar may very likely extend their favor to this; but the select (whose judgment you disregard) will get a good deal of entertainment out of your heterogeneous, disjointed, fragmentary stuff. There is nothing which has not a beauty of its own; but take it out of its proper sphere, and the misuse turns its beauty to ugliness. Eulogy, I need hardly say, may possibly please one person, the eulogized, but will disgust everyone else; this is particularly so with the monstrous exaggerations which are in fashion; the authors are so intent on the patron hunt that they cannot relinquish it without a full exhibition of servility; they have no idea of finesse, never mask their flattery, but blurt out their unconvincing bald tale anyhow.

The consequence is, they miss even their immediate end; the objects of their praise are more inclined (and quite right too) to dislike and discard them for toadies—if they are men of spirit, at any rate. Aristobulus inserted in his history an account of a single combat between Alexander and Porus, and selected this passage to read aloud to the former; he reckoned that his best chance of pleasing was to invent heroic deeds for the king, and heighten his achievements. Well, they were on board ship in the Hydaspes; Alexander took hold of the book and tossed it overboard; "the author should have been treated the same way, by rights," he added, "for presuming to fight duels for me like that, and shoot down elephants singlehanded." A very natural indignation in Alexander, of a piece with his treatment of the intrusive architect; this person offered to convert the whole of Mount Athos into a colossal statue of the king—who however

decided that he was a toady, and actually gave him less employment in ordinary than before.

The fact is, there is nothing agreeable in these things, except to anyone who is fool enough to enjoy commendations which the slightest inquiry will prove to be unfounded; of course there *are* ugly persons–women more especially–who ask artists to paint them as beautiful as they can; they think they will be really better looking if the painter heightens the rose a little and distributes a good deal of the lily. There you have the origin of the present crowd of historians, intent only upon the passing day, the selfish interest, the profit which they reckon to make out of their work; execration is their desert–in the present for their undisguised clumsy flattery, in the future for the stigma which their exaggerations bring upon history in general. If anyone takes some admixture of the agreeable to be an absolute necessity, let him be content with the independent beauties of style; these are agreeable without being false; but they are usually neglected now for the better foisting upon us of irrelevant substitutes.

Passing from that point, I wish to put on record some fresh recollections of Ionian histories–supported, now I think of it, by Greek analogies also of recent date–both concerned with the war already alluded to. You may trust my report, the Graces be my witness; I would take oath to its truth if it were polite to swear on paper. One writer started with invoking the Muses to lend a hand. What a tasteful exordium! How suited to the historic spirit! How appropriate to the style! When he had got a little way on, he compared our ruler to Achilles, and the Parthian king to Thersites; he forgot that Achilles would have done better if he had had Hector instead of Thersites to beat, if there had been a man of might fleeing in front,

> But at his heels a mightier far than he.

He next proceeded to say something handsome about himself, as a fit chronicler of such brilliant deeds. As he got near his point of departure, he threw in a word for his native town of Miletus, adding that he was thus improving on Homer, who never so much as mentioned his birthplace. And he concluded his preface with a plain express promise to advance our cause and personally wage war against the barbarians to the best of his ability. The actual history, and recital of the causes of hostilities, began with these words: "The detestable Vologesus (whom Heaven confound!) commenced war on the following pretext."

Enough of him. Another is a keen emulator of Thucydides, and by way

of close approximation to his model starts with his own name–most graceful of beginnings, redolent of Attic thyme! Look at it: "Crepereius Calpurnianus of Pompeiopolis wrote the history of the war between Parthia and Rome, how they warred one upon the other, beginning with the commencement of the war." After that exordium, what need to describe the rest–what harangues he delivers in Armenia, resuscitating our old friend the Corcyrean envoy–what a plague he inflicts on Nisibis (which would not espouse the Roman cause), lifting the whole thing bodily from Thucydides–except the Pelasgicum and the Long Walls, where the victims of the earlier plague found shelter; there the difference ends; like the other, "it began in Ethiopia, whence it descended to Egypt," and to most of the Parthian Empire, where it very discreetly remained. I left him engaged in burying the poor Athenians in Nisibis, and knew quite well how he would continue after my exit. Indeed it is a pretty common belief at present that you are writing like Thucydides if you just use his actual words, *mutatis mutandis* [having made the necessary changes]. Ah, and I almost forgot to mention one thing: this same writer gives many names of weapons and military engines in Latin–*phossa* for trench, *pons* for bridge, and so forth. Just think of the dignity of history, and the Thucydidean style–the Attic embroidered with these Latin words, like a toga relieved and picked out with the purple stripe–so harmonious!

Another puts down a bald list of events, as prosy and commonplace as a private's or a carpenter's or a sutler's diary. However, there is more sense in this poor man's performance; he flies his true colors from the first; he has cleared the ground for some educated person who knows how to deal with history. The only fault I have to find with him is that he inscribes his volumes with a solemnity rather disproportioned to the rank of their contents–"Parthian History, by Callimorphus, Surgeon of the 6th Pikemen, volume so-and-so." Ah, yes, and there is a lamentable preface, which closes with the remark that, since Asclepius is the son of Apollo, and Apollo director of the Muses and patron of all culture, it is very proper for a doctor to write history. Also, he starts in Ionic, but very soon, for no apparent reason, abandons it for everyday Greek, still keeping the Ionic *e*'s and *k*'s and *ou*'s, but otherwise writing like ordinary people–rather too ordinary, indeed.

Perhaps I should balance him with a philosophic historian; this gentleman's name I will conceal, and merely indicate his attitude, as revealed in a recent publication at Corinth. Much had been expected of him, but not enough; starting straight off with the first sentence of the preface,

he subjects his readers to a dialectic catechism, his thesis being the highly philosophic one that no one but a philosopher should write history. Very shortly there follows a second logical process, itself followed by a third; in fact the whole preface is one mass of dialectic figures. There is flattery, indeed, *ad nauseam*, eulogy vulgar to the point of farce; but never without the logical trimmings, always that dialectical catechism. I confess it strikes me as a vulgarity also, hardly worthy of a philosopher with so long and white a beard, when he gives it in his preface as our ruler's special good fortune that philosophers should consent to record his actions; he had better have left us to reach that conclusion for ourselves—if at all.

Again, it would be a sinful neglect to omit the man who begins like this: "I devise to tell of Romans and Persians"; then a little later, "For 'twas Heaven's decree that the Persians should suffer evils"; and again, "One Osroes there was, whom Hellenes name Oxyroes"—and much more in that style. He corresponds, you see, to one of my previous examples; only he is a second Herodotus, and the other a second Thucydides.

There is another distinguished artist in words—again rather more Thucydidean than Thucydides—who gives, according to his own idea, the clearest, most convincing descriptions of every town, mountain, plain, or river. I wish my bitterest foe no worse fate than the reading of them. Frigid? Caspian snows, Celtic ice are warm in comparison. A whole book hardly suffices him for the emperor's shield—the Gorgon on its boss, with eyes of blue and white and black, rainbow girdle, and snakes twined and knotted. Why, Vologesus's breeches or his bridle. God bless me, they take up several thousand lines apiece; the same for the look of Osroes' hair as he swims the Tigris—or what the cave was like that sheltered him, ivy and myrtle and bay clustered all together to shut out every ray of light. You observe how indispensable it all is to the history; without the scene, how could we have comprehended the action?

It is helplessness about the real essentials, or ignorance of what should be given, that makes them take refuge in word painting—landscapes, caves, and the like; and when they do come upon a series of important matters, they are just like a slave whose master has left him his money and made him a rich man; he does not know how to put on his clothes or take his food properly: partridges or sweetbreads or hare are served, but he rushes in and fills himself up with pea soup or salt fish till he is fit to burst. Well, the man I spoke of gives the most unconvincing wounds and singular deaths: someone has his big toe injured and dies on the spot; the general Priscus calls out, and seven-and-twenty of the enemy fall

dead at the sound. As to the numbers killed, he actually falsifies dispatches; at Europus he slaughters 70,236 of the enemy, while the Romans lose two and have seven wounded! How any man of sense can tolerate such stuff, I do not know.

Here is another point quite worth mention. This writer has such a passion for unadulterated Attic, and for refining speech to the last degree of purity, that he metamorphoses the Latin names and translates them into Greek: Saturninus figures as Cronius, Fronto must be Phrontis, Titianus Titanius, with queerer transmogrifications yet. Further, on the subject of Severian's death, he accuses all other writers of a blunder in putting him to the sword; he is really to have starved himself to death, as the most painless method; the fact, however, is that it was all over in three days, whereas seven days is the regular time for starvation; are we perhaps to conceive an Osroes waiting about for Severian to complete the process, and putting off his assault till after the seventh day?

Then, Philo, how shall we class the historians who indulge in poetical phraseology? "The catapult rocked responsive," they say; "Loud thundered the breach"; or, somewhere else in this delectable history, "Thus Edessa was girdled with clash of arms, and all was din and turmoil," or, "The general pondered in his heart how to attack the wall." Only he fills up the interstices with such wretched common lower-class phrases as "The military prefect wrote His Majesty," "The troops were procuring the needful," "They got a wash[2] and put in an appearance," and so on. It is like an actor with one foot raised on a high buskin, and the other in a slipper.

You will find others writing brilliant high-sounding prefaces of outrageous length, raising great expectations of the wonders to follow–and then comes a poor little appendix of a–history; it is like nothing in the world but a child–say the Eros you must have seen in a picture–playing in an enormous mask of Hercules or a Titan; *parturiunt montes* [the mountains labor (and bring forth mice)], cries the audience, very naturally. That is not the way to do things; the whole should be homogeneous and uniform, and the body in proportion to the head–not a helmet of gold, a ridiculous breastplate patched up out of rags or rotten leather, shield of wicker, and pigskin greaves. You will find plenty of historians prepared to set the Rhodian Colossus' head on the body of a dwarf; others

2. It has been suggested that Lucian's criticism is for practical purposes out of date; but Prescott writes: "He was surrounded by a party of friends, who had *dropped in*, it seems, after mass, to inquire after the state of his health, some of whom had remained to partake of his repast."

on the contrary show us headless bodies, and plunge into the facts without exordium. These plead the example of Xenophon, who starts with, "Darius and Parysatis had two children"; if they only knew it, there is such a thing as a *virtual* exordium, not realized as such by everybody; but of that hereafter.

However, any mistake in mere expression or arrangement is excusable; but when you come to fancy geography, differing from the other not by miles or leagues but by whole days' journeys, where is the classical model for that? One writer has taken so little trouble with his facts—never met a Syrian, I suppose, nor listened to the stray information you may pick up at the barber's—that he thus locates Europus: "Europus lies in Mesopotamia, two days' journey from the Euphrates, and is a colony from Edessa." Not content with that, this enterprising person has in the same book taken up my native Samosata and shifted it, citadel, walls, and all, into Mesopotamia, giving it the two rivers for boundaries, and making them shave past it, all but touching the walls on either side. I suspect you would laugh at me, Philo, if I were to set about convincing you that I am neither Parthian nor Mesopotamian, as this whimsical colony planter makes me.

By the way, he has also a very attractive tale of Severian, learned, he assures us on oath, from one of the actual fugitives. According to this, he would not die by the sword, the rope, or poison, but contrived a death which should be tragic and impressive. He was the owner of some large goblets of the most precious glass; having made up his mind to die, he broke the largest of these, and used a splinter of it for the purpose, cutting his throat with the glass. A dagger or a lancet, good enough instruments for a manly and heroic death, he could not come at, forsooth!

Then, as Thucydides composed a funeral oration over the first victims of that old war, our author feels it incumbent on him to do the same for Severian; they all challenge Thucydides, you see, little as he can be held responsible for the Armenian troubles. So he buries Severian, and then solemnly ushers up to the grave, as Pericles' rival, one Afranius Silo, a centurion; the flood of rhetoric which follows is so copious and remarkable that it drew tears from me—ye Graces!—tears of laughter; most of all where the eloquent Afranius, drawing to a close, makes mention, with weeping and distressful moans, of all those costly dinners and toasts. But he is a very Ajax in his conclusion. He draws his sword, gallantly as an Afranius should, and in sight of all cuts his throat over the grave—and God knows it was high time for an execution, if oratory can be felony.

The historian states that all the spectators admired and lauded Afranius; as for me, I was inclined to condemn him on general grounds—he had all but given a catalogue of sauces and dishes, and shed tears over the memory of departed cakes—but his capital offense was that he had not cut the historian-tragedian's throat before he left this life himself.

I assure you, my friend, I could largely increase my list of such offenders; but one or two more will suffice before proceeding to the second part of my undertaking, the suggestions for improvement. There are some, then, who leave alone, or deal very cursorily with, all that is great and memorable; amateurs and not artists, they have no selective faculty, and loiter over copious labored descriptions of the veriest trifles; it is as if a visitor to Olympia, instead of examining, commending or describing to his stay-at-home friends the general greatness and beauty of the Zeus, were to be struck with the exact symmetry and polish of its footstool, or the proportions of its shoe, and give all his attention to these minor points.

For instance, I have known a man get through the Battle of Europus in less than seven whole lines, and then spend twenty mortal hours on a dull and perfectly irrelevant tale about a Moorish trooper. The trooper's name was Mausacas; he wandered up the hills in search of water, and came upon some Syrian yokels getting their lunch; at first they were afraid of him, but when they found he was on the right side, they invited him to share the meal; for one of them had traveled in the Moorish country, having a brother serving in the army. Then come long stories and descriptions of how he hunted there, and saw a great herd of elephants at pasture, and was nearly eaten up by a lion, and what huge fish he had bought at Caesarea. So this quaint historian leaves the terrible carnage to go on at Europus, and lets the pursuit, the forced armistice, the settling of outposts, shift for themselves, while he lingers far into the evening watching Malchion the Syrian cheapen big mackerel at Caesarea; if night had not come all too soon, I dare say he would have dined with him when the fish was cooked. If all this had not been accurately set down in the history, what sad ignorance we should have been left in! The loss to the Romans would have been irreparable if Mausacas the Moor had got nothing to quench his thirst, and come back fasting to camp. Yet I am willfully omitting innumerable details of yet greater importance—the arrival of a flute girl from the next village, the exchange of gifts (Mausacas' was a spear, Malchion's a brooch), and other incidents most essential to the Battle of Europus. It is no exaggeration to say that such

writers never give the rose a glance, but devote all their curiosity to the thorns on its stem.

Another entertaining person, who has never set foot outside Corinth, nor traveled as far as its harbor—not to mention seeing Syria or Armenia—starts with words which impressed themselves on my memory: "Seeing is believing: I therefore write what I have seen, not what I have been told." His personal observation has been so close that he describes the Parthian "Dragons" (they use this ensign as a numerical formula—a thousand men to the Dragon, I believe): they are huge live dragons, he says, breeding in Persian territory beyond Iberia; these are first fastened to great poles and hoisted up aloft, striking terror at a distance while the advance is going on; then, when the battle begins, they are released and set on the enemy; numbers of our men, it seems, were actually swallowed by them, and others strangled or crushed in their coils; of all this he was an eyewitness, taking his observations, however, from a safe perch up a tree. Thank goodness he did not come to close quarters with the brutes! We should have lost a very remarkable historian, and one who did doughty deeds in this war with his own right hand; for he had many adventures, and was wounded at Sura (in the course of a stroll from the Craneum to Lerna, apparently). All this he used to read to a Corinthian audience, which was perfectly aware that he had never so much as seen a battle picture. Why, he did not know one weapon or engine from another; the names of maneuvers and formations had no meaning for him; flank or front, line or column, it was all one.

Then there is a splendid fellow who has boiled down into the compass of five hundred lines (or less, to be accurate) the whole business from beginning to end—campaigns in Armenia, in Syria, in Mesopotamia, on the Tigris, and in Media; and having done it, he calls it a history. His title very narrowly misses being longer than his book: "An account of the late campaigns of the Romans in Armenia, Mesopotamia, and Media, by Antiochianus, victor at the festival of Apollo"; he had probably won some junior flat race.

I have known one writer compile a history of the future, including the capture of Vologesus, the execution of Osroes (he is to be thrown to the lions), and, crowning all, our long-deferred triumph. In this prophetic vein, he sweeps hastily on to the end of his work; yet he finds time for the foundation in Mesopotamia of a city, greatest of the great, and fairest of the fair; he is still debating, however, whether the most appropriate name will be Victoria, Concord, or Peacetown; that is yet unsettled; we must leave the fair city unnamed for the present; but it is already thickly

populated–with empty dreams and literary drivelings. He has also pledged himself to an account of coming events in India, and a circumnavigation of the Atlantic; nay, the pledge is half redeemed; the preface to the *India* is complete; the third legion, the Celtic contingent, and a small Moorish division have crossed the Indus in full force under Cassius; our most original historian will soon be posting us up in their doings–their method of "receiving elephants," for instance–in letters dated Muziris or Oxydracae.

These people's uneducated antics are infinite; they have no eyes for the noteworthy, nor, if they had eyes, any adequate faculty of expression; invention and fiction provide their matter, and belief in the first word that comes their style; they pride themselves on the number of books they run to, and yet more on their titles; for these again are quite absurd: *So-and-so's so many books of Parthian victories*; *The Parthis*, book I; *The Parthis*, book II–quite a rival to the *Atthis*, eh? Another does it (I have read the book) still more neatly–*The Parthonicy of Demetrius of Sagalassus*. I do not wish to ridicule or make a jest of these pretty histories; I write for a practical purpose: anyone who avoids these and similar errors is already well on the road to historical success; nay, he is almost there if the logical axiom is correct that, with incompatibles, denial of the one amounts to affirmation of the other.

"Well," I may be told, "you have now a clear field; the thorns and brambles have all been extirpated, the debris of others' buildings has been carted off, the rough places have been made smooth; come, do a little construction yourself, and show that you are not only good at destroying, but capable of yourself planning a model in which criticism itself shall find nothing to criticize."

Well then, my perfect historian must start with two indispensable qualifications: the one is political insight, the other the faculty of expression; the first is a gift of nature, which can never be learned; the second should have been acquired by long practice, unremitting toil, and loving study of the classics. There is nothing technical here, and no room for any advice of mine; this essay does not profess to bestow insight and acumen on those who are not endowed with them by nature; valuable, or invaluable rather, would it have been if it could recast and modify like that, transmute lead into gold, tin into silver, magnify a Conon or Leotrophides into Titormus or Milo.

But what is the function of professional advice? Not the creation of qualities which should be already there, but the indication of their proper use. No trainer, of course–let him be Iccus, Herodicus, Theon, or who

he may—will suggest that he can take a Perdiccas and make an Olympic victor of him, fit to face Theagenes of Thasos or Polydamas of Scotussa; what he *will* tell you is that, given a constitution that will stand training, his system will considerably improve it. So with us—we are not to have every failure cast in our teeth if we claim to have invented a system for so great and difficult a subject. We do not offer to take the first comer and make a historian of him—only to point out to anyone who has natural insight and acquired literary skill certain straight roads (they may or may not be so in reality) which will bring him with less waste of time and effort to his goal.

I do not suppose you will object that the man with insight has no need of system and instruction upon the things he is ignorant of; in that case he might have played the harp or flute untaught, and in fact have been omniscient. But, as things are at present, he cannot perform in these ways untaught, though with some assistance he will learn very easily, and soon be able to get along by himself.

You now know what sort of a pupil I (like the trainer) insist upon. He must not be weak either at understanding or at making himself understood, but a man of penetration, a capable administrator—potentially, that is—with a soldierly spirit (which does not however exclude the civil spirit), and some military experience; at the least he must have been in camp, seen troops drilled or maneuvered, know a little about weapons and military engines, the differences between line and column, cavalry and infantry tactics (with the reasons for them), frontal and flank attacks; in a word, none of your armchair strategists relying wholly on hearsay.

But first and foremost, let him be a man of independent spirit, with nothing to fear or hope from anybody; else he will be a corrupt judge open to undue influences. If Philip's eye is knocked out at Olynthus by Aster the Amphipolite archer, it is not his business to exclaim, but just to show him as he is; he is not to think whether Alexander will be annoyed by a circumstantial account of the cruel murder of Clitus at table. If a Cleon has the ear of the assembly, and a monopoly of the tribune, he will not shrink on that account from describing him as a pestilent madman; all Athens will not stop him from dwelling on the Sicilian disaster, the capture of Demosthenes, the death of Nicias, the thirst, the foul water, and the shooting down of the drinkers. He will consider very rightly that no man of sense will blame him for recounting the effects of misfortune or folly in their entirety; he is not the author, but only the reporter of them. If a fleet is destroyed, it is not he who sinks it; if there is a

rout, he is not in pursuit—unless perhaps he ought to have prayed for better things, and omitted to do so. Of course, if silence or contradiction would have put matters right, Thucydides might with a stroke of the pen have knocked down the counterwall on Epipolae, sent Hermocrates' trireme to the bottom, let daylight through the accursed Gylippus before he had done blocking the roads with wall and trench, and, finally, have cast the Syracusans into their own quarries and sent the Athenians cruising round Sicily and Italy with Alcibiades' first high hopes still on board. Alas, not Fate itself may undo the work of Fate.

The historian's one task is to tell the thing as it happened. This he cannot do if he is Artaxerxes' physician, trembling before him, or hoping to get a purple cloak, a golden chain, a horse of the Nisaean breed in payment for his laudations. A fair historian, a Xenophon, a Thucydides, will not accept that position. He may nurse some private dislikes, but he will attach far more importance to the public good, and set the truth high above his hate; he may have his favorites, but he will not spare their errors. For history, I say again, has this and this only for its own; if a man will start upon it, he must sacrifice to no god but Truth; he must neglect all else; his sole rule and unerring guide is this—to think not of those who are listening to him now, but of the yet unborn who shall seek his converse.

Anyone who is intent only upon the immediate effect may reasonably be classed among the flatterers; and History has long ago realized that flattery is as little congenial to her as the arts of personal adornment to an athlete's training. An anecdote of Alexander is to the point. "Ah, Onesicritus," said he, "how I should like to come to life again for a little while, and see how your stuff strikes people by that time; at present they have good enough reason to praise and welcome it; that is their way of angling for a share of my favor." On the same principle some people actually accept Homer's history of Achilles, full of exaggerations as it is; the one great guarantee which they recognize of his truth is the fact that his subject was not living; that leaves him no motive for lying.

There stands my model, then: fearless, incorruptible, independent, a believer in frankness and veracity; one that will call a spade a spade, make no concession to likes and dislikes, nor spare any man for pity or respect or propriety; an impartial judge, kind to all, but too kind to none; a literary cosmopolite with neither suzerain nor king, never heeding what this or that man may think, but setting down the thing that befell.

Thucydides is our noble legislator; he marked the admiration that met

Herodotus and gave the Muses' names to his nine books; and thereupon he drew the line which parts a good historian from a bad: our work is to be a possession forever, not a bid for present reputation; we are not to seize upon the sensational, but bequeath the truth to them that come after; he applies the test of use, and defines the end which a wise historian will set before himself: it is that, should history ever repeat itself, the records of the past may give present guidance.

Such are to be my historian's principles. As for diction and style, he is not to set about his work armed to the teeth from the rhetorician's arsenal of impetuosity and incisiveness, rolling periods, close-packed arguments, and the rest; for him a serener mood. His matter should be homogeneous and compact, his vocabulary fit to be understood of the people, for the clearest possible setting forth of his subject.

For to those marks which we set up for the historic spirit—frankness and truth—corresponds one at which the historic style should first of all aim, namely, a lucidity which leaves nothing obscure, impartially avoiding abstruse out-of-the-way expressions, and the illiberal jargon of the market; we wish the vulgar to comprehend, the cultivated to commend us. Ornament should be unobtrustive, and never smack of elaboration, if it is not to remind us of overseasoned dishes.

The historian's spirit should not be without a touch of the poetical; it needs, like poetry, to employ impressive and exalted tones, especially when it finds itself in the midst of battle array and conflicts by land or sea; it is then that the poetic gale must blow to speed the vessel on, and help her ride the waves in majesty. But the diction is to be content with *terra firma*, rising a little to assimilate itself to the beauty and grandeur of the subject, but never startling the hearer, nor forgetting a due restraint; there is great risk at such times of its running wild and falling into poetic frenzy; and then it is that writers should hold themselves in with bit and bridle; with them as with horses an uncontrollable temper means disaster. At these times it is best for the spirit to go ahorseback, and the expression to run beside on foot, holding on to the saddle so as not to be outstripped.

As to the marshaling of your words, a moderate compromise is desirable between the harshness which results from separating what belongs together, and the jingling concatenations—one may almost call them—which are so common; one extreme is a definite vice, and the other repellent.

Facts are not to be collected at haphazard, but with careful, laborious, repeated investigation; when possible, a man should have been present

and seen for himself; failing that, he should prefer the disinterested account, selecting the informants least likely to diminish or magnify from partiality. And here comes the occasion for exercising the judgment in weighing probabilities.

The material once complete, or nearly so, an abstract should be made of it, and a rough draft of the whole work put down, not yet distributed into its parts; the detailed arrangement should then be introduced, after which adornment may be added, the diction receive its color, the phrasing and rhythm be perfected.

The historian's position should now be precisely that of Zeus in Homer, surveying now the Mysians', now the Thracian horsemen's land. Even so *he* will survey now his own party (telling us what we looked like to him from his post of vantage), now the Persians, and yet again both at once if they come to blows. And when they are face to face, his eyes are not to be on one division, nor yet on one man, mounted or afoot—unless it be a Brasidas leading the forlorn hope, or a Demosthenes repelling it; his attention should be for the generals first of all; their exhortations should be recorded, the dispositions they make, and the motives and plans that prompted them. When the engagement has begun, he should give us a bird's-eye view of it, show the scales oscillating, and accompany pursuers and pursued alike.

All this, however, with moderation; a subject is not to be ridden to death; no neglect of proportion, no childish engrossment, but easy transitions. He should call a halt here, while he crosses over to another set of operations which demands attention; that settled up, he can return to the first set, now ripe for him; he must pass swiftly to each in turn, keeping his different lines of advance as nearly as possible level, fly from Armenia to Media, thence swoop straight upon Iberia, and then take wing for Italy, everywhere present at the nick of time.

He has to make of his brain a mirror, unclouded, bright, and true of surface; then he will reflect events as they presented themselves to him, neither distorted, discolored, nor variable. Historians are not writing fancy school essays; what they have to say is before them, and will get itself said somehow, being solid fact; their task is to arrange and put it into words; they have not to consider what to say, but how to say it. The historian, we may say, should be like Phidias, Praxiteles, Alcamenes, or any great sculptor. They similarly did not create the gold, silver, ivory, or other material they used; it was ready to their hands, provided by Athens, Elis, or Argos; they only made the model, sawed, polished, cemented, proportioned the ivory, and plated it with gold; that was what

their art consisted in—the right arrangement of their material. The historian's business is similar—to superinduce upon events the charm of order, and set them forth in the most lucid fashion he can manage. When subsequently a hearer feels as though he were looking at what is being told him, and expresses his approval, then our historical Phidias' work has reached perfection, and received its appropriate reward.

When all is ready, a writer will sometimes start without formal preface if there is no pressing occasion to clear away preliminaries by that means, though even then his explanation of what he is to say constitutes a virtual preface.

When a formal preface is used, one of the three objects to which a public speaker devotes his exordium may be neglected; the historian, that is, has not to bespeak good will—only attention and an open mind. The way to secure the reader's attention is to show that the affairs to be narrated are great in themselves, throw light on destiny, or come home to his business and bosom; and as to the open mind, the lucidity in the body of the work, which is to secure that, will be facilitated by a preliminary view of the causes in operation and a precise summary of events.

Prefaces of this character have been employed by the best historians—by Herodotus, "to the end that what befell may not grow dim by lapse of time, seeing that it was great and wondrous, and showed forthwith Greeks vanquishing and barbarians vanquished"; and by Thucydides, "believing that that war would be great and memorable beyond any previous one; for indeed great calamities took place during its course."

After the preface, long or short in proportion to the subject, should come an easy natural transition to the narrative; for the body of the history which remains is nothing from beginning to end but a long narrative; it must therefore be graced with the narrative virtues—smooth, level, and consistent progress, neither soaring nor crawling, and the charm of lucidity—which is attained, as I remarked above, partly by the diction, and partly by the treatment of connected events. For, though all parts must be independently perfected, when the first is complete the second will be brought into essential connection with it, and attached like one link of a chain to another; there must be no possibility of separating them; no mere bundle of parallel threads; the first is not simply to be next to the second, but part of it, their extremities intermingling.

Brevity is always desirable, and especially where matter is abundant; and the problem is less a grammatical than a substantial one; the solution, I mean, is to deal summarily with all immaterial details, and give adequate treatment to the principal events; much, indeed, is better

omitted altogether. Suppose yourself giving a dinner, and extremely well provided; there is pastry, game, kickshaws without end, wild boar, hare, sweetbreads; well, you will not produce among these a pike or a bowl of pea soup just because they are there in the kitchen; you will dispense with such common things.

Restraint in descriptions of mountains, walls, rivers, and the like is very important; you must not give the impression that you are making a tasteless display of word painting, and expatiating independently while the history takes care of itself. Just a light touch—no more than meets the need of clearness—and you should pass on, evading the snare, and denying yourself all such indulgences. You have the mighty Homer's example in such a case; poet as he is, he yet hurries past Tantalus and Ixion, Tityus and the rest of them. If Parthenius, Euphorion, or Callimachus had been in his place, how many lines do you suppose it would have taken to get the water to Tantalus' lip; how many more to set Ixion spinning? Better still, mark how Thucydides—a very sparing dealer in description—leaves the subject at once, as soon as he has given an idea (very necessary and useful, too) of an engine or a siege operation, of the conformation of Epipolae, or the Syracusan harbor. It may occur to you that his account of the plague is long; but you must allow for the subject; then you will appreciate his brevity; *he* is hastening on; it is only that the weight of matter holds him back in spite of himself.

When it comes in your way to introduce a speech, the first requirement is that it should suit the character both of the speaker and of the occasion; the second is (once more) lucidity; but in these cases you have the counsel's right of showing your eloquence.

Not so with praise or censure; these should be sparing, cautious, avoiding hypercriticism and producing proofs, always brief, and never intrusive; historical characters are not prisoners on trial. Without these precautions you will share the ill name of Theopompus, who delights in flinging accusations broadcast, makes a business of the thing in fact, and of himself rather a public prosecutor than a historian.

It may occasionally happen that some extraordinary story has to be introduced; it should be simply narrated, without guarantee of its truth, thrown down for anyone to make what he can of it; the writer takes no risks and shows no preference.

But the general principle I would have remembered—it will ever be on my lips—is this: do not write merely with an eye to the present, that those now living may commend and honor you; aim at eternity, compose for posterity, and from it ask your reward. And that reward?

That it be said of you, "This was a man indeed, free and free-spoken; flattery and servility were not in him; he was truth all through." It is a name which a man of judgment might well prefer to all the fleeting hopes of the present.

Do you know the story of the great Cnidian architect? He was the builder of that incomparable work, whether for size or beauty, the Pharos tower. Its light was to warn ships far out at sea, and save them from running on the Paraetonia, a spot so fatal to all who get among its reefs that escape is said to be hopeless. When the building was done, he inscribed on the actual masonry his own name, but covered this up with plaster, on which he then added the name of the reigning king. He knew that, as happened later, letters and plaster would fall off together, and reveal the words:

SOSTRATUS SON OF DEXIPHANES OF CNIDUS
ON BEHALF OF ALL MARINERS
TO THE SAVIOUR GODS

He looked not, it appears, to that time, nor to the space of his own little life, but to this time, and to all time, as long as his tower shall stand and his art abide.

So too should the historian write, consorting with Truth and not with flattery, looking to the future hope, not to the gratification of the flattered.

There is your measuring-line for just history. If anyone be found to use it well, I have not written in vain; if none, yet have I rolled my tub on the Craneum.

Great Documents

Great documents do not have "authors"; though individual human beings write the words they contain, they are by definition more than the products of single men. Great documents express the beliefs, ideas, feelings, and knowledge of a great many people. They reflect the age in which they are written.

This is true even when we know, as we do of The Declaration of Independence, for example, that a document was principally the work of one man. The significance of the Declaration does not lie in any originality on Jefferson's part, but in the fact that it was an eloquent and forceful statement of the ideas about law and liberty which prevailed among his countrymen, and which still, we hope, prevail among them today.

In addition to The Declaration of Independence, we include here five documents which are of immense importance in the western tradition of political thought. They range over nearly three hundred years and, when we consider the Charter of the United Nations and the Universal Declaration of Human Rights, over most of the countries of the earth. They incorporate much of the best thinking about the relation of man to the state that has emerged in the modern era.

The first document, The English Bill of Rights, is the most important of the statutes which, taken together with a large body of traditional opinion, make up what we call the British Constitution. It dates back to the seventeenth century and the reign of William and Mary. Parliament had been led by certain extreme acts of their predecessor, James II, to draw up the Declaration of Right, which defined the relation between the king and his subjects. When William and Mary were offered the English crown in 1688, their acceptance depended upon their assent to the Declaration. They assented; and, in 1689, a statute based upon the Declaration–the Bill of Rights–was enacted into law. The spirit, though not always the letter, of this

statute has influenced constitutional law in all of the English-speaking countries.

The Virginia Declaration of Rights was drafted by George Mason. It was adopted with revisions by the Virginia Convention on June 12, 1776. It was very influential in America (where it served as the model for the American Bill of Rights) and in France.

The Declaration of the Rights of Man and of the Citizen was drafted by the Marquis de Lafayette. It was adopted by the French Constituent Assembly on August 26, 1789, and was included as a preamble to the Constitution of 1791. It reflects the ideas of Rousseau and the American Declaration of Independence, and it exerted a dynamic influence upon the French Revolution. It has been a source of continuing inspiration to the French, particularly to the liberals who fought against reactionary regimes after the fall of Napoleon.

The Charter of the United Nations was drafted at the Dumbarton Oaks Conference of 1944, by representatives from the United States, the Soviet Union, Great Britain, and China. A fifty-nation conference at San Francisco accepted the draft with only a few minor revisions; it became the UN Charter on June 26, 1945.

The Universal Declaration of Human Rights was drafted by the United Nations Commission on Human Rights, under the chairmanship of Eleanor Roosevelt. It was adopted by the General Assembly on December 10, 1948.

All but one of the documents reprinted here are attempts to define the limits of government and the rights of man—as man and as citizen. Three of these documents speak of "inalienable" rights; one refers to them as "inherent." What is the purpose of such statements of human rights? Why are they necessary? If the rights of man are, indeed, inalienable, how can any government take them away?

We know—from recent as well as ancient history—that such rights are not, in fact, inalienable. Many societies have not recognized them. In other societies, men who once had them have been temporarily—and perhaps permanently—deprived of them.

What then is the role played by declarations of human rights? No simple answer to the question is possible, but perhaps the best brief statement which can be made on the subject is that the rights which these documents call inalienable or inherent are rights of which men *should not* be deprived. They belong to man by reason of his nature as man. They set up a standard by which the justice of a government can be measured. As such, at least in the United States, England, and France, they have served effectively.

The English Bill of Rights

1689

hereas the Lords Spiritual and Temporal, and Commons, assembled at Westminster, lawfully, fully, and freely representing all the estates of the people of this realm, did, upon the thirteenth day of February, in the year of our Lord one thousand six hundred eighty-eight, present unto their Majesties, then called and known by the names and style of William and Mary, Prince and Princess of Orange, being present in their proper persons, a certain declaration in writing, made by the said Lords and Commons, in the words following, viz.:

Whereas the late King James II, by the assistance of divers evil counsellors, judges, and ministers employed by him, did endeavour to subvert and extirpate the Protestant religion, and the laws and liberties of this kingdom:

1. By assuming and exercising a power of dispensing with and suspending of laws, and the execution of laws, without consent of Parliament.

2. By committing and prosecuting divers worthy prelates for humbly petitioning to be excused from concurring to the same assumed power.

3. By issuing and causing to be executed a commission under the Great Seal for erecting a court, called the Court of Commissioners for Ecclesiastical Causes.

4. By levying money for and to the use of the Crown, by pretence of prerogative, for other time, and in other manner than the same was granted by Parliament.

5. By raising and keeping a standing army within this kingdom in time of peace, without consent of Parliament, and quartering soldiers contrary to law.

6. By causing several good subjects, being Protestants, to be disarmed, at the same time when Papists were both armed and employed contrary to law.

7. By violating the freedom of election of members to serve in Parliament.

8. By prosecutions in the Court of King's Bench, for matters and causes cognizable only in Parliament; and by diverse other arbitrary and illegal courses.

9. And whereas of late years, partial, corrupt, and unqualified persons have been returned and served on juries in trials, and particularly divers jurors in trials for high treason, which were not freeholders.

10. And excessive bail hath been required of persons committed in criminal cases, to elude the benefit of the laws made for the liberty of the subject.

11. And excessive fines have been imposed; and illegal and cruel punishments inflicted.

12. And several grants and promises made of fines and forfeitures, before any conviction of judgment against the persons upon whom the same were to be levied.

All which are utterly and directly contrary to the known laws and statutes, and freedom of this realm.

And whereas the said late King James II, have abdicated the government, and the throne being thereby vacant, his Highness the Prince of Orange (whom it hath pleased Almighty God to make the glorious instrument of delivering this kingdom from popery and arbitrary power) did (by the advice of the Lords Spiritual and Temporal, and divers principal persons of the Commons) cause letters to be written to the Lords Spiritual and Temporal, being Protestants, and other letters to the several counties, cities, universities, boroughs, and Cinque Ports, for the choosing of such persons as represent them, as were of right to be sent to Parliament, to meet and sit at Westminster upon the two-and-twentieth day of January, in this year one thousand six hundred eighty and eight, in order to such an establishment, as that their religion, laws, and liberties might not again be in danger of being subverted; upon which letters, elections have been accordingly made.

And thereupon the said Lords Spiritual and Temporal, and Commons, pursuant to their respective letters and elections, being now assembled in a full and free representation of this nation, taking into their most serious consideration the best means for attaining the ends aforesaid, do in the first place (as their ancestors in like case have usually done), for the vindicating and asserting their ancient rights and liberties, declare:

1. That the pretended power of suspending of laws, or the execution of laws, by regal authority, without consent of parliament, is illegal.

2. That the pretended power of dispensing with laws, or the execution of laws, by regal authority, as it hath been assumed and exercised of late, is illegal.

3. That the commission for erecting the late Court of Commissioners for Ecclesiastical Causes, and all others commissions and courts of like nature, are illegal and pernicious.

4. That levying money for or to the use of the Crown, by pretence of prerogative, without grant of parliament, for longer time or in other manner than the same is or shall be granted, is illegal.

5. That it is the right of the subject to petition the king, and all commandments and prosecutions for such petitioning are illegal.

6. That the raising or keeping a standing army within the kingdom in time of peace, unless it be with consent of parliament, is against law.

7. That the subjects which are Protestants may have arms for their defence suitable to their conditions, and as allowed by law.

8. That election of members of parliament ought to be free.

9. That the freedom of speech, and debates or proceedings in parliament, ought not to be impeached or questioned in any court or place out of parliament.

10. That excessive bail ought not to be required, nor excessive fines imposed; nor cruel and unusual punishment inflicted.

11. That jurors ought to be duly impanelled and returned, and jurors which pass upon men in trials for high treason ought to be freeholders.

12. That all grants and promises of fine and forfeitures of particular persons before conviction are illegal and void.

13. And that for redress of all grievances, and for the amending, strengthening and preserving of the laws, parliaments ought to be held frequently.

And they do claim, demand, and insist upon all and singular the premises, as their undoubted rights and liberties; and that no declarations, judgments, doings or proceedings, to the prejudice of the people in any of the said premises, ought in any wise to be drawn hereafter into consequence or example. . . .

Declaration of the Rights of Man and of the Citizen

1789

The representatives of the people of France, formed into a National Assembly, considering that ignorance, neglect, or contempt of human rights are the sole causes of public misfortunes and corruptions of government, have resolved to set forth in a solemn declaration these natural, imprescriptible, and inalienable rights, that this declaration being constantly present to the minds of the members of the body social, they may be ever kept attentive to their rights and their duties; that the acts of the legislative and executive powers of government, being capable of being every moment compared with the end of political institutions, may be more respected; and also, that the future claims of the citizens, being directed by simple and incontestable principles, may always tend to the maintenance of the Constitution and the general happiness.

For these reasons the National Assembly doth recognize and declare, in the presence of the Supreme Being, and with the hope of His blessing and favor, the following *sacred* rights of men and of citizens:

I. Men are born, and always continue, free and equal in respect of their rights. Civil distinctions, therefore, can be founded only on public utility.

II. The end of all political associations is the preservation of the natural and imprescriptible rights of man; and these rights are Liberty, Property, Security, and Resistance of Oppression.

III. The nation is essentially the source of all sovereignty; nor can any individual, or any body of men, be entitled to any authority which is not expressly derived from it.

IV. Political liberty consists in the power of doing whatever does not injure another. The exercise of the natural rights of every man has no other limits than those which are necessary to secure to every *other* man the free exercise of the same rights; and these limits are determinable only by the law.

V. The law ought to prohibit only actions hurtful to society. What is not prohibited by the law should not be hindered; nor should anyone be compelled to that which the law does not require.

VI. The law is an expression of the will of the community. All citizens have a right to concur, either personally or by their representatives, in its formation. It should be the same to all, whether it protects or punishes; and all being equal in its sight are equally eligible to all honors, places, and employments, according to their different abilities, without any other distinction than that created by their virtues and talents.

VII. No man should be accused, arrested, or held in confinement, except in cases determined by the law, and according to the forms which it has prescribed. All who promote, solicit, execute, or cause to be executed, arbitrary orders, ought to be punished, and every citizen called upon, or apprehended by virtue of the law, ought immediately to obey, and renders himself culpable by resistance.

VIII. The law ought to impose no other penalties but such as are absolutely and evidently necessary; and no one ought to be punished, but in virtue of a law promulgated before the offense, and legally applied.

IX. Every man being presumed innocent till he has been convicted, whenever his detention becomes indispensable, all rigor to him, more than is necessary to secure his person, ought to be provided against by the law.

X. No man ought to be molested on account of his opinions, not even on account of his religious opinions, provided his avowal of them does not disturb the public order established by the law.

XI. The unrestrained communication of thoughts and opinions being one of the most precious rights of man, every citizen may speak, write, and publish freely, provided he is responsible for the abuse of this liberty, in cases determined by the law.

XII. A public force being necessary to give security to the rights of men and of citizens, that force is instituted for the benefit of the community and not for the particular benefit of the persons with whom it is entrusted.

XIII. A common contribution being necessary for the support of the

public force, and for defraying the other expenses of government, it ought to be divided equally among the members of the community, according to their abilities.

XIV. Every citizen has a right, either by himself or his representative, to a free voice in determining the necessity of public contributions, the appropriations of them, and their amount, mode of assessment, and duration.

XV. Every community has a right to demand of all its agents an account of their conduct.

XVI. Every community in which a separation of powers and a security of rights is not provided for wants a constitution.

XVII. The right to property being inviolable and sacred, no one ought to be deprived of it, except in cases of evident public necessity, legally ascertained, and on condition of a previous just indemnity.

The Virginia Declaration of Rights

June 12, 1776

declaration of rights made by the representatives of the good people of Virginia, assembled in full and free convention; which rights do pertain to them and their posterity, as the basis and foundation of government.

SECTION 1. That all men are by nature equally free and independent and have certain inherent rights, of which, when they enter into a state of society, they cannot, by any compact, deprive or divest their posterity; namely, the enjoyment of life and liberty, with the means of acquiring and possessing property, and pursuing and obtaining happiness and safety.

SECTION 2. That all power is vested in, and consequently derived from, the people; that magistrates are their trustees and servants and at all times amenable to them.

SECTION 3. That government is, or ought to be, instituted for the common benefit, protection, and security of the people, nation, or community; of all the various modes and forms of government, that is best which is capable of producing the greatest degree of happiness and safety and is most effectually secured against the danger of maladministration; and that, when any government shall be found inadequate or contrary to these purposes, a majority of the community hath an indubitable, inalienable, and indefeasible right to reform, alter, or abolish it, in such manner as shall be judged most conducive to the public weal.

SECTION 4. That no man, or set of men, are entitled to exclusive or separate emoluments or privileges from the community, but in consideration of public services; which, not being descendible, neither ought the offices of magistrate, legislator, or judge to be hereditary.

SECTION 5. That the legislative and executive powers of the state should be separate and distinct from the judiciary; and that the members

of the two first may be restrained from oppression, by feeling and participating the burdens of the people, they should, at fixed periods, be reduced to a private station, return into that body from which they were originally taken, and the vacancies be supplied by frequent, certain, and regular elections, in which all, or any part, of the former members, to be again eligible, or ineligible, as the laws shall direct.

SECTION 6. That elections of members to serve as representatives of the people, in assembly, ought to be free; and that all men, having sufficient evidence of permanent common interest with, and attachment to, the community, have the right of suffrage and cannot be taxed or deprived of their property for public uses without their own consent, or that of their representatives so elected, nor bound by any law to which they have not, in like manner, assented for the public good.

SECTION 7. That all power of suspending laws, or the execution of laws, by any authority, without consent of the representatives of the people, is injurious to their rights and ought not to be exercised.

SECTION 8. That in all capital or criminal prosecutions a man hath a right to demand the cause and nature of his accusation, to be confronted with the accusers and witnesses, to call for evidence in his favor, and to a speedy trial by an impartial jury of twelve men of his vicinage, without whose unanimous consent he cannot be found guilty; nor can he be compelled to give evidence against himself; that no man be deprived of his liberty, except by the law of the land or the judgment of his peers.

SECTION 9. That excessive bail ought not to be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

SECTION 10. That general warrants, whereby an officer or messenger may be commanded to search suspected places without evidence of a fact committed, or to seize any person or persons not named, or whose offense is not particularly described and supported by evidence, are grievous and oppressive and ought not to be granted.

SECTION 11. That in controversies respecting property, and in suits between man and man, the ancient trial by jury is preferable to any other and ought to be held sacred.

SECTION 12. That the freedom of the press is one of the great bulwarks of liberty and can never be restrained but by despotic governments.

SECTION 13. That a well-regulated militia, composed of the body of the people, trained to arms, is the proper, natural, and safe defense of a free state; that standing armies, in time of peace, should be avoided as dangerous to liberty; and that in all cases the military should be under strict subordination to, and governed by, the civil power.

SECTION 14. That the people have a right to uniform government;

and, therefore, that no government separate from or independent of the government of Virginia ought to be erected or established within the limits thereof.

SECTION 15. That no free government, or the blessings of liberty, can be preserved to any people, but by a firm adherence to justice, moderation, temperance, frugality, and virtue, and by frequent recurrence to fundamental principles.

SECTION 16. That religion, or the duty which we owe to our Creator, and the manner of discharging it, can be directed only by reason and conviction, not by force or violence; and therefore all men are equally entitled to the free exercise of religion, according to the dictates of conscience; and that it is the mutual duty of all to practice Christian forbearance, love, and charity toward each other.

The Declaration of Independence

A DECLARATION
BY THE REPRESENTATIVES OF THE UNITED STATES OF AMERICA
IN CONGRESS ASSEMBLED, JULY 4, 1776

hen, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed, that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience hath shown, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. Such has been the patient sufferance of these colonies; and such

is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these states. To prove this, let facts be submitted to a candid world.

He has refused his assent to laws, the most wholesome and necessary for the public good.

He has forbidden his governors to pass laws of immediate and pressing importance, unless suspended in their operation till his assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of representation in the legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved representative houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the legislative powers, incapable of annihilation, have returned to the people at large for their exercise; the state remaining in the meantime exposed to all the dangers of invasion from without, and convulsions within.

He has endeavored to prevent the population of these States; for that purpose obstructing the laws for naturalization of foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new appropriations of lands.

He has obstructed the administration of justice, by refusing his assent to laws for establishing judiciary powers.

He has made judges dependent on his will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of new offices, and sent hither swarms of officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, standing armies without the consent of our legislatures.

He has affected to render the military independent of and superior to the civil power.

He has combined with others to subject us to a jurisdiction foreign to

our Constitution, and unacknowledged by our laws; giving his assent to their acts of pretended legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock trial, from punishment for any murders which they should commit on the inhabitants of these States:

For cutting off our trade with all parts of the world:

For imposing taxes on us without our consent:

For depriving us, in many cases, of the benefit of trial by jury:

For transporting us beyond seas to be tried for pretended offenses:

For abolishing the free system of English laws in a neighboring province, establishing therein an arbitrary government, and enlarging its boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these colonies:

For taking away our charters, abolishing our most valuable laws, and altering fundamentally the forms of our governments:

For suspending our own legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated government here, by declaring us out of his protection and waging war against us.

He has plundered our seas, ravaged our coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large armies of foreign mercenaries to complete the works of death, desolation and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilized nation.

He has constrained our fellow citizens taken captive on the high seas to bear arms against their country, to become the executioners of their friends and brethren or to fall themselves by their hands.

He has excited domestic insurrections amongst us, and has endeavored to bring on the inhabitants of our frontiers, the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these oppressions we have petitioned for redress in the most humble terms. Our repeated petitions have been answered only by repeated injury. A prince whose character is thus marked by every act which may define a tyrant is unfit to be the ruler of a free people.

Nor have we been wanting in attentions to our British brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have ap-

pealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in peace friends.

We, therefore, the representatives of the United States of America, in general Congress, assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the name, and by authority of the good people of these colonies, solemnly publish and declare, that these united colonies are, and of right ought to be free and independent states; that they are absolved from all allegiance to the British Crown, and that all political connection between them and the state of Great Britain is and ought to be totally dissolved; and that as free and independent states, they have full power to levy war, conclude peace, contract alliances, establish commerce, and to do all other acts and things which independent states may of right do. And for the support of this declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes and our sacred honor.

Charter of the United Nations

1945

e the peoples of the United Nations determined

to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

to establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

to promote social progress and better standards of life in larger freedom,

and for these ends

to practice tolerance and live together in peace with one another as good neighbors, and

to unite our strength to maintain international peace and security, and

to ensure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

to employ international machinery for the promotion of the economic and social advancement of all peoples,

have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective Governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations.

CHAPTER I

PURPOSES AND PRINCIPLES

ARTICLE 1

The Purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;

3. To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

ARTICLE 2

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles.

1. The Organization is based on the principle of the sovereign equality of all its Members.

2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

5. All Members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The Organization shall ensure that states which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

MEMBERSHIP

ARTICLE 3

The original Members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or having previously signed the Declaration by United Nations of January 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

ARTICLE 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the Organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

ARTICLE 5

A Member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

ARTICLE 6

A Member of the United Nations which has persistently violated the Principles contained in the present Charter may be expelled from the Organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

ORGANS

ARTICLE 7

1. There are established as the principal organs of the United Nations: a General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice, and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

ARTICLE 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

THE GENERAL ASSEMBLY

Composition

ARTICLE 9

1. The General Assembly shall consist of all the Members of the United Nations.

2. Each Member shall have not more than five representatives in the General Assembly.

Functions and Powers

ARTICLE 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and except as provided in Article 12, may make recommendations to the Members of the

United Nations or to the Security Council or to both on any such questions or matters.

ARTICLE 11

1. The General Assembly may consider the general principles of co-operation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the Members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any Member of the United Nations, or by the Security Council, or by a state which is not a Member of the United Nations in accordance with Article 35, paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such questions to the state or states concerned or to the Security Council or to both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

ARTICLE 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendation with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the Members of the United Nations if the General Assembly is not in session, immediately the Security Council ceases to deal with such matters.

ARTICLE 13

1. The General Assembly shall initiate studies and make recommendations for the purpose of:

a. promoting international co-operation in the political field and encouraging the progressive development of international law and its codification;

b. promoting international co-operation in the economic, social, cultural, educational, and health fields, and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

2. The further responsibilities, functions, and powers of the General Assembly with respect to matters mentioned in paragraph 1 (b) above are set forth in Chapters IX and X.

ARTICLE 14

Subject to the provisions of Article 12, the General Assembly may recommend measures for the peaceful adjustment of any situation, regardless of origin, which it deems likely to impair the general welfare or friendly relations among nations, including situations resulting from a violation of the provisions of the present Charter setting forth the Purposes and Principles of the United Nations.

ARTICLE 15

1. The General Assembly shall receive and consider annual and special reports from the Security Council; these reports shall include an account of the measures that the Security Council has decided upon or taken to maintain international peace and security.

2. The General Assembly shall receive and consider reports from the other organs of the United Nations.

ARTICLE 16

The General Assembly shall perform such functions with respect to the international trusteeship system as are assigned to it under Chapters XII and XIII, including the approval of the trusteeship agreements for areas not designated as strategic.

ARTICLE 17

1. The General Assembly shall consider and approve the budget of the Organization.

2. The expenses of the Organization shall be borne by the Members as apportioned by the General Assembly.

3. The General Assembly shall consider and approve any financial and budgetary arrangements with specialized agencies referred to in Article

57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

ARTICLE 18

1. Each Member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the Members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the nonpermanent Members of the Security Council, the election of the Members of the Economic and Social Council, the election of Members of the Trusteeship Council in accordance with paragraph 1 (c) of Article 86, the admission of new Members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of Members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the Members present and voting.

ARTICLE 19

A Member of the United Nations which is in arrears in the payment of its financial contributions to the Organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a Member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the Member.

Procedure

ARTICLE 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the Members of the United Nations.

ARTICLE 21

The General Assembly shall adopt its own rules of procedure. It shall elect its President for each session.

ARTICLE 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

THE SECURITY COUNCIL

Composition

ARTICLE 23

1. The Security Council shall consist of eleven Members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America shall be permanent Members of the Security Council. The General Assembly shall elect six other Members of the United Nations to be nonpermanent Members of the Security Council, due regard being specially paid, in the first instance to the contribution of Members of the United Nations to the maintenance of international peace and security and to the other purposes of the Organization, and also to equitable geographical distribution.

2. The nonpermanent Members of the Security Council shall be elected for a term of two years. In the first election of the nonpermanent Members, however, three shall be chosen for a term of one year. A retiring Member shall not be eligible for immediate re-election.

3. Each Member of the Security Council shall have one representative.

Functions and Powers

ARTICLE 24

1. In order to ensure prompt and effective action by the United Nations, its Members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the Purposes and Principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII, and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

ARTICLE 25

The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

ARTICLE 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and economic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

ARTICLE 27

1. Each Member of the Security Council shall have one vote.
2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven Members.
3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven Members including the concurring votes of the permanent Members; provided that, in decisions under Chapter VI, and under paragraph 3 of Article 52, a party to a dispute shall abstain from voting.

Procedure

ARTICLE 28

1. The Security Council shall be so organized as to be able to function continuously. Each Member of the Security Council shall for this purpose be represented at all times at the seat of the Organization.
2. The Security Council shall hold periodic meetings at which each of its Members may, if it so desires, be represented by a member of the government or by some other specially designated representative.
3. The Security Council may hold meetings at such places other than the seat of the Organization as in its judgment will best facilitate its work.

ARTICLE 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

ARTICLE 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its President.

ARTICLE 31

Any Member of the United Nations which is not a Member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that Member are specially affected.

ARTICLE 32

Any Member of the United Nations which is not a Member of the Security Council or any state which is not a Member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a Member of the United Nations.

CHAPTER VI

PACIFIC SETTLEMENT OF DISPUTES

ARTICLE 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

ARTICLE 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

ARTICLE 35

1. Any Member of the United Nations may bring any dispute, or any situation of the nature referred to in Article 34, to the attention of the Security Council or of the General Assembly.

2. A state which is not a Member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

ARTICLE 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the Statute of the Court.

ARTICLE 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

ARTICLE 38

Without prejudice to the provisions of Articles 33 to 37, the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

ACTION WITH RESPECT TO THREATS TO THE PEACE, BREACHES OF THE PEACE, AND ACTS OF AGGRESSION

ARTICLE 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

ARTICLE 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

ARTICLE 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication and the severance of diplomatic relations.

ARTICLE 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.

ARTICLE 43

1. All Members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a

special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and Members or between the Security Council and groups of Members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

ARTICLE 44

When the Security Council has decided to use force it shall, before calling upon a Member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that Member, if the Member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that Member's armed forces.

ARTICLE 45

In order to enable the United Nations to take urgent military measures, Members shall hold immediately available national air-force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

ARTICLE 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

ARTICLE 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any Member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that Member in its work.

3. The Military Staff Committee shall be responsible under the Security Council for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

ARTICLE 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the Members of the United Nations or by some of them, as the Security Council may determine.

2. Such decisions shall be carried out by the Members of the United Nations directly and through their action in the appropriate international agencies of which they are Members.

ARTICLE 49

The Members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

ARTICLE 50

If preventive or enforcement measures against any state are taken by the Security Council, any other state, whether a Member of the United Nations or not, which finds itself confronted with special economic problems arising from the carrying out of those measures shall have the right to consult the Security Council with regard to a solution of those problems.

ARTICLE 51

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the

measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

CHAPTER VIII

REGIONAL ARRANGEMENTS

ARTICLE 52

1. Nothing in the present Charter precludes the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such arrangements or agencies and their activities are consistent with the Purposes and Principles of the United Nations.

2. The Members of the United Nations entering into such arrangements or constituting such agencies shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.

3. The Security Council shall encourage the development of pacific settlement of local disputes through such regional arrangements or by such regional agencies either on the initiative of the states concerned or by reference from the Security Council.

4. This Article in no way impairs the application of Articles 34 and 35.

ARTICLE 53

1. The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorization of the Security Council, with the exception of measures against any enemy state, as defined in paragraph 2 of this Article, provided for pursuant to Article 107 or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the Organization may, on request of the Governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in paragraph 1 of this Article applies to any state which during the Second World War has been an enemy of any signatory of the present Charter.

ARTICLE 54

The Security Council shall at all times be kept fully informed of activities undertaken or in contemplation under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

INTERNATIONAL ECONOMIC AND SOCIAL COOPERATION

ARTICLE 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

a. higher standards of living, full employment, and conditions of economic and social progress and development;

b. solutions of international economic, social, health, and related problems; and international cultural and educational co-operation; and

c. universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

ARTICLE 56

All Members pledge themselves to take joint and separate action in co-operation with the Organization for the achievement of the purposes set forth in Article 55.

ARTICLE 57

1. The various specialized agencies, established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are hereinafter referred to as specialized agencies.

ARTICLE 58

The Organization shall make recommendations for the co-ordination of the policies and activities of the specialized agencies.

ARTICLE 59

The Organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

ARTICLE 60

Responsibility for the discharge of the functions of the Organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

THE ECONOMIC AND SOCIAL COUNCIL

Composition

ARTICLE 61

1. The Economic and Social Council shall consist of eighteen Members of the United Nations elected by the General Assembly.

2. Subject to the provisions of paragraph 3, six Members of the Economic and Social Council shall be elected each year for a term of three years. A retiring Member shall be eligible for immediate re-election.

3. At the first election, eighteen Members of the Economic and Social Council shall be chosen. The term of office of six Members so chosen shall expire at the end of one year, and of six other Members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each Member of the Economic and Social Council shall have one representative.

Functions and Powers

ARTICLE 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educa-

tional, health and related matters and may make recommendations with respect to any such matters to the General Assembly, to the Members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

ARTICLE 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may co-ordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations.

ARTICLE 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the Members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

ARTICLE 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

ARTICLE 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of Members of the United Nations and at the request of specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

ARTICLE 67

1. Each Member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the Members present and voting.

Procedure

ARTICLE 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

ARTICLE 69

The Economic and Social Council shall invite any Member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that Member.

ARTICLE 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

ARTICLE 71

The Economic and Social Council may make suitable arrangements for consultation with nongovernmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations and, where appropriate, with na-

tional organizations after consultation with the Member of the United Nations concerned.

ARTICLE 72

The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its Members.

CHAPTER XI

DECLARATION REGARDING NONSELF-GOVERNING TERRITORIES

ARTICLE 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and accept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

a. to ensure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

b. to develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

c. to further international peace and security;

d. to promote constructive measures of development, to encourage research, and to co-operate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic, and scientific purposes set forth in this Article; and

e. to transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature

relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

ARTICLE 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect to their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world, in social, economic, and commercial matters.

CHAPTER XII

INTERNATIONAL TRUSTEESHIP SYSTEM

ARTICLE 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

ARTICLE 76

The basic objectives of the trusteeship system, in accordance with the Purposes of the United Nations laid down in Article 1 of the present Charter, shall be:

a. to further international peace and security;

b. to promote the political, economic, social, and educational advancement of the inhabitants of the trust territories, and their progressive development towards self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

c. to encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion, and to encourage recognition of the interdependence of the peoples of the world; and

d. to ensure equal treatment in social, economic, and commercial matters for all Members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives and subject to the provisions of Article 80.

ARTICLE 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

a. territories now held under mandate;

b. territories which may be detached from enemy states as a result of the Second World War; and

c. territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

ARTICLE 78

The trusteeship system shall not apply to territories which have become Members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

ARTICLE 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a Member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

ARTICLE 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79, and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which Members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

ARTICLE 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the Organization itself.

ARTICLE 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

ARTICLE 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social, and educational matters in the strategic areas.

ARTICLE 84

It shall be the duty of the administering authority to ensure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facilities, and assistance from the trust territory in carrying out the obligations towards the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

ARTICLE 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

THE TRUSTEESHIP COUNCIL

Composition

ARTICLE 86

1. The Trusteeship Council shall consist of the following Members of the United Nations:

a. those Members administering trust territories;

b. such of those Members mentioned by name in Article 23 as are not administering trust territories; and

c. as many other Members elected for three-year terms by the General Assembly as may be necessary to ensure that the total number of members of the Trusteeship Council is equally divided between those Members of the United Nations which administer trust territories and those which do not.

2. Each Member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

ARTICLE 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

a. consider reports submitted by the administering authority;

b. accept petitions and examine them in consultation with the administering authority;

c. provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

d. take these and other actions in conformity with the terms of the trusteeship agreements.

ARTICLE 88

The Trusteeship Council shall formulate a questionnaire on the political, economic, social, and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

ARTICLE 89

1. Each Member of the Trusteeship Council shall have one vote.
2. Decisions of the Trusteeship Council shall be made by a majority of the Members present and voting.

Procedure

ARTICLE 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its President.
2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its Members.

ARTICLE 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

THE INTERNATIONAL COURT OF JUSTICE

ARTICLE 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed Statute, which is based upon the Statute of the Permanent Court of International Justice and forms an integral part of the present Charter.

ARTICLE 93

1. All Members of the United Nations are *ipso facto* parties to the Statute of the International Court of Justice.
2. A state which is not a Member of the United Nations may become a party to the Statute of the International Court of Justice on conditions to be determined in each case by the General Assembly upon the recommendation of the Security Council.

ARTICLE 94

1. Each Member of the United Nations undertakes to comply with the decision of the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

ARTICLE 95

Nothing in the present Charter shall prevent Members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

ARTICLE 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies, which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

THE SECRETARIAT

ARTICLE 97

The Secretariat shall comprise a Secretary-General and such staff as the Organization may require. The Secretary-General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the Organization.

ARTICLE 98

The Secretary-General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council, and of the Trusteeship Council, and shall perform such other

functions as are entrusted to him by these organs. The Secretary-General shall make an annual report to the General Assembly on the work of the Organization.

ARTICLE 99

The Secretary-General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

ARTICLE 100

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other authority external to the Organization. They shall refrain from any action which might reflect on their position as international officials responsible only to the Organization.

2. Each Member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities.

ARTICLE 101

1. The staff shall be appointed by the Secretary-General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence, and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

MISCELLANEOUS PROVISIONS

ARTICLE 102

1. Every treaty and every international agreement entered into by any Member of the United Nations after the present Charter comes into force

shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

ARTICLE 103

In the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

ARTICLE 104

The Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

ARTICLE 105

1. The Organization shall enjoy in the territory of each of its Members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the Members of the United Nations and officials of the Organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the Organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of paragraphs 1 and 2 of this Article or may propose conventions to the Members of the United Nations for this purpose.

CHAPTER XVII

TRANSITIONAL SECURITY ARRANGEMENTS

ARTICLE 106

Pending the coming into force of such special agreements referred to in Article 43 as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, October 30, 1943, and

France, shall, in accordance with the provisions of paragraph 5 of that Declaration, consult with one another and as occasion requires with other Members of the United Nations with a view to such joint action on behalf of the Organization as may be necessary for the purpose of maintaining international peace and security.

ARTICLE 107

Nothing in the present Charter shall invalidate or preclude action, in relation to any state which during the Second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the Governments having responsibility for such action.

CHAPTER XVIII

AMENDMENTS

ARTICLE 108

Amendments to the present Charter shall come into force for all Members of the United Nations when they have been adopted by a vote of two thirds of the Members of the General Assembly and ratified in accordance with their respective constitutional processes by two thirds of the Members of the United Nations, including all the permanent Members of the Security Council.

ARTICLE 109

1. A General Conference of the Members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the Members of the General Assembly and by a vote of any seven Members of the Security Council. Each Member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two thirds of the Members of the United Nations including all the permanent Members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the confer-

ence shall be held if so decided by a majority vote of the Members of the General Assembly and by a vote of any seven Members of the Security Council.

CHAPTER XIX

RATIFICATION AND SIGNATURE

ARTICLE 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary-General of the Organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original Members of the United Nations on the date of the deposit of their respective ratifications.

ARTICLE 111

The present Charter, of which the Chinese, French, Russian, English, and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

IN FAITH WHEREOF the representatives of the Governments of the United Nations have signed the present Charter.

DONE at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

Universal Declaration of Human Rights

1948

PREAMBLE

WHEREAS recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world, and

WHEREAS disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people, and

WHEREAS it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression that human rights should be protected by the rule of law, and

WHEREAS it is essential to promote the development of friendly relations between nations, and

WHEREAS the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women, and determined to promote social progress and better standards of life in larger freedom, and

WHEREAS the Member States have pledged themselves to achieve, in co-operation with the United Nations, the promotion of universal respect for and observance of human rights and fundamental freedoms, and

WHEREAS a common understanding of these rights and freedoms is of the greatest importance for the full realization of this pledge,

Now therefore,

THE GENERAL ASSEMBLY

PROCLAIMS this Declaration of Human Rights as a common standard

of achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of member states themselves and among the peoples of territories under their jurisdiction.

ARTICLE 1. All human beings are born free and equal, in dignity and rights. They are endowed with reason and conscience, and should act towards one another in a spirit of brotherhood.

ARTICLE 2. Everyone is entitled to all the rights and freedoms set forth in this declaration, without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, Trust, Nonself-Governing or under any other limitation of sovereignty.

ARTICLE 3. Everyone has the right to life, liberty and security of person.

ARTICLE 4. No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

ARTICLE 5. No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

ARTICLE 6. Everyone has the right to recognition everywhere as a person before the law.

ARTICLE 7. All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

ARTICLE 8. Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the Constitution or by law.

ARTICLE 9. No one shall be subjected to arbitrary arrest, detention or exile.

ARTICLE 10. Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

ARTICLE 11. *1.* Everyone with a penal offense has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defense.

2. No one shall be held guilty of any penal offense on account of any act or omission which did not constitute a penal offense, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offense was committed.

ARTICLE 12. No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honor and reputation. Everyone has the right to the protection of the law against such interference or attacks.

ARTICLE 13. *1*. Everyone has the right to freedom of movement and residence within the borders of each state.

2. Everyone has the right to leave any country, including his own, and to return to his country.

ARTICLE 14. *1*. Everyone has the right to seek and to enjoy in other countries asylum from persecution.

2. This right may not be invoked in the case of prosecutions genuinely arising from nonpolitical crimes or from acts contrary to the purposes and principles of the United Nations.

ARTICLE 15. *1*. Everyone has the right to a nationality.

2. No one shall be arbitrarily deprived of his nationality nor denied the right to change his nationality.

ARTICLE 16. *1*. Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage and at its dissolution.

2. Marriage shall be entered into only with the free and full consent of the intending spouses.

3. The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.

ARTICLE 17. *1*. Everyone has the right to own property alone as well as in association with others.

2. No one shall be arbitrarily deprived of his property.

ARTICLE 18. Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

ARTICLE 19. Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

ARTICLE 20. *1.* Everyone has the right to freedom of peaceful assembly and association.

2. No one may be compelled to belong to an association.

ARTICLE 21. *1.* Everyone has the right to take part in the Government of his country, directly or through freely chosen representatives.

2. Everyone has the right of equal access to public service in his country.

3. The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

ARTICLE 22. Everyone, as a member of society, has the right to social security and is entitled to the realization, through national effort and international co-operation and in accordance with the organization and resources of each state, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

ARTICLE 23. *1.* Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment.

2. Everyone, without any discrimination, has the right to equal pay for equal work.

3. Everyone who works has the right to just and favorable remuneration insuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.

4. Everyone has the right to form and to join trade unions for the protection of his interests.

ARTICLE 24. Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

ARTICLE 25. *1.* Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

ARTICLE 26. *1.* Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education

shall be made generally available, and higher education shall be equally accessible to all on the basis of merit.

2. Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children.

ARTICLE 27. *1*. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

2. Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

ARTICLE 28. Everyone is entitled to a social and international order in which the rights and freedoms set forth in this declaration can be fully realized.

ARTICLE 29. *1*. Everyone has duties to the community in which alone the free and full development of his personality is possible.

2. In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society.

3. These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations.

ARTICLE 30. Nothing in this declaration may be interpreted as implying for any state, group or person, any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

Thomas Paine

1737–1809

Thomas Paine was born in Norfolk, England, where his father was a Quaker corset maker. Working hard as a sailor, teacher, and exciseman until 1762, and then as a government customs official, he developed a hearty and lasting sympathy with the poor. In 1774 Benjamin Franklin, then in London, persuaded him to migrate to America, and gave him letters of introduction to influential men. On his arrival, he became the editor of the *Pennsylvania Magazine*. In January of 1776, he wrote a pamphlet called *Common Sense*, which, as George Washington said, "worked a powerful change in the minds of many men." By July the ground had been prepared for the signing of The Declaration of Independence.

During the Revolutionary War, Paine was a volunteer aide-de-camp to General Greene, and at this time wrote the first of a series of articles which were later published as *The Crisis*. This, too, had an enormous effect on American opinion. In recognition of his services Paine was granted an estate in New Rochelle, New York, Congress voted him gifts of money, and he was offered various government positions.

In 1787 Paine sailed for England to exhibit one of his inventions—a pierless iron bridge. He soon fell to writing his *The Rights of Man*, which was an answer to Edmund Burke's famous *Reflections on the Revolution in France*. When Paine's book appeared it created so great a stir that the British government did its best to suppress it. In 1792 Paine was indicted for treason, but luckily escaped to France before the trial. He was made a member of the French Revolutionary Convention, but he antagonized Robespierre by opposing the execution of Louis XVI, and was imprisoned. After Robespierre's death, Paine was released and reinstated in the Convention. His *Age of*

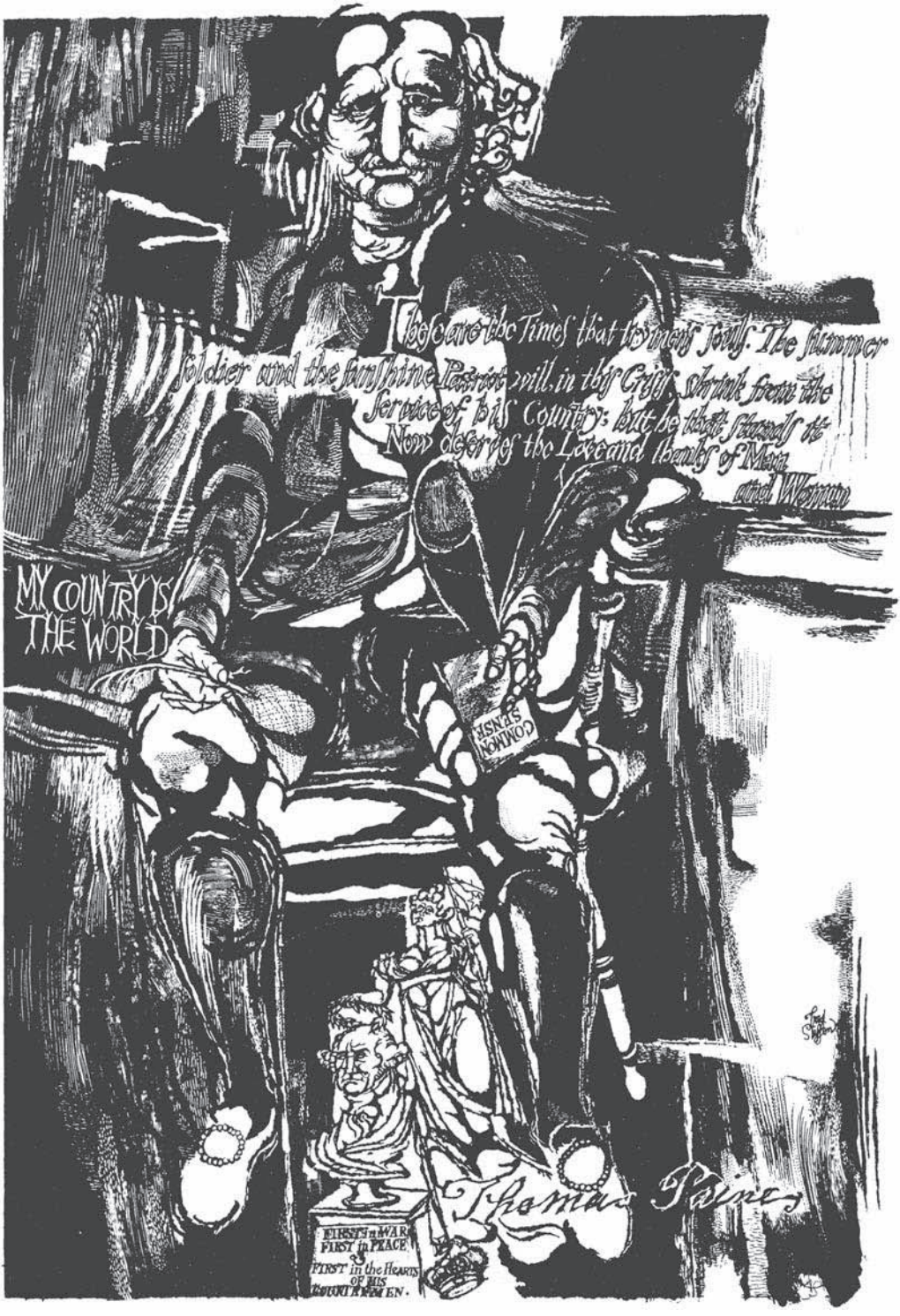
Reason, the first part of which appeared in 1794, infuriated conservatives everywhere. But Jefferson took care that it was circulated in the United States and, announcing that its principles were his own, was elected President in 1800. An acrimonious letter to George Washington, however, made Paine many enemies. When he returned to America in 1802 he was coldly received, and lived on his New York estate in obscurity until his death in 1809.

The first issue of *The Crisis* is written with fire and logical precision. "These are the times that try men's souls," Paine begins. "The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of his country." But he who stands firm will deserve the gratitude of all. As he wrote, the seasoned British armies were advancing, and the untrained patriots had suffered cruel reverses. The colonies were not giving united support to the defending troops. Thousands of Tories were lending open or secret aid to the British, and spreading rumors which weakened morale and disrupted military operations.

The time had passed when such men could be blandly tolerated. Every Tory, Paine declared, "is a coward, for a servile, slavish, self-interested fear is the foundation of Toryism." He denounces those who are hostile, fearful, or lukewarm to the American cause, but he never ceases to reason with them. Would they not fight off a robber who broke into their house? Is it any different when a "stupid, stubborn, worthless, brutish" king seeks to bend them to his absolute will? And can they expect mercy from a man who has refused to do justice? Are they not like the Tory innkeeper who prefers to see peace in *his* day, than live to see it in his child's day?

What should we think, Paine asks, of a colony that came to terms with the Indians, and left other colonies exposed to massacre? Is the case any different when the Hessians and British are the invaders? A colony that surrenders to the British will fare worse than the rest.

Notes from the artist: "Paine in his old age, tired and disillusioned, executed in a manner derivative from old woodcuts and steel engravings. Below is Liberty, stepping upon the crown of England to place the wreath of victory upon the head of Washington."


These are the Times that try men's Souls. The Summer Soldier and the Sunshine Patriot will, in this Crisis, shrink from the Service of his Country; but he that stands it Now deserves the Love and thanks of Man and Woman
MY COUNTRY IS THE WORLD
COMMON SENSE
FIRST in WAR FIRST in PEACE & FIRST in the HEARTS OF HIS COUNTRYMEN.
Thomas Paine

His arguments multiply. But there is a limit to tolerance. The Tories who will not listen to reason must be driven from the country. And this, as we know, is what happened to many. Far more were persuaded by Paine's appeal to stand by their fighting countrymen.

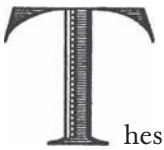
Paine was universally acclaimed for his wartime pamphlets. His later writings are more controversial, and raised up legions of enemies both in England and in America. Did the fault lie in his character–his truculence? He was clearly not a diplomat like Franklin, nor a conservative like Hamilton. It is hard to see how he could have strenuously campaigned for republicanism, toleration, freedom of speech, and equal rights for all men without incurring the wrath of many important people. Enemies are often proof of a man's sincerity and striking force. The graduated income tax and other tax reforms favoring the poor which Paine advocated, though long since adopted in the United States, were far ahead of his time. Prime Minister Pitt agreed privately that Paine was right, but was quoted as saying: "If I were to encourage Tom Paine's opinions, we should have a bloody revolution." He had Paine indicted for treason.

Paine, like his friend Jefferson, went further than his contemporaries in espousing democracy. Edmund Burke, though he had defended the American Revolution, could not abide the French Revolution. In his *Reflections*, he carried his opposition to the impious doings of the French so far that it became a denial of the democratic principle itself. The people of England, "utterly disclaim the right to choose their own governors," he wrote, and "they will resist the practical assertion of it with their lives and fortunes."

Paine writes in *The Rights of Man*: "That men should take up arms and spend their lives and fortunes, *not* to maintain their rights, but to maintain that they have *not* rights" is, he says, very queer indeed. Perhaps, then, Paine made enemies because he was too advanced and consistent a democrat. Could it be also that he was *needlessly* shocking and provocative; or were the shock and provocation needed?

A Call to Patriots– December 23, 1776

from *The Crisis*

 hese are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of his country; but he that stands it now deserves the love and thanks of man and woman. Tyranny, like hell, is not easily conquered; yet we have this consolation with us, that the harder the conflict, the more glorious the triumph. What we obtain too cheap, we esteem too lightly: 'Tis dearness only that gives everything its value. Heaven knows how to put a proper price upon its goods; and it would be strange, indeed, if so celestial an article as freedom should not be highly rated. Britain, with an army to enforce her tyranny, has declared that she has a right (not only to tax) but "to bind us in all cases whatsoever," and if being bound in that manner is not slavery, then is there not such a thing as slavery upon earth. Even the expression is impious, for so unlimited a power can belong only to God.

Whether the independence of the continent was declared too soon, or delayed too long, I will not now enter into as an argument; my own simple opinion is that had it been eight months earlier it would have been much better. We did not make a proper use of last winter, neither could we while we were in a dependent state. However, the fault, if it were one, was all our own; we have none to blame but ourselves. But no great deal is lost yet; all that Howe has been doing for this month past is rather a ravage than a conquest, which the spirit of the Jerseys a year ago would have quickly repulsed, and which time and a little resolution will soon recover.

I have as little superstition in me as any man living, but my secret opinion has ever been, and still is, that God Almighty will not give up a peo-

ple to military destruction, or leave them unsupportedly to perish, who had so earnestly and so repeatedly sought to avoid the calamities of war by every decent method which wisdom could invent. Neither have I so much of the infidel in me as to suppose that He has relinquished the government of the world, and given us up to the care of devils; and as I do not, I cannot see on what grounds the king of Britain can look up to heaven for help against us: A common murderer, a highwayman, or a housebreaker has as good a pretense as he.

'Tis surprising to see how rapidly a panic will sometimes run through a country. All nations and ages have been subject to them: Britain has trembled like an ague at the report of a French fleet of flat-bottomed boats; and in the fourteenth century the whole English army, after ravaging the kingdom of France, was driven back like men petrified with fear; and this brave exploit was performed by a few broken forces collected and headed by a woman, Joan of Arc. Would that heaven might inspire some Jersey maid to spirit up her countrymen, and save her fair fellow sufferers from ravage and ravishment! Yet panics, in some cases, have their uses; they produce as much good as hurt. Their duration is always short; the mind soon grows through them, and acquires a firmer habit than before. But their peculiar advantage is that they are the touchstones of sincerity and hypocrisy, and bring things and men to light which might otherwise have lain forever undiscovered. In fact, they have the same effect on secret traitors which an imaginary apparition would have upon a private murderer. They sift out the hidden thoughts of man, and hold them up in public to the world. Many a disguised Tory has lately shown his head, that shall penitentially solemnize with curses the day on which Howe arrived upon the Delaware.

As I was with the troops at Fort Lee, and marched with them to the edge of Pennsylvania, I am well acquainted with many circumstances which those who lived at a distance know but little or nothing of. Our situation there was exceedingly cramped, the place being on a narrow neck of land between the North River and the Hackensack. Our force was inconsiderable, being not one-fourth so great as Howe could bring against us. We had no army at hand to have relieved the garrison had we shut ourselves up and stood on the defense. Our ammunition, light artillery, and the best part of our stores had been removed upon the apprehension that Howe would endeavor to penetrate the Jerseys, in which case Fort Lee could be of no use to us; for it must occur to every thinking man, whether in the army or not, that these kind of field forts are only for temporary purposes, and last in use no longer than the enemy directs

his force against the particular object, which such forts are raised to defend. Such was our situation and condition at Fort Lee on the morning of the 20th of November, when an officer arrived with information that the enemy with 200 boats had landed about seven or eight miles above. Major General Greene, who commanded the garrison, immediately ordered them under arms, and sent express to his Excellency General Washington at the town of Hackensack, distant by the way of the ferry six miles. Our first object was to secure the bridge over the Hackensack, which laid up the river between the enemy and us, about six miles from us, and three from them. General Washington arrived in about three-quarters of an hour, and marched at the head of the troops towards the bridge, which place I expected we should have a brush for; however they did not choose to dispute it with us, and the greatest part of our troops went over the bridge, the rest over the ferry, except some which passed at a mill on a small creek, between the bridge and the ferry, and made their way through some marshy grounds up to the town of Hackensack, and there passed the river. We brought off as much baggage as the wagons could contain; the rest was lost. The simple object was to bring off the garrison, and to march them on till they could be strengthened by the Jersey or Pennsylvania militia, so as to be enabled to make a stand. We stayed four days at Newark, collected in our outposts with some of the Jersey militia, and marched out twice to meet the enemy on information of their being advancing, though our numbers were greatly inferior to theirs. Howe, in my little opinion, committed a great error in generalship in not throwing a body of forces off from Staten Island through Amboy, by which means he might have seized all our stores at Brunswick, and intercepted our march into Pennsylvania: But if we believe the power of hell to be limited, we must likewise believe that their agents are under some providential control.

I shall not now attempt to give all the particulars of our retreat to the Delaware; suffice it for the present to say that both officers and men, though greatly harassed and fatigued, frequently without rest, covering, or provision, the inevitable consequences of a long retreat, bore it with a manly and a martial spirit. All their wishes were one, which was that the country would turn out and help them to drive the enemy back. Voltaire has remarked that King William never appeared to full advantage but in difficulties and in action; the same remark may be made on General Washington, for the character fits him. There is a natural firmness in some minds which cannot be unlocked by trifles, but which, when unlocked, discovers a cabinet of fortitude; and I reckon it among those kind of pub-

lic blessings, which we do not immediately see, that God hath blest him with uninterrupted health, and given him a mind that can even flourish upon care.

I shall conclude this paper with some miscellaneous remarks on the state of our affairs; and shall begin with asking the following question: Why is it that the enemy have left the New England provinces, and made these middle ones the seat of war? The answer is easy: New England is not infested with Tories, and we are. I have been tender in raising the cry against these men, and used numberless arguments to show them their danger, but it will not do to sacrifice a world to either their folly or their baseness. The period is now arrived in which either they or we must change our sentiments, or one or both must fall. And what is a Tory? Good God! what is he? I should not be afraid to go with a hundred Whigs against a thousand Tories were they to attempt to get into arms. Every Tory is a coward, for a servile, slavish, self-interested fear is the foundation of Toryism; and a man under such influence, though he may be cruel, never can be brave.

But, before the line of irrecoverable separation be drawn between us, let us reason the matter together: Your conduct is an invitation to the enemy, yet not one in a thousand of you has heart enough to join him. Howe is as much deceived by you as the American cause is injured by you. He expects you will all take up arms, and flock to his standard with muskets on your shoulders. Your opinions are of no use to him unless you support him personally, for 'tis soldiers, and not Tories, that he wants.

I once felt all that kind of anger which a man ought to feel against the mean principles that are held by the Tories: A noted one, who kept a tavern at Amboy, was standing at his door, with as pretty a child in his hand, about eight or nine years old, as most I ever saw, and after speaking his mind as freely as he thought was prudent, finished with this unfatherly expression, "Well! give me peace in my day." Not a man lives on the continent but fully believes that a separation must some time or other finally take place, and a generous parent should have said, "If there must be trouble, let it be in my day that my child may have peace"; and this single reflection, well applied, is sufficient to awaken every man to duty. Not a place upon earth might be so happy as America. Her situation is remote from all the wrangling world, and she has nothing to do but to trade with them. A man may easily distinguish in himself between temper and principle, and I am as confident as I am that God governs the world that America will never be happy till she gets clear of foreign dominion. Wars, without ceasing, will break out till that period arrives,

and the continent must in the end be conqueror; for though the flame of liberty may sometimes cease to shine, the coal never can expire.

America did not, nor does not, want force; but she wanted a proper application of that force. Wisdom is not the purchase of a day, and it is no wonder that we should err at first setting off. From an excess of tenderness, we were unwilling to raise an army, and trusted our cause to the temporary defense of a well-meaning militia. A summer's experience has now taught us better; yet with those troops, while they were collected, we were able to set bounds to the progress of the enemy, and, thank God! they are again assembling. I always considered a militia as the best troops in the world for a sudden exertion, but they will not do for a long campaign. Howe, it is probable, will make an attempt on this city; should he fail on this side the Delaware, he is ruined; if he succeeds, our cause is not ruined. He stakes all on his side against a part on ours; admitting he succeeds, the consequence will be that armies from both ends of the continent will march to assist their suffering friends in the middle states; for he cannot go everywhere, it is impossible. I consider Howe as the greatest enemy the Tories have; he is bringing a war into their country, which, had it not been for him and partly for themselves, they had been clear of. Should he now be expelled, I wish with all the devotion of a Christian that the names of Whig and Tory may never more be mentioned; but should the Tories give him encouragement to come, or assistance if he come, I as sincerely wish that our next year's arms may expel them from the continent, and the Congress appropriate their possessions to the relief of those who have suffered in welldoing. A single successful battle next year will settle the whole. America could carry on a two-years war by the confiscation of the property of disaffected persons, and be made happy by their expulsion. Say not that this is revenge; call it rather the soft resentment of a suffering people who, having no object in view but the good of all, have staked their own all upon a seemingly doubtful event. Yet it is folly to argue against determined hardness; eloquence may strike the ear, and the language of sorrow draw forth the tear of compassion, but nothing can reach the heart that is steeled with prejudice.

Quitting this class of men, I turn with the warm ardor of a friend to those who have nobly stood, and are yet determined to stand, the matter out: I call not upon a few, but upon all; not on this state or that state, but on every state; up and help us; lay your shoulders to the wheel; better have too much force than too little, when so great an object is at stake. Let it be told to the future world that in the depth of winter, when noth-

ing but hope and virtue could survive, that the city and the country, alarmed at one common danger, came forth to meet and to repulse it. Say not that thousands are gone, turn out your tens of thousands; throw not the burden of the day upon Providence but "show your faith by your works" that God may bless you. It matters not where you live, or what rank of life you hold, the evil or the blessing will reach you all. The far and the near, the home counties and the back, the rich and the poor will suffer or rejoice alike. The heart that feels not now is dead. The blood of his children will curse his cowardice who shrinks back at a time when a little might have saved the whole, and made them happy. I love the man that can smile in trouble, that can gather strength from distress, and grow brave by reflection. 'Tis the business of little minds to shrink; but he whose heart is firm, and whose conscience approves his conduct, will pursue his principles unto death. My own line of reasoning is to myself as straight and clear as a ray of light. Not all the treasures of the world, so far as I believe, could have induced me to support an offensive war, for I think it murder; but if a thief break into my house, burn and destroy my property, and kill or threaten to kill me, or those that are in it, and to "bind me in all cases whatsoever" to his absolute will, am I to suffer it? What signifies it to me whether he who does it is a king or a common man; my countryman or not my countryman; whether it is done by an individual villain or an army of them? If we reason to the root of things, we shall find no difference; neither can any just cause be assigned why we should punish in the one case and pardon in the other. Let them call me rebel, and welcome, I feel no concern from it; but I should suffer the misery of devils were I to make a whore of my soul by swearing allegiance to one whose character is that of a sottish, stupid, stubborn, worthless, brutish man. I conceive likewise a horrid idea in receiving mercy from a being who at the last day shall be shrieking to the rocks and mountains to cover him, and fleeing with terror from the orphan, the widow, and the slain of America.

There are cases which cannot be overdone by language, and this is one. There are persons too who see not the full extent of the evil which threatens them; they solace themselves with hopes that the enemy, if they succeed, will be merciful. It is the madness of folly to expect mercy from those who have refused to do justice; and even mercy where conquest is the object is only a trick of war: The cunning of the fox is as murderous as the violence of the wolf; and we ought to guard equally against both. Howe's first object is partly by threats and partly by promise to terrify or

seduce the people to deliver up their arms, and receive mercy. The ministry recommended the same plan to Gage, and this is what the Tories call making their peace; "a peace which passeth all understanding" indeed! A peace which would be the immediate forerunner of a worse ruin than any we have yet thought of. Ye men of Pennsylvania, do reason upon these things! Were the back counties to give up their arms, they would fall an easy prey to the Indians, who are all alarmed. This perhaps is what some Tories would not be sorry for. Were the home counties to deliver up their arms, they would be exposed to the resentment of the back counties, who would then have it in their power to chastise their defection at pleasure. And were any one state to give up its arms, that state must be garrisoned by all Howe's army of Britons and Hessians to preserve it from the anger of the rest. Mutual fear is a principal link in the chain of mutual love, and woe be to that state that breaks the compact. Howe is mercifully inviting you to barbarous destruction, and men must be either rogues or fools that will not see it. I dwell not upon the powers of imagination; I bring reason to your ears; and in language as plain as A, B, C, hold up truth to your eyes.

I thank God that I fear not. I see no real cause for fear. I know our situation well, and can see the way out of it. While our army was collected, Howe dared not risk a battle, and it is no credit to him that he decamped from the White Plains, and waited a mean opportunity to ravage the defenseless Jerseys; but it is great credit to us that, with a handful of men, we sustained an orderly retreat for near a hundred miles, brought off our ammunition, all our fieldpieces, the greatest part of our stores, and had four rivers to pass. None can say that our retreat was precipitate, for we were near three weeks in performing it, that the country might have time to come in. Twice we marched back to meet the enemy and remained out till dark. The sign of fear was not seen in our camp, and had not some of the cowardly and disaffected inhabitants spread false alarms through the country, the Jerseys had never been ravaged. Once more we are again collected and collecting; our new army at both ends of the continent is recruiting fast, and we shall be able to open the next campaign with sixty thousand men, well armed and clothed. This is our situation, and who will may know it. By perseverance and fortitude we have the prospect of a glorious issue; by cowardice and submission, the sad choice of a variety of evils—a ravaged country—a depopulated city—habitations without safety, and slavery without hope—our homes turned into barracks and bawdy houses for Hessians, and a future race to provide

for whose fathers we shall doubt of. Look on this picture and weep over it! And if there yet remains one thoughtless wretch who believes it not, let him suffer it unlamented.

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of THE CRISIS PAPERS.

George Washington

1732–1799

George Washington, the undisputed "father of his country," was born on February 22 (New Style; Feb. 11, Old Style), 1732, in Westmoreland County, Virginia. The son of a large Virginia landowner who died when George was only eleven, he spent most of his youth at the Mount Vernon estate with his beloved half brother Lawrence, who was many years his senior. Although he got little schooling, he taught himself some mathematics, and at the age of fifteen had begun his career as a surveyor. This, of course, was not to be his main profession. Notwithstanding his reported distaste for deception and fighting, he was soon drawn into military operations against the French on the Ohio frontier. In 1755 he was an aid to General Braddock in his disastrous campaign against Fort Duquesne, and was then, at the age of twenty-three, made commander of all the Virginia forces.

At the death of his half brother, Washington inherited the plantation at Mount Vernon. Shortly thereafter he married a wealthy widow, Martha Dandridge Custis, who brought him 15,000 acres and 150 slaves. Washington was now a gentleman farmer and a very wealthy man. He took a great interest in farming and experimental agriculture, and became a member of the Virginia House of Burgesses. As a leader of the opposition to British colonial policy in Virginia, he served as a delegate to the Continental Congress in 1774–75, which was organizing the defense of the colonies. In 1775 he was made Commander in Chief of the Continental Army.

Washington's task was to lead the poorly trained and poorly paid Continental troops to a decisive victory over the seasoned British armies, led by top-notch officers. He himself had no experience in large-scale military operations. Money and supplies of all sorts were

grievously short. Most of the thirteen states, newly declared independent, were organizing their governments. There were many conflicts among them and they were weakened within by British sympathizers. The Continental Congress was without force or authority. Yet, as we all know, the war was won after five bitter years. The British surrendered at Yorktown in 1781.

Washington retired in 1783 after dismissing the army, but he was not able to remain a private citizen for long. The thirteen states were torn with dissension, and there was an imperative need for "a more perfect union" if the new nation was to endure and expand westward. Eventually, in 1787, the Constitutional Convention was called. All the great prestige of Washington was necessary to secure the adoption of the new United States Constitution, which greatly restricted the powers of the independent states. There was no question who would be chosen as the first President of the United States, nor could anyone but Washington have done so much, in the first few years, to stabilize the government and unify the country. After eight years in office, he retired gratefully in 1797, and lived his last two years peacefully on his Mount Vernon estate.

"First in war, first in peace, and first in the hearts of his countrymen" is almost too good to be true, and yet it is true, in large measure, of Washington. It does not mean that he was always unanimously approved. We remember that in 1777 the war, under his leadership, had gone so disastrously that high officers and members of the Congress tried to have him removed from the command. Sectionalism also played a part in this serious intrigue, which, however, Washington successfully countered. The winter in Valley Forge, however, was one of appalling misery for the battered and freezing army. Washington felt great sympathy for the troops, but he never lost heart; his courage was an example to all. In the spring new strength came, and the war took a brighter turn. It is this unwavering forti-

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Notes from the artist: ". . . an equestrian portrait of Washington done in a style to suggest the quaint illustrations of his age. The background is the famous cherry tree, and the quotation is from the Rules of Civility, *a set of moral precepts that Washington transcribed in a copybook when he was fourteen years old."*

Labour to keep alive in your breast that little spark of celestial fire, called conscience.
G. Washington

tude and greatness with which he met every crisis that outweigh his shortcomings, and keep his image enshrined in our memory.

Washington's letter to the governors of all the states in 1783 grappled with the big problems of that time. After the five terrible years of war, there was a natural craving for ease and comfort, and a tendency also to return to the old conflicts that divided sections of the country, states, classes, individuals. Washington pleads for fraternal unity. He argues that "it is indispensable to the happiness of the individual states that there should be lodged somewhere a supreme power to regulate and govern the general concerns of the confederated republic, without which the Union cannot be of long duration."

The obligations contracted during the war must be honorably discharged, and the ignominy of national bankruptcy averted. It would be a shameful thing if the soldiers who have won the war should now, deprived of their promised pay, be obliged to beg for food from door to door. "It therefore is more than a common debt, it is a debt of honor; it can never be considered as a pension or gratuity."

The Farewell Address, thirteen years later, touches on some of the same themes, but also on new ones. Washington has been President now for two terms, and has refused to consider a third. In his first administration he had struck a balance between the conservative Federalists and the liberal Republicans, making Hamilton Secretary of the Treasury and Jefferson Secretary of State. But in his second administration he had swung to the Federalists' side, and had been roundly censured by the Republicans.

Now he appeals again for national unity and solidarity. Bear in mind the common bonds of brotherhood, he counsels. "With slight shades of difference, you have the same religion, manners, habits, and political principles. You have in a common cause fought and triumphed together." Independence and liberty have been won by collective efforts and are collective blessings.

He warns again against the dangers of sectionalism, and insists that strong government, with properly balanced powers, provides the only guarantee, in a large country, of the continued enjoyment of liberty.

What is most novel and controversial in the *Address* is the warning against entangling alliances. Existing treaties should be honored in full, Washington says, but "it is unnecessary and would be unwise to extend them. . . . There can be no greater error than to expect . . . real favors from nation to nation."

Should we take this dictum of Washington's to apply to all nations or only to small or weak ones? The United States of 1796 could not have entered an equal alliance with a strong power. A wide ocean favored its independence on one side, and the vast territory on the other side aroused just fears of foreign penetration. But the strength and circumstances of other countries are very different. Are the nations who choose neutrality today strong or weak? Finally, can a policy which seemed wise in those days be maintained inflexibly in our contemporary world?

Circular Letter to the Governors of All the States on Disbanding the Army

The great object, for which I had the honor to hold an appointment in the service of my country, being accomplished, I am now preparing to resign it into the hands of Congress, and to return to that domestic retirement which, it is well known, I left with the greatest reluctance; a retirement for which I have never ceased to sigh, through a long and painful absence, and in which (remote from the noise and trouble of the world) I meditate to pass the remainder of my life, in a state of undisturbed repose. But before I carry this resolution into effect, I think it a duty incumbent on me to make this my last official communication; to congratulate you on the glorious events which Heaven has been pleased to produce in our favor; to offer my sentiments respecting some important subjects which appear to me to be intimately connected with the tranquillity of the United States; to take my leave of your Excellency as a public character; and to give my final blessing to that country in whose service I have spent the prime of my life, for whose sake I have consumed so many anxious days and watchful nights, and whose happiness, being extremely dear to me, will always constitute no inconsiderable part of my own.

Impressed with the liveliest sensibility on this pleasing occasion, I will claim the indulgence of dilating the more copiously on the subjects of our mutual felicitation. When we consider the magnitude of the prize we contended for, the doubtful nature of the contest, and the favorable manner in which it has terminated, we shall find the greatest possible reason for gratitude and rejoicing. This is a theme that will afford infinite delight to every benevolent and liberal mind, whether the event in contemplation be considered as the source of present enjoyment, or the

parent of future happiness; and we shall have equal occasion to felicitate ourselves on the lot which Providence has assigned us, whether we view it in a natural, a political, or moral point of light.

The citizens of America, placed in the most enviable condition, as the sole lords and proprietors of a vast tract of continent, comprehending all the various soils and climates of the world, and abounding with all the necessaries and conveniences of life, are now, by the late satisfactory pacification, acknowledged to be possessed of absolute freedom and independency. They are, from this period, to be considered as the actors on a most conspicuous theater, which seems to be peculiarly designated by Providence for the display of human greatness and felicity. Here they are not only surrounded with everything which can contribute to the completion of private and domestic enjoyment, but Heaven has crowned all its other blessings by giving a fairer opportunity for political happiness than any other nation has ever been favored with. Nothing can illustrate these observations more forcibly than a recollection of the happy conjuncture of times and circumstances under which our republic assumed its rank among the nations. The foundation of our empire was not laid in the gloomy age of ignorance and superstition, but at an epoch when the rights of mankind were better understood and more clearly defined than at any former period. The researches of the human mind after social happiness have been carried to a great extent; the treasures of knowledge, acquired by the labors of philosophers, sages, and legislators through a long succession of years, are laid open for our use, and their collected wisdom may be happily applied in the establishment of our forms of government. The free cultivation of letters, the unbounded extension of commerce, the progressive refinement of manners, the growing liberality of sentiment, and, above all, the pure and benign light of revelation have had a meliorating influence on mankind and increased the blessings of society. At this auspicious period, the United States came into existence as a nation; and, if their citizens should not be completely free and happy, the fault will be entirely their own.

Such is our situation, and such are our prospects; but notwithstanding the cup of blessing is thus reached out to us; notwithstanding happiness is ours, if we have a disposition to seize the occasion and make it our own; yet it appears to me there is an option still left to the United States of America, that it is in their choice, and depends upon their conduct, whether they will be respectable and prosperous, or contemptible and miserable, as a nation. This is the time of their political probation; this is the moment when the eyes of the whole world are turned upon them;

this is the moment to establish or ruin their national character forever; this is the favorable moment to give such a tone to our federal government as will enable it to answer the ends of its institution, or this may be the ill-fated moment for relaxing the powers of the Union, annihilating the cement of the confederation, and exposing us to become the sport of European politics, which may play one state against another, to prevent their growing importance, and to serve their own interested purposes. For, according to the system of policy the states shall adopt at this moment, they will stand or fall; and by their confirmation or lapse it is yet to be decided whether the Revolution must ultimately be considered as a blessing or a curse; a blessing or a curse not to the present age alone, for with our fate will the destiny of unborn millions be involved.

With this conviction of the importance of the present crisis, silence in me would be a crime. I will therefore speak to your Excellency the language of freedom and of sincerity without disguise. I am aware, however, that those who differ from me in political sentiment may perhaps remark I am stepping out of the proper line of my duty, and may possibly ascribe to arrogance or ostentation what I know is alone the result of the purest intention. But the rectitude of my own heart, which disdains such unworthy motives; the part I have hitherto acted in life; the determination I have formed of not taking any share in public business hereafter; the ardent desire I feel, and shall continue to manifest, of quietly enjoying in private life, after all the toils of war, the benefits of a wise and liberal government will, I flatter myself, sooner or later convince my countrymen that I could have no sinister views in delivering, with so little reserve, the opinions contained in this address.

There are four things which, I humbly conceive, are essential to the well-being, I may even venture to say to the existence, of the United States as an independent power.

First. An indissoluble union of the states under one federal head.

Secondly. A sacred regard to public justice.

Thirdly. The adoption of a proper peace establishment; and,

Fourthly. The prevalence of that pacific and friendly disposition among the people of the United States which will induce them to forget their local prejudices and policies; to make those mutual concessions which are requisite to the general prosperity; and, in some instances, to sacrifice their individual advantages to the interest of the community.

These are the pillars on which the glorious fabric of our independency and national character must be supported. Liberty is the basis; and

whoever would dare to sap the foundation, or overturn the structure, under whatever specious pretext he may attempt it, will merit the bitterest execration, and the severest punishment, which can be inflicted by his injured country.

On the three first articles I will make a few observations, leaving the last to the good sense and serious consideration of those immediately concerned.

Under the first head, although it may not be necessary or proper for me, in this place, to enter into a particular disquisition on the principles of the Union, and to take up the great question which has been frequently agitated, whether it be expedient and requisite for the states to delegate a larger proportion of power to Congress, or not, yet it will be a part of my duty, and that of every true patriot, to assert without reserve, and to insist upon, the following positions: That, unless the states will suffer Congress to exercise those prerogatives they are undoubtedly invested with by the constitution, everything must very rapidly tend to anarchy and confusion. That it is indispensable to the happiness of the individual states that there should be lodged somewhere a supreme power to regulate and govern the general concerns of the confederated republic, without which the Union cannot be of long duration. That there must be a faithful and pointed compliance, on the part of every state, with the late proposals and demands of Congress, or the most fatal consequences will ensue. That whatever measures have a tendency to dissolve the Union, or contribute to violate or lessen the sovereign authority, ought to be considered as hostile to the liberty and independency of America, and the authors of them treated accordingly. And lastly, that unless we can be enabled, by the concurrence of the states, to participate of the fruits of the Revolution, and enjoy the essential benefits of civil society, under a form of government so free and uncorrupted, so happily guarded against the danger of oppression, as has been devised and adopted by the Articles of Confederation, it will be a subject of regret that so much blood and treasure have been lavished for no purpose, that so many sufferings have been encountered without a compensation, and that so many sacrifices have been made in vain.

Many other considerations might here be adduced to prove that, without an entire conformity to the spirit of the Union, we cannot exist as an independent power. It will be sufficient for my purpose to mention but one or two which seem to me of the greatest importance. It is only in our united character, as an empire, that our independence is acknowledged, that our power can be regarded, or our credit supported, among

foreign nations. The treaties of the European powers with the United States of America will have no validity on a dissolution of the Union. We shall be left nearly in a state of nature; or we may find, by our own unhappy experience, that there is a natural and necessary progression from the extreme of anarchy to the extreme of tyranny, and that arbitrary power is most easily established on the ruins of liberty abused to licentiousness.

As to the second article, which respects the performance of public justice, Congress have, in their late address to the United States, almost exhausted the subject; they have explained their ideas so fully, and have enforced the obligations the states are under to render complete justice to all the public creditors, with so much dignity and energy that, in my opinion, no real friend to the honor or independency of America can hesitate a single moment, respecting the propriety of complying with the just and honorable measures proposed. If their arguments do not produce conviction, I know of nothing that will have greater influence, especially when we recollect that the system referred to, being the result of the collected wisdom of the continent, must be esteemed, if not perfect, certainly the least objectionable of any that could be devised; and that, if it shall not be carried into immediate execution, a national bankruptcy, with all its deplorable consequences, will take place before any different plan can possibly be proposed and adopted. So pressing are the present circumstances, and such is the alternative now offered to the states.

The ability of the country to discharge the debts which have been incurred in its defense is not to be doubted; an inclination, I flatter myself, will not be wanting. The path of our duty is plain before us; honesty will be found, on every experiment, to be the best and only true policy. Let us then, as a nation, be just; let us fulfill the public contracts, which Congress had undoubtedly a right to make for the purpose of carrying on the war, with the same good faith we suppose ourselves bound to perform our private engagements. In the meantime, let an attention to the cheerful performance of their proper business, as individuals and as members of society, be earnestly inculcated on the citizens of America; then will they strengthen the hands of government, and be happy under its protection; everyone will reap the fruit of his labors, everyone will enjoy his own acquisitions, without molestation and without danger.

In this state of absolute freedom and perfect security, who will grudge to yield a very little of his property to support the common interest of

society and ensure the protection of government? Who does not remember the frequent declarations, at the commencement of the war, that we should be completely satisfied if, at the expense of one half, we could defend the remainder of our possessions? Where is the man to be found who wishes to remain indebted for the defense of his own person and property to the exertions, the bravery, and the blood of others without making one generous effort to repay the debt of honor and gratitude? In what part of the continent shall we find any man, or body of men, who would not blush to stand up and propose measures purposely calculated to rob the soldier of his stipend, and the public creditor of his due? And were it possible that such a flagrant instance of injustice could ever happen, would it not excite the general indignation, and tend to bring down upon the authors of such measures the aggravated vengeance of Heaven? If, after all, a spirit of disunion, or a temper of obstinacy and perverseness, should manifest itself in any of the states; if such an ungracious disposition should attempt to frustrate all the happy effects that might be expected to flow from the Union; if there should be a refusal to comply with the requisition for funds to discharge the annual interest of the public debts; and if that refusal should revive again all those jealousies and produce all those evils which are now happily removed, Congress, who have, in all their transactions, shown a great degree of magnanimity and justice, will stand justified in the sight of God and man; and the state alone which puts itself in opposition to the aggregate wisdom of the continent, and follows such mistaken and pernicious counsels, will be responsible for all the consequences.

For my own part, conscious of having acted, while a servant of the public, in the manner I conceived best suited to promote the real interests of my country; having, in consequence of my fixed belief, in some measure pledged myself to the Army that their country would finally do them complete and ample justice; and not wishing to conceal any instance of my official conduct from the eyes of the world, I have thought proper to transmit to your Excellency the enclosed collection of papers, relative to the half pay and commutation granted by Congress to the officers of the Army. From these communications, my decided sentiments will be clearly comprehended, together with the conclusive reasons which induced me, at an early period, to recommend the adoption of this measure, in the most earnest and serious manner. As the proceedings of Congress, the Army, and myself are open to all, and contain, in my opinion, sufficient information to remove the prejudices and errors which may have been entertained by any, I think it unnecessary to say anything

more than just to observe that the resolutions of Congress now alluded to are undoubtedly as absolutely binding upon the United States as the most solemn acts of confederation or legislation.

As to the idea, which, I am informed, has in some instances prevailed, that the half pay and commutation are to be regarded merely in the odious light of a pension, it ought to be exploded forever. That provision should be viewed as it really was, a reasonable compensation offered by Congress at a time when they had nothing else to give to the officers of the Army for services then to be performed. It was the only means to prevent a total dereliction of the service. It was a part of their hire. I may be allowed to say, it was the price of their blood, and of your independency; it is therefore more than a common debt, it is a debt of honor; it can never be considered as a pension or gratuity, nor be canceled until it is fairly discharged.

With regard to a distinction between officers and soldiers, it is sufficient that the uniform experience of every nation of the world, combined with our own, proves the utility and propriety of the discrimination. Rewards, in proportion to the aids the public derives from them, are unquestionably due to all its servants. In some lines, the soldiers have perhaps generally had as ample a compensation for their services, by the large bounties which have been paid to them, as their officers will receive in the proposed commutation; in others if, besides the donation of lands, the payment of arrearages of clothing and wages (in which articles all the component parts of the army must be put upon the same footing), we take into the estimate the *douceurs* many of the soldiers have received, and the gratuity of one year's full pay, which is promised to all, possibly their situation (every circumstance being duly considered) will not be deemed less eligible than that of the officers. Should a further reward, however, be judged equitable, I will venture to assert no one will enjoy greater satisfaction than myself on seeing an exemption from taxes for a limited time (which has been petitioned for in some instances) or any other adequate immunity or compensation granted to the brave defenders of their country's cause; but neither the adoption nor rejection of this proposition will in any manner affect, much less militate against, the act of Congress by which they have offered five years' full pay, in lieu of the half pay for life, which had been before promised to the officers of the Army.

Before I conclude the subject of public justice, I cannot omit to mention the obligations this country is under to that meritorious class of veteran noncommissioned officers and privates who have been discharged

for inability, in consequence of the resolution of Congress of the 23d of April, 1782, on an annual pension for life. Their peculiar sufferings, their singular merits, and claims to that provision need only be known to interest all the feelings of humanity in their behalf. Nothing but a punctual payment of their annual allowance can rescue them from the most complicated misery; and nothing could be a more melancholy and distressing sight than to behold those who have shed their blood or lost their limbs in the service of their country without a shelter, without a friend, and without the means of obtaining any of the necessaries or comforts of life, compelled to beg their daily bread from door to door. Suffer me to recommend those of this description belonging to your state to the warmest patronage of your Excellency and your legislature.

It is necessary to say but a few words on the third topic which was proposed, and which regards particularly the defense of the Republic, as there can be little doubt but Congress will recommend a proper peace establishment for the United States, in which a due attention will be paid to the importance of placing the militia of the Union upon a regular and respectable footing. If this should be the case, I would beg leave to urge the great advantage of it in the strongest terms. The militia of this country must be considered as the palladium of our security, and the first effectual resort in case of hostility. It is essential, therefore, that the same system should pervade the whole; that the formation and discipline of the militia of the continent should be absolutely uniform; and that the same species of arms, accouterments, and military apparatus should be introduced in every part of the United States. No one, who has not learned it from experience, can conceive the difficulty, expense, and confusion which result from a contrary system, or the vague arrangements which have hitherto prevailed.

If, in treating of political points, a greater latitude than usual has been taken in the course of this address, the importance of the crisis, and the magnitude of the objects in discussion, must be my apology. It is, however, neither my wish nor expectation that the preceding observations should claim any regard, except so far as they shall appear to be dictated by a good intention, consonant to the immutable rules of justice, calculated to produce a liberal system of policy, and founded on whatever experience may have been acquired by a long and close attention to public business. Here I might speak with the more confidence from my actual observations; and if it would not swell this letter (already too prolix) beyond the bounds I had prescribed to myself, I could demonstrate to every mind open to conviction that in less time, and with much

less expense than has been incurred, the war might have been brought to the same happy conclusion if the resources of the continent could have been properly drawn forth; that the distresses and disappointments which have very often occurred have, in too many instances, resulted more from a want of energy in the Continental government than a deficiency of means in the particular states; that the inefficacy of measures arising from the want of an adequate authority in the supreme power, from a partial compliance with the requisitions of Congress in some of the states, and from a failure of punctuality in others, while it tended to damp the zeal of those which were more willing to exert themselves, served also to accumulate the expenses of the war, and to frustrate the best concerted plans; and that the discouragement occasioned by the complicated difficulties and embarrassments in which our affairs were by this means involved would have long ago produced the dissolution of any army less patient, less virtuous, and less persevering than that which I have had the honor to command. But, while I mention these things, which are notorious facts, as the defects of our federal constitution, particularly in the prosecution of a war, I beg it may be understood that, as I have ever taken a pleasure in gratefully acknowledging the assistance and support I have derived from every class of citizens, so shall I always be happy to do justice to the unparalleled exertions of the individual states on many interesting occasions.

I have thus freely disclosed what I wished to make known before I surrendered up my public trust to those who committed it to me. The task is now accomplished. I now bid adieu to your Excellency as the chief magistrate of your state, at the same time I bid a last farewell to the cares of office, and all the employments of public life.

It remains, then, to be my final and only request that your Excellency will communicate these sentiments to your legislature at their next meeting, and that they may be considered as the legacy of one who has ardently wished, on all occasions, to be useful to his country, and who, even in the shade of retirement, will not fail to implore the Divine benediction upon it.

I now make it my earnest prayer that God would have you, and the state over which you preside, in His holy protection; that He would incline the hearts of the citizens to cultivate a spirit of subordination and obedience to government; to entertain a brotherly affection and love for one another, for their fellow citizens of the United States at large, and particularly for their brethren who have served in the field; and finally, that He would most graciously be pleased to dispose us all to do justice,

to love mercy, and to demean ourselves with that charity, humility, and pacific temper of mind which were the characteristics of the Divine Author of our blessed religion, and without a humble imitation of whose example in these things we can never hope to be a happy nation.

I have the honor to be, with much esteem and respect, Sir, your Excellency's most obedient and most humble servant.

The Farewell Address

TO THE PEOPLE
OF THE UNITED STATES

Friends and Fellow-Citizens:

The period for a new election of a citizen to administer the executive government of the United States being not far distant, and the time actually arrived when your thoughts must be employed in designating the person who is to be clothed with that important trust, it appears to me proper, especially as it may conduce to a more distinct expression of the public voice, that I should now apprise you of the resolution I have formed to decline being considered among the number of those out of whom a choice is to be made.

I beg you, at the same time, to do me the justice to be assured that this resolution has not been taken without a strict regard to all the considerations appertaining to the relation which binds a dutiful citizen to his country—and that, in withdrawing the tender of service which silence in my situation might imply, I am influenced by no diminution of zeal for your future interest, no deficiency of grateful respect for your past kindness; but am supported by a full conviction that the step is compatible with both.

The acceptance of, and continuance hitherto in, the office to which your suffrages have twice called me have been a uniform sacrifice of inclination to the opinion of duty, and to a deference for what appeared to be your desire. I constantly hoped that it would have been much earlier in my power, consistently with motives which I was not at liberty to disregard, to return to that retirement from which I had been reluctantly drawn. The strength of my inclination to do this, previous to the last election, had even led to the preparation of an address to declare it to you; but mature reflection on the then perplexed and critical posture of our affairs with foreign nations, and the unanimous advice of persons entitled to my confidence, impelled me to abandon the idea.

I rejoice that the state of your concerns, external as well as internal, no longer renders the pursuit of inclination incompatible with the sentiment of duty, or propriety; and am persuaded, whatever partiality may be retained for my services, that in the present circumstances of our country you will not disapprove my determination to retire.

The impressions with which I first undertook the arduous trust were explained on the proper occasion. In the discharge of this trust, I will only say that I have, with good intentions, contributed towards the organization and administration of the government the best exertions of which a very fallible judgment was capable. Not unconscious in the outset of the inferiority of my qualifications, experience in my own eyes, perhaps still more in the eyes of others, has strengthened the motives to diffidence of myself; and every day the increasing weight of years admonishes me more and more that the shade of retirement is as necessary to me as it will be welcome. Satisfied that if any circumstances have given peculiar value to my services, they were temporary, I have the consolation to believe that, while choice and prudence invite me to quit the political scene, patriotism does not forbid it.

In looking forward to the moment which is intended to terminate the career of my public life, my feelings do not permit me to suspend the deep acknowledgment of that debt of gratitude which I owe to my beloved country–for the many honors it has conferred upon me; still more for the steadfast confidence with which it has supported me; and for the opportunities I have thence enjoyed of manifesting my inviolable attachment by services faithful and persevering, though in usefulness unequal to my zeal. If benefits have resulted to our country from these services, let it always be remembered to your praise, and as an instructive example in our annals, that under circumstances in which the passions agitated in every direction were liable to mislead, amidst appearances sometimes dubious–vicissitudes of fortune often discouraging–in situations in which not infrequently want of success has countenanced the spirit of criticism, the constancy of your support was the essential prop of the efforts and a guarantee of the plans by which they were effected. Profoundly penetrated with this idea, I shall carry it with me to the grave, as a strong incitement to unceasing vows that Heaven may continue to you the choicest tokens of its beneficence–that your union and brotherly affection may be perpetual–that the free constitution, which is the work of your hands, may be sacredly maintained–that its administration in every department may be stamped with wisdom and virtue–that, in fine, the happiness of the people of these states, under the

auspices of liberty, may be made complete by so careful a preservation and so prudent a use of this blessing as will acquire to them the glory of recommending it to the applause, the affection, and adoption of every nation which is yet a stranger to it.

Here, perhaps, I ought to stop. But a solicitude for your welfare, which cannot end but with my life, and the apprehension of danger, natural to that solicitude, urge me on an occasion like the present to offer to your solemn contemplation, and to recommend to your frequent review, some sentiments which are the result of much reflection, of no inconsiderable observation, and which appear to me all-important to the permanency of your felicity as a people. These will be offered to you with the more freedom as you can only see in them the disinterested warnings of a parting friend who can possibly have no personal motive to bias his counsels. Nor can I forget, as an encouragement to it, your indulgent reception of my sentiments on a former and not dissimilar occasion.

Interwoven as is the love of liberty with every ligament of your hearts, no recommendation of mine is necessary to fortify or confirm the attachment.

The unity of government, which constitutes you one people, is also now dear to you. It is justly so, for it is a main pillar in the edifice of your real independence; the support of your tranquillity at home; your peace abroad; of your safety; of your prosperity; of that very liberty which you so highly prize. But as it is easy to foresee that from different causes, and from different quarters, much pain will be taken, many artifices employed, to weaken in your minds the conviction of this truth; as this is the point in your political fortress against which the batteries of internal and external enemies will be most constantly and actively (though often covertly and insidiously) directed, it is of infinite moment that you should properly estimate the immense value of your national Union to your collective and individual happiness; that you should cherish a cordial, habitual, and immovable attachment to it, accustoming yourselves to think and speak of it as of the palladium of your political safety and prosperity, watching for its preservation with jealous anxiety, discountenancing whatever may suggest even a suspicion that it can in any event be abandoned, and indignantly frowning upon the first dawning of every attempt to alienate any portion of our country from the rest, or to enfeeble the sacred ties which now link together the various parts.

For this you have every inducement of sympathy and interest. Citizens by birth or choice of a common country, that country has a right to concentrate your affections. The name of American, which belongs to you,

in your national capacity, must always exalt the just pride of patriotism more than any appellation derived from local discriminations. With slight shades of difference, you have the same religion, manners, habits, and political principles. You have in a common cause fought and triumphed together. The independence and liberty you possess are the work of joint councils and joint efforts of common dangers, sufferings, and successes.

But these considerations, however powerfully they address themselves to your sensibility, are greatly outweighed by those which apply more immediately to your interest. Here every portion of our country finds the most commanding motives for carefully guarding and preserving the Union of the whole.

The North in an unrestrained intercourse with the South, protected by the equal laws of a common government, finds in the productions of the latter great additional resources of maritime and commercial enterprise–and precious materials of manufacturing industry. The South in the same intercourse, benefiting by the agency of the North, sees its agriculture grow and its commerce expand. Turning partly into its own channels the seamen of the North, it finds its particular navigation invigorated; and, while it contributes, in different ways, to nourish and increase the general mass of the national navigation, it looks forward to the protection of a maritime strength to which itself is unequally adapted. The East, in a like intercourse with the West, already finds, and in the progressive improvement of interior communications, by land and water, will more and more find, a valuable vent for the commodities which it brings from abroad, or manufactures at home. The West derives from the East supplies requisite to its growth and comfort–and what is perhaps of still greater consequence, it must of necessity owe the secure enjoyment of indispensable outlets for its own productions to the weight, influence, and the future maritime strength of the Atlantic side of the Union, directed by an indissoluble community of interest, as one nation. Any other tenure by which the West can hold this essential advantage, whether derived from its own separate strength, or from an apostate and unnatural connection with any foreign power, must be intrinsically precarious.

While then every part of our country thus feels an immediate and particular interest in union, all the parts combined cannot fail to find in the united mass of means and efforts, greater strength, greater resource, proportionably greater security from external danger, a less frequent interruption of their peace by foreign nations; and, what is of inestimable value! they must derive from union an exemption from those broils and wars between themselves which so frequently afflict neighboring coun-

tries not tied together by the same government, which their own rivalships alone would be sufficient to produce, but which opposite foreign alliances, attachments, and intrigues would stimulate and embitter. Hence likewise they will avoid the necessity of those overgrown military establishments which under any form of government are inauspicious to liberty, and which are to be regarded as particularly hostile to republican liberty: In this sense it is that your Union ought to be considered as a main prop of your liberty, and that the love of the one ought to endear to you the preservation of the other.

These considerations speak a persuasive language to every reflecting and virtuous mind, and exhibit the continuance of the Union as a primary object of patriotic desire. Is there a doubt whether a common government can embrace so large a sphere? Let experience solve it. To listen to mere speculation in such a case were criminal. We are authorized to hope that a proper organization of the whole, with the auxiliary agency of governments for the respective subdivisions, will afford a happy issue to the experiment. 'Tis well worth a fair and full experiment. With such powerful and obvious motives to union affecting all parts of our country, while experience shall not have demonstrated its impracticability, there will always be reason to distrust the patriotism of those who in any quarter may endeavor to weaken its bands.

In contemplating the causes which may disturb our Union, it occurs as matter of serious concern that any ground should have been furnished for characterizing parties by geographical discriminations–Northern and Southern–Atlantic and Western; whence designing men may endeavor to excite a belief that there is a real difference of local interests and views. One of the expedients of party to acquire influence within particular districts is to misrepresent the opinions and aims of other districts. You cannot shield yourselves too much against the jealousies and heart-burnings which spring from these misrepresentations; they tend to render alien to each other those who ought to be bound together by fraternal affection. The inhabitants of our western country have lately had a useful lesson on this head. They have seen, in the negotiation by the executive, and in the unanimous ratification by the Senate, of the treaty with Spain, and in the universal satisfaction at that event throughout the United States, a decisive proof how unfounded were the suspicions propagated among them of a policy in the general government and in the Atlantic states unfriendly to their interests in regard to the Mississippi. They have been witnesses to the formation of two treaties, that with Great Britain and that with Spain, which secure to them everything they could

desire, in respect to our foreign relations, towards confirming their prosperity. Will it not be their wisdom to rely for the preservation of these advantages on the Union by which they were procured? Will they not henceforth be deaf to those advisers, if such there are, who would sever them from their brethren, and connect them with aliens?

To the efficacy and permanency of your Union, a government for the whole is indispensable. No alliances however strict between the parts can be an adequate substitute. They must inevitably experience the infractions and interruptions which all alliances in all times have experienced. Sensible of this momentous truth, you have improved upon your first essay by the adoption of a constitution of government better calculated than your former for an intimate Union, and for the efficacious management of your common concerns. This government, the offspring of our own choice uninfluenced and unawed, adopted upon full investigation and mature deliberation, completely free in its principles, in the distribution of its powers, uniting security with energy, and containing within itself a provision for its own amendment, has a just claim to your confidence and your support. Respect for its authority, compliance with its laws, acquiescence in its measures are duties enjoined by the fundamental maxims of true liberty. The basis of our political systems is the right of the people to make and to alter their constitutions of government. But the constitution which at any time exists, 'till changed by an explicit and authentic act of the whole people, is sacredly obligatory upon all. The very idea of the power and the right of the people to establish government presupposes the duty of every individual to obey the established government.

All obstructions to the execution of the laws, all combinations and associations, under whatever plausible character, with the real design to direct, control, counteract, or awe the regular deliberation and action of the constituted authorities are destructive of this fundamental principle, and of fatal tendency. They serve to organize faction, to give it an artificial and extraordinary force; to put, in the place of the delegated will of the nation, the will of a party, often a small but artful and enterprising minority of the community; and, according to the alternate triumphs of different parties, to make the public administration the mirror of the ill-concerted and incongruous projects of faction rather than the organ of consistent and wholesome plans digested by common councils and modified by mutual interests. However combinations or associations of the above description may now and then answer popular ends, they are likely, in the course of time and things, to become potent engines by

which cunning, ambitious, and unprincipled men will be enabled to subvert the power of the people and to usurp for themselves the reins of government, destroying afterwards the very engines which have lifted them to unjust dominion.

Towards the preservation of your government and the permanency of your present happy state, it is requisite not only that you steadily discountenance irregular oppositions to its acknowledged authority but also that you resist with care the spirit of innovation upon its principles, however specious the pretexts. One method of assault may be to effect, in the forms of the Constitution, alterations which will impair the energy of the system, and thus to undermine what cannot be directly overthrown. In all the changes to which you may be invited, remember that time and habit are at least as necessary to fix the true character of governments as of other human institutions—that experience is the surest standard by which to test the real tendency of the existing constitution of a country—that facility in changes upon the credit of mere hypothesis and opinion exposes to perpetual change from the endless variety of hypothesis and opinion—and remember, especially, that for the efficient management of your common interests, in a country so extensive as ours, a government of as much vigor as is consistent with the perfect security of liberty is indispensable. Liberty itself will find in such a government, with powers properly distributed and adjusted, its surest guardian. It is indeed little else than a name where the government is too feeble to withstand the enterprises of faction, to confine each member of the society within the limits prescribed by the laws, and to maintain all in the secure and tranquil enjoyment of the rights of person and property.

I have already intimated to you the danger of parties in the state, with particular reference to the founding of them on geographical discriminations. Let me now take a more comprehensive view, and warn you in the most solemn manner against the baneful effects of the spirit of party generally.

This spirit, unfortunately, is inseparable from our nature, having its root in the strongest passions of the human mind. It exists under different shapes in all governments, more or less stifled, controlled, or repressed; but in those of the popular form, it is seen in its greatest rankness, and is truly their worst enemy.

The alternate domination of one faction over another, sharpened by the spirit of revenge natural to party dissension, which in different ages and countries has perpetrated the most horrid enormities, is itself a frightful despotism. But this leads at length to a more formal and per-

manent despotism. The disorders and miseries which result gradually incline the minds of men to seek security and repose in the absolute power of an individual: and sooner or later the chief of some prevailing faction, more able or more fortunate than his competitors, turns this disposition to the purposes of his own elevation on the ruins of public liberty.

Without looking forward to an extremity of this kind (which nevertheless ought not to be entirely out of sight), the common and continual mischiefs of the spirit of party are sufficient to make it the interest and duty of a wise people to discourage and restrain it.

It serves always to distract the public councils and enfeeble the public administration. It agitates the community with ill-founded jealousies and false alarms, kindles the animosity of one part against another, foments occasionally riot and insurrection. It opens the doors to foreign influence and corruption, which find a facilitated access to the government itself through the channels of party passions. Thus the policy and the will of one country are subjected to the policy and will of another.

There is an opinion that parties in free countries are useful checks upon the administration of the government, and serve to keep alive the spirit of liberty. This within certain limits is probably true, and, in governments of a monarchical cast, patriotism may look with indulgence, if not with favor, upon the spirit of party. But in those of the popular character, in governments purely elective, it is a spirit not to be encouraged. From their natural tendency, it is certain there will always be enough of that spirit for every salutary purpose, and there being constant danger of excess, the effort ought to be, by force of public opinion, to mitigate and assuage it. A fire not to be quenched, it demands a uniform vigilance to prevent its bursting into a flame, lest, instead of warming, it should consume.

It is important, likewise, that the habits of thinking in a free country should inspire caution in those entrusted with its administration to confine themselves within their respective constitutional spheres, avoiding in the exercise of the powers of one department to encroach upon another. The spirit of encroachment tends to consolidate the powers of all the departments in one, and thus to create, whatever the form of government, a real despotism. A just estimate of that love of power, and proneness to abuse it, which predominates in the human heart is sufficient to satisfy us of the truth of this position. The necessity of reciprocal checks in the exercise of political power, by dividing and distributing it into different depositories, and constituting each the guardian of the public weal

against invasions by the others, has been evinced by experiments ancient and modern, some of them in our country and under our own eyes. To preserve them must be as necessary as to institute them. If in the opinion of the people the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the Constitution designates. But let there be no change by usurpation; for though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed. The precedent must always greatly overbalance in permanent evil any partial or transient benefit which the use can at any time yield.

Of all the dispositions and habits which lead to political prosperity, religion and morality are indispensable supports. In vain would that man claim the tribute of patriotism who should labor to subvert these great pillars of human happiness, these firmest props of the duties of men and citizens. The mere politician, equally with the pious man, ought to respect and to cherish them. A volume could not trace all their connections with private and public felicity. Let it simply be asked where is the security for property, for reputation, for life if the sense of religious obligation desert the oaths which are the instruments of investigation in courts of justice? And let us with caution indulge the supposition that morality can be maintained without religion. Whatever may be conceded to the influence of refined education on minds of peculiar structure, reason and experience both forbid us to expect that national morality can prevail in exclusion of religious principle.

'Tis substantially true that virtue or morality is a necessary spring of popular government. The rule indeed extends with more or less force to every species of free government. Who that is a sincere friend to it can look with indifference upon attempts to shake the foundation of the fabric?

Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.

As a very important source of strength and security, cherish public credit. One method of preserving it is to use it as sparingly as possible: avoiding occasions of expense by cultivating peace, but remembering also that timely disbursements to prepare for danger frequently prevent much greater disbursements to repel it–avoiding likewise the accumulation of debt, not only by shunning occasions of expense but by vigorous exertions in time of peace to discharge the debts which unavoidable wars may

have occasioned, not ungenerously throwing upon posterity the burden which we ourselves ought to bear. The execution of these maxims belongs to your representatives, but it is necessary that public opinion should co-operate. To facilitate to them the performance of their duty, it is essential that you should practically bear in mind that towards the payment of debts there must be revenue—that to have revenue there must be taxes—that no taxes can be devised which are not more or less inconvenient and unpleasant—that the intrinsic embarrassment inseparable from the selection of the proper objects (which is always a choice of difficulties) ought to be a decisive motive for a candid construction of the conduct of the government in making it, and for a spirit of acquiescence in the measures for obtaining revenue which the public exigencies may at any time dictate.

Observe good faith and justice towards all nations. Cultivate peace and harmony with all. Religion and morality enjoin this conduct; and can it be that good policy does not equally enjoin it? It will be worthy of a free, enlightened, and, at no distant period, a great nation to give to mankind the magnanimous and too novel example of a people always guided by an exalted justice and benevolence. Who can doubt that in the course of time and things, the fruits of such a plan would richly repay any temporary advantages which might be lost by a steady adherence to it? Can it be that Providence has not connected the permanent felicity of a nation with its virtue? The experiment, at least, is recommended by every sentiment which ennobles human nature. Alas! is it rendered impossible by its vices?

In the execution of such a plan nothing is more essential than that permanent, inveterate antipathies against particular nations and passionate attachments for others should be excluded; and that in place of them just and amicable feelings towards all should be cultivated. The nation which indulges towards another an habitual hatred or an habitual fondness is in some degree a slave. It is a slave to its animosity or to its affection, either of which is sufficient to lead it astray from its duty and its interest. Antipathy in one nation against another disposes each more readily to offer insult and injury, to lay hold of slight causes of umbrage, and to be haughty and intractable, when accidental or trifling occasions of dispute occur. Hence frequent collisions, obstinate, envenomed and bloody contests. The nation promoted by ill will and resentment sometimes impels to war the government, contrary to the best calculations of policy. The government sometimes participates in the national propensity, and adopts through passion what reason would reject; at other times, it

makes the animosity of the nation subservient to projects of hostility instigated by pride, ambition, and other sinister and pernicious motives. The peace often, sometimes perhaps the liberty, of nations has been the victim.

So likewise a passionate attachment of one nation for another produces a variety of evils. Sympathy for the favorite nation, facilitating the illusion of an imaginary common interest in cases where no real common interest exists, and infusing into one the enmities of the other, betrays the former into a participation in the quarrels and wars of the latter, without adequate inducement or justification. It leads also to concessions to the favorite nation of privileges denied to others, which is apt doubly to injure the nation making the concessions: by unnecessarily parting with what ought to have been retained, and by exciting jealousy, ill will, and a disposition to retaliate in the parties from whom equal privileges are withheld; and it gives to ambitious, corrupted, or deluded citizens (who devote themselves to the favorite nation) facility to betray or sacrifice the interests of their own country without odium, sometimes even with popularity–gilding with the appearances of a virtuous sense of obligation, a commendable deference for public opinion, or a laudable zeal for public good the base or foolish compliances of ambition, corruption, or infatuation.

As avenues to foreign influence in innumerable ways, such attachments are particularly alarming to the truly enlightened and independent patriot. How many opportunities do they afford to tamper with domestic factions, to practice the arts of seduction, to mislead public opinion, to influence or awe the public councils! Such an attachment of a small or weak towards a great and powerful nation dooms the former to be the satellite of the latter.

Against the insidious wiles of foreign influence, I conjure you to believe me, fellow citizens, the jealousy of a free people ought to be *constantly* awake, since history and experience prove that foreign influence is one of the most baneful foes of republican government. But that jealousy to be useful must be impartial; else it becomes the instrument of the very influence to be avoided, instead of a defense against it. Excessive partiality for one foreign nation and excessive dislike of another cause those whom they actuate to see danger only on one side, and serve to veil and even second the arts of influence on the other. Real patriots, who may resist the intrigues of the favorite, are liable to become suspected and odious; while its tools and dupes usurp the applause and confidence of the people to surrender their interests.

The great rule of conduct for us in regard to foreign nations is, in extending our commercial relations, to have with them as little *political* connection as possible. So far as we have already formed engagements, let them be fulfilled with perfect good faith. Here let us stop.

Europe has a set of primary interests, which to us have none, or a very remote, relation. Hence she must be engaged in frequent controversies, the causes of which are essentially foreign to our concerns. Hence therefore it must be unwise in us to implicate ourselves by artificial ties in the ordinary vicissitudes of her politics, or the ordinary combinations and collisions of her friendships, or enmities.

Our detached and distant situation invites and enables us to pursue a different course. If we remain one people, under an efficient government, the period is not far off when we may defy material injury from external annoyance; when we may take such an attitude as will cause the neutrality we may at any time resolve upon to be scrupulously respected. When belligerent nations, under the impossibility of making acquisitions upon us, will not lightly hazard the giving us provocation; when we may choose peace or war, as our interest guided by our justice shall counsel.

Why forego the advantages of so peculiar a situation? Why quit our own to stand upon foreign ground? Why, by interweaving our destiny with that of any part of Europe, entangle our peace and prosperity in the toils of European ambition, rivalship, interest, humor, or caprice?

'Tis our true policy to steer clear of permanent alliances with any portion of the foreign world; so far, I mean, as we are now at liberty to do it—for let me not be understood as capable of patronizing infidelity to existing engagements (I hold the maxim no less applicable to public than to private affairs that honesty is always the best policy). I repeat it, therefore, let those engagements be observed in their genuine sense. But in my opinion it is unnecessary and would be unwise to extend them.

Taking care always to keep ourselves, by suitable establishments, on a respectably defensive posture, we may safely trust to temporary alliances for extraordinary emergencies.

Harmony, liberal intercourse with all nations are recommended by policy, humanity, and interest. But even our commercial policy should hold an equal and impartial hand: neither seeking nor granting exclusive favors or preferences; consulting the natural course of things; diffusing and diversifying by gentle means the streams of commerce, but forcing nothing; establishing with powers so disposed—in order to give trade a stable course, to define the rights of our merchants, and to enable

the government to support them—conventional rules of intercourse, the best that present circumstances and mutual opinion will permit, but temporary, and liable to be from time to time abandoned or varied, as experience and circumstances shall dictate; constantly keeping in view that 'tis folly in one nation to look for disinterested favors from another, that it must pay with a portion of its independence for whatever it may accept under that character, that by such acceptance, it may place itself in the condition of having given equivalents for nominal favors and yet of being reproached with ingratitude for not giving more. There can be no greater error than to expect or calculate upon real favors from nation to nation. 'Tis an illusion which experience must cure, which a just pride ought to discard.

In offering to you, my countrymen, these counsels of an old and affectionate friend, I dare not hope they will make the strong and lasting impression I could wish—that they will control the usual current of the passions, or prevent our nation from running the course which has hitherto marked the destiny of nations. But if I may even flatter myself that they may be productive of some partial benefit; some occasional good; that they may now and then recur to moderate the fury of party spirit, to warn against the mischiefs of foreign intrigue, to guard against the impostures of pretended patriotism, this hope will be a full recompense for the solicitude for your welfare, by which they have been dictated.

How far in the discharge of my official duties, I have been guided by the principles which have been delineated, the public records and other evidences of my conduct must witness to you, and to the world. To myself, the assurance of my own conscience is that I have at least believed myself to be guided by them.

In relation to the still subsisting war in Europe, my proclamation of the 22d of April, 1793, is the index to my plan. Sanctioned by your approving voice and by that of your representatives in both houses of Congress, the spirit of that measure has continually governed me—uninfluenced by any attempts to deter or divert me from it.

After deliberate examination with the aid of the best lights I could obtain, I was well satisfied that our country, under all the circumstances of the case, had a right to take, and was bound in duty and interest, to take a neutral position. Having taken it, I determined, as far as should depend upon me, to maintain it with moderation, perseverance, and firmness.

The considerations which respect the right to hold this conduct, it is not necessary on this occasion to detail. I will only observe that according

to my understanding of the matter that right, so far from being denied by any of the belligerent powers, has been virtually admitted by all.

The duty of holding a neutral conduct may be inferred, without anything more, from the obligation which justice and humanity impose on every nation, in cases in which it is free to act, to maintain inviolate the relations of peace and amity towards other nations.

The inducements of interest for observing that conduct will best be referred to your own reflections and experience. With me, a predominant motive has been to endeavor to gain time to our country to settle and mature its yet recent institutions, and to progress without interruption to that degree of strength and consistency which is necessary to give it, humanly speaking, the command of its own fortunes.

Though, in reviewing the incidents of my administration, I am unconscious of intentional error, I am nevertheless too sensible of my defects not to think it probable that I may have committed many errors. Whatever they may be I fervently beseech the Almighty to avert or mitigate the evils to which they may tend. I shall also carry with me the hope that my country will never cease to view them with indulgence; and that after forty-five years of my life dedicated to its service, with an upright zeal, the faults of incompetent abilities will be consigned to oblivion, as myself must soon be to the mansions of rest.

Relying on its kindness in this as in other things, and actuated by that fervent love towards it which is so natural to a man who views in it the native soil of himself and his progenitors for several generations, I anticipate with pleasing expectation that retreat in which I promise myself to realize, without alloy, the sweet enjoyment of partaking, in the midst of my fellow citizens, the benign influence of good laws under a free government–the ever favorite object of my heart, and the happy reward, as I trust, of our mutual cares, labors, and dangers.

Thomas Jefferson

1743–1826

Thomas Jefferson, the son of prosperous landowners, was born in Albemarle County, Virginia, in 1743. After being graduated from the College of William and Mary in Williamsburg, Jefferson took up the study of law. In 1769 he was elected to the Virginia House of Burgesses, and while there he wrote his *Summary View of the Rights of British America* and his *Reply to Lord North.* These exercised such a wide influence that Jefferson was sent to represent Virginia in the Continental Congress.

In 1776, after drafting the Declaration of Independence, Jefferson returned to Virginia as a member of its legislature. Later, as its governor, he was determined to revise its laws. He is responsible for the statute on religious liberty which was adopted in 1786, and for revisions of the inheritance laws which broke up the large estates. Jefferson also tried unsuccessfully to abolish slavery, and, with limited success, to institute free public education.

In 1783 Jefferson was elected to the United States Congress, where he instituted our present decimal system of currency. Two years later he followed Franklin as ambassador to France, returning in 1789 to serve as Secretary of State in the new government under Washington. Jefferson often found himself in conflict with the Federalist group, led by Hamilton, which favored a stronger central govern-

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Notes from the artist: "The head of Jefferson is adapted from a contemporary gold-leaf portrait that hung in Monticello during Jefferson's retirement. Above his head is a facsimile of Jefferson's handwritten draft of The Declaration of Independence."

A Declaration by the Representatives of the UNITED STATES OF AMERICA, in General Congress assembled.
When in the course of human events it becomes necessary for a people to dissolve the political bands which have connected them with another, and to
as
which the laws of nature & of nature's god entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to separation.
We hold these truths to be
that all men are
that
life, & liberty, & the pursuit of happiness; that to secure these
governments are instituted among men deriving their just powers from
Th: Jefferson

ment, tied to property and financial interests. In 1796 Jefferson became Vice-President under John Adams, and was elected President himself in 1800.

During his two terms in office, Jefferson successfully conducted the Tripoli War against the Barbary pirates, negotiated the purchase of the Louisiana Territory from Napoleon, and launched the Lewis and Clark northwest expedition. At the age of sixty-five, Jefferson retired and returned to his home, Monticello, which he had designed himself. For the next few years he devoted himself to his many interests, including farming, invention, music, and philosophical correspondence. But his greatest preoccupation was the building of the University of Virginia, the basic plan of which was his.

Jefferson died in 1826 on July 4th, fifty years after the publication of The Declaration of Independence. He wrote his own epitaph. It reads: "Here was buried Thomas Jefferson, author of the Declaration of American Independence, of the statute of Virginia for religious freedom, and father of the University of Virginia."

The form of republicanism and democracy which has developed in the United States probably owes more to the ideas of Jefferson than to those of any other man. He had written in The Declaration of Independence "that all men are created equal," and that they have unalienable rights to "life, liberty and the pursuit of happiness." This was "self-evident," and not a matter to be debated pro and con. Every man is as good as another, if not a little better, became the American creed. The French aristocrat Tocqueville, in 1835, was dismayed by the degree to which equalitarianism had pervaded American institutions and manners. Like Plato, he feared the rule of ignorance. In Jefferson's opinion there was absolutely nothing wrong with the people that education would not cure: man is indefinitely perfectible.

Popular rule or democracy had been little tried, and was certainly not proved, in 1781, when Jefferson wrote the following essay. Distrust of the people and a trend back to oligarchy or monarchy were found among the greatest leaders, especially Hamilton and his Federalists. They feared the people; Jefferson feared "the selfishness of the leaders independent of the people." In Virginia they wished to concentrate power in a few hands to meet effectively the British invasion then proceeding; he struggled to preserve the constitution

and majority rule, in war as in peace. Otherwise, men who had just escaped from an old tyranny might well be fighting for a new one.

The constitution of the state of Virginia was born of inexperience, Jefferson argued, and was full of faults and hazards. A majority of the citizens who are in the militia and pay taxes have no representation in the legislature, and where there is representation, it is often unequal and unjust. The two houses of legislature are chosen by the same electors and represent the same interests, and the executive and judiciary are dependent on them. Instead of a balance of powers, each checking the presumption of the others, the constitution had resulted in an *"elective despotism."*

Forcefully and wittily, Jefferson argues against the power of the House of Delegates to determine for itself when it has a quorum. Amidst the difficulties occasioned by the invasion, the House might decide to fix the quorum at forty, but if this can be done, it also *could be* reduced to one. A precedent, though well intentioned, may be perilous. What is needed, Jefferson contends, is a convention to correct and clarify the constitution. The people should not be compelled, when their rights are violated, to either rebel or surrender them. These rights must be unmistakably guaranteed in the constitution.

Jefferson's impressions of his colleagues, Washington and Franklin, speak for themselves. In spite of his shortcomings, Washington looms monumental and serene, and we see Franklin's charm and persuasiveness peer through his anecdotes.

The Virginia Constitution

from *Notes on Virginia*

Queen Elizabeth by her letters patent, bearing date March 25, 1584, licensed Sir Walter Raleigh to search for remote heathen lands, not inhabited by Christian people, and granted to him in fee simple all the soil within two hundred leagues of the places where his people should, within six years, make their dwellings or abidings; reserving only to herself and her successors their allegiance and one-fifth part of all the gold and silver ore they should obtain. Sir Walter immediately sent out two ships, which visited Wococon Island in North Carolina, and the next year dispatched seven with one hundred and seven men, who settled in Roanoke Island, about latitude 35° 50′. Here Okisko, king of the Weopomeiocs, in a full council of his people is said to have acknowledged himself the homager of the Queen of England, and, after her, of Sir Walter Raleigh. A supply of fifty men were sent in 1586, and one hundred and fifty in 1587. With these last Sir Walter sent a governor, appointed him twelve assistants, gave them a charter of incorporation, and instructed them to settle on Chesapeake Bay. They landed, however, at Hatorask. In 1588, when a fleet was ready to sail with a new supply of colonists and necessaries, they were detained by the Queen to assist against the Spanish Armada. Sir Walter having now expended £40,000 in these enterprises, obstructed occasionally by the crown without a shilling of aid from it, was under a necessity of engaging others to adventure their money. He, therefore, by deed bearing date the 7th of March, 1589, by the name of Sir Walter Raleigh, Chief Governor of Assamàcòmoc, (probably Acomàc,) alias Wingadacoia, alias Virginia, granted to Thomas Smith and others, in consideration of their adventuring certain sums of money, liberty to trade to this new country free from all customs and taxes for seven years, excepting the fifth part of the gold and silver ore to be obtained; and stipulated with them and the other assistants, then in Virginia, that he

would confirm the deed of incorporation which he had given in 1587, with all the prerogatives, jurisdictions, royalties and privileges granted to him by the Queen. Sir Walter, at different times, sent five other adventurers hither, the last of which was in 1602; for in 1603 he was attainted and put into close imprisonment, which put an end to his cares over his infant colony. What was the particular fate of the colonists he had before sent and seated has never been known, whether they were murdered, or incorporated with the savages.

Some gentlemen and merchants, supposing that by the attainder of Sir Walter Raleigh the grant to him was forfeited, not inquiring overcarefully whether the sentence of an English court could affect lands not within the jurisdiction of that court, petitioned King James for a new grant of Virginia to them. He accordingly executed a grant to Sir Thomas Gates and others, bearing date the 9th of March, 1607, under which, in the same year, a settlement was effected at Jamestown, and ever after maintained. Of this grant, however, no particular notice need be taken, as it was superseded by letters patent of the same King, of May 23, 1609, to the Earl of Salisbury and others, incorporating them by the name of "The Treasurer and company of Adventurers and Planters of the City of London for the first colony in Virginia," granting to them and their successors all the lands in Virginia from Point Comfort along the seacoast, to the northward two hundred miles, and from the same point along the seacoast to the southward two hundred miles, and all the space from this precinct on the seacoast up into the land, west and northwest, from sea to sea, and the islands within one hundred miles of it, with all the communities, jurisdictions, royalties, privileges, franchises, and preeminencies, within the same, and thereto and thereabouts, by sea and land, appertaining in as ample manner as had before been granted to any adventurer; to be held of the King and his successors, in common socage, yielding one-fifth part of the gold and silver ore to be therein found, for all manner of services; establishing a council in England for the direction of the enterprise, the members of which were to be chosen and displaced by the voice of the majority of the company and adventurers, and were to have the nomination and revocation of governors, officers, and ministers, which by them should be thought needful for the colony, the power of establishing laws and forms of government and magistracy, obligatory not only within the colony, but also on the seas in going and coming to and from it; authorizing them to carry thither any persons who should consent to go, freeing them forever from all taxes and impositions on any goods or merchandise on importations into the colony, or exporta-

tion out of it, except the five per cent due for custom on all goods imported into the British dominions, according to the ancient trade of merchants; which five per cent only being paid they might, within thirteen months, re-export the same goods into foreign parts, without any custom, tax, or other duty, to the King or any of his officers, or deputies; with powers of waging war against those who should annoy them; giving to the inhabitants of the colony all the rights of natural subjects, as if born and abiding in England; and declaring that these letters should be construed, in all doubtful parts, in such manner as should be most for the benefit of the grantees.

Afterwards on the 12th of March, 1612, by other letters patent, the King added to his former grants all islands in any part of the ocean between the 30th and 41st degrees of latitude, and within three hundred leagues of any of the parts before granted to the treasurer and company, not being possessed or inhabited by any other Christian prince or state, nor within the limits of the northern colony.

In pursuance of the authorities given to the company by these charters, and more especially of that part in the charter of 1609 which authorized them to establish a form of government, they on the 24th of July, 1621, by charter under their common seal, declared that from thenceforward there should be two supreme councils in Virginia, the one to be called the Council of State, to be placed and displaced by the treasurer, council in England, and company from time to time, whose office was to be that of assisting and advising the governor; the other to be called the General Assembly, to be convened by the governor once yearly or oftener, which was to consist of the Council of State, and two burgesses out of every town, hundred, or plantation, to be respectively chosen by the inhabitants. In this all matters were to be decided by the greater part of the votes present; reserving to the governor a negative voice; and they were to have power to treat, consult, and conclude all emergent occasions concerning the public weal, and to make laws for the behoof and government of the colony, imitating and following the laws and policy of England as nearly as might be; providing that these laws should have no force till ratified in a general court of the company in England, and returned under their common seal; and declaring that, after the government of the colony should be well framed and settled, no orders of the council in England should bind the colony unless ratified in the said General Assembly. The King and company quarreled, and by a mixture of law and force the latter were ousted of all their rights without retribution, after having

expended one hundred thousand pounds in establishing the colony, without the smallest aid from government. King James suspended their powers by proclamation of July 15, 1624, and Charles I took the government into his own hands. Both sides had their partisans in the colony, but, in truth, the people of the colony in general thought themselves little concerned in the dispute. There being three parties interested in these several charters, what passed between the first and second it was thought could not affect the third. If the King seized on the powers of the company, they only passed into other hands, without increase or diminution, while the rights of the people remained as they were. But they did not remain so long. The northern parts of their country were granted away to the lords Baltimore and Fairfax; the first of these obtaining also the rights of separate jurisdiction and government. And in 1650 the Parliament, considering itself as standing in the place of their deposed King, and as having succeeded to all his powers, without as well as within the realm, began to assume a right over the colonies, passing an act for inhibiting their trade with foreign nations. This succession to the exercise of kingly authority gave the first color for parliamentary interference with the colonies, and produced that fatal precedent which they continued to follow after they had retired, in other respects, within their proper functions. When this colony, therefore, which still maintained its opposition to Cromwell and the Parliament, was induced in 1651 to lay down their arms, they previously secured their most essential rights by a solemn convention, which, having never seen in print, I will here insert literally from the records.

> ARTICLES agreed on and concluded at James Cittie in Virginia for the surrendering and settling of that plantation under the obedience and government of the commonwealth of England by the commissioners of the Councill of State by authoritie of the parliamt of England, and by the Grand assembly of the Governour, Councill, and Burgesses of that countrey.
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> First it is agreed and consted that the plantation of Virginia, and all the inhabitants thereof, shall be and remain in due obedience and subjection to the Commonwealth of England, according to the laws there established, and that this submission and subscription bee acknowledged a voluntary act not forced nor constrained by a conquest upon the countrey, and that they shall have and enjoy such freedoms and priviledges as belong to the free borne people of England, and that the former government by the Commissions and Instructions be void and null.
>
> 2ly. That the Grand assembly as formerly shall convene and transact

the affairs of Virginia, wherein nothing is to be acted or done contrairie to the government of the Commonwealth of England and the lawes there established.

3ly. That there shall be a full and totall remission and indempnitie of all acts, words, or writeings done or spoken against the parliament of England in relation to the same.

4ly. That Virginia shall have and enjoy the antient bounds and lymitts granted by the charters of the former kings, and that we shall seek a new charter from the parliament to that purpose against any that have intrencht upon the rights thereof.

5ly. That all the pattents of land granted under the colony seal by any of the precedent governours shall be and remaine in their full force and strength.

6ly. That the priviledge of haveing ffiftie acres of land for every person transported in that collonie shall continue as formerly granted.

7ly. That the people of Virginia have free trade as the people of England do enjoy to all places and with all nations according to the lawes of that commonwealth, and that Virginia shall enjoy all priviledges equall with any English plantations in America.

8ly. That Virginia shall be free from all taxes, customs and impositions whatsoever, and none to be imposed on them without consent of the Grand assembly; and soe that neither fforts nor castle bee erected or garrisons maintained without their consent.

9ly. That noe charge shall be required from this country in respect of this present ffleet.

10ly. That for the future settlement of the countrey in their due obedience, the engagement shall be tendred to all the inhabitants according to act of parliament made to that purpose, that all persons who shall refuse to subscribe the said engagement, shall have a yeare's time if they please to remove themselves and their estates out of Virginia, and in the meantime during the said yeare to have equall justice as formerly.

11ly. That the use of the booke of common prayer shall be permitted for one yeare ensueinge with referrence to the consent of the major part of the parishes, provided that those which relate to kingshipp or that government be not used publiquely, and the continuance of ministers in their places, they not misdemeaning themselves, and the payment of their accustomed dues and agreements made with them respectively shall be left as they now stand dureing this ensueing yeare.

12ly. That no man's cattell shall be questioned as the companies, unless such as have been entrusted with them or have disposed of them without order.

13ly. That all ammunition, powder and armes, other than for private use, shall be delivered up, securitie being given to make satisfaction for it.

14ly. That all goods allreadie brought hither by the Dutch or others which are now on shoar shall be free from surprizall.

15ly. That the quittrents granted unto us by the late kinge for seaven yeares bee confirmed.

16ly. That the commissioners for the parliament subscribeing these articles engage themselves and the honour of parliament for the full performance thereof; and that the present governour, and the councill, and the burgesses do likewise subscribe and engage the whole collony on their parts.

RICHARD BENNETT.–Seale.
WILLIAM CLAIBORNE.–Seale.
EDMOND CURTIS.–Seale.

Theise articles were signed and sealed by the Commissioners of the Councill of state for the Commonwealth of England the twelveth day of March 1651.

The colony supposed that by this solemn convention, entered into with arms in their hands, they had secured the ancient limits of their country, its free trade, its exemption from taxation but by their own Assembly, and exclusion of military force from among them. Yet in every of these points was this convention violated by subsequent Kings and Parliaments, and other infractions of their constitution equally dangerous committed. Their General Assembly, which was composed of the Council of State and Burgesses, sitting together and deciding by plurality of voices, was split into two houses, by which the Council obtained a separate negative on their laws. Appeals from their Supreme Court, which had been fixed by law in their General Assembly, were arbitrarily revoked to England, to be there heard before the King and Council. Instead of four hundred miles on the seacoast, they were reduced, in the space of thirty years, to about one hundred miles. Their trade with foreigners was totally suppressed, and when carried to Great Britain, was there loaded with imposts. It is unnecessary, however, to glean up the several instances of injury, as scattered through American and British history, and the more especially as, by passing on to the accession of the present King, we shall find specimens of them all, aggravated, multiplied and crowded within a small compass of time, so as to evince a fixed design of considering our rights natural, conventional and chartered as mere nullities. The following is an epitome of the first sixteen years of his reign: The colonies were taxed internally and externally; their essential interests sacrificed to individuals in Great Britain; their legislatures suspended; charters annulled; trials by juries taken away; their persons subjected to transportation

across the Atlantic, and to trial before foreign judicatories; their supplications for redress thought beneath answer; themselves published as cowards in the councils of their mother country and courts of Europe; armed troops sent among them to enforce submission to these violences; and actual hostilities commenced against them. No alternative was presented but resistance, or unconditional submission. Between these could be no hesitation. They closed in the appeal to arms. They declared themselves independent states. They confederated together into one great republic; thus securing to every state the benefit of a union of their whole force. In each state separately a new form of government was established. Of ours particularly the following are the outlines: The executive powers are lodged in the hands of a governor, chosen annually, and incapable of acting more than three years in seven. He is assisted by a council of eight members. The judiciary powers are divided among several courts, as will be hereafter explained. Legislation is exercised by two houses of Assembly: the one called the House of Delegates, composed of two members from each county, chosen annually by the citizens, possessing an estate for life in one hundred acres of uninhabited land, or twenty-five acres with a house on it, or in a house or lot in some town; the other called the Senate, consisting of twenty-four members, chosen quadrennially by the same electors, who for this purpose are distributed into twenty-four districts. The concurrence of both houses is necessary to the passage of a law. They have the appointment of the governor and council, the judges of the superior courts, auditors, attorney general, treasurer, register of the land office, and delegates to Congress. As the dismemberment of the state had never had its confirmation, but, on the contrary, had always been the subject of protestation and complaint, that it might never be in our own power to raise scruples on that subject, or to disturb the harmony of our new confederacy, the grants to Maryland, Pennsylvania, and the two Carolinas were ratified.

This Constitution was formed when we were new and unexperienced in the science of government. It was the first, too, which was formed in the whole United States. No wonder then that time and trial have discovered very capital defects in it.

1. The majority of the men in the state, who pay and fight for its support, are unrepresented in the legislature, the roll of freeholders entitled to vote not including generally the half of those on the roll of the militia, or of the taxgatherers.

2. Among those who share the representation, the shares are very unequal. Thus the county of Warwick, with only one hundred fighting

men, has an equal representation with the county of Loudon, which has one thousand seven hundred and forty-six. So that every man in Warwick has as much influence in the government as seventeen men in Loudon. But lest it should be thought that an equal interspersion of small among large counties through the whole state may prevent any danger of injury to particular parts of it, we will divide it into districts, and show the proportions of land, of fighting men, and of representation in each. . . .

3. The Senate is, by its constitution, too homogeneous with the House of Delegates. Being chosen by the same electors, at the same time, and out of the same subjects, the choice falls of course on men of the same description. The purpose of establishing different houses of legislation is to introduce the influence of different interests or different principles. Thus in Great Britain it is said their constitution relies on the House of Commons for honesty, and the Lords for wisdom; which would be a rational reliance if honesty were to be bought with money, and if wisdom were hereditary. In some of the American states, the delegates and senators are so chosen as that the first represent the persons, and the second the property of the state. But with us, wealth and wisdom have equal chance for admission into both houses. We do not, therefore, derive from the separation of our legislature into two houses those benefits which a proper complication of principles are capable of producing, and those which alone can compensate the evils which may be produced by their dissensions.

4. All the powers of government, legislative, executive, and judiciary, result to the legislative body. The concentrating these in the same hands is precisely the definition of despotic government. It will be no alleviation that these powers will be exercised by a plurality of hands, and not by a single one. One hundred and seventy-three despots would surely be as oppressive as one. Let those who doubt it turn their eyes on the republic of Venice. As little will it avail us that they are chosen by ourselves. An *elective despotism* was not the government we fought for, but one which should not only be founded on free principles, but in which the powers of government should be so divided and balanced among several bodies of magistracy as that no one could transcend their legal limits without being effectually checked and restrained by the others. For this reason that convention which passed the ordinance of government laid its foundation on this basis, that the legislative, executive, and judiciary departments should be separate and distinct, so that no person should exercise the powers of more than one of them at the same time.

But no barrier was provided between these several powers. The judiciary and executive members were left dependent on the legislative for their subsistence in office, and some of them for their continuance in it. If, therefore, the legislature assumes executive and judiciary powers, no opposition is likely to be made; nor, if made, can it be effectual; because in that case they may put their proceedings into the form of an act of Assembly, which will render them obligatory on the other branches. They have, accordingly, in many instances, decided rights which should have been left to judiciary controversy; and the direction of the executive, during the whole time of their session, is becoming habitual and familiar. And this is done with no ill intention. The views of the present members are perfectly upright. When they are led out of their regular province, it is by art in others, and inadvertence in themselves. And this will probably be the case for some time to come. But it will not be a very long time. Mankind soon learn to make interested uses of every right and power which they possess, or may assume. The public money and public liberty, intended to have been deposited with three branches of magistracy, but found inadvertently to be in the hands of one only, will soon be discovered to be sources of wealth and dominion to those who hold them; distinguished, too, by this tempting circumstance, that they are the instrument as well as the object of acquisition. With money we will get men, said Caesar, and with men we will get money. Nor should our Assembly be deluded by the integrity of their own purposes, and conclude that these unlimited powers will never be abused, because themselves are not disposed to abuse them. They should look forward to a time, and that not a distant one, when a corruption in this, as in the country from which we derive our origin, will have seized the head of government, and be spread by them through the body of the people; when they will purchase the voices of the people, and make them pay the price. Human nature is the same on every side of the Atlantic, and will be alike influenced by the same causes. The time to guard against corruption and tyranny is before they shall have gotten hold of us. It is better to keep the wolf out of the fold than to trust to drawing his teeth and claws after he shall have entered. To render these considerations the more cogent, we must observe in addition:

5. That the ordinary legislature may alter the Constitution itself. On the discontinuance of Assemblies, it became necessary to substitute in their place some other body, competent to the ordinary business of government, and to the calling forth the powers of the state for the maintenance of our opposition to Great Britain. Conventions were therefore

introduced, consisting of two delegates from each county, meeting together and forming one house, on the plan of the former House of Burgesses, to whose places they succeeded. These were at first chosen anew for every particular session. But in March, 1775, they recommended to the people to choose a convention which should continue in office a year. This was done, accordingly, in April, 1775, and in the July following that convention passed an ordinance for the election of delegates in the month of April annually. It is well known that in July, 1775, a separation from Great Britain and establishment of republican government had never yet entered into any person's mind. A convention, therefore, chosen under that ordinance cannot be said to have been chosen for the purposes which certainly did not exist in the minds of those who passed it. Under this ordinance, at the annual election in April, 1776, a convention for the year was chosen. Independence and the establishment of a new form of government were not even yet the objects of the people at large. One extract from the pamphlet called Common Sense had appeared in the Virginia papers in February, and copies of the pamphlet itself had got in a few hands. But the idea had not been opened to the mass of the people in April, much less can it be said that they had made up their minds in its favor.

So that the electors of April, 1776, no more than the legislators of July, 1775, not thinking of independence and a permanent republic, could not mean to vest in these delegates powers of establishing them, or any authorities other than those of the ordinary legislature. So far as a temporary organization of government was necessary to render our opposition energetic, so far their organization was valid. But they received in their creation no powers but what were given to every legislature before and since. They could not, therefore, pass an act transcendent to the powers of other legislatures. If the present Assembly pass an act, and declare it shall be irrevocable by subsequent Assemblies, the declaration is merely void, and the act repealable, as other acts are. So far, and no farther authorized, they organized the government by the ordinance entitled a constitution or form of government. It pretends to no higher authority than the other ordinances of the same session; it does not say that it shall be perpetual; that it shall be unalterable by other legislatures; that it shall be transcendent above the powers of those who they knew would have equal power with themselves. Not only the silence of the instrument is a proof they thought it would be alterable, but their own practice also; for this very convention, meeting as a House of Delegates in General Assembly with the Senate in the autumn of that year, passed acts of assembly in

contradiction to their ordinance of government; and every Assembly from that time to this has done the same. I am safe, therefore, in the position that the Constitution itself is alterable by the ordinary legislature. Though this opinion seems founded on the first elements of common sense, yet is the contrary maintained by some persons, (1) Because, say they, the conventions were vested with every power necessary to make effectual opposition to Great Britain. But to complete this argument, they must go on, and say further that effectual opposition could not be made to Great Britain without establishing a form of government perpetual and unalterable by the legislature; which is not true. An opposition which at some time or other was to come to an end could not need a perpetual institution to carry it on; and a government amendable as its defects should be discovered was as likely to make effectual resistance as one that should be unalterably wrong. Besides, the Assemblies were as much vested with all powers requisite for resistance as the conventions were. If, therefore, these powers included that of modeling the form of government in the one case, they did so in the other. The Assemblies then as well as the conventions may model the government; that is, they may alter the ordinance of the government. (2) They urge that if the convention had meant that this instrument should be alterable, as their other ordinances were, they would have called it an ordinance; but they have called it a *constitution,* which, *ex vi termini,* means "an act above the power of the ordinary legislature." I answer that *constitutio, constitutium, statutum, lex,* are convertible terms. . . . Thus in the statute 25 Hen. VIII. c. 19, § 1, "*Constitutions* and *ordinances*" are used as synonymous. The term *constitution* has many other significations in physics and politics; but in jurisprudence, whenever it is applied to any act of the legislature, it invariably means a statute, law, or ordinance, which is the present case. No inference then of a different meaning can be drawn from the adoption of this title; on the contrary, we might conclude that, by their affixing to it a term synonymous with ordinance or statute. But of what consequence is their meaning, where their power is denied? If they meant to do more than they had power to do, did this give them power? It is not the name, but the authority that renders an act obligatory. . . . To get rid of the magic supposed to be in the word *constitution,* let us translate it into its definition as given by those who think it above the power of the law; and let us suppose the convention, instead of saying, "We the ordinary legislature establish a *constitution*," had said, "We the ordinary legislature establish an act *above the power of the ordinary legislature*." Does not this expose the absurdity of the at-

tempt? (3) But, say they, the people have acquiesced, and this has given it an authority superior to the laws. It is true that the people did not rebel against it; and was that a time for the people to rise in rebellion? Should a prudent acquiescence, at a critical time, be construed into a confirmation of every illegal thing done during that period? Besides, why should they rebel? At an annual election they had chosen delegates for the year to exercise the ordinary powers of legislation, and to manage the great contest in which they were engaged. These delegates thought the contest would be best managed by an organized government. They therefore, among others, passed an ordinance of government. They did not presume to call it perpetual and unalterable. They well knew they had no power to make it so; that our choice of them had been for no such purpose, and at a time when we could have no such purpose in contemplation. Had an unalterable form of government been meditated, perhaps we should have chosen a different set of people. There was no cause then for the people to rise in rebellion. But to what dangerous lengths will this argument lead? Did the acquiescence of the colonies under the various acts of power exercised by Great Britain in our infant state confirm these acts, and so far invest them with the authority of the people as to render them unalterable, and our present resistance wrong? On every unauthoritative exercise of power by the legislature must the people rise in rebellion, or their silence be construed into a surrender of that power to them? If so, how many rebellions should we have had already? One certainly for every session of Assembly. The other states in the Union have been of opinion that to render a form of government unalterable by ordinary acts of Assembly, the people must delegate persons with special powers. They have accordingly chosen special conventions to form and fix their governments. The individuals then who maintain the contrary opinion in this country should have the modesty to suppose it possible that they may be wrong, and the rest of America right. But if there be only a possibility of their being wrong, if only a plausible doubt remains of the validity of the ordinance of government, is it not better to remove that doubt by placing it on a bottom which none will dispute? If they be right we shall only have the unnecessary trouble of meeting once in convention. If they be wrong, they expose us to the hazard of having no fundamental rights at all. True it is, this is no time for deliberating on forms of government. While an enemy is within our bowels, the first object is to expel him. But when this shall be done, when peace shall be established, and leisure given us for intrenching within good forms the rights for which we have bled, let no man be found indolent

enough to decline a little more trouble for placing them beyond the reach of question. If anything more be requisite to produce a conviction of the expediency of calling a convention at a proper season to fix our form of government, let it be the reflection:

6. That the Assembly exercises a power of determining the quorum of their own body which may legislate for us. After the establishment of the new form they adhered to the *Lex majoris partis,* founded in common law as well as common right. It is the natural law of every Assembly of men whose numbers are not fixed by any other law. They continued for some time to require the presence of a majority of their whole number to pass an act. But the British Parliament fixes its own quorum; our former Assemblies fixed their own quorum; and one precedent in favor of power is stronger than a hundred against it. The House of Delegates, therefore, have lately voted that, during the present dangerous invasion, forty members shall be a house to proceed to business. They have been moved to this by the fear of not being able to collect a house. But this danger could not authorize them to call that a house which was none; and if they may fix it at one number, they may at another, till it loses its fundamental character of being a representative body. As this vote expires with the present invasion, it is probable the former rule will be permitted to revive; because at present no ill is meant. The power, however, of fixing their own quorum has been avowed, and a precedent set. From forty it may be reduced to four, and from four to one; from a house to a committee, from a committee to a chairman or speaker, and thus an oligarchy or monarchy be substituted under forms supposed to be regular. "All bad precedents arise out of good; but where power comes into the hands of the ignorant or the indifferent, that new precedent proceeds from the worthy and the fit to the unworthy and the unfit."

When, therefore, it is considered that there is no legal obstacle to the assumption by the Assembly of all the powers legislative, executive, and judiciary, and that these may come to the hands of the smallest rag of delegation, surely the people will say, and their representatives, while yet they have honest representatives, will advise them to say, that they will not acknowledge as laws any acts not considered and assented to by the major part of their delegates.

In enumerating the defects of the Constitution, it would be wrong to count among them what is only the error of particular persons. In December, 1776, our circumstances being much distressed, it was proposed in the House of Delegates to create a *dictator,* invested with every power legislative, executive, and judiciary, civil and military, of life and of

death, over our persons and over our properties; and in June, 1781, again under calamity, the same proposition was repeated, and wanted a few votes only of being passed. One who entered into this contest from a pure love of liberty, and a sense of injured rights, who determined to make every sacrifice, and to meet every danger, for the re-establishment of those rights on a firm basis, who did not mean to expend his blood and substance for the wretched purpose of changing this matter for that, but to place the powers of governing him in a plurality of hands of his own choice, so that the corrupt will of no one man might in future oppress him, must stand confounded and dismayed when he is told that a considerable portion of that plurality had mediated the surrender of them into a single hand, and, in lieu of a limited monarchy, to deliver him over to a despotic one! How must we find his efforts and sacrifices abused and baffled, if he may still, by a single vote, be laid prostrate at the feet of one man! In God's name, from whence have they derived this power? Is it from our ancient laws? None such can be produced. Is it from any principle in our new Constitution expressed or implied? Every lineament expressed or implied is in full opposition to it. Its fundamental principle is that the state shall be governed as a commonwealth. It provides a republican organization, proscribes under the name of *prerogative* the exercise of all powers undefined by the laws; places on this basis the whole system of our laws; and by consolidating them together chooses that they should be left to stand or fall together, never providing for any circumstances, nor admitting that such could arise, wherein either should be suspended; no, not for a moment. Our ancient laws expressly declare that those who are but delegates themselves shall not delegate to others powers which require judgment and integrity in their exercise. Or was this proposition moved on a supposed right in the movers of abandoning their posts in a moment of distress? The same laws forbid the abandonment of that post, even on ordinary occasions; and much more a transfer of their powers into other hands and other forms without consulting the people. They never admit the idea that these, like sheep or cattle, may be given from hand to hand without an appeal to their own will. Was it from the necessity of the case? Necessities which dissolve a government do not convey its authority to an oligarchy or a monarchy. They throw back into the hands of the people the powers they had delegated, and leave them as individuals to shift for themselves. A leader may offer but not impose himself, nor be imposed on them. Much less can their necks be submitted to his sword, their breath to be held at his will or caprice. The necessity which should operate these tremendous effects should at

least be palpable and irresistible. Yet in both instances, where it was feared, or pretended with us, it was belied by the event. It was belied, too, by the preceding experience of our sister states, several of whom had grappled through greater difficulties without abandoning their forms of government. When the proposition was first made, Massachusetts had found even the government of committees sufficient to carry them through an invasion. But we at the time of that proposition were under no invasion. When the second was made, there had been added to this example those of Rhode Island, New York, New Jersey, and Pennsylvania, in all of which the republican form had been found equal to the task of carrying them through the severest trials. In this state alone did there exist so little virtue that fear was to be fixed in the hearts of the people, and to become the motive of their exertions and principle of their government? The very thought alone was treason against the people; was treason against mankind in general, as riveting forever the chains which bow down their necks, by giving to their oppressors a proof, which they would have trumpeted through the universe, of the imbecility of republican government, in times of pressing danger, to shield them from harm. Those who assume the right of giving away the reins of government in any case must be sure that the herd, whom they hand on to the rods and hatchet of the dictator, will lay their necks on the block when they shall nod to them. But if our assemblies supposed such a recognition in the people, I hope they mistook their character. I am of opinion that the government, instead of being braced and invigorated for greater exertions under their difficulties, would have been thrown back upon the bungling machinery of county committees for administration, till a convention could have been called, and its wheels again set into regular motion. What a cruel moment was this for creating such an embarrassment, for putting to the proof the attachment of our countrymen to republican government! Those who meant well, of the advocates of this measure (and most of them meant well, for I know them personally, had been their fellow laborer in the common cause, and had often proved the purity of their principles), had been seduced in their judgment by the example of an ancient republic, whose constitution and circumstances were fundamentally different. They had sought this precedent in the history of Rome, where alone it was to be found, and where at length, too, it had proved fatal. They had taken it from a republic rent by the most bitter factions and tumults, where the government was of a heavy-handed unfeeling aristocracy, over a people ferocious, and rendered desperate by poverty and wretchedness; tumults which could not be allayed under

the most trying circumstances, but by the omnipotent hand of a single despot. Their constitution, therefore, allowed a temporary tyrant to be erected, under the name of a dictator; and that temporary tyrant, after a few examples, became perpetual. They misapplied this precedent to a people mild in their dispositions, patient under their trial, united for the public liberty, and affectionate to their leaders. But if from the constitution of the Roman government there resulted to their Senate a power of submitting all their rights to the will of one man, does it follow that the Assembly of Virginia have the same authority? What clause in our constitution has substituted that of Rome, by way of residuary provision, for all cases not otherwise provided for? Or if they may step *ad libitum* into any other form of government for precedents to rule us by, for what oppression may not a precedent be found in this world of the *bellum omnium in omnia* [war of all against all]? Searching for the foundations of this proposition, I can find none which may pretend a color of right or reason, but the defect before developed, that there being no barrier between the legislative, executive, and judiciary departments, the legislature may seize the whole; that having seized it, and possessing a right to fix their own quorum, they may reduce that quorum to one, whom they may call a chairman, speaker, dictator, or by any other name they please. Our situation is indeed perilous, and I hope my countrymen will be sensible of it, and will apply, at a proper season, the proper remedy; which is a convention to fix the Constitution, to amend its defects, to bind up the several branches of government by certain laws, which, when they transgress, their acts shall become nullities; to render unnecessary an appeal to the people, or in other words a rebellion, on every infraction of their rights, on the peril that their acquiescence shall be construed into an intention to surrender those rights.

The foregoing is taken from Thomas Jefferson's NOTES ON VIRGINIA.

First Inaugural Address

Friends and Fellow Citizens:

Called upon to undertake the duties of the first executive office of our country, I avail myself of the presence of that portion of my fellow citizens which is here assembled, to express my grateful thanks for the favor with which they have been pleased to look toward me, to declare a sincere consciousness that the task is above my talents, and that I approach it with those anxious and awful presentiments which the greatness of the charge and the weakness of my powers so justly inspire. A rising nation, spread over a wise and fruitful land, traversing all the seas with the rich productions of their industry, engaged in commerce with nations who feel power and forget right, advancing rapidly to destinies beyond the reach of mortal eye—when I contemplate these transcendent objects, and see the honor, the happiness, and the hopes of this beloved country committed to the issue and the auspices of this day, I shrink from the contemplation, and humble myself before the magnitude of the undertaking. Utterly, indeed, should I despair did not the presence of many whom I here see remind me that, in the other high authorities provided by our constitution, I shall find resources of wisdom, of virtue, and of zeal on which to rely under all difficulties. To you, then, gentlemen, who are charged with the sovereign functions of legislation, and to those associated with you, I look with encouragement for that guidance and support which may enable us to steer with safety the vessel in which we are all embarked amid the conflicting elements of a troubled world.

During the contest of opinion through which we have passed, the animation of discussion and of exertions has sometimes worn an aspect which might impose on strangers unused to think freely and to speak and to write what they think; but this being now decided by the voice of the nation, announced according to the rules of the constitution, all will, of course, arrange themselves under the will of the law, and unite in com-

mon efforts for the common good. All, too, will bear in mind this sacred principle, that though the will of the majority is in all cases to prevail, that will, to be rightful, must be reasonable; that the minority possess their equal rights, which equal laws must protect, and to violate which would be oppression. Let us, then, fellow citizens, unite with one heart and one mind. Let us restore to social intercourse that harmony and affection without which liberty and even life itself are but dreary things. And let us reflect that having banished from our land that religious intolerance under which mankind so long bled and suffered, we have yet gained little if we countenance a political intolerance as despotic, as wicked, and capable of as bitter and bloody persecutions. During the throes and convulsions of the ancient world, during the agonizing spasms of infuriated man, seeking through blood and slaughter his long-lost liberty, it was not wonderful that the agitations of the billows should reach even this distant and peaceful shore; that this should be more felt and feared by some and less by others; that this should divide opinions as to measures of safety. But every difference of opinion is not a difference of principle. We have called by different names brethren of the same principle. We are all republicans—we are federalists. If there be any among us who would wish to dissolve this Union or to change its republican form, let them stand undisturbed as monuments of the safety with which error of opinion may be tolerated where reason is left free to combat it. I know, indeed, that some honest men fear that a republican government cannot be strong; that this government is not strong enough. But would the honest patriot, in the full tide of successful experiment, abandon a government which has so far kept us free and firm, on the theoretic and visionary fear that this government, the world's best hope, may by possibility want energy to preserve itself? I trust not. I believe this, on the contrary, the strongest government on earth. I believe it is the only one where every man, at the call of the laws, would fly to the standard of the law, and would meet invasions of the public order as his own personal concern. Sometimes it is said that man cannot be trusted with the government of himself. Can he, then, be trusted with the government of others? Or have we found angels in the forms of kings to govern him? Let history answer this question.

Let us, then, with courage and confidence pursue our own federal and republican principles, our attachment to our union and representative government. Kindly separated by nature and a wide ocean from the exterminating havoc of one quarter of the globe; too high-minded to endure the degradations of the others; possessing a chosen country, with room

enough for our descendants to the hundredth and thousandth generation; entertaining a due sense of our equal right to the use of our own faculties, to the acquisitions of our industry, to honor and confidence from our fellow citizens, resulting not from birth but from our actions and their sense of them; enlightened by a benign religion, professed, indeed, and practiced in various forms, yet all of them including honesty, truth, temperance, gratitude, and the love of man; acknowledging and adoring an overruling Providence, which by all its dispensations proves that it delights in the happiness of man here and his greater happiness hereafter; with all these blessings, what more is necessary to make us a happy and prosperous people? Still one thing more, fellow citizens—a wise and frugal government, which shall restrain men from injuring one another, which shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our felicities.

About to enter, fellow citizens, on the exercise of duties which comprehend everything dear and valuable to you, it is proper that you should understand what I deem the essential principles of our government, and consequently those which ought to shape its administration. I will compress them within the narrowest compass they will bear, stating the general principle, but not all its limitations. Equal and exact justice to all men, of whatever state or persuasion, religious or political; peace, commerce, and honest friendship with all nations—entangling alliances with none; the support of the state governments in all their rights, as the most competent administrations for our domestic concerns and the surest bulwarks against antirepublican tendencies; the preservation of the general government in its whole constitutional vigor, as the sheet anchor of our peace at home and safety abroad; a jealous care of the right of election by the people—a mild and safe corrective of abuses which are lopped by the sword of the revolution where peaceable remedies are unprovided; absolute acquiescence in the decisions of the majority—the vital principle of republics, from which there is no appeal but to force, the vital principle and immediate parent of despotism; a well-disciplined militia—our best reliance in peace and for the first moments of war, till regulars may relieve them; the supremacy of the civil over the military authority; economy in the public expense, that labor may be lightly burdened; the honest payment of our debts and sacred preservation of the public faith; encouragement of agriculture, and of commerce as its handmaid; the diffusion of information and the arraignment of all abuses at

the bar of public reason, freedom of religion; freedom of the press; freedom of person under the protection of the habeas corpus; and trial by juries impartially selected—these principles form the bright constellation which has gone before us, and guided our steps through an age of revolution and reformation. The wisdom of our sages and the blood of our heroes have been devoted to their attainment. They should be the creed of our political faith—the text of civil instruction—the touchstone by which to try the services of those we trust; and should we wander from them in moments of error or alarm, let us hasten to retrace our steps and to regain the road which alone leads to peace, liberty, and safety.

I repair, then, fellow citizens, to the post you have assigned me. With experience enough in subordinate offices to have seen the difficulties of this, the greatest of all, I have learned to expect that it will rarely fall to the lot of imperfect man to retire from this station with the reputation and the favor which bring him into it. Without pretensions to that high confidence reposed in our first and great revolutionary character, whose pre-eminent services had entitled him to the first place in his country's love, and destined for him the fairest page in the volume of faithful history, I ask so much confidence only as may give firmness and effect to the legal administration of your affairs. I shall often go wrong through defect of judgment. When right, I shall often be thought wrong by those whose positions will not command a view of the whole ground. I ask your indulgence for my own errors, which will never be intentional; and your support against the errors of others, who may condemn what they would not if seen in all its parts. The approbation implied by your suffrage is a consolation to me for the past; and my future solicitude will be to retain the good opinion of those who have bestowed it in advance, to conciliate that of others by doing them all the good in my power, and to be instrumental to the happiness and freedom of all.

Relying, then, on the patronage of your good will, I advance with obedience to the work, ready to retire from it whenever you become sensible how much better choice it is in your power to make. And may that Infinite Power which rules the destinies of the universe lead our councils to what is best, and give them a favorable issue for your peace and prosperity.

Biographical Sketches

THE CHARACTER OF GEORGE WASHINGTON

I think I knew General Washington intimately and thoroughly; and were I called on to delineate his character, it should be in terms like these.

His mind was great and powerful, without being of the very first order; his penetration strong, though not so acute as that of a Newton, Bacon, or Locke; and as far as he saw, no judgment was ever sounder. It was slow in operation, being little aided by invention or imagination, but sure in conclusion. Hence the common remark of his officers, of the advantage he derived from councils of war, where hearing all suggestions, he selected whatever was best; and certainly no general ever planned his battles more judiciously. But if deranged during the course of the action, if any member of his plan was dislocated by sudden circumstances, he was slow in re-adjustment. The consequence was that he often failed in the field, and rarely against an enemy in station, as at Boston and York. He was incapable of fear, meeting personal dangers with the calmest unconcern. Perhaps the strongest feature in his character was prudence, never acting until every circumstance, every consideration, was maturely weighed; refraining if he saw a doubt, but, when once decided, going through with his purpose, whatever obstacles opposed. His integrity was most pure, his justice the most inflexible I have ever known, no motives of interest or consanguinity, of friendship or hatred, being able to bias his decision. He was, indeed, in every sense of the words, a wise, a good, and a great man. His temper was naturally irritable and high toned; but reflection and resolution had obtained a firm and habitual ascendency over it. If ever, however, it broke its bonds, he was most tremendous in his wrath. In his expenses he was honorable, but exact; liberal in contributions to whatever promised utility; but frowning and unyielding on all visionary projects, and all unworthy calls on his charity. His heart was

not warm in its affections; but he exactly calculated every man's value, and gave him a solid esteem proportioned to it. His person, you know, was fine, his stature exactly what one would wish, his deportment easy, erect and noble; the best horseman of his age, and the most graceful figure that could be seen on horseback. Although in the circle of his friends, where he might be unreserved with safety, he took a free share in conversation, his colloquial talents were not above mediocrity, possessing neither copiousness of ideas, nor fluency of words. In public, when called on for a sudden opinion, he was unready, short and embarrassed. Yet he wrote readily, rather diffusely, in an easy and correct style. This he had acquired by conversation with the world, for his education was merely reading, writing and common arithmetic, to which he added surveying at a later day. His time was employed in action chiefly, reading little, and that only in agriculture and English history. His correspondence became necessarily extensive, and, with journalizing his agricultural proceedings, occupied most of his leisure hours within doors. On the whole, his character was, in its mass, perfect, in nothing bad, in few points indifferent; and it may truly be said that never did nature and fortune combine more perfectly to make a man great, and to place him in the same constellation with whatever worthies have merited from man an everlasting remembrance. For his was the singular destiny and merit, of leading the armies of his country successfully through an arduous war, for the establishment of its independence; of conducting its councils through the birth of a government, new in its forms and principles, until it had settled down into a quiet and orderly train; and of scrupulously obeying the laws through the whole of his career, civil and military, of which the history of the world furnishes no other example.

. . . I am satisfied the great body of republicans think of him as I do. We were, indeed, dissatisfied with him on his ratification of the British treaty. But this was short lived. We knew his honesty, the wiles with which he was encompassed, and that age had already begun to relax the firmness of his purposes; and I am convinced he is more deeply seated in the love and gratitude of the republicans than in the Pharisaical homage of the federal monarchists. For he was no monarchist from preference of his judgment. The soundness of that gave him correct views of the rights of man, and his severe justice devoted him to them. He has often declared to me that he considered our new Constitution as an experiment on the practicability of republican government, and with what dose of liberty man could be trusted for his own good; that he was determined the experiment should have a fair trial, and would lose the last drop of

his blood in support of it. And these declarations he repeated to me the oftener and more pointedly because he knew my suspicions of Colonel Hamilton's views, and probably had heard from him the same declarations which I had, to wit, "that the British constitution, with its unequal representation, corruption and other existing abuses, was the most perfect government which had ever been established on earth, and that a reformation of those abuses would make it an impracticable government." I do believe that General Washington had not a firm confidence in the durability of our government. He was naturally distrustful of men, and inclined to gloomy apprehensions; and I was ever persuaded that a belief that we must at length end in something like a British constitution had some weight in his adoption of the ceremonies of levees, birthdays, pompous meetings with Congress, and other forms of the same character, calculated to prepare us gradually for a change which he believed possible, and to let it come on with as little shock as might be to the public mind.

These are my opinions of General Washington, which I would vouch at the judgment seat of God, having been formed on an acquaintance of thirty years. I served with him in the Virginia legislature from 1769 to the Revolutionary War, and again, a short time in Congress, until he left us to take command of the army. During the war and after it we corresponded occasionally, and in the four years of my continuance in the office of Secretary of State, our intercourse was daily, confidential and cordial. After I retired from that office, great and malignant pains were taken by our federal monarchists, and not entirely without effect, to make him view me as a theorist, holding French principles of government, which would lead infallibly to licentiousness and anarchy. And to this he listened the more easily, from my known disapprobation of the British treaty. I never saw him afterwards, or these malignant insinuations should have been dissipated before his just judgment, as mists before the sun. I felt on his death, with my countrymen, that "verily a great man hath fallen this day in Israel."

ANECDOTES OF BENJAMIN FRANKLIN

Our revolutionary process, as is well known, commenced by petitions, memorials, remonstrances, etc., from the old Congress. These were followed by a non-importation agreement, as a pacific instrument of coercion. While that was before us, and sundry exceptions, as of arms, ammunition, etc., were moved from different quarters of the house, I was sitting by Dr. Franklin and observed to him that I thought we should

except books; that we ought not to exclude science, even coming from an enemy. He thought so too, and I proposed the exception, which was agreed to. Soon after it occurred that medicine should be excepted, and I suggested that also to the Doctor. "As to that," said he, "I will tell you a story. When I was in London, in such a year, there was a weekly club of physicians, of which Sir John Pringle was president, and I was invited by my friend Dr. Fothergill to attend when convenient. Their rule was to propose a thesis one week and discuss it the next. I happened there when the question to be considered was whether physicians had, on the whole, done most good or harm? The young members, particularly, having discussed it very learnedly and eloquently till the subject was exhausted, one of them observed to Sir John Pringle, that although it was not usual for the President to take part in a debate, yet they were desirous to know his opinion on the question. He said they must first tell him whether, under the appellation of physicians, they meant to include *old women*; if they did he thought they had done more good than harm, otherwise more harm than good."

The Confederation of the States, while on the carpet before the old Congress, was strenuously opposed by the smaller States, under apprehensions that they would be swallowed up by the larger ones. We were long engaged in the discussion; it produced great heats, much ill humor, and intemperate declarations from some members. Dr. Franklin at length brought the debate to a close with one of his little apologues. He observed that "at the time of the union of England and Scotland, the Duke of Argyle was most violently opposed to that measure, and among other things predicted that, as the whale had swallowed Jonah, so Scotland would be swallowed by England. However," said the Doctor, "when Lord Bute came into the government, he soon brought into its administration so many of his countrymen, that it was found in event that Jonah swallowed the whale." This little story produced a *general* laugh, and restored good humor, and the article of difficulty was passed.

When Dr. Franklin went to France, on his revolutionary mission, his eminence as a philosopher, his venerable appearance, and the cause on which he was sent, rendered him extremely popular. For all ranks and conditions of men there entered warmly into the American interest. He was, therefore, feasted and invited into all the court parties. At these he sometimes met the old Duchess of Bourbon, who, being a chess player of about his force, they very generally played together. Happening once

to put her king into prize, the Doctor took it. "Ah," said she, "we do not take kings so." "We do in America," said the Doctor.

At one of these parties the Emperor Joseph III, then at Paris incognito, under the title of Count Falkenstein, was overlooking the game in silence, while the company was engaged in animated conversations on the American question. "How happens it M.le Comte," said the Duchess, "that while we all feel so much interest in the cause of the Americans, you say nothing for them?" "I am a king by trade," said he.

When the Declaration of Independence was under the consideration of Congress, there were two or three unlucky expressions in it which gave offense to some members. The words "Scotch and other foreign auxiliaries" excited the ire of a gentleman or two of that country. Severe strictures on the conduct of the British king, in negotiating our repeated repeals of the law which permitted the importation of slaves, were disapproved by some Southern gentlemen, whose reflections were not yet matured to the full abhorrence of that traffic. Although the offensive expressions were immediately yielded these gentlemen continued their depredations on other parts of the instrument. I was sitting by Dr. Franklin, who perceived that I was not insensible to these mutilations. "I have made it a rule," said he, "whenever in my power, to avoid becoming the draughtsmen of papers to be reviewed by a public body. I took my lesson from an incident which I will relate to you. When I was a journeyman printer, one of my companions, an apprentice hatter, having served out his time, was about to open shop for himself. His first concern was to have a handsome signboard, with a proper inscription. He composed it in these words, 'John Thompson, *Hatter, makes* and *sells hats* for ready money,' with a figure of a hat subjoined; but he thought he would submit it to his friends for their amendments. The first he showed it to thought the word *'Hatter'* tautologous, because followed by the words 'makes hats,' which show he was a hatter. It was struck out. The next observed that the word *'makes'* might as well be omitted, because his customers would not care who made the hats. If good and to their mind, they would buy, by whomsoever made. He struck it out. A third said he thought the words *'for ready money'* were useless, as it was not the custom of the place to sell on credit. Everyone who purchased expected to pay. They were parted with, and the inscription now stood, 'John Thompson sells hats.' *'Sells hats!'* says his next friend. Why nobody will expect you to give them away, what then is the use of that word? It was stricken out, and *'hats'* followed it, the rather as there was one painted on the board.

So the inscription was reduced ultimately to 'John Thompson' with the figure of a hat subjoined."

The Doctor told me at Paris the two following anecdotes of the Abbé Raynal. He had a party to dine with him one day at Passy, of whom one half were Americans, the other half French, and among the last was the Abbé. During the dinner he got on his favorite theory of the degeneracy of animals, and even of man, in America, and urged it with his usual eloquence. The Doctor at length noticing the accidental stature and position of his guests, at table, "Come," says he, "M. l'Abbé, let us try this question by the fact before us. We are here one half Americans, and one half French, and it happens that the Americans have placed themselves on one side of the table, and our French friends are on the other. Let both parties rise, and we will see on which side nature has degenerated." It happened that his American guests were Carmichael, Harmer, Humphreys, and others of the finest stature and form; while those of the other side were remarkably diminutive, and the Abbé himself particularly was a mere shrimp. He parried the appeal, however, by a complimentary admission of exceptions, among which the Doctor himself was a conspicuous one.

The Doctor and Silas Deane were in conversation one day at Passy, on the numerous errors in the Abbé's *Histoire des deux Indes,* when he happened to step in. After the usual salutations, Silas Deane said to him, "The Doctor and myself, Abbé, were just speaking of the errors of fact into which you have been led in your history." "Oh, no Sir," said the Abbé, "that is impossible. I took the greatest care not to insert a single fact for which I had not the most unquestionable authority." "Why," says Deane, "there is the story of Polly Baker, and the eloquent apology you have put into her mouth, when brought before a court of Massachusetts to suffer punishment under a law which you cite, for having had a bastard. I know there never was such a law in Massachusetts." "Be assured," said the Abbé, "you are mistaken, and that that is a true story. I do not immediately recollect indeed the particular information on which I quote it; but I am certain that I had for it unquestionable authority." Doctor Franklin, who had been for some time shaking with unrestrained laughter at the Abbé's confidence in his authority for that tale, said, "I will tell you, Abbé, the origin of that story. When I was a printer and editor of a newspaper, we were sometimes slack of news, and to amuse our customers, I used to fill up our vacant columns with anecdotes and fables, and fancies of my own, and this of Polly Baker is a story of my making,

on one of these occasions." The Abbé, without the least disconcert, exclaimed with a laugh, "Oh, very well, Doctor, I had rather relate your stories than other men's truths."

"The Character of George Washington" is taken from Jefferson's letter to Dr. Walter Jones, written January 2, 1814; *the "Anecdotes of Benjamin Franklin" are taken from a letter to Robert Walsh, written December 4, 1818.*

Benjamin Franklin

1706–1790

Benjamin Franklin—workman, printer, inventor, scientist, philosopher, and statesman—was the fifteenth child of a New England soap- and candlemaker. He was born in Boston in 1706, and attended school there till the age of ten. In Philadelphia, at seventeen, he had learned the printer's trade, and had started his career as an author in the *New England Courant*. With a promise of help from Governor Keith of Pennsylvania, he sailed for England in 1724, to get equipment to set up a printing firm of his own. The promise proved hollow, however, and he returned to Philadelphia two years later a wiser man.

Then the remarkable success story began. In 1730 Franklin was owner of his own printing shop and publisher of the *Pennsylvania Gazette,* and had become an author. In *Poor Richard's Almanack,* which he published from the early 1730's through 1757, he drew an unforgettable picture of Yankee commonsense, shrewdness, thrift, and enterprise. His pithy sayings epitomized, and helped to shape, the new American. So successful were Franklin's printing operations that he was able to retire from business at forty-two, and to devote himself to science.

Although engrossed in many enterprises, Franklin had somehow found time to study literature, history, technological problems, science, and foreign languages. His self-taught genius was eventually acknowledged by scholars and scientists in many countries. His most spectacular achievement was his demonstration—by way of a kite sailed in a thunderstorm—that lightning is electricity. His most lasting achievement may have been the founding of the American Philosophical Society in 1743, and the Academy of Philadelphia in 1751.

Franklin also found time to hold various public offices. He was

post-master general for the northern colonies (1753–74), a delegate to the Albany Congress (1754), and twenty years later he was made president of the Pennsylvania Executive Council. On several important diplomatic missions to England and to France, his shrewdness, wit, amiability, and scientific reputation made a strong impression, and difficult negotiations prospered.

He had sought a compromise with England, but when he saw this was impossible, he threw all his weight behind the Revolution. He died at the age of eighty-four, full of honor–a highly original American, but also a very typical one.

In 1743 Franklin proposed the establishment of a Philosophical Society. He had observed the lack of communication in what he called "a long tract of continent." Reading newspapers from other colonies, he became aware of intellectual interests scattered over a wide area. It was obvious that some regular means of exchanging ideas was needed. The model for the proposed Philosophical Society was The Royal Society of London, which had been founded in 1660. Franklin knew what a great part The Royal Society had played in advancing science in England, and hoped for similar developments, though on a smaller scale, in the New World.

Like The Royal Society, Franklin's Philosophical Society was to combine technology with pure science, was to promote shipping, industry, and agriculture, as well as mathematics, physics, chemistry, and the biological sciences. He believed that science and technology were interdependent, and that the one would fructify the other. As science advanced, the colonies would be strengthened economically. Life would be made far easier and richer by laborsaving machinery and improvements in agriculture. Men might be transported from place to place with great rapidity, he said–sustained in the air. In short, Franklin had great hopes for technology, and they have been fully confirmed.

Notes from the artist: "The seated portrait of Franklin is based upon a rare, contemporary water color. In the background are suggestions of Franklin's private career as a printer and his public career as a diplomat and patriot. The segmented snake, representing the colonies, was designed by Franklin more than twenty years before the American Revolution. The quotation is from a letter to Josiah Quincy."

There never was a good war, or a bad peace.
Benj.e Franklin
JOIN, or DIE
SC
NC
MA
NH
RI

As early as 1743, Franklin proposed the founding of an educational institution–an Academy–in Philadelphia, and he projected it in a pamphlet which he himself printed in 1749. The school opened under his sponsorship in 1751.

It is well to remember that Pennsylvania had few schools at the time of Franklin; the teachers were poorly prepared and even more poorly paid. A few children of the wealthy were educated by tutors, but the rest had few opportunities. It was typical of Franklin's practical turn of mind and also of his sincerity that he not only *proposed* the establishment of the Academy but also took a keen interest in the financial arrangements which would alone make it possible. Separating well-to-do citizens from their money for educational purposes was something new and painful. Yet Franklin's efforts were successful. The school weathered financial drought and eventually became the University of Pennsylvania.

Franklin's ideas on education were a combination of old and new, and forecast the kind of education which was to prevail in the United States. He proposed that the students learn "those things that are likely to be most useful and most ornamental." The emphasis on the useful was new, and so was the provision for exercise and sports to promote health. The recommendation that the masters "look on the students as in some sort their children" and "treat them with familiarity and affection" was novel and humane.

Franklin's central idea was that learning and learning alone confers "benignity of mind" and "an ability to serve mankind, one's country, friends, and family." This ideal is worth comparing with the aims of education as expressed by other writers included in this set–Swift, Bacon, Schopenhauer, Dewey, and Faraday.

A Proposal for Promoting Useful Knowledge among the British Plantations in America

The English are possessed of a long tract of continent, from Nova Scotia to Georgia, extending north and south through different climates, having different soils, producing different plants, mines, and minerals, and capable of different improvements, manufactures, etc.

The first drudgery of settling new colonies, which confines the attention of people to mere necessaries, is now pretty well over; and there are many in every province in circumstances that set them at ease, and afford leisure to cultivate the finer arts and improve the common stock of knowledge. To such of these who are men of speculation, many hints must from time to time arise, many observations occur, which if well examined, pursued, and improved might produce discoveries to the advantage of some or all of the British plantations, or to the benefit of mankind in general.

But as from the extent of the country such persons as widely separated, and seldom can see and converse or be acquainted with each other, so that many useful particulars remain uncommunicated, die with the discoverers, and are lost to mankind; it is, to remedy this inconvenience for the future, proposed:

That one society be formed of *virtuosi* or ingenious men, residing in the several colonies, to be called The American Philosophical Society, who are to maintain a constant correspondence.

That Philadelphia, being the city nearest the center of the continent colonies, communicating with all of them northward and southward by post, and with all the islands by sea, and having the advantage of a good growing library, be the center of the Society.

That at Philadelphia there be always at least seven members, viz., a physician, a botanist, a mathematician, a chemist, a mechanician, a

geographer, and a general natural philosopher, besides a president, treasurer, and secretary.

That these members meet once a month, or oftener, at their own expense, to communicate to each other their observations and experiments; to receive, read, and consider such letters, communications, or queries as shall be sent from distant members; to direct the dispersing of copies of such communications as are valuable, to other distant members, in order to procure their sentiments thereupon.

That the subjects of the correspondence be: all new-discovered plants, herbs, trees, roots, their virtues, uses, etc.; methods of propagating them, and making such as are useful, but particular to some plantations, more general; improvements of vegetable juices, as ciders, wines, etc.; new methods of curing or preventing diseases; all new-discovered fossils in different countries, as mines, minerals, and quarries; new and useful improvements in any branch of mathematics; new discoveries in chemistry, such as improvements in distillation, brewing, and assaying of ores; new mechanical inventions for saving labor, as mills and carriages, and for raising and conveying of water, draining of meadows, etc.; all new arts, trades, and manufactures that may be proposed or thought of; surveys, maps, and charts of particular parts of the seacoasts or inland countries; course and junction of rivers and great roads, situation of lakes and mountains, nature of the soil and productions; new methods of improving the breed of useful animals; introducing other sorts from foreign countries; new improvements in planting, gardening, and clearing land; and all philosophical experiments that let light into the nature of things, tend to increase the power of man over matter, and multiply the conveniences or pleasures of life.

That a correspondence, already begun by some intended members, shall be kept up by this Society with the Royal Society of London, and with the Dublin Society.

That every member shall have abstracts sent him quarterly, of everything valuable communicated to the Society's Secretary at Philadelphia; free of all charge except the yearly payment hereafter mentioned.

That, by permission of the postmaster-general, such communications pass between the Secretary of the Society and the members, postage free.

That, for defraying the expense of such experiments as the Society shall judge proper to cause to be made, and other contingent charges for the common good, every member sent a piece of eight per annum to the treasurer, at Philadelphia, to form a common stock, to be disbursed by order of the President with the consent of the majority of the members

that can conveniently be consulted thereupon, to such persons and places where and by whom the experiments are to be made, and otherwise as there shall be occasion; of which disbursements an exact account shall be kept, and communicated yearly to every member.

That, at the first meetings of the members at Philadelphia, such rules be formed for regulating their meetings and transactions for the general benefit as shall be convenient and necessary; to be afterwards changed and improved as there shall be occasion, wherein due regard is to be had to the advice of distant members.

That, at the end of every year, collections be made and printed of such experiments, discoveries, and improvements as may be thought of public advantage; and that every member have a copy sent him.

That the business and duty of the Secretary be to receive all letters intended for the Society, and lay them before the President and members at their meetings; to abstract, correct, and methodize such papers as require it, and as he shall be directed to do by the President, after they have been considered, debated, and digested in the Society; to enter copies thereof in the Society's books, and make out copies for distant members; to answer their letters by direction of the President, and keep records of all material transactions of the Society.

Benjamin Franklin, the writer of this Proposal, offers himself to serve the Society as their secretary till they shall be provided with one more capable.

Proposals Relating to the Education of Youth in Pennsylvania

ADVERTISEMENT TO THE READER

It has long been regretted as a misfortune to the youth of this province that we have no academy in which they might receive the accomplishments of a regular education. The following paper of hints towards forming a plan for that purpose is so far approved by some public-spirited gentlemen, to whom it has been privately communicated, that they have directed a number of copies to be made by the press, and properly distributed, in order to obtain the sentiments and advice of men of learning, understanding, and experience in these matters; and have determined to use their interest and best endeavours to have the scheme, when completed, carried gradually into execution; in which they have reason to believe they shall have the hearty concurrence and assistance of many who are well-wishers to their country. Those who incline to favor the design with their advice, either as to the parts of learning to be taught, the order of study, the method of teaching, the economy of the school, or any other matter of importance to the success of the undertaking are desired to communicate their sentiments as soon as may be, by letter directed to B. FRANKLIN, *Printer,* in Philadelphia.

PROPOSALS

The good education of youth has been esteemed by wise men in all ages as the surest foundation of the happiness both of private families and of commonwealths. Almost all governments have therefore made it a principal object of their attention to establish and endow with proper revenues such seminaries of learning as might supply the succeeding age

with men qualified to serve the public with honor to themselves, and to their country.

Many of the first settlers of these provinces were men who had received a good education in Europe, and to their wisdom and good management we owe much of our present prosperity. But their hands were full, and they could not do all things. The present race are not thought to be generally of equal ability: for though the American youth are allowed not to want capacity, yet the best capacities require cultivation, it being truly with them as with the best ground, which unless well tilled and sowed with profitable seed produces only ranker weeds.

That we may obtain the advantages arising from an increase in knowledge, and prevent as much as may be the mischievous consequences that would attend a general ignorance among us, the following hints are offered towards forming a plan for the education of the youth of Pennsylvania, viz.

It is proposed:

That some persons of leisure and public spirit apply for a charter by which they may be incorporated, with power to erect an academy for the education of youth, to govern the same, provide masters, make rules, receive donations, purchase lands, etc., and to add to their number, from time to time, such other persons as they shall judge suitable.

That the members of the corporation make it their pleasure, and in some degree their business, to visit the Academy often, encourage and countenance the youth, countenance and assist the masters, and by all means in their power advance the usefulness and reputation of the design; that they look on the students as in some sort their children, treat them with familiarity and affection, and, when they have behaved well, and gone through their studies, and are to enter the world, zealously unite, and make all the interest that can be made to establish them, whether in business, offices, marriages, or any other thing for their advantage, preferably to all other persons whatsoever even of equal merit.

And if men may, and frequently do, catch such a taste for cultivating flowers, for planting, grafting, inoculating [grafting], and the like, as to despise all other amusements for their sake, why may not we expect they should acquire a relish for that more useful culture of young minds? Thompson says,

> 'Tis joy to see the human blossoms blow,
> When infant reason grows apace, and calls
> For the kind hand of an assiduous care.
> Delightful task! to rear the tender thought,

To teach the young idea how to shoot;
To pour the fresh instruction o'er the mind,
To breathe th' enliv'ning spirit, and to fix
The generous purpose in the glowing breast.

That a house be provided for the Academy, if not in the town, not many miles from it; the situation high and dry, and if it may be, not far from a river, having a garden, orchard, meadow, and a field or two.

That the house be furnished with a library (if in the country; if in the town, the town libraries may serve) with maps of all countries, globes, some mathematical instruments, and apparatus for experiments in natural philosophy, and for mechanics; prints of all kinds, prospects, buildings, machines, etc.

That the rector be a man of good understanding, good morals, diligent and patient, learned in the languages and sciences, and a correct pure speaker and writer of the English tongue; to have such tutors under him as shall be necessary.

That the boarding scholars diet together, plainly, temperately, and frugally.

That, to keep them in health, and to strengthen and render active their bodies, they be frequently exercised in running, leaping, wrestling, and swimming, etc.

That they have peculiar habits to distinguish them from other youth, if the Academy be in or near the town; for this, among other reasons, that their behavior may be the better observed.

As to their studies, it would be well if they could be taught everything that is useful, and everything that is ornamental: but art is long, and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and most ornamental. Regard being had to the several professions for which they are intended.

All should be taught to write a fair hand, and swift, as that is useful for all. And with it may be learned something of drawing, by imitation of prints, and some of the first principles of perspective.

Arithmetic, accounts, and some of the first principles of geometry and astronomy.

The English language might be taught by grammar; in which some of our best writers, as Tillotson, Addison, Pope, Algernon Sidney, Cato's Letters, etc., should be classics: the styles principally to be cultivated being the clear and the concise. Reading should also be taught, and pronouncing, properly, distinctly, emphatically; not with an even tone, which underdoes, nor a theatrical, which overdoes nature.

To form their style they should be put on writing letters to each other, making abstracts of what they read; or writing the same things in their own words; telling or writing stories lately read, in their own expressions. All to be revised and corrected by the tutor, who should give his reasons, and explain the force and import of words, etc.

To form their pronunciation they may be put on making declamations, repeating speeches, delivering orations, etc.; the tutor assisting at the rehearsals, teaching, advising, correcting their accent, etc.

But if history be made a constant part of their reading, such as the translations of the Greek and Roman historians, and the modern histories of ancient Greece and Rome, etc., may not almost all kinds of useful knowledge be that way introduced to advantage, and with pleasure to the student? As

Geography, by reading with maps, and being required to point out the places where the greatest actions were done, to give their old and new names, with the bounds, situation, extent of the countries concerned, etc.

Chronology, by the help of Helvicus or some other writer of the kind, who will enable them to tell when those events happened, what princes were contemporaries, what states or famous men flourished about that time, etc. The several principal epochs to be first well fixed in their memories.

Ancient customs, religious and civil, being frequently mentioned in history, will give occasion for explaining them; in which the prints of medals, basso-relievos, and ancient monuments will greatly assist.

Morality, by descanting and making continual observations on the causes of the rise or fall of any man's character, fortune, power, etc. mentioned in history; the advantages of temperance, order, frugality, industry, perseverance, etc. Indeed, the general natural tendency of reading good history must be to fix in the minds of youth deep impressions of the beauty and usefulness of virtue of all kinds, public spirit, fortitude, etc.

History will show the wonderful effects of oratory in governing, turning, and leading great bodies of mankind, armies, cities, nations. When the minds of youth are struck with admiration at this, then is the time to give them the principles of that art which they will study with taste and application. Then they may be made acquainted with the best models among the ancients, their beauties being particularly pointed out to them. Modern political oratory being chiefly performed by the pen and press, its advantages over the ancient in some respects are to be shown; as that its effects are more extensive, more lasting, etc.

History will also afford frequent opportunities of showing the necessity of a public religion, from its usefulness to the public; the advantage of a religious character among private persons; the mischiefs of superstition, etc.; and the excellency of the Christian religion above all others ancient or modern.

History will also give occasion to expatiate on the advantage of civil orders and constitutions; how men and their properties are protected by joining in societies and establishing government; their industry encouraged and rewarded, arts invented, and life made more comfortable: the advantages of liberty, mischiefs of licentiousness, benefits arising from good laws and a due execution of justice, etc. Thus may the first principles of sound politics be fixed in the minds of youth.

On historical occasions, questions of right and wrong, justice and injustice will naturally arise, and may be put to youth, which they may debate in conversation and in writing. When they ardently desire victory, for the sake of the praise attending it, they will begin to feel the want, and be sensible of the use of logic, or the art of reasoning to discover truth, and of arguing to defend it, and convince adversaries. This would be the time to acquaint them with the principles of that art. Grotius, Pufendorf, and some other writers of the same kind may be used on these occasions to decide their disputes. Public disputes warm the imagination, whet the industry, and strengthen the natural abilities.

When youth are told that the great men whose lives and actions they read in history spoke two of the best languages that ever were, the most expressive, copious, beautiful; and that the finest writings, the most correct compositions, the most perfect productions of human wit and wisdom are in those languages, which have endured ages, and will endure while there are men; that no translation can do them justice, or give the pleasure found in reading the originals; that those languages contain all science; that one of them is become almost universal, being the language of learned men in all countries; that to understand them is a distinguishing ornament, etc., they may be thereby made desirous of learning those languages, and their industry sharpened in the acquisition of them. All intended for divinity should be taught the Latin and Greek; for physics, the Latin, Greek, and French; for law, the Latin and French; merchants, the French, German, and Spanish: And though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should be refused; their English, arithmetic, and other studies absolutely necessary being at the same time not neglected.

If the new Universal History were also read, it would give a connected idea of human affairs, so far as it goes, which should be followed by the best modern histories, particularly of our mother country; then of these colonies, which should be accompanied with observations on their rise, increase, use to Great Britain, encouragements, discouragements, etc., the means to make them flourish, secure their liberties, etc.

With the history of men, times, and nations should be read at proper hours or days some of the best histories of nature, which would not only be delightful to youth, and furnish them with matter for their letters, etc., as well as other history, but afterwards of great use to them, whether they are merchants, handicraftsmen, or divines; enabling the first the better to understand many commodities, drugs, etc.; the second to improve his trade or handicraft by new mixtures, materials, etc.; and the last to adorn his discourses by beautiful comparisons, and strengthen them by new proofs of divine providence. The conversation of all will be improved by it, as occasions frequently occur of making natural observations, which are instructive, agreeable, and entertaining in almost all companies. Natural history will also afford opportunities of introducing many observations relating to the preservation of health which may be afterwards of great use. Arbuthnot on air and aliment, Sanctorius on perspiration, Lémery on foods, and some others may now be read, and a very little explanation will make them sufficiently intelligible to youth.

While they are reading natural history, might not a little gardening, planting, grafting, inoculating, etc., be taught and practiced; and now and then excursions made to the neighboring plantations of the best farmers, their methods observed and reasoned upon for the information of youth? The improvement of agriculture being useful to all, and skill in it no disparagement to any.

The history of commerce, of the invention of arts, rise of manufactures, progress of trade, change of its seats, with the reasons, causes, etc., may also be made entertaining to youth, and will be useful to all. And this, with the accounts in other history of the prodigious force and effect of engines and machines used in war, will naturally introduce a desire to be instructed in mechanics, and to be informed of the principles of that art by which weak men perform such wonders, labor is saved, manufactures expedited, etc. This will be the time to show them prints of ancient and modern machines, to explain them, to let them be copied, and to give lectures in mechanical philosophy.

With the whole should be constantly inculcated and cultivated that benignity of mind which shows itself in searching for and seizing every

opportunity to serve and to oblige; and is the foundation of what is called good breeding, highly useful to the possessor, and most agreeable to all.

The idea of what is true merit should also be often presented to youth, explained and impressed on their minds, as consisting in an inclination joined with an ability to serve mankind, one's country, friends and family; which ability is (with the blessing of God) to be acquired or greatly increased by true learning, and should indeed be the great aim and end of all learning.

Jean de Crèvecoeur

1735–1813

Born at Caen, Normandy, January 31, 1735, Michel Guillaume Jean de Crèvecoeur (the name in French means "heartbreak") got his later schooling in England and served four years as an officer and map maker under General Montcalm in Canada. Soon after 1759, when Wolfe broke the French power at Quebec, Crèvecoeur seems to have moved down into the American colonies. He changed his name to J.Hector St. John, became a citizen, and married Mehitable Tippet of Yonkers, New York.

They settled on a large farm in Orange County, New York, and had three children. There Crèvecoeur must have written his *Letters from an American Farmer*. The Revolution brought a day-and-night terror of Indian raids and made enemies of friends and neighbors (the farmer in the book actually decides to take his family and live with friendly Indians). Crèvecoeur was apparently called back to France by his father. He took his eldest son along. They were imprisoned by the British in New York. When they finally sailed, their ship was wrecked off the Irish coast.

In London, Crèvecoeur sold his book for thirty guineas (about $153). Quickly it went through eight editions in five countries. It was published in Philadelphia in 1793. He became a celebrated man, admired by Hazlitt, Lamb, and Coleridge, the friend of Franklin, Buffon, and Mme D'Houdetot. Crèvecoeur translated and enlarged his book in French. Back in America as consul to three of the new states in 1784, he found his wife dead and his younger children in the care of Boston friends.

He brought the children together in New York, set up a packet-ship service between France and America, and went back to studying botany. Later he fattened the French *Letters* into a three-volume

work. He was recalled to France in 1790. There he wrote a second three-volume book, this one about his travels in Pennsylvania and New York. Crèvecoeur died in 1813. In the 1920's, a batch of his unpublished English essays came to light in a French attic. The publication of these, coupled with D. H. Lawrence's praise of him, revived his reputation.

He seems so familiar, such a cheerful, everyday friend, that we can hardly believe he was alive when the United States was born. He reminds us of Jefferson and of Rousseau. They share the tone of the Age of Reason. In this tone, we feel the classical idealism of Greece and Rome, strained through Plutarch. Like Virgil and Horace, Crèvecoeur lived in a time of wars and civil wars. The farm in Orange County, like Horace's farm in the Sabine Hills, was his moment of paradise. But already there was a strain of the new Romantic century in him. It came out strongly in his views of nature. He was an amateur in that great company of early American naturalists—Audubon, John and William Bartram, Alexander Wilson, Rafinesque—who discovered an earthly heaven in their new country. Thoreau would come after them.

As a man of the Age of Reason, Crèvecoeur was also a man of ideas. These come to a kind of focus in his essay "The Making of Americans," in *Letters from an American Farmer*. Perhaps he was not the first to ask that question, but he seems to have been the first to make a real try at answering it. He brings an imaginary Englishman to look at us and thereby displays the already broad difference between Englishman and American. We are blended together, Crèvecoeur writes, out of all kinds of Europeans. This is the first we hear of the melting pot. He thinks—and here, perhaps, he was largely mistaken—that religions will combine as nationalities do.

"Some few towns excepted," he says, "we are all tillers of the earth. . . ." So he thinks of Americans, by and large, as farmers, and of labor as a good. He speaks of a man's liberty and happiness on his own acres; of his love for wife and children, and the domestic virtue that springs from this; of the mild laws and encouraging government that make it possible; of the equality each man feels in rejecting the aristocracy of Europe. He sees the hideous evil and the still unjust gentleness of slavery. He observes the one and the many, and shows

us half a dozen typical immigrants. Tocqueville,[1] who visited the United States a generation later, in the 1830's, gives us a wider and more thoughtful view of democracy's workings and shows us the American types already in being.

What would Crèvecoeur think of us now, in the second half of the twentieth century? We are largely gathered in cities. He felt that our hope lay in freedom on the land. Like so many other eighteenth- and nineteenth-century Americans, he thought of country living as more favorable to virtue. Was he right, then or now? Would he consider our tract houses in the suburbs much the same thing as farmers living on their own land? Would he feel that we have abolished the whole injustice of slavery, or that there is more yet to be done? Would he find reasons for the bigness of our government, the complexity of our techniques, our ambitions on the moon? How would he feel the first time he encountered a parking meter or took off in a jet airplane? Read him, this eighteenth-century American who had such high hopes for us, and see if you can guess whether we would please him or disappoint him.

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[1] See "Observations on American Life and Government" in Vol. 6, pp. 564–690, in this set.

The Making of Americans

from *Letters from an American Farmer*

I wish I could be acquainted with the feelings and thoughts which must agitate the heart and present themselves to the mind of an enlightened Englishman when he first lands on this continent. He must greatly rejoice that he lived at a time to see this fair country discovered and settled; he must necessarily feel a share of national pride when he views the chain of settlements which embellishes these extended shores. When he says to himself, this is the work of my countrymen, who, when convulsed by factions, afflicted by a variety of miseries and wants, restless and impatient, took refuge here. They brought along with them their national genius, to which they principally owe what liberty they enjoy, and what substance they possess. Here he sees the industry of his native country displayed in a new manner, and traces in their works the embryos of all the arts, sciences, and ingenuity which flourish in Europe. Here he beholds fair cities, substantial villages, extensive fields, an immense country filled with decent houses, good roads, orchards, meadows, and bridges, where a hundred years ago all was wild, woody, and uncultivated! What a train of pleasing ideas this fair spectacle must suggest; it is a prospect which must inspire a good citizen with the most heartfelt pleasure. The difficulty consists in the manner of viewing so extensive a scene. He is arrived on a new continent; a modern society offers itself to his contemplation, different from what he had hitherto seen. It is not composed, as in Europe, of great lords who possess everything, and of a herd of people who have nothing. Here are no aristocratical families, no courts, no kings, no bishops, no ecclesiastical dominion, no invisible power giving to a few a very visible one; no great manufacturers employing thousands, no great refinements of luxury. The rich and the poor are not so far removed from each other as they are in Europe. Some few towns excepted, we are all tillers of the earth, from Nova Scotia to West Florida. We are a people

of cultivators, scattered over an immense territory, communicating with each other by means of good roads and navigable rivers, united by the silken bands of mild government, all respecting the laws without dreading their power, because they are equitable. We are all animated with the spirit of an industry which is unfettered and unrestrained, because each person works for himself. If he travels through our rural districts he views not the hostile castle and the haughty mansion, contrasted with the clay-built hut and miserable cabin, where cattle and men help to keep each other warm, and dwell in meanness, smoke, and indigence. A pleasing uniformity of decent competence appears throughout our habitations. The meanest of our log houses is a dry and comfortable habitation. Lawyer or merchant are the fairest titles our towns afford; that of a farmer is the only appellation of the rural inhabitants of our country. It must take some time ere he can reconcile himself to our dictionary, which is but short in words of dignity and names of honor. There, on a Sunday, he sees a congregation of respectable farmers and their wives, all clad in neat homespun, well mounted or riding in their own humble wagons. There is not among them an esquire, saving the unlettered magistrate. There he sees a parson as simple as his flock, a farmer who does not riot on the labor of others. We have no princes for whom we toil, starve, and bleed: we are the most perfect society now existing in the world. Here man is free as he ought to be; nor is this pleasing equality so transitory as many others are. Many ages will not see the shores of our great lakes replenished with inland nations, nor the unknown bounds of North America entirely peopled. Who can tell how far it extends? Who can tell the millions of men whom it will feed and contain? for no European foot has as yet traveled half the extent of this mighty continent!

The next wish of this traveler will be to know whence came all these people? They are a mixture of English, Scotch, Irish, French, Dutch, Germans, and Swedes. From this promiscuous breed, that race now called Americans has arisen. The eastern provinces must indeed be excepted, as being the unmixed descendants of Englishmen. I have heard many wish that they had been more intermixed also: for my part, I am no wisher, and think it much better as it has happened. They exhibit a most conspicuous figure in this great and variegated picture; they too enter for a great share in the pleasing perspective displayed in these thirteen provinces. I know it is fashionable to reflect on them, but I respect them for what they have done; for the accuracy and wisdom with which they have settled their territory; for the decency of their manners; for their early love of letters; their ancient college, the first in this hemisphere; for their

industry, which to me who am but a farmer is the criterion of everything. There never was a people, situated as they are, who with so ungrateful a soil have done more in so short a time. Do you think that the monarchical ingredients which are more prevalent in other governments have purged them from all foul stains? Their histories assert the contrary.

In this great American asylum, the poor of Europe have by some means met together, and in consequence of various causes; to what purpose should they ask one another what countrymen they are? Alas, two-thirds of them had no country. Can a wretch who wanders about, who works and starves, whose life is a continual scene of sore affliction or pinching penury; can that man call England or any other kingdom his country? A country that had no bread for him, whose fields procured him no harvest, who met with nothing but the frowns of the rich, the severity of the laws, with jails and punishments; who owned not a single foot of the extensive surface of this planet? No! urged by a variety of motives, here they came. Everything has tended to regenerate them; new laws, a new mode of living, a new social system; here they are become men: in Europe they were as so many useless plants, wanting vegetative mold and refreshing showers; they withered, and were mowed down by want, hunger, and war; but now by the power of transplantation, like all other plants they have taken root and flourished! Formerly they were not numbered in any civil lists of their country, except in those of the poor; here they rank as citizens. By what invisible power has this surprising metamorphosis been performed? By that of the laws and that of their industry. The laws, the indulgent laws, protect them as they arrive, stamping on them the symbol of adoption; they receive ample rewards for their labors; these accumulated rewards procure them lands; those lands confer on them the title of freemen, and to that title every benefit is affixed which men can possibly require. This is the great operation daily performed by our laws. From whence proceed these laws? From our government. Whence the government? It is derived from the original genius and strong desire of the people ratified and confirmed by the crown. This is the great chain which links us all, this is the picture which every province exhibits, Nova Scotia excepted. There the crown has done all; either there were no people who had genius, or it was not much attended to: the consequence is that the province is very thinly inhabited indeed; the power of the crown in conjunction with the mosquitoes has prevented men from settling there. Yet some parts of it flourished once, and it contained a mild, harmless set of people. But for the fault of a few leaders, the whole were banished. The greatest political

error the crown ever committed in America was to cut off men from a country which wanted nothing but men!

What attachment can a poor European emigrant have for a country where he had nothing? The knowledge of the language, the love of a few kindred as poor as himself were the only cords that tied him: his country is now that which gives him land, bread, protection, and consequence: *Ubi panis ibi patria* ["Where there is bread, there is my country"] is the motto of all emigrants. What then is the American, this new man? He is either a European or the descendant of a European, hence that strange mixture of blood, which you will find in no other country. I could point out to you a family whose grandfather was an Englishman, whose wife was Dutch, whose son married a French woman, and whose present four sons have now four wives of different nations. He is an American who, leaving behind him all his ancient prejudices and manners, receives new ones from the new mode of life he has embraced, the new government he obeys, and the new rank he holds. He becomes an American by being received in the broad lap of our great Alma Mater. Here individuals of all nations are melted into a new race of men, whose labors and posterity will one day cause great changes in the world. Americans are the western pilgrims, who are carrying along with them that great mass of arts, sciences, vigor, and industry which began long since in the east; they will finish the great circle. The Americans were once scattered all over Europe; here they are incorporated into one of the finest systems of population which has ever appeared, and which will hereafter become distinct by the power of the different climates they inhabit. The American ought therefore to love this country much better than that wherein either he or his forefathers were born. Here the rewards of his industry follow with equal steps the progress of his labor; his labor is founded on the basis of nature, self-interest; can it want a stronger allurement? Wives and children, who before in vain demanded of him a morsel of bread, now, fat and frolicsome, gladly help their father to clear those fields whence exuberant crops are to arise to feed and to clothe them all; without any part being claimed, either by a despotic prince, a rich abbot, or a mighty lord. Here religion demands but little of him; a small voluntary salary to the minister, and gratitude to God; can he refuse these? The American is a new man, who acts upon new principles; he must therefore entertain new ideas, and form new opinions. From involuntary idleness, servile dependence, penury, and useless labor, he has passed to toils of a very different nature, rewarded by ample subsistence. This is an American.

British America is divided into many provinces, forming a large association scattered along a coast 1500 miles extent and about 200 wide. This society I would fain examine, at least such as it appears in the middle provinces; if it does not afford that variety of tinges and gradations which may be observed in Europe, we have colors peculiar to ourselves. For instance, it is natural to conceive that those who live near the sea must be very different from those who live in the woods; the intermediate space will afford a separate and distinct class.

Men are like plants; the goodness and flavor of the fruit proceeds from the peculiar soil and exposition in which they grow. We are nothing but what we derive from the air we breathe, the climate we inhabit, the government we obey, the system of religion we profess, and the nature of our employment. Here you will find but few crimes; these have acquired as yet no root among us. I wish I were able to trace all my ideas; if my ignorance prevents me from describing them properly, I hope I shall be able to delineate a few of the outlines, which are all I propose.

Those who live near the sea feed more on fish than on flesh, and often encounter that boisterous element. This renders them more bold and enterprising; this leads them to neglect the confined occupations of the land. They see and converse with a variety of people; their intercourse with mankind becomes extensive. The sea inspires them with a love of traffic, a desire of transporting produce from one place to another; and leads them to a variety of resources which supply the place of labor. Those who inhabit the middle settlements, by far the most numerous, must be very different; the simple cultivation of the earth purifies them, but the indulgences of the government, the soft remonstrances of religion, the rank of independent freeholders must necessarily inspire them with sentiments very little known in Europe among people of the same class. What do I say? Europe has no such class of men; the early knowledge they acquire, the early bargains they make, give them a great degree of sagacity. As freemen they will be litigious; pride and obstinacy are often the cause of lawsuits; the nature of our laws and governments may be another. As citizens it is easy to imagine that they will carefully read the newspapers, enter into every political disquisition, freely blame or censure governors and others. As farmers they will be careful and anxious to get as much as they can, because what they get is their own. As northern men they will love the cheerful cup. As Christians, religion curbs them not in their opinions; the general indulgence leaves every one to think for himself in spiritual matters; the laws inspect our actions, our thoughts are left to God. Industry, good living, selfishness, litigiousness, country politics, the

pride of freemen, religious indifference are their characteristics. If you recede still farther from the sea, you will come into more modern settlements; they exhibit the same strong lineaments in a ruder appearance. Religion seems to have still less influence, and their manners are less improved.

Now we arrive near the great woods, near the last inhabited districts; there men seem to be placed still farther beyond the reach of government, which in some measure leaves them to themselves. How can it pervade every corner; as they were driven there by misfortunes, necessity of beginnings, desire of acquiring large tracts of land, idleness, frequent want of economy, ancient debts, the reunion of such people does not afford a very pleasing spectacle. When discord, want of unity and friendship, when either drunkenness or idleness prevail in such remote districts, contention, inactivity, and wretchedness must ensue. There are not the same remedies to these evils as in a long-established community. The few magistrates they have are in general little better than the rest; they are often in a perfect state of war; that of man against man, sometimes decided by blows, sometimes by means of the law; that of man against every wild inhabitant of these venerable woods, of which they are come to dispossess them. There men appear to be no better than carnivorous animals of a superior rank, living on the flesh of wild animals when they can catch them, and when they are not able, they subsist on grain. He who would wish to see America in its proper light, and have a true idea of its feeble beginnings and barbarous rudiments, must visit our extended line of frontiers where the last settlers dwell, and where he may see the first labors of settlement, the mode of clearing the earth, in all their different appearances; where men are left wholly dependent on their native tempers, and on the spur of uncertain industry, which often fails when not sanctified by the efficacy of a few moral rules. There, remote from the power of example, and check of shame, many families exhibit the most hideous parts of our society. They are a kind of forlorn hope, preceding by ten or twelve years the most respectable army of veterans which come after them. In that space, prosperity will polish some, vice and the law will drive off the rest, who, uniting again with others like themselves, will recede still farther, making room for more industrious people, who will finish their improvements, convert the log house into a convenient habitation, and rejoicing that the first heavy labors are finished, will change in a few years that hitherto barbarous country into a fine, fertile, well-regulated district. Such is our progress, such is the march of the Europeans toward the interior parts of this continent. In all societies

there are offcasts; this impure part serves as our precursors or pioneers; my father himself was one of that class, but he came upon honest principles, and was therefore one of the few who held fast; by good conduct and temperance, he transmitted to me his fair inheritance, when not above one in fourteen of his contemporaries had the same good fortune.

Forty years ago this smiling country was thus inhabited; it is now purged, a general decency of manners prevails throughout, and such has been the fate of our best countries.

Exclusive of those general characteristics, each province has its own, founded on the government, climate, mode of husbandry, customs, and peculiarity of circumstances. Europeans submit insensibly to these great powers, and become, in the course of a few generations, not only Americans in general, but either Pennsylvanians, Virginians, or provincials under some other name. Whoever traverses the continent must easily observe those strong differences, which will grow more evident in time. The inhabitants of Canada, Massachusetts, the middle provinces, the southern ones will be as different as their climates; their only points of unity will be those of religion and language.

As I have endeavored to show you how Europeans become Americans, it may not be disagreeable to show you likewise how the various Christian sects introduced wear out, and how religious indifference becomes prevalent. When any considerable number of a particular sect happen to dwell contiguous to each other, they immediately erect a temple, and there worship the Divinity agreeably to their own peculiar ideas. Nobody disturbs them. If any new sect springs up in Europe, it may happen that many of its professors will come and settle in America. As they bring their zeal with them, they are at liberty to make proselytes if they can, and to build a meeting and to follow the dictates of their consciences; for neither the government nor any other power interferes. If they are peaceable subjects, and are industrious, what is it to their neighbors how and in what manner they think fit to address their prayers to the Supreme Being? But if the sectaries are not settled close together, if they are mixed with other denominations, their zeal will cool for want of fuel, and will be extinguished in a little time. Then the Americans become as to religion, what they are as to country, allied to all. In them the name of Englishman, Frenchman, and European is lost, and in like manner, the strict modes of Christianity as practised in Europe are lost also. This effect will extend itself still farther hereafter, and though this may appear to you as a strange idea, yet it is a very true one. I shall

be able perhaps hereafter to explain myself better, in the meanwhile, let the following example serve as my first justification.

Let us suppose you and I to be traveling; we observe that in this house, to the right, lives a Catholic, who prays to God as he has been taught, and believes in transubstantiation; he works and raises wheat, he has a large family of children, all hale and robust; his belief, his prayers offend nobody. About one mile farther on the same road, his next neighbor may be a good honest plodding German Lutheran, who addresses himself to the same God, the God of all, agreeably to the modes he has been educated in, and believes in consubstantiation; by so doing he scandalizes nobody; he also works in his fields, embellishes the earth, clears swamps, etc. What has the world to do with his Lutheran principles? He persecutes nobody, and nobody persecutes him; he visits his neighbors, and his neighbors visit him. Next to him lives a seceder, the most enthusiastic of all sectaries; his zeal is hot and fiery, but separated as he is from others of the same complexion, he has no congregation of his own to resort to, where he might cabal and mingle religious pride with worldly obstinacy. He likewise raises good crops, his house is handsomely painted, his orchard is one of the fairest in the neighborhood. How does it concern the welfare of the country, or of the province at large, what this man's religious sentiments are, or really whether he has any at all? He is a good farmer; he is a sober, peaceable, good citizen: William Penn himself would not wish for more. This is the visible character, the invisible one is only guessed at, and is nobody's business. Next again lives a Low Dutchman, who implicitly believes the rules laid down by the synod of Dort. He conceives no other idea of a clergyman than that of an hired man; if he does his work well he will pay him the stipulated sum; if not he will dismiss him, and do without his sermons, and let his church be shut up for years. But notwithstanding this coarse idea, you will find his house and farm to be the neatest in all the country; and you will judge by his wagon and fat horses that he thinks more of the affairs of this world than of those of the next. He is sober and laborious; therefore he is all he ought to be as to the affairs of this life; as for those of the next, he must trust to the great Creator. Each of these people instruct their children as well as they can, but these instructions are feeble compared to those which are given to the youth of the poorest class in Europe. Their children will therefore grow up less zealous and more indifferent in matters of religion than their parents. The foolish vanity, or rather the fury of making proselytes, is unknown here; they have no time, the seasons call

for all their attention, and thus in a few years, this mixed neighborhood will exhibit a strange religious medley that will be neither pure Catholicism nor pure Calvinism. A very perceptible indifference even in the first generation will become apparent; and it may happen that the daughter of the Catholic will marry the son of the seceder, and settle by themselves at a distance from their parents. What religious education will they give their children? A very imperfect one. If there happens to be in the neighborhood any place of worship, we will suppose a Quakers' meeting; rather than not show their fine clothes, they will go to it, and some of them may perhaps attach themselves to that society. Others will remain in a perfect state of indifference; the children of these zealous parents will not be able to tell what their religious principles are, and their grandchildren still less. The neighborhood of a place of worship generally leads them to it, and the action of going thither is the strongest evidence they can give of their attachment to any sect. The Quakers are the only people who retain a fondness for their own mode of worship; for be they ever so far separated from each other, they hold a sort of communion with the society, and seldom depart from its rules, at least in this country. Thus all sects are mixed as well as all nations; thus religious indifference is imperceptibly disseminated from one end of the continent to the other; which is at present one of the strongest characteristics of the Americans. Where this will reach no one can tell; perhaps it may leave a vacuum fit to receive other systems. Persecution, religious pride, the love of contradiction are the food of what the world commonly calls religion. These motives have ceased here: zeal in Europe is confined, here it evaporates in the great distance it has to travel; there it is a grain of powder enclosed, here it burns away in the open air, and consumes without effect.

But to return to our backsettlers. I must tell you that there is something in the proximity of the woods which is very singular. It is with men as it is with the plants and animals that grow and live in the forests; they are entirely different from those that live in the plains. I will candidly tell you all my thoughts, but you are not to expect that I shall advance any reasons. By living in or near the woods, their actions are regulated by the wildness of the neighborhood. The deer often come to eat their grain, the wolves to destroy their sheep, the bears to kill their hogs, the foxes to catch their poultry. This surrounding hostility immediately puts the gun into their hands; they watch these animals, they kill some; and thus by defending their property, they soon become professed hunters; this is the progress; once hunters, farewell to the plow. The chase

renders them ferocious, gloomy, and unsociable: a hunter wants no neighbor; he rather hates them, because he dreads the competition. In a little time their success in the woods makes them neglect their tillage. They trust to the natural fecundity of the earth, and therefore do little; carelessness in fencing often exposes what little they sow to destruction; they are not at home to watch; in order therefore to make up the deficiency, they go oftener to the woods. That new mode of life brings along with it a new set of manners, which I cannot easily describe. These new manners, being grafted on the old stock, produce a strange sort of lawless profligacy, the impressions of which are indelible. The manners of the Indian natives are respectable, compared with this European medley. Their wives and children live in sloth and inactivity; and having no proper pursuits, you may judge what education the latter receive. Their tender minds have nothing else to contemplate but the example of their parents; like them they grow up a mongrel breed, half civilized, half savage, except nature stamps on them some constitutional propensities. That rich, that voluptuous sentiment is gone that struck them so forcibly; the possession of their freeholds no longer conveys to their minds the same pleasure and pride. To all these reasons you must add their lonely situation, and you cannot imagine what an effect on manners the great distances they live from each other has! Consider one of the last settlements in its first view: of what is it composed? Europeans who have not that sufficient share of knowledge they ought to have in order to prosper; people who have suddenly passed from oppression, dread of government, and fear of laws into the unlimited freedom of the woods. This sudden change must have a very great effect on most men, and on that class particularly. Eating of wild meat, whatever you may think, tends to alter their temper, though all the proof I can adduce is that I have seen it; and having no place of worship to resort to, what little society this might afford is denied them. The Sunday meetings, exclusive of religious benefits, were the only social bonds that might have inspired them with some degree of emulation in neatness. Is it then surprising to see men thus situated, immersed in great and heavy labors, degenerate a little? It is rather a wonder the effect is not more diffusive. The Moravians and the Quakers are the only instances in exception to what I have advanced. The first never settle singly, it is a colony of the society which emigrates; they carry with them their forms, worship, rules, and decency: the others never begin so hard, they are always able to buy improvements, in which there is a great advantage, for by that time the country is recovered from its first barbarity. Thus our bad people are

those who are half cultivators and half hunters; and the worst of them are those who have degenerated altogether into the hunting state. As old plowmen and new men of the woods, as Europeans and new made Indians, they contract the vices of both; they adopt the moroseness and ferocity of a native, without his mildness, or even his industry at home. If manners are not refined, at least they are rendered simple and inoffensive by tilling the earth; all our wants are supplied by it, our time is divided between labor and rest, and leaves none for the commission of great misdeeds. As hunters it is divided between the toil of the chase, the idleness of repose, or the indulgence of inebriation. Hunting is but a licentious idle life, and if it does not always pervert good dispositions, yet, when it is united with bad luck, it leads to want: want stimulates that propensity to rapacity and injustice, too natural to needy men, which is the fatal gradation. After this explanation of the effects which follow by living in the woods, shall we yet vainly flatter ourselves with the hope of converting the Indians? We should rather begin with converting our backsettlers; and now if I dare mention the name of religion, its sweet accents would be lost in the immensity of these woods. Men thus placed are not fit either to receive or remember its mild instructions; they want temples and ministers, but as soon as men cease to remain at home, and begin to lead an erratic life, let them be either tawny or white, they cease to be its disciples.

Thus have I faintly and imperfectly endeavored to trace our society from the sea to our woods! Yet you must not imagine that every person who moves back acts upon the same principles, or falls into the same degeneracy. Many families carry with them all their decency of conduct, purity of morals, and respect of religion; but these are scarce, the power of example is sometimes irresistible. Even among these backsettlers, their depravity is greater or less, according to what nation or province they belong. Were I to adduce proofs of this, I might be accused of partiality. If there happen to be some rich intervals, some fertile bottoms, in those remote districts, the people will there prefer tilling the land to hunting, and will attach themselves to it; but even on these fertile spots you may plainly perceive the inhabitants to acquire a great degree of rusticity and selfishness.

It is in consequence of this straggling situation, and the astonishing power it has on manners, that the backsettlers of both the Carolinas, Virginia, and many other parts have been long a set of lawless people; it has been even dangerous to travel among them. Government can do nothing in so extensive a country; better it should wink at these

irregularities than that it should use means inconsistent with its usual mildness. Time will efface those stains: in proportion as the great body of population approaches them they will reform, and become polished and subordinate. Whatever has been said of the four New England provinces, no such degeneracy of manners has ever tarnished their annals; their backsettlers have been kept within the bounds of decency, and government, by means of wise laws, and by the influence of religion. What a detestable idea such people must have given to the natives of the Europeans! They trade with them, the worst of people are permitted to do that which none but persons of the best characters should be employed in. They get drunk with them, and often defraud the Indians. Their avarice, removed from the eyes of their superiors, knows no bounds; and aided by a little superiority of knowledge, these traders deceive them, and even sometimes shed blood. Hence those shocking violations, those sudden devastations which have so often stained our frontiers, when hundreds of innocent people have been sacrificed for the crimes of a few. It was in consequence of such behavior that the Indians took the hatchet against the Virginians in 1774. Thus are our first steps trod, thus are our first trees felled, in general, by the most vicious of our people; and thus the path is opened for the arrival of a second and better class, the true American freeholders; the most respectable set of people in this part of the world: respectable for their industry, their happy independence, the great share of freedom they possess, the good regulation of their families, and for extending the trade and the dominion of our mother country.

Europe contains hardly any other distinctions but lords and tenants; this fair country alone is settled by freeholders, the possessors of the soil they cultivate, members of the government they obey, and the framers of their own laws by means of their representatives. This is a thought which you have taught me to cherish; our difference from Europe, far from diminishing, rather adds to our usefulness and consequence as men and subjects. Had our forefathers remained there, they would only have crowded it, and perhaps prolonged those convulsions which had shook it so long. Every industrious European who transports himself here may be compared to a sprout growing at the foot of a great tree; it enjoys and draws but a little portion of sap; wrench it from the parent roots, transplant it, and it will become a tree bearing fruit also. Colonists are therefore entitled to the consideration due to the most useful subjects; a hundred families barely existing in some parts of Scotland, will here in six years, cause an annual exportation of 10,000 bushels of wheat: 100 bushels being but a common quantity for an industrious family to sell if

they cultivate good land. It is here then that the idle may be employed, the useless become useful, and the poor become rich; but by riches I do not mean gold and silver, we have but little of those metals; I mean a better sort of wealth, cleared lands, cattle, good houses, good clothes, and an increase of people to enjoy them.

There is no wonder that this country has so many charms, and presents to Europeans so many temptations to remain in it. A traveler in Europe becomes a stranger as soon as he quits his own kingdom; but it is otherwise here. We know, properly speaking, no strangers; this is every person's country; the variety of our soils, situations, climates, governments, and produce, hath something which must please everybody. No sooner does a European arrive, no matter of what condition, than his eyes are opened upon the fair prospect; he hears his language spoken, he retraces many of his own country manners, he perpetually hears the names of families and towns with which he is acquainted; he sees happiness and prosperity in all places disseminated; he meets with hospitality, kindness, and plenty everywhere; he beholds hardly any poor, he seldom hears of punishments and executions; and he wonders at the elegance of our towns, those miracles of industry and freedom. He cannot admire enough our rural districts, our convenient roads, good taverns, and our many accommodations; he involuntarily loves a country where everything is so lovely. When in England, he was a mere Englishman; here he stands on a larger portion of the globe, not less than its fourth part, and may see the productions of the north, in iron and naval stores; the provisions of Ireland, the grain of Egypt, the indigo, the rice of China. He does not find, as in Europe, a crowded society, where every place is overstocked; he does not feel that perpetual collision of parties, that difficulty of beginning, that contention which oversets so many. There is room for everybody in America; has he any particular talent, or industry? he exerts it in order to procure a livelihood, and it succeeds. Is he a merchant? the avenues of trade are infinite; is he eminent in any respect? he will be employed and respected. Does he love a country life? pleasant farms present themselves; he may purchase what he wants, and thereby become an American farmer. Is he a laborer, sober and industrious? he need not go many miles, nor receive many informations before he will be hired, well fed at the table of his employer, and paid four or five times more than he can get in Europe. Does he want uncultivated lands? thousands of acres present themselves, which he may purchase cheap. Whatever be his talents or inclinations, if they are moderate, he may satisfy them. I do not mean that everyone who comes

will grow rich in a little time; no, but he may procure an easy, decent maintenance, by his industry. Instead of starving he will be fed, instead of being idle he will have employment; and these are riches enough for such men as come over here. The rich stay in Europe, it is only the middling and the poor that emigrate. Would you wish to travel in independent idleness, from north to south, you will find easy access, and the most cheerful reception at every house; society without ostentation, good cheer without pride, and every decent diversion which the country affords, with little expense. It is no wonder that the European who has lived here a few years is desirous to remain; Europe with all its pomp is not to be compared to this continent for men of middle stations or laborers.

A European, when he first arrives, seems limited in his intentions, as well as in his views; but he very suddenly alters his scale; two hundred miles formerly appeared a very great distance, it is now but a trifle; he no sooner breathes our air than he forms schemes, and embarks in designs he never would have thought of in his own country. There the plenitude of society confines many useful ideas, and often extinguishes the most laudable schemes which here ripen into maturity. Thus Europeans become Americans.

"The Making of Americans"
consists of the first part of Letter III
in LETTERS FROM AN AMERICAN FARMER.

Alexis de Tocqueville

1805–1859

Undoubtedly the most illustrious of all political analysts since Aristotle and Machiavelli." This is the way Wilhelm Dilthey, the famous German philosopher, describes Alexis de Tocqueville. It is an estimate with which many philosophers and political scientists would agree.

Alexis Charles Henri Maurice Clérel de Tocqueville was born in Verneuil on July 29, 1805. His family had been part of the French nobility prior to the Revolution of 1789, and he grew up in an atmosphere where the aristocratic values had been preserved. He received much of his early education at home, and at eighteen took up the study of law. When he was twenty-one, he became a magistrate at Versailles under the government of Charles X.

Charles's government was toppled by the Revolution of 1830, and Tocqueville sought some way to dissociate himself from the new government without appearing disloyal. Along with his close friend Gustave de Beaumont, he petitioned the government for a commission to survey the penal institutions in America. The prison survey was only a pretext. His primary aim was to view at first hand the democratic system as it operated in the United States. The commission was granted, and he and Beaumont sailed for America, arriving in New York City in May, 1831. From there they began a tour that

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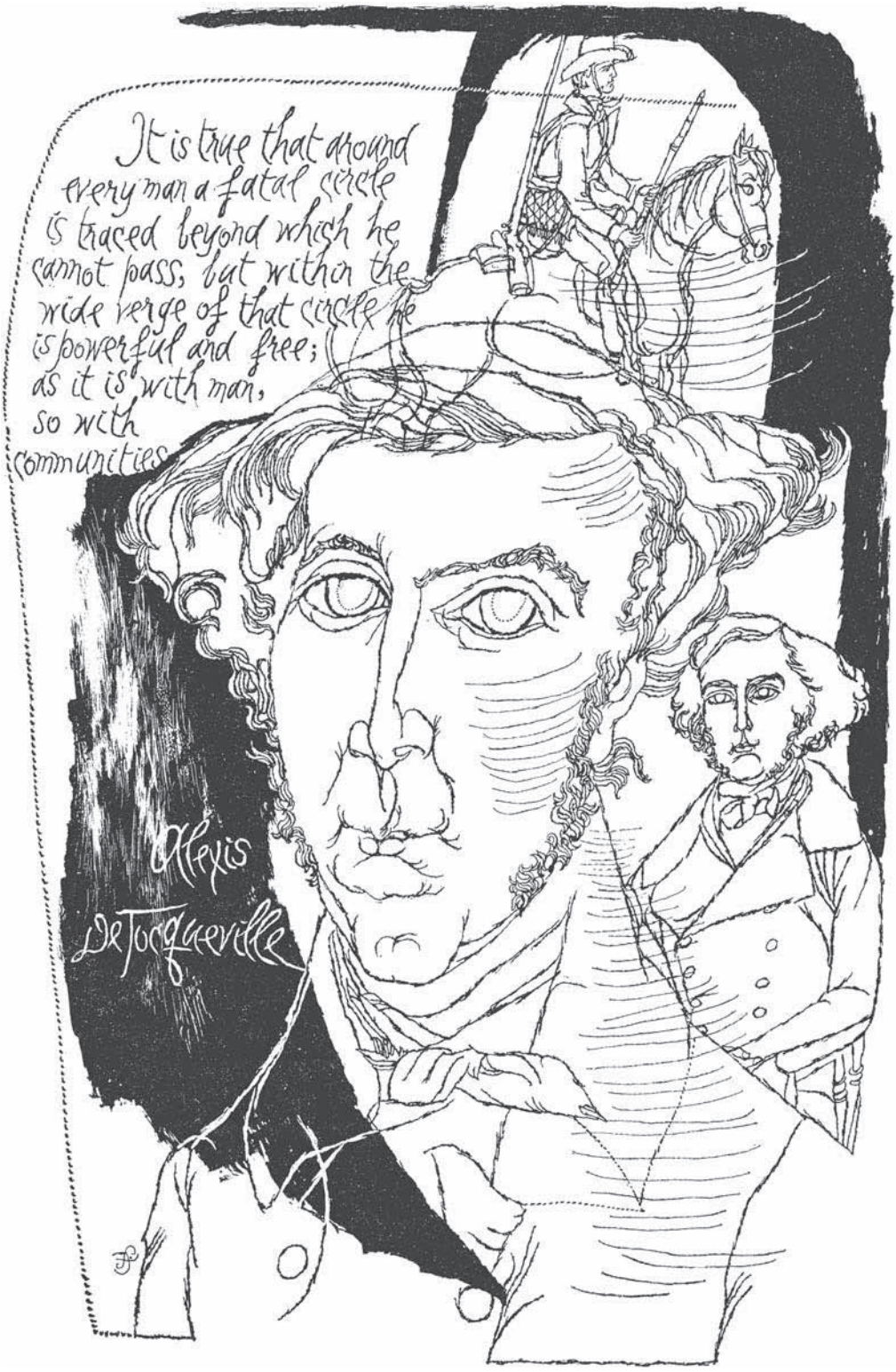
Notes from the artist: "*Head study of Tocqueville beneath a quotation from* Democracy in America. *At right is Gustave de Beaumont, whose sketch of Tocqueville entitled 'Ready for the Wilderness' was the basis for the equestrian portrait.*"


It is true that around every man a fatal circle is traced beyond which he cannot pass, but within the wide verge of that circle he is powerful and free; as it is with man, so with communities
Alexis
De Tocqueville

took them as far north as Canada and as far south as New Orleans. They traveled more than seven thousand miles by steamer, stagecoach, and horseback before returning to France the following February.

Once the report on American prisons was completed, Tocqueville turned to the work that was the real purpose of his travels—*Democracy in America.* The first part appeared in 1835. It was received with great enthusiasm and soon was translated into several languages. The second part appeared in 1840. It was also well received, but it did not generate as much excitement as its predecessor. In commenting on the complete work, John Stuart Mill said that it constituted "the beginning of a new era in the science of politics."

The success of *Democracy in America* advanced Tocqueville to the front rank of French political thinkers. He was honored widely and eventually was persuaded to return to politics. He was elected to the Chamber of Deputies in 1839, where he remained until 1851. Then, withdrawing from public life, he began preparing the work that many consider his masterpiece, *L'Ancien Régime et la Révolution.* Its first volume, published in 1856, was even more successful than *Democracy in America.* Unfortunately, ill-health prevented him from completing the other volumes. He died in Cannes at the age of fifty-three.

Democracy in America is one of the most remarkable books ever written. Based upon observations made by a twenty-six-year-old man during a period of only nine months, it has never been surpassed as an analysis of American society. Even today, more than one hundred and thirty years after Tocqueville visited the United States, it is still one of the best commentaries available on American institutions, practices, beliefs, and attitudes.

One of the reasons why *Democracy in America* has been of such lasting value is that Tocqueville was not so much interested in America as in democracy. Of all the nations that were then being transformed into democracies, the United States was the one in which the development of democracy had been "most peaceful and most complete." By comparing what he knew of other societies with what he observed in America, Tocqueville could see the effects of democracy upon social institutions and upon the lives and characters of men. He took great pains to distinguish between the effects

that seemed to be characteristic of democracy in general and those that were peculiar to American democracy. As a result, he was able to see below the surface of American society to its underlying principles and tendencies.

Tocqueville's great interest in democratic societies stemmed from his conviction that democracy was the wave of the future; the movement towards it was "universal" and "irresistible." The democratic revolution was already under way in Europe, and its outcome was anticipated with fear by some, with hope by others. These hopes and fears were, in almost every instance, based upon ignorance. Tocqueville's aim was to provide his countrymen (and other Europeans) with the truth about democracy, its "evils and the advantages." He elaborated upon his purpose in a letter to a friend: "I wished to show what a democratic people really was in our day. . . . To those who have fancied an ideal democracy, a brilliant and easily realized dream, I endeavored to show that they had clothed the picture in false colors. . . . To those for whom the word *democracy* is synonymous with destruction, anarchy, spoliation, and murder, I have tried to show that under a democratic government the fortunes and rights of society may be respected, liberty preserved, and religion honored."

Because of space limitations, only part of *Democracy in America* is reprinted here. The complete work covers almost every important aspect of American life, and the high level of observation and analysis is sustained throughout.

Observations on American Life and Government

from *Democracy in America*

INTRODUCTION

mong the novel objects that attracted my attention during my stay in the United States, nothing struck me more forcibly than the general equality of conditions. I readily discovered the prodigious influence which this primary fact exercises on the whole course of society, by giving a certain direction to public opinion, and a certain tenor to the laws; by imparting new maxims to the governing powers, and peculiar habits to the governed.

I speedily perceived that the influence of this fact extends far beyond the political character and the laws of the country, and that it has no less empire over civil society than over the government; it creates opinions, engenders sentiments, suggests the ordinary practices of life, and modifies whatever it does not produce.

The more I advanced in the study of American society, the more I perceived that the equality of conditions is the fundamental fact from which all others seem to be derived, and the central point at which all my observations constantly terminated.

I then turned my thoughts to our own hemisphere, where I imagined that I discerned something analogous to the spectacle which the New World presented to me. I observed that the equality of conditions is daily progressing towards those extreme limits which it seems to have reached in the United States; and that the democracy which governs the American communities appears to be rapidly rising into power in Europe.

I hence conceived the idea of the book which is now before the reader.

It is evident to all alike that a great democratic revolution is going on among us; but there are two opinions as to its nature and consequences. To some it appears to be a novel accident, which as such may still be checked; to others it seems irresistible because it is the most uniform, the most ancient, and the most permanent tendency which is to be found in history.

Let us recollect the situation of France seven hundred years ago, when the territory was divided among a small number of families who were the owners of the soil and the rulers of the inhabitants; the right of governing descended with the family inheritance from generation to generation; force was the only means by which man could act on man; and landed property was the sole source of power.

Soon, however, the political power of the clergy was founded, and began to exert itself: the clergy opened its ranks to all classes, to the poor and the rich, the villain and the lord; equality penetrated into the government through the church, and the being who as a serf must have vegetated in perpetual bondage took his place as a priest in the midst of nobles, and not unfrequently above the heads of kings.

The different relations of men became more complicated and more numerous as society gradually became more stable and more civilized. Thence the want of civil laws was felt; and the order of legal functionaries soon rose from the obscurity of the tribunals and their dusty chambers to appear at the court of the monarch, by the side of the feudal barons in their ermine and their mail.

While the kings were ruining themselves by their great enterprises, and the nobles exhausting their resources by private wars, the lower orders were enriching themselves by commerce. The influence of money began to be perceptible in state affairs. The transactions of business opened a new road to power, and the financier rose to a station of political influence in which he was at once flattered and despised.

Gradually the spread of mental acquirements, and the increasing taste for literature and art, opened chances of success to talent; science became a means of government, intelligence led to social power, and the man of letters took a part in the affairs of the state.

The value attached to the privileges of birth decreased in the exact proportion in which new paths were struck out to advancement. In the eleventh century nobility was beyond all price; in the thirteenth it might be purchased; it was conferred for the first time in 1270; and equality was thus introduced into the government by the aristocracy itself.

In the course of these seven hundred years, it sometimes happened

that in order to resist the authority of the crown, or to diminish the power of their rivals, the nobles granted a certain share of political rights to the people. Or, more frequently, the king permitted the lower orders to enjoy a degree of power, with the intention of repressing the aristocracy.

In France the kings have always been the most active and the most constant of levelers. When they were strong and ambitious, they spared no pains to raise the people to the level of the nobles; when they were temperate or weak, they allowed the people to rise above themselves. Some assisted the democracy by their talents, others by their vices. Louis XI and Louis XIV reduced every rank beneath the throne to the same subjection; Louis XV descended, himself and all his court, into the dust.

As soon as land was held on any other than a feudal tenure, and personal property began in its turn to confer influence and power, every improvement which was introduced in commerce or manufacture was a fresh element of the equality of conditions. Henceforward every new discovery, every new want which it engendered, and every new desire which craved satisfaction, was a step towards the universal level. The taste for luxury, the love of war, the sway of fashion, and the most superficial as well as the deepest passions of the human heart, co-operated to enrich the poor and to impoverish the rich.

From the time when the exercise of the intellect became the source of strength and of wealth, it is impossible not to consider every addition to science, every fresh truth, and every new idea as a germ of power placed within the reach of the people. Poetry, eloquence, and memory, the grace of wit, the glow of imagination, the depth of thought, and all the gifts which are bestowed by Providence with an equal hand turned to the advantage of the democracy; and even when they were in the possession of its adversaries, they still served its cause by throwing into relief the natural greatness of man; its conquests spread, therefore, with those of civilization and knowledge; and literature became an arsenal, where the poorest and the weakest could always find weapons to their hand.

In perusing the pages of our history, we shall scarcely meet with a single great event, in the lapse of seven hundred years, which has not turned to the advantage of equality.

The Crusades and the wars of the English decimated the nobles and divided their possessions: the erection of communities introduced an element of democratic liberty into the bosom of feudal monarchy; the invention of firearms equalized the villain and the noble on the field of battle; printing opened the same resources to the minds of all classes;

the post was organized so as to bring the same information to the door of the poor man's cottage, and to the gate of the palace; and Protestantism proclaimed that all men are alike able to find the road to heaven. The discovery of America offered a thousand new paths to fortune and placed riches and power within the reach of the adventurous and the obscure.

If we examine what has happened in France at intervals of fifty years, beginning with the eleventh century, we shall invariably perceive that a twofold revolution has taken place in the state of society. The noble has gone down on the social ladder, and the *roturier* has gone up; the one descends as the other rises. Every half-century brings them nearer to each other, and they will very shortly meet.

Nor is this phenomenon at all peculiar to France. Whithersoever we turn our eyes we shall witness the same continual revolution throughout the whole of Christendom.

The various occurrences of national existence have everywhere turned to the advantage of democracy; all men have aided it by their exertions: those who have intentionally labored in its cause, and those who have served it unwittingly; those who have fought for it and those who have declared themselves its opponents have all been driven along in the same track, have all labored to one end, some ignorantly and some unwillingly; all have been blind instruments in the hands of God.

The gradual development of the equality of conditions is therefore a providential fact, and it possesses all the characteristics of a divine decree: it is universal, it is durable, it constantly eludes all human interference, and all events as well as all men contribute to its progress.

Would it, then, be wise to imagine that a social impulse which dates from so far back can be checked by the efforts of a generation? Is it credible that the democracy which has annihilated the feudal system, and vanquished kings, will respect the citizen and the capitalist? Will it stop now that it is grown so strong, and its adversaries so weak?

None can say which way we are going, for all terms of comparison are wanting: the equality of conditions is more complete in the Christian countries of the present day than it has been at any time, or in any part of the world, so that the extent of what already exists prevents us from foreseeing what may be yet to come.

The whole book which is here offered to the public has been written under the impression of a kind of religious dread produced in the author's mind by the contemplation of so irresistible a revolution, which has advanced for centuries in spite of such amazing obstacles, and which is still proceeding in the midst of the ruins it has made.

It is not necessary that God himself should speak in order to disclose to us the unquestionable signs of His will; we can discern them in the habitual course of nature, and in the invariable tendency of events: I know, without a special revelation, that the planets move in the orbits traced by the Creator's finger.

If the men of our time were led by attentive observation, and by sincere reflection, to acknowledge that the gradual and progressive development of social equality is at once the past and future of their history, this solitary truth would confer the sacred character of a divine decree upon the change. To attempt to check democracy would be in that case to resist the will of God; and the nations would then be constrained to make the best of the social lot awarded to them by Providence.

The Christian nations of our age seem to me to present a most alarming spectacle; the impulse which is bearing them along is so strong that it cannot be stopped, but it is not yet so rapid that it cannot be guided: their fate is in their hands; yet a little while and it may be so no longer.

The first duty which is at this time imposed upon those who direct our affairs is to educate the democracy; to warm its faith, if that be possible; to purify its morals; to direct its energies; to substitute a knowledge of business for its inexperience, and an acquaintance with its true interests for its blind propensities; to adapt its government to time and place, and to modify it in compliance with the occurrences and the actors of the age.

A new science of politics is indispensable to a new world.

This, however, is what we think of least; launched in the middle of a rapid stream, we obstinately fix our eyes on the ruins which may still be descried upon the shore we have left, while the current sweeps us along, and drives us backwards toward the gulf.

In no country in Europe has the great social revolution which I have been describing made such rapid progress as in France; but it has always been borne on by chance. The heads of the state have never had any forethought for its exigencies, and its victories have been obtained without their consent or without their knowledge. The most powerful, the most intelligent, and the most moral classes of the nation have never attempted to connect themselves with it in order to guide it. The people has consequently been abandoned to its wild propensities, and it has grown up like those outcasts who receive their education in the public streets, and who are unacquainted with aught but the vices and wretchedness of society. The existence of a democracy was seemingly unknown, when on a sudden it took possession of the supreme power. Everything was then submitted to its caprices; it was worshiped as the idol of

strength; until, when it was enfeebled by its own excesses, the legislator conceived the rash project of annihilating its power, instead of instructing it and correcting its vices; no attempt was made to fit it to govern, but all were bent on excluding it from the government.

The consequence of this has been that the democratic revolution has been effected only in the material parts of society, without that concomitant change in laws, ideas, customs and manners which was necessary to render such a revolution beneficial. We have gotten a democracy, but without the conditions which lessen its vices and render its natural advantages more prominent; and although we already perceive the evils it brings, we are ignorant of the benefits it may confer.

While the power of the crown, supported by the aristocracy, peaceably governed the nations of Europe, society possessed, in the midst of its wretchedness, several different advantages which can now scarcely be appreciated or conceived.

The power of a part of his subjects was an insurmountable barrier to the tyranny of the prince; and the monarch, who felt the almost divine character which he enjoyed in the eyes of the multitude, derived a motive for the just use of his power from the respect which he inspired.

High as they were placed above the people, the nobles could not but take that calm and benevolent interest in its fate which the shepherd feels towards his flock; and without acknowledging the poor as their equals, they watched over the destiny of those whose welfare Providence had entrusted to their care.

The people never having conceived the idea of a social condition different from its own, and entertaining no expectation of ever ranking with its chiefs, received benefits from them without discussing their rights. It grew attached to them when they were clement and just, and it submitted without resistance or servility to their exactions, as to the inevitable visitations of the arm of God. Custom, and the manners of the time, had moreover created a species of law in the midst of violence, and established certain limits to oppression.

As the noble never suspected that anyone would attempt to deprive him of the privileges which he believed to be legitimate, and as the serf looked upon his own inferiority as a consequence of the immutable order of nature, it is easy to imagine that a mutual exchange of good will took place between two classes so differently gifted by fate. Inequality and wretchedness were then to be found in society; but the souls of neither rank of men were degraded.

Men are not corrupted by the exercise of power or debased by the

habit of obedience; but by the exercise of a power which they believe to be illegal and by obedience to a rule which they consider to be usurped and oppressive.

On one side was wealth, strength, and leisure, accompanied by the refinements of luxury, the elegance of taste, the pleasures of wit, and the religion of art. On the other was labor, and a rude ignorance; but in the midst of this coarse and ignorant multitude, it was not uncommon to meet with energetic passions, generous sentiments, profound religious convictions, and independent virtues.

The body of a state thus organized might boast of its stability, its power, and, above all, of its glory.

But the scene is now changed; and gradually the two ranks mingle; the divisions which once severed mankind are lowered; property is divided, power is held in common, the light of intelligence spreads, and the capacities of all classes are equally cultivated; the state becomes democratic, and the empire of democracy is slowly and peaceably introduced into the institutions and the manners of the nation.

I can conceive a society in which all men would profess an equal attachment and respect for the laws of which they are the common authors; in which the authority of the state would be respected as necessary, though not as divine; and the loyalty of the subject to the chief magistrate would not be a passion, but a quiet and rational persuasion. Every individual being in the possession of rights which he is sure to retain, a kind of manly reliance and reciprocal courtesy would arise between all classes, alike removed from pride and meanness.

The people, well acquainted with its true interests, would allow that, in order to profit by the advantages of society, it is necessary to satisfy its demands. In this state of things, the voluntary association of the citizens might supply the individual exertions of the nobles, and the community would be alike protected from anarchy and from oppression.

I admit that in a democratic state thus constituted society will not be stationary, but the impulses of the social body may be regulated and directed forwards; if there be less splendor than in the halls of an aristocracy, the contrast of misery will be less frequent also; the pleasures of enjoyment may be less excessive, but those of comfort will be more general; the sciences may be less perfectly cultivated, but ignorance will be less common; the impetuosity of the feelings will be repressed, and the habits of the nation softened; there will be more vices and fewer crimes.

In the absence of enthusiasm and of an ardent faith, great sacrifices may be obtained from the members of a commonwealth by an appeal to

their understandings and their experience; each individual will feel the same necessity for uniting with his fellow citizens to protect his own weakness; and as he knows that if they are to assist he must co-operate, he will readily perceive that his personal interest is identified with the interest of the community.

The nation, taken as a whole, will be less brilliant, less glorious, and perhaps less strong; but the majority of the citizens will enjoy a greater degree of prosperity, and the people will remain quiet, not because it despairs of amelioration, but because it is conscious of the advantages of its condition.

If all the consequences of this state of things were not good or useful, society would at least have appropriated all such as were useful and good; and having once and forever renounced the social advantages of aristocracy, mankind would enter into possession of all the benefits which democracy can afford.

But here it may be asked what we have adopted in the place of those institutions, those ideas, and those customs of our forefathers which we have abandoned.

The spell of royalty is broken, but it has not been succeeded by the majesty of the laws; the people has learned to despise all authority, but fear now extorts a larger tribute of obedience than that which was formerly paid by reverence and by love.

I perceive that we have destroyed those independent beings which were able to cope with tyranny singlehanded; but it is the government that has inherited the privileges of which families, corporations, and individuals have been deprived; the weakness of the whole community has therefore succeeded that influence of a small body of citizens, which, if it was sometimes oppressive, was often conservative.

The division of property has lessened the distance which separated the rich from the poor; but it would seem that the nearer they draw to each other, the greater is their mutual hatred, and the more vehement the envy and the dread with which they resist each other's claims to power; the notion of right is alike insensible to both classes, and force affords to both the only argument for the present, and the only guarantee for the future.

The poor man retains the prejudices of his forefathers without their faith, and their ignorance without their virtues; he has adopted the doctrine of self-interest as the rule of his actions, without understanding the science which controls it, and his egotism is no less blind than his devotedness was formerly.

If society is tranquil, it is not because it relies upon its strength and its well-being, but because it knows its weakness and its infirmities; a single effort may cost it its life; everybody feels the evil, but no one has courage or energy enough to seek the cure; the desires, the regret, the sorrows, and the joys of the time produce nothing that is visible or permanent, like the passions of old men which terminate in impotence.

We have, then, abandoned whatever advantages the old state of things afforded, without receiving any compensation from our present condition; we have destroyed an aristocracy, and we seem inclined to survey its ruins with complacency, and to fix our abode in the midst of them.

The phenomena which the intellectual world presents are not less deplorable. The democracy of France, checked in its course or abandoned to its lawless passions, has overthrown whatever crossed its path, and has shaken all that it has not destroyed. Its empire on society has not been gradually introduced, or peaceably established, but it has constantly advanced in the midst of disorder and the agitation of a conflict. In the heat of the struggle each partisan is hurried beyond the limits of his opinions by the opinions and the excesses of his opponents, until he loses sight of the end of his exertions, and holds a language which disguises his real sentiments or secret instincts. Hence arises the strange confusion which we are witnessing.

I cannot recall to my mind a passage in history more worthy of sorrow and of pity than the scenes which are happening under our eyes; it is as if the natural bond which unites the opinions of man to his tastes, and his actions to his principles, was now broken; the sympathy which has always been acknowledged between the feelings and the ideas of mankind appears to be dissolved, and all the laws of moral analogy to be abolished.

Zealous Christians may be found among us whose minds are nurtured in the love and knowledge of a future life, and who readily espouse the cause of human liberty as the source of all moral greatness. Christianity, which has declared that all men are equal in the sight of God, will not refuse to acknowledge that all citizens are equal in the eye of the law. But, by a singular concourse of events, religion is entangled in those institutions which democracy assails, and it is not unfrequently brought to reject the equality it loves, and to curse that cause of liberty as a foe, which it might hallow by its alliance.

By the side of these religious men I discern others whose looks are turned to the earth more than to heaven; they are the partisans of liberty,

not only as the source of the noblest virtues, but more especially as the root of all solid advantages; and they sincerely desire to extend its sway, and to impart its blessings to mankind. It is natural that they should hasten to invoke the assistance of religion, for they must know that liberty cannot be established without morality, nor morality without faith; but they have seen religion in the ranks of their adversaries, and they inquire no further; some of them attack it openly, and the remainder are afraid to defend it.

In former ages slavery has been advocated by the venal and slavish-minded, while the independent and the warmhearted were struggling without hope to save the liberties of mankind. But men of high and generous characters are now to be met with whose opinions are at variance with their inclinations, and who praise that servility which they have themselves never known. Others, on the contrary, speak in the name of liberty, as if they were able to feel its sanctity and its majesty, and loudly claim for humanity those rights which they have always disowned.

There are virtuous and peaceful individuals whose pure morality, quiet habits, affluence, and talents fit them to be the leaders of the surrounding population; their love of their country is sincere, and they are prepared to make the greatest sacrifices to its welfare, but they confound the abuses of civilization with its benefits, and the idea of evil is inseparable in their minds from that of novelty.

Not far from this class is another party, whose object is to materialize mankind, to hit upon what is expedient without heeding what is just, to acquire knowledge without faith, and prosperity apart from virtue; assuming the title of the champions of modern civilization, and placing themselves in a station which they usurp with insolence, and from which they are driven by their own unworthiness.

Where are we then?

The religionists are the enemies of liberty, and the friends of liberty attack religion; the high-minded and the noble advocate subjection, and the meanest and most servile minds preach independence; honest and enlightened citizens are opposed to all progress, while men without patriotism and without principles are the apostles of civilization and of intelligence.

Has such been the fate of the centuries which have preceded our own? and has man always inhabited a world, like the present, where nothing is linked together, where virtue is without genius, and genius without honor; where the love of order is confounded with a taste for oppression,

and the holy rites of freedom with a contempt of law; where the light thrown by conscience on human actions is dim, and where nothing seems to be any longer forbidden or allowed, honorable or shameful, false or true?

I cannot, however, believe that the Creator made man to leave him in an endless struggle with the intellectual miseries which surround us: God destines a calmer and a more certain future to the communities of Europe; I am unacquainted with His designs, but I shall not cease to believe in them because I cannot fathom them, and I had rather mistrust my own capacity than His justice.

There is a country in the world where the great revolution which I am speaking of seems nearly to have reached its natural limits; it has been effected with ease and simplicity—say rather that this country has attained the consequences of the democratic revolution which we are undergoing without having experienced the revolution itself.

The emigrants who fixed themselves on the shores of America in the beginning of the seventeenth century severed the democratic principle from all the principles which repressed it in the old communities of Europe, and transplanted it unalloyed to the New World. It has there been allowed to spread in perfect freedom, and to put forth its consequences in the laws by influencing the manners of the country.

It appears to me beyond a doubt that sooner or later we shall arrive, like the Americans, at an almost complete equality of conditions. But I do not conclude from this that we shall ever be necessarily led to draw the same political consequences which the Americans have derived from a similar social organization. I am far from supposing that they have chosen the only form of government which a democracy may adopt; but the identity of the efficient cause of laws and manners in the two countries is sufficient to account for the immense interest we have in becoming acquainted with its effects in each of them.

It is not, then, merely to satisfy a legitimate curiosity that I have examined America: my wish has been to find instruction by which we may ourselves profit. Whoever should imagine that I have intended to write a panegyric would be strangely mistaken, and on reading this book he will perceive that such was not my design; nor has it been my object to advocate any form of government in particular, for I am of opinion that absolute excellence is rarely to be found in any legislation. I have not even affected to discuss whether the social revolution, which I believe to be irresistible, is advantageous or prejudicial to mankind. I have acknowledged this revolution as a fact already accomplished or on the

eve of its accomplishment; and I have selected the nation, from among those which have undergone it, in which its development has been the most peaceful and the most complete, in order to discern its natural consequences, and, if it be possible, to distinguish the means by which it may be rendered profitable. I confess that in America I saw more than America; I sought the image of democracy itself, with its inclinations, its character, its prejudices, and its passions, in order to learn what we have to fear or to hope from its progress.

In the first part of this work I have attempted to show the tendency given to the laws by the democracy of America, which is abandoned almost without restraint to its instinctive propensities, and to exhibit the course it prescribes to the government and the influence it exercises on affairs. I have sought to discover the evils and the advantages which it produces. I have examined the precautions used by the Americans to direct it, as well as those which they have not adopted, and I have undertaken to point out the causes which enable it to govern society. I do not know whether I have succeeded in making known what I saw in America, but I am certain that such has been my sincere desire, and that I have never, knowingly, molded facts to ideas, instead of ideas to facts.

Whenever a point could be established by the aid of written documents, I have had recourse to the original text, and to the most authentic and approved works. I have cited my authorities in the notes, and anyone may refer to them. Whenever an opinion, a political custom, or a remark on the manners of the country was concerned, I endeavored to consult the most enlightened men I met with. If the point in question was important or doubtful, I was not satisfied with one testimony, but I formed my opinion on the evidence of several witnesses. Here the reader must necessarily believe me upon my word. I could frequently have quoted names which are either known to him, or which deserve to be so, in proof of what I advance; but I have carefully abstained from this practice. A stranger frequently hears important truths at the fireside of his host, which the latter would perhaps conceal from the ear of friendship; he consoles himself with his guest for the silence to which he is restricted, and the shortness of the traveler's stay takes away all fear of his indiscretion. I carefully noted every conversation of this nature as soon as it occurred, but these notes will never leave my writing case; I had rather injure the success of my statements than add my name to the list of those strangers who repay the generous hospitality they have received by subsequent chagrin and annoyance.

I am aware that, notwithstanding my care, nothing will be easier than to criticize this book, if anyone ever chooses to criticize it.

Those readers who may examine it closely will discover the fundamental idea which connects the several parts together. But the diversity of the subjects I have had to treat is exceedingly great, and it will not be difficult to oppose an isolated fact to the body of facts which I quote, or an isolated idea to the body of ideas I put forth. I hope to be read in the spirit which has guided my labors, and that my book may be judged by the general impression it leaves, as I have formed my own judgment not on any single reason, but upon the mass of evidence.

It must not be forgotten that the author who wishes to be understood is obliged to push all his ideas to their utmost theoretical consequences, and often to the verge of what is false or impracticable; for if it be necessary sometimes to quit the rules of logic in active life, such is not the case in discourse, and a man finds that almost as many difficulties spring from inconsistency of language as usually arise from consistency of conduct.

I conclude by pointing out myself what many readers will consider the principal defect of the work. This book is written to favor no particular views, and in composing it I have entertained no design of serving or attacking any party. I have undertaken not to see differently, but to look further than parties, and while they are busied for the morrow, I have turned my thoughts to the future. . . .

Social Condition of the Anglo-Americans

A social condition is commonly the result of circumstances, sometimes of laws, oftener still of these two causes united; but wherever it exists, it may justly be considered as the source of almost all the laws, the usages, and the ideas which regulate the conduct of nations: whatever it does not produce it modifies.

It is therefore necessary, if we would become acquainted with the legislation and the manners of a nation, to begin by the study of its social condition.

THE STRIKING CHARACTERISTIC OF THE SOCIAL CONDITION OF THE ANGLO-AMERICANS IS ITS ESSENTIAL DEMOCRACY

Many important observations suggest themselves upon the social condition of the Anglo-Americans; but there is one which takes precedence

of all the rest. The social condition of the Americans is eminently democratic; this was its character at the foundation of the Colonies, and is still more strongly marked at the present day.

I have stated in the preceding chapter that great equality existed among the emigrants who settled on the shores of New England. The germ of aristocracy was never planted in that part of the Union. The only influence which obtained there was that of intellect; the people were used to reverence certain names as the emblems of knowledge and virtue. Some of their fellow citizens acquired a power over the rest which might truly have been called aristocratic, if it had been capable of transmission from father to son.

This was the state of things to the east of the Hudson: to the southwest of that river, and in the direction of the Floridas, the case was different. In most of the states situated to the southwest of the Hudson, some great English proprietors had settled, who had imported with them aristocratic principles and the English law of descent. I have explained the reasons why it was impossible ever to establish a powerful aristocracy in America; these reasons existed with less force to the southwest of the Hudson. In the South, one man, aided by slaves, could cultivate a great extent of country; it was therefore common to see rich landed proprietors. But their influence was not altogether aristocratic as that term is understood in Europe, since they possessed no privileges; and the cultivation of their estates being carried on by slaves, they had no tenants depending on them, and consequently no patronage. Still, the great proprietors south of the Hudson constituted a superior class, having ideas and tastes of its own, and forming the center of political action. This kind of aristocracy sympathized with the body of the people, whose passions and interests it easily embraced; but it was too weak and too short-lived to excite either love or hatred for itself. This was the class which headed the insurrection in the South, and furnished the best leaders of the American Revolution.

At the period of which we are now speaking society was shaken to its center: the people, in whose name the struggle had taken place, conceived the desire of exercising the authority which it had acquired; its democratic tendencies were awakened; and having thrown off the yoke of the mother country, it aspired to independence of every kind. The influence of individuals gradually ceased to be felt, and custom and law united together to produce the same result.

But the law of descent was the last step to equality. I am surprised that ancient and modern jurists have not attributed to this law a greater influ-

ence on human affairs.[1] It is true that these laws belong to civil affairs; but they ought nevertheless to be placed at the head of all political institutions; for, while political laws are only the symbol of a nation's condition, they exercise an incredible influence upon its social state. They have, moreover, a sure and uniform manner of operating upon society, affecting, as it were, generations yet unborn.

Through their means man acquires a kind of preternatural power over the future lot of his fellow creatures. When the legislator has regulated the law of inheritance, he may rest from his labor. The machine once put in motion will go on for ages, and advance, as if self-guided, towards a given point. When framed in a particular manner, this law unites, draws together, and vests property and power in a few hands: its tendency is clearly aristocratic. On opposite principles its action is still more rapid; it divides, distributes, and disperses both property and power. Alarmed by the rapidity of its progress, those who despair of arresting its motion endeavor to obstruct it by difficulties and impediments; they vainly seek to counteract its effect by contrary efforts: but it gradually reduces or destroys every obstacle, until by its incessant activity the bulwarks of the influence of wealth are ground down to the fine and shifting sand which is the basis of democracy. When the law of inheritance permits, still more when it decrees, the equal division of a father's property among all his children, its effects are of two kinds: it is important to distinguish them from each other, although they tend to the same end.

In virtue of the law of partible inheritance, the death of every proprietor brings about a kind of revolution in property: not only do his possessions change hands, but their very nature is altered, since they are parceled into shares which become smaller and smaller at each division. This is the direct and, as it were, the physical effect of the law. It follows, then, that in countries where equality of inheritance is established by law, property, and especially landed property, must have a tendency to perpetual diminution. The effects, however, of such legislation would only be perceptible after a lapse of time if the law was abandoned to its own working, for supposing the family to consist of two children (and in a country peopled as France is the average number is not above

1. I understand by the law of descent all those laws whose principal object is to regulate the distribution of property after the death of its owner. The law of entail is of this number: it certainly prevents the owner from disposing of his possessions before his death; but this is solely with the view of preserving them entire for the heir. The principal object, therefore, of the law of entail is to regulate the descent of property after the death of its owner: its other provisions are merely means to this end.

three), these children, sharing among them the fortune of both parents, would not be poorer than their father or mother.

But the law of equal division exercises its influence not merely upon the property itself, but it affects the minds of the heirs and brings their passions into play. These indirect consequences tend powerfully to the destruction of large fortunes, and especially of large domains.

Among nations whose law of descent is founded upon the right of primogeniture, landed estates often pass from generation to generation without undergoing division. The consequence of which is that family feeling is to a certain degree incorporated with the estate. The family represents the estate, the estate the family; whose name, together with its origin, its glory, its power, and its virtues, is thus perpetuated in an imperishable memorial of the past, and a sure pledge of the future.

When the equal partition of property is established by law, the intimate connection is destroyed between family feeling and the preservation of the paternal estate: the property ceases to represent the family, for as it must inevitably be divided after one or two generations, it has evidently a constant tendency to diminish, and must in the end be completely dispersed. The sons of the great landed proprietor, if they are few in number, or if fortune befriends them, may indeed entertain the hope of being as wealthy as their father, but not that of possessing the same property as he did; their riches must necessarily be composed of elements different from his.

Now, from the moment that you divest the landowner of that interest in the preservation of his estate which he derives from association, from tradition, and from family pride, you may be certain that sooner or later he will dispose of it; for there is a strong pecuniary interest in favor of selling, as floating capital produces higher interest than real property, and is more readily available to gratify the passions of the moment.

Great landed estates which have once been divided never come together again; for the small proprietor draws from his land a better revenue, in proportion, than the large owner does from his; and of course he sells it at a higher rate.[2] The calculations of gain, therefore, which decide the rich man to sell his domain will still more powerfully influence him against buying small estates to unite them into a large one.

What is called family pride is often founded upon an illusion of self-

2. I do not mean to say that the small proprietor cultivates his land better, but he cultivates it with more ardor and care, so that he makes up by his labor for his want of skill.

love. A man wishes to perpetuate and immortalize himself, as it were, in his great-grandchildren. Where the *esprit de famille* ceases to act, individual selfishness comes into play. When the idea of family becomes vague, indeterminate, and uncertain, a man thinks of his present convenience; he provides for the establishment of his succeeding generation and no more.

Either a man gives up the idea of perpetuating his family, or at any rate he seeks to accomplish it by other means than that of a landed estate.

Thus not only does the law of partible inheritance render it difficult for families to preserve their ancestral domains entire, but it deprives them of the inclination to attempt it, and compels them in some measure to co-operate with the law in their own extinction.

The law of equal distribution proceeds by two methods: by acting upon things, it acts upon persons; by influencing persons, it affects things. By these means the law succeeds in striking at the root of landed property, and dispersing rapidly both families and fortunes.[3]

Most certainly it is not for us Frenchmen of the nineteenth century, who daily witness the political and social changes which the law of partition is bringing to pass, to question its influence. It is perpetually conspicuous in our country, overthrowing the walls of our dwellings and removing the landmarks of our fields. But although it has produced great effects in France, much still remains for it to do. Our recollections, opinions, and habits present powerful obstacles to its progress.

In the United States it has nearly completed its work of destruction, and there we can best study its results. The English laws concerning the transmission of property were abolished in almost all the states at the time of the Revolution. The law of entail was so modified as not to interrupt the free circulation of property. The first generation having passed away, estates began to be parceled out; and the change became more

3. Land being the most stable kind of property, we find, from time to time, rich individuals who are disposed to make great sacrifices in order to obtain it, and who willingly forfeit a considerable part of their income to make sure of the rest. But these are accidental cases. The preference for landed property is no longer found habitually in any class but among the poor. The small landowner, who has less information, less imagination, and fewer passions than the great one, is generally occupied with the desire of increasing his estate: and it often happens that by inheritance, by marriage, or by the chances of trade, he is gradually furnished with the means. Thus, to balance the tendency which leads men to divide their estates, there exists another, which incites them to add to them. This tendency, which is sufficient to prevent estates from being divided ad infinitum, is not strong enough to create great territorial possessions, certainly not to keep them up in the same family.

and more rapid with the progress of time. At this moment, after a lapse of a little more than sixty years, the aspect of society is totally altered; the families of the great landed proprietors are almost all commingled with the general mass. In the state of New York, which formerly contained many of these, there are but two who still keep their heads above the stream; and they must shortly disappear. The sons of these opulent citizens are become merchants, lawyers, or physicians. Most of them have lapsed into obscurity. The last trace of hereditary ranks and distinctions is destroyed—the law of partition has reduced all to one level.

I do not mean that there is any deficiency of wealthy individuals in the United States; I know of no country, indeed, where the love of money has taken stronger hold on the affections of men, and where a profounder contempt is expressed for the theory of the permanent equality of property. But wealth circulates with inconceivable rapidity, and experience shows that it is rare to find two succeeding generations in the full enjoyment of it.

This picture, which may perhaps be thought to be overcharged, still gives a very imperfect idea of what is taking place in the new states of the West and Southwest. At the end of the last century a few bold adventurers began to penetrate into the valleys of the Mississippi, and the mass of the population very soon began to move in that direction: communities unheard of till then were seen to emerge from the wilds; states whose names were not in existence a few years before claimed their place in the American Union; and in the western settlements we may behold democracy arrived at its utmost extreme. In these states, founded offhand, and, as it were, by chance, the inhabitants are but of yesterday. Scarcely known to one another, the nearest neighbors are ignorant of each other's history. In this part of the American continent, therefore, the population has not experienced the influence of great names and great wealth, nor even that of the natural aristocracy of knowledge and virtue. None are there to wield that respectable power which men willingly grant to the remembrance of a life spent in doing good before their eyes. The new states of the West are already inhabited; but society has no existence among them.

It is not only the fortunes of men which are equal in America; even their acquirements partake in some degree of the same uniformity. I do not believe that there is a country in the world where, in proportion to the population, there are so few uninstructed, and at the same time so few learned, individuals. Primary instruction is within the reach of everybody; superior instruction is scarcely to be obtained by any. This is

not surprising; it is in fact the necessary consequence of what we have advanced above. Almost all the Americans are in easy circumstances, and can therefore obtain the first elements of human knowledge.

In America there are comparatively few who are rich enough to live without a profession. Every profession requires an apprenticeship, which limits the time of instruction to the early years of life. At fifteen they enter upon their calling, and thus their education ends at the age when ours begins. Whatever is done afterwards is with a view to some special and lucrative object: a science is taken up as a matter of business, and the only branch of it which is attended to is such as admits of an immediate practical application.

In America most of the rich men were formerly poor; most of those who now enjoy leisure were absorbed in business during their youth; the consequence of which is that when they might have had a taste for study, they had no time for it, and when the time is at their disposal they have no longer the inclination.

There is no class, then, in America, in which the taste for intellectual pleasures is transmitted with hereditary fortune and leisure, and by which the labors of the intellect are held in honor. Accordingly there is an equal want of the desire and the power of application to these objects.

A middling standard is fixed in America for human knowledge. All approach as near to it as they can: some as they rise, others as they descend. Of course, an immense multitude of persons are to be found who entertain the same number of ideas on religion, history, science, political economy, legislation, and government. The gifts of intellect proceed directly from God, and man cannot prevent their unequal distribution. But in consequence of the state of things which we have here represented, it happens that although the capacities of men are widely different, as the Creator has doubtless intended they should be, they are submitted to the same method of treatment.

In America the aristocratic element has always been feeble from its birth; and if at the present day it is not actually destroyed, it is at any rate so completely disabled that we can scarcely assign to it any degree of influence in the course of affairs.

The democratic principle, on the contrary, has gained so much strength by time, by events, and by legislation as to have become not only predominant but all-powerful. There is no family or corporate authority, and it is rare to find even the influence of individual character enjoy any durability.

America, then, exhibits in her social state a most extraordinary phe-

nomenon. Men are there seen on a greater equality in point of fortune and intellect, or, in other words, more equal in their strength, than in any other country of the world, or in any age of which history has preserved the remembrance.

POLITICAL CONSEQUENCES OF THE SOCIAL CONDITION OF THE ANGLO-AMERICANS

The political consequences of such a social condition as this are easily deducible.

It is impossible to believe that equality will not eventually find its way into the political world as it does everywhere else. To conceive of men remaining forever unequal upon one single point, yet equal on all others, is impossible; they must come in the end to be equal upon all.

Now I know of only two methods of establishing equality in the political world; every citizen must be put in possession of his rights, or rights must be granted to no one. For nations which are arrived at the same stage of social existence as the Anglo-Americans, it is therefore very difficult to discover a medium between the sovereignty of all and the absolute power of one man: and it would be vain to deny that the social condition which I have been describing is equally liable to each of these consequences.

There is, in fact, a manly and lawful passion for equality which excites men to wish all to be powerful and honored. This passion tends to elevate the humble to the rank of the great; but there exists also in the human heart a depraved taste for equality, which impels the weak to attempt to lower the powerful to their own level, and reduces men to prefer equality in slavery to inequality with freedom. Not that those nations whose social condition is democratic naturally despise liberty; on the contrary, they have an instinctive love of it. But liberty is not the chief and constant object of their desires; equality is their idol: they make rapid and sudden efforts to obtain liberty; and if they miss their aim, resign themselves to their disappointment; but nothing can satisfy them except equality, and rather than lose it they resolve to perish.

On the other hand, in a state where the citizens are nearly on an equality, it becomes difficult for them to preserve their independence against the aggressions of power. No one among them being strong enough to engage in the struggle with advantage, nothing but a general combination can protect their liberty. And such a union is not always to be found.

From the same social position, then, nations may derive one or the other of two great political results; these results are extremely different from each other, but they may both proceed from the same cause.

The Anglo-Americans are the first nations who, having been exposed to this formidable alternative, have been happy enough to escape the dominion of absolute power. They have been allowed by their circumstances, their origin, their intelligence, and especially by their moral feeling, to establish and maintain the sovereignty of the people.

The Principle of the Sovereignty of the People in America

Whenever the political laws of the United States are to be discussed, it is with the doctrine of the sovereignty of the people that we must begin.

The principle of the sovereignty of the people, which is to be found, more or less, at the bottom of almost all human institutions, generally remains concealed from view. It is obeyed without being recognized, or if for a moment it be brought to light, it is hastily cast back into the gloom of the sanctuary.

"The will of the nation" is one of those expressions which have been most profusely abused by the wily and the despotic of every age. To the eyes of some it has been represented by the venal suffrages of a few of the satellites of power; to others, by the votes of a timid or an interested minority; and some have even discovered it in the silence of a people, on the supposition that the fact of submission established the right of command.

In America, the principle of the sovereignty of the people is not either barren or concealed, as it is with some other nations; it is recognized by the customs and proclaimed by the laws; it spreads freely, and arrives without impediment at its most remote consequences. If there be a country in the world where the doctrine of the sovereignty of the people can be fairly appreciated, where it can be studied in its application to the affairs of society, and where its dangers and its advantages may be foreseen, that country is assuredly America.

I have already observed that, from their origin, the sovereignty of the people was the fundamental principle of the greater number of British colonies in America. It was far, however, from then exercising as much influence on the government of society as it now does. Two obstacles, the one external, the other internal, checked its invasive progress.

It could not ostensibly disclose itself in the laws of colonies which were still constrained to obey the mother country: it was therefore obliged to spread secretly, and to gain ground in the provincial assemblies, and especially in the townships.

American society was not yet prepared to adopt it with all its consequences. The intelligence of New England, and the wealth of the country to the south of the Hudson, (as I have shown in the preceding chapter,) long exercised a sort of aristocratic influence which tended to retain the exercise of social authority in the hands of a few. The public functionaries were not universally elected, and the citizens were not all of them electors. The electoral franchise was everywhere placed within certain limits, and made dependent on a certain qualification, which was exceedingly low in the North, and more considerable in the South.

The American Revolution broke out, and the doctrine of the sovereignty of the people, which had been nurtured in the townships and municipalities, took possession of the state. Every class was enlisted in its cause; battles were fought, and victories obtained for it, until it became the law of laws.

A no less rapid change was effected in the interior of society, where the law of descent completed the abolition of local influences.

At the very time when this consequence of the laws and of the revolution was apparent to every eye, victory was irrevocably pronounced in favor of the democratic cause. All power was, in fact, in its hands, and resistance was no longer possible. The higher orders submitted without a murmur and without a struggle to an evil which was thenceforth inevitable. The ordinary fate of falling powers awaited them; each of their several members followed his own interest; and as it was impossible to wring the power from the hands of a people which they did not detest sufficiently to brave, their only aim was to secure its good will at any price. The most democratic laws were consequently voted by the very men whose interests they impaired: and thus, although the higher classes did not excite the passions of the people against their order, they accelerated the triumph of the new state of things; so that, by a singular change, the democratic impulse was found to be most irresistible in the very states where the aristocracy had the firmest hold.

The state of Maryland, which had been founded by men of rank, was the first to proclaim universal suffrage, and to introduce the most democratic forms into the conduct of its government.

When a nation modifies the elective qualification, it may easily be foreseen that sooner or later that qualification will be entirely abolished.

There is no more invariable rule in the history of society: the further electoral rights are extended, the greater is the need of extending them; for after each concession the strength of the democracy increases, and its demands increase with its strength. The ambition of those who are below the appointed rate is irritated in exact proportion to the great number of those who are above it. The exception at last becomes the rule, concession follows concession, and no stop can be made short of universal suffrage.

At the present day the principle of the sovereignty of the people has acquired, in the United States, all the practical development which the imagination can conceive. It is unencumbered by those fictions which have been thrown over it in other countries, and it appears in every possible form according to the exigency of the occasion. Sometimes the laws are made by the people in a body, as at Athens; and sometimes its representatives, chosen by universal suffrage, transact business in its name, and almost under its immediate control.

In some countries a power exists which, though it is in a degree foreign to the social body, directs it, and forces it to pursue a certain track. In others the ruling force is divided, being partly within and partly without the ranks of the people. But nothing of the kind is to be seen in the United States; there society governs itself for itself. All power centers in its bosom; and scarcely an individual is to be met with who would venture to conceive, or, still less, to express, the idea of seeking it elsewhere. The nation participates in the making of its laws by the choice of its legislators, and in the execution of them by the choice of the agents of the executive government; it may almost be said to govern itself, so feeble and so restricted is the share left to the administration, so little do the authorities forget their popular origin and the power from which they emanate. . . .

Liberty of the Press in the United States

The influence of the liberty of the press does not affect political opinions alone, but it extends to all the opinions of men, and it modifies customs as well as laws. In another part of this work I shall attempt to determine the degree of influence which the liberty of the press has exercised upon civil society in the United States, and to point out the direction which it has given to the ideas, as well as the tone which it has imparted to the character and the feelings, of the Anglo-Americans, but at

present I purpose simply to examine the effects produced by the liberty of the press in the political world.

I confess that I do not entertain that firm and complete attachment to the liberty of the press which things that are supremely good in their very nature are wont to excite in the mind; and I approve of it more from a recollection of the evils it prevents than from a consideration of the advantages it ensures.

If anyone could point out an intermediate, and yet a tenable, position between the complete independence and the entire subjection of the public expression of opinion, I should perhaps be inclined to adopt it; but the difficulty is to discover this position. If it is your intention to correct the abuses of unlicensed printing and to restore the use of orderly language, you may in the first instance try the offender by a jury; but if the jury acquits him, the opinion which was that of a single individual becomes the opinion of the country at large. Too much and too little has therefore hitherto been done: if you proceed, you must bring the delinquent before permanent magistrates; but even here the cause must be heard before it can be decided; and the very principles which no book would have ventured to avow are blazoned forth in the pleadings, and what was obscurely hinted at in a single composition is then repeated in a multitude of other publications. The language in which a thought is embodied is the mere carcass of the thought, and not the idea itself; tribunals may condemn the form, but the sense and spirit of the work is too subtle for their authority: too much has still been done to recede, too little to attain your end; you must therefore proceed. If you establish a censorship of the press, the tongue of the public speaker will still make itself heard, and you have only increased the mischief. The powers of thought do not rely, like the powers of physical strength, upon the number of their mechanical agents, nor can a host of authors be reckoned like the troops which compose an army; on the contrary, the authority of a principle is often increased by the smallness of the number of men by whom it is expressed. The words of a strong-minded man, which penetrate amidst the passions of a listening assembly, have more power than the vociferations of a thousand orators; and if it be allowed to speak freely in any public place, the consequence is the same as if free speaking was allowed in every village. The liberty of discourse must therefore be destroyed as well as the liberty of the press; this is the necessary term of your efforts; but if your object was to repress the abuses of liberty, they have brought you to the feet of a despot. You have been led from

the extreme of independence to the extreme of subjection, without meeting with a single tenable position for shelter or repose.

There are certain nations which have peculiar reasons for cherishing the liberty of the press, independently of the general motives which I have just pointed out. For in certain countries which profess to enjoy the privileges of freedom, every individual agent of the government may violate the laws with impunity, since those whom he oppresses cannot prosecute him before the courts of justice. In this case the liberty of the press is not merely a guarantee, but it is the only guarantee of their liberty and their security which the citizens possess. If the rulers of these nations proposed to abolish the independence of the press, the people would be justified in saying: "Give us the right of prosecuting your offenses before the ordinary tribunals, and perhaps we may then waive our right of appeal to the tribunal of public opinion."

But in the countries in which the doctrine of the sovereignty of the people ostensibly prevails, the censorship of the press is not only dangerous, but it is absurd. When the right of every citizen to co-operate in the government of society is acknowledged, every citizen must be presumed to possess the power of discriminating between the different opinions of his contemporaries, and of appreciating the different facts from which inferences may be drawn. The sovereignty of the people and the liberty of the press may therefore be looked upon as correlative institutions; just as the censorship of the press and universal suffrage are two things which are irreconcilably opposed, and which cannot long be retained among the institutions of the same people. Not a single individual of the twelve millions who inhabit the territory of the United States has as yet dared to propose any restrictions to the liberty of the press. The first newspaper over which I cast my eyes, upon my arrival in America, contained the following article:

> In all this affair, the language of Jackson has been that of a heartless despot, solely occupied with the preservation of his own authority. Ambition is his crime, and it will be his punishment too: intrigue is his native element, and intrigue will confound his tricks, and will deprive him of his power: he governs by means of corruption, and his immoral practices will redound to his shame and confusion. His conduct in the political arena has been that of a shameless and lawless gamester. He succeeded at the time, but the hour of retribution approaches, and he will be obliged to disgorge his winnings, to throw aside his false dice, and to end his days in some retirement, where he may curse his madness at his leisure; for repentance is a virtue with which his heart is likely to remain for ever unacquainted.

It is not uncommonly imagined in France that the virulence of the press originates in the uncertain social condition, in the political excitement, and the general sense of consequent evil which prevail in that country; and it is therefore supposed that as soon as society has resumed a certain degree of composure, the press will abandon its present vehemence. I am inclined to think that the above causes explain the reason of the extraordinary ascendency it has acquired over the nation, but that they do not exercise much influence upon the tone of its language. The periodical press appears to me to be actuated by passions and propensities independent of the circumstances in which it is placed; and the present position of America corroborates this opinion.

America is perhaps, at this moment, the country of the whole world which contains the fewest germs of revolution; but the press is not less destructive in its principles than in France, and it displays the same violence without the same reasons for indignation. In America, as in France, it constitutes a singular power, so strangely composed of mingled good and evil that it is at the same time indispensable to the existence of freedom, and nearly incompatible with the maintenance of public order. Its power is certainly much greater in France than in the United States, though nothing is more rare in the latter country than to hear of a prosecution having been instituted against it. The reason of this is perfectly simple: the Americans having once admitted the doctrine of the sovereignty of the people, apply it with perfect consistency. It was never their intention to found a permanent state of things with elements which undergo daily modifications; and there is consequently nothing criminal in an attack upon the existing laws, provided it be not attended with a violent infraction of them. They are moreover of opinion that courts of justice are unable to check the abuses of the press; and that as the subtlety of human language perpetually eludes the severity of judicial analysis, offenses of this nature are apt to escape the hand which attempts to apprehend them. They hold that to act with efficacy upon the press, it would be necessary to find a tribunal not only devoted to the existing order of things but capable of surmounting the influence of public opinion, a tribunal which should conduct its proceedings without publicity, which should pronounce its decrees without assigning its motives, and punish the intentions even more than the language of an author. Whosoever should have the power of creating and maintaining a tribunal of this kind would waste his time in prosecuting the liberty of the press; for he would be the supreme master of the whole community, and he would be as free to rid himself of the authors as of their writings. In this

question, therefore, there is no medium between servitude and extreme license; in order to enjoy the inestimable benefits which the liberty of the press ensures, it is necessary to submit to the inevitable evils which it engenders. To expect to acquire the former and to escape the latter is to cherish one of those illusions which commonly mislead nations in their times of sickness, when, tired with faction and exhausted by effort, they attempt to combine hostile opinions and contrary principles upon the same soil.

The small influence of the American journals is attributable to several reasons, among which are the following:

The liberty of writing, like all other liberty, is most formidable when it is a novelty; for a people which has never been accustomed to co-operate in the conduct of state affairs places implicit confidence in the first tribune who arouses its attention. The Anglo-Americans have enjoyed this liberty ever since the foundation of the settlements; moreover, the press cannot create human passions by its own power, however skillfully it may kindle them where they exist. In America politics are discussed with animation and a varied activity, but they rarely touch those deep passions which are excited whenever the positive interest of a part of the community is impaired; but in the United States the interests of the community are in a most prosperous condition. A single glance upon a French and an American newspaper is sufficient to show the difference which exists between the two nations on this head. In France the space allotted to commercial advertisements is very limited, and the intelligence is not considerable, but the most essential part of the journal is that which contains the discussion of the politics of the day. In America three quarters of the enormous sheet which is set before the reader are filled with advertisements, and the remainder is frequently occupied by political intelligence or trivial anecdotes. It is only from time to time that one finds a corner devoted to passionate discussions like those with which the journalists of France are wont to indulge their readers.

It has been demonstrated by observation, and discovered by the innate sagacity of the pettiest as well as the greatest of despots, that the influence of a power is increased in proportion as its direction is rendered more central. In France the press combines a twofold centralization; almost all its power is centered in the same spot, and vested in the same hands, for its organs are far from numerous. The influence of a public press thus constituted upon a skeptical nation must be unbounded. It is an enemy with which a government may sign an occasional truce, but which it is difficult to resist for any length of time.

Neither of these kinds of centralization exists in America. The United States have no metropolis; the intelligence as well as the power of the country are dispersed abroad, and instead of radiating from a point, they cross each other in every direction: the Americans have established no central control over the expression of opinion, any more than over the conduct of business. These are circumstances which do not depend on human foresight; but it is owing to the laws of the Union that there are no licenses to be granted to printers, no securities demanded from editors as in France, and no stamp duty as in France and England. The consequence of this is that nothing is easier than to set up a newspaper, and a small number of readers suffices to defray the expenses of the editor.

The number of periodical and occasional publications which appears in the United States actually surpasses belief. The most enlightened Americans attribute the subordinate influence of the press to this excessive dissemination; and it is adopted as an axiom of political science in that country that the only way to neutralize the effect of public journals is to multiply them indefinitely. I cannot conceive that a truth which is so self-evident should not already have been more generally admitted in Europe; it is comprehensible that the persons who hope to bring about revolutions by means of the press should be desirous of confining its action to a few powerful organs, but it is perfectly incredible that the partisans of the existing state of things, and the natural supporters of the laws, should attempt to diminish the influence of the press by concentrating its authority. The governments of Europe seem to treat the press with the courtesy of the knights of old; they are anxious to furnish it with the same central power which they have found to be so trusty a weapon, in order to enhance the glory of their resistance to its attacks.

In America there is scarcely a hamlet which has not its own newspaper. It may readily be imagined that neither discipline nor unity of design can be communicated to so multifarious a host, and each one is consequently led to fight under his own standard. All the political journals of the United States are indeed arrayed on the side of the administration or against it; but they attack and defend it in a thousand different ways. They cannot succeed in forming those great currents of opinion which overwhelm the most solid obstacles. This division of the influence of the press produces a variety of other consequences which are scarcely less remarkable. The facility with which journals can be established induces a multitude of individuals to take a part in them; but as the extent of competition precludes the possibility of considerable profit, the

most distinguished classes of society are rarely led to engage in these undertakings. But such is the number of the public prints that even if they were a source of wealth writers of ability could not be found to direct them all. The journalists of the United States are usually placed in a very humble position, with a scanty education and a vulgar turn of mind. The will of the majority is the most general of laws, and it establishes certain habits which form the characteristics of each peculiar class of society; thus it dictates the etiquette practiced at courts and the etiquette of the bar. The characteristics of the French journalist consist in a violent, but frequently an eloquent and lofty, manner of discussing the politics of the day; and the exceptions to this habitual practice are only occasional. The characteristics of the American journalist consist in an open and coarse appeal to the passions of the populace; and he habitually abandons the principles of political science to assail the characters of individuals, to track them into private life, and disclose all their weaknesses and errors.

Nothing can be more deplorable than this abuse of the powers of thought; I shall have occasion to point out hereafter the influence of the newspapers upon the taste and the morality of the American people, but my present subject exclusively concerns the political world. It cannot be denied that the effects of this extreme license of the press tend indirectly to the maintenance of public order. The individuals who are already in the possession of a high station in the esteem of their fellow citizens are afraid to write in the newspapers, and they are thus deprived of the most powerful instrument which they can use to excite the passions of the multitude to their own advantage.[4]

The personal opinions of the editors have no kind of weight in the eyes of the public; the only use of a journal is that it imparts the knowledge of certain facts, and it is only by altering or distorting those facts that a journalist can contribute to the support of his own views.

But although the press is limited to these resources, its influence in America is immense. It is the power which impels the circulation of political life through all the districts of that vast territory. Its eye is constantly open to detect the secret springs of political designs, and to summon the leaders of all parties to the bar of public opinion. It rallies the interests of the community round certain principles, and it draws up the creed which factions adopt; for it affords a means of intercourse between

4. They only write in the papers when they choose to address the people in their own name; as, for instance, when they are called upon to repel calumnious imputations, and to correct a misstatement of facts.

parties which hear and which address each other without ever having been in immediate contact. When a great number of the organs of the press adopt the same line of conduct, their influence becomes irresistible; and public opinion, when it is perpetually assailed from the same side, eventually yields to the attack. In the United States each separate journal exercises but little authority; but the power of the periodical press is only second to that of the people.

In the United States the democracy perpetually raises fresh individuals to the conduct of public affairs; and the measures of the administration are consequently seldom regulated by the strict rules of consistency or of order. But the general principles of the government are more stable, and the opinions most prevalent in society are generally more durable than in many other countries. When once the Americans have taken up an idea, whether it be well or ill founded, nothing is more difficult than to eradicate it from their minds. The same tenacity of opinion has been observed in England, where, for the last century, greater freedom of conscience and more invincible prejudices have existed than in all the other countries of Europe. I attribute this consequence to a cause which may at first sight appear to have a very opposite tendency, namely, to the liberty of the press. The nations among which this liberty exists are as apt to cling to their opinions from pride as from conviction. They cherish them because they hold them to be just, and because they exercised their own free will in choosing them; and they maintain them, not only because they are true, but because they are their own. Several other reasons conduce to the same end.

It was remarked by a man of genius that "ignorance lies at the two ends of knowledge." Perhaps it would have been more correct to have said that absolute convictions are to be met with at the two extremities, and that doubt lies in the middle; for the human intellect may be considered in three distinct states, which frequently succeed one another.

A man believes implicitly because he adopts a proposition without inquiry. He doubts as soon as he is assailed by the objections which his inquiries may have aroused. But he frequently succeeds in satisfying these doubts, and then he begins to believe afresh. He no longer lays hold on a truth in its most shadowy and uncertain form, but he sees it clearly before him, and he advances onwards by the light it gives him.[5]

5. It may, however, be doubted whether this rational and self-guiding conviction arouses as much fervor or enthusiastic devotedness in men as their first dogmatical belief.

When the liberty of the press acts upon men who are in the first of these three states, it does not immediately disturb their habit of believing implicitly without investigation, but it constantly modifies the objects of their intuitive convictions. The human mind continues to discern but one point upon the whole intellectual horizon, and that point is in continual motion. Such are the symptoms of sudden revolutions, and of the misfortunes which are sure to befall those generations which abruptly adopt the unconditional freedom of the press.

The circle of novel ideas is, however, soon terminated; the touch of experience is upon them, and the doubt and mistrust which their uncertainty produces become universal. We may rest assured that the majority of mankind will either believe they know not wherefore or will not know what to believe. Few are the beings who can ever hope to attain to that state of rational and independent conviction which true knowledge can beget, in defiance of the attacks of doubt.

It has been remarked that in times of great religious fervor men sometimes change their religious opinions; whereas in times of general skepticism everyone clings to his own persuasion. The same thing takes place in politics under the liberty of the press. In countries where all the theories of social science have been contested in their turn, the citizens who have adopted one of them stick to it, not so much because they are assured of its excellence as because they are not convinced of the superiority of any other. In the present age, men are not very ready to die in defense of their opinions, but they are rarely inclined to change them; and there are fewer martyrs as well as fewer apostates.

Another still more valid reason may yet be adduced: when no abstract opinions are looked upon as certain, men cling to the mere propensities and external interests of their position, which are naturally more tangible and more permanent than any opinions in the world.

It is not a question of easy solution whether the aristocracy or the democracy is most fit to govern a country. But it is certain that democracy annoys one part of the community, and that aristocracy oppresses another part. When the question is reduced to the simple expression of the struggle between poverty and wealth, the tendency of each side of the dispute becomes perfectly evident without further controversy.

Political Associations in the United States

In no country in the world has the principle of association been more successfully used, or more unsparingly applied to a multitude of different objects, than in America. Besides the permanent associations which are

established by law under the names of townships, cities, and counties, a vast number of others are formed and maintained by the agency of private individuals.

The citizen of the United States is taught from his earliest infancy to rely upon his own exertions in order to resist the evils and the difficulties of life. He looks upon the social authority with an eye of mistrust and anxiety, and he only claims its assistance when he is quite unable to shift without it. This habit may even be traced in the schools of the rising generation, where the children in their games are wont to submit to rules which they have themselves established, and to punish misdemeanors which they have themselves defined. The same spirit pervades every act of social life. If a stoppage occurs in a thoroughfare, and the circulation of the public is hindered, the neighbors immediately constitute a deliberative body; and this extemporaneous assembly gives rise to an executive power which remedies the inconvenience before anybody has thought of recurring to an authority superior to that of the persons immediately concerned. If the public pleasures are concerned, an association is formed to provide for the splendor and the regularity of the entertainment. Societies are formed to resist enemies which are exclusively of a moral nature, and to diminish the vice of intemperance. In the United States associations are established to promote public order, commerce, industry, morality, and religion; for there is no end which the human will, seconded by the collective exertions of individuals, despairs of attaining.

I shall hereafter have occasion to show the effects of association upon the course of society, and I must confine myself for the present to the political world. When once the right of association is recognized, the citizens may employ it in several different ways.

An association consists simply in the public assent which a number of individuals give to certain doctrines; and in the engagement which they contract to promote the spread of those doctrines by their exertions. The right of associating with these views is very analogous to the liberty of unlicensed writing; but societies thus formed possess more authority than the press. When an opinion is represented by a society, it necessarily assumes a more exact and explicit form. It numbers its partisans, and compromises their welfare in its cause; they, on the other hand, become acquainted with each other, and their zeal is increased by their number. An association unites the efforts of minds which have a tendency to diverge, in one single channel, and urges them vigorously towards one single end which it points out.

The second degree in the right of association is the power of meeting.

When an association is allowed to establish centers of action at certain important points in the country, its activity is increased, and its influence extended. Men have the opportunity of seeing each other; means of execution are more readily combined; and opinions are maintained with a degree of warmth and energy which written language cannot approach.

Lastly, in the exercise of the right of political association, there is a third degree: the partisans of an opinion may unite in electoral bodies, and choose delegates to represent them in a central assembly. This is, properly speaking, the application of the representative system to a party.

Thus, in the first instance, a society is formed between individuals professing the same opinion, and the tie which keeps it together is of a purely intellectual nature: in the second case, small assemblies are formed which only represent a faction of the party. Lastly, in the third case, they constitute a separate nation in the midst of the nation, a government within the government. Their delegates, like the real delegates of the majority, represent the entire collective force of their party; and they enjoy a certain degree of that national dignity and great influence which belong to the chosen representatives of the people. It is true that they have not the right of making the laws; but they have the power of attacking those which are in being, and of drawing up beforehand those which they may afterwards cause to be adopted.

If, in a people which is imperfectly accustomed to the exercise of freedom, or which is exposed to violent political passions, a deliberating minority, which confines itself to the contemplation of future laws, be placed in juxtaposition to the legislative majority, I cannot but believe that public tranquillity incurs very great risks in that nation. There is doubtless a very wide difference between proving that one law is in itself better than another, and proving that the former ought to be substituted for the latter. But the imagination of the populace is very apt to overlook this difference, which is so apparent to the minds of thinking men. It sometimes happens that a nation is divided into two nearly equal parties, each of which affects to represent the majority. If, in immediate contiguity to the directing power, another power be established which exercises almost as much moral authority as the former, it is not to be believed that it will long be content to speak without acting, or that it will always be restrained by the abstract consideration of the nature of associations, which are meant to direct but not to enforce opinions, to suggest but not to make the laws.

The more we consider the independence of the press in its principal consequences, the more are we convinced that it is the chief, and, so to speak, the constitutive element of freedom in the modern world. A nation which is determined to remain free is therefore right in demanding the unrestrained exercise of this independence. But the *unrestrained* liberty of political association cannot be entirely assimilated to the liberty of the press. The one is at the same time less necessary and more dangerous than the other. A nation may confine it within certain limits without forfeiting any part of its self-control; and it may sometimes be obliged to do so in order to maintain its own authority.

In America the liberty of association for political purposes is unbounded. An example will show in the clearest light to what an extent this privilege is tolerated.

The question of the tariff, or of free trade, produced a great manifestation of party feeling in America: the tariff was not only a subject of debate as a matter of opinion, but it exercised a. favorable or a prejudicial influence upon several very powerful interests of the states. The North attributed a great portion of its prosperity, and the South all its sufferings, to this system; insomuch that for a long time the tariff was the sole source of the political animosities which agitated the Union.

In 1831, when the dispute was raging with the utmost virulence, a private citizen of Massachusetts proposed to all the enemies of the tariff, by means of the public prints, to send delegates to Philadelphia in order to consult together upon the means which were most fitted to promote freedom of trade. This proposal circulated in a few days from Maine to New Orleans by the power of the printing press; the opponents of the tariff adopted it with enthusiasm, meetings were formed on all sides, and delegates were named. The majority of these individuals were well known, and some of them had earned a considerable degree of celebrity. South Carolina alone, which afterwards took up arms in the same cause, sent sixty-three delegates. On the 1st October, 1831, this assembly, which according to the American custom had taken the name of a convention, met at Philadelphia; it consisted of more than two hundred members. Its debates were public, and they at once assumed a legislative character; the extent of the powers of Congress, the theories of free trade, and the different clauses of the tariff were discussed in turn. At the end of ten days' deliberation the convention broke up, after having published an address to the American people, in which it declared:

I. That Congress had not the right of making a tariff, and that the existing tariff was unconstitutional;

II. That the prohibition of free trade was prejudicial to the interests of all nations, and to that of the American people in particular.

It must be acknowledged that the unrestrained liberty of political association has not hitherto produced in the United States those fatal consequences which might perhaps be expected from it elsewhere. The right of association was imported from England, and it has always existed in America, so that the exercise of this privilege is now amalgamated with the manners and customs of the people. At the present time, the liberty of association has become a necessary guarantee against the tyranny of the majority. In the United States, as soon as a party has become preponderant, all the public authority passes under its control. Its private supporters occupy all the places, and have all the force of the administration at their disposal. As the most distinguished partisans of the other side of the question are unable to surmount the obstacles which exclude them from power, they require some means of establishing themselves upon their own basis, and of opposing the moral authority of the minority to the physical power which domineers over it. Thus a dangerous expedient is used to obviate a still more formidable danger.

The omnipotence of the majority appears to me to present such extreme perils to the American republics that the dangerous measure which is used to repress it seems to be more advantageous than prejudicial. And here I am about to advance a proposition which may remind the reader of what I said before in speaking of municipal freedom: There are no countries in which associations are more needed to prevent the despotism of faction or the arbitrary power of a prince than those which are democratically constituted. In aristocratic nations, the body of the nobles and the more opulent part of the community are in themselves natural associations, which act as checks upon the abuses of power. In countries in which these associations do not exist, if private individuals are unable to create an artificial and a temporary substitute for them, I can imagine no permanent protection against the most galling tyranny; and a great people may be oppressed by a small faction, or by a single individual, with impunity.

The meeting of a great political convention (for there are conventions of all kinds), which may frequently become a necessary measure, is always a serious occurrence, even in America, and one which is never looked forward to, by the judicious friends of the country, without alarm.

This was very perceptible in the Convention of 1831, at which the exertions of all the most distinguished members of the assembly tended to moderate its language, and to restrain the subjects which it treated within certain limits. It is probable, in fact, that the Convention of 1831 exercised a very great influence upon the minds of the malcontents, and prepared them for the open revolt against the commercial laws of the Union which took place in 1832.

It cannot be denied that the unrestrained liberty of association for political purposes is the privilege which a people is longest in learning how to exercise. If it does not throw the nation into anarchy, it perpetually augments the chances of that calamity. On one point, however, this perilous liberty offers a security against dangers of another kind; in countries where associations are free, secret societies are unknown. In America there are numerous factions, but no conspiracies.

The most natural privilege of man, next to the right of acting for himself, is that of combining his exertions with those of his fellow creatures, and of acting in common with them. I am therefore led to conclude that the right of association is almost as inalienable as the right of personal liberty. No legislator can attack it without impairing the very foundations of society. Nevertheless, if the liberty of association is a fruitful source of advantages and prosperity to some nations, it may be perverted or carried to excess by others, and the element of life may be changed into an element of destruction. A comparison of the different methods which associations pursue, in those countries in which they are managed with discretion, as well as in those where liberty degenerates into license, may perhaps be thought useful both to governments and to parties.

The greater part of Europeans look upon an association as a weapon which is to be hastily fashioned, and immediately tried in the conflict. A society is formed for discussion, but the idea of impending action prevails in the minds of those who constitute it: it is, in fact, an army; and the time given to parley serves to reckon up the strength and to animate the courage of the host, after which they direct their march against the enemy. Resources which lie within the bounds of the law may suggest themselves, to the persons who compose it, as means, but never as the only means, of success.

Such, however, is not the manner in which the right of association is understood in the United States. In America the citizens who form the

minority associate, in order, in the first place, to show their numerical strength, and so to diminish the moral authority of the majority; and, in the second place, to stimulate competition, and to discover those arguments which are most fitted to act upon the majority: for they always entertain hopes of drawing over their opponents to their own side, and of afterwards disposing of the supreme power in their name. Political associations in the United States are therefore peaceable in their intentions, and strictly legal in the means which they employ; and they assert with perfect truth that they only aim at success by lawful expedients.

The difference which exists between the Americans and ourselves depends on several causes. In Europe there are numerous parties so diametrically opposed to the majority that they can never hope to acquire its support, and at the same time they think that they are sufficiently strong in themselves to struggle and to defend their cause. When a party of this kind forms an association, its object is not to conquer but to fight. In America, the individuals who hold opinions very much opposed to those of the majority are no sort of impediment to its power; and all other parties hope to win it over to their own principles in the end. The exercise of the right of association becomes dangerous in proportion to the impossibility which excludes great parties from acquiring the majority. In a country like the United States, in which the differences of opinion are mere differences of hue, the right of association may remain unrestrained without evil consequences. The inexperience of many of the European nations in the enjoyment of liberty leads them only to look upon the liberty of association as a right of attacking the government. The first notion which presents itself to a party, as well as to an individual, when it has acquired a consciousness of its own strength, is that of violence: the notion of persuasion arises at a later period, and is only derived from experience. The English, who are divided into parties which differ most essentially from each other, rarely abuse the right of association, because they have long been accustomed to exercise it. In France, the passion for war is so intense that there is no undertaking so mad, or so injurious to the welfare of the state, that a man does not consider himself honored in defending it, at the risk of his life.

But perhaps the most powerful of the causes which tend to mitigate the excesses of political association in the United States is universal suffrage. In countries in which universal suffrage exists, the majority is never doubtful, because neither party can pretend to represent that portion of the community which has not voted. The associations which are formed are aware, as well as the nation at large, that they do not represent the

majority: this is, indeed, a condition inseparable from their existence; for if they did represent the preponderating power, they would change the law instead of soliciting its reform. The consequence of this is that the moral influence of the government which they attack is very much increased, and their own power is very much enfeebled.

In Europe there are few associations which do not affect to represent the majority, or which do not believe that they represent it. This conviction or this pretension tends to augment their force amazingly, and contributes no less to legalize their measures. Violence may seem to be excusable in defense of the cause of oppressed right. Thus it is, in the vast labyrinth of human laws, that extreme liberty sometimes corrects the abuses of license, and that extreme democracy obviates the dangers of democratic government. In Europe, associations consider themselves, in some degree, as the legislative and executive councils of the people, which is unable to speak for itself. In America, where they only represent a minority of the nation, they argue and they petition.

The means which the associations of Europe employ are in accordance with the end which they propose to obtain. As the principal aim of these bodies is to act and not to debate, to fight rather than to persuade, they are naturally led to adopt a form of organization which differs from the ordinary customs of civil bodies, and which assumes the habits and the maxims of military life. They centralize the direction of their resources as much as possible, and they entrust the power of the whole party to a very small number of leaders.

The members of these associations reply to a watchword, like soldiers on duty; they profess the doctrine of passive obedience; say, rather, that in uniting together they at once abjure the exercise of their own judgment and free will: and the tyrannical control which these societies exercise is often far more insupportable than the authority possessed over society by the government which they attack. Their moral force is much diminished by these excesses, and they lose the powerful interest which is always excited by a struggle between oppressors and the oppressed. The man who in given cases consents to obey his fellows with servility, and who submits his activity, and even his opinions, to their control, can have no claim to rank as a free citizen.

The Americans have also established certain forms of government which are applied to their associations, but these are invariably borrowed from the forms of the civil administration. The independence of each individual is formally recognized; the tendency of the members of the association points, as it does in the body of the community, towards the same end, but they are not obliged to follow the same track. No one ab-

jures the exercise of his reason and his free will; but everyone exerts that reason and that will for the benefit of a common undertaking.

Government of the Democracy in America

I am well aware of the difficulties which attend this part of my subject, but although every expression which I am about to make use of may clash, upon some one point, with the feelings of the different parties which divide my country, I shall speak my opinion with the most perfect openness.

In Europe we are at a loss how to judge the true character and the more permanent propensities of democracy, because in Europe two conflicting principles exist, and we do not know what to attribute to the principles themselves, and what to refer to the passions which they bring into collision. Such, however, is not the case in America; there the people reigns without any obstacle, and it has no perils to dread, and no injuries to avenge. In America, democracy is swayed by its own free propensities: its course is natural, and its activity is unrestrained; the United States consequently afford the most favorable opportunity of studying its real character. And to no people can this inquiry be more vitally interesting than to the French nation, which is blindly driven onwards by a daily and irresistible impulse, towards a state of things which may prove either despotic or republican, but which will assuredly be democratic.

UNIVERSAL SUFFRAGE

I have ready observed that universal suffrage has been adopted in all the states of the Union: it consequently occurs among different populations which occupy very different positions in the scale of society. I have had opportunities of observing its effects in different localities, and among races of men who are nearly strangers to each other by their language, their religion, and their manner of life; in Louisiana as well as in New England, in Georgia and in Canada. I have remarked that universal suffrage is far from producing in America either all the good or all the evil consequences which are assigned to it in Europe, and that its effects differ very widely from those which are usually attributed to it.

CHOICE OF THE PEOPLE AND INSTINCTIVE PREFERENCES OF THE AMERICAN DEMOCRACY

Many people in Europe are apt to believe without saying it, or to say without believing it, that one of the great advantages of universal suf-

frage is that it entrusts the direction of public affairs to men who are worthy of the public confidence. They admit that the people is unable to govern for itself, but they aver that it is always sincerely disposed to promote the welfare of the state, and that it instinctively designates those persons who are animated by the same good wishes, and who are the most fit to wield the supreme authority. I confess that the observations I made in America by no means coincide with these opinions. On my arrival in the United States, I was surprised to find so much distinguished talent among the subjects, and so little among the heads of the government. It is a well-authenticated fact that at the present day the most able men in the United States are very rarely placed at the head of affairs; and it must be acknowledged that such has been the result in proportion as democracy has outstepped all its former limits. The race of American statesmen has evidently dwindled most remarkably in the course of the last fifty years.

Several causes may be assigned to this phenomenon. It is impossible, notwithstanding the most strenuous exertions, to raise the intelligence of the people above a certain level. Whatever may be the facilities of acquiring information, whatever may be the profusion of easy methods and of cheap science, the human mind can never be instructed and educated without devoting a considerable space of time to those objects.

The greater or the lesser possibility of subsisting without labor is therefore the necessary boundary of intellectual improvement. This boundary is more remote in some countries, and more restricted in others; but it must exist somewhere as long as the people is constrained to work in order to procure the means of physical subsistence, that is to say, as long as it retains its popular character. It is therefore quite as difficult to imagine a state in which all the citizens should be very well informed as a state in which they should all be wealthy: these two difficulties may be looked upon as correlative. It may very readily be admitted that the mass of the citizens are sincerely disposed to promote the welfare of their country; nay more, it may even be allowed that the lower classes are less apt to be swayed by considerations of personal interest than the higher orders; but it is always more or less impossible for them to discern the best means of attaining the end which they desire with sincerity. Long and patient observation, joined to a multitude of different notions, is required to form a just estimate of the character of a single individual; and can it be supposed that the vulgar have the power of succeeding in an inquiry which misleads the penetration of genius itself? The people has neither the time nor the means which are essential to the prosecution of an investigation of this kind: its conclusions are hastily formed from a

superficial inspection of the more prominent features of a question. Hence it often assents to the clamor of a mountebank who knows the secret of stimulating its tastes, while its truest friends frequently fail in their exertions.

Moreover, the democracy is not only deficient in that soundness of judgment which is necessary to select men really deserving of its confidence, but it has neither the desire nor the inclination to find them out. It cannot be denied that democratic institutions have a very strong tendency to promote the feeling of envy in the human heart, not so much because they afford to everyone the means of rising to the level of any of his fellow citizens as because those means perpetually disappoint the persons who employ them. Democratic institutions awaken and foster a passion for equality which they can never entirely satisfy. This complete equality eludes the grasp of the people at the very moment at which it thinks to hold it fast, and "flies," as Pascal says, "with eternal flight"; the people is excited in the pursuit of an advantage which is more precious because it is not sufficiently remote to be unknown, or sufficiently near to be enjoyed. The lower orders are agitated by the chance of success, they are irritated by its uncertainty; and they pass from the enthusiasm of pursuit to the exhaustion of ill success, and lastly to the acrimony of disappointment. Whatever transcends their own limits appears to be an obstacle to their desires, and there is no kind of superiority, however legitimate it may be, which is not irksome in their sight.

It has been supposed that the secret instinct which leads the lower orders to remove their superiors as much as possible from the direction of public affairs is peculiar to France. This, however, is an error; the propensity to which I allude is not inherent in any particular nation, but in democratic institutions in general; and although it may have been heightened by peculiar political circumstances, it owes its origin to a higher cause.

In the United States, the people is not disposed to hate the superior classes of society; but it is not very favorably inclined towards them, and it carefully excludes them from the exercise of authority. It does not entertain any dread of distinguished talents, but it is rarely captivated by them; and it awards its approbation very sparingly to such as have risen without the popular support.

While the natural propensities of democracy induce the people to reject the most distinguished citizens as its rulers, these individuals are no less apt to retire from a political career, in which it is almost impossible

to retain their independence or to advance without degrading themselves. This opinion has been very candidly set forth by Chancellor Kent, who says, in speaking with great eulogiums of that part of the Constitution which empowers the executive to nominate the judges: "It is indeed probable that the men who are best fitted to discharge the duties of this high office would have too much reserve in their manners, and too much austerity in their principles, for them to be returned by the majority at an election where universal suffrage is adopted." Such were the opinions which were printed without contradiction in America in the year 1830!

I hold it to be sufficiently demonstrated that universal suffrage is by no means a guarantee of the wisdom of the popular choice; and that whatever its advantages may be, this is not one of them.

CAUSES WHICH MAY PARTLY CORRECT THESE TENDENCIES OF THE DEMOCRACY

When a state is threatened by serious dangers, the people frequently succeeds in selecting the citizens who are the most able to save it. It has been observed that man rarely retains his customary level in presence of very critical circumstances; he rises above, or he sinks below his usual condition, and the same thing occurs in nations at large. Extreme perils sometimes quench the energy of a people instead of stimulating it; they excite, without directing its passions; and instead of clearing, they confuse its powers of perception. The Jews deluged the smoking ruins of their temple with the carnage of the remnant of their host. But it is more common, both in the case of nations and in that of individuals, to find extraordinary virtues arising from the very imminence of the danger. Great characters are then thrown into relief, as the edifices which are concealed by the gloom of night are illuminated by the glare of a conflagration. At those dangerous times genius no longer abstains from presenting itself in the arena; and the people, alarmed by the perils of its situation, buries its envious passions in a short oblivion. Great names may then be drawn from the urn of election.

I have already observed that the American statesmen of the present day are very inferior to those who stood at the head of affairs fifty years ago. This is as much a consequence of the circumstances as of the laws of the country. When America was struggling in the high cause of independence to throw off the yoke of another country, and when it was about to usher a new nation into the world, the spirits of its inhabitants were roused to the height which their great efforts required. In this general

excitement, the most distinguished men were ready to forestall the wants of the community, and the people clung to them for support and placed them at its head. But events of this magnitude are rare; and it is from an inspection of the ordinary course of affairs that our judgment must be formed.

If passing occurrences sometimes act as checks upon the passions of democracy, the intelligence and the manners of the community exercise an influence which is not less powerful, and far more permanent. This is extremely perceptible in the United States.

In New England the education and the liberties of the communities were engendered by the moral and religious principles of their founders. Where society has acquired a sufficient degree of stability to enable it to hold certain maxims and to retain fixed habits, the lower orders are accustomed to respect intellectual superiority, and to submit to it without complaint, although they set at nought all those privileges which wealth and birth have introduced among mankind. The democracy in New England consequently makes a more judicious choice than it does elsewhere.

But as we descend towards the South, to those states in which the constitution of society is more modern and less strong, where instruction is less general, and where the principles of morality, of religion, and of liberty are less happily combined, we perceive that the talents and the virtues of those who are in authority become more and more rare.

Lastly, when we arrive at the new southwestern states, in which the constitution of society dates but from yesterday, and presents an agglomeration of adventurers and speculators, we are amazed at the persons who are invested with public authority, and we are led to ask by what force, independent of the legislation and of the men who direct it, the state can be protected, and society be made to flourish.

There are certain laws of a democratic nature which contribute, nevertheless, to correct, in some measure, the dangerous tendencies of democracy. On entering the House of Representatives of Washington, one is struck by the vulgar demeanor of that great assembly. The eye frequently does not discover a man of celebrity within its walls. Its members are almost all obscure individuals whose names present no associations to the mind: they are mostly village lawyers, men in trade, or even persons belonging to the lower classes of society. In a country in which education is very general, it is said that the representatives of the people do not always know how to write correctly.

At a few yards' distance from this spot is the door of the Senate, which

contains within a small space a large proportion of the celebrated men of America. Scarcely an individual is to be perceived in it who does not recall the idea of an active and illustrious career: the Senate is composed of eloquent advocates, distinguished generals, wise magistrates, and statesmen of note, whose language would at all times do honor to the most remarkable parliamentary debates of Europe.

What then is the cause of this strange contrast, and why are the most able citizens to be found in one assembly rather than in the other? Why is the former body remarkable for its vulgarity and its poverty of talent, while the latter seems to enjoy a monopoly of intelligence and of sound judgment? Both of these assemblies emanate from the people; both of them are chosen by universal suffrage; and no voice has hitherto been heard to assert, in America, that the Senate is hostile to the interests of the people. From what cause, then, does so startling a difference arise? The only reason which appears to me adequately to account for it is that the House of Representatives is elected by the populace directly, and that the Senate is elected by elected bodies. The whole body of the citizens names the legislature of each state, and the federal Constitution converts these legislatures into so many electoral bodies, which return the members of the Senate. The senators are elected by an indirect application of universal suffrage: for the legislatures which name them are not aristocratic or privileged bodies which exercise the electoral franchise in their own right; but they are chosen by the totality of the citizens; they are generally elected every year, and new members may constantly be chosen who will employ their electoral rights in conformity with the wishes of the public. But this transmission of the popular authority through an assembly of chosen men operates an important change in it, by refining its discretion and improving the forms which it adopts. Men who are chosen in this manner accurately represent the majority of the nation which governs them; but they represent the elevated thoughts which are current in the community, the generous propensities which prompt its nobler actions, rather than the petty passions which disturb, or the vices which disgrace it.

The time may be already anticipated at which the American republics will be obliged to introduce the plan of election by an elected body more frequently into their system of representation, or they will incur no small risk of perishing miserably among the shoals of democracy.

And here I have no scruple in confessing that I look upon this peculiar system of election as the only means of bringing the exercise of political power to the level of all classes of the people. Those thinkers

who regard this institution as the exclusive weapon of a party, and those who fear, on the other hand, to make use of it, seem to me to fall into as great an error in the one case as in the other.

INFLUENCE WHICH THE AMERICAN DEMOCRACY HAS EXERCISED ON THE LAWS RELATING TO ELECTIONS

When elections recur at long intervals, the state is exposed to violent agitation every time they take place. Parties exert themselves to the utmost in order to gain a prize which is so rarely within their reach; and as the evil is almost irremediable for the candidates who fail, the consequences of their disappointed ambition may prove most disastrous. If, on the other hand, the legal struggle can be repeated within a short space of time, the defeated parties take patience.

When elections occur frequently, their recurrence keeps society in a perpetual state of feverish excitement, and imparts a continual instability to public affairs.

Thus, on the one hand the state is exposed to the perils of a revolution, on the other to perpetual mutability; the former system threatens the very existence of the government, the latter is an obstacle to all steady and consistent policy. The Americans have preferred the second of these evils to the first; but they were led to this conclusion by their instinct much more than by their reason; for a taste for variety is one of the characteristic passions of democracy. An extraordinary mutability has, by this means, been introduced into their legislation.

Many of the Americans consider the instability of their laws as a necessary consequence of a system whose general results are beneficial. But no one in the United States affects to deny the fact of this instability, or to contend that it is not a great evil.

Hamilton, after having demonstrated the utility of a power which might prevent, or which might at least impede, the promulgation of bad laws, adds, "It may perhaps be said that the power of preventing bad laws includes that of preventing good ones; and may be used to the one purpose as well as to the other. But this objection will have little weight with those who can properly estimate the mischiefs of that inconstancy and mutability in the laws which form the greatest blemish in the character and genius of our governments." [6]

And again in No. 62 of the same work, he observes: ". . . The facility and excess of law-making seem to be the diseases to which our govern-

6. *The Federalist,* No. 73, *Great Books of the Western World* [Ed.].

ments are most liable. . . . [To trace the mischievous effects of] the mutability in the public councils arising from a rapid succession of new members [would fill a volume]. Every new election in the States is found to change one half of the representatives. From this change of men must proceed a change of opinions [and of] measures, . . . [which] forfeits the respect and confidence of other nations, . . . poisons the blessing of liberty itself. . .[and diminishes] the attachment and reverence . . . of the people towards a political system which betrays so many marks of infirmity. . . ." [7]

Jefferson himself, the greatest democrat whom the democracy of America has as yet produced, pointed out the same evils.

"The instability of our laws," said he in a letter to Madison, "is really a very serious inconvenience. I think that we ought to have obviated it by deciding that a whole year should always be allowed to elapse between the bringing in of a bill and the final passing of it. It should afterwards be discussed and put to the vote without the possibility of making any alteration in it; and if the circumstances of the case required a more speedy decision, the question should not be decided by a simple majority, but by a majority of at least two-thirds of both houses."

PUBLIC OFFICERS UNDER THE CONTROL OF THE DEMOCRACY IN AMERICA

Public officers in the United States are commingled with the crowd of citizens; they have neither palaces, nor guards, nor ceremonial costumes. This simple exterior of the persons in authority is connected, not only with the peculiarities of the American character, but with the fundamental principles of that society. In the estimation of the democracy, a government is not a benefit, but a necessary evil. A certain degree of power must be granted to public officers, for they would be of no use without it. But the ostensible semblance of authority is by no means indispensable to the conduct of affairs; and it is needlessly offensive to the susceptibility of the public. The public officers themselves are well aware that they only enjoy the superiority over their fellow citizens which they derive from their authority, upon condition of putting themselves on a level with the whole community by their manners. A public officer in the United States is uniformly civil, accessible to all the world, attentive to all requests, and obliging in his replies. I was pleased by

7. *The Federalist,* No. 62, *Great Books of the Western World* [Ed.].

these characteristics of a democratic government; and I was struck by the manly independence of the citizens, who respect the office more than the officer, and who are less attached to the emblems of authority than to the man who bears them.

I am inclined to believe that the influence which costumes really exercise, in an age like that in which we live, has been a good deal exaggerated. I never perceived that a public officer in America was the less respected while he was in the discharge of his duties because his own merit was set off by no adventitious signs. On the other hand, it is very doubtful whether a peculiar dress contributes to the respect which public characters ought to have for their own position, at least when they are not otherwise inclined to respect it. When a magistrate (and in France such instances are not rare) indulges his trivial wit at the expense of the prisoner, or derides the predicament in which a culprit is placed, it would be well to deprive him of his robes of office, to see whether he would recall some portion of the natural dignity of mankind when he is reduced to the apparel of a private citizen.

A democracy may, however, allow a certain show of magisterial pomp, and clothe its officers in silks and gold, without seriously compromising its principles. Privileges of this kind are transitory: they belong to the place, and are distinct from the individual; but if public officers are not uniformly remunerated by the state, the public charges must be entrusted to men of opulence and independence, who constitute the basis of an aristocracy; and if the people still retains its right of election, that election can only be made from a certain class of citizens.

When a democratic republic renders offices which had formerly been remunerated gratuitous, it may safely be believed that that state is advancing to monarchical institutions; and when a monarchy begins to remunerate such officers as had hitherto been unpaid, it is a sure sign that it is approaching towards a despotic or a republican form of government. The substitution of paid for unpaid functionaries is of itself, in my opinion, sufficient to constitute a serious revolution.

I look upon the entire absence of gratuitous functionaries in America as one of the most prominent signs of the absolute dominion which democracy exercises in that country. All public services, of whatsoever nature they may be, are paid; so that everyone has not merely a right, but also the means of performing them. Although, in democratic states, all the citizens are qualified to occupy stations in the government, all are not tempted to try for them. The number and the capacities of the

candidates are more apt to restrict the choice of electors than the conditions of the candidateship.

In nations in which the principle of election extends to every place in the state, no political career can, properly speaking, be said to exist. Men are promoted as if by chance to the rank which they enjoy, and they are by no means sure of retaining it. The consequence is that in tranquil times public functions offer but few lures to ambition. In the United States the persons who engage in the perplexities of political life are individuals of very moderate pretensions. The pursuit of wealth generally diverts men of great talents and of great passions from the pursuit of power: and it very frequently happens that a man does not undertake to direct the fortune of the state until he has discovered his incompetence to conduct his own affairs. The vast number of very ordinary men who occupy public stations is quite as attributable to these causes as to the bad choice of the democracy. In the United States, I am not sure that the people would return the men of superior abilities who might solicit its support, but it is certain that men of this description do not come forward.

ARBITRARY POWER OF MAGISTRATES[8] UNDER THE RULE OF THE AMERICAN DEMOCRACY

In two different kinds of government the magistrates exercise a considerable degree of arbitrary power; namely, under the absolute government of a single individual, and under that of a democracy.

This identical result proceeds from causes which are nearly analogous.

In despotic states the fortune of no citizen is secure; and public officers are not more safe than private individuals. The sovereign, who has under his control the lives, the property, and sometimes the honor of the men whom he employs, does not scruple to allow them a great latitude of action because he is convinced that they will not use it to his prejudice. In despotic states the sovereign is so attached to the exercise of his power that he dislikes the constraint even of his own regulations; and he is well pleased that his agents should follow a somewhat fortuitous line of conduct, provided he be certain that their actions will never counteract his desires.

In democracies, as the majority has every year the right of depriving

8. I here use the word magistrates in the widest sense in which it can be taken; I apply it to all the officers to whom the execution of the laws is entrusted.

the officers whom it has appointed of their power, it has no reason to fear any abuse of their authority. As the people is always able to signify its wishes to those who conduct the government, it prefers leaving them to make their own exertions, to prescribing an invariable rule of conduct which would at once fetter their activity and the popular authority.

It may even be observed, on attentive consideration, that under the rule of a democracy the arbitrary power of the magistrate must be still greater than in despotic states. In the latter, the sovereign has the power of punishing all the faults with which he becomes acquainted, but it would be vain for him to hope to become acquainted with all those which are committed. In the former the sovereign power is not only supreme, but it is universally present. The American functionaries are, in point of fact, much more independent in the sphere of action which the law traces out for them than any public officer in Europe. Very frequently the object which they are to accomplish is simply pointed out to them, and the choice of the means is left to their own discretion.

In New England, for instance, the selectmen of each township are bound to draw up the list of persons who are to serve on the jury; the only rule which is laid down to guide them in their choice is that they are to select citizens possessing the elective franchise and enjoying a fair reputation.[9] In France the lives and liberties of the subjects would be thought to be in danger if a public officer of any kind was entrusted with so formidable a right. In New England the same magistrates are empowered to post the names of habitual drunkards in public houses, and to prohibit the inhabitants of a town from supplying them with liquor.[10] A censorial power of this excessive kind would be revolting to the population of the most absolute monarchies; here, however, it is submitted to without difficulty.

Nowhere has so much been left by the law to the arbitrary determination of the magistrate as in democratic republics, because this arbitrary power is unattended by any alarming consequences. It may even be asserted that the freedom of the magistrate increases as the elective franchise is extended, and as the duration of the time of office is shortened. Hence arises the great difficulty which attends the conversion of a democratic republic into a monarchy. The magistrate ceases to be elective,

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9. See the Act of 27th February, 1813. General Collection of the Laws of Massachusetts, vol. ii., p. 331. It should be added that the jurors are afterwards drawn from these lists by lot.
10. See Act of 28th February, 1787. General Collection of the Laws of Massachusetts, vol. i., p. 302.

but he retains the rights and the habits of an elected officer, which lead directly to despotism.

It is only in limited monarchies that the law, which prescribes the sphere in which public officers are to act, superintends all their measures. The cause of this may be easily detected. In limited monarchies the power is divided between the king and the people, both of whom are interested in the stability of the magistrate. The king does not venture to place the public officers under the control of the people, lest they should be tempted to betray his interests; on the other hand, the people fears lest the magistrates should serve to oppress the liberties of the country if they were entirely dependent upon the crown: they cannot therefore be said to depend on either the one or the other. The same cause which induces the king and the people to render public officers independent suggests the necessity of such securities as may prevent their independence from encroaching upon the authority of the former and the liberties of the latter. They consequently agree as to the necessity of restricting the functionary to a line of conduct laid down beforehand, and they are interested in confining him by certain regulations which he cannot evade.

INSTABILITY OF THE ADMINISTRATION IN THE UNITED STATES

The authority which public men possess in America is so brief, and they are so soon commingled with the ever-changing population of the country, that the acts of a community frequently leave fewer traces than the occurrences of a private family. The public administration is, so to speak, oral and traditionary. But little is committed to writing, and that little is wafted away forever, like the leaves of the sibyl, by the smallest breeze.

The only historical remains in the United States are the newspapers; but if a number be wanting, the chain of time is broken, and the present is severed from the past. I am convinced that in fifty years it will be more difficult to collect authentic documents concerning the social condition of the Americans at the present day, than it is to find remains of the administration of France during the Middle Ages; and if the United States were ever invaded by barbarians, it would be necessary to have recourse to the history of other nations, in order to learn anything of the people which now inhabits them.

The instability of the administration has penetrated into the habits of

the people: it even appears to suit the general taste, and no one cares for what occurred before his time. No methodical system is pursued; no archives are formed; and no documents are brought together when it would be very easy to do so. Where they exist little store is set upon them; and I have among my papers several original public documents which were given to me in answer to some of my inquiries. In America society seems to live from hand to mouth, like an army in the field. Nevertheless, the art of administration may undoubtedly be ranked as a science, and no sciences can be improved if the discoveries and observations of successive generations are not connected together in the order in which they occur. One man, in the short space of his life, remarks a fact; another conceives an idea; the former invents a means of execution, the latter reduces a truth to a fixed proposition; and mankind gathers the fruits of individual experience upon its way, and gradually forms the sciences. But the persons who conduct the administration in America can seldom afford any instruction to each other; and when they assume the direction of society, they simply possess those attainments which are most widely disseminated in the community, and no experience peculiar to themselves. Democracy, carried to its furthest limits, is therefore prejudicial to the art of government; and for this reason, it is better adapted to a people already versed in the conduct of an administration than to a nation which is uninitiated in public affairs.

This remark, indeed, is not exclusively applicable to the science of administration. Although a democratic government is founded upon a very simple and natural principle, it always presupposes the existence of a high degree of culture and enlightenment in society.[11] At the first glance it may be imagined to belong to the earliest ages of the world; but maturer observation will convince us that it could only come last in the succession of human history.

CHARGES LEVIED BY THE STATE UNDER THE RULE OF THE AMERICAN DEMOCRACY

Before we can affirm whether a democratic form of government is economical or not, we must establish a suitable standard of comparison. The question would be one of easy solution, if we were to attempt to draw a parallel between a democratic republic and an absolute monarchy. The

11. It is needless to observe that I speak here of the democratic form of government as applied to a people, not merely to a tribe.

public expenditure would be found to be more considerable under the former than under the latter; such is the case with all free states compared to those which are not so. It is certain that despotism ruins individuals by preventing them from producing wealth, much more than by depriving them of the wealth they have produced: it dries up the source of riches, while it usually respects acquired property. Freedom, on the contrary, engenders far more benefits than it destroys; and the nations which are favored by free institutions invariably find that their resources increase even more rapidly than their taxes.

My present object is to compare free nations to each other and to point out the influence of democracy upon the finances of a state.

Communities, as well as organic bodies, are subject to certain fixed rules in their formation which they cannot evade. They are composed of certain elements which are common to them at all times and under all circumstances. The people may always be mentally divided into three distinct classes. The first of these classes consists of the wealthy; the second, of those who are in easy circumstances; and the third is composed of those who have little or no property, and who subsist more especially by the work which they perform for the two superior orders. The proportion of the individuals who are included in these three divisions may vary according to the condition of society; but the divisions themselves can never be obliterated.

It is evident that each of these classes will exercise an influence, peculiar to its own propensities, upon the administration of the finances of the state. If the first of the three exclusively possesses the legislative power, it is probable that it will not be sparing of the public funds, because the taxes which are levied on a large fortune only tend to diminish the sum of superfluous enjoyment, and are, in point of fact, but little felt. If the second class has the power of making the laws, it will certainly not be lavish of taxes, because nothing is so onerous as a large impost which is levied upon a small income. The government of the middle classes appears to me to be the most economical, though perhaps not the most enlightened, and certainly not the most generous, of free governments.

But let us now suppose that the legislative authority is vested in the lowest orders: there are two striking reasons which show that the tendency of the expenditure will be to increase, not to diminish.

As the great majority of those who create the laws are possessed of no property upon which taxes can be imposed, all the money which is spent for the community appears to be spent to their advantage, at no cost of

their own; and those who are possessed of some little property readily find means of regulating the taxes so that they are burdensome to the wealthy and profitable to the poor, although the rich are unable to take the same advantage when they are in possession of the government.

In countries in which the poor [12] should be exclusively invested with the power of making the laws, no great economy of public expenditure ought to be expected: that expenditure will always be considerable, either because the taxes do not weigh upon those who levy them or because they are levied in such a manner as not to weigh upon those classes. In other words, the government of the democracy is the only one under which the power which lays on taxes escapes the payment of them.

It may be objected (but the argument has no real weight) that the true interest of the people is indissolubly connected with that of the wealthier portion of the community, since it cannot but suffer by the severe measures to which it resorts. But is it not the true interest of kings to render their subjects happy; and the true interest of nobles to admit recruits into their order on suitable grounds? If remote advantages had power to prevail over the passions and the exigencies of the moment, no such thing as a tyrannical sovereign or an exclusive aristocracy could ever exist.

Again, it may be objected that the poor are never invested with the sole power of making the laws; but I reply that wherever universal suffrage has been established, the majority of the community unquestionably exercises the legislative authority; and if it be proved that the poor always constitute the majority, it may be added, with perfect truth, that in the countries in which they possess the elective franchise, they possess the sole power of making laws. But it is certain that in all the nations of the world the greater number has always consisted of those persons who hold no property, or of those whose property is insufficient to exempt them from the necessity of working in order to procure an easy subsistence. Universal suffrage does therefore in point of fact invest the poor with the government of society.

The disastrous influence which popular authority may sometimes exercise upon the finances of a state was very clearly seen in some of the democratic republics of antiquity, in which the public treasure was exhausted in order to relieve indigent citizens, or to supply the games and

12. The word *poor* is used here, and throughout the remainder of this chapter, in a relative, not in an absolute, sense. Poor men in America would often appear rich in comparison with the poor of Europe; but they may with propriety be styled poor in comparison with their more affluent countrymen.

theatrical amusements of the populace. It is true that the representative system was then very imperfectly known, and that, at the present time, the influence of popular passions is less felt in the conduct of public affairs; but it may be believed that the delegate will in the end conform to the principles of his constituents, and favor their propensities as much as their interests.

The extravagance of democracy is, however, less to be dreaded in proportion as the people acquires a share of property, because on the one hand the contributions of the rich are then less needed, and on the other, it is more difficult to lay on taxes which do not affect the interests of the lower classes. On this account universal suffrage would be less dangerous in France than in England, because in the latter country the property on which taxes may be levied is vested in fewer hands. America, where the great majority of the citizens is possessed of some fortune, is in a still more favorable position than France.

There are still further causes which may increase the sum of public expenditure in democratic countries. When the aristocracy governs, the individuals who conduct the affairs of state are exempted, by their own station in society, from every kind of privation; they are contented with their position; power and renown are the objects for which they strive; and, as they are placed far above the obscurer throng of citizens, they do not always distinctly perceive how the well-being of the mass of the people ought to redound to their own honor. They are not indeed callous to the sufferings of the poor, but they cannot feel those miseries as acutely as if they were themselves partakers of them. Provided that the people appear to submit to its lot, the rulers are satisfied, and they demand nothing further from the government. An aristocracy is more intent upon the means of maintaining its influence than upon the means of improving its condition.

When, on the contrary, the people is invested with the supreme authority, the perpetual sense of their own miseries impels the rulers of society to seek for perpetual ameliorations. A thousand different objects are subjected to improvement; the most trivial details are sought out as susceptible of amendment; and those changes which are accompanied with considerable expense are more especially advocated, since the object is to render the condition of the poor more tolerable, who cannot pay for themselves.

Moreover, all democratic communities are agitated by an ill-defined excitement, and by a kind of feverish impatience, that engenders a multitude of innovations, almost all of which are attended with expense.

In monarchies and aristocracies the natural taste which the rulers have for power and for renown is stimulated by the promptings of ambition, and they are frequently incited by these temptations to very costly undertakings. In democracies, where the rulers labor under privations, they can only be courted by such means as improve their well-being, and these improvements cannot take place without a sacrifice of money. When a people begins to reflect upon its situation, it discovers a multitude of wants to which it had not before been subject, and to satisfy these exigencies recourse must be had to the coffers of the state. Hence it arises that the public charges increase in proportion as civilization spreads, and that imposts are augmented as knowledge pervades the community.

The last cause which frequently renders a democratic government dearer than any other is that a democracy does not always succeed in moderating its expenditure, because it does not understand the art of being economical. As the designs which it entertains are frequently changed, and the agents of those designs are still more frequently removed, its undertakings are often ill conducted or left unfinished: in the former case the state spends sums out of all proportion to the end which it proposes to accomplish; in the second, the expense itself is unprofitable.

TENDENCIES OF THE AMERICAN DEMOCRACY AS REGARDS THE SALARIES OF PUBLIC OFFICERS

There is a powerful reason which usually induces democracies to economize upon the salaries of public officers. As the number of citizens who dispense the remuneration is extremely large in democratic countries, so the number of persons who can hope to be benefited by the receipt of it is comparatively small. In aristocratic countries, on the contrary, the individuals who appoint high salaries have almost always a vague hope of profiting by them. These appointments may be looked upon as a capital which they create for their own use, or at least as a resource for their children.

It must however be allowed that a democratic state is most parsimonious towards its principal agents. In America the secondary officers are much better paid, and the dignitaries of the administration much worse, than they are elsewhere.

These opposite effects result from the same cause: the people fixes the salaries of the public officers in both cases; and the scale of remuneration is determined by the consideration of its own wants. It is held to be fair

that the servants of the public should be placed in the same easy circumstances as the public itself; [13] but when the question turns upon the salaries of the great officers of state, this rule fails, and chance alone can guide the popular decision. The poor have no adequate conception of the wants which the higher classes of society may feel. The sum which is scanty to the rich appears enormous to the poor man whose wants do not extend beyond the necessaries of life; and in his estimation the governor of a state with his two or three hundred a year is a very fortunate and enviable being.[14] If you undertake to convince him that the representative of a great people ought to be able to maintain some show of splendor in the eyes of foreign nations, he will perhaps assent to your meaning; but when he reflects on his own humble dwelling, and on the hard-earned produce of his wearisome toil, he remembers all that he could do with a salary which you say is insufficient, and he is startled or almost frightened at the sight of such uncommon wealth. Besides, the secondary public officer is almost on a level with the people, while the others are raised above it. The former may therefore excite his interest, but the latter begins to arouse his envy.

This is very clearly seen in the United States, where the salaries seem to decrease as the authority of those who receive them augments.[15]

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13. The easy circumstances in which secondary functionaries are placed in the United States result also from another cause, which is independent of the general tendencies of democracy: every kind of private business is very lucrative, and the state would not be served at all if it did not pay its servants. The country is in the position of a commercial undertaking, which is obliged to sustain an expensive competition, notwithstanding its tastes for economy.

14. The state of Ohio, which contains a million of inhabitants, gives its governor a salary of only 1,200 dollars (£260) a year.

15. To render this assertion perfectly evident, it will suffice to examine the scale of salaries of the agents of the federal government. I have added the salaries attached to the corresponding officers in France under the constitutional monarchy, to complete the comparison.

UNITED STATES *Treasury Department*		FRANCE *Ministère de Finances*	
Messenger . . . . . 700$.	(150*l.*)	Huissier . . . . . 1500 fr.	(60*l.*)
Clerk with lowest salary . . . . . 1000$.	(217*l.*)	Clerk with lowest salary . . 1000 to 1800 fr.	(40*l.* to 72*l.*)
Clerk with highest salary . . . . . 1600$.	(347*l.*)	Clerk with highest salary 3200 to 3600 fr.	(128*l.* to 144*l.*)
Chief Clerk . . . . . 2000$.	(434*l.*)	Secrétaire-général . . . 20,000 fr.	(800*l.*)
Secretary of State . 6000$.	(1,300*l.*)	The Minister . . . . . 80,000 fr.	(3,200*l.*)
The President . . . 25,000$.	(5,400*l.*)	The King . . . 12,000,000 fr.	(480,000*l.*)

I have perhaps done wrong in selecting France as my standard of comparison. In France the democratic tendencies of the nation exercise an ever increasing influence upon the government, and the Chambers show a disposition to raise the low salaries and to lower the principal ones. Thus, the Minister of Finance, who

Under the rule of an aristocracy it frequently happens, on the contrary, that while the high officers are receiving munificent salaries, the inferior ones have not more than enough to procure the necessaries of life. The reason of this fact is easily discoverable from causes very analogous to those to which I have just alluded. If a democracy is unable to conceive the pleasures of the rich, or to witness them without envy, an aristocracy is slow to understand, or, to speak more correctly, is unacquainted with the privations of the poor. The poor man is not (if we use the term aright) the fellow of the rich one; but he is a being of another species. An aristocracy is therefore apt to care but little for the fate of its subordinate agents; and their salaries are only raised when they refuse to perform their service for too scanty a remuneration.

It is the parsimonious conduct of democracy towards its principal officers which has countenanced a supposition of far more economical propensities than any which it really possesses. It is true that it scarcely allows the means of honorable subsistence to the individuals who conduct its affairs; but enormous sums are lavished to meet the exigencies or to facilitate the enjoyments of the people.[16] The money raised by taxation may be better employed, but it is not saved. In general, democracy gives largely to the community, and very sparingly to those who govern it. The reverse is the case in aristocratic countries, where the money of the state is expended to the profit of the persons who are at the head of affairs.

DIFFICULTY OF DISTINGUISHING THE CAUSES WHICH CONTRIBUTE TO THE ECONOMY OF THE AMERICAN GOVERNMENT

We are liable to frequent errors in the research of those facts which exercise a serious influence upon the fate of mankind, since nothing is more difficult than to appreciate their real value. One people is naturally inconsistent and enthusiastic, another is sober and calculating, and these

received 160,000 fr. under the empire, receives 80,000 fr. in 1835; the Directeurs-Généraux of Finance, who then received 50,000 fr., now receive only 20,000 fr. [If the author could have foreseen the possibility of the restoration of the Empire in France, he would have anticipated the revival of the Imperial rate of public salaries, which has since taken place.–1861.]

16. See the American budgets for the cost of indigent citizens and gratuitous instruction. In 1831, £ 50,000 were spent in the state of New York for the maintenance of the poor: and at least £ 200,000 were devoted to gratuitous instruction (William's New York Annual Register, 1832, pp. 205 and 243). The state of New York contained only 1,900,000 inhabitants in the year 1830; which is not more than double the amount of population in the Département du Nord in France.

characteristics originate in their physical constitution, or in remote causes with which we are unacquainted.

There are nations which are fond of parade and the bustle of festivity, and which do not regret the costly gaieties of an hour. Others, on the contrary, are attached to more retiring pleasures, and seem almost ashamed of appearing to be pleased. In some countries the highest value is set upon the beauty of public edifices; in others the productions of art are treated with indifference, and everything which is unproductive is looked down upon with contempt. In some renown, in others money, is the ruling passion.

Independently of the laws, all these causes concur to exercise a very powerful influence upon the conduct of the finances of the state. If the Americans never spend the money of the people in galas, it is not only because the imposition of taxes is under the control of the people, but because the people takes no delight in public rejoicings. If they repudiate all ornament from their architecture, and set no store on any but the more practical and homely advantages, it is not only because they live under democratic institutions, but because they are a commercial nation. The habits of private life are continued in public; and we ought carefully to distinguish that economy which depends upon their institutions from that which is the natural result of their manners and customs.

WHETHER THE EXPENDITURE OF THE UNITED STATES CAN BE COMPARED TO THAT OF FRANCE

Many attempts have recently been made in France to compare the public expenditure of that country with the expenditure of the United States; all these attempts have, however, been unattended by success; and a few words will suffice to show that they could not have had a satisfactory result.

In order to estimate the amount of the public charges of a people, two preliminaries are indispensable: it is necessary, in the first place, to know the wealth of that people; and in the second, to learn what portion of that wealth is devoted to the expenditure of the state. To show the amount of taxation without showing the resources which are destined to meet the demand is to undertake a futile labor; for it is not the expenditure but the relation of the expenditure to the revenue which it is desirable to know.

The same rate of taxation which may easily be supported by a wealthy contributor will reduce a poor one to extreme misery. The wealth of na-

tions is composed of several distinct elements, of which population is the first, real property the second, and personal property the third. The first of these three elements may be discovered without difficulty. Among civilized nations it is easy to obtain an accurate census of the inhabitants; but the two others cannot be determined with so much facility. It is difficult to take an exact account of all the lands in a country which are under cultivation, with their natural or their acquired value; and it is still more impossible to estimate the entire personal property which is at the disposal of a nation, and which eludes the strictest analysis by the diversity and the number of shapes under which it may occur. And, indeed, we find that the most ancient civilized nations of Europe, including even those in which the administration is most central, have not succeeded, as yet, in determining the exact condition of their wealth.

In America the attempt has never been made; for how would such an investigation be possible in a country where society has not yet settled into habits of regularity and tranquillity; where the national government is not assisted by a multitude of agents whose exertions it can command, and direct to one sole end; and where statistics are not studied because no one is able to collect the necessary documents, or to find time to peruse them? Thus the primary elements of the calculations which have been made in France cannot be obtained in the Union; the relative wealth of the two countries is unknown: the property of the former is not accurately determined, and no means exist of computing that of the latter.

I consent therefore, for the sake of the discussion, to abandon this necessary term of the comparison, and I confine myself to a computation of the actual amount of taxation, without investigating the relation which subsists between the taxation and the revenue. But the reader will perceive that my task has not been facilitated by the limits which I here lay down for my researches.

It cannot be doubted that the central administration of France, assisted by all the public officers who are at its disposal, might determine with exactitude the amount of the direct and indirect taxes levied upon the citizens. But this investigation, which no private individual can undertake, has not hitherto been completed by the French government, or, at least, its results have not been made public. We are acquainted with the sum total of the charges of the state; we know the amount of the departmental expenditure; but the expenses of the communal divisions have not been computed, and the amount of the public expenses of France is consequently unknown.

If we now turn to America, we shall perceive that the difficulties are multiplied and enhanced. The Union publishes an exact return of the amount of its expenditure; the budgets of the four and twenty states furnish similar returns of their revenues; but the expenses incident to the affairs of the counties and the townships are unknown.[17]

The authority of the federal government cannot oblige the provincial governments to throw any light upon this point; and even if these governments were inclined to afford their simultaneous co-operation, it may be doubted whether they possess the means of procuring a satisfactory answer. Independently of the natural difficulties of the task, the political organization of the country would act as a hindrance to the success of their efforts. The county and town magistrates are not appointed by the authorities of the state, and they are not subjected to their control. It is therefore very allowable to suppose that if the state were desirous of obtaining the returns which we require, its design would be counteracted by the neglect of those subordinate officers whom it would be obliged to employ.[18] It is in point of fact useless to inquire what the Americans

17. The Americans, as we have seen, have four separate budgets, the Union, the states, the counties, and the townships having each severally their own. During my stay in America I made every endeavor to discover the amount of the public expenditure in the townships and counties of the principal states of the Union, and I readily obtained the budget of the larger townships, but I found it quite impossible to procure that of the smaller ones. I possess, however, some documents relating to county expenses which, although incomplete, are still curious. I have to thank Mr. Richards, Mayor of Philadelphia, for the budgets of thirteen of the counties of Pennsylvania, viz. Lebanon, Centre, Franklin, Fayette, Montgomery, Luzerne, Dauphin, Butler, Alleghany, Columbia, Northampton, Northumberland, and Philadelphia, for the year 1830. Their population at that time consisted of 495,207 inhabitants. On looking at the map of Pennsylvania, it will be seen that these thirteen counties are scattered in every direction, and so generally affected by the causes which usually influence the condition of a country that they may easily be supposed to furnish a correct average of the financial state of the counties of Pennsylvania in general: and thus upon reckoning that the expenses of these counties amounted in the year 1830 to about £72,330, or nearly 3*s*. for each inhabitant, and calculating that each of them contributed in the same year about 10*s*. 2*d*. towards the Union, and about 3*s*. to the state of Pennsylvania, it appears that they each contributed as their share of all the public expenses (except those of the townships) the sum of 16*s*. 2*d*. This calculation is doubly incomplete, as it applies only to a single year and to one part of the public charges; but it has at least the merit of not being conjectural.

18. Those who have attempted to draw a comparison between the expenses of France and America have at once perceived that no such comparison could be drawn between the total expenditure of the two countries; but they have endeavored to contrast detached portions of this expenditure. It may readily be shown that this second system is not at all less defective than the first.

    If I attempt to compare the French budget with the budget of the Union, it must be remembered that the latter embraces much fewer objects than the central government of the former country, and that the expenditure must consequently

might do to forward this inquiry, since it is certain that they have hitherto done nothing at all. There does not exist a single individual at the present day, in America or in Europe, who can inform us what each citizen of the Union annually contributes to the public charges of the nation.[19]

Hence we must conclude that it is no less difficult to compare the social expenditure than it is to estimate the relative wealth of France and America. I will even add that it would be dangerous to attempt this comparison; for when statistics are not based upon computations which are strictly accurate, they mislead instead of guiding aright. The mind is

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be much smaller. If I contrast the budgets of the departments to those of the states which constitute the Union, it must be observed that as the power and control exercised by the states is much greater than that which is exercised by the departments, their expenditure is also more considerable. As for the budgets of the counties, nothing of the kind occurs in the French system of finances; and it is, again, doubtful whether the corresponding expenses should be referred to the budget of the state or to those of the municipal divisions.

Municipal expenses exist in both countries, but they are not always analogous. In America the townships discharge a variety of offices which are reserved in France to the departments or to the state. It may, moreover, be asked what is to be understood by the municipal expenses of America. The organization of the municipal bodies or townships differs in the several states. Are we to be guided by what occurs in New England or in Georgia, in Pennsylvania or in the state of Illinois?

A kind of analogy may very readily be perceived between certain budgets in the two countries; but as the elements of which they are composed always differ more or less, no fair comparison can be instituted between them.

19. Even if we knew the exact pecuniary contributions of every French and American citizen to the coffers of the state, we should only come at a portion of the truth. Governments do not only demand supplies of money, but they call for personal services, which may be looked upon as equivalent to a given sum. When a state raises an army, besides the pay of the troops which is furnished by the entire nation, each soldier must give up his time, the value of which depends on the use he might make of it if he were not in the service. The same remark applies to the militia: the citizen who is in the militia devotes a certain portion of valuable time to the maintenance of the public peace, and he does in reality surrender to the state those earnings which he is prevented from gaining. Many other instances might be cited in addition to these. The governments of France and of America both levy taxes of this kind, which weigh upon the citizens; but who can estimate with accuracy their relative amount in the two countries?

This, however, is not the last of the difficulties which prevent us from comparing the expenditure of the Union with that of France. The French government contracts certain obligations which do not exist in America, and vice versa. The French government pays the clergy; in America the voluntary principle prevails. In America there is a legal provision for the poor; in France they are abandoned to the charity of the public. The French public officers are paid by a fixed salary, in America they are allowed certain perquisites. In France contributions in kind take place on very few roads; in America upon almost all the thoroughfares: in the former country the roads are free to all travelers; in the latter turnpikes abound. All these differences in the manner in which contributions are levied in the two countries enhance the difficulty of comparing their expenditure; for there are certain expenses which the citizens would not be subject to, or which would at any rate be much less considerable, if the state did not take upon itself to act in the name of the public.

easily imposed upon by the false affectation of exactitude, which prevails even in the misstatements of the science, and it adopts with confidence the errors which are apparelled in the forms of mathematical truth.

We abandon, therefore, our numerical investigation, with the hope of meeting with data of another kind. In the absence of positive documents, we may form an opinion as to the proportion which the taxation of a people bears to its real prosperity, by observing whether its external appearance is flourishing; whether, after having discharged the calls of the state, the poor man retains the means of subsistence, and the rich the means of enjoyment; and whether both classes are contented with their position, seeking, however, to ameliorate it by perpetual exertions, so that industry is never in want of capital, nor capital unemployed by industry. The observer who draws his inferences from these signs will, undoubtedly, be led to the conclusion that the American of the United States contributes a much smaller portion of his income to the state than the citizen of France. Nor, indeed, can the result be otherwise.

A portion of the French debt is the consequence of two successive invasions; and the Union has no similar calamity to fear. A nation placed upon the continent of Europe is obliged to maintain a large standing army; the isolated position of the Union enables it to have only 6,000 soldiers. The French have a fleet of 300 sail; the Americans have 52 vessels. How, then, can the inhabitant of the Union be called upon to contribute as largely as the inhabitant of France? No parallel can be drawn between the finances of two countries so differently situated.

It is by examining what actually takes place in the Union, and not by comparing the Union with France, that we may discover whether the American government is really economical. On casting my eyes over the different republics which form the confederation, I perceive that their governments lack perseverance in their undertakings, and that they exercise no steady control over the men whom they employ. Whence I naturally infer that they must often spend the money of the people to no purpose, or consume more of it than is really necessary to their undertakings. Great efforts are made, in accordance with the democratic origin of society, to satisfy the exigencies of the lower orders, to open the career of power to their endeavors, and to diffuse knowledge and comfort among them. The poor are maintained, immense sums are annually devoted to public instruction, all services whatsoever are remunerated, and the most subordinate agents are liberally paid. If this kind of government appears to me to be useful and rational, I am nevertheless constrained to admit that it is expensive.

Wherever the poor direct public affairs and dispose of the national resources, it appears certain that as they profit by the expenditure of the state, they are apt to augment that expenditure.

I conclude therefore, without having recourse to inaccurate computations, and without hazarding a comparison which might prove incorrect, that the democratic government of the Americans is not a cheap government, as is sometimes asserted; and I have no hesitation in predicting that if the people of the United States is ever involved in serious difficulties, its taxation will speedily be increased to the rate of that which prevails in the greater part of the aristocracies and the monarchies of Europe.

CORRUPTION AND VICES OF THE RULERS IN A DEMOCRACY, AND CONSEQUENT EFFECTS UPON PUBLIC MORALITY

A distinction must be made when the aristocratic and the democratic principles mutually inveigh against each other as tending to facilitate corruption. In aristocratic governments the individuals who are placed at the head of affairs are rich men, who are solely desirous of power. In democracies statesmen are poor, and they have their fortunes to make. The consequence is that in aristocratic states the rulers are rarely accessible to corruption, and have very little craving for money; while the reverse is the case in democratic nations.

But in aristocracies, as those who are desirous of arriving at the head of affairs are possessed of considerable wealth, and as the number of persons by whose assistance they may rise is comparatively small, the government is, if I may use the expression, put up to a sort of auction. In democracies, on the contrary, those who are covetous of power are very seldom wealthy, and the number of citizens who confer that power is extremely great. Perhaps in democracies the number of men who might be bought is by no means smaller, but buyers are rarely to be met with; and, besides, it would be necessary to buy so many persons at once that the attempt is rendered nugatory.

Many of the men who have been in the administration in France during the last forty years have been accused of making their fortunes at the expense of the state or of its allies, a reproach which was rarely addressed to the public characters of the ancient monarchy. But in France the practice of bribing electors is almost unknown, while it is notoriously and publicly carried on in England. In the United States I never heard a man accused of spending his wealth in corrupting the populace; but I

have often heard the probity of public officers questioned; still more frequently have I heard their success attributed to low intrigues and immoral practices.

If, then, the men who conduct the government of an aristocracy sometimes endeavor to corrupt the people, the heads of a democracy are themselves corrupt. In the former case the morality of the people is directly assailed; in the latter, an indirect influence is exercised upon the people which is still more to be dreaded.

As the rulers of democratic nations are almost always exposed to the suspicion of dishonorable conduct, they in some measure lend the authority of the government to the base practices of which they are accused. They thus afford an example which must prove discouraging to the struggles of virtuous independence, and must foster the secret calculations of a vicious ambition. If it be asserted that evil passions are displayed in all ranks of society; that they ascend the throne by hereditary right; and that despicable characters are to be met with at the head of aristocratic nations as well as in the sphere of a democracy, this objection has but little weight in my estimation. The corruption of men who have casually risen to power has a coarse and vulgar infection in it, which renders it contagious to the multitude. On the contrary, there is a kind of aristocratic refinement and an air of grandeur in the depravity of the great, which frequently prevents it from spreading abroad.

The people can never penetrate into the perplexing labyrinth of court intrigue, and it will always have difficulty in detecting the turpitude which lurks under elegant manners, refined tastes, and graceful language. But to pillage the public purse and to vend the favors of the state are arts which the meanest villain may comprehend, and hope to practice in his turn.

In reality it is far less prejudicial to witness the immorality of the great than to witness that immorality which leads to greatness. In a democracy, private citizens see a man of their own rank in life who rises from that obscure position, and who becomes possessed of riches and of power in a few years. The spectacle excites their surprise and their envy, and they are led to inquire how the person who was yesterday their equal is today their ruler. To attribute his rise to his talents or his virtues is unpleasant, for it is tacitly to acknowledge that they are themselves less virtuous and less talented than he was. They are therefore led (and not unfrequently their conjecture is a correct one) to impute his success mainly to some one of his defects; and an odious mixture is thus formed of the ideas of turpitude and power, unworthiness and success, utility and dishonor.

EFFORTS OF WHICH A DEMOCRACY IS CAPABLE

I here warn the reader that I speak of a government which implicitly follows the real desires of the people, and not of a government which simply commands in its name. Nothing is so irresistible as a tyrannical power commanding in the name of the people, because, while it exercises that moral influence which belongs to the decision of the majority, it acts at the same time with the promptitude and the tenacity of a single man.

It is difficult to say what degree of exertion a democratic government may be capable of making at a crisis in the history of the nation. But no great democratic republic has hitherto existed in the world. To style the oligarchy which ruled over France in 1793 by that name would be to offer an insult to the republican form of government. The United States afford the first example of the kind.

The American Union has now subsisted for half a century, in the course of which time its existence has only once been attacked, namely, during the War of Independence. At the commencement of that long war, various occurrences took place which betokened an extraordinary zeal for the service of the country.[20] But as the contest was prolonged, symptoms of private egotism began to show themselves. No money was poured into the public treasury; few recruits could be raised to join the army; the people wished to acquire independence, but was very ill disposed to undergo the privations by which alone it could be obtained. "Tax laws," says Hamilton in the Federalist, "have in vain been multiplied; new methods to enforce the collection have in vain been tried; the public expectation has been uniformly disappointed, and the treasuries of the States have remained empty. The popular system of administration inherent in the nature of popular government, coinciding with the real scarcity of money incident to a languid and mutilated state of trade, has hitherto defeated every experiment for extensive collections, and has at length taught the different legislatures the folly of attempting them." [21]

The United States have not had any serious war to carry on ever since that period. In order, therefore, to appreciate the sacrifices which democratic nations may impose upon themselves, we must wait until the

20. One of the most singular of these occurrences was the resolution which the Americans took of temporarily abandoning the use of tea. Those who know that men usually cling more to their habits than to their life will doubtless admire this great though obscure sacrifice which was made by a whole people.

21. *The Federalist,* No. 12, *Great Books of the Western World* [Ed.].

American people is obliged to put half its entire income at the disposal of the government, as was done by the English; or until it sends forth a twentieth part of its population to the field of battle, as was done by France.

In America the use of conscription is unknown, and men are induced to enlist by bounties. The notions and habits of the people of the United States are so opposed to compulsory enlistment, that I do not imagine it can ever be sanctioned by the laws. What is termed the conscription in France is assuredly the heaviest tax upon the population of that country; yet how could a great continental war be carried on without it? The Americans have not adopted the British impressment of seamen, and they have nothing which corresponds to the French system of maritime conscription; the navy, as well as the merchant service, is supplied by voluntary service. But it is not easy to conceive how a people can sustain a great maritime war without having recourse to one or the other of these two systems. Indeed, the Union, which has fought with some honor upon the seas, has never possessed a very numerous fleet, and the equipment of the small number of American vessels has always been excessively expensive.

I have heard American statesmen confess that the Union will have great difficulty in maintaining its rank on the seas without adopting the system of impressment or of maritime conscription; but the difficulty is to induce the people, which exercises the supreme authority, to submit to impressment or any compulsory system.

It is incontestable that in times of danger a free people displays far more energy than one which is not so. But I incline to believe that this is more especially the case in those free nations in which the democratic element preponderates. Democracy appears to me to be much better adapted for the peaceful conduct of society, or for an occasional effort of remarkable vigor, than for the hardy and prolonged endurance of the storms which beset the political existence of nations. The reason is very evident: it is enthusiasm which prompts men to expose themselves to dangers and privations; but they will not support them long without reflection. There is more calculation, even in the impulses of bravery, than is generally attributed to them; and although the first efforts are suggested by passion, perseverance is maintained by a distinct regard of the purpose in view. A portion of what we value is exposed in order to save the remainder.

But it is this distinct perception of the future, founded upon a sound

judgment and an enlightened experience, which is most frequently wanting in democracies. The populace is more apt to feel than to reason; and if its present sufferings are great, it is to be feared that the still greater sufferings attendant upon defeat will be forgotten.

Another cause tends to render the efforts of a democratic government less persevering than those of an aristocracy. Not only are the lower classes less awakened than the higher orders to the good or evil chances of the future, but they are liable to suffer far more acutely from present privations. The noble exposes his life, indeed, but the chance of glory is equal to the chance of harm. If he sacrifices a large portion of his income to the state, he deprives himself for a time of the pleasures of affluence; but to the poor man death is embellished by no pomp or renown, and the imposts which are irksome to the rich are fatal to him.

This relative impotence of democratic republics is, perhaps, the greatest obstacle to the foundation of a republic of this kind in Europe. In order that such a state should subsist in one country of the Old World, it would be necessary that similar institutions should be introduced into all the other nations.

I am of opinion that a democratic government tends in the end to increase the real strength of society; but it can never combine, upon a single point and at a given time, so much power as an aristocracy or a monarchy. If a democratic country remained during a whole century subject to a republican government, it would probably at the end of that period be more populous and more prosperous than the neighboring despotic states. But it would have incurred the risk of being conquered much oftener than they would in that lapse of years.

SELF-CONTROL OF THE AMERICAN DEMOCRACY

The difficulty which a democracy has in conquering the passions, and subduing the exigencies of the moment, with a view to the future, is conspicuous in the most trivial occurrences of the United States. The people which is surrounded by flatterers has great difficulty in surmounting its inclinations; and whenever it is solicited to undergo a privation or any kind of inconvenience, even to attain and end which is sanctioned by its own rational conviction, it almost always refuses to comply at first. The deference of the Americans to the laws has been very justly applauded; but it must be added that in America the legislation is made by the people and for the people. Consequently, in the United States the law favors

those classes which are most interested in evading it elsewhere. It may therefore be supposed that an offensive law, which should not be acknowledged to be one of immediate utility, would either not be enacted or would not be obeyed.

In America there is no law against fraudulent bankruptcies, not because they are few but because there are a great number of bankruptcies. The dread of being prosecuted as a bankrupt acts with more intensity upon the mind of the majority of the people than the fear of being involved in losses or ruin by the failure of other parties; and a sort of guilty tolerance is extended by the public conscience to an offense which everyone condemns in his individual capacity. In the new states of the Southwest, the citizens generally take justice into their own hands, and murders are of very frequent occurrence. This arises from the rude manners and the ignorance of the inhabitants of those deserts, who do not perceive the utility of investing the law with adequate force, and who prefer duels to prosecutions.

Someone observed to me one day, in Philadelphia, that almost all crimes in America are caused by the abuse of intoxicating liquors, which the lower classes can procure in great abundance from their excessive cheapness. "How comes it," said I, "that you do not put a duty upon brandy?" "Our legislators," rejoined my informant, "have frequently thought of this expedient; but the task of putting it in operation is a difficult one: a revolt might be apprehended; and the members who should vote for a law of this kind would be sure of losing their seats." "Whence I am to infer," replied I, "that the drinking population constitutes the majority in your country, and that temperance is somewhat unpopular."

When these things are pointed out to the American statesmen, they content themselves with assuring you that time will operate the necessary change, and that the experience of evil will teach the people its true interests. This is frequently true: although a democracy is more liable to error than a monarch or a body of nobles, the chances of its regaining the right path, when once it has acknowledged its mistake, are greater also, because it is rarely embarrassed by internal interests which conflict with those of the majority and resist the authority of reason. But a democracy can only obtain truth as the result of experience, and many nations may forfeit their existence while they are awaiting the consequences of their errors.

The great privilege of the Americans does not simply consist in their being more enlightened than other nations but in their being able to re-

pair the faults they may commit. To which it must be added that a democracy cannot derive substantial benefit from past experience unless it be arrived at a certain pitch of knowledge and civilization. There are tribes and peoples whose education has been so vicious, and whose character presents so strange a mixture of passion, of ignorance, and of erroneous notions upon all subjects, that they are unable to discern the causes of their own wretchedness, and they fall a sacrifice to ills with which they are unacquainted.

I have crossed vast tracts of country that were formerly inhabited by powerful Indian nations which are now extinct; I have myself passed some time in the midst of mutilated tribes, which witness the daily decline of their numerical strength and of the glory of their independence; and I have heard these Indians themselves anticipate the impending doom of their race. Every European can perceive means which would rescue these unfortunate beings from inevitable destruction. They alone are insensible to the expedient; they feel the woe which year after year heaps upon their heads, but they will perish to a man without accepting the remedy. It would be necessary to employ force to induce them to submit to the protection and the constraint of civilization.

The incessant revolutions which have convulsed the South American provinces for the last quarter of a century have frequently been adverted to with astonishment, and expectations have been expressed that those nations would speedily return to their *natural state.* But can it be affirmed that the turmoil of revolution is not actually the most natural state of the South American Spaniards at the present time? In that country society is plunged into difficulties from which all its efforts are insufficient to rescue it. The inhabitants of that fair portion of the Western Hemisphere seem obstinately bent on pursuing the work of inward havoc. If they fall into a momentary repose from the effects of exhaustion, that repose prepares them for a fresh state of frenzy. When I consider their condition, which alternates between misery and crime, I should be inclined to believe that despotism itself would be a benefit to them if it were possible that the words despotism and benefit could ever be united in my mind.

CONDUCT OF FOREIGN AFFAIRS BY THE AMERICAN DEMOCRACY

We have seen that the federal Constitution entrusts the permanent direction of the external interests of the nation to the President and the

Senate,[22] which tends in some degree to detach the general foreign policy of the Union from the control of the people. It cannot therefore be asserted, with truth, that the external affairs of state are conducted by the democracy.

The policy of America owes its rise to Washington, and after him to Jefferson, who established those principles which it observes at the present day. Washington said in the admirable letter which he addressed to his fellow citizens, and which may be looked upon as his political bequest to the country:

> The great rule of conduct for us in regard to foreign nations is, in extending our commercial relations, to have with them as little *political* connection as possible. So far as we have already formed engagements, let them be fulfilled with perfect good faith. Here let us stop.
>
> Europe has a set of primary interests, which to us have none, or a very remote relation. Hence, she must be engaged in frequent controversies, the causes of which are essentially foreign to our concerns. Hence, therefore, it must be unwise in us to implicate ourselves, by artificial ties, in the ordinary vicissitudes of her politics, or the ordinary combinations and collisions of her friendships or enmities.
>
> Our detached and distant situation invites and enables us to pursue a different course. If we remain one people, under an efficient government, the period is not far off when we may defy material injury from external annoyance; when we may take such an attitude as will cause the neutrality we may at any time resolve upon to be scrupulously respected; when belligerent nations, under the impossibility of making acquisitions upon us, will not lightly hazard the giving us provocation; when we may choose peace or war, as our interest, guided by justice, shall counsel.
>
> Why forgo the advantages of so peculiar a situation? Why quit our own to stand upon foreign ground? Why, by interweaving our destiny with that of any part of Europe, entangle our peace and prosperity in the toils of European ambition, rivalship, interest, humour, or caprice?
>
> It is our true policy to steer clear of permanent alliances with any portion of the foreign world; so far, I mean, as we are now at liberty to do it; for let me not be understood as capable of patronizing infidelity to existing engagements. I hold the maxim no less applicable to public than to private affairs, that honesty is always the best policy. I repeat it, there-

22. "The President," says the Constitution, Art. II., sect. 2, § 2, "shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the senators present concur." The reader is reminded that the senators are returned for a term of six years, and that they are chosen by the legislature of each state.

> fore, let those engagements be observed in their genuine sense; but in my opinion it is unnecessary, and would be unwise, to extend them.
>
> Taking care always to keep ourselves, by suitable establishments, in a respectable defensive posture, we may safely trust to temporary alliances for extraordinary emergencies.

In a previous part of the same letter, Washington makes the following admirable and just remark: "The nation which indulges towards another an habitual hatred, or an habitual fondness, is in some degree a slave. It is a slave to its animosity or to its affection, either of which is sufficient to lead it astray from its duty and its interest."

The political conduct of Washington was always guided by these maxims. He succeeded in maintaining his country in a state of peace, while all the other nations of the globe were at war; and he laid it down as a fundamental doctrine that the true interest of the Americans consisted in a perfect neutrality with regard to the internal dissensions of the European powers.

Jefferson went still further, and he introduced a maxim into the policy of the Union which afirms that "the Americans ought never to solicit any privileges from foreign nations, in order not to be obliged to grant similar privileges themselves."

These two principles, which were so plain and so just as to be adapted to the capacity of the populace, have greatly simplified the foreign policy of the United States. As the Union takes no part in the affairs of Europe, it has, properly speaking, no foreign interests to discuss, since it has at present no powerful neighbors on the American continent. The country is as much removed from the passions of the Old World by its position as by the line of policy which it has chosen; and it is neither called upon to repudiate nor to espouse the conflicting interests of Europe; while the dissensions of the New World are still concealed within the bosom of the future.

The Union is free from all pre-existing obligations; and it is consequently enabled to profit by the experience of the old nations of Europe without being obliged, as they are, to make the best of the past and to adapt it to their present circumstances, or to accept that immense inheritance which they derive from their forefathers–an inheritance of glory mingled with calamities, and of alliances conflicting with national antipathies. The foreign policy of the United States is reduced by its very nature to await the chances of the future history of the nation; and for the present it consists more in abstaining from interference than in exerting its activity.

It is therefore very difficult to ascertain, at present, what degree of sagacity the American democracy will display in the conduct of the foreign policy of the country; and upon this point its adversaries, as well as its advocates, must suspend their judgment. As for myself, I have no hesitation in avowing my conviction that it is most especially in the conduct of foreign relations that democratic governments appear to me to be decidedly inferior to governments carried on upon different principles. Experience, instruction, and habit may almost always succeed in creating a species of practical discretion in democracies, and that science of the daily occurrences of life which is called good sense. Good sense may suffice to direct the ordinary course of society; and among a people whose education has been provided for, the advantages of democratic liberty in the internal affairs of the country may more than compensate for the evils inherent in a democratic government. But such is not always the case in the mutual relations of foreign nations.

Foreign politics demand scarcely any of those qualities which a democracy possesses; and they require, on the contrary, the perfect use of almost all those faculties in which it is deficient. Democracy is favorable to the increase of the internal resources of a state; it tends to diffuse a moderate independence; it promotes the growth of public spirit, and fortifies the respect which is entertained for law in all classes of society: and these are advantages which only exercise an indirect influence over the relations which one people bears to another. But a democracy is unable to regulate the details of an important undertaking, to persevere in a design, and to work out its execution in the presence of serious obstacles. It cannot combine its measures with secrecy, and it will not await their consequences with patience. These are qualities which more especially belong to an individual or to an aristocracy; and they are precisely the means by which an individual people attains to a predominant position.

If, on the contrary, we observe the natural defects of aristocracy, we shall find that their influence is comparatively innoxious in the direction of the external affairs of a state. The capital fault of which aristocratic bodies may be accused is that they are more apt to contrive their own advantage than that of the mass of the people. In foreign politics it is rare for the interest of the aristocracy to be in any way distinct from that of the people.

The propensity which democracies have to obey the impulse of passion rather than the suggestions of prudence, and to abandon a mature design for the gratification of a momentary caprice, was very clearly seen in

America on the breaking out of the French Revolution. It was then as evident to the simplest capacity as it is at the present time, that the interest of the Americans forbade them to take any part in the contest which was about to deluge Europe with blood, but which could by no means injure the welfare of their own country. Nevertheless the sympathies of the people declared themselves with so much violence in behalf of France, that nothing but the inflexible character of Washington, and the immense popularity which he enjoyed, could have prevented the Americans from declaring war against England. And even then, the exertions which the austere reason of that great man made to repress the generous but imprudent passions of his fellow citizens very nearly deprived him of the sole recompense which he had ever claimed–that of his country's love. The majority then reprobated the line of policy which he adopted, and which has since been unanimously approved by the nation.[23]

If the Constitution and the favor of the public had not entrusted the direction of the foreign affairs of the country to Washington, it is certain that the American nation would at that time have taken the very measures which it now condemns.

Almost all the nations which have ever exercised a powerful influence upon the destinies of the world, by conceiving, following up, and executing vast designs–from the Romans to the English–have been governed by aristocratic institutions. Nor will this be a subject of wonder when we recollect that nothing in the world has so absolute a fixity of purpose as an aristocracy. The mass of the people may be led astray by ignorance or passion; the mind of a king may be biased, and his perseverance in his designs may be shaken–besides which a king is not immortal–but an aristocratic body is too numerous to be led astray by the blandishments of intrigue; and yet not numerous enough to yield readily

23. See the fifth volume of Marshall's *Life of Washington*. "In a government constituted like that of the United States," he says, "it is impossible for the chief magistrate, however firm he may be, to oppose for any length of time the torrent of popular opinion; and the prevalent opinion of that day seemed to incline to war. In fact, in the session of Congress held at the time, it was frequently seen that Washington had lost the majority in the House of Representatives." The violence of the language used against him in public was extreme, and in a political meeting they did not scruple to compare him indirectly to the treacherous Arnold. "By the opposition," says Marshall, "the friends of the administration were declared to be an aristocratic and corrupt faction, who, from a desire to introduce monarchy, were hostile to France and under the influence of Britain; that they were a paper nobility, whose extreme sensibility at every measure which threatened the funds, induced a tame submission to injuries and insults, which the interests and honour of the nation required them to resist."

to the intoxicating influence of unreflecting passion: it has the energy of a firm and enlightened individual added to the power which it derives from its perpetuity.

What the Real Advantages Are Which American Society Derives from the Government of the Democracy

Before I enter upon the subject of the present chapter, I am induced to remind the reader of what I have more than once adverted to in the course of this book. The political institutions of the United States appear to me to be one of the forms of government which a democracy may adopt; but I do not regard the American Constitution as the best, or as the only one which a democratic people may establish. In showing the advantages which the Americans derive from the government of democracy, I am therefore very far from meaning, or from believing, that similar advantages can only be obtained from the same laws.

GENERAL TENDENCY OF THE LAWS UNDER THE RULE OF THE AMERICAN DEMOCRACY AND HABITS OF THOSE WHO APPLY THEM

The defects and the weaknesses of a democratic government may very readily be discovered; they are demonstrated by the most flagrant instances, while its beneficial influence is less perceptibly exercised. A single glance suffices to detect its evil consequences, but its good qualities can only be discerned by long observation. The laws of the American democracy are frequently defective or incomplete. They sometimes attack vested rights, or give a sanction to others which are dangerous to the community; but even if they were good, the frequent changes which they undergo would be an evil. How comes it, then, that the American republics prosper, and maintain their position?

In the consideration of laws, a distinction must be carefully observed between the end at which they aim, and the means by which they are directed to that end; between their absolute, and their relative excellence. If it be the intention of the legislator to favor the interests of the minority at the expense of the majority, and if the measures he takes to accomplish the object he has in view with the least possible expense of time and exertion, the law may be well drawn up, although its purpose be bad; and the more efficacious it is, the greater is the mischief which it causes.

Democratic laws generally tend to promote the welfare of the greatest possible number; for they emanate from the majority of the citizens, who are subject to error, but who cannot have an interest opposed to their own advantage. The laws of an aristocracy tend, on the contrary, to concentrate wealth and power in the hands of the minority, because an aristocracy, by its very nature, constitutes a minority. It may therefore be asserted, as a general proposition, that the purpose of a democracy in the conduct of its legislation is useful to a greater number of citizens than that of an aristocracy. This is, however, the sum total of its advantages.

Aristocracies are infinitely more expert in the science of legislation than democracies ever can be. They are possessed of a self-control which protects them from the errors of temporary excitement; and they form lasting designs which they mature with the assistance of favorable opportunities. Aristocratic government proceeds with the dexterity of art; it understands how to make the collective force of all its laws converge at the same time to a given point. Such is not the case with democracies, whose laws are almost always ineffective or inopportune. The means of democracy are therefore more imperfect than those of aristocracy, and the measures which it unwittingly adopts are frequently opposed to its own cause; but the object it has in view is more useful.

Let us now imagine a community so organized by nature, or by its constitution, that it can support the transitory action of bad laws, and that it can await, without destruction, the general tendency of the legislation: we shall then be able to conceive that a democratic government, notwithstanding its defects, will be most fitted to conduce to the prosperity of this community. This is precisely what has occurred in the United States; and I repeat what I have before remarked, that the great advantage of the Americans consists in their being able to commit faults which they may afterwards repair.

An analogous observation may be made respecting public officers. It is easy to perceive that the American democracy frequently errs in the choice of the individuals to whom it entrusts the power of the administration; but it is more difficult to say why the state prospers under their rule. In the first place it is to be remarked that if in a democratic state the governors have less honesty and less capacity than elsewhere, the governed on the other hand are more enlightened and more attentive to their interests. As the people in democracies is more incessantly vigilant in its affairs, and more jealous of its rights, it prevents its representatives from abandoning that general line of conduct which its own interest pre-

scribes. In the second place it must be remembered that if the democratic magistrate is more apt to misuse his power, he possesses it for a shorter period of time. But there is yet another reason which is still more general and conclusive. It is no doubt of importance to the welfare of nations that they should be governed by men of talents and virtue; but it is perhaps still more important that the interests of those men should not differ from the interests of the community at large; for if such were the case, virtues of a high order might become useless, and talents might be turned to a bad account. I say that it is important that the interests of the persons in authority should not conflict with or oppose the interests of the community at large; but I do not insist upon their having the same interests as the *whole* population, because I am not aware that such a state of things ever existed in any country.

No political form has hitherto been discovered which is equally favorable to the prosperity and the development of all the classes into which society is divided. These classes continue to form, as it were, a certain number of distinct nations in the same nation; and experience has shown that it is no less dangerous to place the fate of these classes exclusively in the hands of any one of them, than it is to make one people the arbiter of the destiny of another. When the rich alone govern, the interest of the poor is always endangered; and when the poor make the laws, that of the rich incurs very serious risks. The advantage of democracy does not consist, therefore, as has sometimes been asserted, in favoring the prosperity of all, but simply in contributing to the well-being of the greatest possible number.

The men who are entrusted with the direction of public affairs in the United States are frequently inferior, both in point of capacity and of morality, to those whom aristocratic institutions would raise to power. But their interest is identified and confounded with that of the majority of their fellow citizens. They may frequently be faithless, and frequently mistaken; but they will never systematically adopt a line of conduct opposed to the will of the majority; and it is impossible that they should give a dangerous or an exclusive tendency to the government.

The maladministration of a democratic magistrate is a mere isolated fact, which only occurs during the short period for which he is elected. Corruption and incapacity do not act as common interests which may connect men permanently with one another. A corrupt or an incapable magistrate will not concert his measures with another magistrate, simply because that individual is as corrupt and as incapable as himself; and these two men will never unite their endeavors to promote the corrup-

tion and inaptitude of their remote posterity. The ambition and the maneuvers of the one will serve, on the contrary, to unmask the other. The vices of a magistrate, in democratic states, are usually peculiar to his own person.

But under aristocratic governments public men are swayed by the interest of their order, which, if it is sometimes confounded with the interests of the majority, is very frequently distinct from them. This interest is the common and lasting bond which unites them together: it induces them to coalesce, and to combine their efforts in order to attain an end which does not always ensure the greatest happiness of the greatest number; and it serves not only to connect the persons in authority but to unite them to a considerable portion of the community, since a numerous body of citizens belongs to the aristocracy without being invested with official functions. The aristocratic magistrate is therefore constantly supported by a portion of the community, as well as by the government of which he is a member.

The common purpose which connects the interest of the magistrates in aristocracies with that of a portion of their contemporaries identifies it with that of future generations; their influence belongs to the future as much as to the present. The aristocratic magistrate is urged at the same time towards the same point by the passions of the community, by his own, and I may almost add by those of his posterity. Is it, then, wonderful that he does not resist such repeated impulses? And indeed aristocracies are often carried away by the spirit of their order without being corrupted by it; and they unconsciously fashion society to their own ends, and prepare it for their own descendants.

The English aristocracy is perhaps the most liberal which ever existed, and no body of men has ever, uninterruptedly, furnished so many honorable and enlightened individuals to the government of a country. It cannot, however, escape observation that in the legislation of England the good of the poor has been sacrificed to the advantage of the rich, and the rights of the majority to the privileges of the few. The consequence is that England, at the present day, combines the extremes of fortune in the bosom of her society; and her perils and calamities are almost equal to her power and her renown.

In the United States, where the public officers have no interests to promote connected with their caste, the general and constant influence of the government is beneficial, although the individuals who conduct it are frequently unskillful and sometimes contemptible. There is indeed a secret tendency in democratic institutions to render the exertions of

the citizens subservient to the prosperity of the community, notwithstanding their private vices and mistakes; while in aristocratic institutions there is a secret propensity which, notwithstanding the talents and the virtues of those who conduct the government, leads them to contribute to the evils which oppress their fellow creatures. In aristocratic governments public men may frequently do injuries which they do not intend; and in democratic states they produce advantages which they never thought of.

PUBLIC SPIRIT IN THE UNITED STATES

There is one sort of patriotic attachment which principally arises from that instinctive, disinterested and undefinable feeling which connects the affections of man with his birthplace. This natural fondness is united to a taste for ancient customs, and to a reverence for ancestral traditions of the past; those who cherish it love their country as they love the mansion of their fathers. They enjoy the tranquillity which it affords them; they cling to the peaceful habits which they have contracted within its bosom; they are attached to the reminiscences which it awakens, and they are even pleased by the state of obedience in which they are placed. This patriotism is sometimes stimulated by religious enthusiasm, and then it is capable of making the most prodigious efforts. It is in itself a kind of religion: it does not reason, but it acts from the impulse of faith and of sentiment. By some nations the monarch has been regarded as a personification of the country; and the fervor of patriotism being converted into the fervor of loyalty, they took a sympathetic pride in his conquests, and gloried in his power. At one time, under the ancient monarchy, the French felt a sort of satisfaction in the sense of their dependence upon the arbitrary pleasure of their king, and they were wont to say with pride, "We are the subjects of the most powerful king in the world."

But, like all instinctive passions, this kind of patriotism is more apt to prompt transient exertion than to supply the motives of continuous endeavor. It may save the state in critical circumstances, but it will not unfrequently allow the nation to decline in the midst of peace. While the manners of a people are simple, and its faith unshaken; while society is steadily based upon traditional institutions, whose legitimacy has never been contested, this instinctive patriotism is wont to endure.

But there is another species of attachment to a country which is more rational than the one we have been describing. It is perhaps less gener-

ous and less ardent, but it is more fruitful and more lasting; it is coeval with the spread of knowledge, it is nurtured by the laws, it grows by the exercise of civil rights, and, in the end, it is confounded with the personal interest of the citizen. A man comprehends the influence which the prosperity of his country has upon his own welfare; he is aware that the laws authorize him to contribute his assistance to that prosperity, and he labors to promote it as a portion of his interest in the first place, and as a portion of his right in the second.

But epochs sometimes occur, in the course of the existence of a nation, at which the ancient customs of a people are changed, public morality destroyed, religious belief disturbed, and the spell of tradition broken, while the diffusion of knowledge is yet imperfect, and the civil rights of the community are ill secured, or confined within very narrow limits. The country then assumes a dim and dubious shape in the eyes of the citizens; they no longer behold it in the soil which they inhabit, for that soil is to them a dull inanimate clod; nor in the usages of their forefathers, which they have been taught to look upon as a debasing yoke; nor in religion, for that they doubt; nor in the laws, which do not originate in their own authority; nor in the legislator, whom they fear and despise. The country is lost to their senses, they can neither discover it under its own nor under borrowed features, and they entrench themselves within the dull precincts of a narrow egotism. They are emancipated from prejudice without having acknowledged the empire of reason; they are neither animated by the instinctive patriotism of monarchical subjects nor by the thinking patriotism of republican citizens; but they have stopped halfway between the two, in the midst of confusion and of distress.

In this predicament, to retreat is impossible, for a people cannot restore the vivacity of its earlier times any more than a man can return to the innocence and the bloom of childhood; such things may be regretted, but they cannot be renewed. The only thing, then, which remains to be done is to proceed, and to accelerate the union of private with public interests, since the period of disinterested patriotism is gone by forever.

I am certainly very far from averring that, in order to obtain this result, the exercise of political rights should be immediately granted to all the members of the community. But I maintain that the most powerful and perhaps the only means of interesting men in the welfare of their country which we still possess is to make them partakers in the government. At the present time civic zeal seems to me to be inseparable from

the exercise of political rights; and I hold that the number of citizens will be found to augment or to decrease in Europe in proportion as those rights are extended.

In the United States, the inhabitants were thrown but as yesterday upon the soil which they now occupy, and they brought neither customs nor traditions with them there; they meet each other for the first time with no previous acquaintance; in short, the instinctive love of their country can scarcely exist in their minds; but everyone takes as zealous an interest in the affairs of his township, his county, and of the whole state as if they were his own, because everyone, in his sphere, takes an active part in the government of society.

The lower orders in the United States are alive to the perception of the influence exercised by the general prosperity upon their own welfare; and simple as this observation is, it is one which is but too rarely made by the people. But in America the people regards this prosperity as the result of its own exertions; the citizen looks upon the fortune of the public as his private interest, and he co-operates in its success, not so much from a sense of pride or of duty, as from what I shall venture to term cupidity.

It is unnecessary to study the institutions and the history of the Americans in order to discover the truth of this remark, for their manners render it sufficiently evident. As the American participates in all that is done in his country, he thinks himself obliged to defend whatever may be censured; for it is not only his country which is attacked upon these occasions, but it is himself. The consequence is that his national pride resorts to a thousand artifices, and to all the petty tricks of individual vanity.

Nothing is more embarrassing in the ordinary intercourse of life than this irritable patriotism of the Americans. A stranger may be very well inclined to praise many of the institutions of their country, but he begs permission to blame some of the peculiarities which he observes—a permission which is however inexorably refused. America is therefore a free country, in which, lest anybody should be hurt by your remarks, you are not allowed to speak freely of private individuals or of the state; of the citizens or of the authorities; of public or of private undertakings; or, in short, of anything at all, except it be of the climate and the soil; and even then Americans will be found ready to defend either the one or the other as if they had been contrived by the inhabitants of the country.

In our times, option must be made between the patriotism of all and the government of a few, for the force and activity which the first con-

fers are irreconcilable with the guarantees of tranquillity which the second furnishes.

NOTION OF RIGHTS IN THE UNITED STATES

After the idea of virtue, I know no higher principle than that of right; or to speak more accurately, these two ideas are commingled in one. The idea of right is simply that of virtue introduced into the political world. It is the idea of right which enabled men to define anarchy and tyranny; and which taught them to remain independent without arrogance, as well as to obey without servility. The man who submits to violence is debased by his compliance; but when he obeys the mandate of one who possesses that right of authority which he acknowledges in a fellow creature, he rises in some measure above the person who delivers the command. There are no great men without virtue, and there are no great nations—it may almost be added that there would be no society—without the notion of rights; for what is the condition of a mass of rational and intelligent beings who are only united together by the bond of force?

I am persuaded that the only means which we possess at the present time of inculcating the notion of rights, and of rendering it, as it were, palpable to the senses, is to invest all the members of the community with the peaceful exercise of certain rights: this is very clearly seen in children, who are men without the strength and the experience of manhood. When a child begins to move in the midst of the objects which surround him, he is instinctively led to turn everything which he can lay his hands upon to his own purposes; he has no notion of the property of others; but as he gradually learns the value of things, and begins to perceive that he may in his turn be deprived of his possessions, he becomes more circumspect, and he observes those rights in others which he wishes to have respected in himself. The principle which the child derives from the possession of his toys is taught to the man by the objects which he may call his own. In America those complaints against property in general, which are so frequent in Europe, are never heard, because in America there are no paupers; and as everyone has property of his own to defend, everyone recognizes the principle upon which he holds it.

The same thing occurs in the political world. In America the lowest classes have conceived a very high notion of political rights, because they exercise those rights; and they refrain from attacking those of other people in order to ensure their own from attack. While in Europe the

same classes sometimes recalcitrate even against the supreme power, the American submits without a murmur to the authority of the pettiest magistrate.

This truth is exemplified by the most trivial details of national peculiarities. In France very few pleasures are exclusively reserved for the higher classes; the poor are admitted wherever the rich are received; and they consequently behave with propriety, and respect whatever contributes to the enjoyments in which they themselves participate. In England, where wealth has a monopoly of amusement as well as of power, complaints are made that whenever the poor happen to steal into the enclosures which are reserved for the pleasures of the rich, they commit acts of wanton mischief: can this be wondered at, since care has been taken that they should have nothing to lose?

The government of the democracy brings the notion of political rights to the level of the humblest citizens, just as the dissemination of wealth brings the notion of property within the reach of all the members of the community; and I confess that, to my mind, this is one of its greatest advantages. I do not assert that it is easy to teach men to exercise political rights; but I maintain that when it is possible, the effects which result from it are highly important: and I add that if there ever was a time at which such an attempt ought to be made, that time is our own. It is clear that the influence of religious belief is shaken, and that the notion of divine rights is declining; it is evident that public morality is vitiated, and the notion of moral rights is also disappearing: these are general symptoms of the substitution of argument for faith, and of calculation for the impulses of sentiment. If, in the midst of this general disruption, you do not succeed in connecting the notion of rights with that of personal interest, which is the only immutable point in the human heart, what means will you have of governing the world except by fear? When I am told that since the laws are weak and the populace is wild, since passions are excited and the authority of virtue is paralyzed no measures must be taken to increase the rights of the democracy, I reply that it is for these very reasons that some measures of the kind must be taken; and I am persuaded that governments are still more interested in taking them than society at large, because governments are liable to be destroyed, and society cannot perish.

I am not, however, inclined to exaggerate the example which America furnishes. In those states the people are invested with political rights at a time when they could scarcely be abused, for the citizens were few in number and simple in their manners. As they have increased, the Ameri-

cans have not augmented the power of the democracy, but they have, if I may use the expression, extended its dominions.

It cannot be doubted that the moment at which political rights are granted to a people that had before been without them, is a very critical, though it be a necessary one. A child may kill before he is aware of the value of life; and he may deprive another person of his property before he is aware that his own may be taken away from him. The lower orders, when first they are invested with political rights, stand, in relation to those rights, in the same position as the child does to the whole of nature, and the celebrated adage may then be applied to them, *Homo puer robustus* [A man is a robust child]. This truth may even be perceived in America. The states in which the citizens have enjoyed their rights longest are those in which they make the best use of them.

It cannot be repeated too often that nothing is more fertile in prodigies than the art of being free; but there is nothing more arduous than the apprenticeship of liberty. Such is not the case with despotic institutions; despotism often promises to make amends for a thousand previous ills; it supports the right, it protects the oppressed, and it maintains public order. The nation is lulled by the temporary prosperity which accrues to it, until it is roused to a sense of its own misery. Liberty, on the contrary, is generally established in the midst of agitation, it is perfected by civil discord, and its benefits cannot be appreciated until it is already old.

RESPECT FOR THE LAW IN THE UNITED STATES

It is not always feasible to consult the whole people, either directly or indirectly, in the formation of the law; but it cannot be denied that when such a measure is possible, the authority of the law is very much augmented. This popular origin, which impairs the excellence and the wisdom of legislation, contributes prodigiously to increase its power. There is an amazing strength in the expression of the determination of a whole people; and when it declares itself, the imagination of those who are most inclined to contest it is overawed by its authority. The truth of this fact is very well known by parties; and they consequently strive to make out a majority whenever they can. If they have not the greater numbers of voters on their side, they assert that the true majority abstained from voting; and if they are foiled even there, they have recourse to the body of those persons who had no votes to give.

In the United States, except slaves, servants, and paupers in the receipt of relief from the townships, there is no class of persons who do not exer-

cise the elective franchise, and who do not indirectly contribute to make the laws. Those who design to attack the laws must consequently either modify the opinion of the nation or trample upon its decision.

A second reason, which is still more weighty, may be further adduced; in the United States everyone is personally interested in enforcing the obedience of the whole community to the law; for as the minority may shortly rally the majority to its principles, it is interested in professing that respect for the decrees of the legislator which it may soon have occasion to claim for its own. However irksome an enactment may be, the citizen of the United States complies with it, not only because it is the work of the majority, but because it originates in his own authority; and he regards it as a contract to which he is himself a party.

In the United States, then, that numerous and turbulent multitude does not exist which always looks upon the law as its natural enemy, and accordingly surveys it with fear and with distrust. It is impossible, on the other hand, not to perceive that all classes display the utmost reliance upon the legislation of their country, and that they are attached to it by a kind of parental affection.

I am wrong, however, in saying all classes; for as in America the European scale of authority is inverted, the wealthy are there placed in a position analogous to that of the poor in the Old World, and it is the opulent classes which frequently look upon the law with suspicion. I have already observed that the advantage of democracy is not, as has been sometimes asserted, that it protects the interests of the whole community, but simply that it protects those of the majority. In the United States, where the poor rule, the rich have always some reason to dread the abuses of their power. This natural anxiety of the rich may produce a sullen dissatisfaction, but society is not disturbed by it; for the same reason which induces the rich to withhold their confidence in the legislative authority makes them obey its mandates: their wealth, which prevents them from making the law, prevents them from withstanding it. Among civilized nations revolts are rarely excited except by such persons as have nothing to lose by them; and if the laws of a democracy are not always worthy of respect, at least they always obtain it, for those who usually infringe the laws have no excuse for not complying with the enactments they have themselves made, and by which they are themselves benefited, while the citizens whose interests might be promoted by the infraction of them are induced, by their character and their station, to submit to the decisions of the legislature, whatever they may be. Besides which, the people in America obeys the law not only because it emanates from the

popular authority, but because that authority may modify it in any points which may prove vexatory; a law is observed because it is a self-imposed evil in the first place, and an evil of transient duration in the second.

ACTIVITY WHICH PERVADES ALL THE BRANCHES OF THE BODY POLITIC IN THE UNITED STATES; INFLUENCE WHICH IT EXERCISES UPON SOCIETY

On passing from a country in which free institutions are established to one where they do not exist, the traveler is struck by the change: in the former all is bustle and activity; in the latter everything is calm and motionless. In the one, amelioration and progress are the general topics of inquiry; in the other, it seems as if the community only aspired to repose in the enjoyment of the advantages which it has acquired. Nevertheless, the country which exerts itself so strenuously to promote its welfare is generally more wealthy and more prosperous than that which appears to be so contented with its lot; and when we compare them together, we can scarcely conceive how so many new wants are daily felt in the former, while so few seem to occur in the latter.

If this remark is applicable to those free countries in which monarchical and aristocratic institutions subsist, it is still more striking with regard to democratic republics. In these states it is not only a portion of the people which is busied with the amelioration of its social condition, but the whole community is engaged in the task; and it is not the exigencies and the convenience of a single class for which a provision is to be made, but the exigencies and the convenience of all ranks of life.

It is not impossible to conceive the surpassing liberty which the Americans enjoy; some idea may likewise be formed of the extreme equality which subsists among them, but the political activity which pervades the United States must be seen in order to be understood. No sooner do you set foot upon the American soil than you are stunned by a kind of tumult; a confused clamor is heard on every side; and a thousand simultaneous voices demand the immediate satisfaction of their social wants. Everything is in motion around you; here, the people of one quarter of a town are met to decide upon the building of a church; there, the election of a representative is going on; a little further, the delegates of a district are posting to the town in order to consult upon some local improvements; or in another place the laborers of a village quit their plows to deliberate upon the project of a road or a public school. Meetings are called for the sole purpose of declaring their disapprobation of the line of conduct

pursued by the government; while in other assemblies the citizens salute the authorities of the day as the fathers of their country. Societies are formed which regard drunkenness as the principal cause of the evils under which the state labors, and which solemnly bind themselves to give a constant example of temperance.[24]

The great political agitation of the American legislative bodies, which is the only kind of excitement that attracts the attention of foreign countries, is a mere episode or a sort of continuation of that universal movement which originates in the lowest classes of the people and extends successively to all the ranks of society. It is impossible to spend more efforts in the pursuit of enjoyment.

The cares of political life engross a most prominent place in the occupation of a citizen in the United States; and almost the only pleasure of which an American has any idea is to take a part in the government, and to discuss the part he has taken. This feeling pervades the most trifling habits of life; even the women frequently attend public meetings, and listen to political harangues as a recreation after their household labors. Debating clubs are to a certain extent a substitute for theatrical entertainments: an American cannot converse, but he can discuss; and when he attempts to talk he falls into a dissertation. He speaks to you as if he was addressing a meeting; and if he should chance to warm in the course of the discussion, he will infallibly say "Gentlemen," to the person with whom he is conversing.

In some countries the inhabitants display a certain repugnance to avail themselves of the political privileges with which the law invests them; it would seem that they set too high a value upon their time to spend it on the interests of the community; and they prefer to withdraw within the exact limits of a wholesome egotism, marked out by four sunk fences and a quickset hedge. But if an American were condemned to confine his activity to his own affairs, he would be robbed of one half of his existence; he would feel an immense void in the life which he is accustomed to lead, and his wretchedness would be unbearable.[25] I am persuaded that if ever a despotic government is established in America, it will find

24. At the time of my stay in the United States the temperance societies already consisted of more than 270,000 members; and their effect had been to diminish the consumption of fermented liquors by 500,000 gallons per annum in the state of Pennsylvania alone.

25. The same remark was made at Rome under the first Caesars. Montesquieu somewhere alludes to the excessive despondency of certain Roman citizens who, after the excitement of political life, were all at once flung back into the stagnation of private life.

it more difficult to surmount the habits which free institutions have engendered, than to conquer the attachment of the citizens to freedom.

This ceaseless agitation which democratic government has introduced into the political world influences all social intercourse. I am not sure that upon the whole this is not the greatest advantage of democracy; and I am much less inclined to applaud it for what it does than for what it causes to be done.

It is incontestable that the people frequently conducts public business very ill; but it is impossible that the lower orders should take a part in public business without extending the circle of their ideas, and without quitting the ordinary routine of their mental acquirements. The humblest individual who is called upon to co-operate in the government of society acquires a certain degree of self-respect; and as he possesses authority, he can command the services of minds much more enlightened than his own. He is canvassed by a multitude of applicants who seek to deceive him in a thousand different ways, but who instruct him by their deceit. He takes a part in political undertakings which did not originate in his own conception, but which give him a taste for undertakings of the kind. New ameliorations are daily pointed out in the property which he holds in common with others, and this gives him the desire of improving that property which is more peculiarly his own. He is perhaps neither happier nor better than those who came before him, but he is better informed and more active. I have no doubt that the democratic institutions of the United States, joined to the physical constitution of the country, are the cause (not the direct, as is so often asserted, but the indirect cause) of the prodigious commercial activity of the inhabitants. It is not engendered by the laws, but the people learns how to promote it by the experience derived from legislation.

When the opponents of democracy assert that a single individual performs the duties which he undertakes much better than the government of the community, it appears to me that they are perfectly right. The government of an individual, supposing an equality of instruction on either side, is more consistent, more persevering, and more accurate than that of a multitude, and it is much better qualified judiciously to discriminate the characters of the men it employs. If any deny what I advance, they have certainly never seen a democratic government, or have formed their opinion upon very partial evidence. It is true that even when local circumstances and the disposition of the people allow democratic institutions to subsist, they never display a regular and methodical system of government. Democratic liberty is far from accomplishing all

the projects it undertakes, with the skill of an adroit despotism. It frequently abandons them before they have borne their fruits, or risks them when the consequences may prove dangerous; but in the end it produces more than any absolute government, and if it do fewer things well, it does a greater number of things. Under its sway, the transactions of the public administration are not nearly so important as what is done by private exertion. Democracy does not confer the most skillful kind of government upon the people, but it produces that which the most skillful governments are frequently unable to awaken, namely, an all-pervading and restless activity, a superabundant force, and an energy which is inseparable from it, and which may, under favorable circumstances, beget the most amazing benefits. These are the true advantages of democracy.

In the present age, when the destinies of Christendom seem to be in suspense, some hasten to assail democracy as its foe while it is yet in its early growth; and others are ready with their vows of adoration for this new deity which is springing forth from chaos: but both parties are very imperfectly acquainted with the object of their hatred or of their desires; they strike in the dark, and distribute their blows by mere chance.

We must first understand what the purport of society and the aim of government is held to be. If it be your intention to confer a certain elevation upon the human mind, and to teach it to regard the things of this world with generous feelings, to inspire men with a scorn of mere temporal advantage, to give birth to living convictions, and to keep alive the spirit of honorable devotedness; if you hold it to be a good thing to refine the habits, to embellish the manners, to cultivate the arts of a nation, and to promote the love of poetry, of beauty, and of renown; if you would constitute a people not unfitted to act with power upon all other nations, nor unprepared for those high enterprises which, whatever be the result of its efforts, will leave a name forever famous in time—if you believe such to be the principal object of society, you must avoid the government of democracy, which would be a very uncertain guide to the end you have in view.

But if you hold it to be expedient to divert the moral and intellectual activity of man to the production of comfort, and to the acquirement of the necessaries of life; if a clear understanding be more profitable to man than genius; if your object be not to stimulate the virtues of heroism, but to create habits of peace; if you had rather witness vices than crimes, and are content to meet with fewer noble deeds, provided offenses be diminished in the same proportion; if, instead of living in the midst of a brilliant state of society, you are contented to have prosperity around

you; if, in short, you are of opinion that the principal object of a government is not to confer the greatest possible share of power and of glory upon the body of the nation, but to ensure the greatest degree of enjoyment, and the least degree of misery to each of the individuals who compose it–if such be your desires, you can have no surer means of satisfying them than by equalizing the conditions of men and establishing democratic institutions.

But if the time be past at which such a choice was possible, and if some superhuman power impel us towards one or the other of these two governments without consulting our wishes, let us at least endeavor to make the best of that which is allotted to us; and let us so inquire into its good and its evil propensities as to be able to foster the former, and repress the latter to the utmost. . . .

CONCLUSION

I have now nearly reached the close of my inquiry; hitherto, in speaking of the future destiny of the United States, I have endeavored to divide my subject into distinct portions in order to study each of them with more attention. My present object is to embrace the whole from one single point; the remarks I shall make will be less detailed, but they will be more sure. I shall perceive each object less distinctly, but I shall descry the principal facts with more certainty. A traveler who has just left the walls of an immense city climbs the neighboring hill; as he goes further off he loses sight of the men whom he has so recently quitted; their dwellings are confused in a dense mass; he can no longer distinguish the public squares, and he can scarcely trace out the great thoroughfares; but his eye has less difficulty in following the boundaries of the city, and for the first time he sees the shape of the vast whole. Such is the future destiny of the British race in North America to my eye; the details of the stupendous picture are overhung with shade, but I conceive a clear idea of the entire subject.

The territory now occupied or possessed by the United States of America forms about one-twentieth part of the habitable earth. But extensive as these confines are, it must not be supposed that the Anglo-American race will always remain within them; indeed, it has already far overstepped them.

There was once a time at which we also might have created a great French nation in the American wilds, to counterbalance the influence of the English upon the destinies of the New World. France formerly possessed a territory in North America scarcely less extensive than the

whole of Europe. The three greatest rivers of that continent then flowed within her dominions. The Indian tribes which dwelt between the mouth of the St. Lawrence and the delta of the Mississippi were unaccustomed to any other tongue but ours; and all the European settlements scattered over that immense region recalled the traditions of our country. Louisbourg, Montmorency, Duquesne, Saint-Louis, Vincennes, New Orleans (for such were the names they bore) are words dear to France and familiar to our ears.

But a concourse of circumstances, which it would be tedious to enumerate,[26] have deprived us of this magnificent inheritance. Wherever the French settlers were numerically weak and partially established they have disappeared; those who remain are collected on a small extent of country, and are now subject to other laws. The 400,000 French inhabitants of Lower Canada constitute, at the present time, the remnant of an old nation lost in the midst of a new people. A foreign population is increasing around them unceasingly and on all sides which already penetrates among the ancient masters of the country, predominates in their cities, and corrupts their language. This population is identical with that of the United States; it is therefore with truth that I asserted that the British race is not confined within the frontiers of the Union, since it already extends to the northeast.

To the northwest nothing is to be met with but a few insignificant Russian settlements; but to the southwest, Mexico presents a barrier to the Anglo-Americans. Thus, the Spaniards and the Anglo-Americans are, properly speaking, the only two races which divide the possession of the New World. The limits of separation between them have been settled by a treaty; but although the conditions of that treaty are exceedingly favorable to the Anglo-Americans, I do not doubt that they will shortly infringe this arrangement. Vast provinces, extending beyond the frontiers of the Union towards Mexico, are still destitute of inhabitants. The natives of the United States will forestall the rightful occupants of these solitary regions. They will take possession of the soil, and establish social institutions, so that when the legal owner arrives at length, he will find the wilderness under cultivation, and strangers quietly settled in the midst of his inheritance.

The lands of the New World belong to the first occupant, and they are the natural reward of the swiftest pioneer. Even the countries which are

26. The foremost of these circumstances is that nations which are accustomed to free institutions and municipal government are better able than any others to found prosperous colonies. The habit of thinking and governing for oneself is indispensable in a new country, where success necessarily depends, in a great measure, upon the individual exertions of the settlers.

already peopled will have some difficulty in securing themselves from this invasion. I have already alluded to what is taking place in the province of Texas. The inhabitants of the United States are perpetually migrating to Texas, where they purchase land; and although they conform to the laws of the country, they are gradually founding the empire of their own language and their own manners. The province of Texas is still part of the Mexican dominions, but it will soon contain no Mexicans; the same thing has occurred whenever the Anglo-Americans have come into contact with populations of a different origin.

It cannot be denied that the British race has acquired an amazing preponderance over all the other European races in the New World; and that it is very superior to them in civilization, in industry, and in power. As long as it is only surrounded by desert or thinly-peopled countries, as long as it encounters no dense populations upon its route, through which it cannot work its way, it will assuredly continue to spread. The lines marked out by treaties will not stop it; but it will everywhere transgress these imaginary barriers.

The geographical position of the British race in the New World is peculiarly favorable to its rapid increase. Above its northern frontiers the icy regions of the Pole extend; and a few degrees below its southern confines lies the burning climate of the Equator. The Anglo-Americans are therefore placed in the most temperate and habitable zone of the continent.

It is generally supposed that the prodigious increase of population in the United States is posterior to their Declaration of Independence. But this is an error: the population increased as rapidly under the colonial system as it does at the present day; that is to say, it doubled in about twenty-two years. But this proportion, which is now applied to millions, was then applied to thousands of inhabitants; and the same fact which was scarcely noticeable a century ago is now evident to every observer.

The British subjects in Canada, who are dependent on a king, augment and spread almost as rapidly as the British settlers of the United States, who live under a republican government. During the War of Independence, which lasted eight years, the population continued to increase without intermission in the same ratio. Although powerful Indian nations allied with the English existed, at that time, upon the western frontiers, the emigration westward was never checked. While the enemy laid waste the shores of the Atlantic, Kentucky, the western parts of Pennsylvania, and the states of Vermont and of Maine were filling with inhabitants. Nor did the unsettled state of the Constitution, which succeeded the war, prevent the increase of the population, or stop its progress across the

wilds. Thus, the difference of laws, the various conditions of peace and war, of order and of anarchy, have exercised no perceptible influence upon the gradual development of the Anglo-Americans. This may be readily understood; for the fact is that no causes are sufficiently general to exercise a simultaneous influence over the whole of so extensive a territory. One portion of the country always offers a sure retreat from the calamities which afflict another part; and however great may be the evil, the remedy which is at hand is greater still.

It must not, then, be imagined that the impulse of the British race in the New World can be arrested. The dismemberment of the Union, and the hostilities which might ensue, the abolition of republican institutions, and the tyrannical government which might succeed it may retard this impulse, but they cannot prevent it from ultimately fulfilling the destinies to which that race is reserved. No power upon earth can close upon the emigrants that fertile wilderness which offers resources to all industry and a refuge from all want. Future events, of whatever nature they may be, will not deprive the Americans of their climate or of their inland seas, of their great rivers or of their exuberant soil. Nor will bad laws, revolutions, and anarchy, be able to obliterate that love of prosperity and that spirit of enterprise which seem to be the distinctive characteristics of their race, or to extinguish that knowledge which guides them on their way.

Thus, in the midst of the uncertain future, one event at least is sure. At a period which may be said to be near (for we are speaking of the life of a nation), the Anglo-Americans will alone cover the immense space contained between the polar regions and the tropics, extending from the coasts of the Atlantic to the shores of the Pacific Ocean. The territory which will probably be occupied by the Anglo-Americans at some future time may be computed to equal three-quarters of Europe in extent.[27] The climate of the Union is upon the whole preferable to that of Europe, and its natural advantages are not less great; it is therefore evident that its population will at some future time be proportionate to our own. Europe, divided as it is between so many different nations, and torn as it has been by incessant wars and the barbarous manners of the Middle Ages, has notwithstanding attained a population of 410 inhabitants to the square league. What cause can prevent the United States from having as numerous a population in time?

Many ages must elapse before the divers offsets of the British race in

27. The United States already extend over a territory equal to one-half of Europe. The area of Europe is 500,000 square leagues, and its population 205,000,000 of inhabitants.

America cease to present the same homogeneous characteristics: and the time cannot be foreseen at which a permanent inequality of conditions will be established in the New World. Whatever differences may arise, from peace or from war, from freedom or oppression, from prosperity or want, between the destinies of the different descendants of the great Anglo-American family, they will at least preserve an analogous social condition, and they will hold in common the customs and the opinions to which that social condition has given birth.

In the Middle Ages, the tie of religion was sufficiently powerful to imbue all the different populations of Europe with the same civilization. The British of the New World have a thousand other reciprocal ties; and they live at a time when the tendency to equality is general among mankind. The Middle Ages were a period when everything was broken up; when each people, each province, each city, and each family, had a strong tendency to maintain its distinct individuality. At the present time an opposite tendency seems to prevail, and the nations seem to be advancing to unity. Our means of intellectual intercourse unite the most remote parts of the earth; and it is impossible for men to remain strangers to each other, or to be ignorant of the events which are taking place in any corner of the globe. The consequence is that there is less difference, at the present day, between the Europeans and their descendants in the New World than there was between certain towns in the thirteenth century which were only separated by a river. If this tendency to assimilation brings foreign nations closer to each other, it must a fortiori prevent the descendants of the same people from becoming aliens to each other.

The time will therefore come when one hundred and fifty millions of men will be living in North America,[28] equal in condition, the progeny of one race, owing their origin to the same cause, and preserving the same civilization, the same language, the same religion, the same habits, the same manners, and imbued with the same opinions, propagated under the same forms. The rest is uncertain, but this is certain; and it is a fact new to the world—a fact fraught with such portentous consequences as to baffle the efforts even of the imagination.

There are, at the present time, two great nations in the world which seem to tend towards the same end, although they started from different points: I allude to the Russians and the Americans. Both of them have grown up unnoticed; and while the attention of mankind was directed

28. This would be a population proportionate to that of Europe, taken at a mean rate of 410 inhabitants to the square league.

elsewhere, they have suddenly assumed a most prominent place among the nations; and the world learned their existence and their greatness at almost the same time.

All other nations seem to have nearly reached their natural limits, and only to be charged with the maintenance of their power; but these are still in the act of growth: [29] all the others are stopped, or continue to advance with extreme difficulty; these are proceeding with ease and with celerity along a path to which the human eye can assign no term. The American struggles against the natural obstacles which oppose him; the adversaries of the Russian are men: the former combats the wilderness and savage life; the latter, civilization with all its weapons and its arts: the conquests of the one are therefore gained by the plowshare; those of the other, by the sword. The Anglo-American relies upon personal interest to accomplish his ends, and gives free scope to the unguided exertions and common sense of the citizens; the Russian centers all the authority of society in a single arm: the principal instrument of the former is freedom; of the latter, servitude. Their starting point is different, and their courses are not the same; yet each of them seems to be marked out by the will of Heaven to sway the destinies of half the globe.

29. Russia is the country in the Old World in which population increases most rapidly in proportion.

The foregoing consists of the Introduction, Chapters III, IV, XI–XIV, and the Conclusion of Volume I of de Tocqueville's DEMOCRACY IN AMERICA, *translated by Henry Reeve.*

Why Democratic Nations Show a More Ardent and Enduring Love of Equality than of Liberty

The first and most intense passion which is engendered by the equality of conditions is, I need hardly say, the love of that same equality. My readers will therefore not be surprised that I speak of it before all others.

Everybody has remarked that in our time, and especially in France, this passion for equality is every day gaining ground in the human heart. It has been said a hundred times that our contemporaries are far more ardently and tenaciously attached to equality than to freedom; but, as I do not find that the causes of the fact have been sufficiently analyzed, I shall endeavor to point them out.

It is possible to imagine an extreme point at which freedom and equality would meet and be confounded together. Let us suppose that all the members of the community take a part in the government, and that each one of them has an equal right to take a part in it. As none is different from his fellows, none can exercise a tyrannical power: men will be perfectly free, because they will all be entirely equal; and they will all be perfectly equal, because they will be entirely free. To this ideal state democratic nations tend. Such is the completest form that equality can assume upon earth; but there are a thousand others which, without being equally perfect, are not less cherished by those nations.

The principle of equality may be established in civil society, without prevailing in the political world. Equal rights may exist of indulging in the same pleasures, of entering the same professions, of frequenting the same places—in a word, of living in the same manner and seeking wealth by the same means, although all men do not take an equal share in the government.

A kind of equality may even be established in the political world, though there should be no political freedom there. A man may be the equal of all his countrymen save one, who is the master of all without distinction, and who selects equally from among them all the agents of his power.

Several other combinations might be easily imagined by which very

great equality would be united to institutions more or less free, or even to institutions wholly without freedom.

Although men cannot become absolutely equal unless they be entirely free, and consequently equality, pushed to its furthest extent, may be confounded with freedom, yet there is good reason for distinguishing the one from the other. The taste which men have for liberty and that which they feel for equality are, in fact, two different things; and I am not afraid to add that, among democratic nations, they are two unequal things.

Upon close inspection, it will be seen that there is in every age some peculiar and preponderating fact with which all others are connected; this fact almost always gives birth to some pregnant idea or some ruling passion, which attracts to itself, and bears away in its course, all the feelings and opinions of the time: it is like a great stream, towards which each of the surrounding rivulets seem to flow.

Freedom has appeared in the world at different times and under various forms; it has not been exclusively bound to any social condition, and it is not confined to democracies. Freedom cannot, therefore, form the distinguishing characteristic of democratic ages. The peculiar and preponderating fact which marks those ages as its own is the equality of conditions; the ruling passion of men in those periods is the love of this equality. Ask not what singular charm the men of democratic ages find in being equal, or what special reasons they may have for clinging so tenaciously to equality rather than to the other advantages which society holds out to them: equality is the distinguishing characteristic of the age they live in; that, of itself, is enough to explain that they prefer it to all the rest.

But independently of this reason there are several others which will at all times habitually lead men to prefer equality to freedom.

If a people could ever succeed in destroying, or even in diminishing, the equality which prevails in its own body, this could only be accomplished by long and laborious efforts. Its social condition must be modified, its laws abolished, its opinions superseded, its habits changed, its manners corrupted. But political liberty is more easily lost; to neglect to hold it fast is to allow it to escape.

Men therefore not only cling to equality because it is dear to them; they also adhere to it because they think it will last forever.

That political freedom may compromise in its excesses the tranquillity, the property, the lives of individuals, is obvious to the narrowest and most unthinking minds. But, on the contrary, none but attentive and clear-sighted men perceive the perils with which equality threatens us,

and they commonly avoid pointing them out. They know that the calamities they apprehend are remote, and flatter themselves that they will only fall upon future generations, for which the present generation takes but little thought. The evils which freedom sometimes brings with it are immediate; they are apparent to all, and all are more or less affected by them. The evils which extreme equality may produce are slowly disclosed; they creep gradually into the social frame; they are only seen at intervals, and at the moment at which they become most violent, habit already causes them to be no longer felt.

The advantages which freedom brings are only shown by length of time; and it is always easy to mistake the cause in which they originate. The advantages of equality are instantaneous, and they may constantly be traced from their source.

Political liberty bestows exalted pleasures, from time to time, upon a certain number of citizens. Equality every day confers a number of small enjoyments on every man. The charms of equality are every instant felt, and are within the reach of all; the noblest hearts are not insensible to them, and the most vulgar souls exult in them. The passion which equality engenders must therefore be at once strong and general. Men cannot enjoy political liberty unpurchased by some sacrifices, and they never obtain it without great exertions. But the pleasures of equality are self-proffered: each of the petty incidents of life seems to occasion them, and in order to taste them nothing is required but to live.

Democratic nations are at all times fond of equality, but there are certain epochs at which the passion they entertain for it swells to the height of fury. This occurs at the moment when the old social system, long menaced, completes its own destruction after a last intestine struggle, and when the barriers of rank are at length thrown down. At such times men pounce upon equality as their booty, and they cling to it as to some precious treasure which they fear to lose. The passion for equality penetrates on every side into men's hearts, expands there, and fills them entirely. Tell them not that by this blind surrender of themselves to an exclusive passion they risk their dearest interests: they are deaf. Show them not freedom escaping from their grasp, while they are looking another way: they are blind—or rather, they can discern but one sole object to be desired in the universe.

What I have said is applicable to all democratic nations: what I am about to say concerns the French alone. Among most modern nations, and especially among all those of the continent of Europe, the taste and the idea of freedom only began to exist and to extend itself at the time

when social conditions were tending to equality, and as a consequence of that very equality. Absolute kings were the most efficient levelers of ranks among their subjects. Among these nations equality preceded freedom; equality was therefore a fact of some standing when freedom was still a novelty: the one had already created customs, opinions, and laws belonging to it, when the other, alone and for the first time, came into actual existence. Thus the latter was still only an affair of opinion and of taste, while the former had already crept into the habits of the people, possessed itself of their manners, and given a particular turn to the smallest actions in their lives. Can it be wondered that the men of our own time prefer the one to the other?

I think that democratic communities have a natural taste for freedom: left to themselves, they will seek it, cherish it, and view any privation of it with regret. But for equality, their passion is ardent, insatiable, incessant, invincible: they call for equality in freedom; and if they cannot obtain that, they still call for equality in slavery. They will endure poverty, servitude, barbarism—but they will not endure aristocracy.

This is true at all times, and especially true in our own. All men and all powers seeking to cope with this irresistible passion will be overthrown and destroyed by it. In our age, freedom cannot be established without it, and despotism itself cannot reign without its support.

Of Individualism in Democratic Countries

I have shown how it is that in ages of equality every man seeks for his opinions within himself: I am now about to show how it is that, in the same ages, all his feelings are turned towards himself alone. *Individualism* is a novel expression, to which a novel idea has given birth. Our fathers were only acquainted with egotism. Egotism is a passionate and exaggerated love of self which leads a man to connect everything with his own person and to prefer himself to everything in the world. Individualism is a mature and calm feeling which disposes each member of the community to sever himself from the mass of his fellow creatures, and to draw apart with his family and his friends; so that, after he has thus formed a little circle of his own, he willingly leaves society at large to itself. Egotism originates in blind instinct: individualism proceeds from erroneous judgment more than from depraved feelings; it originates as much in the deficiencies of the mind as in the perversity of the heart.

Egotism blights the germ of all virtue: individualism, at first, only saps the virtues of public life; but, in the long run, it attacks and destroys all

others, and is at length absorbed in downright egotism. Egotism is a vice as old as the world, which does not belong to one form of society more than to another; individualism is of democratic origin, and it threatens to spread in the same ratio as the equality of conditions.

Among aristocratic nations, as families remain for centuries in the same condition, often on the same spot, all generations become as it were contemporaneous. A man almost always knows his forefathers, and respects them: he thinks he already sees his remote descendants, and he loves them. He willingly imposes duties on himself towards the former and the latter; and he will frequently sacrifice his personal gratifications to those who went before and to those who will come after him.

Aristocratic institutions have, moreover, the effect of closely binding every man to several of his fellow citizens. As the classes of an aristocratic people are strongly marked and permanent, each of them is regarded by its own members as a sort of lesser country, more tangible and more cherished than the country at large. As in aristocratic communities all the citizens occupy fixed positions, one above the other, the result is that each of them always sees a man above himself whose patronage is necessary to him, and below himself another man whose co-operation he may claim.

Men living in aristocratic ages are therefore almost always closely attached to something placed out of their own sphere, and they are often disposed to forget themselves. It is true that in those ages the notion of human fellowship is faint, and that men seldom think of sacrificing themselves for mankind; but they often sacrifice themselves for other men. In democratic ages, on the contrary, when the duties of each individual to the race are much more clear, devoted service to any one man becomes more rare; the bond of human affection is extended, but it is relaxed.

Among democratic nations new families are constantly springing up, others are constantly falling away, and all that remain change their condition; the woof of time is every instant broken, and the track of generations effaced. Those who went before are soon forgotten; of those who will come after no one has any idea: the interest of man is confined to those in close propinquity to himself.

As each class approximates to other classes, and intermingles with them, its members become indifferent and as strangers to one another. Aristocracy had made a chain of all the members of the community, from the peasant to the king: democracy breaks that chain, and severs every link of it.

As social conditions become more equal, the number of persons in-

creases who, although they are neither rich enough nor powerful enough to exercise any great influence over their fellow creatures, have nevertheless acquired or retained sufficient education and fortune to satisfy their own wants. They owe nothing to any man, they expect nothing from any man; they acquire the habit of always considering themselves as standing alone, and they are apt to imagine that their whole destiny is in their own hands.

Thus not only does democracy make every man forget his ancestors, but it hides his descendants, and separates his contemporaries from him; it throws him back forever upon himself alone, and threatens in the end to confine him entirely within the solitude of his own heart.

Individualism Stronger at the Close of a Democratic Revolution than at Other Periods

The period when the construction of democratic society upon the ruins of an aristocracy has just been completed is especially that at which this separation of men from one another, and the egotism resulting from it, most forcibly strike the observation. Democratic communities not only contain a large number of independent citizens, but they are constantly filled with men who, having entered but yesterday upon their independent condition, are intoxicated with their new power. They entertain a presumptuous confidence in their strength, and as they do not suppose that they can henceforward ever have occasion to claim the assistance of their fellow creatures, they do not scruple to show that they care for nobody but themselves.

An aristocracy seldom yields without a protracted struggle, in the course of which implacable animosities are kindled between the different classes of society. These passions survive the victory, and traces of them may be observed in the midst of the democratic confusion which ensues.

Those members of the community who were at the top of the late gradations of rank cannot immediately forget their former greatness; they will long regard themselves as aliens in the midst of the newly composed society. They look upon all those whom this state of society has made their equals as oppressors, whose destiny can excite no sympathy; they have lost sight of their former equals, and feel no longer bound by a common interest to their fate: each of them, standing aloof, thinks that he is reduced to care for himself alone. Those, on the contrary, who were formerly at the foot of the social scale, and who have been brought up to the common level by a sudden revolution, cannot enjoy their newly

acquired independence without secret uneasiness; and if they meet with some of their former superiors on the same footing as themselves, they stand aloof from them with an expression of triumph and of fear.

It is, then, commonly at the outset of democratic society that citizens are most disposed to live apart. Democracy leads men not to draw near to their fellow creatures; but democratic revolutions lead them to shun each other, and perpetuate in a state of equality the animosities which the state of inequality engendered.

The great advantage of the Americans is that they have arrived at a state of democracy without having to endure a democratic revolution, and that they are born equal instead of becoming so.

That the Americans Combat the Effects of Individualism by Free Institutions

Despotism, which is of a very timorous nature, is never more secure of continuance than when it can keep men asunder; and all its influence is commonly exerted for that purpose. No vice of the human heart is so acceptable to it as egotism: a despot easily forgives his subjects for not loving him, provided they do not love each other. He does not ask them to assist him in governing the state; it is enough that they do not aspire to govern it themselves. He stigmatizes as turbulent and unruly spirits those who would combine their exertions to promote the prosperity of the community; and, perverting the natural meaning of words, he applauds as good citizens those who have no sympathy for any but themselves.

Thus the vices which despotism engenders are precisely those which equality fosters. These two things mutually and perniciously complete and assist each other. Equality places men side by side, unconnected by any common tie; despotism raises barriers to keep them asunder: the former predisposes them not to consider their fellow creatures; the latter makes general indifference a sort of public virtue.

Despotism then, which is at all times dangerous, is more particularly to be feared in democratic ages. It is easy to see that in those same ages men stand most in need of freedom. When the members of a community are forced to attend to public affairs, they are necessarily drawn from the circle of their own interests, and snatched at times from self-observation. As soon as a man begins to treat of public affairs in public, he begins to perceive that he is not so independent of his fellow men as he had at first imagined, and that, in order to obtain their support, he must often lend them his co-operation.

When the public is supreme, there is no man who does not feel the value of public good will, or who does not endeavor to court it by drawing to himself the esteem and affection of those among whom he is to live. Many of the passions which congeal and keep asunder human hearts are then obliged to retire and hide below the surface. Pride must be dissembled; disdain dares not break out; egotism fears its own self. Under a free government, as most public offices are elective, the men whose elevated minds or aspiring hopes are too closely circumscribed in private life constantly feel that they cannot do without the population which surrounds them. Men learn at such times to think of their fellow men from ambitious motives; and they frequently find it, in a manner, their interest to forget themselves.

I may here be met by an objection derived from electioneering intrigues, the meannesses of candidates, and the calumnies of their opponents. These are opportunities for animosity which occur the oftener the more frequent elections become. Such evils are doubtless great, but they are transient; whereas the benefits which attend them remain. The desire of being elected may lead some men for a time to violent hostility; but this same desire leads all men in the long run mutually to support each other; and, if it happens that an election accidentally severs two friends, the electoral system brings a multitude of citizens permanently together, who would always have remained unknown to each other. Freedom engenders private animosities, but despotism gives birth to general indifference.

The Americans have combated by free institutions the tendency of equality to keep men asunder, and they have subdued it. The legislators of America did not suppose that a general representation of the whole nation would suffice to ward off a disorder at once so natural to the frame of democratic society, and so fatal; they also thought that it would be well to infuse political life into each portion of the territory, in order to multiply to an infinite extent opportunities of acting in concert for all the members of the community, and to make them constantly feel their mutual dependence on each other. The plan was a wise one. The general affairs of a country only engage the attention of leading politicians, who assemble from time to time in the same places; and as they often lose sight of each other afterwards, no lasting ties are established between them. But if the object be to have the local affairs of a district conducted by the men who reside there, the same persons are always in contact, and they are, in a manner, forced to be acquainted, and to adapt themselves to one another.

It is difficult to draw a man out of his own circle to interest him in the

destiny of the state, because he does not clearly understand what influence the destiny of the state can have upon his own lot. But if it be proposed to make a road cross the end of his estate, he will see at a glance that there is a connection between this small public affair and his greatest private affairs; and he will discover, without its being shown to him, the close tie which unites private to general interest. Thus, far more may be done by entrusting to the citizens the administration of minor affairs than by surrendering to them the control of important ones, towards interesting them in the public welfare and convincing them that they constantly stand in need one of the other in order to provide for it. A brilliant achievement may win for you the favor of a people at one stroke; but to earn the love and respect of the population which surrounds you, a long succession of little services rendered and of obscure good deeds—a constant habit of kindness, and an established reputation for disinterestedness—will be required. Local freedom, then, which leads a great number of citizens to value the affection of their neighbors and of their kindred, perpetually brings men together and forces them to help one another, in spite of the propensities which sever them.

In the United States the more opulent citizens take great care not to stand aloof from the people; on the contrary, they constantly keep on easy terms with the lower classes: they listen to them, they speak to them every day. They know that the rich in democracies always stand in need of the poor; and that in democratic ages you attach a poor man to you more by your manner than by benefits conferred. The magnitude of such benefits, which sets off the difference of conditions, causes a secret irritation to those who reap advantage from them; but the charm of simplicity of manners is almost irresistible: their affability carries men away, and even their want of polish is not always displeasing. This truth does not take root at once in the minds of the rich. They generally resist it as long as the democratic revolution lasts, and they do not acknowledge it immediately after that revolution is accomplished. They are very ready to do good to the people, but they still choose to keep them at arm's length; they think that is sufficient, but they are mistaken. They might spend fortunes thus without warming the hearts of the population around them; that population does not ask them for the sacrifice of their money, but of their pride.

It would seem as if every imagination in the United States were upon the stretch to invent means of increasing the wealth and satisfying the wants of the public. The best-informed inhabitants of each district constantly use their information to discover new truths which may augment

the general prosperity; and, if they have made any such discoveries, they eagerly surrender them to the mass of the people.

When the vices and weaknesses frequently exhibited by those who govern in America are closely examined, the prosperity of the people occasions—but improperly occasions—surprise. Elected magistrates do not make the American democracy flourish; it flourishes because the magistrates are elective.

It would be unjust to suppose that the patriotism and the zeal which every American displays for the welfare of his fellow citizens are wholly insincere. Although private interest directs the greater part of human actions in the United States, as well as elsewhere, it does not regulate them all. I must say that I have often seen Americans make great and real sacrifices to the public welfare; and I have remarked a hundred instances in which they hardly ever failed to lend faithful support to each other. The free institutions which the inhabitants of the United States possess, and the political rights of which they make so much use, remind every citizen, and in a thousand ways, that he lives in society. They every instant impress upon his mind the notion that it is the duty as well as the interest of men to make themselves useful to their fellow creatures; and as he sees no particular ground of animosity to them, since he is never either their master or their slave, his heart readily leans to the side of kindness. Men attend to the interests of the public, first by necessity, afterwards by choice: what was intentional becomes an instinct; and by dint of working for the good of one's fellow citizens, the habit and the taste for serving them is at length acquired.

Many people in France consider equality of conditions as one evil, and political freedom as a second. When they are obliged to yield to the former, they strive at least to escape from the latter. But I contend that in order to combat the evils which equality may produce there is only one effectual remedy—namely, political freedom.

Of the Use Which the Americans Make of Public Associations in Civil Life

I do not propose to speak of those political associations by the aid of which men endeavor to defend themselves against the despotic influence of a majority, or against the aggressions of regal power. That subject I have already treated.[1] If each citizen did not learn, in proportion as he

1. See p. 596, *supra*.

individually becomes more feeble and consequently more incapable of preserving his freedom singlehanded, to combine with his fellow citizens for the purpose of defending it, it is clear that tyranny would unavoidably increase together with equality.

Those associations only which are formed in civil life, without reference to political objects, are here adverted to. The political associations which exist in the United States are only a single feature in the midst of the immense assemblage of associations in that country. Americans of all ages, all conditions, and all dispositions, constantly form associations. They have not only commercial and manufacturing companies, in which all take part, but associations of a thousand other kinds—religious, moral, serious, futile, extensive or restricted, enormous or diminutive. The Americans make associations to give entertainments, to found establishments for education, to build inns, to construct churches, to diffuse books, to send missionaries to the antipodes; and in this manner they found hospitals, prisons, and schools. If it be proposed to advance some truth, or to foster some feeling by the encouragement of a great example, they form a society. Wherever, at the head of some new undertaking, you see the government in France, or a man of rank in England, in the United States you will be sure to find an association.

I met with several kinds of associations in America, of which I confess I had no previous notion; and I have often admired the extreme skill with which the inhabitants of the United States succeed in proposing a common object to the exertions of a great many men, and in getting them voluntarily to pursue it.

I have since traveled over England, whence the Americans have taken some of their laws and many of their customs; and it seemed to me that the principle of association was by no means so constantly or so adroitly used in that country. The English often perform great things singly; whereas the Americans form associations for the smallest undertakings. It is evident that the former people consider association as a powerful means of action, but the latter seem to regard it as the only means they have of acting.

Thus the most democratic country on the face of the earth is that in which men have in our time carried to the highest perfection the art of pursuing in common the object of their common desires, and have applied this new science to the greatest number of purposes. Is this the result of accident? or is there in reality any necessary connection between the principle of association and that of equality?

Aristocratic communities always contain, among a multitude of per-

sons who by themselves are powerless, a small number of powerful and wealthy citizens, each of whom can achieve great undertakings singlehanded. In aristocratic societies men do not need to combine in order to act, because they are strongly held together. Every wealthy and powerful citizen constitutes the head of a permanent and compulsory association, composed of all those who are dependent upon him, or whom he makes subservient to the execution of his designs.

Among democratic nations, on the contrary, all the citizens are independent and feeble; they can do hardly anything by themselves, and none of them can oblige his fellow men to lend him their assistance. They all, therefore, fall into a state of incapacity, if they do not learn voluntarily to help each other. If men living in democratic countries had no right and no inclination to associate for political purposes, their independence would be in great jeopardy; but they might long preserve their wealth and their cultivation: whereas if they never acquired the habit of forming associations in ordinary life, civilization itself would be endangered. A people among which individuals should lose the power of achieving great things singlehanded, without acquiring the means of producing them by united exertions, would soon relapse into barbarism.

Unhappily, the same social condition which renders associations so necessary to democratic nations renders their formation more difficult among those nations than among all others. When several members of an aristocracy agree to combine, they easily succeed in doing so: as each of them brings great strength to the partnership, the number of its members may be very limited; and when the members of an association are limited in number, they may easily become mutually acquainted, understand each other, and establish fixed regulations. The same opportunities do not occur among democratic nations, where the associated members must always be very numerous for their association to have any power.

I am aware that many of my countrymen are not in the least embarrassed by this difficulty. They contend that the more enfeebled and incompetent the citizens become, the more able and active the government ought to be rendered, in order that society at large may execute what individuals can no longer accomplish. They believe this answers the whole difficulty, but I think they are mistaken.

A government might perform the part of some of the largest American companies; and several states, members of the Union, have already attempted it; but what political power could ever carry on the vast multitude of lesser undertakings which the American citizens perform every day with the assistance of the principle of association? It is easy to fore-

see that the time is drawing near when man will be less and less able to produce, of himself alone, the commonest necessaries of life. The task of the governing power will therefore perpetually increase, and its very efforts will extend it every day. The more it stands in the place of associations, the more will individuals, losing the notion of combining together, require its assistance: these are causes and effects which unceasingly engender each other. Will the administration of the country ultimately assume the management of all the manufactures which no single citizen is able to carry on? And if a time at length arrives, when, in consequence of the extreme subdivision of landed property, the soil is split into an infinite number of parcels, so that it can only be cultivated by companies of husbandmen, will it be necessary that the head of the government should leave the helm of state to follow the plow? The morals and the intelligence of a democratic people would be as much endangered as its business and manufactures if the government ever wholly usurped the place of private companies.

Feelings and opinions are recruited, the heart is enlarged, and the human mind is developed by no other means than by the reciprocal influence of men upon each other. I have shown that these influences are almost null in democratic countries; they must therefore be artificially created, and this can only be accomplished by associations.

When the members of an aristocratic community adopt a new opinion, or conceive a new sentiment, they give it a station, as it were, beside themselves, upon the lofty platform where they stand; and opinions or sentiments so conspicuous to the eyes of the multitude are easily introduced into the minds or hearts of all around. In democratic countries the governing power alone is naturally in a condition to act in this manner; but it is easy to see that its action is always inadequate, and often dangerous. A government can no more be competent to keep alive and to renew the circulation of opinions and feelings among a great people, than to manage all the speculations of productive industry. No sooner does a government attempt to go beyond its political sphere and to enter upon this new track than it exercises, even unintentionally, an insupportable tyranny; for a government can only dictate strict rules, the opinions which it favors are rigidly enforced, and it is never easy to discriminate between its advice and its commands. Worse still will be the case if the government really believes itself interested in preventing all circulation of ideas; it will then stand motionless and oppressed by the heaviness of voluntary torpor. Governments therefore should not be the only active powers: associations ought, in democratic nations, to stand in lieu of

those powerful private individuals whom the equality of conditions has swept away.

As soon as several of the inhabitants of the United States have taken up an opinion or a feeling which they wish to promote in the world, they look out for mutual assistance; and as soon as they have found each other out, they combine. From that moment they are no longer isolated men, but a power seen from afar, whose actions serve for an example, and whose language is listened to. The first time I heard in the United States that a hundred thousand men had bound themselves publicly to abstain from spirituous liquors, it appeared to me more like a joke than a serious engagement; and I did not at once perceive why these temperate citizens could not content themselves with drinking water by their own firesides. I at last understood that these hundred thousand Americans, alarmed by the progress of drunkenness around them, had made up their minds to patronize temperance. They acted just in the same way as a man of high rank who should dress very plainly, in order to inspire the humbler orders with a contempt of luxury. It is probable that if these hundred thousand men had lived in France, each of them would singly have memorialized the government to watch the public houses all over the kingdom.

Nothing, in my opinion, is more deserving of our attention than the intellectual and moral associations of America. The political and industrial associations of that country strike us forcibly; but the others elude our observation, or if we discover them, we understand them imperfectly, because we have hardly ever seen anything of the kind. It must, however, be acknowledged that they are as necessary to the American people as the former, and perhaps more so.

In democratic countries the science of association is the mother of science; the progress of all the rest depends upon the progress it has made.

Among the laws which rule human societies there is one which seems to be more precise and clear than all others. If men are to remain civilized, or to become so, the art of associating together must grow and improve, in the same ratio in which the equality of conditions is increased. . . .

Influence of Democracy on Kindred

I have just examined the changes which the equality of conditions produces in the mutual relations of the several members of the commu-

nity among democratic nations, and among the Americans in particular. I would now go deeper, and inquire into the closer ties of kindred. My object here is not to seek for new truths, but to show in what manner facts already known are connected with my subject.

It has been universally remarked that in our time the several members of a family stand upon an entirely new footing towards each other; that the distance which formerly separated a father from his sons has been lessened; and that paternal authority, if not destroyed, is at least impaired.

Something analogous to this, but even more striking, may be observed in the United States. In America the family, in the Roman and aristocratic signification of the word, does not exist. All that remains of it are a few vestiges in the first years of childhood, when the father exercises, without opposition, that absolute domestic authority which the feebleness of his children renders necessary, and which their interest, as well as his own incontestable superiority, warrants. But as soon as the young American approaches manhood, the ties of filial obedience are relaxed day by day: master of his thoughts, he is soon master of his conduct. In America there is, strictly speaking, no adolescence: at the close of boyhood the man appears, and begins to trace out his own path.

It would be an error to suppose that this is preceded by a domestic struggle, in which the son has obtained by a sort of moral violence the liberty that his father refused him. The same habits, the same principles which impel the one to assert his independence, predispose the other to consider the use of that independence as an incontestable right. The former does not exhibit any of those rancorous or irregular passions which disturb men long after they have shaken off an established authority; the latter feels none of that bitter and angry regret which is apt to survive a bygone power. The father foresees the limits of his authority long beforehand, and when the time arrives he surrenders it without a struggle. The son looks forward to the exact period at which he will be his own master; and he enters upon his freedom without precipitation and without effort, as a possession which is his own and which no one seeks to wrest from him.[2]

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2. The Americans however have not yet thought fit to strip the parent, as has been done in France, of one of the chief elements of parental authority, by depriving him of the power of disposing of his property at his death. In the United States there are no restrictions on the powers of a testator.

   In this respect, as in almost all others, it is easy to perceive that if the political legislation of the Americans is much more democratic than that of the French, the civil legislation of the latter is infinitely more democratic than that of the former. This may easily be accounted for. The civil legislation of France was the

It may perhaps not be without utility to show how these changes which take place in family relations are closely connected with the social and political revolution which is approaching its consummation under our own observation.

There are certain great social principles, which a people either introduces everywhere, or tolerates nowhere. In countries which are aristocratically constituted with all the gradations of rank, the government never makes a direct appeal to the mass of the governed: as men are united together, it is enough to lead the foremost—the rest will follow. This is equally applicable to the family, as to all aristocracies which have a head.

Among aristocratic nations, social institutions recognize, in truth, no one in the family but the father; children are received by society at his hands; society governs him, he governs them. Thus the parent has not only a natural right, but he acquires a political right, to command them. He is the author and the support of his family, but he is also its constituted ruler.

In democracies, where the government picks out every individual singly from the mass, to make him subservient to the general laws of the community, no such intermediate person is required: a father is there, in the eye of the law, only a member of the community, older and richer than his sons.

When most of the conditions of life are extremely unequal, and the inequality of these conditions is permanent, the notion of a superior grows upon the imaginations of men: if the law invested him with no privileges, custom and public opinion would concede them. When, on the contrary, men differ but little from each other, and do not always remain in dissimilar conditions of life, the general notion of a superior becomes weaker and less distinct: it is vain for legislation to strive to place him who obeys very much beneath him who commands; the manners of the time bring the two men nearer to one another, and draw them daily towards the same level.

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work of a man who saw that it was his interest to satisfy the democratic passions of his contemporaries in all that was not directly and immediately hostile to his own power. He was willing to allow some popular principles to regulate the distribution of property and the government of families, provided they were not to be introduced into the administration of public affairs. While the torrent of democracy overwhelmed the civil laws of the country, he hoped to find an easy shelter behind its political institutions. This policy was at once both adroit and selfish: but a compromise of this kind could not last; for in the end political institutions never fail to become the image and expression of civil society; and in this sense it may be said that nothing is more political in a nation than its civil legislation.

Although the legislation of an aristocratic people should grant no peculiar privileges to the heads of families, I shall not be the less convinced that their power is more respected and more extensive than in a democracy; for I know that, whatsoever the laws may be, superiors always appear higher and inferiors lower in aristocracies than among democratic nations.

When men live more for the remembrance of what has been than for the care of what is, and when they are more given to attend to what their ancestors thought than to think themselves, the father is the natural and necessary tie between the past and the present–the link by which the ends of these two chains are connected. In aristocracies, then, the father is not only the civil head of the family, but the oracle of its traditions, the expounder of its customs, the arbiter of its manners. He is listened to with deference, he is addressed with respect, and the love which is felt for him is always tempered with fear.

When the condition of society becomes democratic and men adopt as their general principle that it is good and lawful to judge of all things for oneself, using former points of belief not as a rule of faith but simply as a means of information, the power which the opinions of a father exercise over those of his sons diminishes as well as his legal power.

Perhaps the subdivision of estates which democracy brings with it contributes more than anything else to change the relations existing between a father and his children. When the property of the father of a family is scanty, his son and himself constantly live in the same place, and share the same occupations: habit and necessity bring them together, and force them to hold constant communication; the inevitable consequence is a sort of familiar intimacy, which renders authority less absolute and which can ill be reconciled with the external forms of respect.

Now in democratic countries the class of those who are possessed of small fortunes is precisely that which gives strength to the notions, and a particular direction to the manners, of the community. That class makes its opinions preponderate as universally as its will, and even those who are most inclined to resist its commands are carried away in the end by its example. I have known eager opponents of democracy who allowed their children to address them with perfect colloquial equality.

Thus, at the same time that the power of aristocracy is declining, the austere, the conventional, and the legal part of parental authority vanishes, and a species of equality prevails around the domestic hearth. I know not, upon the whole, whether society loses by the change, but I am inclined to believe that man individually is a gainer by it. I think that, in

proportion as manners and laws become more democratic, the relation of father and son becomes more intimate and more affectionate; rules and authority are less talked of; confidence and tenderness are oftentimes increased, and it would seem that the natural bond is drawn closer in proportion as the social bond is loosened.

In a democratic family the father exercises no other power than that with which men love to invest the affection and the experience of age; his orders would perhaps be disobeyed, but his advice is for the most part authoritative. Though he be not hedged in with ceremonial respect, his sons at least accost him with confidence; no settled form of speech is appropriated to the mode of addressing him, but they speak to him constantly, and are ready to consult him day by day: the master and the constituted ruler have vanished–the father remains.

Nothing more is needed, in order to judge of the difference between the two states of society in this respect, than to peruse the family correspondence of aristocratic ages. The style is always correct, ceremonious, stiff, and so cold that the natural warmth of the heart can hardly be felt in the language. The language, on the contrary, addressed by a son to his father in democratic countries is always marked by mingled freedom, familiarity and affection, which at once show that new relations have sprung up in the bosom of the family.

A similar revolution takes place in the mutual relations of children. In aristocratic families, as well as in aristocratic society, every place is marked out beforehand. Not only does the father occupy a separate rank, in which he enjoys extensive privileges, but even the children are not equal among themselves. The age and sex of each irrevocably determine his rank, and secure to him certain privileges: most of these distinctions are abolished or diminished by democracy.

In aristocratic families the eldest son, inheriting the greater part of the property and almost all the rights of the family, becomes the chief, and to a certain extent, the master, of his brothers. Greatness and power are for him–for them, mediocrity and dependence. Nevertheless it would be wrong to suppose that, among aristocratic nations, the privileges of the eldest son are advantageous to himself alone, or that they excite nothing but envy and hatred in those around him. The eldest son commonly endeavors to procure wealth and power for his brothers, because the general splendor of the house is reflected back on him who represents it; the younger sons seek to back the elder brother in all his undertakings, because the greatness and power of the head of the family better enable him to provide for all its branches. The different members of an aristo-

cratic family are therefore very closely bound together; their interests are connected, their minds agree, but their hearts are seldom in harmony.

Democracy also binds brothers to each other, but by very different means. Under democratic laws all the children are perfectly equal, and consequently independent: nothing brings them forcibly together, but nothing keeps them apart; and as they have the same origin, as they are trained under the same roof, as they are treated with the same care, and as no peculiar privilege distinguishes or divides them, the affectionate and youthful intimacy of early years easily springs up between them. Scarcely any opportunities occur to break the tie thus formed at the outset of life; for their brotherhood brings them daily together without embarrassing them. It is not then by interest, but by common associations and by the free sympathy of opinion and of taste, that democracy unites brothers to each other. It divides their inheritance, but it allows their hearts and minds to mingle together.

Such is the charm of these democratic manners, that even the partisans of aristocracy are caught by it; and after having experienced it for some time, they are by no means tempted to revert to the respectful and frigid observances of aristocratic families. They would be glad to retain the domestic habits of democracy, if they might throw off its social conditions and its laws; but these elements are indissolubly united, and it is impossible to enjoy the former without enduring the latter.

The remarks I have made on filial love and fraternal affection are applicable to all the passions which emanate spontaneously from human nature itself.

If a certain mode of thought or feeling is the result of some peculiar condition of life, when that condition is altered nothing whatever remains of the thought or feeling. Thus a law may bind two members of the community very closely to one another; but that law being abolished, they stand asunder. Nothing was more strict than the tie which united the vassal to the lord under the feudal system: at the present day the two men know not each other: the fear, the gratitude, and the affection which formerly connected them have vanished, and not a vestige of the tie remains.

Such, however, is not the case with those feelings which are natural to mankind. Whenever a law attempts to tutor these feelings in any particular manner, it seldom fails to weaken them; by attempting to add to their intensity, it robs them of some of their elements, for they are never stronger than when left to themselves.

Democracy, which destroys or obscures almost all the old conventional rules of society, and which prevents men from readily assenting to new ones, entirely effaces most of the feelings to which these conventional rules have given rise; but it only modifies some others, and frequently imparts to them a degree of energy and sweetness unknown before.

Perhaps it is not impossible to condense into a single proposition the whole meaning of this chapter, and of several others that preceded it. Democracy loosens social ties, but it draws the ties of nature more tight; it brings kindred more closely together, while it places the various members of the community more widely apart.

Education of Young Women in the United States

No free communities ever existed without morals; and, as I observed in the former part of this work, morals are the work of woman. Consequently, whatever affects the condition of women, their habits, and their opinions has great political importance in my eyes.

Among almost all Protestant nations young women are far more the mistresses of their own actions than they are in Catholic countries. This independence is still greater in Protestant countries like England, which have retained or acquired the right of self-government; the spirit of freedom is then infused into the domestic circle by political habits and by religious opinions. In the United States the doctrines of Protestantism are combined with great political freedom and a most democratic state of society; and nowhere are young women surrendered so early or so completely to their own guidance.

Long before an American girl arrives at the age of marriage, her emancipation from maternal control begins. She has scarcely ceased to be a child, when she already thinks for herself, speaks with freedom, and acts on her own impulse. The great scene of the world is constantly open to her view. Far from seeking concealment, it is every day disclosed to her more completely, and she is taught to survey it with a firm and calm gaze. Thus the vices and dangers of society are early revealed to her; as she sees them clearly, she views them without illusions, and braves them without fear; for she is full of reliance on her own strength, and her reliance seems to be shared by all who are about her.

An American girl scarcely ever displays that virginal bloom in the

midst of young desires, or that innocent and ingenuous grace which usually attend the European woman in the transition from girlhood to youth. It is rarely that an American woman at any age displays childish timidity or ignorance. Like the young women of Europe, she seeks to please, but she knows precisely the cost of pleasing. If she does not abandon herself to evil, at least she knows that it exists; and she is remarkable rather for purity of manners than for chastity of mind.

I have been frequently surprised, and almost frightened, at the singular address and happy boldness with which young women in America contrive to manage their thoughts and their language, amidst all the difficulties of stimulating conversation; a philosopher would have stumbled at every step along the narrow path which they trod without accidents and without effort. It is easy indeed to perceive that, even amidst the independence of early youth, an American woman is always mistress of herself: she indulges in all permitted pleasures, without yielding herself up to any of them; and her reason never allows the reins of self-guidance to drop, though it often seems to hold them loosely.

In France, where remnants of every age are still so strangely mingled in the opinions and tastes of the people, women commonly receive a reserved, retired, and almost conventual education, as they did in aristocratic times; and then they are suddenly abandoned, without a guide and without assistance, in the midst of all the irregularities inseparable from democratic society.

The Americans are more consistent. They have found out that in a democracy the independence of individuals cannot fail to be very great, youth premature, tastes ill restrained, customs fleeting, public opinion often unsettled and powerless, paternal authority weak, and marital authority contested. Under these circumstances, believing that they had little chance of repressing in woman the most vehement passions of the human heart, they held that the surer way was to teach her the art of combating those passions for herself. As they could not prevent her virtue from being exposed to frequent danger, they determined that she should know how best to defend it; and more reliance was placed on the free vigor of her will than on safeguards which have been shaken or overthrown. Instead then of inculcating mistrust of herself, they constantly seek to enhance her confidence in her own strength of character. As it is neither possible nor desirable to keep a young woman in perpetual and complete ignorance, they hasten to give her a precocious knowledge on all subjects. Far from hiding the corruptions of the world from her, they prefer that she should see them at once and train herself to shun them;

and they hold it of more importance to protect her conduct than to be overscrupulous of her innocence.

Although the Americans are a very religious people, they do not rely on religion alone to defend the virtue of woman; they seek to arm her reason also. In this they have followed the same method as in several other respects: they first make the most vigorous efforts to bring individual independence to exercise a proper control over itself, and they do not call in the aid of religion until they have reached the utmost limits of human strength.

I am aware that an education of this kind is not without danger; I am sensible that it tends to invigorate the judgment at the expense of the imagination, and to make cold and virtuous women instead of affectionate wives and agreeable companions to man. Society may be more tranquil and better regulated, but domestic life has often fewer charms. These however are secondary evils, which may be braved for the sake of higher interests. At the stage at which we are now arrived the time for choosing is no longer within our control; a democratic education is indispensable to protect women from the dangers with which democratic institutions and manners surround them.

The Young Woman in the Character of a Wife

In America the independence of woman is irrecoverably lost in the bonds of matrimony: if an unmarried woman is less constrained there than elsewhere, a wife is subjected to stricter obligations. The former makes her father's house an abode of freedom and of pleasure; the latter lives in the home of her husband as if it were a cloister. Yet these two different conditions of life are perhaps not so contrary as may be supposed, and it is natural that the American women should pass through the one to arrive at the other.

Religious peoples and trading nations entertain peculiarly serious notions of marriage: the former consider the regularity of woman's life as the best pledge and most certain sign of the purity of her morals; the latter regard it as the highest security for the order and prosperity of the household. The Americans are at the same time a puritanical people and a commercial nation. Their religious opinions, as well as their trading habits, consequently lead them to require much abnegation on the part of women, and a constant sacrifice of her pleasures to her duties which is seldom demanded of her in Europe. Thus in the United States the inex-

orable opinion of the public carefully circumscribes woman within the narrow circle of domestic interests and duties, and forbids her to step beyond it.

Upon her entrance into the world a young American woman finds these notions firmly established; she sees the rules which are derived from them; she is not slow to perceive that she cannot depart for an instant from the established usages of her contemporaries, without putting in jeopardy her peace of mind, her honor, nay even her social existence; and she finds the energy required for such an act of submission in the firmness of her understanding and in the virile habits which her education has given her. It may be said that she has learned by the use of her independence to surrender it without a struggle and without a murmur when the time comes for making the sacrifice.

But no American woman falls into the toils of matrimony as into a snare held out to her simplicity and ignorance. She has been taught beforehand what is expected of her, and voluntarily and freely does she enter upon this engagement. She supports her new condition with courage, because she chose it. As in America paternal discipline is very relaxed and the conjugal tie very strict, a young woman does not contract the latter without considerable circumspection and apprehension. Precocious marriages are rare. Thus American women do not marry until their understandings are exercised and ripened; whereas in other countries most women generally only begin to exercise and to ripen their understandings after marriage.

I by no means suppose, however, that the great change which takes place in all the habits of women in the United States as soon as they are married ought solely to be attributed to the constraint of public opinion; it is frequently imposed upon themselves by the sole effort of their own will. When the time for choosing a husband is arrived, that cold and stern reasoning power which has been educated and invigorated by the free observation of the world teaches an American woman that a spirit of levity and independence in the bonds of marriage is a constant subject of annoyance, not of pleasure; it tells her that the amusements of the girl cannot become the recreations of the wife, and that the sources of a married woman's happiness are in the home of her husband. As she clearly discerns beforehand the only road which can lead to domestic happiness, she enters upon it at once, and follows it to the end without seeking to turn back.

The same strength of purpose which the young wives of America dis-

play, in bending themselves at once and without repining to the austere duties of their new condition, is no less manifest in all the great trials of their lives. In no country in the world are private fortunes more precarious than in the United States. It is not uncommon for the same man, in the course of his life, to rise and sink again through all the grades which lead from opulence to poverty. American women support these vicissitudes with calm and unquenchable energy: it would seem that their desires contract, as easily as they expand, with their fortunes.

The greater part of the adventurers who migrate every year to people the western wilds, belong, as I observed in the former part of this work, to the old Anglo-American race of the northern states. Many of these men, who rush so boldly onwards in pursuit of wealth, were already in the enjoyment of a competency in their own part of the country. They take their wives along with them, and make them share the countless perils and privations which always attend the commencement of these expeditions. I have often met, even on the verge of the wilderness, with young women who, after having been brought up amidst all the comforts of the large towns of New England had passed, almost without any intermediate stage, from the wealthy abode of their parents to a comfortless hovel in a forest. Fever, solitude, and a tedious life had not broken the springs of their courage. Their features were impaired and faded, but their looks were firm: they appeared to be at once sad and resolute. I do not doubt that these young American women had amassed, in the education of their early years, that inward strength which they displayed under these circumstances. The early culture of the girl may still therefore be traced, in the United States, under the aspect of marriage: her part is changed, her habits are different, but her character is the same.

That the Equality of Conditions Contributes to the Maintenance of Good Morals in America

Some philosophers and historians have said, or have hinted, that the strictness of female morality was increased or diminished simply by the distance of a country from the equator. This solution of the difficulty was an easy one; and nothing was required but a globe and a pair of compasses to settle in an instant one of the most difficult problems in the condition of mankind. But I am not aware that this principle of the materialists is supported by facts. The same nations have been chaste or

dissolute, at different periods of their history; the strictness or the laxity of their morals depended therefore on some variable cause, not only on the natural qualities of their country, which were invariable. I do not deny that in certain climates the passions which are occasioned by the mutual attraction of the sexes are peculiarly intense; but I am of opinion that this natural intensity may always be excited or restrained by the condition of society and by political institutions.

Although the travelers who have visited North America differ on a great number of points, they all agree in remarking that morals are far more strict there than elsewhere. It is evident that on this point the Americans are very superior to their progenitors, the English. A superficial glance at the two nations will establish the fact.

In England, as in all other countries of Europe, public malice is constantly attacking the frailties of women. Philosophers and statesmen are heard to deplore that morals are not sufficiently strict, and the literary productions of the country constantly lead one to suppose so. In America all books, novels not excepted, suppose women to be chaste, and no one thinks of relating affairs of gallantry.

No doubt this great regularity of American morals originates partly in the country, in the race of the people, and in their religion: but all these causes, which operate elsewhere, do not suffice to account for it; recourse must be had to some special reason.

This reason appears to me to be the principle of equality and the institutions derived from it. Equality of conditions does not of itself engender regularity of morals, but it unquestionably facilitates and increases it.

Among aristocratic nations birth and fortune frequently make two such different beings of man and woman that they can never be united to each other. Their passions draw them together, but the condition of society, and the notions suggested by it, prevent them from contracting a permanent and ostensible tie. The necessary consequence is a great number of transient and clandestine connections. Nature secretly avenges herself for the constraint imposed upon her by the laws of man.

This is not so much the case when the equality of conditions has swept away all the imaginary, or the real, barriers which separated man from woman. No girl then believes that she cannot become the wife of the man who loves her; and this renders all breaches of morality before marriage very uncommon: for, whatever be the credulity of the passions, a woman will hardly be able to persuade herself that she is beloved, when her lover is perfectly free to marry her and does not.

The same cause operates, though more indirectly, on married life. Nothing better serves to justify an illicit passion, either to the minds of those who have conceived it or to the world which looks on, than compulsory or accidental marriages.[3]

In a country in which a woman is always free to exercise her power of choosing, and in which education has prepared her to choose rightly, public opinion is inexorable to her faults. The rigor of the Americans arises in part from this cause. They consider marriages as a covenant which is often onerous, but every condition of which the parties are strictly bound to fulfill, because they knew all those conditions beforehand and were perfectly free not to have contracted them.

The very circumstances which render matrimonial fidelity more obligatory also render it more easy.

In aristocratic countries the object of marriage is rather to unite property than persons; hence the husband is sometimes at school and the wife at nurse when they are betrothed. It cannot be wondered at if the conjugal tie which holds the fortunes of the pair united allows their hearts to rove; this is the natural result of the nature of the contract. When, on the contrary, a man always chooses a wife for himself, without any external coercion or even guidance, it is generally a conformity of tastes and opinions which brings a man and a woman together, and this same conformity keeps and fixes them in close habits of intimacy.

Our forefathers had conceived a very strange notion on the subject of marriage: as they had remarked that the small number of love matches which occurred in their time almost always turned out ill, they resolutely inferred that it was exceedingly dangerous to listen to the dictates of the heart on the subject. Accident appeared to them to be a better guide than choice.

Yet it was not very difficult to perceive that the examples which they witnessed did in fact prove nothing at all. For in the first place, if demo-

3. The literature of Europe sufficiently corroborates this remark. When a European author wishes to depict in a work of imagination any of those great catastrophes in matrimony which so frequently occur among us, he takes care to bespeak the compassion of the reader by bringing before him ill-assorted or compulsory marriages. Although habitual tolerance has long since relaxed our morals, an author could hardly succeed in interesting us in the misfortunes of his characters, if he did not first palliate their faults. This artifice seldom fails: the daily scenes we witness prepare us long beforehand to be indulgent. But American writers could never render these palliations probable to their readers; their customs and laws are opposed to it; and as they despair of rendering levity of conduct pleasing, they cease to depict it. This is one of the causes to which must be attributed the small number of novels published in the United States.

cratic nations leave a woman at liberty to choose her husband, they take care to give her mind sufficient knowledge, and her will sufficient strength, to make so important a choice: whereas the young women who, among aristocratic nations, furtively elope from the authority of their parents to throw themselves of their own accord into the arms of men whom they have had neither time to know, nor ability to judge of, are totally without those securities. It is not surprising that they make a bad use of their freedom of action the first time they avail themselves of it; nor that they fall into such cruel mistakes, when, not having received a democratic education, they choose to marry in conformity to democratic customs. But this is not all. When a man and woman are bent upon marriage in spite of the differences of an aristocratic state of society, the difficulties to be overcome are enormous. Having broken or relaxed the bonds of filial obedience, they have then to emancipate themselves by a final effort from the sway of custom and the tyranny of opinion; and when at length they have succeeded in this arduous task, they stand estranged from their natural friends and kinsmen: the prejudice they have crossed separates them from all and places them in a situation which soon breaks their courage and sours their hearts.

If, then, a couple married in this manner are first unhappy and afterwards criminal, it ought not to be attributed to the freedom of their choice, but rather to their living in a community in which this freedom of choice is not admitted.

Moreover it should not be forgotten that the same effort which makes a man violently shake off a prevailing error commonly impels him beyond the bounds of reason; that, to dare to declare war, in however just a cause, against the opinion of one's age and country, a violent and adventurous spirit is required, and that men of this character seldom arrive at happiness or virtue, whatever be the path they follow. And this, it may be observed by the way, is the reason why in the most necessary and righteous revolutions it is so rare to meet with virtuous or moderate revolutionary characters. There is then no just ground for surprise if a man, who in an age of aristocracy chooses to consult nothing but his own opinion and his own taste in the choice of a wife, soon finds that infractions of morality and domestic wretchedness invade his household; but when this same line of action is in the natural and ordinary course of things, when it is sanctioned by parental authority and backed by public opinion, it cannot be doubted that the internal peace of families will be increased by it, and conjugal fidelity more rigidly observed.

Almost all men in democracies are engaged in public or professional

life; and on the other hand the limited extent of common incomes obliges a wife to confine herself to the house, in order to watch in person and very closely over the details of domestic economy. All these distinct and compulsory occupations are so many natural barriers which, by keeping the two sexes asunder, render the solicitations of the one less frequent and less ardent—the resistance of the other more easy.

Not indeed that the equality of conditions can ever succeed in making men chaste, but it may impart a less dangerous character to their breaches of morality. As no one has then either sufficient time or opportunity to assail a virtue armed in self-defense, there will be at the same time a great number of courtesans and a great number of virtuous women. This state of things causes lamentable cases of individual hardship, but it does not prevent the body of society from being strong and alert: it does not destroy family ties, or enervate the morals of the nation. Society is endangered not by the great profligacy of a few, but by laxity of morals among all. In the eyes of a legislator, prostitution is less to be dreaded than intrigue.

The tumultuous and constantly harassed life which equality makes men lead, not only distracts them from the passion of love, by denying them time to indulge in it, but it diverts them from it by another more secret but more certain road. All men who live in democratic ages more or less contract the ways of thinking of the manufacturing and trading classes; their minds take a serious, deliberate, and positive turn; they are apt to relinquish the ideal, in order to pursue some visible and proximate object, which appears to be the natural and necessary aim of their desires. Thus the principle of equality does not destroy the imagination, but lowers its flight to the level of the earth.

No men are less addicted to reverie than the citizens of a democracy; and few of them are ever known to give way to those idle and solitary meditations which commonly precede and produce the great emotions of the heart. It is true they attach great importance to procuring for themselves that sort of deep, regular, and quiet affection which constitutes the charm and safeguard of life, but they are not apt to run after those violent and capricious sources of excitement which disturb and abridge it.

I am aware that all this is only applicable in its full extent to America, and cannot at present be extended to Europe. In the course of the last half century, while laws and customs have impelled several European nations with unexampled force towards democracy, we have not had occasion to observe that the relations of man and woman have become more orderly or more chaste. In some places the very reverse may be detected:

some classes are more strict—the general morality of the people appears to be more lax. I do not hesitate to make the remark, for I am as little disposed to flatter my contemporaries as to malign them.

This fact must distress, but it ought not to surprise us. The propitious influence which a democratic state of society may exercise upon orderly habits is one of those tendencies which can only de discovered after a time. If the equality of conditions is favorable to purity of morals, the social commotion by which conditions are rendered equal is adverse to it. In the last fifty years, during which France has been undergoing this transformation, that country has rarely had freedom, always disturbance. Amidst this universal confusion of notions and this general stir of opinions—amidst this incoherent mixture of the just and the unjust, of truth and falsehood, of right and might—public virtue has become doubtful, and private morality wavering. But all revolutions, whatever may have been their object or their agents, have at first produced similar consequences; even those which have in the end drawn the bonds of morality more tightly began by loosening them. The violations of morality which the French frequently witness do not appear to me to have a permanent character; and this is already betokened by some curious signs of the times.

Nothing is more wretchedly corrupt than an aristocracy which retains its wealth when it has lost its power, and which still enjoys a vast deal of leisure after it is reduced to mere vulgar pastimes. The energetic passions and great conceptions which animated it heretofore leave it then; and nothing remains to it but a host of petty consuming vices, which cling about it like worms upon a carcass.

No one denies that the French aristocracy of the last century was extremely dissolute; whereas established habits and ancient belief still preserved some respect for morality among the other classes of society. Nor will it be contested that at the present day the remnants of that same aristocracy exhibit a certain severity of morals; while laxity of morals appears to have spread among the middle and lower ranks. So that the same families which were most profligate fifty years ago are nowadays the most exemplary, and democracy seems only to have strengthened the morality of the aristocratic classes. The French Revolution, by dividing the fortunes of the nobility, by forcing them to attend assiduously to their affairs and to their families, by making them live under the same roof with their children, and in short by giving a more rational and serious turn to their minds, has imparted to them, almost without their being aware of it, a reverence for religious belief, a love of order, of tranquil

pleasures, of domestic endearments, and of comfort; whereas the rest of the nation, which had naturally these same tastes, was carried away into excesses by the effort which was required to overthrow the laws and political habits of the country.

The old French aristocracy has undergone the consequences of the Revolution, but it neither felt the revolutionary passions, nor shared in the anarchical excitement which produces that crisis; it may easily be conceived that this aristocracy feels the salutary influence of the revolution in its manners before those who achieve it. It may therefore be said, though at first it seems paradoxical, that, at the present day, the most antidemocratic classes of the nation principally exhibit the kind of morality which may reasonably be anticipated from democracy. I cannot but think that when we shall have obtained all the effects of this democratic revolution, after having got rid of the tumult it has caused, the observations which are now only applicable to the few will gradually become true of the whole community.

How the Americans Understand the Equality of the Sexes

I have shown how democracy destroys or modifies the different inequalities which originate in society: but is this all? or does it not ultimately affect that great inequality of man and woman which has seemed, up to the present day, to be eternally based in human nature? I believe that the social changes which bring nearer to the same level the father and son, the master and servant, and superiors and inferiors generally speaking, will raise woman and make her more and more the equal of man. But here, more than ever, I feel the necessity of making myself clearly understood; for there is no subject on which the coarse and lawless fancies of our age have taken a freer range.

There are people in Europe who, confounding together the different characteristics of the sexes, would make of man and woman beings not only equal but alike. They would give to both the same functions, impose on both the same duties, and grant to both the same rights; they would mix them in all things—their occupations, their pleasures, their business. It may readily be conceived that by thus attempting to make one sex equal to the other both are degraded; and from so preposterous a medley of the works of nature, nothing could ever result but weak men and disorderly women.

It is not thus that the Americans understand that species of democratic

equality which may be established between the sexes. They admit that as nature has appointed such wide differences between the physical and moral constitution of man and woman, her manifest design was to give a distinct employment to their various faculties; and they hold that improvement does not consist in making beings so dissimilar do pretty nearly the same things, but in getting each of them to fulfill their respective tasks in the best possible manner. The Americans have applied to the sexes the great principle of political economy which governs the manufactures of our age, by carefully dividing the duties of man from those of woman, in order that the great work of society may be the better carried on.

In no country has such constant care been taken as in America to trace two clearly distinct lines of action for the two sexes, and to make them keep pace one with the other, but in two pathways which are always different. American women never manage the outward concerns of the family, or conduct a business, or take a part in political life; nor are they, on the other hand, ever compelled to perform the rough labor of the fields, or to make any of those laborious exertions which demand the exertion of physical strength. No families are so poor as to form an exception to this rule. If on the one hand an American woman cannot escape from the quiet circle of domestic employments, on the other hand she is never forced to go beyond it. Hence it is that the women of America, who often exhibit a masculine strength of understanding and a manly energy, generally preserve great delicacy of personal appearance and always retain the manners of women, although they sometimes show that they have the hearts and minds of men.

Nor have the Americans ever supposed that one consequence of democratic principles is the subversion of marital power, or the confusion of the natural authorities in families. They hold that every association must have a head in order to accomplish its object, and that the natural head of the conjugal association is man. They do not therefore deny him the right of directing his partner; and they maintain that in the smaller association of husband and wife, as well as in the great social community, the object of democracy is to regulate and legalize the powers which are necessary, not to subvert all power.

This opinion is not peculiar to one sex, and contested by the other: I never observed that the women of America consider conjugal authority as a fortunate usurpation of their rights, nor that they thought themselves degraded by submitting to it. It appeared to me, on the contrary, that they attach a sort of pride to the voluntary surrender of their own will,

and make it their boast to bend themselves to the yoke, not to shake it off. Such at least is the feeling expressed by the most virtuous of their sex; the others are silent; and in the United States it is not the practice for a guilty wife to clamor for the rights of women while she is trampling on her holiest duties.

It has often been remarked that in Europe a certain degree of contempt lurks even in the flattery which men lavish upon women: although a European frequently affects to be the slave of woman, it may be seen that he never sincerely thinks her his equal. In the United States men seldom compliment women, but they daily show how much they esteem them. They constantly display an entire confidence in the understanding of a wife, and a profound respect for her freedom; they have decided that her mind is just as fitted as that of a man to discover the plain truth, and her heart as firm to embrace it; and they have never sought to place her virtue, any more than his, under the shelter of prejudice, ignorance, and fear.

It would seem that in Europe, where man so easily submits to the despotic sway of women, they are nevertheless curtailed of some of the greatest qualities of the human species, and considered as seductive but imperfect beings; and (what may well provoke astonishment) women ultimately look upon themselves in the same light, and almost consider it as a privilege that they are entitled to show themselves futile, feeble, and timid. The women of America claim no such privileges.

Again it may be said that in our morals we have reserved strange immunities to man; so that there is, as it were, one virtue for his use, and another for the guidance of his partner; and that, according to the opinion of the public, the very same act may be punished alternately as a crime, or only as a fault. The Americans know not this iniquitous division of duties and rights; among them the seducer is as much dishonored as his victim.

It is true that the Americans rarely lavish upon women those eager attentions which are commonly paid them in Europe; but their conduct to women always implies that they suppose them to be virtuous and refined; and such is the respect entertained for the moral freedom of the sex, that in the presence of a woman the most guarded language is used, lest her ear should be offended by an expression. In America a young unmarried woman may, alone and without fear, undertake a long journey.

The legislators of the United States, who have mitigated almost all the penalties of criminal law, still make rape a capital offense, and no crime is visited with more inexorable severity by public opinion. This may be

accounted for; as the Americans can conceive nothing more precious than a woman's honor, and nothing which ought so much to be respected as her independence, they hold that no punishment is too severe for the man who deprives her of them against her will. In France, where the same offense is visited with far milder penalties, it is frequently difficult to get a verdict from a jury against the prisoner. Is this a consequence of contempt of decency or contempt of women? I cannot but believe that it is a contempt of one and of the other.

Thus the Americans do not think that man and woman have either the duty or the right to perform the same offices, but they show an equal regard for both their respective parts; and though their lot is different, they consider both of them as beings of equal value. They do not give to the courage of woman the same form or the same direction as to that of man; but they never doubt her courage: and if they hold that man and his partner ought not always to exercise their intellect and understanding in the same manner, they at least believe the understanding of the one to be as sound as that of the other, and her intellect to be as clear. Thus, then, while they have allowed the social inferiority of woman to subsist, they have done all they could to raise her morally and intellectually to the level of man; and in this respect they appear to me to have excellently understood the true principle of democratic improvement.

As for myself, I do not hesitate to avow that, although the women of the United States are confined within the narrow circle of domestic life, and their situation is in some respects one of extreme dependence, I have nowhere seen woman occupying a loftier position; and if I were asked, now that I am drawing to the close of this work, in which I have spoken of so many important things done by the Americans, to what the singular prosperity and growing strength of that people ought mainly to be attributed, I should reply—to the superiority of their women.

The foregoing consists of Book II, Chapters I–V,
and Book III, Chapters VIII–XII,
of Volume II of de Tocqueville's DEMOCRACY IN AMERICA,
translated by Henry Reeve.

Henry David Thoreau

1817–1862

Henry David Thoreau, the famous poet-naturalist and philosopher, is remembered as much for his life as for his writings. He is the outstanding American example of the individual who is determined to live according to his own lights, no matter how unconventional his life may be. He has become a symbol of rebellion and nonconformity.

Thoreau was born in Concord, Massachusetts, on July 12, 1817. As a boy he spent much of his time roaming the outdoors, but there was little else in his early life to suggest his later eccentricity. His career at Harvard College (1833–1837) was an unexceptional one. It was while at Harvard that he first came under the spell of Ralph Waldo Emerson. He was deeply stirred by a reading of Emerson's *Nature,*[1] and for many years Emerson was to be the most important intellectual influence in his life.

After graduating from college, Thoreau taught school briefly. Then, with his brother, John, he made a boat trip that became the subject of one of his major works, *A Week on the Concord and Merrimack Rivers.* From 1841 to 1843 he lived with the Emerson family, working as a handy man. It was shortly after leaving the Emerson household that he decided to move to Walden Pond, at that time part of the uninhabited wilds of Massachusetts.

Thoreau had several reasons for moving to Walden Pond, but probably of greatest importance was his desire to live as simply as possible. He was convinced that most of the trappings of civilization were unnecessary for human happiness. He thought it was a great mistake for men to spend so much of their time working to obtain

[1] See Vol. 10, pp. 512–524, in this set.

things they did not really need. The result was, he said, that "the mass of men lead lives of quiet desperation." He wanted to prove–to himself and to others–that life could be simpler and more joyful.

Thoreau lived at Walden Pond for two years, renouncing everything he considered inessential. ("Few lives contain so many renunciations," said Emerson.) His shelter was a cabin measuring ten feet by fifteen feet that he had built with his own hands. His diet consisted mainly of rice, bread made from rye and Indian meal, potatoes, and wild fruit. Occasionally he ate fish or some salt pork. During the first eight months of his stay, his expenses (including the cost of his cabin) amounted to sixty-two dollars. His account of his experiences at Walden Pond, entitled *Walden,* is one of the classics of American literature.

After the Walden experiment, Thoreau engaged in a variety of activities. He worked as a surveyor, gave lectures, made excursions to Cape Cod and the Maine woods, and wrote essays for periodicals. He also became involved in the abolitionist movement and, during the last years of his life, was greatly distressed by the failure of the United States government to do anything about freeing the slaves. He died early in May, 1862, of tuberculosis.

When obedience to the laws of the state requires an individual to act against his conscience, which should he obey–the law or his conscience? One traditional answer to this question is that given by Socrates in the *Crito.* Socrates says that the individual "must do what his city and country order him; or he must change their view of what is just."[2] In other words, the individual has the right to persuade the state to *change* the law, but so long as the law remains unchanged, he must obey it.

In *Civil Disobedience,* Thoreau gives the opposite answer. For

[2] See Great Books of the Western World.

Notes from the artist: "Head study of Thoreau. At right are a bird on a bough of a tree, suggesting Walden, and also a quotation from that most famous of Thoreau s works. At left is the figure of Mohandas Gandhi, who acknowledged Thoreau's influence upon his own thought and philosophy."

Simplify,
Simplify
Henry D. Thoreau

him, loyalty of conscience takes precedence over loyalty to the state. If a man's conscience tells him that a law is unjust, he must oppose the law. But it is not enough merely to express disapproval, or to promise to vote against the law at the next election. The individual should take action to hinder the law's enforcement. He should refuse to do what the law orders, even if it means imprisonment. Thoreau was convinced that a dedicated minority—even a minority of one—could exert great political influence. "A minority is powerless when it conforms to the majority," he said, "but it is irresistible when it clogs by its whole weight."

Civil Disobedience is the most widely read and influential of Thoreau's political essays. Mohandas Gandhi, the great Indian leader, acknowledged his indebtedness to it for many of his ideas concerning nonviolent resistance. It has also played an important role in the attack upon racial segregation in the United States.

A Plea for Captain John Brown is, in many respects, a perfect companion piece to *Civil Disobedience*. Opinions about John Brown vary widely, but for Thoreau he was an extraordinary example of the man of conscience who has devoted his life to the cause of justice—the type of man he had called for in *Civil Disobedience*. Thoreau had been impressed with John Brown ever since their first meeting in 1857, and his *Plea* was inspired by Brown's arrest at Harpers Ferry, Virginia, in 1859.

The Harpers Ferry incident was only one part of John Brown's lifelong fight against slavery. He and his five sons had been active in the struggle to determine whether Kansas would be a free state or a slave state. He had personally ordered the murder of five proslavery settlers in retaliation for the killing of five free-state settlers. He remained in Kansas until 1859, when he began working on a scheme to establish a refuge for fugitive slaves in the mountains of Virginia. The attack upon Harpers Ferry was part of this scheme. The attack failed, and Brown and his associates were captured, convicted of treason, and hanged. In the eyes of the abolitionists (including Thoreau) Brown was a martyr; southerners thought him a madman and a scoundrel. The full truth about John Brown will probably never be known, but Thoreau's *Plea* is a moving testament to the force of his personality.

Civil Disobedience

I heartily accept the motto, "That government is best which governs least"; and I should like to see it acted up to more rapidly and systematically. Carried out, it finally amounts to this, which also I believe, "That government is best which governs not at all"; and when men are prepared for it, that will be the kind of government which they will have. Government is at best but an expedient; but most governments are usually, and all governments are sometimes, inexpedient. The objections which have been brought against a standing army, and they are many and weighty, and deserve to prevail, may also at last be brought against a standing government. The standing army is only an arm of the standing government. The government itself, which is only the mode which the people have chosen to execute their will, is equally liable to be abused and perverted before the people can act through it. Witness the present Mexican War, the work of comparatively a few individuals using the standing government as their tool; for, in the outset, the people would not have consented to this measure.

This American government–what is it but a tradition, though a recent one, endeavoring to transmit itself unimpaired to posterity, but each instant losing some of its integrity? It has not the vitality and force of a single living man; for a single man can bend it to his will. It is a sort of wooden gun to the people themselves. But it is not the less necessary for this; for the people must have some complicated machinery or other, and hear its din, to satisfy that idea of government which they have. Governments show thus how successfully men can be imposed on, even impose on themselves, for their own advantage. It is excellent, we must all allow. Yet this government never of itself furthered any enterprise, but by the alacrity with which it got out of its way. *It* does not keep the country free. *It* does not settle the West. *It* does not educate. The character inherent in the American people has done all that has been accomplished; and it would have done somewhat more, if the government had not

sometimes got in its way. For government is an expedient by which men would fain succeed in letting one another alone; and, as has been said, when it is most expedient, the governed are most let alone by it. Trade and commerce, if they were not made of India rubber, would never manage to bounce over the obstacles which legislators are continually putting in their way; and, if one were to judge these men wholly by the effects of their actions and not partly by their intentions, they would deserve to be classed and punished with those mischievous persons who put obstructions on the railroads.

But, to speak practically and as a citizen, unlike those who call themselves no-government men, I ask for, not at once no government, but *at once* a better government. Let every man make known what kind of government would command his respect, and that will be one step toward obtaining it.

After all, the practical reason why, when the power is once in the hands of the people, a majority are permitted, and for a long period continue, to rule is not because they are most likely to be in the right, nor because this seems fairest to the minority, but because they are physically the strongest. But a government in which the majority rule in all cases cannot be based on justice, even as far as men understand it. Can there not be a government in which majorities do not virtually decide right and wrong, but conscience?–in which majorities decide only those questions to which the rule of expediency is applicable? Must the citizen ever for a moment, or in the least degree, resign his conscience to the legislator? Why has every man a conscience, then? I think that we should be men first, and subjects afterward. It is not desirable to cultivate a respect for the law, so much as for the right. The only obligation which I have a right to assume is to do at any time what I think right. It is truly enough said, that a corporation has no conscience; but a corporation of conscientious men is a corporation *with* a conscience. Law never made men a whit more just; and, by means of their respect for it, even the well-disposed are daily made the agents of injustice. A common and natural result of an undue respect for law is that you may see a file of soldiers, colonel, captain, corporal, privates, powder monkeys, and all, marching in admirable order over hill and dale to the wars, against their wills, ay, against their common sense and consciences, which makes it very steep marching indeed, and produces a palpitation of the heart. They have no doubt that it is a damnable business in which they are concerned; they are all peaceably inclined. Now, what are they? Men at all? or small movable forts and magazines, at the service of some unscrupulous man

in power? Visit the navy yard, and behold a marine, such a man as an American government can make, or such as it can make a man with its black arts—a mere shadow and reminiscence of humanity, a man laid out alive and standing, and already, as one may say, buried under arms with funeral accompaniments, though it may be,

> Not a drum was heard, not a funeral note,
> As his corse to the rampart we hurried;
> Not a soldier discharged his farewell shot
> O'er the grave where our hero we buried.

The mass of men serve the state thus, not as men mainly, but as machines, with their bodies. They are the standing army, and the militia, jailers, constables, *posse comitatus,* etc. In most cases there is no free exercise whatever of the judgment or of the moral sense; but they put themselves on a level with wood and earth and stones; and wooden men can perhaps be manufactured that will serve the purpose as well. Such command no more respect than men of straw or a lump of dirt. They have the same sort of worth only as horses and dogs. Yet such as these even are commonly esteemed good citizens. Others—as most legislators, politicians, lawyers, ministers, and officeholders—serve the state chiefly with their heads; and, as they rarely make any moral distinctions, they are as likely to serve the Devil, without *intending* it, as God. A very few, as heroes, patriots, martyrs, reformers in the great sense, and *men,* serve the state with their consciences also, and so necessarily resist it for the most part; and they are commonly treated as enemies by it. A wise man will only be useful as a man, and will not submit to be "clay," and "stop a hole to keep the wind away," but leave that office to his dust at least:

> I am too highborn to be propertied,
> To be a secondary at control,
> Or useful serving man and instrument
> To any sovereign state throughout the world.

He who gives himself entirely to his fellow men appears to them useless and selfish; but he who gives himself partially to them is pronounced a benefactor and philanthropist.

How does it become a man to behave toward this American government today? I answer that he cannot without disgrace be associated with it. I cannot for an instant recognize that political organization as *my* government which is the *slave's* government also.

All men recognize the right of revolution; that is, the right to refuse allegiance to, and to resist, the government, when its tyranny or its inefficiency are great and unendurable. But almost all say that such is not the case now. But such was the case, they think, in the Revolution of '75. If one were to tell me that this was a bad government because it taxed certain foreign commodities brought to its ports, it is most probable that I should not make an ado about it, for I can do without them. All machines have their friction; and possibly this does enough good to counter-balance the evil. At any rate, it is a great evil to make a stir about it. But when the friction comes to have its machine, and oppression and robbery are organized, I say, let us not have such a machine any longer. In other words, when a sixth of the population of a nation which has undertaken to be the refuge of liberty are slaves, and a whole country is unjustly overrun and conquered by a foreign army, and subjected to military law, I think that it is not too soon for honest men to rebel and revolutionize. What makes this duty the more urgent is the fact that the country so overrun is not our own, but ours is the invading army.

Paley, a common authority with many on moral questions, in his chapter on the "Duty of Submission to Civil Government," resolves all civil obligation into expediency; and he proceeds to say, "that so long as the interest of the whole society requires it, that is, so long as the established government cannot be resisted or changed without public inconveniency, it is the will of God that the established government be obeyed, and no longer. . . . This principle being admitted, the justice of every particular case of resistance is reduced to a computation of the quantity of the danger and grievance on the one side, and of the probability and expense of redressing it on the other." Of this, he says, every man shall judge for himself. But Paley appears never to have contemplated those cases to which the rule of expediency does not apply, in which a people, as well as an individual, must do justice, cost what it may. If I have unjustly wrested a plank from a drowning man, I must restore it to him though I drown myself. This, according to Paley, would be inconvenient. But he that would save his life, in such a case, shall lose it. This people must cease to hold slaves, and to make war on Mexico, though it cost them their existence as a people.

In their practice, nations agree with Paley; but does any one think that Massachusetts does exactly what is right at the present crisis?

> A drab of state, a cloth-o'-silver slut,
> To have her train borne up, and her soul trail in the dirt.

Practically speaking, the opponents to a reform in Massachusetts are not a hundred thousand politicians at the South, but a hundred thousand merchants and farmers here, who are more interested in commerce and agriculture than they are in humanity, and are not prepared to do justice to the slave and to Mexico, *cost what it may*. I quarrel not with far-off foes, but with those who, near at home, co-operate with, and do the bidding of, those far away, and without whom the latter would be harmless. We are accustomed to say that the mass of men are unprepared; but improvement is slow, because the few are not materially wiser or better than the many. It is not so important that many should be as good as you, as that there be some absolute goodness somewhere; for that will leaven the whole lump. There are thousands who are *in opinion* opposed to slavery and to the war, who yet in effect do nothing to put an end to them; who, esteeming themselves children of Washington and Franklin, sit down with their hands in their pockets, and say that they know not what to do, and do nothing; who even postpone the question of freedom to the question of free trade, and quietly read the prices current along with the latest advices from Mexico after dinner, and, it may be, fall asleep over them both. What is the price current of an honest man and patriot today? They hesitate, and they regret, and sometimes they petition; but they do nothing in earnest and with effect. They will wait, well disposed, for others to remedy the evil, that they may no longer have it to regret. At most, they give only a cheap vote, and a feeble countenance and Godspeed, to the right, as it goes by them. There are nine hundred and ninety-nine patrons of virtue to one virtuous man. But it is easier to deal with the real possessor of a thing than with the temporary guardian of it.

All voting is a sort of gaming, like checkers or backgammon, with a slight moral tinge to it, a playing with right and wrong, with moral questions; and betting naturally accompanies it. The character of the voters is not staked. I cast my vote, perchance, as I think right; but I am not vitally concerned that that right should prevail. I am willing to leave it to the majority. Its obligation, therefore, never exceeds that of expediency. Even voting *for the right* is *doing* nothing for it. It is only expressing to men feebly your desire that it should prevail. A wise man will not leave the right to the mercy of chance, nor wish it to prevail through the power of the majority. There is but little virtue in the action of masses of men. When the majority shall at length vote for the abolition of slavery, it will be because they are indifferent to slavery, or because there is but little slavery left to be abolished by their vote. *They* will then be the only

slaves. Only *his* vote can hasten the abolition of slavery who asserts his own freedom by his vote.

I hear of a convention to be held at Baltimore, or elsewhere, for the selection of a candidate for the Presidency, made up chiefly of editors, and men who are politicians by profession; but I think, what is it to any independent, intelligent, and respectable man what decision they may come to? Shall we not have the advantage of his wisdom and honesty, nevertheless? Can we not count upon some independent votes? Are there not many individuals in the country who do not attend conventions? But no: I find that the respectable man, so called, has immediately drifted from his position, and despairs of his country, when his country has more reason to despair of him. He forthwith adopts one of the candidates thus selected as the only *available* one, thus proving that he is himself *available* for any purposes of the demagogue. His vote is of no more worth than that of any unprincipled foreigner or hireling native, who may have been bought. O for a man who is a *man,* and, as my neighbor says, has a bone in his back which you cannot pass your hand through! Our statistics are at fault: the population has been returned too large. How many *men* are there to a square thousand miles in this country? Hardly one. Does not America offer any inducement for men to settle here? The American has dwindled into an Odd Fellow, one who may be known by the development of his organ of gregariousness, and a manifest lack of intellect and cheerful self-reliance; whose first and chief concern, on coming into the world, is to see that the almshouses are in good repair; and, before yet he has lawfully donned the virile garb, to collect a fund for the support of the widows and orphans that may be; who, in short, ventures to live only by the aid of the mutual insurance company, which has promised to bury him decently.

It is not a man's duty, as a matter of course, to devote himself to the eradication of any, even the most enormous wrong; he may still properly have other concerns to engage him; but it is his duty, at least, to wash his hands of it, and, if he gives it no thought longer, not to give it practically his support. If I devote myself to other pursuits and contemplations, I must first see, at least, that I do not pursue them sitting upon another man's shoulders. I must get off him first, that he may pursue his contemplations too. See what gross inconsistency is tolerated. I have heard some of my townsmen say, "I should like to have them order me out to help put down an insurrection of the slaves, or to march to Mexico—see if I would go"; and yet these very men have each, directly by their allegiance, and so indirectly, at least, by their money, furnished a substi-

tute. The soldier is applauded who refuses to serve in an unjust war by those who do not refuse to sustain the unjust government which makes the war; is applauded by those whose own act and authority he disregards and sets at naught; as if the state were penitent to that degree that it hired one to scourge it while it sinned, but not to that degree that it left off sinning for a moment. Thus, under the name of Order and Civil Government, we are all made at last to pay homage to and support our own meanness. After the first blush of sin comes its indifference; and from immoral it becomes, as it were, *un*moral, and not quite unnecessary to that life which we have made.

The broadest and most prevalent error requires the most disinterested virtue to sustain it. The slight reproach to which the virtue of patriotism is commonly liable, the noble are most likely to incur. Those who, while they disapprove of the character and measures of a government, yield to it their allegiance and support are undoubtedly its most conscientious supporters, and so frequently the most serious obstacles to reform. Some are petitioning the state to dissolve the Union, to disregard the requisitions of the President. Why do they not dissolve it themselves—the union between themselves and the state—and refuse to pay their quota into its treasury? Do not they stand in the same relation to the state that the state does to the Union? And have not the same reasons prevented the state from resisting the Union which have prevented them from resisting the state?

How can a man be satisfied to entertain an opinion merely, and enjoy *it?* Is there any enjoyment in it, if his opinion is that he is aggrieved? If you are cheated out of a single dollar by your neighbor, you do not rest satisfied with knowing that you are cheated, or with saying that you are cheated, or even with petitioning him to pay you your due; but you take effectual steps at once to obtain the full amount, and see that you are never cheated again. Action from principle, the perception and the performance of right, changes things and relations; it is essentially revolutionary, and does not consist wholly with anything which was. It not only divides states and churches, it divides families; ay, it divides the *individual,* separating the diabolical in him from the divine.

Unjust laws exist: shall we be content to obey them, or shall we endeavor to amend them, and obey them until we have succeeded, or shall we transgress them at once? Men generally, under such a government as this, think that they ought to wait until they have persuaded the majority to alter them. They think that, if they should resist, the remedy would be worse than the evil. But it is the fault of the government itself that the

remedy *is* worse than the evil. *It* makes it worse. Why is it not more apt to anticipate and provide for reform? Why does it not cherish its wise minority? Why does it cry and resist before it is hurt? Why does it not encourage its citizens to be on the alert to point out its faults, and *do* better than it would have them? Why does it always crucify Christ, and excommunicate Copernicus and Luther, and pronounce Washington and Franklin rebels?

One would think that a deliberate and practical denial of its authority was the only offense never contemplated by government; else why has it not assigned its definite, its suitable and proportionate penalty? If a man who has no property refuses but once to earn nine shillings for the state, he is put in prison for a period unlimited by any law that I know, and determined only by the discretion of those who placed him there; but if he should steal ninety times nine shillings from the state, he is soon permitted to go at large again.

If the injustice is part of the necessary friction of the machine of government, let it go, let it go: perchance it will wear smooth—certainly the machine will wear out. If the injustice has a spring, or a pulley, or a rope, or a crank, exclusively for itself, then perhaps you may consider whether the remedy will not be worse than the evil; but if it is of such a nature that it requires you to be the agent of injustice to another, then, I say, break the law. Let your life be a counterfriction to stop the machine. What I have to do is to see, at any rate, that I do not lend myself to the wrong which I condemn.

As for adopting the ways which the state has provided for remedying the evil, I know not of such ways. They take too much time, and a man's life will be gone. I have other affairs to attend to. I came into this world, not chiefly to make this a good place to live in, but to live in it, be it good or bad. A man has not everything to do, but something; and because he cannot do *everything,* it is not necessary that he should do *something* wrong. It is not my business to be petitioning the governor or the legislature any more than it is theirs to petition me; and if they should not hear my petition, what should I do then? But in this case the state has provided no way: its very Constitution is the evil. This may seem to be harsh and stubborn and unconciliatory; but it is to treat with the utmost kindness and consideration the only spirit that can appreciate or deserves it. So is all change for the better, like birth and death, which convulse the body.

I do not hesitate to say that those who call themselves Abolitionists should at once effectually withdraw their support, both in person and

property, from the government of Massachusetts and not wait till they constitute a majority of one before they suffer the right to prevail through them. I think that it is enough if they have God on their side, without waiting for that other one. Moreover, any man more right than his neighbors constitutes a majority of one already.

I meet this American government, or its representative, the state government, directly, and face to face, once a year—no more—in the person of its taxgatherer; this is the only mode in which a man situated as I am necessarily meets it; and it then says distinctly, Recognize me; and the simplest, most effectual and, in the present posture of affairs, the indispensablest mode of treating with it on this head, of expressing your little satisfaction with and love for it, is to deny it then. My civil neighbor, the taxgatherer, is the very man I have to deal with—for it is, after all, with men and not with parchment that I quarrel—and he has voluntarily chosen to be an agent of the government. How shall he ever know well what he is and does as an officer of the government, or as a man, until he is obliged to consider whether he shall treat me, his neighbor, for whom he has respect, as a neighbor and well-disposed man, or as a maniac and disturber of the peace, and see if he can get over this obstruction to his neighborliness without a ruder and more impetuous thought or speech corresponding with his action. I know this well, that if one thousand, if one hundred, if ten men whom I could name—if ten *honest* men only—ay, if *one* HONEST man, in this state of Massachusetts, *ceasing to hold slaves,* were actually to withdraw from this copartnership, and be locked up in the county jail therefor, it would be the abolition of slavery in America. For it matters not how small the beginning may seem to be: what is once well done is done forever. But we love better to talk about it: that we say is our mission. Reform keeps many scores of newspapers in its service, but not one man. If my esteemed neighbor, the state's ambassador, who will devote his days to the settlement of the question of human rights in the council chamber, instead of being threatened with the prisons of Carolina, were to sit down the prisoner of Massachusetts, that state which is so anxious to foist the sin of slavery upon her sister—though at present she can discover only an act of inhospitality to be the ground of a quarrel with her—the legislature would not wholly waive the subject the following winter.

Under a government which imprisons any unjustly, the true place for a just man is also a prison. The proper place today, the only place which Massachusetts has provided for her freer and less desponding spirits, is in her prisons, to be put out and locked out of the state by her own act,

as they have already put themselves out by their principles. It is there that the fugitive slave, and the Mexican prisoner on parole, and the Indian come to plead the wrongs of his race should find them; on that separate but more free and honorable ground, where the state places those who are not *with* her but *against* her, the only house in a slave state in which a free man can abide with honor. If any think that their influence would be lost there, and their voices no longer afflict the ear of the state, that they would not be as an enemy within its walls, they do not know by how much truth is stronger than error, nor how much more eloquently and effectively he can combat injustice who has experienced a little in his own person. Cast your whole vote, not a strip of paper merely, but your whole influence. A minority is powerless while it conforms to the majority; it is not even a minority then; but it is irresistible when it clogs by its whole weight. If the alternative is to keep all just men in prison, or give up war and slavery, the state will not hesitate which to choose. If a thousand men were not to pay their tax bills this year, that would not be a violent and bloody measure, as it would be to pay them, and enable the state to commit violence and shed innocent blood. This is, in fact, the definition of a peaceable revolution, if any such is possible. If the taxgatherer, or any other public officer, asks me, as one has done, "But what shall I do?" my answer is, "If you really wish to do anything, resign your office." When the subject has refused allegiance, and the officer has resigned his office, then the revolution is accomplished. But even suppose blood should flow. Is there not a sort of blood shed when the conscience is wounded? Through this wound a man's real manhood and immortality flow out, and he bleeds to an everlasting death. I see this blood flowing now.

I have contemplated the imprisonment of the offender, rather than the seizure of his goods—though both will serve the same purpose—because they who assert the purest right, and consequently are most dangerous to a corrupt state, commonly have not spent much time in accumulating property. To such the state renders comparatively small service, and a slight tax is wont to appear exorbitant, particularly if they are obliged to earn it by special labor with their hands. If there were one who lived wholly without the use of money, the state itself would hesitate to demand it of him. But the rich man—not to make any invidious comparison—is always sold to the institution which makes him rich. Absolutely speaking, the more money, the less virtue; for money comes between a man and his objects, and obtains them for him; and it was certainly no great virtue to obtain it. It puts to rest many questions which

he would otherwise be taxed to answer; while the only new question which it puts is the hard but superfluous one, how to spend it. Thus his moral ground is taken from under his feet. The opportunities of living are diminished in proportion as what are called the "means" are increased. The best thing a man can do for his culture when he is rich is to endeavor to carry out those schemes which he entertained when he was poor. Christ answered the Herodians according to their condition. "Show me the tribute money," said he–and one took a penny out of his pocket; if you use money which has the image of Caesar on it and which he has made current and valuable, that is, *if you are men of the state,* and gladly enjoy the advantages of Caesar's government, then pay him back some of his own when he demands it. "Render therefore to Caesar that which is Caesar's, and to God those things which are God's," leaving them no wiser than before as to which was which; for they did not wish to know.

When I converse with the freest of my neighbors, I perceive that, whatever they may say about the magnitude and seriousness of the question, and their regard for the public tranquillity, the long and the short of the matter is that they cannot spare the protection of the existing government, and they dread the consequences to their property and families of disobedience to it. For my own part, I should not like to think that I ever rely on the protection of the state. But, if I deny the authority of the state when it presents its tax bill, it will soon take and waste all my property, and so harass me and my children without end. This is hard. This makes it impossible for a man to live honestly, and at the same time comfortably, in outward respects. It will not be worth the while to accumulate property; that would be sure to go again. You must hire or squat somewhere, and raise but a small crop, and eat that soon. You must live within yourself, and depend upon yourself always tucked up and ready for a start, and not have many affairs. A man may grow rich in Turkey even, if he will be in all respects a good subject of the Turkish government. Confucius said: "If a state is governed by the principles of reason, poverty and misery are subjects of shame; if a state is not governed by the principles of reason, riches and honors are the subjects of shame." No: until I want the protection of Massachusetts to be extended to me in some distant southern port, where my liberty is endangered, or until I am bent solely on building up an estate at home by peaceful enterprise, I can afford to refuse allegiance to Massachusetts, and her right to my property and life. It costs me less in every sense to incur the penalty of disobedience to the state than it would to obey. I should feel as if I were worth less in that case.

Some years ago, the state met me in behalf of the church, and commanded me to pay a certain sum toward the support of a clergyman whose preaching my father attended, but never I myself. "Pay," it said, "or be locked up in the jail." I declined to pay, But, unfortunately, another man saw fit to pay it. I did not see why the schoolmaster should be taxed to support the priest, and not the priest the schoolmaster; for I was not the state's schoolmaster, but I supported myself by voluntary subscription. I did not see why the lyceum should not present its tax bill, and have the state to back its demand, as well as the church. However, at the request of the selectmen, I condescended to make some such statement as this in writing: "Know all men by these presents, that I, Henry Thoreau, do not wish to be regarded as a member of any incorporated society which I have not joined." This I gave to the town clerk; and he has it. The state, having thus learned that I did not wish to be regarded as a member of that church, has never made a like demand on me since; though it said that it must adhere to its original presumption that time. If I had known how to name them, I should then have signed off in detail from all the societies which I never signed on to; but I did not know where to find a complete list.

I have paid no poll tax for six years. I was put into a jail once on this account, for one night; and, as I stood considering the walls of solid stone, two or three feet thick, the door of wood and iron, a foot thick, and the iron grating which strained the light, I could not help being struck with the foolishness of that institution which treated me as if I were mere flesh and blood and bones, to be locked up. I wondered that it should have concluded at length that this was the best use it could put me to, and had never thought to avail itself of my services in some way. I saw that, if there was a wall of stone between me and my townsmen, there was a still more difficult one to climb or break through before they could get to be as free as I was. I did not for a moment feel confined, and the walls seemed a great waste of stone and mortar. I felt as if I alone of all my townsmen had paid my tax. They plainly did not know how to treat me, but behaved like persons who are underbred. In every threat and in every compliment there was a blunder; for they thought that my chief desire was to stand the other side of that stone wall. I could not but smile to see how industriously they locked the door on my meditations, which followed them out again without let or hindrance, and *they* were really all that was dangerous. As they could not reach me, they had resolved to punish my body; just as boys, if they cannot come at some

person against whom they have a spite, will abuse his dog. I saw that the state was half-witted, that it was timid as a lone woman with her silver spoons, and that it did not know its friends from its foes, and I lost all my remaining respect for it, and pitied it.

Thus the state never intentionally confronts a man's sense, intellectual or moral, but only his body, his senses. It is not armed with superior wit or honesty, but with superior physical strength. I was not born to be forced. I will breathe after my own fashion. Let us see who is the strongest. What force has a multitude? They only can force me who obey a higher law than I. They force me to become like themselves. I do not hear of *men* being *forced* to live this way or that by masses of men. What sort of life were that to live? When I meet a government which says to me, "Your money or your life," why should I be in haste to give it my money? It may be in a great strait, and not know what to do: I cannot help that. It must help itself; do as I do. It is not worth the while to snivel about it. I am not responsible for the successful working of the machinery of society. I am not the son of the engineer. I perceive that, when an acorn and a chestnut fall side by side, the one does not remain inert to make way for the other, but both obey their own laws, and spring and grow and flourish as best they can, till one, perchance, overshadows and destroys the other. If a plant cannot live according to its nature, it dies; and so a man.

The night in prison was novel and interesting enough. The prisoners in their shirt sleeves were enjoying a chat and the evening air in the doorway when I entered. But the jailer said, "Come, boys, it is time to lock up"; and so they dispersed, and I heard the sound of their steps returning into the hollow apartments. My roommate was introduced to me by the jailer as "a first-rate fellow and a clever man." When the door was locked, he showed me where to hang my hat, and how he managed matters there. The rooms were whitewashed once a month; and this one, at least, was the whitest, most simply furnished, and probably the neatest apartment in the town. He naturally wanted to know where I came from, and what brought me there; and, when I had told him, I asked him in my turn how he came there, presuming him to be an honest man, of course; and, as the world goes, I believe he was. "Why," said he, "they accuse me of burning a barn; but I never did it." As near as I could discover, he had probably gone to bed in a barn when drunk, and smoked his pipe there; and so a barn was burnt. He had the reputation of being a clever man, had been there some three months waiting for his trial to come on, and

would have to wait as much longer; but he was quite domesticated and contented, since he got his board for nothing, and thought that he was well treated.

He occupied one window, and I the other; and I saw that if one stayed there long, his principal business would be to look out the window. I had soon read all the tracts that were left there, and examined where former prisoners had broken out, and where a grate had been sawed off, and heard the history of the various occupants of that room; for I found that even here there was a history and a gossip which never circulated beyond the walls of the jail. Probably this is the only house in the town where verses are composed which are afterward printed in a circular form, but not published. I was shown quite a long list of verses which were composed by some young men who had been detected in an attempt to escape, who avenged themselves by singing them.

I pumped my fellow prisoner as dry as I could, for fear I should never see him again; but at length he showed me which was my bed, and left me to blow out the lamp.

It was like traveling into a far country, such as I had never expected to behold, to lie there for one night. It seemed to me that I never had heard the town clock strike before, nor the evening sounds of the village; for we slept with the windows open, which were inside the grating. It was to see my native village in the light of the Middle Ages, and our Concord was turned into a Rhine stream, and visions of knights and castles passed before me. They were the voices of old burghers that I heard in the streets. I was an involuntary spectator and auditor of whatever was done and said in the kitchen of the adjacent village inn–a wholly new and rare experience to me. It was a closer view of my native town. I was fairly inside of it. I never had seen its institutions before. This is one of its peculiar institutions; for it is a shire town. I began to comprehend what its inhabitants were about.

In the morning, our breakfasts were put through the hole in the door, in small oblong-square tin pans made to fit, and holding a pint of chocolate with brown bread, and an iron spoon. When they called for the vessels again, I was green enough to return what bread I had left; but my comrade seized it, and said that I should lay that up for lunch or dinner. Soon after he was let out to work at haying in a neighboring field, whither he went every day, and would not be back till noon; so he bade me good day, saying that he doubted if he should see me again.

When I came out of prison–for someone interfered, and paid that tax–I did not perceive that great changes had taken place on the common,

such as he observed who went in a youth and emerged a tottering and gray-headed man; and yet a change had to my eyes come over the scene—the town, and state, and country—greater than any that mere time could effect. I saw yet more distinctly the state in which I lived. I saw to what extent the people among whom I lived could be trusted as good neighbors and friends; that their friendship was for summer weather only; that they did not greatly propose to do right; that they were a distinct race from me by their prejudices and superstitions, as the Chinamen and Malays are; that in their sacrifices to humanity they ran no risks, not even to their property; that after all they were not so noble but they treated the thief as he had treated them, and hoped, by a certain outward observance and a few prayers, and by walking in a particular straight though useless path from time to time, to save their souls. This may be to judge my neighbors harshly; for I believe that many of them are not aware that they have such an institution as the jail in their village.

It was formerly the custom in our village when a poor debtor came out of jail for his acquaintances to salute him, looking through their fingers, which were crossed to represent the grating of a jail window, "How do ye do?" My neighbors did not thus salute me, but first looked at me, and then at one another, as if I had returned from a long journey. I was put into jail as I was going to the shoemaker's to get a shoe which was mended. When I was let out the next morning, I proceeded to finish my errand, and, having put on my mended shoe, joined a huckleberry party, who were impatient to put themselves under my conduct; and in half an hour—for the horse was soon tackled—was in the midst of a huckleberry field, on one of our highest hills, two miles off, and then the state was nowhere to be seen.

This is the whole history of "My Prisons."

I have never declined paying the highway tax, because I am as desirous of being a good neighbor as I am of being a bad subject; and as for supporting schools, I am doing my part to educate my fellow countrymen now. It is for no particular item in the tax bill that I refuse to pay it. I simply wish to refuse allegiance to the state, to withdraw and stand aloof from it effectually. I do not care to trace the course of my dollar, if I could, till it buys a man or a musket to shoot with—the dollar is innocent—but I am concerned to trace the effects of my allegiance. In fact, I quietly declare war with the state, after my fashion, though I will still make what use and get what advantage of her I can, as is usual in such cases.

If others pay the tax which is demanded of me, from a sympathy with the state, they do but what they have already done in their own case, or rather they abet injustice to a greater extent than the state requires. If they pay the tax from a mistaken interest in the individual taxed, to save his property, or prevent his going to jail, it is because they have not considered wisely how far they let their private feelings interfere with the public good.

This, then, is my position at present. But one cannot be too much on his guard in such a case, lest his action be biased by obstinacy or an undue regard for the opinions of men. Let him see that he does only what belongs to himself and to the hour.

I think sometimes, Why, this people mean well, they are only ignorant; they would do better if they knew how: why give your neighbors this pain to treat you as they are not inclined to? But I think again, This is no reason why I should do as they do, or permit others to suffer much greater pain of a different kind. Again, I sometimes say to myself, When many millions of men, without heat, without ill will, without personal feeling of any kind, demand of you a few shillings only, without the possibility, such is their constitution, of retracting or altering their present demand, and without the possibility, on your side, of appeal to any other millions, why expose yourself to this overwhelming brute force? You do not resist cold and hunger, the winds and the waves, thus obstinately; you quietly submit to a thousand similar necessities. You do not put your head into the fire. But just in proportion as I regard this as not wholly a brute force, but partly a human force, and consider that I have relations to those millions as to so many millions of men, and not of mere brute or inanimate things, I see that appeal is possible, first and instantaneously, from them to the Maker of them, and, secondly, from them to themselves. But if I put my head deliberately into the fire, there is no appeal to fire or to the Maker of fire, and I have only myself to blame. If I could convince myself that I have any right to be satisfied with men as they are, and to treat them accordingly, and not according, in some respects, to my requisitions and expectations of what they and I ought to be, then, like a good Mussulman and fatalist, I should endeavor to be satisfied with things as they are, and say it is the will of God. And, above all, there is this difference between resisting this and a purely brute or natural force, that I can resist this with some effect; but I cannot expect, like Orpheus, to change the nature of the rocks and trees and beasts.

I do not wish to quarrel with any man or nation. I do not wish to split hairs, to make fine distinctions, or set myself up as better than my neigh-

bors. I seek rather, I may say, even an excuse for conforming to the laws of the land. I am but too ready to conform to them. Indeed, I have reason to suspect myself on this head; and each year, as the taxgatherer comes round, I find myself disposed to review the acts and position of the general and state governments, and the spirit of the people, to discover a pretext for conformity.

> We must affect our country as our parents,
> And if at any time we alienate
> Our love or industry from doing it honor,
> We must respect effects and teach the soul
> Matter of conscience and religion,
> And not desire of rule or benefit.

I believe that the state will soon be able to take all my work of this sort out of my hands, and then I shall be no better a patriot than my fellow countrymen. Seen from a lower point of view, the Constitution, with all its faults, is very good; the law and the courts are very respectable; even this state and this American government are, in many respects, very admirable, and rare things, to be thankful for, such as a great many have described them; but seen from a point of view a little higher, they are what I have described them; seen from a higher still, and the highest, who shall say what they are, or that they are worth looking at or thinking of at all?

However, the government does not concern me much, and I shall bestow the fewest possible thoughts on it. It is not many moments that I live under a government, even in this world. If a man is thought-free, fancy-free, imagination-free, that which *is not* never for a long time appearing *to be* to him, unwise rulers or reformers cannot fatally interrupt him.

I know that most men think differently from myself; but those whose lives are by profession devoted to the study of these or kindred subjects content me as little as any. Statesmen and legislators, standing so completely within the institution, never distinctly and nakedly behold it. They speak of moving society, but have no resting place without it. They may be men of a certain experience and discrimination, and have no doubt invented ingenious and even useful systems, for which we sincerely thank them; but all their wit and usefulness lie within certain not very wide limits. They are wont to forget that the world is not governed by policy and expediency. Webster never goes behind government, and so cannot speak with authority about it. His words are wisdom to those leg-

islators who contemplate no essential reform in the existing government; but for thinkers, and those who legislate for all time, he never once glances at the subject. I know of those whose serene and wise speculations on this theme would soon reveal the limits of his mind's range and hospitality. Yet, compared with the cheap professions of most reformers, and the still cheaper wisdom and eloquence of politicians in general, his are almost the only sensible and valuable words, and we thank Heaven for him. Comparatively, he is always strong, original, and, above all, practical. Still, his quality is not wisdom, but prudence. The lawyer's truth is not Truth, but consistency or a consistent expediency. Truth is always in harmony with herself, and is not concerned chiefly to reveal the justice that may consist with wrongdoing. He well deserves to be called, as he has been called, the Defender of the Constitution. There are really no. blows to be given by him but defensive ones. He is not a leader, but a follower. His leaders are the men of '87. "I have never made an effort," he says, "and never propose to make an effort; I have never countenanced an effort, and never mean to countenance an effort, to disturb the arrangement as originally made, by which the various States came into the Union." Still thinking of the sanction which the Constitution gives to slavery, he says, "Because it was a part of the original compact, let it stand." Notwithstanding his special acuteness and ability, he is unable to take a fact out of its merely political relations, and behold it as it lies absolutely to be disposed of by the intellect–what, for instance, it behooves a man to do here in America today with regard to slavery–but ventures, or is driven, to make some such desperate answer as the following, while professing to speak absolutely, and as a private man–from which what new and singular code of social duties might be inferred? "The manner," says he, "in which the governments of those States where slavery exists are to regulate it is for their own consideration, under their responsibility to their constituents, to the general laws of propriety, humanity, and justice, and to God. Associations formed elsewhere, springing from a feeling of humanity, or other cause, have nothing whatever to do with it. They have never received any encouragement from me, and they never will."

They who know of no purer sources of truth, who have traced up its stream no higher, stand, and wisely stand, by the Bible and the Constitution, and drink at it there with reverence and humility; but they who behold where it comes trickling into this lake or that pool, gird up their loins once more, and continue their pilgrimage toward its fountainhead.

No man with a genius for legislation has appeared in America. They

are rare in the history of the world. There are orators, politicians, and eloquent men by the thousand; but the speaker has not yet opened his mouth to speak who is capable of settling the much-vexed questions of the day. We love eloquence for its own sake, and not for any truth which it may utter, or any heroism it may inspire. Our legislators have not yet learned the comparative value of free trade and of freedom, of union, and of rectitude to a nation. They have no genius or talent for comparatively humble questions of taxation and finance, commerce and manufactures and agriculture. If we were left solely to the wordy wit of legislators in Congress for our guidance, uncorrected by the seasonable experience and the effectual complaints of the people, America would not long retain her rank among the nations. For eighteen hundred years, though perchance I have no right to say it, the New Testament has been written; yet where is the legislator who has wisdom and practical talent enough to avail himself of the light which it sheds on the science of legislation?

The authority of government, even such as I am willing to submit to—for I will cheerfully obey those who know and can do better than I, and in many things even those who neither know nor can do so well—is still an impure one: to be strictly just, it must have the sanction and consent of the governed. It can have no pure right over my person and property but what I concede to it. The progress from an absolute to a limited monarchy, from a limited monarchy to a democracy, is a progress toward a true respect for the individual. Even the Chinese philosopher was wise enough to regard the individual as the basis of the empire. Is a democracy, such as we know it, the last improvement possible in government? Is it not possible to take a step further toward recognizing and organizing the rights of man? There will never be a really free and enlightened state until the state comes to recognize the individual as a higher and independent power, from which all its own power and authority are derived, and treats him accordingly. I please myself with imagining a state at last which can afford to be just to all men, and to treat the individual with respect as a neighbor; which even would not think it inconsistent with its own repose if a few were to live aloof from it, not meddling with it, nor embraced by it, who fulfilled all the duties of neighbors and fellow men. A state which bore this kind of fruit, and suffered it to drop off as fast as it ripened, would prepare the way for a still more perfect and glorious state, which also I have imagined, but not yet anywhere seen.

A Plea for Captain John Brown

I trust that you will pardon me for being here. I do not wish to force my thoughts upon you, but I feel forced myself. Little as I know of Captain Brown, I would fain do my part to correct the tone and statements of the newspapers, and of my countrymen generally, respecting his character and actions. It costs us nothing to be just. We can at least express our sympathy with, and admiration of, him and his companions, and that is what I now propose to do.

First, as to his history. I will endeavor to omit, as much as possible, what you have already read. I need not describe his person to you, for probably most of you have seen and will not soon forget him. I am told that his grandfather, John Brown, was an officer in the Revolution; that he himself was born in Connecticut about the beginning of this century, but early went with his father to Ohio. I heard him say that his father was a contractor who furnished beef to the army there, in the War of 1812; that he accompanied him to the camp, and assisted him in that employment, seeing a good deal of military life—more, perhaps, than if he had been a soldier; for he was often present at the councils of the officers. Especially, he learned by experience how armies are supplied and maintained in the field—a work which, he observed, requires at least as much experience and skill as to lead them in battle. He said that few persons had any conception of the cost, even the pecuniary cost, of firing a single bullet in war. He saw enough, at any rate, to disgust him with a military life; indeed, to excite in him a great abhorrence of it; so much so, that though he was tempted by the offer of some petty office in the army, when he was about eighteen, he not only declined that, but he also refused to train when warned, and was fined for it. He then resolved that he would never have anything to do with any war, unless it were a war for liberty.

When the troubles in Kansas began, he sent several of his sons thither to strengthen the party of the Free State men, fitting them out with such weapons as he had; telling them that if the troubles should increase, and there should be need of him, he would follow, to assist them with his hand and counsel. This, as you all know, he soon after did; and it was through his agency, far more than any other's, that Kansas was made free.

For a part of his life he was a surveyor, and at one time he was engaged in woolgrowing, and he went to Europe as an agent about that business. There, as everywhere, he had his eyes about him, and made many original observations. He said, for instance, that he saw why the soil of England was so rich, and that of Germany (I think it was) so poor, and he thought of writing to some of the crowned heads about it. It was because in England the peasantry live on the soil which they cultivate, but in Germany they are gathered into villages at night. It is a pity that he did not make a book of his observations.

I should say that he was an old-fashioned man in his respect for the Constitution, and his faith in the permanence of this Union. Slavery he deemed to be wholly opposed to these, and he was its determined foe.

He was by descent and birth a New England farmer, a man of great common sense, deliberate and practical as that class is, and tenfold more so. He was like the best of those who stood at Concord Bridge once, on Lexington Common, and on Bunker Hill, only he was firmer and higher principled than any that I have chanced to hear of as there. It was no abolition lecturer that converted him. Ethan Allen and Stark, with whom he may in some respects be compared, were rangers in a lower and less important field. They could bravely face their country's foes, but he had the courage to face his country herself when she was in the wrong. A western writer says, to account for his escape from so many perils, that he was concealed under a "rural exterior"; as if, in that prairie land, a hero should, by good rights, wear a citizen's dress only.

He did not go to the college called Harvard, good old Alma Mater as she is. He was not fed on the pap that is there furnished. As he phrased it, "I know no more of grammar than one of your calves." But he went to the great university of the West, where he sedulously pursued the study of Liberty, for which he had early betrayed a fondness, and having taken many degrees, he finally commenced the public practice of Humanity in Kansas, as you all know. Such were *his humanities,* and not any study of grammar. He would have left a Greek accent slanting the wrong way, and righted up a falling man.

He was one of that class of whom we hear a great deal, but, for the

most part, see nothing at all—the Puritans. It would be in vain to kill him. He died lately in the time of Cromwell, but he reappeared here. Why should he not? Some of the Puritan stock are said to have come over and settled in New England. They were a class that did something else than celebrate their forefathers' day, and eat parched corn in remembrance of that time. They were neither Democrats nor Republicans, but men of simple habits, straightforward, prayerful; not thinking much of rulers who did not fear God, not making many compromises, nor seeking after available candidates.

"In his camp," as one has recently written, and as I have myself heard him state, "he permitted no profanity; no man of loose morals was suffered to remain there, unless, indeed, as a prisoner of war. 'I would rather,' said he, 'have the smallpox, yellow fever, and cholera, all together in my camp, than a man without principle. . . . It is a mistake, sir, that our people make, when they think that bullies are the best fighters, or that they are the fit men to oppose these southerners. Give me men of good principles, God-fearing men, men who respect themselves, and with a dozen of them I will oppose any hundred such men as these Buford ruffians.' " He said that if one offered himself to be a soldier under him, who was forward to tell what he could or would do if he could only get sight of the enemy, he had but little confidence in him.

He was never able to find more than a score or so of recruits whom he would accept, and only about a dozen, among them his sons, in whom he had perfect faith. When he was here some years ago, he showed to a few a little manuscript book—his "orderly book" I think he called it—containing the names of his company in Kansas, and the rules by which they bound themselves; and he stated that several of them had already sealed the contract with their blood. When someone remarked that, with the addition of a chaplain, it would have been a perfect Cromwellian troop, he observed that he would have been glad to add a chaplain to the list, if he could have found one who could fill that office worthily. It is easy enough to find one for the United States Army. I believe that he had prayers in his camp morning and evening, nevertheless.

He was a man of Spartan habits, and at sixty was scrupulous about his diet at your table, excusing himself by saying that he must eat sparingly and fare hard, as became a soldier, or one who was fitting himself for difficult enterprises, a life of exposure.

A man of rare common sense and directness of speech, as of action; a transcendentalist above all, a man of ideas and principles—that was what distinguished him. Not yielding to a whim or transient impulse, but

carrying out the purpose of a life. I noticed that he did not overstate anything, but spoke within bounds. I remember, particularly, how, in his speech here, he referred to what his family had suffered in Kansas, without ever giving the least vent to his pent-up fire. It was a volcano with an ordinary chimney flue. Also referring to the deeds of certain Border Ruffians, he said, rapidly paring away his speech, like an experienced soldier, keeping a reserve of force and meaning, "They had a perfect right to be hung." He was not in the least a rhetorician, was not talking to Buncombe or his constituents anywhere, had no need to invent anything but to tell the simple truth, and communicate his own resolution; therefore he appeared incomparably strong, and eloquence in Congress and elsewhere seemed to me at a discount. It was like the speeches of Cromwell compared with those of an ordinary king.

As for his tact and prudence, I will merely say, that at a time when scarcely a man from the Free States was able to reach Kansas by any direct route, at least without having his arms taken from him, he, carrying what imperfect guns and other weapons he could collect, openly and slowly drove an oxcart through Missouri, apparently in the capacity of a surveyor, with his surveying compass exposed in it, and so passed unsuspected, and had ample opportunity to learn the designs of the enemy. For some time after his arrival he still followed the same profession. When, for instance, he saw a knot of the ruffians on the prairie, discussing, of course, the single topic which then occupied their minds, he would, perhaps, take his compass and one of his sons, and proceed to run an imaginary line right through the very spot on which that conclave had assembled, and when he came up to them, he would naturally pause and have some talk with them, learning their news, and, at last, all their plans perfectly; and having thus completed his real survey he would resume his imaginary one, and run on his line till he was out of sight.

When I expressed surprise that he could live in Kansas at all, with a price set upon his head, and so large a number, including the authorities, exasperated against him, he accounted for it by saying, "It is perfectly well understood that I will not be taken." Much of the time for some years he has had to skulk in swamps, suffering from poverty and from sickness, which was the consequence of exposure, befriended only by Indians and a few whites. But though it might be known that he was lurking in a particular swamp, his foes commonly did not care to go in after him. He could even come out into a town where there were more Border Ruffians than Free State men, and transact some business, without delaying long, and yet not be molested; for, said he, "no little hand-

ful of men were willing to undertake it, and a large body could not be got together in season."

As for his recent failure, we do not know the facts about it. It was evidently far from being a wild and desperate attempt. His enemy, Mr. Vallandigham, is compelled to say that "it was among the best planned and executed conspiracies that ever failed."

Not to mention his other successes, was it a failure, or did it show a want of good management, to deliver from bondage a dozen human beings, and walk off with them by broad daylight, for weeks if not months, at a leisurely pace, through one state after another, for half the length of the North, conspicuous to all parties, with a price set upon his head, going into a courtroom on his way and telling what he had done, thus convincing Missouri that it was not profitable to try to hold slaves in his neighborhood?—and this, not because the government menials were lenient, but because they were afraid of him.

Yet he did not attribute his success, foolishly, to "his star," or to any magic. He said, truly, that the reason why such greatly superior numbers quailed before him was, as one of his prisoners confessed, because they *lacked a cause*—a kind of armor which he and his party never lacked. When the time came, few men were found willing to lay down their lives in defense of what they knew to be wrong; they did not like that this should be their last act in this world.

But to make haste to *his* last act, and its effects.

The newspapers seem to ignore, or perhaps are really ignorant of the fact that there are at least as many as two or three individuals to a town throughout the North who think much as the present speaker does about him and his enterprise. I do not hesitate to say that they are an important and growing party. We aspire to be something more than stupid and timid chattels, pretending to read history and our Bibles, but desecrating every house and every day we breathe in. Perhaps anxious politicians may prove that only seventeen white men and five Negroes were concerned in the late enterprise; but their very anxiety to prove this might suggest to themselves that all is not told. Why do they still dodge the truth? They are so anxious because of a dim consciousness of the fact, which they do not distinctly face, that at least a million of the free inhabitants of the United States would have rejoiced if it had succeeded. They at most only criticize the tactics. Though we wear no crape, the thought of that man's position and probable fate is spoiling many a man's day here at the North for other thinking. If anyone who has seen him

here can pursue successfully any other train of thought, I do not know what he is made of. If there is any such who gets his usual allowance of sleep, I will warrant him to fatten easily under any circumstances which do not touch his body or purse. I put a piece of paper and a pencil under my pillow, and when I could not sleep I wrote in the dark.

On the whole, my respect for my fellow men, except as one may outweigh a million, is not being increased these days. I have noticed the cold-blooded way in which newspaper writers and men generally speak of this event, as if an ordinary malefactor, though one of unusual "pluck"–as the Governor of Virginia is reported to have said, using the language of the cockpit, "the gamest man he ever saw"–had been caught, and were about to be hung. He was not dreaming of his foes when the governor thought he looked so brave. It turns what sweetness I have to gall, to hear, or hear of, the remarks of some of my neighbors. When we heard at first that he was dead, one of my townsmen observed that "he died as the fool dieth"; which, pardon me, for an instant suggested a likeness in him dying to my neighbor living. Others, craven hearted, said disparagingly that "he threw his life away," because he resisted the government. Which way have they thrown *their* lives, pray?–such as would praise a man for attacking singly an ordinary band of thieves or murderers. I hear another ask, Yankee-like, "What will he gain by it?" as if he expected to fill his pockets by this enterprise. Such a one has no idea of gain but in this worldly sense. If it does not lead to a "surprise" party, if he does not get a new pair of boots, or a vote of thanks, it must be a failure. "But he won't gain anything by it." Well, no, I don't suppose he could get four-and-sixpence a day for being hung, take the year round; but then he stands a chance to save a considerable part of his soul–and *such* a soul!–when *you* do not. No doubt you can get more in your market for a quart of milk than for a quart of blood, but that is not the market that heroes carry their blood to.

Such do not know that like the seed is the fruit, and that, in the moral world, when good seed is planted, good fruit is inevitable, and does not depend on our watering and cultivating; that when you plant, or bury, a hero in his field, a crop of heroes is sure to spring up. This is a seed of such force and vitality that it does not ask our leave to germinate.

The momentary charge at Balaklava, in obedience to a blundering command, proving what a perfect machine the soldier is, has, properly enough, been celebrated by a poet laureate; but the steady, and for the most part successful, charge of this man, for some years, against the le-

gions of slavery, in obedience to an infinitely higher command, is as much more memorable than that as an intelligent and conscientious man is superior to a machine. Do you think that that will go unsung?

"Served him right," "A dangerous man," "He is undoubtedly insane." So they proceed to live their sane, and wise, and altogether admirable lives, reading their Plutarch a little, but chiefly pausing at that feat of Putnam, who was let down into a wolf's den; and in this wise they nourish themselves for brave and patriotic deeds sometime or other. The Tract Society could afford to print that story of Putnam. You might open the district schools with the reading of it, for there is nothing about slavery or the church in it; unless it occurs to the reader that some pastors are *wolves* in sheep's clothing. "The American Board of Commissioners for Foreign Missions," even, might dare to protest against *that* wolf. I have heard of boards, and of American boards, but it chances that I never heard of this particular lumber till lately. And yet I hear of northern men, and women, and children, by families, buying a "life membership" in such societies as these. A life membership in the grave! You can get buried cheaper than that.

Our foes are in our midst and all about us. There is hardly a house but is divided against itself, for our foe is the all but universal woodenness of both head and heart, the want of vitality in man, which is the effect of our vice; and hence are begotten fear, superstition, bigotry, persecution, and slavery of all kinds. We are mere figureheads upon a hulk, with livers in the place of hearts. The curse is the worship of idols, which at length changes the worshipper into a stone image himself; and the New Englander is just as much an idolater as the Hindu. This man was an exception, for he did not set up even a political graven image between him and his God.

A church that can never have done with excommunicating Christ while it exists! Away with your broad and flat churches, and your narrow and tall churches! Take a step forward, and invent a new style of outhouses. Invent a salt that will save you, and defend our nostrils.

The modern Christian is a man who has consented to say all the prayers in the liturgy, provided you will let him go straight to bed and sleep quietly afterward. All his prayers begin with "Now I lay me down to sleep," and he is forever looking forward to the time when he shall go to his "*long* rest." He has consented to perform certain old-established charities, too, after a fashion, but he does not wish to hear of any newfangled ones; he doesn't wish to have any supplementary articles added to the contract, to fit it to the present time. He shows the whites of his eyes

on the Sabbath, and the blacks all the rest of the week. The evil is not merely a stagnation of blood, but a stagnation of spirit. Many, no doubt, are well disposed, but sluggish by constitution and by habit, and they cannot conceive of a man who is actuated by higher motives than they are. Accordingly they pronounce this man insane, for they know that *they* could never act as he does, as long as they are themselves.

We dream of foreign countries, of other times and races of men, placing them at a distance in history or space; but let some significant event like the present occur in our midst, and we discover, often, this distance and this strangeness between us and our nearest neighbors. *They* are our Austrias, and Chinas, and South Sea Islands. Our crowded society becomes well spaced all at once, clean and handsome to the eye, a city of magnificent distances. We discover why it was that we never got beyond compliments and surfaces with them before; we become aware of as many versts between us and them as there are between a wandering Tartar and a Chinese town. The thoughtful man becomes a hermit in the thoroughfares of the market place. Impassable seas suddenly find their level between us, or dumb steppes stretch themselves out there. It is the difference of constitution, of intelligence, and faith, and not streams and mountains, that make the true and impassable boundaries between individuals and between states. None but the like-minded can come plenipotentiary to our court.

I read all the newspapers I could get within a week after this event, and I do not remember in them a single expression of sympathy for these men. I have since seen one noble statement, in a Boston paper, not editorial. Some voluminous sheets decided not to print the full report of Brown's words to the exclusion of other matter. It was as if a publisher should reject the manuscript of the New Testament, and print Wilson's last speech. The same journal which contained this pregnant news was chiefly filled, in parallel columns, with the reports of the political conventions that were being held. But the descent to them was too steep. They should have been spared this contrast—been printed in an extra, at least. To turn from the voices and deeds of earnest men to the *cackling* of political conventions! Office seekers and speechmakers, who do not so much as lay an honest egg, but wear their breasts bare upon an egg of chalk! Their great game is the game of straws, or rather that universal aboriginal game of the platter, at which the Indians cried *hub, bub!* Exclude the reports of religious and political conventions, and publish the words of a living man.

But I object not so much to what they have omitted as to what they

have inserted. Even the *Liberator* called it "a misguided, wild, and apparently insane—effort." As for the herd of newspapers and magazines, I do not chance to know an editor in the country who will deliberately print anything which he knows will ultimately and permanently reduce the number of his subscribers. They do not believe that it would be expedient. How then can they print truth? If we do not say pleasant things, they argue, nobody will attend to us. And so they do like some traveling auctioneers, who sing an obscene song, in order to draw a crowd around them. Republican editors, obliged to get their sentences ready for the morning edition, and accustomed to look at everything by the twilight of politics, express no admiration, nor true sorrow even, but call these men "deluded fanatics," "mistaken men," "insane," or "crazed." It suggests what a *sane* set of editors we are blessed with, *not* "mistaken men"; who know very well on which side their bread is buttered, at least.

A man does a brave and humane deed, and at once, on all sides, we hear people and parties declaring, "I didn't do it, nor countenance *him* to do it, in any conceivable way. It can't be fairly inferred from my past career." I, for one, am not interested to hear you define your position. I don't know that I ever was or ever shall be. I think it is mere egotism, or impertinent at this time. Ye needn't take so much pains to wash your skirts of him. No intelligent man will ever be convinced that he was any creature of yours. He went and came, as he himself informs us, "under the auspices of John Brown and nobody else." The Republican party does not perceive how many his *failure* will make to vote more correctly than they would have them. They have counted the votes of Pennsylvania & Co., but they have not correctly counted Captain Brown's vote. He has taken the wind out of their sails—the little wind they had—and they may as well lie to and repair.

What though he did not belong to your clique! Though you may not approve of his method or his principles, recognize his magnanimity. Would you not like to claim kindredship with him in that, though in no other thing he is like, or likely, to you? Do you think that you would lose your reputation so? What you lost at the spile, you would gain at the bung.

If they do not mean all this, then they do not speak the truth, and say what they mean. They are simply at their old tricks still.

"It was always conceded to him," *says one who calls him crazy,* "that he was a conscientious man, very modest in his demeanor, apparently inoffensive, until the subject of slavery was introduced, when he would exhibit a feeling of indignation unparalleled."

The slave ship is on her way, crowded with its dying victims; new

cargoes are being added in mid-ocean; a small crew of slaveholders, countenanced by a large body of passengers, is smothering four millions under the hatches, and yet the politician asserts that the only proper way by which deliverance is to be obtained is by "the quiet diffusion of the sentiments of humanity," without any "outbreak." As if the sentiments of humanity were ever found unaccompanied by its deeds, and you could disperse them, all finished to order, the pure article, as easily as water with a watering pot, and so lay the dust. What is that that I hear cast overboard? The bodies of the dead that have found deliverance. That is the way we are "diffusing" humanity, and its sentiments with it.

Prominent and influential editors, accustomed to deal with politicians, men of an infinitely lower grade, say, in their ignorance, that he acted "on the principle of revenge." They do not know the man. They must enlarge themselves to conceive of him. I have no doubt that the time will come when they will begin to see him as he was. They have got to conceive of a man of faith and of religious principle, and not a politician or an Indian; of a man who did not wait till he was personally interfered with or thwarted in some harmless business" before he gave his life to the cause of the oppressed.

If Walker may be considered the representative of the South, I wish I could say that Brown was the representative of the North. He was a superior man. He did not value his bodily life in comparison with ideal things. He did not recognize unjust human laws, but resisted them as he was bid. For once we are lifted out of the trivialness and dust of politics into the region of truth and manhood. No man in America has ever stood up so persistently and effectively for the dignity of human nature, knowing himself for a man, and the equal of any and all governments. In that sense he was the most American of us all. He needed no babbling lawyer, making false issues, to defend him. He was more than a match for all the judges that American voters, or officeholders of whatever grade, can create. He could not have been tried by a jury of his peers, because his peers did not exist. When a man stands up serenely against the condemnation and vengeance of mankind, rising above them literally *by a whole body*–even though he were of late the vilest murderer, who has settled that matter with himself–the spectacle is a sublime one–didn't ye know it, ye *Liberators,* ye *Tribunes,* ye *Republicans?*–and we become criminal in comparison. Do yourselves the honor to recognize him. He needs none of your respect.

As for the Democratic journals, they are not human enough to affect me at all. I do not feel indignation at anything they may say.

I am aware that I anticipate a little, that he was still, at the last ac-

counts, alive in the hands of his foes; but that being the case, I have all along found myself thinking and speaking of him as physically dead.

I do not believe in erecting statues to those who still live in our hearts, whose bones have not yet crumbled in the earth around us, but I would rather see the statue of Captain Brown in the Massachusetts Statehouse yard than that of any other man whom I know. I rejoice that I live in this age, that I am his contemporary.

What a contrast, when we turn to that political party which is so anxiously shuffling him and his plot out of its way, and looking around for some available slaveholder, perhaps, to be its candidate, at least for one who will execute the Fugitive Slave Law, and all those other unjust laws which he took up arms to annul!

Insane! A father and six sons, and one son-in-law, and several more men besides—as many at least as twelve disciples—all struck with insanity at once; while the sane tyrant holds with a firmer gripe than ever his four millions of slaves, and a thousand sane editors, his abettors, are saving their country and their bacon! Just as insane were his efforts in Kansas. Ask the tyrant who is his most dangerous foe, the sane man or the insane? Do the thousands who know him best, who have rejoiced at his deeds in Kansas, and have afforded him material aid there, think him insane? Such a use of this word is a mere trope with most who persist in using it, and I have no doubt that many of the rest have already in silence retracted their words.

Read his admirable answers to Mason and others. How they are dwarfed and defeated by the contrast! On the one side, half-brutish, half-timid questioning; on the other, truth, clear as lightning, crashing into their obscene temples. They are made to stand with Pilate, and Gessler, and the Inquisition. How ineffectual their speech and action! and what a void their silence! They are but helpless tools in this great work. It was no human power that gathered them about this preacher.

What have Massachusetts and the North sent a few *sane* representatives to Congress for, of late years?—to declare with effect what kind of sentiments? All their speeches put together and boiled down—and probably they themselves will confess it—do not match for manly directness and force, and for simple truth, the few casual remarks of crazy John Brown on the floor of the Harpers Ferry enginehouse—that man whom you are about to hang, to send to the other world, though not to represent *you* there. No, he was not our representative in any sense. He was too fair a specimen of a man to represent the like of us. Who, then, *were* his constituents? If you read his words understandingly you will find out. In his

case there is no idle eloquence, no made, nor maiden speech, no compliments to the oppressor. Truth is his inspirer, and earnestness the polisher of his sentences. He could afford to lose his Sharps rifles, while he retained his faculty of speech–a Sharps rifle of infinitely surer and longer range.

And the *New York Herald* reports the conversation *verbatim!* It does not know of what undying words it is made the vehicle.

I have no respect for the penetration of any man who can read the report of that conversation and still call the principle in it insane. It has the ring of a saner sanity than an ordinary discipline and habits of life, than an ordinary organization, secure. Take any sentence of it–"Any questions that I can honorably answer, I will; not otherwise. So far as I am myself concerned, I have told everything truthfully. I value my word, sir." The few who talk about his vindictive spirit, while they really admire his heroism, have no test by which to detect a noble man, no amalgam to combine with his pure gold. They mix their own dross with it.

It is a relief to turn from these slanders to the testimony of his more truthful, but frightened jailers and hangmen. Governor Wise speaks far more justly and appreciatingly of him than any northern editor, or politician, or public personage, that I chance to have heard from. I know that you can afford to hear him again on this subject. He says: "They are themselves mistaken who take him to be a madman. . . . He is cool, collected, and indomitable, and it is but just to him to say that he was humane to his prisoners. . . . And he inspired me with great trust in his integrity as a man of truth. He is a fanatic, vain and garrulous" (I leave that part to Mr. Wise), "but firm, truthful, and intelligent. His men, too, who survive, are like him. . . . Colonel Washington says that he was the coolest and firmest man he ever saw in defying danger and death. With one son dead by his side, and another shot through, he felt the pulse of his dying son with one hand, and held his rifle with the other, and commanded his men with the utmost composure, encouraging them to be firm, and to sell their lives as dear as they could. Of the three white prisoners, Brown, Stevens, and Coppoc, it was hard to say which was most firm."

Almost the first northern men whom the slaveholder has learned to respect!

The testimony of Mr. Vallandigham, though less valuable, is of the same purport, that "it is vain to underrate either the man or his conspiracy. . . . He is the farthest possible removed from the ordinary ruffian, fanatic, or madman."

"All is quiet at Harpers Ferry," say the journals. What is the character of that calm which follows when the law and the slaveholder prevail? I regard this event as a touchstone designed to bring out, with glaring distinctness, the character of this government. We needed to be thus assisted to see it by the light of history. It needed to see itself. When a government puts forth its strength on the side of injustice, as ours to maintain slavery and kill the liberators of the slave, it reveals itself a merely brute force, or worse, a demoniacal force. It is the head of the pluguglies. It is more manifest than ever that tyranny rules. I see this government to be effectually allied with France and Austria in oppressing mankind. There sits a tyrant holding fettered four millions of slaves; here comes their heroic liberator. This most hypocritical and diabolical government looks up from its seat on the gasping four millions, and inquires with an assumption of innocence: "What do you assault me for? Am I not an honest man? Cease agitation on this subject, or I will make a slave of you, too, or else hang you."

We talk about a *representative* government; but what a monster of a government is that where the noblest faculties of the mind, and the *whole* heart, are not *represented.* A semihuman tiger or ox, stalking over the earth, with its heart taken out and the top of its brain shot away. Heroes have fought well on their stumps when their legs were shot off, but I never heard of any good done by such a government as that.

The only government that I recognize—and it matters not how few are at the head of it, or how small its army—is that power that establishes justice in the land, never that which establishes injustice. What shall we think of a government to which all the truly brave and just men in the land are enemies, standing between it and those whom it oppresses? A government that pretends to be Christian and crucifies a million Christs every day!

Treason! Where does such treason take its rise? I cannot help thinking of you as you deserve, ye governments. Can you dry up the fountains of thought? High treason, when it is resistance to tyranny here below, has its origin in, and is first committed by, the power that makes and forever recreates man. When you have caught and hung all these human rebels, you have accomplished nothing but your own guilt, for you have not struck at the fountainhead. You presume to contend with a foe against whom West Point cadets and rifled cannon *point* not. Can all the art of the cannon founder tempt matter to turn against its maker? Is the form in which the founder thinks he casts it more essential than the constitution of it and of himself?

The United States have a coffle of four millions of slaves. They are determined to keep them in this condition; and Massachusetts is one of the confederated overseers to prevent their escape. Such are not all the inhabitants of Massachusetts, but such are they who rule and are obeyed here. It was Massachusetts, as well as Virginia, that put down this insurrection at Harpers Ferry. She sent the marines there, and she will have *to pay the penalty of her sin.*

Suppose that there is a society in this state that out of its own purse and magnanimity saves all the fugitive slaves that run to us, and protects our colored fellow citizens, and leaves the other work to the government, so called. Is not that government fast losing its occupation, and becoming contemptible to mankind? If private men are obliged to perform the offices of government, to protect the weak and dispense justice, then the government becomes only a hired man, or clerk, to perform menial or indifferent services. Of course, that is but the shadow of a government whose existence necessitates a Vigilant Committee. What should we think of the Oriental Cadi even, behind whom worked in secret a Vigilant Committee? But such is the character of our Northern states generally; each has its Vigilant Committee. And, to a certain extent, these crazy governments recognize and accept this relation. They say, virtually, "We'll be glad to work for you on these terms, only don't make a noise about it." And thus the government, its salary being insured, withdraws into the back shop, taking the Constitution with it, and bestows most of its labor on repairing that. When I hear it at work sometimes, as I go by, it reminds me, at best, of those farmers who in winter contrive to turn a penny by following the coopering business. And what kind of spirit is their barrel made to hold? They speculate in stocks, and bore holes in mountains, but they are not competent to lay out even a decent highway. The only *free* road, the Underground Railroad, is owned and managed by the Vigilant Committee. *They* have tunneled under the whole breadth of the land. Such a government is losing its power and respectability as surely as water runs out of a leaky vessel, and is held by one that can contain it.

I hear many condemn these men because they were so few. When were the good and the brave ever in a majority? Would you have had him wait till that time came?—till you and I came over to him? The very fact that he had no rabble or troop of hirelings about him would alone distinguish him from ordinary heroes. His company was small indeed, because few could be found worthy to pass muster. Each one who there laid down his life for the poor and oppressed was a picked man, culled

out of many thousands, if not millions; apparently a man of principle, of rare courage, and devoted humanity; ready to sacrifice his life at any moment for the benefit of his fellow man. It may be doubted if there were as many more their equals in these respects in all the country–I speak of his followers only–for their leader, no doubt, scoured the land far and wide, seeking to swell his troop. These alone were ready to step between the oppressor and the oppressed. Surely they were the very best men you could select to be hung. That was the greatest compliment which this country could pay them. They were ripe for her gallows. She has tried a long time, she has hung a good many, but never found the right one before.

When I think of him, and his six sons, and his son-in-law, not to enumerate the others, enlisted for this fight, proceeding coolly, reverently, humanely to work, for months if not years, sleeping and waking upon it, summering and wintering the thought, without expecting any reward but a good conscience, while almost all America stood ranked on the other side–I say again that it affects me as a sublime spectacle. If he had had any journal advocating *"his cause,"*; any organ, as the phrase is, monotonously and wearisomely playing the same old tune, and then passing round the hat, it would have been fatal to his efficiency. If he had acted in any way so as to be let alone by the government, he might have been suspected. It was the fact that the tyrant must give place to him, or he to the tyrant, that distinguished him from all the reformers of the day that I know.

It was his peculiar doctrine that a man has a perfect right to interfere by force with the slaveholder, in order to rescue the slave. I agree with him. They who are continually shocked by slavery have some right to be shocked by the violent death of the slaveholder, but no others. Such will be more shocked by his life than by his death. I shall not be forward to think him mistaken in his method who quickest succeeds to liberate the slave. I speak for the slave when I say that I prefer the philanthropy of Captain Brown to that philanthropy which neither shoots me nor liberates me. At any rate, I do not think it is quite sane for one to spend his whole life in talking or writing about this matter, unless he is continuously inspired, and I have not done so. A man may have other affairs to attend to. I do not wish to kill nor to be killed, but I can foresee circumstances in which both these things would be by me unavoidable. We preserve the so-called peace of our community by deeds of petty violence every day. Look at the policeman's billy and handcuffs! Look at the jail! Look at the gallows! Look at the chaplain of the regiment! We

are hoping only to live safely on the outskirts of *this* provisional army. So we defend ourselves and our henroosts, and maintain slavery. I know that the mass of my countrymen think that the only righteous use that can be made of Sharps rifles and revolvers is to fight duels with them, when we are insulted by other nations, or to hunt Indians, or shoot fugitive slaves with them, or the like. I think that for once the Sharps rifles and the revolvers were employed in a righteous cause. The tools were in the hands of one who could use them.

The same indignation that is said to have cleared the temple once will clear it again. The question is not about the weapon, but the spirit in which you use it. No man has appeared in America, as yet, who loved his fellow man so well, and treated him so tenderly. He lived for him. He took up his life and he laid it down for him. What sort of violence is that which is encouraged, not by soldiers, but by peaceable citizens, not so much by laymen as by ministers of the Gospel, not so much by the fighting sects as by the Quakers, and not so much by Quaker men as by Quaker women?

This event advertises me that there is such a fact as death—the possibility of a man's dying. It seems as if no man had ever died in America before; for in order to die you must first have lived. I don't believe in the hearses, and palls, and funerals that they have had. There was no death in the case, because there had been no life; they merely rotted or sloughed off, pretty much as they had rotted or sloughed along. No temple's veil was rent, only a hole dug somewhere. Let the dead bury their dead. The best of them fairly ran down like a clock. Franklin, Washington—they were let off without dying; they were merely missing one day. I hear a good many pretend that they are going to die; or that they have died, for aught that I know. Nonsense! I'll defy them to do it. They haven't got life enough in them. They'll deliquesce like fungi, and keep a hundred eulogists mopping the spot where they left off. Only half a dozen or so have died since the world began. Do you think that you are going to die, Sir? No! There's no hope of you. You haven't got your lesson yet. You've got to stay after school. We make a needless ado about capital punishment—taking lives, when there is no life to take. *Memento mori!* We don't understand that sublime sentence which some worthy got sculptured on his gravestone once. We've interpreted it in a groveling and sniveling sense; we've wholly forgotten how to die.

But be sure you do die nevertheless. Do your work, and finish it. If you know how to begin, you will know when to end.

These men, in teaching us how to die, have at the same time taught us

how to live. If this man's acts and words do not create a revival, it will be the severest possible satire on the acts and words that do. It is the best news that America has ever heard. It has already quickened the feeble pulse of the North, and infused more and more generous blood into her veins and heart than any number of years of what is called commercial and political prosperity could. How many a man who was lately contemplating suicide has now something to live for!

One writer says that Brown's peculiar monomania made him to be "dreaded by the Missourians as a supernatural being." Sure enough, a hero in the midst of us cowards is always so dreaded. He is just that thing. He shows himself superior to nature. He has a spark of divinity in him.

> Unless above himself he can
> Erect himself, how poor a thing is man!

Newspaper editors argue also that it is a proof of his *insanity* that he thought he was appointed to do this work which he did—that he did not suspect himself for a moment! They talk as if it were impossible that a man could be "divinely appointed" in these days to do any work whatever; as if vows and religion were out of date as connected with any man's daily work; as if the agent to abolish slavery could only be somebody appointed by the President, or by some political party. They talk as if a man's death were a failure, and his continued life, be it of whatever character, were a success.

When I reflect to what a cause this man devoted himself, and how religiously, and then reflect to what cause his judges and all who condemn him so angrily and fluently devote themselves, I see that they are as far apart as the heavens and earth are asunder.

The amount of it is, our *"leading men"* are a harmless kind of folk, and they know *well enough* that *they* were not divinely appointed, but elected by the votes of their party.

Who is it whose safety requires that Captain Brown be hung? Is it indispensable to any northern man? Is there no resource but to cast this man also to the Minotaur? If you do not wish it, say so distinctly. While these things are being done, beauty stands veiled and music is a screeching lie. Think of him—of his rare qualities!—such a man as it takes ages to make, and ages to understand; no mock hero, nor the representative of any party. A man such as the sun may not rise upon again in this benighted land. To whose making went the costliest material, the finest

adamant; sent to be the redeemer of those in captivity; and the only use to which you can put him is to hang him at the end of a rope! You who pretend to care for Christ crucified, consider what you are about to do to him who offered himself to be the savior of four millions of men.

Any man knows when he is justified, and all the wits in the world cannot enlighten him on that point. The murderer always knows that he is justly punished; but when a government takes the life of a man without the consent of his conscience, it is an audacious government, and is taking a step towards its own dissolution. Is it not possible that an individual may be right and a government wrong? Are laws to be enforced simply because they were made? or declared by any number of men to be good, if they are *not* good? Is there any necessity for a man's being a tool to perform a deed of which his better nature disapproves? Is it the intention of lawmakers that *good* men shall be hung ever? Are judges to interpret the law according to the letter, and not the spirit? What right have *you* to enter into a compact with yourself that you *will* do thus or so, against the light within you? Is it for *you* to *make up* your mind, to form any resolution whatever, and not accept the convictions that are forced upon you, and which ever pass your understanding? I do not believe in lawyers, in that mode of attacking or defending a man, because you descend to meet the judge on his own ground, and, in cases of the highest importance, it is of no consequence whether a man breaks a human law or not. Let lawyers decide trivial cases. Businessmen may arrange that among themselves. If they were the interpreters of the everlasting laws which rightfully bind man, that would be another thing. A counterfeiting law-factory, standing half in a slave land and half in a free! What kind of laws for free men can you expect from that?

I am here to plead his cause with you. I plead not for his life, but for his character–his immortal life; and so it becomes your cause wholly, and is not his in the least. Some eighteen hundred years ago Christ was crucified; this morning, perchance, Captain Brown was hung. These are the two ends of a chain which is not without its links. He is not Old Brown any longer; he is an angel of light.

I see now that it was necessary that the bravest and humanest man in all the country should be hung. Perhaps he saw it himself. I *almost fear* that I may yet hear of his deliverance, doubting if a prolonged life, if *any* life, can do as much good as his death.

"Misguided!" "Garrulous!" "Insane!" "Vindictive!" So ye write in your easy chairs, and thus he wounded responds from the floor of the armory,

clear as a cloudless sky, true as the voice of nature is: "No man sent me here; it was my own prompting and that of my Maker. I acknowledge no master in human form."

And in what a sweet and noble strain he proceeds, addressing his captors, who stand over him: "I think, my friends, you are guilty of a great wrong against God and humanity, and it would be perfectly right for anyone to interfere with you so far as to free those you willfully and wickedly hold in bondage."

And, referring to his movement: "It is, in my opinion, the greatest service a man can render to God."

"I pity the poor in bondage that have none to help them; that is why I am here; not to gratify any personal animosity, revenge, or vindictive spirit. It is my sympathy with the oppressed and the wronged, that are as good as you, and as precious in the sight of God."

You don't know your testament when you see it.

"I want you to understand that I respect the rights of the poorest and weakest of colored people, oppressed by the slave power, just as much as I do those of the most wealthy and powerful."

"I wish to say, furthermore, that you had better, all you people at the South, prepare yourselves for a settlement of that question, that must come up for settlement sooner than you are prepared for it. The sooner you are prepared the better. You may dispose of me very easily. I am nearly disposed of now; but this question is still to be settled–this Negro question, I mean; the end of that is not yet."

I foresee the time when the painter will paint that scene, no longer going to Rome for a subject; the poet will sing it; the historian record it; and, with the Landing of the Pilgrims and the Declaration of Independence, it will be the ornament of some future national gallery, when at least the present form of slavery shall be no more here. We shall then be at liberty to weep for Captain Brown. Then, and not till then, we will take our revenge.

Abraham Lincoln

1809–1865

Nothing in Abraham Lincoln's early life was designed to make him the great figure that he became. His father, Thomas, was a wandering homesteader, and Lincoln's family roved through three states in his early years, from Kentucky, where Lincoln was born on February 12, 1809, to Indiana and to Illinois. During those years Lincoln farmed, chopped trees, operated a flatboat on the Ohio River, and worked as a clerk in a store at New Salem, Illinois. In 1832, during the Black Hawk War against the Indians, Lincoln signed up in the local militia and was elected captain by the men of his company. At twenty-three he was already recognized as a natural leader.

During his early political career Lincoln was encouraged to study for the law. He did so on his own, as he said, never "in a college or an academy as a student." In 1836 he received a license to practice and soon established his office in Springfield, Illinois, where he met and married Mary Todd, the future mother of his four sons.

Lincoln first won national prominence when he campaigned against Stephen A. Douglas for the United States Senate. A series of debates with Douglas did not win him the election but brought him to the attention of the country. In the 1860 Republican National Convention Lincoln was nominated for President and won the national election. By the time Lincoln was inaugurated some southern states had already seceded from the Union. The country was soon plunged into civil war, and Lincoln was faced with the exhausting duties of a wartime President. He was re-elected in 1864, when the end of the war was in view and the task of reconstruction loomed ahead. Unfortunately, Lincoln never lived to see the country through that difficult period. He was shot by the actor John Wilkes Booth

on April 14, 1865, only five days after the end of the war, and died on the following morning. As the funeral train carried his body back to Springfield, thousands mourned the man who had served them through their great crisis.

Abraham Lincoln's speeches and writings were designed to clarify and direct the events of his period. Some of his speeches, such as the Gettysburg Address, are unexcelled in precision and power. It is more than likely that he could have been a great creative writer. He had no formal education, but the books he read as a boy had the happiest of influences upon him—such books as the *Bible*, *Pilgrims Progress*, *Robinson Crusoe*, and Aesop's *Fables*. His later readings in history and law, and his study of Euclid's *Elements* and of English grammar served to point and polish his prose style. His writings have the pungency of the fables, the precision of mathematics, and the splendid resonance of the Bible.

With one exception all of the selections here are addressed to the public. The exception is a brief note found in his papers—the "Meditation on the Divine Will." It is interesting because in this private speculation Lincoln echoes a note which runs through many of his important speeches. It is the thought that God must have willed this contest where each side believed itself to be in the right. He adds despairingly: "Yet the contest proceeds."

Lincoln's first speech in the East was made on February 27 at Cooper Institute in New York, shortly before he was nominated for the Presidency. Here he is the sharp-witted, hard-hitting lawyer, flaying the Democrats and defending the Republican policy of restricting the institution of slavery. Ridiculing the stand taken by proslavery Democrats, he says that they are "for the 'gur-reat pur-rinciple' that 'if one man would enslave another, no third man should object,' fantastically called 'Popular Sovereignty.' " He points out that the United States Constitution, which southerners invoke, gives

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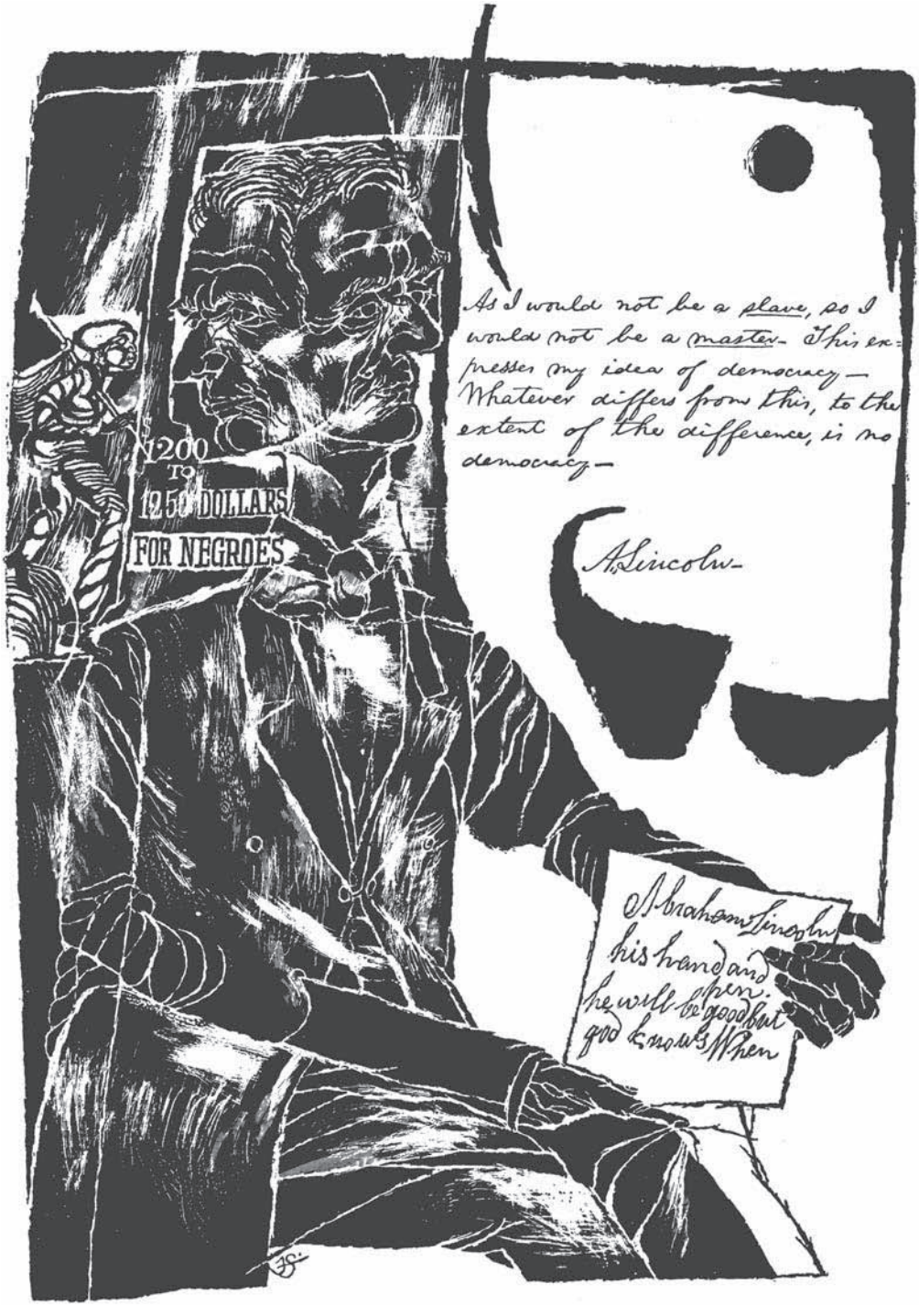
Notes from the artist: ". . . a double portrait of Lincoln in a semisurrealistic style was used to suggest the two sides of his career, statesman and humanitarian. At left is an interpretation of an old slave sale poster, while at the right are facsimiles of two of Lincoln's notes."


$200
TO
$250 DOLLARS
FOR NEGROES
As I would not be a slave, so I would not be a master- This expresses my idea of democracy— Whatever differs from this, to the extent of the difference, is no democracy—
A. Lincoln-
Abraham Lincoln his hand and he will be good but god knows When

them no right to take slaves to free territories, and he shows that Jefferson regarded slavery as an evil, to be eventually eradicated. "Let us have faith that right makes might," he says in closing, "and . . . dare to do our duty."

On March 4, 1861, when Lincoln took the oath of office, southern states were already seceding from the Union. In his *First Inaugural Address*, Lincoln takes a humane and conciliatory point of view, argues the irrationality of war, and pleads for "a patient confidence in the ultimate justice of the people." This is more than the lawyer speaking; this is the man who has just taken on an appalling responsibility and is making a last effort to stave off the impending disaster.

In the deceptively simple *Gettysburg Address* of November 19, 1863, Lincoln states the ideal of government to which he rededicates the forces of the Union–so "that these dead shall not have died in vain." The re-establishment of the Union and the restoration of peace was always foremost in his mind. In his *Second Inaugural Address*, of March 4, 1865, even before the end of the war, he urged the people, while prosecuting the war to its end, to have "malice toward none," and "charity for all."

The letter to Horace Greeley of August 22, 1862, shows Lincoln in the unenviable role of conciliating the radical and the moderate elements of his government. In his last, prophetic address, which urged an understanding of the defeated South, he shows the strain of his prolonged debate with those who might still destroy the Union. Here the man who was nicknamed "Father Abraham" pleads for his recalcitrant children: "Finding themselves safely at home," he says, "it would be utterly immaterial whether they had ever been abroad."

It is little wonder that the admiration of Lincoln has become a cement binding all sections of the Union, which he did so much to preserve.

Address at Cooper Institute[1]

February 27, 1860

But enough! Let all who believe that "our fathers, who framed the government under which we live, understood this question just as well, and even better, than we do now," speak as they spoke, and act as they acted upon it. This is all Republicans ask—all Republicans desire—in relation to slavery. As those fathers marked it, so let it be again marked, as an evil not to be extended, but to be tolerated and protected only because of and so far as its actual presence among us makes that toleration and protection a necessity. Let all the guaranties those fathers gave it be, not grudgingly, but fully and fairly maintained. For this Republicans contend, and with this, so far as I know or believe, they will be content.

And now, if they would listen—as I suppose they will not—I would address a few words to the Southern people.

I would say to them: You consider yourselves a reasonable and a just people; and I consider that in the general qualities of reason and justice you are not inferior to any other people. Still, when you speak of us Republicans, you do so only to denounce us as reptiles, or, at the best, as no better than outlaws. You will grant a hearing to pirates or murderers, but nothing like it to "Black Republicans." In all your contentions with one another, each of you deems an unconditional condemnation of "Black Republicanism" as the first thing to be attended to. Indeed, such condemnation of us seems to be an indispensable prerequisite—license, so to speak—among you to be admitted or permitted to speak at all. Now, can you, or not, be prevailed upon to pause and to consider whether this is quite just to us, or even to yourselves? Bring forward your charges and specifications, and then be patient long enough to hear us deny or justify.

You say we are sectional. We deny it. That makes an issue; and the burden of proof is upon you. You produce your proof; and what is it?

1. This selection excludes Lincoln's opening statements on the founding fathers' attitude toward slavery.

Why, that our party has no existence in your section—gets no votes in your section. The fact is substantially true; but does it prove the issue? If it does, then in case we should, without change of principle, begin to get votes in your section, we should thereby cease to be sectional. You cannot escape this conclusion; and yet, are you willing to abide by it: If you are, you will probably soon find that we have ceased to be sectional, for we shall get votes in your section this very year. You will then begin to discover, as the truth plainly is, that your proof does not touch the issue. The fact that we get no votes in your section is a fact of your making, and not of ours. And if there be fault in that fact, that fault is primarily yours, and remains so until you show that we repel you by some wrong principle or practice. If we do repel you by any wrong principle or practice, the fault is ours; but this brings you to where you ought to have started—to a discussion of the right or wrong of our principle. If our principle, put in practice, would wrong your section for the benefit of ours, or for any other object, then our principle, and we with it, are sectional, and are justly opposed and denounced as such. Meet us, then, on the question of whether our principle, put in practice, would wrong your section; and so meet us as if it were possible that something may be said on our side. Do you accept the challenge? No! Then you really believe that the principle which "our fathers who framed the government under which we live" thought so clearly right as to adopt it, and endorse it again and again, upon their official oaths, is in fact so clearly wrong as to demand your condemnation without a moment's consideration.

Some of you delight to flaunt in our faces the warning against sectional parties given by Washington in his Farewell Address. Less than eight years before Washington gave that warning, he had, as President of the United States, approved and signed an act of Congress, enforcing the prohibition of slavery in the Northwestern Territory, which act embodied the policy of the government upon that subject up to and at the very moment he penned that warning; and about one year after he penned it, he wrote Lafayette that he considered that prohibition a wise measure, expressing in the same connection his hope that we should at some time have a confederacy of free states.

Bearing this in mind, and seeing that sectionalism has since arisen upon this same subject, is that warning a weapon in your hands against us, or in our hands against you? Could Washington himself speak, would he cast the blame of that sectionalism upon us, who sustain his policy, or upon you who repudiate it? We respect that warning of Washington,

and we commend it to you, together with his example pointing to the right application of it.

But you say you are conservative–eminently conservative–while we are revolutionary, destructive, or something of the sort. What is conservatism? Is it not adherence to the old and tried, against the new and untried? We stick to, contend for, the identical old policy on the point in controversy which was adopted by "our fathers who framed the government under which we live"; while you with one accord reject, and scout, and spit upon that old policy, and insist upon substituting something new. True, you disagree among yourselves as to what that substitute shall be. You are divided on new propositions and plans, but you are unanimous in rejecting and denouncing the old policy of the fathers. Some of you are for reviving the foreign slave trade; some for a Congressional slave code for the territories; some for Congress forbidding the territories to prohibit slavery within their limits; some for maintaining slavery in the territories through the judiciary; some for the "gur-reat pur-rinciple" that "if one man would enslave another, no third man should object," fantastically called "Popular Sovereignty"; but never a man among you in favor of federal prohibition of slavery in federal territories, according to the practice of "Our fathers who framed the government under which we live." Not one of all your various plans can show a precedent or an advocate in the century within which our government originated. Consider, then, whether your claim of conservatism for yourselves, and your charge of destructiveness against us, are based on the most clear and stable foundations.

Again, you say we have made the slavery question more prominent than it formerly was. We deny it. We admit that it is more prominent, but we deny that we made it so. It was not we, but you, who discarded the old policy of the fathers. We resisted, and still resist, your innovation; and thence comes the greater prominence of the question. Would you have that question reduced to its former proportions? Go back to that old policy. What has been will be again, under the same conditions. If you would have the peace of the old times, readopt the precepts and policy of the old times.

You charge that we stir up insurrections among your slaves. We deny it; and what is your proof? Harper's Ferry! John Brown!![2] John Brown

2. John Brown, an abolitionist, had attempted in 1859 to incite a slave rebellion by seizing the federal arsenal at Harper's Ferry, Virginia. He was captured and executed by Virginia. Lincoln was here carefully dissociating the Republican party from the extreme elements represented by Brown.

was no Republican; and you have failed to implicate a single Republican in his Harper's Ferry enterprise. If any member of our party is guilty in that matter, you know it or you do not know it. If you do know it, you are inexcusable for not designating the man and proving the fact. If you do not know it, you are inexcusable for asserting it, and especially for persisting in the assertion after you have tried and failed to make the proof. You need not be told that persisting in a charge which one does not know to be true is simply malicious slander.

Some of you admit that no Republican designedly aided or encouraged the Harper's Ferry affair; but still insist that our doctrines and declarations necessarily lead to such results. We do not believe it. We know we hold to no doctrine, and make no declaration, which were not held to and made by "our fathers who framed the government under which we live." You never dealt fairly by us in relation to this affair. When it occurred, some important state elections were near at hand, and you were in evident glee with the belief that, by charging the blame upon us, you could get an advantage of us in those elections. The elections came, and your expectations were not quite fulfilled. Every Republican man knew that, as to himself at least, your charge was a slander, and he was not much inclined by it to cast his vote in your favor. Republican doctrines and declarations are accompanied with a continual protest against any interference whatever with your slaves, or with you about your slaves. Surely, this does not encourage them to revolt. True, we do, in common with "our fathers, who framed the government under which we live," declare our belief that slavery is wrong; but the slaves do not hear us declare even this. For anything we say or do, the slaves would scarcely know there is a Republican party. I believe they would not, in fact, generally know it but for your misrepresentations of us, in their hearing. In your political contests among yourselves, each faction charges the other with sympathy with Black Republicanism; and then, to give point to the charge, defines Black Republicanism to simply be insurrection, blood and thunder among the slaves.

Slave insurrections are no more common now than they were before the Republican party was organized. What induced the Southampton insurrection,[3] twenty-eight years ago, in which, at least, three times as many lives were lost as at Harper's Ferry? You can scarcely stretch your very elastic fancy to the conclusion that Southampton was "got up by Black Republicanism." In the present state of things in the United States,

3. A slave uprising in Virginia in 1831.

I do not think a general, or even a very extensive, slave insurrection is possible. The indispensable concert of action cannot be attained. The slaves have no means of rapid communication; nor can incendiary freemen, black or white, supply it. The explosive materials are everywhere in parcels; but there neither are, nor can be supplied, the indispensable connecting trains.

Much is said by Southern people about the affection of slaves for their masters and mistresses; and a part of it, at least, is true. A plot for an uprising could scarcely be devised and communicated to twenty individuals before some one of them, to save the life of a favorite master or mistress, would divulge it. This is the rule; and the slave revolution in Haiti [4] was not an exception to it, but a case occurring under peculiar circumstances. The gunpowder plot of British history, though not connected with slaves, was more in point. In that case, only about twenty were admitted to the secret; and yet one of them, in his anxiety to save a friend, betrayed the plot to that friend, and, by consequence, averted the calamity. Occasional poisonings from the kitchen, and open or stealthy assassinations in the field, and local revolts extending to a score or so, will continue to occur as the natural results of slavery; but no general insurrection of slaves, as I think, can happen in this country for a long time. Whoever much fears, or much hopes for such an event, will be alike disappointed.

In the language of Mr. Jefferson, uttered many years ago, "It is still in our power to direct the process of emancipation, and deportation, peaceably, and in such slow degrees, as that the evil will wear off insensibly; and their places be, *pari passu*, filled up by free white laborers. If, on the contrary, it is left to force itself on, human nature must shudder at the prospect held up."

Mr. Jefferson did not mean to say, nor do I, that the power of emancipation is in the federal government. He spoke of Virginia; and, as to the power of emancipation, I speak of the slaveholding states only. The federal government, however, as we insist, has the power of restraining the extension of the institution–the power to insure that a slave insurrection shall never occur on any American soil which is now free from slavery.

John Brown's effort was peculiar. It was not a slave insurrection. It was an attempt by white men to get up a revolt among slaves, in which the slaves refused to participate. In fact, it was so absurd that the slaves, with all their ignorance, saw plainly enough it could not succeed. That

4. A revolution in 1791.

affair, in its philosophy, corresponds with the many attempts, related in history, at the assassination of kings and emperors. An enthusiast broods over the oppression of a people till he fancies himself commissioned by Heaven to liberate them. He ventures the attempt, which ends in little else than his own execution. Orsini's [5] attempt on Louis Napoleon, and John Brown's attempt at Harper's Ferry, were, in their philosophy, precisely the same. The eagerness to cast blame on old England in the one case, and on New England in the other, does not disprove the sameness of the two things.

And how much would it avail you, if you could, by the use of John Brown, Helper's book,[6] and the like, break up the Republican organization? Human action can be modified to some extent, but human nature cannot be changed. There is a judgment and a feeling against slavery in this nation, which cast at least a million and a half of votes. You cannot destroy that judgment and feeling–that sentiment–by breaking up the political organization which rallies around it. You can scarcely scatter and disperse an army which has been formed into order in the face of your heaviest fire; but if you could, how much would you gain by forcing the sentiment which created it out of the peaceful channel of the ballot box, into some other channel? What would that other channel probably be? Would the number of John Browns be lessened or enlarged by the operation?

But you will break up the Union rather than submit to a denial of your constitutional rights.

That has a somewhat reckless sound; but it would be palliated, if not fully justified, were we proposing, by the mere force of numbers, to deprive you of some right, plainly written down in the Constitution. But we are proposing no such thing.

When you make these declarations you have a specific and well-understood allusion to an assumed constitutional right of yours, to take slaves into the federal territories, and to hold them there as property. But no such right is specifically written in the Constitution. That instrument is literally silent about any such right. We, on the contrary, deny that such a right has any existence in the Constitution, even by implication.

Your purpose, then, plainly stated, is that you will destroy the government, unless you be allowed to construe and enforce the Constitution as

5. Felice Orsini, an Italian who attempted to assassinate Louis Napoleon in 1858.
6. Hinton R. Helper, author of *The Impending Crisis of the South,* an attack upon slavery by a former North Carolinian which infuriated the South.

you please, on all points in dispute between you and us. You will rule or ruin in all events.

This, plainly stated, is your language. Perhaps you will say the Supreme Court has decided the disputed constitutional question in your favor. Not quite so. But waiving the lawyer's distinction between dictum and decision, the Court have decided the question for you in a sort of way. The Court have substantially said, it is your constitutional right to take slaves into the federal territories, and to hold them there as property. When I say the decision was made in a sort of way, I mean it was made in a divided court, by a bare majority of the judges, and they not quite agreeing with one another in the reasons for making it; that it is so made as that its avowed supporters disagree with one another about its meaning, and that it was mainly based upon a mistaken statement of fact—the statement in the opinion that "the right of property in a slave is distinctly and expressly affirmed in the Constitution."

An inspection of the Constitution will show that the right of property in a slave is not "*distinctly* and *expressly* affirmed" in it. Bear in mind, the judges do not pledge their judicial opinion that such right is *impliedly* affirmed in the Constitution; but they pledge their veracity that it is "*distinctly* and *expressly*" affirmed there—"distinctly," that is, not mingled with anything else—"expressly," that is, in words meaning just that, without the aid of an inference, and susceptible of no other meaning.

If they had only pledged their judicial opinion that such right is affirmed in the instrument by implication, it would be open to others to show that neither the word "slave" nor "slavery" is to be found in the Constitution, nor the word "property" even, in any connection with language alluding to the things slave, or slavery, and that wherever in that instrument the slave is alluded to, he is called a "person"; and wherever his master's legal right in relation to him is alluded to, it is spoken of as "service or labor which may be due"—as a debt payable in service or labor. Also, it would be open to show, by contemporaneous history, that this mode of alluding to slaves and slavery, instead of speaking of them, was employed on purpose to exclude from the Constitution the idea that there could be property in man.

To show all this is easy and certain.

When this obvious mistake of the judges shall be brought to their notice, is it not reasonable to expect that they will withdraw the mistaken statement, and reconsider the conclusion based upon it?

And then it is to be remembered that "our fathers, who framed the government under which we live"–the men who made the Constitution–decided this same constitutional question in our favor, long ago–decided it without division among themselves, when making the decision; without division among themselves about the meaning of it after it was made, and, so far as any evidence is left, without basing it upon any mistaken statement of fact.

Under all these circumstances, do you really feel yourselves justified to break up this government, unless such a court decision as yours is shall be at once submitted to as a conclusive and final rule of political action? But you will not abide the election of a Republican president! In that supposed event, you say, you will destroy the Union; and then, you say, the great crime of having destroyed it will be upon us! That is cool. A highwayman holds a pistol to my ear, and mutters through his teeth, "Stand and deliver, or I shall kill you, and then you will be a murderer!"

To be sure, what the robber demanded of me–my money–was my own; and I had a clear right to keep it; but it was no more my own than my vote is my own; and the threat of death to me, to extort my money, and the threat of destruction to the Union, to extort my vote, can scarcely be distinguished in principle.

A few words now to Republicans. It is exceedingly desirable that all parts of this great confederacy shall be at peace, and in harmony, one with another. Let us Republicans do our part to have it so. Even though much provoked, let us do nothing through passion and ill temper. Even though the Southern people will not so much as listen to us, let us calmly consider their demands, and yield to them if, in our deliberate view of our duty, we possibly can. Judging by all they say and do, and by the subject and nature of their controversy with us, let us determine, if we can, what will satisfy them.

Will they be satisfied if the territories be unconditionally surrendered to them? We know they will not. In all their present complaints against us, the territories are scarcely mentioned. Invasions and insurrections are the rage now. Will it satisfy them, if, in the future, we have nothing to do with invasions and insurrections? We know it will not. We so know, because we know we never had anything to do with invasions and insurrections; and yet this total abstaining does not exempt us from the charge and the denunciation.

The question recurs, what will satisfy them? Simply this: We must not only let them alone, but we must, somehow, convince them that we do let them alone. This, we know by experience, is no easy task. We have

been so trying to convince them from the very beginning of our organization, but with no success. In all our platforms and speeches we have constantly protested our purpose to let them alone; but this has had no tendency to convince them. Alike unavailing to convince them is the fact that they have never detected a man of us in any attempt to disturb them.

These natural, and apparently adequate means all failing, what will convince them? This, and this only: cease to call slavery *wrong*, and join them in calling it *right*. And this must be done thoroughly—done in *acts* as well as in *words*. Silence will not be tolerated—we must place ourselves avowedly with them. Senator Douglas' new sedition law must be enacted and enforced, suppressing all declarations that slavery is wrong, whether made in politics, in presses, in pulpits, or in private. We must arrest and return their fugitive slaves with greedy pleasure. We must pull down our free state constitutions. The whole atmosphere must be disinfected from all taint of opposition to slavery, before they will cease to believe that all their troubles proceed from us.

I am quite aware they do not state their case precisely in this way. Most of them would probably say to us, "Let us alone, *do* nothing to us, and *say* what you please about slavery." But we do let them alone—have never disturbed them—so that, after all, it is what we say which dissatisfies them. They will continue to accuse us of doing, until we cease saying.

I am also aware they have not, as yet, in terms, demanded the overthrow of our free-state constitutions. Yet those constitutions declare the wrong of slavery, with more solemn emphasis, than do all other sayings against it; and when all these other sayings shall have been silenced, the overthrow of these constitutions will be demanded, and nothing be left to resist the demand. It is nothing to the contrary that they do not demand the whole of this just now. Demanding what they do, and for the reason they do, they can voluntarily stop nowhere short of this consummation. Holding, as they do, that slavery is morally right, and socially elevating, they cannot cease to demand a full national recognition of it, as a legal right, and a social blessing.

Nor can we justifiably withhold this, on any ground save our conviction that slavery is wrong. If slavery is right, all words, acts, laws, and constitutions against it are themselves wrong, and should be silenced, and swept away. If it is right, we cannot justly object to its nationality—its universality; if it is wrong, they cannot justly insist upon its extension—its enlargement. All they ask, we could readily grant, if we thought slavery right; all we ask, they could as readily grant, if they thought it wrong. Their thinking it right, and our thinking it wrong, is the precise

fact upon which depends the whole controversy. Thinking it right, as they do, they are not to blame for desiring its full recognition, as being right; but, thinking it wrong, as we do, can we yield to them? Can we cast our votes with their view, and against our own? In view of our moral, social, and political responsibilities, can we do this?

Wrong as we think slavery is, we can yet afford to let it alone where it is, because that much is due to the necessity arising from its actual presence in the nation; but can we, while our votes will prevent it, allow it to spread into the national territories, and to overrun us here in these free states? If our sense of duty forbids this, then let us stand by our duty, fearlessly and effectively. Let us be diverted by none of those sophistical contrivances wherewith we are so industriously plied and belabored—contrivances such as groping for some middle ground between the right and the wrong, vain as the search for a man who should be neither a living man nor a dead man—such as a policy of "don't care" on a question about which all true men do care—such as Union appeals beseeching true Union men to yield to Disunionists, reversing the divine rule, and calling, not the sinners, but the righteous to repentance—such as invocations to Washington, imploring men to unsay what Washington said, and undo what Washington did.

Neither let us be slandered from our duty by false accusations against us, nor frightened from it by menaces of destruction to the government nor of dungeons to ourselves. LET US HAVE FAITH THAT RIGHT MAKES MIGHT, AND IN THAT FAITH, LET US, TO THE END, DARE TO DO OUR DUTY AS WE UNDERSTAND IT.

First Inaugural Address

March 4, 1861

Fellow citizens of the United States:

In compliance with a custom as old as the government itself, I appear before you to address you briefly, and to take, in your presence, the oath prescribed by the Constitution of the United States, to be taken by the President "before he enters on the execution of his office."

I do not consider it necessary, at present, for me to discuss those matters of administration about which there is no special anxiety, or excitement.

Apprehension seems to exist among the people of the Southern states that by the accession of a Republican administration their property, and their peace, and personal security are to be endangered. There has never been any reasonable cause for such apprehension. Indeed, the most ample evidence to the contrary has all the while existed, and been open to their inspection. It is found in nearly all the published speeches of him who now addresses you. I do but quote from one of those speeches when I declare that "I have no purpose, directly or indirectly, to interfere with the institution of slavery in the states where it exists. I believe I have no lawful right to do so, and I have no inclination to do so." Those who nominated and elected me did so with full knowledge that I had made this and many similar declarations, and had never recanted them. And more than this, they placed in the platform, for my acceptance, and as a law to themselves, and to me, the clear and emphatic resolution which I now read:

"*Resolved*, That the maintenance inviolate of the rights of the states, and especially the right of each state to order and control its own domestic institutions according to its own judgment exclusively, is essential to that balance of power on which the perfection and endurance of our political fabric depend; and we denounce the lawless invasion by armed

force of the soil of any state or territory, no matter under what pretext, as among the gravest of crimes."

I now reiterate these sentiments: and in doing so, I only press upon the public attention the most conclusive evidence of which the case is susceptible, that the property, peace and security of no section are to be in anywise endangered by the now incoming administration. I add too that all the protection which, consistently with the Constitution and the laws, can be given will be cheerfully given to all the states when lawfully demanded, for whatever cause–as cheerfully to one section as to another.

There is much controversy about the delivering up of fugitives from service or labor. The clause I now read is as plainly written in the Constitution as any other of its provisions:

"No person held to service or labor in one state, under the law thereof, escaping into another, shall, in consequence of any law or regulation therein, be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due."

It is scarcely questioned that this provision was intended by those who made it for the reclaiming of what we call fugitive slaves; and the intention of the lawgiver is the law. All members of Congress swear their support to the whole Constitution–to this provision as much as to any other. To the proposition, then, that slaves whose cases come within the terms of this clause "shall be delivered up," their oaths are unanimous. Now, if they would make the effort in good temper, could they not, with nearly equal unanimity, frame and pass a law by means of which to keep good that unanimous oath?

There is some difference of opinion whether this clause should be enforced by national or by state authority; but surely that difference is not a very material one. If the slave is to be surrendered, it can be of but little consequence to him, or to others, by which authority it is done. And should anyone, in any case, be content that his oath shall go unkept, on a merely unsubstantial controversy as to *how* it shall be kept?

Again, in any law upon this subject, ought not all the safeguards of liberty known in civilized and humane jurisprudence to be introduced, so that a free man be not, in any case, surrendered as a slave? And might it not be well, at the same time, to provide by law for the enforcement of that clause in the Constitution which guarantees that "The citizen of each state shall be entitled to all privileges and immunities of citizens in the several states?"

I take the official oath today, with no mental reservations, and with no

purpose to construe the Constitution or laws by any hypercritical rules. And while I do not choose now to specify particular acts of Congress as proper to be enforced, I do suggest that it will be much safer for all, both in official and private stations, to conform to, and abide by, all those acts which stand unrepealed, than to violate any of them, trusting to find impunity in having them held to be unconstitutional.

It is seventy-two years since the first inauguration of a President under our national Constitution. During that period fifteen different and greatly distinguished citizens have, in succession, administered the executive branch of the government. They have conducted it through many perils; and, generally, with great success. Yet, with all this scope for precedent, I now enter upon the same task for the brief constitutional term of four years, under great and peculiar difficulty. A disruption of the federal Union heretofore only menaced is now formidably attempted.

I hold, that in contemplation of universal law, and of the Constitution, the Union of these states is perpetual. Perpetuity is implied, if not expressed, in the fundamental law of all national governments. It is safe to assert that no government proper ever had a provision in its organic law for its own termination. Continue to execute all the express provisions of our national Constitution, and the Union will endure forever–it being impossible to destroy it, except by some action not provided for in the instrument itself.

Again, if the United States be not a government proper, but an association of states in the nature of contract merely, can it, as a contract, be peaceably unmade by less than all the parties who made it? One party to a contract may violate it–break it so to speak; but does it not require all to lawfully rescind it?

Descending from these general principles, we find the proposition that, in legal contemplation, the Union is perpetual, confirmed by the history of the Union itself. The Union is much older than the Constitution. It was formed in fact by the Articles of Association in 1774. It was matured and continued by the Declaration of Independence in 1776. It was further matured and the faith of all the then thirteen states expressedly plighted and engaged that it should be perpetual, by the Articles of Confederation in 1778. And finally, in 1787, one of the declared objects for ordaining and establishing the Constitution was *"to form a more perfect union."*

But if destruction of the Union, by one, or by a part only, of the states, be lawfully possible, the Union is *less* perfect than before the Constitution, having lost the vital element of perpetuity.

It follows from these views that no state, upon its own mere motion, can lawfully get out of the Union–that *resolves* and *ordinances* to that effect are legally void; and that acts of violence, within any state or states, against the authority of the United States are insurrectionary or revolutionary, according to circumstances.

I therefore consider that, in view of the Constitution and the laws, the Union is unbroken; and, to the extent of my ability, I shall take care, as the Constitution itself expressly enjoins upon me, that the laws of the Union be faithfully executed in all the states. Doing this I deem to be only a simple duty on my part; and I shall perform it, so far as practicable, unless my rightful masters, the American people, shall withhold the requisite means, or, in some authoritative manner, direct the contrary. I trust this will not be regarded as a menace, but only as the declared purpose of the Union that it *will* constitutionally defend, and maintain, itself.

In doing this there needs to be no bloodshed or violence; and there shall be none, unless it be forced upon the national authority. The power confided to me will be used to hold, occupy, and possess the property and places belonging to the government, and to collect the duties and imposts; but beyond what may be necessary for these objects, there will be no invasion–no using of force against or among the people anywhere. Where hostility to the United States, in any interior locality, shall be so great and so universal as to prevent competent resident citizens from holding the federal offices, there will be no attempt to force obnoxious strangers among the people for that object. While the strict legal right may exist in the government to enforce the exercise of these offices, the attempt to do so would be so irritating, and so nearly impracticable with all, that I deem it better to forego, for the time, the uses of such offices.

The mails, unless repelled, will continue to be furnished in all parts of the Union. So far as possible, the people everywhere shall have that sense of perfect security which is most favorable to calm thought and reflection. The course here indicated will be followed, unless current events, and experience, shall show a modification, or change, to be proper; and in every case and exigency, my best discretion will be exercised, according to circumstances actually existing, and with a view and a hope of a peaceful solution of the national troubles, and the restoration of fraternal sympathies and affections.

That there are persons in one section or another who seek to destroy the Union at all events, and are glad of any pretext to do it, I will neither

affirm or deny; but if there be such, I need address no word to them. To those, however, who really love the Union, may I not speak?

Before entering upon so grave a matter as the destruction of our national fabric, with all its benefits, its memories, and its hopes, would it not be wise to ascertain precisely why we do it? Will you hazard so desperate a step, while there is any possibility that any portion of the ills you fly from have no real existence? Will you, while the certain ills you fly to are greater than all the real ones you fly from? Will you risk the commission of so fearful a mistake?

All profess to be content in the Union, if all constitutional rights can be maintained. Is it true, then, that any right, plainly written in the Constitution, has been denied? I think not. Happily the human mind is so constituted that no party can reach to the audacity of doing this. Think, if you can, of a single instance in which a plainly written provision of the Constitution has ever been denied. If, by the mere force of numbers, a majority should deprive a minority of any clearly written constitutional right, it might, in a moral point of view, justify revolution–certainly would if such right were a vital one. But such is not our case. All the vital rights of minorities, and of individuals, are so plainly assured to them, by affirmations and negations, guarantees and prohibitions, in the Constitution that controversies never arise concerning them. But no organic law can ever be framed with a provision specifically applicable to every question which may occur in practical administration. No foresight can anticipate, nor any document of reasonable length contain express provisions for, all possible questions. Shall fugitives from labor be surrendered by national or by state authority? The Constitution does not expressly say. *May* Congress prohibit slavery in the territories? The Constitution does not expressly say. *Must* Congress protect slavery in the territories? The Constitution does not expressly say.

From questions of this class spring all our constitutional controversies, and we divide upon them into majorities and minorities. If the minority will not acquiesce, the majority must, or the government must cease. There is no other alternative; for continuing the government is acquiescence on one side or the other. If a minority, in such case, will secede rather than acquiesce, they make a precedent which, in turn, will divide and ruin them; for a minority of their own will secede from them whenever a majority refuses to be controlled by such minority. For instance, why may not any portion of a new confederacy, a year or two hence, arbitrarily secede again, precisely as portions of the present Union now

claim to secede from it. All who cherish disunion sentiments are now being educated to the exact temper of doing this. Is there such perfect identity of interests among the states to compose a new Union as to produce harmony only, and prevent renewed secession?

Plainly, the central idea of secession is the essence of anarchy. A majority, held in restraint by constitutional checks, and limitations, and always changing easily with deliberate changes of popular opinions and sentiments, is the only true sovereign of a free people. Whoever rejects it does, of necessity, fly to anarchy or to despotism. Unanimity is impossible; the rule of a minority, as a permanent arrangement, is wholly inadmissible; so that, rejecting the majority principle, anarchy, or despotism in some form, is all that is left.

I do not forget the position assumed by some, that constitutional questions are to be decided by the Supreme Court; nor do I deny that such decisions must be binding in any case upon the parties to a suit, as to the object of that suit, while they are also entitled to very high respect and consideration, in all parallel cases, by all other departments of the government. And while it is obviously possible that such decision may be erroneous in any given case, still the evil effect following it, being limited to that particular case, with the chance that it may be overruled and never become a precedent for other cases, can better be borne than could the evils of a different practice. At the same time the candid citizen must confess that if the policy of the government, upon vital questions affecting the whole people, is to be irrevocably fixed by decisions of the Supreme Court, the instant they are made, in ordinary litigation between parties, in personal actions, the people will have ceased to be their own rulers, having, to that extent, practically resigned their government into the hands of that eminent tribunal. Nor is there, in this view, any assault upon the court, or the judges. It is a duty, from which they may not shrink, to decide cases properly brought before them; and it is no fault of theirs, if others seek to turn their decisions to political purposes.

One section of our country believes slavery is *right*, and ought to be extended, while the other believes it is *wrong*, and ought not to be extended. This is the only substantial dispute. The fugitive slave clause of the Constitution, and the law for the suppression of the foreign slave trade, are each as well enforced, perhaps, as any law can ever be in a community where the moral sense of the people imperfectly supports the law itself. The great body of the people abide by the dry legal obligation in both cases, and a few break over in each. This, I think, cannot be

perfectly cured; and it would be worse in both cases *after* the separation of the sections than before. The foreign slave trade, now imperfectly suppressed, would be ultimately revived without restriction in one section; while fugitive slaves, now only partially surrendered, would not be surrendered at all by the other.

Physically speaking, we cannot separate. We cannot remove our respective sections from each other, nor build an impassable wall between them. A husband and wife may be divorced, and go out of the presence, and beyond the reach, of each other; but the different parts of our country cannot do this. They cannot but remain face to face; and intercourse, either amicable or hostile, must continue between them. Is it possible then to make that intercourse more advantageous, or more satisfactory, *after* separation than *before*? Can aliens make treaties easier than friends can make laws? Can treaties be more faithfully enforced between aliens than laws can among friends? Suppose you go to war, you cannot fight always; and when, after much loss on both sides, and no gain on either, you cease fighting, the identical old questions, as to terms of intercourse, are again upon you.

This country, with its institutions, belongs to the people who inhabit it. Whenever they shall grow weary of the existing government, they can exercise their *constitutional* right of amending it, or their *revolutionary* right to dismember or overthrow it. I cannot be ignorant of the fact that many worthy and patriotic citizens are desirous of having the national Constitution amended. While I make no recommendation of amendments, I fully recognize the rightful authority of the people over the whole subject, to be exercised in either of the modes prescribed in the instrument itself; and I should, under existing circumstances, favor, rather than oppose, a fair opportunity being afforded the people to act upon it.

I will venture to add that, to me, the convention mode seems preferable, in that it allows amendments to originate with the people themselves, instead of only permitting them to take or reject propositions originated by others, not especially chosen for the purpose, and which might not be precisely such as they would wish to either accept or refuse. I understand a proposed amendment to the Constitution—which amendment, however, I have not seen—has passed Congress, to the effect that the federal government shall never interfere with the domestic institutions of the states, including that of persons held to service. To avoid misconstruction of what I have said, I depart from my purpose not to

speak of particular amendments, so far as to say that, holding such a provision to now be implied constitutional law, I have no objection to its being made express, and irrevocable.

The chief magistrate derives all his authority from the people, and they have conferred none upon him to fix terms for the separation of the states. The people themselves can do this also if they choose; but the executive, as such, has nothing to do with it. His duty is to administer the present government, as it came to his hands, and to transmit it, unimpaired by him, to his successor.

Why should there not be a patient confidence in the ultimate justice of the people? Is there any better, or equal, hope in the world? In our present differences, is either party without faith of being in the right? If the Almighty Ruler of nations, with his eternal truth and justice, be on your side of the North, or on yours of the South, that truth, and that justice, will surely prevail, by the judgment of this great tribunal, the American people.

By the frame of the government under which we live, this same people have wisely given their public servants but little power for mischief; and have, with equal wisdom, provided for the return of that little to their own hands at very short intervals.

While the people retain their virtue, and vigilance, no administration, by any extreme of wickedness or folly, can very seriously injure the government, in the short space of four years.

My countrymen, one and all, think calmly and well upon this whole subject. Nothing valuable can be lost by taking time. If there be an object to *hurry* any of you, in hot haste, to a step which you would never take deliberately, that object will be frustrated by taking time; but no good object can be frustrated by it. Such of you as are now dissatisfied still have the old Constitution unimpaired, and, on the sensitive point, the laws of your own framing under it; while the new administration will have no immediate power, if it would, to change either. If it were admitted that you who are dissatisfied hold the right side in the dispute, there still is no single good reason for precipitate action. Intelligence, patriotism, Christianity, and a firm reliance on Him, who has never yet forsaken this favored land, are still competent to adjust, in the best way, all our present difficulty.

In *your* hands, my dissatisfied fellow countrymen, and not in *mine*, is the momentous issue of civil war. The government will not assail *you*. You can have no conflict, without being yourselves the aggressors. *You* have no oath registered in Heaven to destroy the government, while *I*

shall have the most solemn one to "preserve, protect and defend" it.

I am loath to close. We are not enemies, but friends. We must not be enemies. Though passion may have strained, it must not break our bonds of affection. The mystic chords of memory, stretching from every battlefield and patriot grave to every living heart and hearthstone all over this broad land, will yet swell the chorus of the Union, when again touched, as surely they will be, by the better angels of our nature.

Letter to Horace Greeley

EXECUTIVE MANSION,
Washington, August 22, 1862

Hon. Horace Greeley:
Dear Sir:

I have just read yours of the 19th addressed to myself through the New York *Tribune*. If there be in it any statements, or assumptions of fact, which I may know to be erroneous, I do not now and here controvert them. If there be in it any inferences which I may believe to be falsely drawn, I do not now and here, argue against them. If there be perceptible in it an impatient and dictatorial tone, I waive it in deference to an old friend, whose heart I have always supposed to be right.

As to the policy I "seem to be pursuing," as you say, I have not meant to leave anyone in doubt.

I would save the Union. I would save it the shortest way under the Constitution. The sooner the national authority can be restored, the nearer the Union will be "the Union as it was." If there be those who would not save the Union unless they could at the same time *save* slavery, I do not agree with them. If there be those who would not save the Union unless they could at the same time *destroy* slavery, I do not agree with them. My paramount object in this struggle *is* to save the Union, and is *not* either to save or to destroy slavery. If I could save the Union without freeing *any* slave, I would do it; and if I could save it by freeing *all* the slaves, I would do it; and if I could save it by freeing some and leaving others alone, I would also do that. What I do about slavery, and the colored race, I do because I believe it helps to save the Union; and what I forbear, I forbear because I do *not* believe it would help to save the Union. I shall do *less* whenever I shall believe what I am doing hurts the cause, and I shall do *more* whenever I shall believe doing more will help the cause. I shall try to correct errors when shown to be errors; and I shall adopt new views so fast as they shall appear to be true views.

I have here stated my purpose according to my view of *official* duty; and I intend no modification of my oft-expressed *personal* wish that all men everywhere could be free. Yours,

A. Lincoln

Meditation on the Divine Will

[September 2, 1862?]

The will of God prevails. In great contests each party claims to act in accordance with the will of God. Both *may* be, and one *must* be, wrong. God can not be *for* and *against* the same thing at the same time. In the present civil war it is quite possible that God's purpose is something different from the purpose of either party–and yet the human instrumentalities, working just as they do, are of the best adaptation to effect His purpose. I am almost ready to say this is probably true–that God wills this contest, and wills that it shall not end yet. By His mere quiet power, on the minds of the now contestants, He could have either *saved* or *destroyed* the Union without a human contest. Yet the contest began. And having begun He could give the final victory to either side any day. Yet the contest proceeds.

The Gettysburg Address

November 19, 1863

Fourscore and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people, shall not perish from the earth.

Second Inaugural Address

March 4, 1865

At this second appearing to take the oath of the presidential office, there is less occasion for an extended address than there was at the first. Then a statement, somewhat in detail, of a course to be pursued seemed fitting and proper. Now, at the expiration of four years, during which public declarations have been constantly called forth on every point and phase of the great contest which still absorbs the attention and engrosses the energies of the nation, little that is new could be presented. The progress of our arms, upon which all else chiefly depends, is as well known to the public as to myself; and it is, I trust, reasonably satisfactory and encouraging to all. With high hope for the future, no prediction in regard to it is ventured.

On the occasion corresponding to this four years ago, all thoughts were anxiously directed to an impending civil war. All dreaded it—all sought to avert it. While the inaugural address was being delivered from this place, devoted altogether to *saving* the Union without war, insurgent agents were in the city seeking to *destroy* it without war—seeking to dissolve the Union, and divide effects, by negotiation. Both parties deprecated war; but one of them would *make* war rather than let the nation survive; and the other would *accept* war rather than let it perish. And the war came.

One-eighth of the whole population were colored slaves, not distributed generally over the Union, but localized in the Southern part of it. These slaves constituted a peculiar and powerful interest. All knew that this interest was, somehow, the cause of the war. To strengthen, perpetuate, and extend this interest was the object for which the insurgents would rend the Union, even by war; while the government claimed no right to do more than to restrict the territorial enlargement of it. Neither party expected for the war the magnitude, or the duration, which it has already attained. Neither anticipated that the *cause* of the conflict might

cease with, or even before, the conflict itself should cease. Each looked for an easier triumph, and a result less fundamental and astounding. Both read the same Bible, and pray to the same God; and each invokes His aid against the other. It may seem strange that any men should dare to ask a just God's assistance in wringing their bread from the sweat of other men's faces; but let us judge not that we be not judged. The prayers of both could not be answered; that of neither has been answered fully. The Almighty has His own purposes. "Woe unto the world because of offenses! for it must needs be that offenses come; but woe to that man by whom the offense cometh!" If we shall suppose that American slavery is one of those offenses which, in the providence of God, must needs come, but which, having continued through His appointed time, He now wills to remove, and that He gives to both North and South this terrible war as the woe due to those by whom the offense came, shall we discern therein any departure from those divine attributes which the believers in a living God always ascribe to Him? Fondly do we hope—fervently do we pray—that this mighty scourge of war may speedily pass away. Yet, if God wills that it continue, until all the wealth piled by the bondman's two hundred and fifty years of unrequited toil shall be sunk, and until every drop of blood drawn with the lash shall be paid by another drawn with the sword, as was said three thousand years ago, so still it must be said "the judgments of the Lord are true and righteous altogether."

With malice toward none; with charity for all; with firmness in the right as God gives us to see the right, let us strive on to finish the work we are in; to bind up the nation's wounds; to care for him who shall have borne the battle, and for his widow, and his orphan—to do all which may achieve and cherish a just and a lasting peace, among ourselves and with all nations.

Last Public Address

April 11, 1865

We meet this evening, not in sorrow, but in gladness of heart. The evacuation of Petersburg and Richmond and the surrender of the principal insurgent army give hope of a righteous and speedy peace whose joyous expression cannot be restrained. In the midst of this, however, He from Whom all blessings flow must not be forgotten. A call for a national thanksgiving is being prepared, and will be duly promulgated. Nor must those whose harder part gives us the cause of rejoicing be overlooked. Their honors must not be parceled out with others. I myself was near the front, and had the high pleasure of transmitting much of the good news to you; but no part of the honor, for plan or execution, is mine. To General Grant, his skillful officers, and brave men, all belongs. The gallant navy stood ready, but was not in reach to take active part.

By these recent successes the reinauguration of the national authority–reconstruction–which has had a large share of thought from the first, is pressed much more closely upon our attention. It is fraught with great difficulty. Unlike the case of a war between independent nations, there is no authorized organ for us to treat with. No one man has authority to give up the rebellion for any other man. We simply must begin with, and mould from, disorganized and discordant elements. Nor is it a small additional embarrassment that we, the loyal people, differ among ourselves as to the mode, manner, and means of reconstruction.

As a general rule, I abstain from reading the reports of attacks upon myself, wishing not to be provoked by that to which I cannot properly offer an answer. In spite of this precaution, however, it comes to my knowledge that I am much censured for some supposed agency in setting up, and seeking to sustain, the new state government of Louisiana. In this I have done just so much as, and no more than, the public knows. In the annual message of December, 1863, and the accompanying proclamation, I presented *a* plan of reconstruction (as the phrase goes)

which, I promised, if adopted by any state, would be acceptable to, and sustained by, the executive government of the nation. I distinctly stated that this was not the only plan which might possibly be acceptable; and I also distinctly protested that the executive claimed no right to say when or whether members should be admitted to seats in Congress from such states. This plan was, in advance, submitted to the then Cabinet, and distinctly approved by every member of it. One of them suggested that I should then, and in that connection, apply the Emancipation Proclamation to the theretofore excepted parts of Virginia and Louisiana; that I should drop the suggestion about apprenticeship for freed people, and that I should omit the protest against my own power in regard to the admission of members to Congress; but even he approved every part and parcel of the plan which has since been employed or touched by the action of Louisiana.

The new constitution of Louisiana, declaring emancipation for the whole state, practically applies the proclamation to the part previously excepted. It does not adopt apprenticeship for freed people; and it is silent, as it could not well be otherwise, about the admission of members to Congress. So that, as it applies to Louisiana, every member of the Cabinet fully approved the plan. The message went to Congress, and I received many commendations of the plan, written and verbal; and not a single objection to it, from any professed emancipationist, came to my knowledge until after the news reached Washington that the people of Louisiana had begun to move in accordance with it. From about July, 1862, I had corresponded with different persons supposed to be interested in seeking a reconstruction of a state government for Louisiana. When the message of 1863, with the plan before mentioned, reached New Orleans, General Banks wrote me that he was confident the people, with his military co-operation, would reconstruct substantially on that plan. I wrote to him and some of them to try it; they tried it, and the result is known. Such has been my only agency in getting up the Louisiana government. As to sustaining it, my promise is out, as before stated. But, as bad promises are better broken than kept, I shall treat this as a bad promise and break it, whenever I shall be convinced that keeping it is adverse to the public interest. But I have not yet been so convinced.

I have been shown a letter on this subject, supposed to be an able one, in which the writer expresses regret that my mind has not seemed to be definitely fixed on the question whether the seceded states, so called, are in the Union or out of it. It would perhaps add astonishment to his regret were he to learn that since I have found professed Union men

endeavoring to make that question, I have purposely forborne any public expression upon it. As appears to me that question has not been, nor yet is, a practically material one, and that any discussion of it, while it thus remains practically immaterial, could have no effect other than the mischievous one of dividing our friends. As yet, whatever it may become, that question is bad as the basis of a controversy, and good for nothing at all–a merely pernicious abstraction.

We all agree that the seceded states, so called, are out of their proper practical relation with the Union; and that the sole object of the government, civil and military, in regard to those states is to again get them into their proper practical relation. I believe that it is not only possible, but in fact easier, to do this without deciding, or even considering, whether these states have ever been out of the Union, than with it. Finding themselves safely at home, it would be utterly immaterial whether they had ever been abroad. Let us all join in doing the acts necessary to restoring the proper practical relations between these states and the Union; and each forever after innocently indulge his own opinion whether, in doing the act, he brought the states from without into the Union, or only gave them proper assistance, they never having been out of it.

The amount of constituency, so to speak, on which the new Louisiana government rests would be more satisfactory to all if it contained fifty, thirty, or even twenty thousand, instead of only about twelve thousand, as it does. It is also unsatisfactory to some that the elective franchise is not given to the colored man. I would myself prefer that it were now conferred on the very intelligent, and on those who serve our cause as soldiers. Still the question is not whether the Louisiana government, as it stands, is quite all that is desirable. The question is "Will it be wiser to take it as it is, and help to improve it; or to reject and disperse it?" "Can Louisiana be brought into proper practical relation with the Union sooner by sustaining or by discarding her new state government?"

Some twelve thousand voters in the heretofore slave state of Louisiana have sworn allegiance to the Union, assumed to be the rightful political power of the state, held elections, organized a state government, adopted a free-state constitution, giving the benefit of public schools equally to black and white, and empowering the legislature to confer the elective franchise upon the colored man. Their legislature has already voted to ratify the constitutional amendment recently passed by Congress, abolishing slavery throughout the nation. These twelve thousand persons are thus fully committed to the Union, and to perpetual freedom in the state–committed to the very things, and nearly all things, the nation wants–and they ask the nation's recognition, and its assistance to make good

their committal. Now, if we reject and spurn them, we do our utmost to disorganize and disperse them. We in effect say to the white men, "You are worthless or worse; we will neither help you nor be helped by you." To the blacks we say, "This cup of liberty which these, your old masters, hold to your lips we will dash from you, and leave you to the chances of gathering the spilled and scattered contents in some vague and undefined when, where, and how." If this course, discouraging and paralyzing both white and black, has any tendency to bring Louisiana into proper practical relations with the Union, I have so far been unable to perceive it. If, on the contrary, we recognize and sustain the new government of Louisiana, the converse of all this is made true. We encourage the hearts and nerve the arms of the twelve thousand to adhere to their work, and argue for it, and proselyte for it, and fight for it, and feed it, and grow it, and ripen it to a complete success. The colored man, too, in seeing all united for him, is inspired with vigilance, and energy, and daring, to the same end. Grant that he desires the elective franchise, will he not attain it sooner by saving the already advanced steps toward it, than by running backward over them? Concede that the new government of Louisiana is only to what it should be as the egg is to the fowl, we shall sooner have the fowl by hatching the egg than by smashing it. Again, if we reject Louisiana, we also reject one vote in favor of the proposed amendment to the national constitution. To meet this proposition, it has been argued that no more than three-fourths of those states which have not attempted secession are necessary to validly ratify the amendment. I do not commit myself against this, further than to say that such a ratification would be questionable, and sure to be persistently questioned; while a ratification by three-fourths of all the states would be unquestioned and unquestionable.

I repeat the question. Can Louisiana be brought into proper practical relation with the Union sooner by sustaining or by discarding her new state government?

What has been said of Louisiana will apply generally to other states. And yet so great peculiarities pertain to each state; and such important and sudden changes occur in the same state; and, withal, so new and unprecedented is the whole case that no exclusive and inflexible plan can safely be prescribed as to details and collaterals. Such exclusive and inflexible plan would surely become a new entanglement. Important principles may, and must, be inflexible.

In the present "situation," as the phrase goes, it may be my duty to make some new announcement to the people of the South. I am considering, and shall not fail to act, when satisfied that action will be proper.

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7

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7

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Sir Francis Bacon

1561–1626

The world to which Bacon addresses himself in these essays—indeed, in all of his essays—is both a greater and a smaller thing than the world that Henry Adams, for example, talks about. It is smaller in so far as it lacks both a future and a past, having only a present. Yet it is greater, too, in that its present has a permanence which the passage of three hundred years has very little modified. For the subject of these essays is superior to history, being the world as it exists at any time—the world that has young men and old, parents and children, marriage and single life, great place, seditions and troubles, custom and education, followers and friends, usury (or interest), and riches—the world, in short, that does not move or change. It is the world we have always with us, being human; and to know it is to recognize ourselves.

Not that in any sense it is the best world possible; it is merely the best one going, and the worst, since it is the only one there is. Bacon is serene about this, as any man may be whose philosopher in worldly matters is Machiavelli. Perhaps a better world can be conceived. In terms of these essays, it might combine the virtues of youth and age, just as it might be altogether free of civil strife, or cause men to act according to their knowledge rather than from habit. But none of those things happens to be true, Bacon reminds us, in the world that confronts us, of which we are obliged to make, he says, the best use we can.

Nor is there after all any lack of motion in such a world, lest we think it tame or dull. The motion is made by men as they move through it—as they rise, for instance, in the hierarchy of its stations.

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[1] For a biography of Sir Francis Bacon, see Vol. 5, pp. 90–92, in this set.

Bacon, who did just that, is concerned to counsel those who do it after him, and to save them also from falling as he fell. Both things can happen in his world, which stands still while men attempt to master it, and waits too while one collects the truth about it in these brief and brilliant essays.

Of Youth and Age

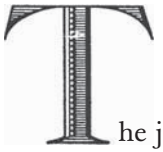
man that is young in years may be old in hours, if he have lost no time. But that happeneth rarely. Generally, youth is like the first cogitations, not so wise as the second. For there is a youth in thoughts, as well as in ages. And yet the invention of young men is more lively than that of old; and imaginations stream into their minds better, and as it were more divinely. Natures that have much heat and great and violent desires and perturbations are not ripe for action till they have passed the meridian of their years; as it was with Julius Caesar, and Septimius Severus. Of the latter of whom it is said, *Juventutem egit erroribus, imo furoribus, plenam* [He spent a youth full of errors, even of madness]. And yet he was the ablest emperor, almost, of all the list. But reposed natures may do well in youth. As it is seen in Augustus Caesar, Cosmus Duke of Florence, Gaston de Fois, and others. On the other side, heat and vivacity in age is an excellent composition for business.

Young men are fitter to invent than to judge; fitter for execution than for counsel; and fitter for new projects than for settled business. For the experience of age, in things that fall within the compass of it, directeth them; but in new things, abuseth them. The errors of young men are the ruin of business; but the errors of aged men amount but to this, that more might have been done, or sooner. Young men, in the conduct and manage of actions, embrace more than they can hold; stir more than they can quiet; fly to the end, without consideration of the means and degrees; pursue some few principles which they have chanced upon absurdly; care not to innovate, which draws unknown inconveniences; use extreme remedies at first; and that which doubleth all errors, will not acknowledge or retract them; like an unready horse, that will neither stop nor turn. Men of age object too much, consult too long, adventure too little, repent too soon, and seldom drive business home to the full period, but content

themselves with a mediocrity of success. Certainly it is good to compound employments of both; for that will be good for the present, because the virtues of either age may correct the defects of both; and good for succession, that young men may be learners, while men in age are actors; and, lastly, good for extern accidents, because authority followeth old men, and favour and popularity youth. But for the moral part, perhaps youth will have the pre-eminence, as age hath for the politic.

A certain rabbin, upon the text, "Your young men shall see visions, and your old men shall dream dreams," inferreth that young men are admitted nearer to God than old, because vision is a clearer revelation than a dream. And certainly, the more a man drinketh of the world, the more it intoxicateth: and age doth profit rather in the powers of understanding, than in the virtues of the will and affections. There be some have an over-early ripeness in their years, which fadeth betimes. These are, first, such as have brittle wits, the edge whereof is soon turned; such as was Hermogenes the rhetorician, whose books are exceeding subtle; who afterwards waxed stupid. A second sort is of those that have some natural dispositions which have better grace in youth than in age; such as is a fluent and luxuriant speech; which becomes youth well, but not age: so Tully saith of Hortensius, *Idem manebat, neque idem decebat* [He continued in the same manner, even when it no longer became him]. The third is of such as take too high a strain at the first, and are magnanimous more than tract of years can uphold. As was Scipio Africanus, of whom Livy saith in effect, *Ultima primis cedebant* [His last days were not equal to his first].

Of Parents and Children



he joys of parents are secret; and so are their griefs and fears. They cannot utter the one; nor they will not utter the other. Children sweeten labours; but they make misfortunes more bitter. They increase the cares of life; but they mitigate the remembrance of death. The perpetuity by generation is common to beasts; but memory, merit, and noble works are proper to men. And surely a man shall see the noblest works and foundations have proceeded from childless men; which have sought to express the images of their minds, where those of their bodies have failed. So the care of posterity is most in them that have no posterity. They that are the first raisers of their houses are most indulgent towards their children; beholding them as the continuance not only of their kind but of their work; and so both children and creatures.

The difference in affection of parents towards their several children is many times unequal; and sometimes unworthy; especially in the mother; as Solomon saith, "A wise son rejoiceth the father, but an ungracious son shames the mother." A man shall see, where there is a house full of children, one or two of the eldest respected, and the youngest made wantons; but in the midst some that are as it were forgotten, who many times nevertheless prove the best. The illiberality of parents in allowance towards their children is an harmful error; makes them base; acquaints them with shifts; makes them sort with mean company; and makes them surfeit more when they come to plenty. And therefore the proof is best, when men keep their authority towards their children, but not their purse. Men have a foolish manner (both parents and schoolmasters and servants) in creating and breeding an emulation between brothers during childhood, which many times sorteth to discord when they are men, and disturbeth families. The Italians make little difference between children and nephews or near kinsfolk; but so they be of the lump, they care not

though they pass not through their own body. And, to say truth, in nature it is much a like matter; insomuch that we see a nephew sometimes resembleth an uncle or a kinsman more than his own parents; as the blood happens. Let parents choose betimes the vocations and courses they mean their children should take; for then they are most flexible; and let them not too much apply themselves to the disposition of their children, as thinking they will take best to that which they have most mind to. It is true, that if the affection or aptness of the children be extraordinary, then it is good not to cross it; but generally the precept is good, *optimum elige, suave et facile illud faciet consuetudo* [choose the best; habit will make it pleasant and easy]. Younger brothers are commonly fortunate, but seldom or never where the elder are disinherited.

Of Marriage and Single Life

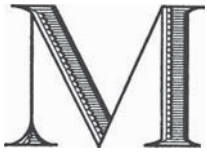
He that hath wife and children hath given hostages to fortune; for they are impediments to great enterprises, either of virtue or mischief. Certainly the best works, and of greatest merit for the public, have proceeded from the unmarried or childless men; which both in affection and means have married and endowed the public. Yet it were great reason that those that have children should have greatest care of future times; unto which they know they must transmit their dearest pledges. Some there are, who though they lead a single life, yet their thoughts do end with themselves, and account future times impertinences. Nay, there are some other that account wife and children but as bills of charges. Nay more, there are some foolish, rich, covetous men that take a pride in having no children, because they may be thought so much the richer. For perhaps they have heard some talk, "Such an one is a great rich man," and another except to it, "Yea, but he hath a great charge of children"; as if it were an abatement to his riches. But the most ordinary cause of a single life is liberty, especially in certain self-pleasing and humorous minds, which are so sensible of every restraint, as they will go near to think their girdles and garters to be bonds and shackles. Unmarried men are best friends, best masters, best servants; but not always best subjects; for they are light to run away; and almost all fugitives are of that condition.

A single life doth well with churchmen; for charity will hardly water the ground where it must first fill a pool. It is indifferent for judges and magistrates; for if they be facile and corrupt, you shall have a servant five times worse than a wife. For soldiers, I find the generals commonly in their hortatives put men in mind of their wives and children; and I think the despising of marriage amongst the Turks maketh the vulgar soldier more base. Certainly wife and children are a kind of discipline of

humanity; and single men, though they may be many times more charitable, because their means are less exhaust, yet, on the other side, they are more cruel and hardhearted (good to make severe inquisitors), because their tenderness is not so oft called upon.

Grave natures, led by custom, and therefore constant, are commonly loving husbands; as was said of Ulysses, *vetulam suam praetulit immortalitati* [he preferred his aged wife to immortality]. Chaste women are often proud and forward, as presuming upon the merit of their chastity. It is one of the best bonds both of chastity and obedience in the wife if she think her husband wise; which she will never do if she find him jealous. Wives are young men's mistresses; companions for middle age; and old men's nurses. So as a man may have a quarrel to marry when he will. But yet he was reputed one of the wise men that made answer to the question, when a man should marry?—"A young man not yet, an elder man not at all." It is often seen that bad husbands have very good wives; whether it be that it raiseth the price of their husband's kindness when it comes; or that the wives take a pride in their patience. But this never fails if the bad husbands were of their own choosing, against their friends' consent; for then they will be sure to make good their own folly.

Of Great Place



en in great place are thrice servants: servants of the sovereign or state; servants of fame; and servants of business. So as they have no freedom; neither in their persons, nor in their actions, nor in their times. It is a strange desire, to seek power and to lose liberty: or to seek power over others and to lose power over a man's self. The rising unto place is laborious; and by pains men come to greater pains; and it is sometimes base; and by indignities men come to dignities. The standing is slippery, and the regress is either a downfall, or at least an eclipse, which is a melancholy thing. *Cum non sis qui fueris, non esse cur velis vivere* [When you are not what you were, there is no reason for you to wish to live longer]. Nay, retire men cannot when they would, neither will they when it were reason; but are impatient of privateness, even in age and sickness, which require the shadow; like old townsmen, that will be still sitting at their street door, though thereby they offer age to scorn. Certainly great persons had need to borrow other men's opinions, to think themselves happy; for if they judge by their own feeling, they cannot find it: but if they think with themselves what other men think of them, and that other men would fain be as they are, then they are happy as it were by report; when perhaps they find the contrary within. For they are the first that find their own griefs, though they be the last that find their own faults.

Certainly men in great fortunes are strangers to themselves, and while they are in the puzzle of business they have no time to tend their health either of body or mind. *Illi mors gravis incubat, qui notus nimis omnibus, ignotus moritur sibi* [Death lies heavily upon him who, too well-known to all, dies unknown to himself]. In place there is licence to do good and evil; whereof the latter is a curse: for in evil the best condition is not to will; the second not to can. But power to do good is the true and lawful end of aspiring. For good thoughts (though God accept them) yet towards men are little better than good dreams, except they be put in act;

and that cannot be without power and place, as the vantage and commanding ground. Merit and good works is the end of man's motion; and conscience of the same is the accomplishment of man's rest. For if a man can be partaker of God's theatre, he shall likewise be partaker of God's rest. *Et conversus Deus, ut aspiceret opera quae fecerunt manus suae, vidit quod omnia essent bona nimis* [And God turned to consider the works of his own hands, and he saw that they were all exceedingly good]; and then the sabbath.

In the discharge of thy place set before thee the best examples; for imitation is a globe of precepts. And after a time set before thee thine own example; and examine thyself strictly whether thou didst not best at first. Neglect not also the examples of those that have carried themselves ill in the same place; not to set off thyself by taxing their memory, but to direct thyself what to avoid. Reform therefore, without bravery or scandal of former times and persons; but yet set it down to thyself as well to create good precedents as to follow them. Reduce things to the first institution, and observe wherein and how they have degenerate; but yet ask counsel of both times; of the ancient time, what is best; and of the latter time, what is fittest. Seek to make thy course regular, that men may know beforehand what they may expect; but be not too positive and peremptory; and express thyself well when thou digressest from thy rule. Preserve the right of thy place; but stir not questions of jurisdiction: and rather assume thy right in silence and *de facto,* than voice it with claims and challenges. Preserve likewise the rights of inferior places; and think it more honour to direct in chief than to be busy in all. Embrace and invite helps and advices touching the execution of thy place; and do not drive away such as bring thee information, as meddlers; but accept of them in good part.

The vices of authority are chiefly four: delays, corruption, roughness, and facility. For delays; give easy access; keep times appointed; go through with that which is in hand, and interlace not business but of necessity. For corruption; do not only bind thine own hands or thy servants' hands from taking, but bind the hands of suitors also from offering. For integrity used doth the one; but integrity professed, and with a manifest detestation of bribery, doth the other. And avoid not only the fault, but the suspicion. Whosoever is found variable, and changeth manifestly without manifest cause, giveth suspicion of corruption. Therefore always when thou changest thine opinion or course, profess it plainly, and declare it, together with the reasons that move thee to change; and do not think to steal it. A servant or a favourite, if he be inward, and no

other apparent cause of esteem, is commonly thought but a byway to close corruption. For roughness; it is a needless cause of discontent: severity breedeth fear, but roughness breedeth hate. Even reproofs from authority ought to be grave, and not taunting. As for facility; it is worse than bribery. For bribes come but now and then; but if importunity or idle respects lead a man, he shall never be without. As Solomon saith, "To respect persons is not good; for such a man will transgress for a piece of bread." It is most true that was anciently spoken, "A place showeth the man." And it showeth some to the better, and some to the worse. *Omnium consensu capax imperii, nisi imperasset* [Had he not been emperor, all would have agreed that he was worthy of holding supreme power], saith Tacitus of Galba; but of Vespasian he saith, *Solus imperantium, Vespasianus mutatus in melius* [Vespasian alone was changed for the better by the possession of power], though the one was meant of sufficiency, the other of manners and affection. It is an assured sign of a worthy and generous spirit, whom honour amends. For honour is, or should be, the place of virtue; and as in nature things move violently to their place and calmly in their place, so virtue in ambition is violent, in authority settled and calm. All rising to great place is by a winding stair; and if there be factions, it is good to side a man's self whilst he is in the rising, and to balance himself when he is placed. Use the memory of thy predecessor fairly and tenderly; for if thou dost not, it is a debt will sure be paid when thou art gone. If thou have colleagues, respect them, and rather call them when they look not for it, than exclude them when they have reason to look to be called. Be not too sensible or too remembering of thy place in conversation and private answers to suitors; but let it rather be said, "When he sits in place he is another man."

Of Seditions and Troubles

Shepherds of people had need know the calendars of tempests in state; which are commonly greatest when things grow to equality; as natural tempests are greatest about the *Equinoctia.* And as there are certain hollow blasts of wind and secret swellings of seas before a tempest, so are there in states:

> *Ille etiam caecos instare tumultus*
> *Saepe monet, fraudesque et operta tumescere bella.*
>
> [Often a violent commotion gives warning of dark disturbances, of deception and secret war ready to burst forth.–Virgil.]

Libels and licentious discourses against the state, when they are frequent and open; and in like sort, false news often running up and down to the disadvantage of the state, and hastily embraced; are amongst the signs of troubles. Virgil giving the pedigree of Fame, saith "she was sister to the Giants":

> *Illam Terra parens, ira irritata Deorum,*
> *Extremam* (*ut perhibent*) *Coeo Enceladoque sororem*
> *Progenuit.*
>
> [Mother Earth, in wrath at the anger of the gods, brought forth that youngest sister (as they assert) of Coeus and Enceladus.]

As if fames were the relics of seditions past; but they are no less indeed the preludes of seditions to come. Howsoever he noteth it right, that seditious tumults and seditious fames differ no more but as brother and sister, masculine and feminine; especially if it come to that, that the best actions of a state, and the most plausible, and which ought to give greatest contentment, are taken in ill sense, and traduced: for that shows the envy great, as Tacitus saith, *conflata magna invidia, seu bene seu male gesta premunt* [when great ill will is kindled against the government, both

good and evil actions are oppressive]. Neither doth it follow, that because these fames are a sign of troubles, that the suppressing of them with too much severity should be a remedy of troubles. For the despising of them many times checks them best; and the going about to stop them doth but make a wonder long-lived. Also that kind of obedience which Tacitus speaketh of, is to be held suspected: *Erant in officio, sed tamen qui mallent mandata imperantium interpretari, quam exequi* [There are those in office who prefer interpreting commands to executing them]; disputing, excusing, cavilling upon mandates and directions, is a kind of shaking off the yoke, and assay of disobedience; especially if in those disputings they which are for the direction speak fearfully and tenderly, and those that are against it audaciously.

Also, as Machiavel noteth well, when princes, that ought to be common parents, make themselves as a party, and lean to a side, it is as a boat that is overthrown by uneven weight on the one side; as was well seen in the time of Henry the Third of France; for first himself entered league for the extirpation of the Protestants; and presently after the same league was turned upon himself. For when the authority of princes is made but an accessary to a cause, and that there be other bands that tie faster than the band of sovereignty, kings begin to be put almost out of possession.

Also, when discords, and quarrels, and factions are carried openly and audaciously, it is a sign the reverence of government is lost. For the motions of the greatest persons in a government ought to be as the motions of the planets under *primum mobile;* (according to the old opinion) which is, that every of them is carried swiftly by the highest motion, and softly in their own motion. And therefore, when great ones in their own particular motion move violently, and, as Tacitus expresseth it well, *liberius quam ut imperantium meminissent* [more unrestrained than they would be if they were mindful of government], it is a sign the orbs are out of frame. For reverence is that wherewith princes are girt from God; who threateneth the dissolving thereof; *Solvam cingula regum* [I will loose the girdles of kings].

So when any of the four pillars of government are mainly shaken or weakened (which are Religion, Justice, Counsel, and Treasure), men had need to pray for fair weather. But let us pass from this part of predictions (concerning which, nevertheless, more light may be taken from that which followeth); and let us speak first of the Materials of seditions; then of the Motives of them; and thirdly of the Remedies.

Concerning the Materials of seditions. It is a thing well to be considered; for the surest way to prevent seditions (if the times do bear it)

is to take away the matter of them. For if there be fuel prepared, it is hard to tell whence the spark shall come that shall set it on fire. The matter of seditions is of two kinds; much poverty and much discontentment. It is certain, so many overthrown estates, so many votes for troubles. Lucan noteth well the state of Rome before the civil war,

> *Hinc usura vorax, rapidumque in tempore foenus,*
> *Hinc concussa fides, et multis utile bellum.*
> [Hence ravenous usury, and short-term interest
> Hence shaken credit, and war which is advantageous to many.]

This same *multis utile bellum* is an assured and infallible sign of a state disposed to seditions and troubles. And if this poverty and broken estate in the better sort be joined with a want and necessity in the mean people, the danger is imminent and great. For the rebellions of the belly are the worst. As for discontentments, they are in the politic body like to humours in the natural, which are apt to gather a preternatural heat and to inflame. And let no prince measure the danger of them by this, whether they be just or unjust: for that were to imagine people to be too reasonable; who do often spurn at their own good: nor yet by this, whether the griefs whereupon they rise be in fact great or small: for they are the most dangerous discontentments where the fear is greater than the feeling: *Dolendi modus, timendi non item* [Pain has a limit, but fear has none]. Besides, in great oppressions, the same things that provoke the patience, do withal mate the courage; but in fears it is not so. Neither let any prince or state be secure concerning discontentments, because they have been often, or have been long, and yet no peril hath ensued: for as it is true that every vapour or fume doth not turn into a storm; so it is nevertheless true that storms, though they blow over divers times, yet may fall at last; and, as the Spanish proverb noteth well, "The cord breaketh at the last by the weakest pull."

The Causes and Motives of seditions are innovation in religion; taxes; alteration of laws and customs; breaking of privileges; general oppression; advancement of unworthy persons; strangers; dearths; disbanded soldiers; factions grown desperate; and whatsoever, in offending people, joineth and knitteth them in a common cause.

For the Remedies; there may be some general preservatives, whereof we will speak: as for the just cure, it must answer to the particular disease; and so be left to counsel rather than rule.

The first remedy or prevention is to remove by all means possible that material cause of sedition whereof we spake; which is, want and poverty

in the estate. To which purpose serveth the opening and well-balancing of trade; the cherishing of manufactures; the banishing of idleness; the repressing of waste and excess by sumptuary laws; the improvement and husbanding of the soil; the regulating of prices of things vendible; the moderating of taxes and tributes, and the like. Generally, it is to be foreseen that the population of a kingdom (especially if it be not mown down by wars) do not exceed the stock of the kingdom which should maintain them. Neither is the population to be reckoned only by number; for a smaller number that spend more and earn less, do wear out an estate sooner than a greater number that live lower and gather more. Therefore the multiplying of nobility and other degrees of quality in an over proportion to the common people doth speedily bring a state of necessity; and so doth likewise an overgrown clergy; for they bring nothing to the stock; and in like manner, when more are bred scholars than preferments can take off.

It is likewise to be remembered, that forasmuch as the increase of any estate must be upon the foreigner (for whatsoever is somewhere gotten is somewhere lost), there be but three things which one nation selleth unto another; the commodity as nature yieldeth it; the manufacture; and the vecture, or carriage. So that if these three wheels go, wealth will flow as in a spring tide. And it cometh many times to pass that *materiam superabit opus;* that the work and carriage is more worth than the material, and enricheth a state more; as is notably seen in the Low-Countrymen, who have the best mines above ground in the world.

Above all things, good policy is to be used that the treasure and monies in a state be not gathered into few hands. For otherwise a state may have a great stock, and yet starve. And money is like muck, not good except it be spread. This is done chiefly by suppressing, or at the least keeping a strait hand upon the devouring trades of usury, ingrossing, great pasturages, and the like.

For removing discontentments, or at least the danger of them, there is in every state (as we know) two portions of subjects: the noblesse and the commonalty. When one of these is discontent, the danger is not great; for common people are of slow motion, if they be not excited by the greater sort; and the greater sort are of small strength, except the multitude be apt and ready to move of themselves. Then is the danger, when the greater sort do but wait for the troubling of the waters amongst the meaner, that then they may declare themselves. The poets feign that the rest of the gods would have bound Jupiter; which he hearing of, by the counsel of Pallas, sent for Briareus, with his hundred hands, to come in to

his aid. An emblem, no doubt, to show how safe it is for monarchs to make sure of the good will of common people.

To give moderate liberty for griefs and discontentments to evaporate (so it be without too great insolency or bravery), is a safe way. For he that turneth the humours back, and maketh the wound bleed inwards, endangereth malign ulcers and pernicious imposthumations.

The part of Epimetheus might well become Prometheus, in the case of discontentments; for there is not a better provision against them. Epimetheus, when griefs and evils flew abroad, at last shut the lid, and kept hope in the bottom of the vessel. Certainly, the politic and artificial nourishing and entertaining of hopes, and carrying men from hopes to hopes, is one of the best antidotes against the poison of discontentments. And it is a certain sign of a wise government and proceeding, when it can hold men's hearts by hopes, when it cannot by satisfaction; and when it can handle things in such manner, as no evil shall appear so peremptory but that it hath some outlet of hope: which is the less hard to do, because both particular persons and factions are apt enough to flatter themselves, or at least to brave that they believe not.

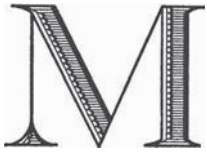
Also the foresight and prevention, that there be no likely or fit head whereunto discontented persons may resort, and under whom they may join, is a known, but an excellent point of caution. I understand a fit head to be one that hath greatness and reputation; that hath confidence with the discontented party, and upon whom they turn their eyes; and that is thought discontented in his own particular: which kind of persons are either to be won and reconciled to the state, and that in a fast and true manner; or to be fronted with some other of the same party, that may oppose them, and so divide the reputation. Generally, the dividing and breaking of all factions and combinations that are adverse to the state, and setting them at distance, or at least distrust, among themselves, is not one of the worst remedies. For it is a desperate case, if those that hold with the proceeding of the state be full of discord and faction, and those that are against it be entire and united.

I have noted that some witty and sharp speeches which have fallen from princes have given fire to seditions. Caesar did himself infinite hurt in that speech, *Sylla nescivit literas, non potuit dictare* [Sylla was not a scholar, he was unable to dictate]: for it did utterly cut off that hope which men had entertained, that he would at one time or other give over his dictatorship. Galba undid himself by that speech, *legi a se militem, non emi* [that he had levied his soldiers, not bought them]: for it put the soldiers out of hope of the donative. Probus likewise, by that speech,

Si vixero, non opus erit amplius Romano imperio militibus [If I live, there will be no more work for soldiers in the Roman Empire]: a speech of great despair for the soldiers. And many the like. Surely princes had need, in tender matters and ticklish times, to beware what they say; especially in these short speeches, which fly abroad like darts, and are thought to be shot out of their secret intentions. For as for large discourses, they are flat things, and not so much noted.

Lastly, let princes, against all events, not be without some great person, one or rather more, of military valour, near unto them, for the repressing of seditions in their beginnings. For without that, there useth to be more trepidation in court upon the first breaking out of troubles than were fit. And the state runneth the danger of that which Tacitus saith; *Atque is habitus animorum fuit, ut pessimum facinus auderent pauci, plures vellent, omnes paterentur* [And such was their state of mind that a few were ready to attempt mischief, more to wish it, and all to permit it]. But let such military persons be assured, and well reputed of, rather than factious and popular; holding also good correspondence with the other great men in the state; or else the remedy is worse than the disease.

Of Custom and Education

 en's thoughts are much according to their inclination; their discourse and speeches according to their learning and infused opinions; but their deeds are after as they have been accustomed. And therefore as Machiavel well noteth (though in an evil-favoured instance), there is no trusting to the force of nature nor to the bravery of words, except it be corroborate by custom. His instance is, that for the achieving of a desperate conspiracy, a man should not rest upon the fierceness of any man's nature, or his resolute undertakings; but take such an one as hath had his hands formerly in blood. But Machiavel knew not a friar Clement, nor a Ravillac, nor a Jaureguy, nor a Baltazar Gerard; yet his rule holdeth still, that nature, nor the engagement of words, are not so forcible as custom. Only superstition is now so well advanced, that men of the first blood are as firm as butchers by occupation; and votary resolution is made equipollent to custom even in matter of blood. In other things the predominancy of custom is everywhere visible; insomuch as a man would wonder to hear men profess, protest, engage, give great words, and then do just as they have done before; as if they were dead images, and engines moved only by the wheels of custom.

We see also the reign or tyranny of custom, what it is. The Indians (I mean the sect of their wise men) lay themselves quietly upon a stack of wood, and so sacrifice themselves by fire. Nay the wives strive to be burned with the corpses of their husbands. The lads of Sparta, of ancient time, were wont to be scourged upon the altar of Diana, without so much as quecching [flinching]. I remember, in the beginning of Queen Elizabeth's time of England, an Irish rebel condemned put up a petition to the Deputy that he might be hanged in a withe, and not in an halter; because it had been so used with former rebels. There be monks in Russia, for penance, that will sit a whole night in a vessel of water, till they be en-

gaged with hard ice. Many examples may be put of the force of custom, both upon mind and body. Therefore, since custom is the principal magistrate of man's life, let men by all means endeavour to obtain good customs. Certainly custom is most perfect when it beginneth in young years: this we call education; which is, in effect, but an early custom. So we see, in languages the tongue is more pliant to all expressions and sounds, the joints are more supple to all feats of activity and motions, in youth than afterwards. For it is true that late learners cannot so well take the ply; except it be in some minds that have not suffered themselves to fix, but have kept themselves open and prepared to receive continual amendment, which is exceeding rare. But if the force of custom simple and separate be great, the force of custom copulate and conjoined and collegiate is far greater. For there example teacheth, company comforteth, emulation quickeneth, glory raiseth: so as in such places the force of custom is in his exaltation. Certainly the great multiplication of virtues upon human nature resteth upon societies well ordained and disciplined. For commonwealths and good governments do nourish virtue grown, but do not much mend the seeds. But the misery is that the most effectual means are now applied to the ends least to be desired.

Of Followers and Friends

ostly followers are not to be liked; lest while a man maketh his train longer, he make his wings shorter. I reckon to be costly, not them alone which charge the purse, but which are wearisome and importune in suits. Ordinary followers ought to challenge no higher conditions than countenance, recommendation, and protection from wrongs. Factious followers are worse to be liked, which follow not upon affection to him with whom they range themselves, but upon discontentment conceived against some other; whereupon commonly ensueth that ill intelligence that we many times see between great personages. Likewise glorious followers, who make themselves as trumpets of the commendation of those they follow, are full of inconvenience; for they taint business through want of secrecy; and they export honour from a man, and make him a return in envy. There is a kind of followers likewise which are dangerous, being indeed espials; which inquire the secrets of the house, and bear tales of them to others. Yet such men, many times, are in great favour; for they are officious, and commonly exchange tales. The following by certain estates of men, answerable to that which a great person himself professeth (as of soldiers to him that hath been employed in the wars, and the like), hath ever been a thing civil, and well taken even in monarchies; so it be without too much pomp or popularity. But the most honourable kind of following is to be followed as one that apprehendeth to advance virtue and desert in all sorts of persons. And yet, where there is no eminent odds in sufficiency, it is better to take with the more passable, than with the more able. And besides, to speak truth, in base times active men are of more use than virtuous. It is true that in government it is good to use men of one rank equally: for to countenance some extraordinarily, is to make them insolent, and the rest discontent; because they may claim a due. But contrariwise, in favour, to use men with much difference and

election is good; for it maketh the persons preferred more thankful, and the rest more officious: because all is of favour.

It is good discretion not to make too much of any man at the first; because one cannot hold out that proportion. To be governed (as we call it) by one, is not safe; for it shows softness, and gives a freedom to scandal and disreputation; for those that would not censure or speak ill of a man immediately, will talk more boldly of those that are so great with them, and thereby wound their honour. Yet to be distracted with many is worse; for it makes men to be of the last impression, and full of change. To take advice of some few friends is ever honourable; for lookers-on many times see more than gamesters; and the vale best discovereth the hill. There is little friendship in the world, and least of all between equals, which was wont to be magnified. That that is, is between superior and inferior, whose fortunes may comprehend the one the other.

Of Usury

Many have made witty invectives against Usury. They say that it is a pity the devil should have God's part, which is the tithe. That the usurer is the greatest sabbath-breaker, because his plough goeth every Sunday. That the usurer is the drone that Virgil speaketh of:

> *Ignavum fucos pecus a praesepibus arcent.*
> [They prohibit the drones, a slothful swarm, access to the beehives.]

That the usurer breaketh the first law that was made for mankind after the fall, which was, *in sudore vultus tui comedes panem tuum* [in the sweat of thy face shalt thou eat bread], not *in sudore vultus alieni* [in the sweat of another]. That usurers should have orange-tawny bonnets, because they do judaize. That it is against nature for money to beget money; and the like. I say this only, that usury is a *concessum propter duritiem cordis* [thing permitted through hardness of heart]; for since there must be borrowing and lending, and men are so hard of heart as they will not lend freely, usury must be permitted. Some others have made suspicious and cunning propositions of banks, discovery of men's estates, and other inventions. But few have spoken of usury usefully. It is good to set before us the incommodities and commodities of usury, that the good may be either weighed out or culled out; and warily to provide, that while we make forth to that which is better, we meet not with that which is worse.

The discommodities of usury are, first, that it makes fewer merchants. For were it not for this lazy trade of usury, money would not lie still, but would in great part be employed upon merchandising; which is the *vena porta* [gate vein] of wealth in a state. The second, that it makes poor merchants. For as a farmer cannot husband his ground so well if he sit at a great rent; so the merchant cannot drive his trade so well, if he sit at great usury. The third is incident to the other two; and that is the decay of customs of kings or states, which ebb or flow with merchandising. The

fourth, that it bringeth the treasure of a realm or state into a few hands. For the usurer being at certainties, and others at uncertainties, at the end of the game most of the money will be in the box; and ever a state flourisheth when wealth is most equally spread. The fifth, that it beats down the price of land; for the employment of money is chiefly either merchandising or purchasing; and usury waylays both. The sixth, that it doth dull and damp all industries, improvements, and new inventions, wherein money would be stirring, if it were not for this slug. The last, that it is the canker and ruin of many men's estates; which in process of time breeds a public poverty.

On the other side, the commodities of usury are, first, that howsoever usury in some respect hindereth merchandising, yet in some other it advanceth it; for it is certain that the greatest part of trade is driven by young merchants, upon borrowing at interest; so as if the usurer either call in or keep back his money, there will ensue presently a great stand of trade. The second is that were it not for this easy borrowing upon interest, men's necessities would draw upon them a most sudden undoing; in that they would be forced to sell their means (be it lands or goods) far under foot; and so, whereas usury doth but gnaw upon them, bad markets would swallow them quite up. As for mortgaging or pawning, it will little mend the matter: for either men will not take pawns without use; or if they do, they will look precisely for the forfeiture. I remember a cruel monied man in the country that would say, "The devil take this usury, it keep us from forfeitures of mortgages and bonds." The third and last is that it is a vanity to conceive that there would be ordinary borrowing without profit; and it is impossible to conceive the number of inconveniences that will ensue, if borrowing be cramped. Therefore to speak of the abolishing of usury is idle. All states have ever had it, in one kind or rate, or other. So as that opinion must be sent to Utopia.

To speak now of the reformation and reiglement of usury; how the discommodities of it may be best avoided, and the commodities retained. It appears by the balance of commodities and discommodities of usury, two things are to be reconciled. The one, that the tooth of usury be grinded, that it bite not too much; the other, that there be left open a means to invite monied men to lend to the merchants, for the continuing and quickening of trade. This cannot be done, except you introduce two several sorts of usury, a less and a greater. For if you reduce usury to one low rate, it will ease the common borrower, but the merchant will be to seek for money. And it is to be noted, that the trade of merchandise,

being the most lucrative, may bear usury at a good rate: other contracts not so.

To serve both intentions, the way would be briefly thus. That there be two rates of usury; the one free, and general for all; the other under licence only, to certain persons and in certain places of merchandising. First therefore, let usury in general be reduced to five in the hundred; and let that rate be proclaimed to be free and current; and let the state shut itself out to take any penalty for the same. This will preserve borrowing from any general stop or dryness. This will ease infinite borrowers in the country. This will, in good part, raise the price of land, because land purchased at sixteen years' purchase will yield six in the hundred, and somewhat more; whereas this rate of interest yields but five. This by like reason will encourage and edge industrious and profitable improvements; because many will rather venture in that kind than take five in the hundred, especially having been used to greater profit. Secondly, let there be certain persons licensed to lend to known merchants upon usury at a higher rate; and let it be with the cautions following. Let the rate be, even with the merchant himself, somewhat more easy than that he used formerly to pay; for by that means all borrowers shall have some ease by this reformation, be he merchant, or whosoever. Let it be no bank or common stock, but every man be master of his own money. Not that I altogether mislike banks, but they will hardly be brooked, in regard of certain suspicions. Let the state be answered some small matter for the licence, and the rest left to the lender; for if the abatement be but small, it will no whit discourage the lender. For he, for example, that took before ten or nine in the hundred, will sooner descend to eight in the hundred, than give over his trade of usury, and go from certain gains to gains of hazard. Let these licensed lenders be in number indefinite, but restrained to certain principal cities and towns of merchandising; for then they will be hardly able to colour other men's monies in the country: so as the licence of nine will not suck away the current rate of five; for no man will lend his monies far off, nor put them into unknown hands.

If it be objected that this doth in a sort authorize usury, which before was in some places but permissive; the answer is, that it is better to mitigate usury by declaration, than to suffer it to rage by connivance.

Of Riches

I cannot call Riches better than the baggage of virtue. The Roman word is better, *impedimenta*. For as the baggage is to an army, so is riches to virtue. It cannot be spared nor left behind, but it hindereth the march; yea and the care of it sometimes loseth or disturbeth the victory. Of great riches there is no real use, except it be in the distribution; the rest is but conceit. So saith Solomon, "Where much is, there are many to consume it; and what hath the owner but the sight of it with his eyes?" The personal fruition in any man cannot reach to feel great riches: there is a custody of them; or a power of dole and donative of them; or a fame of them; but no solid use to the owner. Do you not see what feigned prices are set upon little stones and rarities? And what works of ostentation are undertaken, because there might seem to be some use of great riches? But then you will say, they may be of use to buy men out of dangers or troubles. As Solomon saith, "Riches are as a strong hold, in the imagination of the rich man." But this is excellently expressed, that it is in imagination, and not always in fact. For certainly great riches have sold more men than they have bought out. Seek not proud riches, but such as thou mayest get justly, use soberly, distribute cheerfully, and leave contentedly. Yet have no abstract nor friarly contempt of them. But distinguish, as Cicero saith well of Rabirius Posthumus, *In studio rei amplificandae apparebat, non avaritiae praedam, sed instrumentum bonitati quaeri* [In his efforts to increase his substance, it was evident that he did not seek a prey for avarice but an instrument for doing good]. Hearken also to Solomon, and beware of hasty gathering of riches; *Qui festinat ad divitias, non erit insons* [He who makes haste to acquire riches shall not be innocent].

The poets feign that when Plutus (which is Riches) is sent from Jupiter, he limps and goes slowly; but when he is sent from Pluto, he runs and is swift of foot. Meaning that riches gotten by good means and just labour pace slowly; but when they come by the death of others (as by the course of inheritance, testaments, and the like), they come tumbling upon a

man. But it might be applied likewise to Pluto, taking him for the devil. For when riches come from the devil (as by fraud and oppression and unjust means), they come upon speed. The ways to enrich are many, and most of them foul. Parsimony is one of the best, and yet is not innocent; for it withholdeth men from works of liberality and charity. The improvement of the ground is the most natural obtaining of riches; for it is our great mother's blessing, the earth's; but it is slow. And yet where men of great wealth do stoop to husbandry, it multiplieth riches exceedingly. I knew a nobleman in England that had the greatest audits of any man in my time; a great grazier, a great sheep-master, a great timber man, a great collier, a great corn-master, a great lead-man, and so of iron, and a number of the like points of husbandry. So as the earth seemed a sea to him, in respect of the perpetual importation.

It was truly observed by one, that himself came very hardly to a little riches, and very easily to great riches. For when a man's stock is come to that, that he can expect the prime of markets, and overcome those bargains which for their greatness are few men's money, and be partner in the industries of younger men, he cannot but increase mainly.

The gains of ordinary trades and vocations are honest; and furthered by two things chiefly; by diligence, and by a good name for good and fair dealing. But the gains of bargains are of a more doubtful nature; when men shall wait upon others' necessity, broke by servants and instruments to draw them on, put off others cunningly that would be better chapmen, and the like practices, which are crafty and naught. As for the chopping of bargains, when a man buys not to hold but to sell over again, that commonly grindeth double, both upon the seller and upon the buyer. Sharings do greatly enrich, if the hands be well chosen that are trusted. Usury is the certainest means of gain, though one of the worst; as that whereby a man doth eat his bread *in sudore vultus alieni* [in the sweat of another's face]; and besides, doth plough upon Sundays. But yet certain though it be, it hath flaws; for that the scriveners and brokers do value unsound men to serve their own turn. The fortune in being the first in an invention or in a privilege doth cause sometimes a wonderful overgrowth in riches; as it was with the first sugar man in the Canaries. Therefore if a man can play the true logician, to have as well judgment as invention, he may do great matters; especially if the times be fit. He that resteth upon gains certain shall hardly grow to great riches; and he that puts all upon adventures doth oftentimes break and come to poverty: it is good therefore to guard adventures with certainties that may uphold losses. Monopolies, and coemption of wares for resale, where they are not restrained, are

great means to enrich; especially if the party have intelligence what things are like to come into request, and so store himself beforehand. Riches gotten by service, though it be of the best rise, yet when they are gotten by flattery, feeding humours, and other servile conditions, they may be placed amongst the worst. As for fishing for testaments and executorships (as Tacitus saith of Seneca, *testamenta et orbos tamquam indagine capi* [he took executorships and guardianships as with a net]), it is yet worse; by how much men submit themselves to meaner persons than in service.

Believe not much them that seem to despise riches; for they despise them that despair of them; and none worse when they come to them. Be not penny-wise; riches have wings, and sometimes they fly away of themselves, sometimes they must be sent flying to bring in more. Men leave their riches either to their kindred, or to the public; and moderate portions prosper best in both. A great state left to an heir, is as a lure to all the birds of prey round about to seize on him, if he be not the better stablished in years and judgment. Likewise glorious gifts and foundations are like sacrifices without salt; and but the painted sepulchres of alms, which soon will putrefy and corrupt inwardly. Therefore measure not thine advancements by quantity, but frame them by measure, and defer not charities till death; for certainly, if a man weigh it rightly, he that doth so is rather liberal of another man's than of his own.

The foregoing essays
are from a collection of Bacon's essays
entitled ESSAYS: CIVIL AND MORAL.

Jonathan Swift

1667–1745

Jonathan Swift was born in Dublin, of English parents, on November 30, 1667. The generosity of his examiners gave him a degree at Trinity College. He crossed to England and in 1689 became secretary to Sir William Temple at Moor Park. Except for an interval as a clergyman near Belfast, Swift remained at Moor Park until Sir William died in 1699.

There Swift became tutor and friend to Esther Johnson, a child who would grow up to be the "Stella" of his *Journal to Stella.* There, too, he wrote *The Battle of the Books* and *A Tale of a Tub.* After Temple's death, Swift found a clerical post at Laracor, near Dublin. He took a D.D. in 1701. That same year, at Swift's invitation, Stella and a woman companion settled in Laracor.

Swift spent much time in London. He was friendly with Pope, Steele, and Addison. In 1708 he published the "Isaac Bickerstaff" letters, a hoax on a notorious London astrologer. Swift had been a Whig in politics. But when the Whigs fell from office, he became the intimate of the new Tory ministers, Oxford and Bolingbroke. As their principal writer, he got hold of considerable power, which he enjoyed.

Queen Anne appointed him Dean of St. Patrick's, Dublin. He was hardly welcomed when he took office in 1713. A little later the Queen

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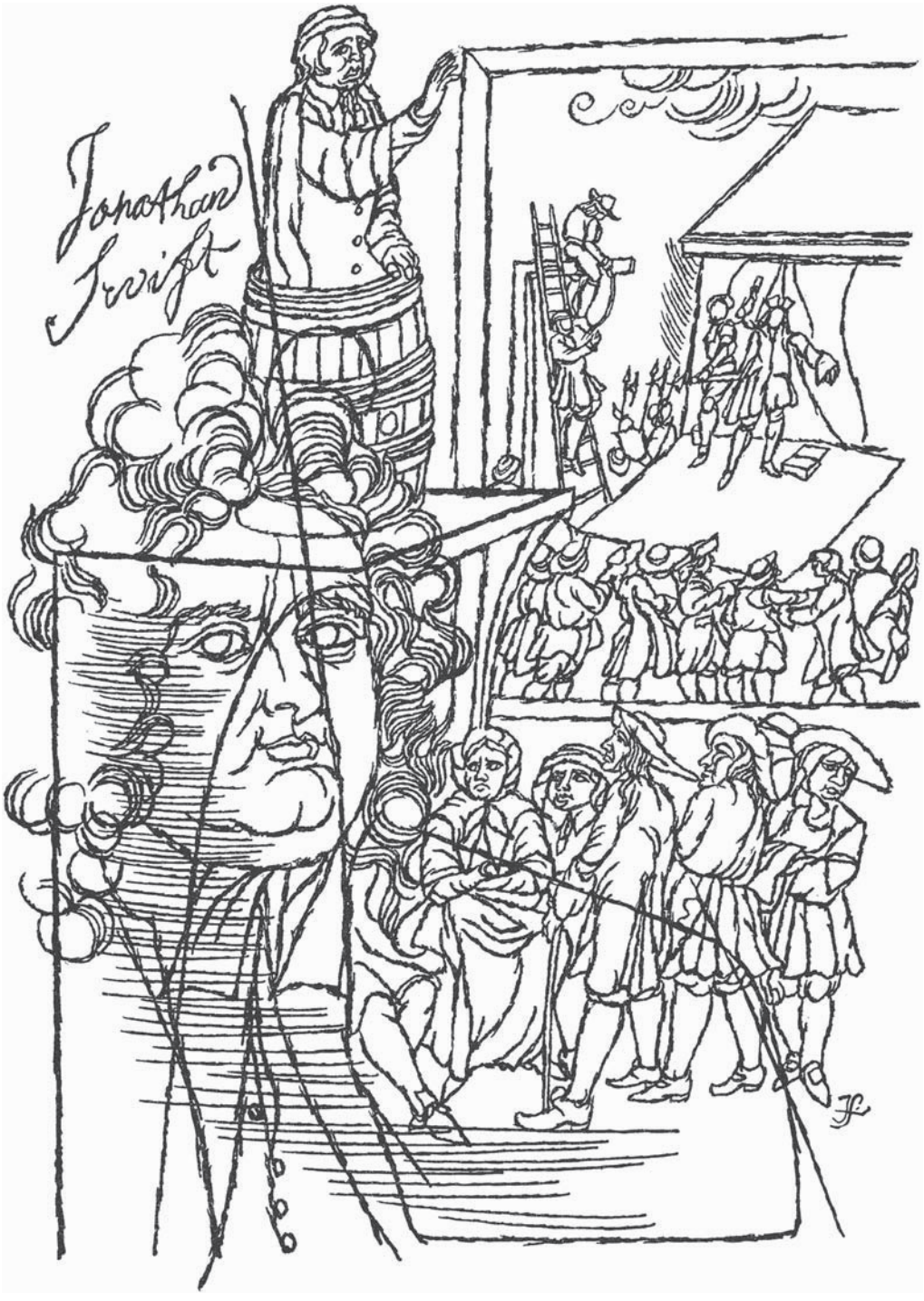
Notes from the artist: "Portrait of Swift in clerical garb . . . the background is a scene from his A Tale of a Tub, *a brilliant satire on, among other things, the clergy."*


Jonathan
Swift

died, and the Tory ministry fell. Swift supported Oxford and even offered to share his imprisonment. Then he retired to his Dublin cathedral. His relations with Stella were complicated by the devotion of Esther Vanhomrigh, the daughter of a Dublin merchant, who appears as the "Vanessa" of his writings.

He is said to have spent "a third of his income on charities." In 1724 his *Drapier Letters,* an attack on an unjust coinage system, put all Ireland in a rage. Two years later, the anonymous *Gulliver's Travels* was published. By 1742 his mental condition was such that guardians were appointed. He died on October 19, 1745, and was buried beside Stella, his "violent friend," in the crypt of St. Patrick's.

Taine speaks of Swift's "exaggerated and terrible pride" that "made the haughtiness of the most powerful ministers and most mighty lords bow beneath his arrogance." It was one aspect of his force of personality. This force was condensed, in all Swift's work, by the pressure of his necessity to fit human life into an unchanging frame of reason. So we have the massive, rolling onset of his prose. Its clarity, exactness, and power make it a fit instrument for its purpose. It has great social leverage. We think of Swift as the greatest satirist in English.

One of the signs of a good writer is that we can intersect his work at many angles. We can find more than one level of meaning in it. This is true even in such a simple case as Swift's *Resolutions when I Come to Be Old.* On the surface, it is just what the title suggests: a man writing a memorandum to himself in the form of a list of axioms intended to govern a wise old age. Would they, in fact, do that? We are inclined to think that they might, at least in the social sense.

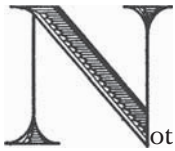
Then we notice that all but one of the axioms begin with *not.* The exception is a check on the rest. The author is laying down acts and types of behavior to be avoided, not things to be done. Ricardo Quintana points out that the situations mentioned are "the stock ones of social comedy." But is it not possible that Swift and the authors of the social comedies had both observed the same types of behavior in a more or less standardized society? And is it not true that Swift here catches certain traits of old men in any civilized society?

In *An Essay on Modern Education,* we observe once more that

Swift is concerned, not with the needs or wishes of the individual, but with those of an aristocratic society which he must be taught to serve. As an old friend of the philosopher George Berkeley and his wife, Swift was often persuaded to read to Mrs. Berkeley from her favorite book, Robert Boyle's *Meditations*. He wrote a parody, *A Meditation upon a Broomstick,* and read it out to her as if it were one of Boyle's. Only Swift could have conceived the broomstick as a comic symbol of man and then stood it on its head.

Swift, Berkeley, and Edmund Burke were all outraged by the British misgovernment of Ireland in the eighteenth century. *A Modest Proposal* is one fruit of that outrage. We are told that there are tens of thousands of unwanted babies in Ireland. They cannot be provided for. Very well, says Swift. Let us sell them and eat them. The argument is faultless and masterly. It is delivered in the enlightened tone of a man who proposes a new kind of stock-raising for the benefit of the country. There is nothing at all wrong with it except that it is inhuman. But is it more inhuman than allowing these same children to starve to death? Irony, satire, humor, reason gone mad– Swift brings all these to bear on a problem that still troubles the human race.

Resolutions when I Come to Be Old

 ot to marry a young woman.

Not to keep young company, unless they really desire it.

Not to be peevish, or morose, or suspicious.

Not to scorn present ways, or wits, or fashions, or men, or war, etc.

Not to be fond of children.

Not to tell the same story over and over to the same people.

Not to be covetous.

Not to neglect decency, or cleanliness, for fear of falling into nastiness.

Not to be over-severe with young people, but give allowances for their youthful follies and weaknesses.

Not to be influenced by or give ear to knavish tattling servants, or others.

Not to be too free of advice, nor trouble any but those that desire it.

To desire some good friends to inform me which of these resolutions I break or neglect, and wherein; and reform accordingly.

Not to talk much, nor of myself.

Not to boast of my former beauty, or strength, or favour with ladies, etc.

Not to hearken to flatteries, nor conceive I can be beloved by a young woman; *et eos qui haereditatem captant, odisse ac vitare* [and to hate and avoid those who seek a legacy].

Not to be positive or opinionative.

Not to set up for observing all these rules, for fear I should observe none.

An Essay on Modern Education

From frequently reflecting upon the course and method of educating youth in this and a neighbouring kingdom, with the general success and consequence thereof, I am come to this determination, that education is always the worse in proportion to the wealth of and grandeur of the parents; nor do I doubt in the least that if the whole world were now under the dominion of one monarch (provided I might be allowed to choose where he should fix the seat of his empire) the only son and heir of that monarch would be the worst educated mortal that ever was born since the creation; and I doubt [fear] the same proportion will hold through all degrees and titles, from an emperor downwards to the common gentry.

I do not say that this hath been always the case, for in better times it was directly otherwise, and a scholar may fill half his Greek and Roman shelves with authors of the noblest birth, as well as highest virtue; nor do I tax all nations at present with this defect, for I know there are some to be excepted, and particularly Scotland, under all the disadvantages of its climate and soil, if that happiness be not rather owing even to those very disadvantages. What is then to be done if this reflection must fix on two countries, which will be most ready to take offense, and which of all others it will be least prudent or safe to offend?

But there is one circumstance yet more dangerous and lamentable: For if, according to the *postulatum* already laid down, the higher quality any youth is of, he is in greater likelihood to be worse educated, it behoves me to dread and keep far from the verge of *scandalum magnatum.*

Retracting therefore that hazardous *postulatum,* I shall venture no further at present than to say that perhaps some additional care in educating the sons of nobility and principal gentry might not be ill em-

ployed. If this be not delivered with softness enough, I must for the future be silent.

In the mean time, let me ask only two questions, which relate to England. I ask first how it comes about that for above sixty years past the chief conduct of affairs hath been generally placed in the hands of new men, with very few exceptions? The noblest blood of England having been shed in the Great Rebellion, many great families became extinct, or supported only by minors. When the king was restored, very few of those lords remained who began or at least had improved their education under the happy reign of King James or King Charles I, of which lords the two principal were the Marquis of Ormond and the Earl of Southampton. The minors have, or had, during the Rebellion and usurpation, either received too much tincture of bad principles from those fanatic times or, coming to age at the Restoration, fell into the vices of that dissolute reign.

I date from this era the corrupt method of education among us, and the consequence thereof, in the necessity the crown lay under of introducing new men into the chief conduct of public affairs, or to the office of what we now call prime ministers, men of art, knowledge, application, and insinuation, merely for want of a supply among the nobility. They were generally (though not always) of good birth, sometimes younger brothers, at other times such who, although inheriting good estates, yet happened to be well educated and provided with learning; such under that King were Hyde, Bridgeman, Clifford, Osborn, Godolphin, Ashley-Cooper; few or none under the short reign of King James II. Under King William: Somers, Montagu, Churchill, Vernon, Boyle, and many others. Under the Queen: Harley, St. John, Harcourt, Trevor, who indeed were persons of the best private families but unadorned with titles. So in the following reign, Mr. Robert Walpole was for many years prime minister, in which post he still happily continues. His brother Horace is ambassador extraordinary to France. Mr. Addison and Mr. Craggs, without the least allowance to support them, have been secretaries of state.

If the facts have been thus for above sixty years past (whereof I could with a little further recollection produce many more instances), I would ask again how it hath happened that in a nation plentifully abounding with nobility so great share in the most competent parts of public management hath been for so long a period chiefly entrusted to commoners, unless some omissions or defects of the highest import may be charged upon those to whom the care of educating our noble youth hath been committed? For if there be any difference between human creatures in

the point of natural parts, as we usually call them, it should seem that the advantage lies on the side of children born from noble and wealthy parents, the same traditional sloth and luxury which render their body weak and effeminate perhaps refining and giving a freer motion to the spirits beyond what can be expected from the gross, robust issue of meaner mortals. Add to this the peculiar advantages which all young noblemen possess by the privileges of their birth, such as a free access to courts, and a universal deference paid to their persons.

But as my Lord Bacon charged it for a fault on princes that they are impatient to compass ends without giving themselves the trouble of consulting or executing the means, so perhaps it may be the disposition of young nobles, either from the indulgence of parents, tutors, and governors or their own inactivity, that they expect the accomplishments of a good education without the least expense of time or study to acquire them.

What I said last I am ready to retract, for the case is infinitely worse; and the very maxims set up to direct modern education are enough to destroy all the seeds of knowledge, honour, wisdom, and virtue among us. The current opinion prevails that the study of Greek and Latin is loss of time; that public schools by mingling the sons of noblemen with those of the vulgar engage the former in bad company; that whipping breaks the spirits of lads well born; that universities make young men pedants; that to dance, fence, speak French, and know how to behave yourself among great persons of both sexes comprehends the whole duty of a gentleman.

I cannot but think this wise system of education hath been much cultivated among us by those worthies of the Army who during the last war, returning from Flanders at the close of each campaign, became the dictators of behaviour, dress, and politeness to all those youngsters who frequent chocolate-coffee-gaming-houses, drawing-rooms, operas, levees, and assemblies; where a colonel by his pay, perquisites, and plunder was qualified to outshine many peers of the realm; and by the influence of an exotic habit and demeanor, added to other foreign accomplishments, gave the law to the whole town, and was copied as the standard pattern of whatever was refined in dress, equipage, conversation, or diversions.

I remember in those times an admired original of that vocation sitting in a coffee-house near two gentlemen, whereof one was of the clergy, who were engaged in some discourse that savoured of learning; this officer thought fit to interpose, and professing to deliver the sentiments of his fraternity, as well as his own (and probably did so of too many among

them), turning to the clergyman, spoke in the following manner, "D––n me, Doctor, say what you will, the army is the only school for gentlemen. Do you think my Lord Marlborough beat the French with Greek and Latin? D––n me, a scholar when he comes into good company, what is he but an ass? D––n me, I would be glad by G-d to see any of your scholars with his nouns, and his verbs, and his philosophy, and trigonometry, what a figure he would make at a siege or blockade, or rencountering–D––n me," etc. After which he proceeded with a volley of military terms less significant, sounding worse, and harder to be understood than any that were ever coined by the commentators upon Aristotle. I would not here be thought to charge the soldiery with ignorance and contempt of learning, without allowing exceptions, of which I have known many; but, however, the worse example, especially in a great majority, will certainly prevail.

I have heard that the late Earl of Oxford, in the time of his ministry, never passed by White's Chocolate-House (the common rendezvous of infamous sharpers and noble cullies) without bestowing a curse upon that famous academy as the bane of half the English nobility. I have likewise been told another passage concerning that great minister, which, because it gives a humorous idea of one principal ingredient in modern education, take as follows. Le-Sack, the famous French dancing-master, in great admiration, asked a friend whether it were true that Mr. Harley was made an earl and Lord Treasurer? And finding it confirmed, said, "Well, I wonder what the devil the Queen could see in him, for I attended him two years, and he was the greatest dunce that ever I taught."

Another hindrance to good education, and I think the greatest of any, is that pernicious custom in rich and noble families of entertaining French tutors in their houses. These wretched pedagogues are enjoined by the father to take special care that the boy shall be perfect in his French; by the mother that master must not walk till he is hot, nor be suffered to play with other boys, nor be wet in his feet, nor daub his clothes, and to see that dancing-master attends constantly and does his duty; she further insists that the child be not kept too long poring on his book, because he is subject to sore eyes and of a weakly constitution.

By these methods, the young gentleman is in every article as fully accomplished at eight years old as at eight and twenty, age adding only to the growth of his person and his vice; so that if you should look at him in his boyhood through the magnifying end of a perspective, and in his manhood through the other, it would be impossible to spy any difference: the same airs, the same strut, the same cock of his hat, and posture of

his sword (as far as the change of fashions will allow), the same understanding, the same compass of knowledge, with the very same absurdity, impudence, and impertinence of tongue.

He is taught from the nursery that he must inherit a great estate, and hath no need to mind his book, which is a lesson he never forgets to the end of his life. His chief solace is to steal down and play at span-farthing with the page, or young blackamoor, or little favourite footboy, one of which is his principal confident and bosom friend.

There is one young lord in this town who, by an unexampled piece of good fortune, was miraculously snatched out of the gulf of ignorance, confined to a public school for a due term of years, well whipped when he deserved it, clad no better than his comrades and always their playfellow on the same foot, had no precedence in the school but what was given him by his merit and lost it whenever he was negligent. It is well known how many mutinies were bred at this unprecedented treatment, what complaints among his relations, and other great ones of both sexes; that his stockings with silver clocks were ravished from him; that he wore his own hair; that his dress was undistinguished; that he was not fit to appear at a ball or assembly, nor suffered to go to either: And it was with the utmost difficulty that he became qualified for his present removal, where he may probably be farther persecuted, and possibly with success, if the firmness of a very worthy governor and his own good dispositions will not preserve him. I confess I cannot but wish he may go on in the way he began, because I have a curiosity to know by so singular an experiment whether truth, honour, justice, temperance, courage, and good sense, acquired by a school and college education, may not produce a very tolerable lad, although he should happen to fail in one or two of those accomplishments which in the general vogue are held so important to the finishing of a gentleman.

It is true, I have known an academical education to have been exploded in public assemblies, and have heard more than one or two persons of high rank declare they could learn nothing more at Oxford and Cambridge than to drink ale and smoke tobacco; wherein I firmly believed them, and could have added some hundred examples from my own observation in one of those universities; but they all were of young heirs sent thither only for form, either from schools where they were not suffered by their careful parents to stay above three months in the year, or from under the management of French family-tutors, who yet often attended them to their college to prevent all possibility of their improvement. But I never yet knew any one person of quality who followed his

studies at the university, and carried away his just proportion of learning, that was not ready upon all occasions to celebrate and defend that course of education, and to prove a patron of learned men.

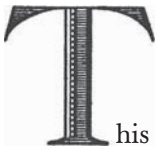
There is one circumstance in a learned education which ought to have much weight, even with those who have no learning at all. The books read at school and colleges are full of incitements to virtue and discouragements from vice, drawn from the wisest reasons, the strongest motives, and the most influencing examples. Thus, young minds are filled early with an inclination to good and an abhorrence of evil, both which increase in them according to the advances they make in literature; and, although they may be, and too often are, drawn by the temptations of youth, and the opportunities of a large fortune, into some irregularities when they come forward into the great world, it is ever with reluctance and compunction of mind, because their bias to virtue still continues. They may stray sometimes out of infirmity or compliance, but they will soon return to the right road and keep it always in view. I speak only of those excesses which are too much the attendants of youth and warmer blood, for, as to the points of honour, truth, justice, and other noble gifts of the mind wherein the temperature of the body hath no concern, they are seldom or ever known to be wild.

I have engaged myself very unwarily in too copious a subject for so short a paper. The present scope I would aim at is to prove that some proportion of human knowledge appears requisite to those who, by their birth or fortune, are called to the making of laws and, in a subordinate way, to the execution of them; and that such knowledge is not to be obtained without a miracle under the frequent, corrupt, and sottish methods of educating those who are born to wealth or titles. For I would have it remembered that I do by no means confine these remarks to young persons of noble birth, the same errors running through all families where there is wealth enough to afford that their sons (at least the eldest) may be good for nothing. Why should my son be a scholar when it is not intended that he should live by his learning? By this rule, if what is commonly said be true, that money answers all things, why should my son be honest, temperate, just, or charitable, since he hath no intention to depend upon any of these qualities for a maintenance?

When all is done, perhaps upon the whole the matter is not so bad as I would make it; and God, who works good out of evil, acting only by the ordinary cause and rule of nature, permits this continual circulation of human things for His own unsearchable ends. The father grows rich by avarice, injustice, oppression; he is a tyrant in the neighbourhood over

slaves and beggars, whom he calls his tenants. Why should he desire to have qualities infused into his son which himself never possessed, or knew, or found the want of in the acquisition of his wealth? The son bred in sloth and idleness becomes a spendthrift, a cully, a profligate, and goes out of the world a beggar, as his father came in. Thus the former is punished for his own sins, as well as for those of the latter. The dunghill, having raised a huge mushroom of short duration, is now spread to enrich other men's lands. It is indeed of worse consequence where noble families are gone to decay, because their titles and privileges outlive their estates; and politicians tell us that nothing is more dangerous to the public than a numerous nobility without merit or fortune. But even here, God hath likewise prescribed some remedy in the order of nature, so many great families coming to an end by the sloth, luxury, and abandoned lusts, which enervated their breed through every succession, producing gradually a more effeminate race, wholly unfit for propagation.

A Meditation upon a Broomstick



his single stick, which you now behold ingloriously lying in that neglected corner, I once knew in a flourishing state in a forest. It was full of sap, full of leaves, and full of boughs. But now in vain does the busy art of man pretend to vie with nature by tying that withered bundle of twigs to its sapless trunk. 'Tis now at best but the reverse of what it was, a tree turned upside down, the branches on the earth, and the root in the air. 'Tis now handled by every dirty wench, condemned to do her drudgery, and, by a capricious kind of fate, destined to make other things clean, and be nasty itself. At length, worn to the stumps in the service of the maids, 'tis either thrown out-of-doors or condemned to the last use of kindling a fire. When I beheld this, I sighed and said within myself, Surely mortal man is a broomstick; nature sent him into the world strong and lusty in a thriving condition, wearing his own hair on his head, the proper branches of this reasoning vegetable, till the axe of intemperance has lopped off his green boughs and left him a withered trunk. He then flies to art and puts on a periwig, valuing himself upon an unnatural bundle of hairs, all covered with powder that never grew on his head; but now should this our broomstick pretend to enter the scene, proud of those birchen spoils it never bore, and all covered with dust, though the sweepings of the finest lady's chamber, we should be apt to ridicule and despise its vanity. Partial judges that we are of our own excellencies and other men's defaults!

But a broomstick, perhaps you will say, is an emblem of a tree standing on its head; and pray what is man but a topsy-turvy creature, his animal faculties perpetually mounted on his rational, his head where his heels should be, groveling on the earth! And yet, with all his faults, he sets up to be a universal reformer and corrector of abuses, a remover of grievances, rakes into every slut's corner of nature, bringing hidden cor-

ruptions to the light, and raises a mighty dust where there was none before, sharing deeply all the while in the very same pollutions he pretends to sweep away. His last days are spent in slavery to women, and generally the least deserving; till worn to the stumps, like his brother Bezom, he is either kicked out-of-doors or made use of to kindle flames for others to warm themselves by.

A Modest Proposal for Preventing the Children of Ireland from Being a Burden to Their Parents or Country

It is a melancholy object to those who walk through this great town or travel in the country when they see the streets, the roads and cabindoors crowded with beggars of the female sex, followed by three, four, or six children, all in rags, and importuning every passenger for an alms. These mothers, instead of being able to work for their honest livelihood, are forced to employ all their time in strolling to beg sustenance for their helpless infants, who, as they grow up, either turn thieves for want of work, or leave their dear native country, to fight for the pretender in Spain, or sell themselves to the Barbadoes.

I think it is agreed by all parties that this prodigious number of children in the arms, or on the backs, or at the heels of their mothers, and frequently of their fathers, is in the present deplorable state of the kingdom a very great additional grievance; and therefore whoever could find out a fair, cheap and easy method of making these children sound and useful members of the Commonwealth would deserve so well of the public as to have his statue set up for a preserver of the nation.

But my intention is very far from being confined to provide only for the children of professed beggars; it is of a much greater extent, and shall take in the whole number of infants at a certain age who are born of parents in effect as little able to support them as those who demand our charity in the streets.

As to my own part, having turned my thoughts, for many years, upon

this important subject, and maturely weighed the several schemes of other projectors, I have always found them grossly mistaken in their computation. It is true, a child just dropt from its dam may be supported by her milk for a solar year with little other nourishment, at most not above the value of two shillings, which the mother may certainly get, or the value in scraps, by her lawful occupation of begging; and it is exactly at one year old that I propose to provide for them in such a manner as, instead of being a charge upon their parents or the parish, or wanting food and raiment for the rest of their lives, they shall, on the contrary, contribute to the feeding and partly to the clothing of many thousands.

There is likewise another great advantage in my scheme, that it will prevent those voluntary abortions, and that horrid practice of women murdering their bastard children, alas! too frequent among us, sacrificing the poor innocent babes, I doubt, more to avoid the expense than the shame, which would move tears and pity in the most savage and inhuman breast.

The number of souls in this kingdom being usually reckoned one million and a half, of these I calculate there may be about two hundred thousand couple whose wives are breeders; from which number I subtract thirty thousand couples who are able to maintain their own children, although I apprehend there cannot be so many under the present distresses of the kingdom; but this being granted, there will remain a hundred and seventy thousand breeders. I again subtract fifty thousand, for those women who miscarry, or whose children die by accident or disease within the year. There only remain a hundred and twenty thousand children of poor parents annually born. The question therefore is how this number shall be reared and provided for. Which, as I have already said, under the present situation of affairs is utterly impossible by all the methods hitherto proposed, for we can neither employ them in handicraft or agriculture: we neither build houses (I mean in the country) nor cultivate land. They can very seldom pick up a livelihood by stealing till they arrive at six years old, except where they are of towardly parts; although, I confess, they learn the rudiments much earlier; during which time they can however be properly looked upon only as probationers, as I have been informed by a principal gentleman in the county of Cavan, who protested to me that he never knew above one or two instances under the age of six, even in a part of the kingdom so renowned for the quickest proficiency in that art.

I am assured by our merchants that a boy or a girl before twelve years old is no saleable commodity, and even when they come to this age, they

will not yield above three pounds, or three pounds and half a crown at most, on the exchange; which cannot turn to account either to the parents or kingdom, the charge of nutriment and rags having been at least four times that value.

I shall now therefore humbly propose my own thoughts, which I hope will not be liable to the least objection.

I have been assured by a very knowing American of my acquaintance in London that a young healthy child well nursed is at a year old a most delicious nourishing and wholesome food, whether stewed, roasted, baked, or boiled; and I make no doubt that it will equally serve in a fricassee or a ragout.

I do therefore humbly offer it to public consideration, that of the hundred and twenty thousand children already computed, twenty thousand may be reserved for breed, whereof only one-fourth part to be males; which is more than we allow to sheep, black cattle, or swine, and my reason is that these children are seldom the fruits of marriage, a circumstance not much regarded by our savages; therefore, one male will be sufficient to serve four females. That the remaining hundred thousand may at a year old be offered in sale to the persons of quality and fortune, through the kingdom, always advising the mother to let them suck plentifully in the last month so as to render them plump and fat for a good table. A child will make two dishes at an entertainment for friends, and when the family dines alone, the fore or hind quarter will make a reasonable dish, and seasoned with a little pepper or salt will be very good boiled on the fourth day, especially in winter.

I have reckoned upon a medium that a child just born will weigh 12 pounds, and in a solar year, if tolerably nursed, increase to 28 pounds.

I grant this food will be somewhat dear, and therefore very proper for landlords, who, as they have already devoured most of the parents, seem to have the best title to the children.

Infant's flesh will be in season throughout the year, but more plentiful in March, and a little before and after; for we are told by a grave author, an eminent French physician, that fish being a prolific diet, there are more children born in Roman Catholic countries about nine months after Lent than at any other season; therefore reckoning a year after Lent, the markets will be more glutted than usual, because the number of popish infants is at least three to one in this kingdom, and therefore it will have one other collateral advantage, by lessening the number of papists among us.

I have already computed the charge of nursing a beggar's child (in

which list I reckon all cottagers, labourers, and four-fifths of the farmers) to be about two shillings per annum, rags included; and I believe no gentleman would repine to give ten shillings for the carcass of a good fat child, which, as I have said, will make four dishes of excellent nutritive meat, when he hath only some particular friend, or his own family to dine with him. Thus the squire will learn to be a good landlord, and grow popular among his tenants, the mother will have eight shillings neat profit, and be fit for work till she produces another child.

Those who are more thrifty (as I must confess the times require) may flay the carcass; the skin of which, artificially dressed, will make admirable gloves for ladies, and summer boots for fine gentlemen.

As to our city of Dublin, shambles may be appointed for this purpose, in the most convenient parts of it, and butchers we may be assured will not be wanting; although I rather recommend buying the children alive, and dressing them hot from the knife, as we do roasting pigs.

A very worthy person, a true lover of his country, and whose virtues I highly esteem, was lately pleased, in discoursing on this matter, to offer a refinement upon my scheme. He said that many gentlemen of this kingdom having of late destroyed their deer, he conceived that the want of venison might be well supplied by the bodies of young lads and maidens, not exceeding fourteen years of age, nor under twelve, so great a number of both sexes in every country being now ready to starve for want of work and service: and these to be disposed of by their parents if alive, or otherwise by their nearest relations. But with due deference to so excellent a friend, and so deserving a patriot, I cannot be altogether in his sentiments; for as to the males, my American acquaintance assured me from frequent experience that their flesh was generally tough and lean, like that of our schoolboys, by continual exercise, and their taste disagreeable, and to fatten them would not answer the charge. Then as to the females, it would, I think with humble submission, be a loss to the public, because they soon would become breeders themselves. And besides it is not improbable that some scrupulous people might be apt to censure such a practice (although indeed very unjustly) as a little bordering upon cruelty, which, I confess, hath always been with me the strongest objection against any project, how soever well intended.

But in order to justify my friend, he confessed that this expedient was put into his head by the famous Sallmanaazor, a native of the island Formosa, who came from thence to London, above twenty years ago, and in conversation told my friend that in his country when any young person happened to be put to death, the executioner sold the carcass to

persons of quality, as a prime dainty, and that, in his time, the body of a plump girl of fifteen, who was crucified for an attempt to poison the Emperor, was sold to His Imperial Majesty's prime minister of state, and other great mandarins of the court, in joints from the gibbet, at four hundred crowns. Neither indeed can I deny that if the same use were made of several plump young girls in this town, who, without one single groat to their fortunes, cannot stir abroad without a chair, and appear at a playhouse and assemblies in foreign fineries, which they never will pay for, the kingdom would not be the worse.

Some persons of a desponding spirit are in great concern about that vast number of poor people who are aged, diseased, or maimed, and I have been desired to employ my thoughts on what course may be taken to ease the nation of so grievous an encumbrance. But I am not in the least pain upon that matter, because it is very well known that they are every day dying, and rotting, by cold and famine, and filth, and vermin, as fast as can be reasonably expected. And as to the younger labourers, they are now in almost as hopeful a condition. They cannot get work, and consequently pine away for want of nourishment to a degree that if at any time they are accidentally hired to common labour, they have not strength to perform it, and thus the country and themselves are happily delivered from the evils to come.

I have too long digressed, and therefore shall return to my subject. I think the advantages by the proposal which I have made are obvious and many, as well as of the highest importance.

For first, as I have already observed, it would greatly lessen the number of papists, with whom we are yearly overrun, being the principal breeders of the nation, as well as our most dangerous enemies, and who stay at home on purpose with a design to deliver the kingdom to the pretender, hoping to take their advantage by the absence of so many good Protestants, who have chosen rather to leave their country than stay at home and pay tithes against their conscience to an episcopal curate.

Secondly, the poorer tenants will have something valuable of their own which by law may be made liable to distress, and help to pay their landlord's rent, their corn and cattle being already seized, and money a thing unknown.

Thirdly, whereas the maintenance of a hundred thousand children, from two years old and upwards, cannot be computed at less than ten shillings a piece per annum, the nation's stock will be thereby increased fifty thousand pounds per annum, besides the profit of a new dish, intro-

duced to the tables of all gentlemen of fortune in the kingdom who have any refinement in taste, and the money will circulate among ourselves, the goods being entirely of our own growth and manufacture.

Fourthly, the constant breeders, besides the gain of eight shillings sterling per annum, by the sale of their children, will be rid of the charge of maintaining them after the first year.

Fifthly, this food would likewise bring great custom to taverns, where the vintners will certainly be so prudent as to procure the best receipts for dressing it to perfection; and consequently have their houses frequented by all the fine gentlemen, who justly value themselves upon their knowledge in good eating; and a skilful cook, who understands how to oblige his guests, will contrive to make it as expensive as they please.

Sixthly, this would be a great inducement to marriage, which all wise nations have either encouraged by rewards or enforced by laws and penalties. It would increase the care and tenderness of mothers towards their children, when they were sure of a settlement for life to the poor babes, provided in some sort by the public to their annual profit instead of expense; we should soon see an honest emulation among the married women which of them could bring the fattest child to the market. Men would become as fond of their wives during the time of their pregnancy as they are now of their mares in foal, their cows in calf, or sows when they are ready to farrow, nor offer to beat or kick them (as is too frequent a practice) for fear of a miscarriage.

Many other advantages might be enumerated. For instance, the addition of some thousand carcasses in our exportation of barreled beef, the propagation of swine's flesh, and improvement in the art of making good bacon, so much wanted among us by the great destruction of pigs, too frequent at our tables, which are no way comparable in taste or magnificence to a well-grown, fat yearling child, which roasted whole will make a considerable figure at a Lord Mayor's feast or any other public entertainment. But this, and many others, I omit, being studious of brevity.

Supposing that one thousand families in this city would be constant customers for infant's flesh, besides others who might have it at merry meetings, particularly at weddings and christenings, I compute that Dublin would take off annually about twenty thousand carcasses, and the rest of the kingdom (where probably they will be sold somewhat cheaper) the remaining eighty thousand.

I can think of no one objection that will possibly be raised against this proposal, unless it should be urged that the number of people will be thereby much lessened in the kingdom. This I freely own, and 'twas in-

deed one principal design in offering it to the world. I desire the reader will observe that I calculate my remedy for this one individual kingdom of Ireland, and for no other that ever was, is, or, I think, ever can be upon earth. Therefore let no man talk to me of other expedients: of taxing our absentees at five shillings a pound; of using neither clothes nor household furniture except what is of our own growth and manufacture; of utterly rejecting the materials and instruments that promote foreign luxury; of curing the expensiveness of pride, vanity, idleness, and gaming in our women; of introducing a vein of parsimony, prudence, and temperance; of learning to love our country, wherein we differ even from Laplanders, and the inhabitants of Topinamboo; of quitting our animosities and factions, nor act any longer like the Jews, who were murdering one another at the very moment their city was taken; of being a little cautious not to sell our country and consciences for nothing; of teaching landlords to have at least one degree of mercy towards their tenants. Lastly, of putting a spirit of honesty, industry, and skill into our shopkeepers, who, if a resolution could now be taken to buy only our native goods, would immediately unite to cheat and exact upon us in the price, the measure, and the goodness, nor could ever yet be brought to make one fair proposal of just dealing, though often and earnestly invited to it.

Therefore I repeat, let no man talk to me of these and the like expedients till he hath at least some glimpse of hope that there will ever be some hearty and sincere attempt to put them in practice.

But as to myself, having been wearied out for many years with offering vain, idle, visionary thoughts, and at length utterly despairing of success, I fortunately fell upon this proposal, which, as it is wholly new, so it hath something solid and real, of no expense and little trouble, full in our own power, and whereby we can incur no danger in disobliging England. For this kind of commodity will not bear exportation, the flesh being of too tender a consistence to admit a long continuance in salt, although perhaps I could name a country which would be glad to eat up our whole nation without it.

After all, I am not so violently bent upon my own opinion as to reject any offer, proposed by wise men, which shall be found equally innocent, cheap, easy, and effectual. But before something of that kind shall be advanced in contradiction to my scheme, and offering a better, I desire the author or authors will be pleased maturely to consider two points: first, as things now stand, how they will be able to find food and raiment for a hundred thousand useless mouths and backs. And secondly, there being a round million of creatures in human figure throughout this kingdom

whose whole subsistence put into a common stock would leave them in debt two millions of pounds sterling, adding those who are beggars by profession to the bulk of farmers, cottagers, and labourers, with their wives and children, who are beggars in effect; I desire those politicians who dislike my overture, and may perhaps be so bold to attempt an answer, that they will first ask the parents of these mortals whether they would not at this day think it a great happiness to have been sold for food at a year old in the manner I prescribe, and thereby have avoided such a perpetual scene of misfortunes as they have since gone through, by the oppression of landlords, the impossibility of paying rent without money or trade, the want of common sustenance, with neither house nor clothes to cover them from the inclemencies of the weather, and the most inevitable prospect of entailing the like or greater miseries upon their breed for ever.

I profess in the sincerity of my heart that I have not the least personal interest in endeavouring to promote this necessary work, having no other motive than the public good of my country, by advancing our trade, providing for infants, relieving the poor, and giving some pleasure to the rich. I have no children by which I can propose to get a single penny, the youngest being nine years old, and my wife past child-bearing.

David Hume [1]

1711–1776

The essay form, in which Hume gracefully expresses his ideas here, had its beginning as far back as Plutarch and Montaigne. It is usually a short, informal, often personal bit of writing, on some nontechnical subject of general interest. Reading a good essay is like sitting around the fireplace while a master conversationalist, at his best, explains and defends his extraordinary views on an ordinary subject. Happily, these essays, except for the last, are also contributions to economic theory.

The first essay is provocative enough for anyone. For centuries it had been assumed, without question, that luxuries and the refinements of life are vices which produce effeminacy and loss of martial courage. The civilized man's taste for fine foods, wines, apparel, and the like, had been compared unfavorably with the rough manners and sterling virtues of the barbarian. Is not this absurd, Hume asks. "No gratification, however sensual, can of itself be esteemed vicious," he claims. It becomes so only when it leads a man to neglect his duty to his family and friends. There is nothing abominable, after all, in pleasure or its refinements. They give men something to live and fight for. The French and English, devoted to the arts and to the art of fine living, are as courageous as they come. They have great wealth and highly developed industries too. Is there any answer to this commonsensical argument?

In the second essay, Hume tells us that money is a great stimulator of industry and of refined tastes and luxuries. Yet it does not follow that the more a nation has, the better off it is. A nation never suffers internally from a shortage of money or gold. If it had only half as

[1] For a biography of David Hume, see Vol. 5, pp. 99–101, in this set.

much, its commodities would cost half as much; if it had twice as much, they would cost twice as much. Money is a mere symbol of the exchange value of commodities. In a very simple economy, goods are bartered and money is not needed. Yet such an economy remains simple and rude: wants are primitive and undiversified; industry does not develop; the arts are neglected.

"The quantity of gold and silver is in itself altogether indifferent," according to Hume, for the wealth of a nation consists of its men and commodities, and depends on how well the commodities are marketed and how widely money is circulated. Although the increase of gold and money does not by itself increase wealth, it spurs the industry of the people. As a result, goods are produced more cheaply and prices do not rise proportionately. Moreover, prices and wages do not rise at once. There is a lag, and this also benefits the economy, for it stimulates demand.

A very perceptive and logical essay, you will admit, but has not Hume forgotten that gold is not a mere symbol but also a commodity, the price of which may vary?

Of the Balance of Trade seeks to deflate another very widespread conviction, namely, that an unfavorable balance of trade will eventually ruin a country, draining off its gold to other nations. Hume argues, against the free traders here, that if a country loses gold in trade, the domestic cost of labor and commodities will decline. Sales abroad will then increase, and gold will flow back into the country. The trade balance will cease to be unfavorable. A correction in the opposite direction will occur when the trade balance is favorable. In the same way, water always maintains the same level. Parliaments can pass laws to maintain a favorable trade balance, but they will be found ineffective or harmful. Is this always so?

Most of us nowadays would agree with Hume that the best taxes are those levied on luxuries, and that taxes on commodities are far better than poll taxes. We would tend to approve the reasons he gives. But we may not be so sure that eighteenth-century artisans could easily absorb moderate taxes without increasing their wages.

In Hume's last essay, we might question whether fact is really more entertaining, as well as more profitable, than fiction. And are we like children if we do not read history? How can a study of history be so profitable if history never repeats itself? Could Hume answer that *types* of situations recur, and that human nature, at any rate, is always the same?

Of Refinement in the Arts

Luxury is a word of uncertain signification, and may be taken in a good as well as in a bad sense. In general, it means great refinement in the gratification of the senses; and any degree of it may be innocent or blameable, according to the age, or country, or condition of the person. The bounds between the virtue and the vice cannot here be exactly fixed more than in other moral subjects. To imagine that the gratifying of any sense, or the indulging of any delicacy in meat, drink, or apparel, is of itself a vice can never enter into a head that is not disordered by the frenzies of enthusiasm. I have, indeed, heard of a monk abroad, who, because the windows of his cell opened upon a noble prospect, made a covenant with his eyes never to turn that way, or receive so sensual a gratification. And such is the crime of drinking champagne or burgundy preferably to small beer or porter. These indulgences are only vices when they are pursued at the expense of some virtue, as liberality or charity; in like manner as they are follies when for them a man ruins his fortune, and reduces himself to want and beggary. Where they entrench upon no virtue, but leave ample subject whence to provide for friends, family, and every proper object of generosity or compassion, they are entirely innocent, and have in every age been acknowledged such by almost all moralists. To be entirely occupied with the luxury of the table, for instance, without any relish for the pleasures of ambition, study, or conversation, is a mark of stupidity, and is incompatible with any vigour of temper or genius. To confine one's expense entirely to such a gratification, without regard to friends or family, is an indication of a heart destitute of humanity or benevolence. But if a man reserve time sufficient for all laudable pursuits, and money sufficient for all generous purposes, he is free from every shadow of blame or reproach.

Since luxury may be considered either as innocent or blameable, one

may be surprised at those preposterous opinions which have been entertained concerning it; while men of libertine principles bestow praises even on vicious luxury, and represent it as highly advantageous to society; and on the other hand, men of severe morals blame even the most innocent luxury, and represent it as the source of all the corruptions, disorders, and factions incident to civil government. We shall here endeavour to correct both these extremes, by proving, first, that the ages of refinement are both the happiest and most virtuous; secondly, that wherever luxury ceases to be innocent, it also ceases to be beneficial; and when carried a degree too far, is a quality pernicious, though perhaps not the most pernicious, to political society.

To prove the first point, we need but consider the effects of refinement both on private and on public life. Human happiness, according to the most received notions, seems to consist in three ingredients: action, pleasure, and indolence. And though these ingredients ought to be mixed in different proportions, according to the particular disposition of the person, yet no one ingredient can be entirely wanting, without destroying, in some measure, the relish of the whole composition. Indolence or repose, indeed, seems not of itself to contribute much to our enjoyment; but, like sleep, is requisite as an indulgence to the weakness of human nature, which cannot support an uninterrupted course of business or pleasure. That quick march of the spirits which takes a man from himself, and chiefly gives satisfaction, does in the end exhaust the mind, and requires some intervals of repose, which, though agreeable for a moment, yet, if prolonged, beget a languor and lethargy that destroys all enjoyment. Education, custom, and example have a mighty influence in turning the mind to any of these pursuits; and it must be owned that where they promote a relish for action and pleasure, they are so far favourable to human happiness. In times when industry and the arts flourish, men are kept in perpetual occupation, and enjoy, as their reward, the occupation itself, as well as those pleasures which are the fruit of their labour. The mind acquires new vigour; enlarges its powers and faculties; and by an assiduity in honest industry, both satisfies its natural appetites and prevents the growth of unnatural ones, which commonly spring up when nourished by ease and idleness. Banish those arts from society, you deprive men both of action and of pleasure; and leaving nothing but indolence in their place, you even destroy the relish of indolence, which never is agreeable but when it succeeds to labour, and recruits the spirits exhausted by too much application and fatigue.

Another advantage of industry and of refinements in the mechanical

arts is that they commonly produce some refinements in the liberal; nor can one be carried to perfection without being accompanied, in some degree, with the other. The same age which produces great philosophers and politicians, renowned generals and poets usually abounds with skilful weavers, and ship-carpenters. We cannot reasonably expect that a piece of woollen cloth will be brought to perfection in a nation which is ignorant of astronomy, or where ethics are neglected. The spirit of the age affects all the arts; and the minds of men, being once roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. Profound ignorance is totally banished, and men enjoy the privilege of rational creatures to think as well as to act, to cultivate the pleasures of the mind as well as those of the body.

The more these refined arts advance, the more sociable men become: nor is it possible that when enriched with science, and possessed of a fund of conversation, they should be contented to remain in solitude, or live with their fellow-citizens in that distant manner which is peculiar to ignorant and barbarous nations. They flock into cities; love to receive and communicate knowledge; to show their wit or their breeding; their taste in conversation or living, in clothes or furniture. Curiosity allures the wise; vanity the foolish; and pleasure both. Particular clubs and societies are everywhere formed: both sexes meet in an easy and sociable manner; and the tempers of men, as well as their behaviour, refine apace. So that besides the improvements which they receive from knowledge and the liberal arts, it is impossible but they must feel an increase of humanity from the very habit of conversing together, and contribute to each other's pleasure and entertainment. Thus industry, knowledge, and humanity are linked together by an indissoluble chain, and are found, from experience as well as reason, to be peculiar to the more polished, and, what are commonly denominated, the more luxurious ages.

Nor are these advantages attended with disadvantages that bear any proportion to them. The more men refine upon pleasure, the less they indulge in excess of any kind; because nothing is more destructive to true pleasure than such excesses. One may safely affirm that the Tartars are oftener guilty of beastly gluttony, when they feast on their dead horses, than European courtiers with all their refinements of cookery. And if libertine love, or even infidelity to the marriage-bed, be more frequent in polite ages, when it is often regarded only as a piece of gallantry, drunkenness, on the other hand, is much less common: a vice more odious, and more pernicious both to mind and body. And in this

matter I would appeal not only to an Ovid or a Petronius but to a Seneca or a Cato. We know that Caesar, during Catiline's conspiracy, being necessitated to put into Cato's hands a *billet-doux* which discovered an intrigue with Servilia, Cato's own sister, that stern philosopher threw it back to him with indignation; and in the bitterness of his wrath, gave him the appellation of drunkard, as a term more opprobrious than that with which he could more justly have reproached him.

But industry, knowledge, and humanity are not advantageous in private life alone: they diffuse their beneficial influence on the public, and render the government as great and flourishing as they make individuals happy and prosperous. The increase and consumption of all the commodities which serve to the ornament and pleasure of life are advantageous to society; because at the same time that they multiply those innocent gratifications to individuals, they are a kind of storehouse of labour, which, in the exigencies of state, may be turned to public service. In a nation where there is no demand for such superfluities, men sink into indolence, lose all enjoyment of life, and are useless to the public, which cannot maintain or support its fleets and armies from the industry of such slothful members.

The bounds of all the European kingdoms are, at present, nearly the same they were two hundred years ago: But what a difference is there in the power and grandeur of those kingdoms? Which can be ascribed to nothing but the increase of art and industry. When Charles VIII of France invaded Italy, he carried with him about 20,000 men: Yet this armament so exhausted the nation, as we learn from Guicciardini, that for some years it was not able to make so great an effort. The late king of France, in time of war, kept in pay above 400,000 men; though from Mazarin's death to his own, he was engaged in a course of wars that lasted near thirty years.

This industry is much promoted by the knowledge inseparable from ages of art and refinement; as, on the other hand, this knowledge enables the public to make the best advantage of the industry of its subjects. Laws, order, police, discipline: these can never be carried to any degree of perfection before human reason has refined itself by exercise, and by an application to the more vulgar arts, at least, of commerce and manufacture. Can we expect that a government will be well modelled by a people who know not how to make a spinning-wheel, or to employ a loom to advantage? Not to mention that all ignorant ages are infested with superstition, which throws the government off its bias, and disturbs men in the pursuit of their interest and happiness.

Knowledge in the arts of government naturally begets mildness and moderation, by instructing men in the advantages of humane maxims above rigour and severity, which drive subjects into rebellion, and make the return to submission impracticable, by cutting off all hopes of pardon. When the tempers of men are softened as well as their knowledge improved, this humanity appears still more conspicuous, and is the chief characteristic which distinguishes a civilized age from times of barbarity and ignorance. Factions are then less inveterate, revolutions less tragical, authority less severe and seditions less frequent. Even foreign wars abate of their cruelty; and after the field of battle, where honour and interest steel men against compassion as well as fear, the combatants divest themselves of the brute, and resume the man.

Nor need we fear that men, by losing their ferocity, will lose their martial spirit, or become less undaunted and vigorous in defence of their country or their liberty. The arts have no such effect in enervating either the mind or body. On the contrary, industry, their inseparable attendant, adds new force to both. And if anger, which is said to be the whetstone of courage, loses somewhat of its asperity by politeness and refinement, a sense of honour, which is a stronger, more constant, and more governable principle, acquires fresh vigour by that elevation of genius which arises from knowledge and a good education. Add to this that courage can neither have any duration nor be of any use when not accompanied with discipline and martial skill, which are seldom found among a barbarous people. The ancients remarked that Datames was the only barbarian that ever knew the art of war. And Pyrrhus, seeing the Romans marshal their army with some art and skill, said with surprise, "These barbarians have nothing barbarous in their discipline!" It is observable that, as the old Romans, by applying themselves solely to war, were almost the only uncivilized people that ever possessed military discipline so the modern Italians are the only civilized people, among Europeans, that ever wanted courage and a martial spirit. Those who would ascribe this effeminacy of the Italians to their luxury, or politeness, or application to the arts need but consider the French and English, whose bravery is as uncontestable as their love for the arts, and their assiduity in commerce. The Italian historians give us a more satisfactory reason for this degeneracy of their countrymen. They show us how the sword was dropped at once by all the Italian sovereigns; while the Venetian aristocracy was jealous of its subjects, the Florentine democracy applied itself entirely to commerce; Rome was governed by priests, and Naples by women. War then became the business of soldiers of fortune, who spared one another, and to the

astonishment of the world, could engage a whole day in what they called a battle, and return at night to their camp, without the least bloodshed.

What has chiefly induced severe moralists to declaim against refinement in the arts is the example of ancient Rome, which joining to its poverty and rusticity, virtue and public spirit, rose to such a surprising height of grandeur and liberty; but having learned from its conquered provinces the Asiatic luxury, fell into every kind of corruption; whence arose sedition and civil wars, attended at last with the total loss of liberty. All the Latin classics, whom we peruse in our infancy, are full of these sentiments, and universally ascribe the ruin of their state to the arts and riches imported from the East: insomuch that Sallust represents a taste for painting as a vice no less than lewdness and drinking. And so popular were these sentiments, during the later ages of the republic, that this author abounds in praises of the old rigid Roman virtue, though himself the most egregious instance of modern luxury and corruption; speaks contemptuously of the Grecian eloquence, though the most elegant writer in the world; nay, employs preposterous digressions and declamations to this purpose, though a model of taste and correctness.

But it would be easy to prove that these writers mistook the cause of the disorders in the Roman state, and ascribed to luxury and the arts what really proceeded from an ill-modelled government, and the unlimited extent of conquests. Refinement on the pleasures and conveniences of life has no natural tendency to beget venality and corruption. The value which all men put upon any particular pleasure depends on comparison and experience; nor is a porter less greedy of money, which he spends on bacon and brandy, than a courtier, who purchases champagne and ortolans. Riches are valuable at all times, and to all men, because they always purchase pleasures, such as men are accustomed to, and desire: Nor can anything restrain or regulate the love of money, but a sense of honour and virtue; which, if it be not nearly equal at all times, will naturally abound most in ages of knowledge and refinement.

Of all European kingdoms, Poland seems the most defective in the arts of war as well as peace, mechanical as well as liberal; yet it is there that venality and corruption do most prevail. The nobles seem to have preserved their crown elective for no other purpose than regularly to sell it to the highest bidder. This is almost the only species of commerce with which that people are acquainted.

The liberties of England, so far from decaying since the improvements in the arts, have never flourished so much as during that period. And though corruption may seem to increase of late years, this is chiefly to

be ascribed to our established liberty, when our princes have found the impossibility of governing without parliaments, or of terrifying parliaments by the phantom of prerogative. Not to mention that this corruption or venality prevails much more among the electors than the elected; and therefore cannot justly be ascribed to any refinements in luxury.

If we consider the matter in a proper light, we shall find that a progress in the arts is rather favourable to liberty, and has a natural tendency to preserve, if not produce, a free government. In rude unpolished nations, where the arts are neglected, all labour is bestowed on the cultivation of the ground; and the whole society is divided into two classes: proprietors of land, and their vassals or tenants. The latter are necessarily dependent, and fitted for slavery and subjection; especially where they possess no riches, and are not valued for their knowledge in agriculture, as must always be the case where the arts are neglected. The former naturally erect themselves into petty tyrants; and must either submit to an absolute master, for the sake of peace and order, or if they will preserve their independency, like the ancient barons, they must fall into feuds and contests among themselves, and throw the whole society into such confusion as is perhaps worse than the most despotic government. But where luxury nourishes commerce and industry, the peasants, by a proper cultivation of the land, become rich and independent; while the tradesmen and merchants acquire a share of the property, and draw authority and consideration to that middling rank of men who are the best and firmest basis of public liberty. These submit not to slavery, like the peasants, from poverty and meanness of spirit; and having no hopes of tyrannizing over others, like the barons, they are not tempted, for the sake of that gratification, to submit to the tyranny of their sovereign. They covet equal laws, which may secure their property, and preserve them from monarchical, as well as aristocratical, tyranny.

The lower house is the support of our popular government; and all the world acknowledges that it owed its chief influence and consideration to the increase of commerce, which threw such a balance of property into the hands of the commons. How inconsistent then is it to blame so violently a refinement in the arts, and to represent it as the bane of liberty and public spirit!

To declaim against present times, and magnify the virtue of remote ancestors, is a propensity almost inherent in human nature: And as the sentiments and opinions of civilized ages alone are transmitted to posterity, hence it is that we meet with so many severe judgments pro-

nounced against luxury, and even science; and hence it is that at present we give so ready an assent to them. But the fallacy is easily perceived by comparing different nations that are contemporaries, where we both judge more impartially and can better set in opposition those manners with which we are sufficiently acquainted. Treachery and cruelty, the most pernicious and most odious of all vices, seem peculiar to uncivilized ages; and by the refined Greeks and Romans were ascribed to all the barbarous nations which surrounded them. They might justly, therefore, have presumed that their own ancestors, so highly celebrated, possessed no greater virtue, and were as much inferior to their posterity in honour and humanity as in taste and science. An ancient Frank or Saxon may be highly extolled: But I believe every man would think his life or fortune much less secure in the hands of a Moor or Tartar, than in those of a French or English gentleman, the rank of men the most civilized in the most civilized nations.

We come now to the second position which we propose to illustrate, to wit, that as innocent luxury, or a refinement in the arts and conveniences of life, is advantageous to the public, so wherever luxury ceases to be innocent, it also ceases to be beneficial; and when carried a degree farther, begins to be a quality pernicious, though, perhaps, not the most pernicious, to political society.

Let us consider what we call vicious luxury. No gratification, however sensual, can of itself be esteemed vicious. A gratification is only vicious when it engrosses all a man's expense, and leaves no ability for such acts of duty and generosity as are required by his situation and fortune. Suppose that he correct the vice, and employ part of his expense in the education of his children, in the support of his friends, and in relieving the poor: would any prejudice result to society? On the contrary, the same consumption would arise; and that labour which, at present, is employed only in producing a slender gratification to one man would relieve the necessitous, and bestow satisfaction on hundreds. The same care and toil that raise a dish of peas at Christmas would give bread to a whole family during six months. To say that without a vicious luxury the labour would not have been employed at all is only to say that there is some other defect in human nature, such as indolence, selfishness, inattention to others, for which luxury, in some measure, provides a remedy; as one poison may be an antidote to another. But virtue, like wholesome food, is better than poisons, however corrected.

Suppose the same number of men that are present in Great Britain,

with the same soil and climate; I ask, is it not possible for them to be happier, by the most perfect way of life that can be imagined, and by the greatest reformation that Omnipotence itself could work in their temper and disposition? To assert that they cannot appears evidently ridiculous. As the land is able to maintain more than all its present inhabitants, they could never, in such a Utopian state, feel any other ills than those which arise from bodily sickness; and these are not the half of human miseries. All other ills spring from some vice, either in ourselves or others; and even many of our diseases proceed from the same origin. Remove the vices, and the ills follow. You must only take care to remove all the vices. If you remove part, you may render the matter worse. By banishing vicious luxury, without curing sloth and an indifference to others, you only diminish industry in the state, and add nothing to men's charity or their generosity. Let us, therefore, rest contented with asserting that two opposite vices in a state may be more advantageous than either of them alone; but let us never pronounce vice in itself advantageous. Is it not very inconsistent for an author to assert in one page that moral distinctions are inventions of politicians for public interest, and in the next page maintain that vice is advantageous to the public? And indeed it seems upon any system of morality little less than a contradiction in terms to talk of a vice which is in general beneficial to society.[1]

I thought this reasoning necessary in order to give some light to a philosophical question which has been much disputed in England. I call it a philosophical question, not a political one. For whatever may be the consequence of such a miraculous transformation of mankind as would endow them with every species of virtue, and free them from every species of vice, this concerns not the magistrate, who aims only at possibilities. He cannot cure every vice by substituting a virtue in its place. Very often he can only cure one vice by another; and in that case, he ought to prefer what is least pernicious to society. Luxury, when excessive, is the source of many ills; but is in general preferable to sloth and idleness, which would commonly succeed in its place, and are more hurtful both to private persons and to the public. When sloth reigns, a mean

1. Prodigality is not to be confounded with a refinement in the arts. It even appears that that vice is much less frequent in the cultivated ages. Industry and gain beget this frugality among the lower and middle ranks of men, and in all the busy professions. Men of high rank, indeed, it may be pretended, are more allured by the pleasures, which become more frequent. But idleness is the great source of prodigality at all times; and there are pleasures and vanities in every age, which allure men equally when they are unacquainted with better enjoyments. Not to mention that the high interest paid in rude times quickly consumes the fortunes of the landed gentry, and multiplies their necessities.

uncultivated way of life prevails among individuals, without society, without enjoyment. And if the sovereign, in such a situation, demands the service of his subjects, the labour of the state suffices only to furnish the necessaries of life to the labourers, and can afford nothing to those who are employed in the public service.

Of Money

Money is not, properly speaking, one of the subjects of commerce; but only the instrument which men have agreed upon to facilitate the exchange of one commodity for another. It is none of the wheels of trade: It is the oil which renders the motion of the wheels more smooth and easy. If we consider any one kingdom by itself, it is evident that the greater or less plenty of money is of no consequence; since the prices of commodities are always proportioned to the plenty of money, and a crown in Harry VII's time served the same purpose as a pound does at present. It is only the public which draws any advantage from the greater plenty of money; and that only in its wars and negotiations with foreign states. And this is the reason why all rich and trading countries from Carthage to Great Britain and Holland have employed mercenary troops, which they hired from their poorer neighbours. Were they to make use of their native subjects, they would find less advantage from their superior riches, and from their great plenty of gold and silver, since the pay of all their servants must rise in proportion to the public opulence. Our small army of 20,000 men is maintained at as great expense as a French army twice as numerous. The English fleet, during the late war, required as much money to support it as all the Roman legions which kept the whole world in subjection during the time of the emperors.[1]

The greater number of people and their greater industry are serviceable in all cases; at home and abroad, in private and in public. But the greater

1. A private soldier in the Roman infantry had a denarius a day, somewhat less than eightpence. The Roman emperors had commonly 25 legions in pay, which, allowing 5,000 men to a legion, makes 125,000. Tacit., *Ann.* lib. iv, 5. It is true, there were also auxiliaries to the legions; but their numbers are uncertain, as well as their pay. To consider only the legionaries, the pay of the private men could not exceed 1,600,000 pounds. Now, the parliament in the last war commonly allowed for the fleet 2,500,000. We have therefore 900,000 over for the officers and other expenses of the Roman legions. There seem to have been but few officers in the Roman armies, in comparison of what are employed in all our modern troops, except some Swiss corps. And these officers had very small pay: a centurion, for in-

plenty of money is very limited in its use, and may even sometimes be a loss to a nation in its commerce with foreigners.

There seems to be a happy concurrence of causes in human affairs which checks the growth of trade and riches, and hinders them from being confined entirely to one people; as might naturally at first be dreaded from the advantages of an established commerce. Where one nation has gotten the start of another in trade, it is very difficult for the latter to regain the ground it has lost; because of the superior industry and skill of the former, and the greater stocks of which its merchants are possessed, and which enable them to trade on so much smaller profits. But these advantages are compensated, in some measure, by the low price of labour in every nation which has not an extensive commerce, and does not much abound in gold and silver. Manufactures therefore gradually shift their places, leaving those countries and provinces which they have already enriched, and flying to others, whither they are allured by the cheapness of provisions and labour; till they have enriched these also, and are again banished by the same causes. And, in general, we may observe that the dearness of everything, from plenty of money, is a disadvantage which attends an established commerce, and sets bounds to it in every country, by enabling the poorer states to undersell the richer in all foreign markets.

This has made me entertain a doubt concerning the benefit of banks and paper credit, which are so generally esteemed advantageous to every nation. That provisions and labour should become dear by the increase of trade and money is, in many respects, an inconvenience; but an inconvenience that is unavoidable, and the effect of that public wealth and prosperity which are the end of all our wishes. It is compensated by the advantages which we reap from the possession of these precious metals, and the weight which they give the nation in all foreign wars and negotiations. But there appears no reason for increasing that inconvenience by a counterfeit money, which foreigners will not accept of in any payment, and which any great disorder in the state will reduce to nothing. There are, it is true, many people in every rich state, who, having large sums of money, would prefer paper with good security, as being of more easy

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stance, only double a common soldier. And as the soldiers from their pay (Tacit., *Ann.* lib. i, 17) bought their own clothes, arms, tents, and baggage, this must also diminish considerably the other charges of the army. So little expensive was that mighty government, and so easy was its yoke over the world. And, indeed, this is the more natural conclusion from the foregoing calculations. For money, after the conquest of Egypt, seems to have been nearly in as great plenty at Rome as it is at present in the richest of the European kingdoms.

transport and more safe custody. If the public provide not a bank, private bankers will take advantage of this circumstance; as the goldsmiths formerly did in London, or as the bankers do at present in Dublin: And therefore it is better, it may be thought, that a public company should enjoy the benefit of that paper credit which always will have place in every opulent kingdom. But to endeavour artificially to increase such a credit can never be the interest of any trading nation; but must lay them under disadvantages, by increasing money beyond its natural proportion to labour and commodities, and thereby heightening their price to the merchant and manufacturer. And in this view, it must be allowed that no bank could be more advantageous than such a one as locked up all the money it received, and never augmented the circulating coin, as is usual, by returning part of its treasure into commerce. A public bank, by this expedient, might cut off much of the dealings of private bankers and money-jobbers; and though the state bore the charge of salaries to the directors and tellers of this bank (for, according to the preceding supposition, it would have no profit from its dealings), the national advantage, resulting from the low price of labour and the destruction of paper credit, would be a sufficient compensation. Not to mention that so large a sum, lying ready at command, would be a convenience in times of great public danger and distress; and what part of it was used might be replaced at leisure, when peace and tranquility was restored to the nation.

But of this subject of paper credit we shall treat more largely hereafter. And I shall finish this essay on money by proposing and explaining two observations, which may, perhaps, serve to employ the thoughts of our speculative politicians.

It was a shrewd observation of Anacharsis the Scythian, who had never seen money in his own country, that gold and silver seemed to him of no use to the Greeks, but to assist them in numeration and arithmetic. It is indeed evident that money is nothing but the representation of labour and commodities, and serves only as a method of rating or estimating them. Where coin is in greater plenty; as a greater quantity of it is required to represent the same quantity of goods; it can have no effect, either good or bad, taking a nation within itself; any more than it would make an alteration on a merchant's books, if instead of the Arabian method of notation, which requires few characters, he should make use of the Roman, which requires a great many. Nay, the greater quantity of money, like the Roman characters, is rather inconvenient, and requires greater trouble both to keep and transport it. But notwithstanding this

conclusion, which must be allowed just, it is certain that since the discovery of the mines in America, industry has increased in all the nations of Europe, except in the possessors of those mines; and this may justly be ascribed, among other reasons, to the increase of gold and silver. Accordingly we find that in every kingdom into which money begins to flow in greater abundance than formerly, everything takes a new face: labour and industry gain life; the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plough with greater alacrity and attention. This is not easily to be accounted for, if we consider only the influence which a greater abundance of coin has in the kingdom itself, by heightening the price of commodities, and obliging every one to pay a great number of these little yellow or white pieces for everything he purchases. And as to foreign trade, it appears that great plenty of money is rather disadvantageous, by raising the price of every kind of labour.

To account, then, for this phenomenon, we must consider that though the high price of commodities be a necessary consequence of the increase of gold and silver, yet it follows not immediately upon that increase; but some time is required before the money circulates through the whole state, and makes its effect be felt on all ranks of people. At first, no alteration is perceived; by degrees the price rises, first of one commodity, then of another; till the whole at last reaches a just proportion with the new quantity of specie which is in the kingdom. In my opinion, it is only in this interval or intermediate situation, between the acquisition of money and rise of prices, that the increasing quantity of gold and silver is favourable to industry. When any quantity of money is imported into a nation, it is not at first dispersed into many hands; but is confined to the coffers of a few persons, who immediately seek to employ it to advantage. Here are a set of manufacturers or merchants, we shall suppose, who have received returns of gold and silver for goods which they sent to Cadiz. They are thereby enabled to employ more workmen than formerly, who never dream of demanding higher wages, but are glad of employment from such good paymasters. If workmen become scarce, the manufacturer gives higher wages, but at first requires an increase of labour; and this is willingly submitted to by the artisan, who can now eat and drink better to compensate his additional toil and fatigue. He carries his money to market, where he finds everything at the same price as formerly, but returns with greater quantity and of better kinds, for the use of his family. The farmer and gardener, finding that all their commodities are

taken off, apply themselves with alacrity to the raising more; and at the same time can afford to take better and more cloths from their tradesmen, whose price is the same as formerly, and their industry only whetted by so much new gain. It is easy to trace the money in its progress through the whole commonwealth, where we shall find that it must first quicken the diligence of every individual before it increase the price of labour.

And that the specie may increase to a considerable pitch, before it have this latter effect, appears, among other instances, from the frequent operations of the French king on the money; where it was always found that the augmenting of the numerary value did not produce a proportional rise of the prices, at least for some time. In the last year of Louis XIV money was raised three-sevenths, but prices augmented only one. Corn in France is now sold at the same price, or for the same number of livres, it was in 1683; though silver was then at 30 livres the mark, and is now at 50.[2] Not to mention the great addition of gold and silver, which may have come into that kingdom since the former period.

From the whole of this reasoning we may conclude that it is of no manner of consequence, with regard to the domestic happiness of a state, whether money be in a greater or less quantity. The good policy of the magistrate consists only in keeping it, if possible, still increasing; because, by that means, he keeps alive a spirit of industry in the nation, and increases the stock of labour, in which consists all real power and riches. A nation whose money decreases is actually, at that time, weaker and more miserable than another nation which possesses no more money, but is on the increasing hand. This will be easily accounted for, if we consider that

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2. These facts I give upon the authority of M.du Tot in his *Reflections politiques,* an author of reputation. Though I must confess that the facts which he advances on other occasions are often so suspicious as to make his authority less in this matter. However, the general observation that the augmenting of the money in France does not at first proportionably augment the prices is certainly just.

   By the by, this seems to be one of the best reasons which can be given for a gradual and universal increase of the denomination of money, though it has been entirely overlooked in all those volumes which have been written on that question by Melon, du Tot, and Paris de Verney. Were all our money, for instance, recoined, and a penny's worth of silver taken from every shilling, the new shilling would probably purchase everything that could have been bought by the old; the prices of everything would thereby be insensibly diminished; foreign trade enlivened; and domestic industry, by the circulation of a great number of pounds and shillings, would receive some increase and encouragement. In executing such a project, it would be better to make the new shilling pass for 24 halfpence, in order to preserve the illusion, and make it be taken for the same. And as a recoinage of our silver begins to be requisite, by the continual wearing of our shillings and sixpences, it may be doubtful whether we ought to imitate the example in King William's reign, when the clipt money was raised to the old standard.

the alterations in the quantity of money, either on one side or the other, are not immediately attended with proportionable alterations in the price of commodities. There is always an interval before matters be adjusted to their new situation; and this interval is as pernicious to industry when gold and silver are diminishing as it is advantageous when these metals are increasing. The workman has not the same employment from the manufacturer and merchant, though he pays the same price for everything in the market. The farmer cannot dispose of his corn and cattle, though he must pay the same rent to his landlord. The poverty, and beggary, and sloth which must ensue are easily forseen.

The second observation which I proposed to make with regard to money may be explained after the following manner. There are some kingdoms, and many provinces in Europe (and all of them were once in the same condition), where money is so scarce that the landlord can get none at all from his tenants; but is obliged to take his rent in kind, and either to consume it himself or transport it to places where he may find a market. In those countries, the prince can levy few or no taxes, but in the same manner: And as he will receive small benefit from impositions so paid, it is evident that such a kingdom has little force even at home; and cannot maintain fleets and armies to the same extent as if every part of it abounded in gold and silver. There is surely a greater disproportion between the force of Germany at present and what it was three centuries ago [3] than there is in its industry, people, and manufactures. The Austrian dominions in the empire are in general well peopled and well cultivated, and are of great extent; but have not a proportionable weight in the balance of Europe; proceeding, as is commonly supposed, from the scarcity of money. How do all these facts agree with that principle of reason that the quantity of gold and silver is in itself altogether indifferent? According to that principle wherever a sovereign has numbers of subjects, and these have plenty of commodities, he should of course be great and powerful, and they rich and happy, independent of the greater or lesser abundance of the precious metals. These admit of divisions and subdivisions to a great extent; and where the pieces might become so small as to be in danger of being lost, it is easy to mix the gold or silver with a baser metal, as is practised in some countries of Europe, and by that means raise the pieces to a bulk more sensible and convenient. They still serve the same purposes of exchange, whatever their number may be, or whatever colour they may be supposed to have.

3. The Italians gave to the Emperor Maximilian the nickname of Poccidanari. None of the enterprises of that prince ever succeeded, for want of money.

To these difficulties I answer that the effect, here supposed to flow from scarcity of money, really arises from the manners and customs of the people; and that we mistake, as is too usual, a collateral effect for a cause. The contradiction is only apparent; but it requires some thought and reflection to discover the principles by which we can reconcile reason to experience.

It seems a maxim almost self-evident that the prices of everything depend on the proportion between commodities and money, and that any considerable alteration on either has the same effect, either of heightening or lowering the price. Increase the commodities, they become cheaper; increase the money, they rise in their value. As, on the other hand, a diminution of the former, and that of the latter, have contrary tendencies.

It is also evident that the prices do not so much depend on the absolute quantity of commodities and that of money which are in a nation as on that of the commodities which come or may come to market and of the money which circulates. If the coin be locked up in chests, it is the same thing with regard to prices as if it were annihilated; if the commodities be hoarded in magazines and granaries, a like effect follows. As the money and commodities in these cases never meet, they cannot affect each other. Were we, at any time, to form conjectures concerning the price of provisions, the corn which the farmer must reserve for seed and for the maintenance of himself and family ought never to enter into the estimation. It is only the overplus, compared to the demand, that determines the value.

To apply these principles, we must consider that in the first and more uncultivated ages of any state, ere fancy has confounded her wants with those of nature, men, content with the produce of their own fields, or with those rude improvements which they themselves can work upon them, have little occasion for exchange, or least for money, which, by agreement, is the common measure of exchange. The wool of the farmer's own flock, spun in his own family, and wrought by a neighbouring weaver, who receives his payment in corn or wool, suffices for furniture and clothing. The carpenter, the smith, the mason, the tailor are retained by wages of a like nature; and the landlord himself, dwelling in the neighbourhood, is content to receive his rent in the commodities raised by the farmer. The greater part of these he consumes at home, in rustic hospitality; the rest, perhaps, he disposes of for money to the neighbouring town, whence he draws the few materials of his expense and luxury.

But after men begin to refine on all these enjoyments, and live not always at home, nor are content with what can be raised in their neigh-

bourhood, there is more exchange and commerce of all kinds, and more money enters into that exchange. The tradesmen will not be paid in corn, because they want something more than barely to eat. The farmer goes beyond his own parish for the commodities he purchases, and cannot always carry his commodities to the merchant who supplies him. The landlord lives in the capital, or in a foreign country; and demands his rent in gold and silver, which can easily be transported to him. Great undertakers, and manufacturers, and merchants arise in every commodity; and these can conveniently deal in nothing but in specie. And consequently, in this situation of society, the coin enters into many more contracts, and by that means is much more employed than in the former.

The necessary effect is that, provided the money increase not in the nation, everything must become much cheaper in times of industry and refinement than in rude, uncultivated ages. It is the proportion between the circulating money and the commodities in the market which determines the prices. Goods that are consumed at home, or exchanged with other goods in the neighbourhood, never come to market; they affect not in the least the current specie; with regard to it they are as if totally annihilated; and consequently this method of using them sinks the proportion on the side of the commodities, and increases the prices. But after money enters into all contracts and sales, and is everywhere the measure of exchange, the same national cash has a much greater task to perform; all commodities are then in the market; the sphere of circulation is enlarged; it is the same case as if that individual sum were to serve a larger kingdom; and therefore, the proportion being here lessened on the side of the money, everything must become cheaper, and the prices gradually fall.

By the most exact computations that have been formed all over Europe, after making allowance for the alteration in the numerary value or the denomination, it is found that the prices of all things have only risen three or, at most, four times since the discovery of the West Indies. But will any one assert that there is not much more than four times the coin in Europe that was in the fifteenth century, and the centuries preceding it? The Spaniards and Portuguese from their mines, the English, French, and Dutch by their African trade, and by their interlopers in the West Indies, bring home about six millions a year, of which not above a third goes to the East Indies. This sum alone, in ten years, would probably double the ancient stock of money in Europe. And no other satisfactory reason can be given why all prices have not risen to a much more exorbitant height, except that which is derived from a change of customs

and manners. Besides that more commodities are produced by additional industry, the same commodities come more to market, after men depart from their ancient simplicity of manners. And though this increase has not been equal to that of money, it has, however, been considerable, and has preserved the proportion between coin and commodities nearer the ancient standard.

Were the question proposed, Which of these methods of living in the people, the simple or refined, is the most advantageous to the state or public? I should, without much scruple, prefer the latter, in a view to politics at least; and should produce this as an additional reason for the ecouragement of trade and manufactures.

While men live in the ancient simple manner, and supply all their necessaries from domestic industry or from the neighbourhood, the sovereign can levy no taxes in money from a considerable part of his subjects; and if he will impose on them any burdens, he must take payment in commodities, with which alone they abound; a method attended with such great and obvious inconveniencies that they need not here be insisted on. All the money he can pretend to raise must be from his principal cities, where alone it circulates; and these, it is evident, cannot afford him so much as the whole state could, did gold and silver circulate throughout the whole. But besides this obvious diminution of the revenue, there is another cause of the poverty of the public in such a situation. Not only the sovereign receives less money, but the same money goes not so far as in times of industry and general commerce. Everything is dearer where the gold and silver are supposed equal; and that because fewer commodities come to market, and the whole coin bears a higher proportion to what is to be purchased by it; whence alone the prices of everything are fixed and determined.

Here then we may learn the fallacy of the remark, often to be met with in historians, and even in common conversation, that any particular state is weak, though fertile, populous, and well cultivated, merely because it wants money. It appears that the want of money can never injure any state within itself: for men and commodities are the real strength of any community. It is the simple manner of living which here hurts the public, by confining the gold and silver to few hands, and preventing its universal diffusion and circulation. On the contrary, industry and refinements of all kinds incorporate it with the whole state, however small its quantity may be: they digest it into every vein, so to speak; and make it enter into every transaction and contract. No hand is entirely empty of it. And as the prices of everything fall by that means, the sovereign has a double ad-

vantage: he may draw money by his taxes from every part of the state; and what he receives goes farther in every purchase and payment.

We may infer, from a comparison of prices, that money is not more plentiful in China, than it was in Europe three centuries ago: But what immense power is that empire possessed of, if we may judge by the civil and military establishment maintained by it? Polybius tells us that provisions were so cheap in Italy during his time that in some places the stated price for a meal at the inns was a *semis* a head, little more than a farthing! Yet the Roman power had even then subdued the whole known world. About a century before that period, the Carthaginian ambassador said, by way of raillery, that no people lived more sociably among themselves than the Romans; for that in every entertainment which, as foreign ministers, they received, they still observed the same plate at every table. The absolute quantity of the precious metals is a matter of great indifference. There are only two circumstances of any importance, namely, their gradual increase, and their thorough concoction and circulation through the state; and the influence of both these circumstances has here been explained.

Of the Balance of Trade

t is very usual, in nations ignorant of the nature of commerce, to prohibit the exportation of commodities, and to preserve among themselves whatever they think valuable and useful. They do not consider that in this prohibition they act directly contrary to their intention; and that the more is exported of any commodity, the more will be raised at home, of which they themselves will always have the first offer.

It is well known to the learned that the ancient laws of Athens rendered the exportation of figs criminal; that being supposed a species of fruit so excellent in Attica that the Athenians deemed it too delicious for the palate of any foreigner. And in this ridiculous prohibition they were so much in earnest that informers were thence called sycophants among them, from two Greek words which signify figs and discoverer. There are proofs in many old acts of parliament of the same ignorance in the nature of commerce, particularly in the reign of Edward III. And to this day, in France, the exportation of corn is almost always prohibited; in order, as they say, to prevent famines; though it is evident that nothing contributes more to the frequent famines which so much distress that fertile country.

The same jealous fear, with regard to money, has also prevailed among several nations; and it required both reason and experience to convince any people that these prohibitions serve to no other purpose than to raise the exchange against them, and produce a still greater exportation.

These errors, one may say, are gross and palpable: But there still prevails, even in nations well acquainted with commerce, a strong jealousy with regard to the balance of trade, and a fear that all their gold and silver may be leaving them. This seems to me, almost in every case, a groundless apprehension; and I should as soon dread that all our springs and rivers should be exhausted as that money should abandon a kingdom

where there are people and industry. Let us carefully preserve these latter advantages; and we need never be apprehensive of losing the former.

It is easy to observe that all calculations concerning the balance of trade are founded on very uncertain facts and suppositions. The customhouse books are allowed to be an insufficient ground of reasoning; nor is the rate of exchange much better; unless we consider it with all nations, and know also the proportions of the several sums remitted; which one may safely pronounce impossible. Every man who has ever reasoned on this subject has always proved his theory, whatever it was, by facts and calculations, and by an enumeration of all the commodities sent to all foreign kingdoms.

The writings of Mr. Gee struck the nation with a universal panic when they saw it plainly demonstrated, by a detail of particulars, that the balance was against them for so considerable a sum as must leave them without a single shilling in five or six years. But luckily, twenty years have since elapsed, with an expensive foreign war; yet is it commonly supposed that money is still more plentiful among us than in any former period.

Nothing can be more entertaining on this head than Dr. Swift, an author so quick in discerning the mistakes and absurdities of others. He says, in his short view of the state of Ireland, that the whole cash of that kingdom formerly amounted but to 500,000 pounds; that out of this the Irish remitted every year a neat million to England, and had scarcely any other source from which they could compensate themselves, and little other foreign trade than the importation of French wines, for which they paid ready money. The consequence of this situation, which must be owned to be disadvantageous, was that in a course of three years the current money of Ireland, from 500,000 pounds was reduced to less than two. And at present, I suppose, in a course of 30 years it is absolutely nothing. Yet I know not how that opinion of the advance of riches in Ireland, which gave the Doctor so much indignation, seems still to continue, and gain ground with everybody.

In short, this apprehension of the wrong balance of trade appears of such a nature that it discovers itself wherever one is out of humour with the ministry, or is in low spirits; and as it can never be refuted by a particular detail of all the exports which counterbalance the imports, it may here be proper to form a general argument that they may prove the impossibility of this event as long as we preserve our people and our industry.

Suppose four-fifths of all the money in Great Britain to be annihilated in one night, and the nation reduced to the same condition, with regard to specie, as in the reigns of the Harrys and Edwards, what would be the consequence? Must not the price of all labour and commodities sink in proportion, and everything be sold as cheap as they were in those ages? What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which to us would afford sufficient profit? In how little time, therefore, must this bring back the money which we had lost, and raise us to the level of all the neighbouring nations? Where, after we have arrived, we immediately lose the advantage of the cheapness of labour and commodities; and the farther flowing in of money is stopped by our fulness and repletion.

Again, suppose that all the money of Great Britain were multiplied fivefold in a night, must not the contrary effect follow? Must not all labour and commodities rise to such an exorbitant height that no neighbouring nations could afford to buy from us; while their commodities, on the other hand, became comparatively so cheap that, in spite of all the laws which could be formed, they would be run in upon us, and our money flow out; till we fall to a level with foreigners, and lose that great superiority of riches, which had laid us under such disadvantages?

Now, it is evident, that the same causes which would correct these exorbitant inequalities, were they to happen miraculously, must prevent their happening in the common course of nature, and must forever, in all neighbouring nations, preserve money nearly proportionable to the art and industry of each nation. All water, wherever it communicates, remains always at a level. Ask naturalists the reason; they tell you that were it to be raised in any one place, the superior gravity of that part not being balanced must depress it, till it meet a counterpoise; and that the same cause, which redresses the inequality when it happens, must forever prevent it, without some violent external operation.[1]

Can one imagine that it had ever been possible, by any laws, or even by any art or industry, to have kept all the money in Spain which the galleons have brought from the Indies? Or that all commodities could be sold in France for a tenth of the price which they would yield on the other side of the Pyrenees, without finding their way thither, and drain-

1. There is another cause, though more limited in its operation, which checks the wrong balance of trade, to every particular nation to which the kingdom trades. When we import more goods than we export, the exchange turns against us, and this becomes a new encouragement to export; as much as the charge of carriage and insurance of the money which becomes due would amount to. For the exchange can never rise but a little higher than that sum.

ing from that immense treasure? What other reason, indeed, is there why all nations, at present, gain in their trade with Spain and Portugal, but because it is impossible to heap up money, more than any fluid, beyond its proper level? The sovereigns of these countries have shown that they wanted not inclination to keep their gold and silver to themselves had it been in any degree practicable.

But as any body of water may be raised above the level of the surrounding element, if the former has no communication with the latter, so in money, if the communication be cut off, by any material or physical impediment (for all laws alone are ineffectual), there may, in such a case, be a very great inequality of money. Thus the immense distance of China, together with the monopolies of our India companies, obstructing the communication, preserve in Europe the gold and silver, especially the latter, in much greater plenty than they are found in that kingdom. But, notwithstanding this great obstruction, the force of the causes abovementioned is still evident. The skill and ingenuity of Europe in general surpasses perhaps that of China, with regard to manual arts and manufactures; yet are we never able to trade thither without great disadvantage. And were it not for the continual recruits which we receive from America, money would soon sink in Europe, and rise in China, till it came nearly to a level in both places. Nor can any reasonable man doubt but that industrious nation, were they as near us as Poland or Barbary, would drain us of the overplus of our specie, and draw to themselves a larger share of the West Indian treasures. We need not have recourse to a physical attraction, in order to explain the necessity of this operation. There is a moral attraction, arising from the interests and passions of men, which is full as potent and infallible.

How is the balance kept in the provinces of every kingdom among themselves but by the force of this principle, which makes it impossible for money to lose its level, and either to rise or sink beyond the proportion of the labour and commodities which are in each province? Did not long experience make people easy on this head, what a fund of gloomy reflections might calculations afford to a melancholy Yorkshireman, while he computed and magnified the sums drawn to London by taxes, absentees, commodities, and found on comparison the opposite articles so much inferior? And no doubt, had the Heptarchy subsisted in England, the legislature of each state had been continually alarmed by the fear of a wrong balance; and as it is probable that the mutual hatred of these states would have been extremely violent on account of their close neighbourhood, they would have loaded and oppressed all commerce, by a

jealous and superfluous caution. Since the union has removed the barriers between Scotland and England, which of these nations gains from the other by this free commerce? Or if the former kingdom has received any increase of riches, can it reasonably be accounted for by anything but the increase of its art and industry? It was a common apprehension in England before the union, as we learn from L'Abbe du Bos, that Scotland would soon drain them of their treasure were an open trade allowed; and on the other side the Tweed a contrary apprehension prevailed: With what justice in both, time has shown.

What happens in small portions of mankind must take place in greater. The provinces of the Roman empire, no doubt, kept their balance with each other, and with Italy, independent of the legislature; as much as the several counties of Great Britain, or the several parishes of each county. And any man who travels over Europe at this day may see, by the prices of commodities, that money, in spite of the absurd jealousy of princes and states, has brought itself nearly to a level; and that the difference between one kingdom and another is not greater in this respect than it is often between different provinces of the same kingdom. Men naturally flock to capital cities, seaports, and navigable rivers. There we find more men, more industry, more commodities, and consequently more money; but still the latter difference holds proportion with the former, and the level is preserved.[2]

Our jealousy and our hatred of France are without bounds; and the former sentiment, at least, must be acknowledged reasonable and well grounded. These passions have occasioned innumerable barriers and obstructions upon commerce, where we are accused of being commonly the aggressors. But what have we gained by the bargain? We lost the French market for our woollen manufactures, and transferred the commerce of wine to Spain and Portugal, where we buy worse liquor at a higher price. There are few Englishmen who would not think their coun-

2. It must carefully be remarked, that throughout this discourse, wherever I speak of the level of money, I mean always its proportional level to the commodities, labour, industry, and skill, which is in the several states. And I assert, that where these advantages are double, triple, quadruple, to what they are in the neighbouring states, the money infallibly will also be double, triple, quadruple. The only circumstance that can obstruct the exactness of these proportions, is the expense of transporting the commodities from one place to another; and this expense is sometimes unequal. Thus the corn, cattle, cheese, butter, of Derbyshire, cannot draw the money of London, so much as the manufactures of London draw the money of Derbyshire. But this objection is only a seeming one: For so far as the transport of commodities is expensive, so far is the communication between the places obstructed and imperfect.

try absolutely ruined were French wines sold in England so cheap and in such abundance as to supplant, in some measure, all ale, and homebrewed liquors: But would we lay aside prejudice, it would not be difficult to prove that nothing could be more innocent, perhaps advantageous. Each new acre of vineyard planted in France, in order to supply England with wine, would make it requisite for the French to take the produce of an English acre, sown in wheat or barley, in order to subsist themselves; and it is evident that we should thereby get command of the better commodity.

There are many edicts of the French king prohibiting the planting of new vineyards, and ordering all those which are lately planted to be grubbed up: so sensible are they, in that country, of the superior value of corn above every other product.

Mareschal Vauban complains often, and with reason, of the absurd duties which load the entry of those wines of Languedoc, Guienne, and other southern provinces that are imported into Britanny and Normandy. He entertained no doubt but these latter provinces could preserve their balance, notwithstanding the open commerce which he recommends. And it is evident that a few leagues more navigation to England would make no difference; or if it did, that it must operate alike on the commodities of both kingdoms.

There is indeed one expedient by which it is possible to sink, and another by which we may raise money beyond its natural level in any kingdom; but these cases, when examined, will be found to resolve into our general theory, and to bring additional authority to it.

I scarcely know any method of sinking money below its level but those institutions of banks, funds, and paper credit, which are so much practised in this kingdom. These render paper equivalent to money, circulate it throughout the whole state, make it supply the place of gold and silver, raise proportionably the price of labour and commodities, and by that means either banish a great part of those precious metals, or prevent their farther increase. What can be more short-sighted than our reasonings on this head? We fancy because an individual would be much richer were his stock of money doubled than the same good effect would follow were the money of every one increased; not considering that this would raise as much the price of every commodity, and reduce every man, in time, to the same condition as before. It is only in our public negotiations and transactions with foreigners that a greater stock of money is advantageous; and as our paper is there absolutely insignificant, we feel, by

its means, all the ill effects arising from a great abundance of money, without reaping any of the advantages.[3]

Suppose that there are 12 millions of paper, which circulate in the kingdom as money (for we are not to imagine that all our enormous funds are employed in that shape), and suppose the real cash of the kingdom to be 18 millions: Here is a state which is found by experience to be able to hold a stock of 30 millions. I say, if it be able to hold it, it must of necessity have acquired it in gold and silver had we not obstructed the entrance of these metals by this new invention of paper. Whence would it have acquired that sum? From all the kingdoms of the world. But why? Because if you remove these 12 millions, money in this state is below its level compared with our neighbours; and we must immediately draw from all of them till we be full and saturate, so to speak, and can hold no more. By our present politics, we are as careful to stuff the nation with this fine commodity of bank-bills and chequer-notes as if we were afraid of being overburdened with the precious metals.

It is not to be doubted but the great plenty of bullion in France is, in a great measure, owing to the want of paper credit. The French have no banks: merchants bills do not there circulate as with us: Usury or lending on interest is not directly permitted; so that many have large sums in their coffers: great quantities of plate are used in private houses; and all the churches are full of it. By this means, provisions and labour still remain cheaper among them than in nations that are not half so rich in gold and silver. The advantages of this situation, in point of trade as well as in great public emergencies, are too evident to be disputed.

The same fashion a few years ago prevailed in Genoa, which still has place in England and Holland, of using services of china-ware instead of plate; but the senate, foreseeing the consequence, prohibited the use of that brittle commodity beyond a certain extent; while the use of silverplate was left unlimited. And I suppose, in their late distresses, they felt the good effect of this ordinance. Our tax on plate is, perhaps, in this view, somewhat impolitic.

Before the introduction of paper money into our colonies, they had gold and silver sufficient for their circulation. Since the introduction of that commodity, the least inconveniency that has followed is the total banish-

3. We observed . . . [previously] that money when increasing gives encouragement to industry during the interval between the increase of money and rise of the prices. A good effect of this nature may follow too from paper credit; but it is dangerous to precipitate matters, at the risk of losing all by the failing of that credit, as must happen upon any violent shock in public affairs.

ment of the precious metals. And after the abolition of paper, can it be doubted but money will return, while these colonies possess manufactures and commodities, the only thing valuable in commerce, and for whose sake alone all men desire money.

What pity Lycurgus did not think of paper credit, when he wanted to banish gold and silver from Sparta! It would have served his purpose better than the lumps of iron he made use of as money; and would also have prevented more effectually all commerce with strangers, as being of so much less real and intrinsic value.

It must, however, be confessed that as all these questions of trade and money are extremely complicated, there are certain lights in which this subject may be placed so as to represent the advantages of paper credit and banks to be superior to their disadvantages. That they banish specie and bullion from a state is undoubtedly true; and whoever looks no farther than this circumstance does well to condemn them; but specie and bullion are not of so great consequence as not to admit of a compensation, and even an overbalance from the increase of industry and of credit, which may be promoted by the right use of paper money. It is well known of what advantage it is to a merchant to be able to discount his bills upon occasion; and everything that facilitates this species of traffic is favourable to the general commerce of a state. But private bankers are enabled to give such credit by the credit they receive from the depositing of money in their shops; and the bank of England in the same manner, from the liberty it has to issue its notes in all payments. There was an invention of this kind, which was fallen upon some years ago by the banks of Edinburgh; and which, as it is one of the most ingenious ideas that has been executed in commerce, has also been thought advantageous to Scotland. It is there called a Bank-Credit; and is of this nature: A man goes to the bank and finds surety to the amount, we shall suppose, of a thousand pounds. This money, or any part of it, he has the liberty of drawing out whenever he pleases, and he pays only the ordinary interest for it, while it is in his hands. He may, when he pleases, repay any sum so small as twenty pounds, and the interest is discounted from the very day of the repayment. The advantages resulting from this contrivance are manifold. As a man may find surety nearly to the amount of his substance, and his bank-credit is equivalent to ready money, a merchant does hereby in a manner coin his houses, his household furniture, the goods in his warehouse, the foreign debts due to him, his ships at sea; and can, upon occasion, employ them in all payments, as if they were the current money of the country. If a man borrow a thousand pounds from a private hand,

besides that it is not always to be found when required, he pays interest for it, whether he be using it or not: His bank-credit costs him nothing except during the very moment in which it is of service to him: and this circumstance is of equal advantage as if he had borrowed money at much lower interest. Merchants, likewise from this invention, acquire a great facility in supporting each other's credit, which is a considerable security against bankruptcies. A man, when his own bank-credit is exhausted, goes to any of his neighbours who is not in the same condition; and he gets the money, which he replaces at his convenience.

After this practice had taken place during some years at Edinburgh, several companies of merchants at Glasgow carried the matter farther. They associated themselves into different banks, and issued notes so low as ten shillings, which they used in all payments for goods, manufactures, tradesmen's labour of all kinds; and these notes, from the established credit of the companies, passed as money in all payments throughout the country. By this means, a stock of five thousand pounds was able to perform the same operations as if it were six or seven; and merchants were thereby enabled to trade to a greater extent, and to require less profit in all their transactions. But whatever other advantages result from these inventions, it must still be allowed that besides giving too great facility to credit, which is dangerous, they banish the precious metals: and nothing can be a more evident proof of it than a comparison of the past and present condition of Scotland in that particular. It was found, upon the recoinage made after the union, that there was near a million of specie in that country: But notwithstanding the great increase of riches, commerce, and manufactures of all kinds, it is thought that even where there is no extraordinary drain made by England, the current specie will not now amount to a third of that sum.

But as our projects of paper credit are almost the only expedient by which we can sink money below its level, so, in my opinion, the only expedient by which we can raise money above it is a practice which we should all exclaim against as destructive, namely, the gathering of large sums into a public treasure, locking them up, and absolutely preventing their circulation. The fluid not communicating with the neighbouring element may, by such an artifice, be raised to what height we please. To prove this, we need only return to our first supposition, of annihilating the half or any part of our cash, where we found that the immediate consequence of such an event would be the attraction of an equal sum from all the neighbouring kingdoms. Nor does there seem to be any necessary bounds set, by the nature of things, to this practice of hoarding. A small

city, like Geneva, continuing this policy for ages, might engross nine-tenths of the money of Europe. There seems, indeed, in the nature of man, an invincible obstacle to that immense growth of riches. A weak state, with an enormous treasure, will soon become a prey to some of its poorer but more powerful neighbours. A great state would dissipate its wealth in dangerous and ill-concerted projects; and probably destroy, with it, what is much more valuable, the industry, morals, and numbers of its people. The fluid, in this case, raised to too great a height, bursts and destroys the vessel that contains it; and mixing itself with the surrounding element, soon falls to its proper level.

So little are we commonly acquainted with this principle that though all historians agree in relating uniformly so recent an event as the immense treasure amassed by Harry VII (which they make amount to 2,700,000 pounds), we rather reject their concurring testimony than admit of a fact which agrees so ill with our inveterate prejudices. It is indeed probable that this sum might be three-fourths of all the money in England. But where is the difficulty in conceiving that such a sum might be amassed in twenty years by a cunning, rapacious, frugal, and almost absolute monarch? Nor is it probable that the diminution of circulating money was ever sensibly felt by the people, or ever did them any prejudice. The sinking of the prices of all commodities would immediately replace it, by giving England the advantage in its commerce with the neighbouring kingdoms.

Have we not an instance in the small republic of Athens with its allies, who, in about fifty years, between the Median and Peloponnesian wars, amassed a sum not much inferior to that of Harry VII? For all the Greek historians and orators agree that the Athenians collected in the citadel more than 10,000 talents, which they afterwards dissipated in their own ruin, in rash and imprudent enterprises. But when this money was set a running, and began to communicate with the surrounding fluid, what was the consequence? Did it remain in the state? No. For we find, by the memorable census mentioned by Demosthenes and Polybius, that, in about fifty years afterwards, the whole value of the republic, comprehending lands, houses, commodities, slaves, and money, was less than 6,000 talents.

What an ambitious high-spirited people was this, to collect and keep in their treasury, with a view to conquests, a sum, which it was every day in the power of the citizens, by a single vote, to distribute among themselves, and which would have gone near to triple the riches of every individual! For we must observe that the numbers and private riches of the Athe-

nians are said, by ancient writers, to have been no greater at the beginning of the Peloponnesian War than at the beginning of the Macedonian.

Money was little more plentiful in Greece during the age of Philip and Perseus than in England during that of Harry VII: Yet these two monarchs in thirty years collected from the small kingdom of Macedon, a larger treasure than that of the English monarch. Paulus Aemilius brought to Rome about 1,700,000 pounds sterling. Pliny says, 2,400,000. And that was but a part of the Macedonian treasure. The rest was dissipated by the resistance and flight of Perseus.

We may learn from Stanian that the canton of Berne had 300,000 pounds lent at interest, and had above six times as much in their treasury. Here then is a sum hoarded of 1,800,000 pounds sterling, which is at least quadruple what should naturally circulate in such a petty state; and yet no one who travels in the Pais de Vaux, or any part of that canton, observes any want of money more than could be supposed in a country of that extent, soil, and situation. On the contrary, there are scarce any inland provinces in the continent of France or Germany where the inhabitants are at this time so opulent, though that canton has vastly increased its treasure since 1714, the time when Stanian wrote his judicious account of Switzerland.[4]

The account given by Appian of the treasure of the Ptolemies is so prodigious that one cannot admit of it; and so much the less because the historian says that the other successors of Alexander were also frugal, and had many of them treasures not much inferior. For this saving humour of the neighbouring princes must necessarily have checked the frugality of the Egyptian monarchs, according to the foregoing theory. The sum he mentions is 740,000 talents, or 191,166,666 pounds 13 shillings and 4 pence, according to Dr. Arbuthnot's computation. And yet Appian says that he extracted his account from the public records; and he was himself a native of Alexandria.

From these principles we may learn what judgment we ought to form of those numberless bars, obstructions, and imposts which all nations of Europe, and none more than England, have put upon trade; from an exorbitant desire of amassing money, which never will heap up beyond its level, while it circulates; or from an ill grounded apprehension of losing their specie, which never will sink below it. Could anything scatter our

4. The poverty which Stanian speaks of is only to be seen in the most mountainous cantons, where there is no commodity to bring money. And even there the people are not poorer than in the diocese of Saltsburgh on the one hand, or Savoy on the other.

riches, it would be such impolitic contrivances. But this general ill effect, however, results from them, that they deprive neighbouring nations of that free communication and exchange which the Author of the world has intended, by giving them soils, climates, and geniuses, so different from each other.

Our modern politics embrace the only method of banishing money, the using of paper credit; they reject the only method of amassing it, the practice of hoarding; and they adopt a hundred contrivances, which serve to no purpose but to check industry, and rob ourselves and our neighbours of the common benefits of art and nature.

All taxes, however, upon foreign commodities are not to be regarded as prejudicial or useless, but those only which are founded on the jealousy above-mentioned. A tax on German linen encourages home manufactures, and thereby multiplies our people and industry. A tax on brandy increases the sale of rum, and supports our southern colonies. And as it is necessary that imposts should be levied for the support of government, it may be thought more convenient to lay them on foreign commodities, which can easily be intercepted at the port, and subjected to the impost. We ought, however, always to remember the maxim of Dr. Swift that in the arithmetic of the customs, two and two make not four, but often make only one. It can scarcely be doubted, but if the duties on wine were lowered to a third, they would yield much more to the government than at present: Our people might thereby afford to drink commonly a better and more wholesome liquor; and no prejudice would ensue to the balance of trade, of which we are so jealous. The manufacture of ale beyond the agriculture is but inconsiderable, and gives employment to few hands. The transport of wine and corn would not be much inferior.

But are there not frequent instances, you will say, of states and kingdoms which were formerly rich and opulent and are now poor and beggarly? Has not the money left them with which they formerly abounded? I answer, if they lose their trade, industry, and people, they cannot expect to keep their gold and silver: for these precious metals will hold proportion to the former advantages. When Lisbon and Amsterdam got the East-India trade from Venice and Genoa, they also got the profits and money which arose from it. Where the seat of government is transferred, where expensive armies are maintained at a distance, where great funds are possessed by foreigners, there naturally follows from these causes a diminution of the specie. But these, we may observe, are violent and forcible methods of carrying away money, and are in time commonly attended with the transport of people and industry. But

where these remain, and the drain is not continued, the money always finds its way back again, by a hundred canals, of which we have no notion or suspicion. What immense treasures have been spent, by so many nations, in Flanders, since the revolution, in the course of three long wars! More money perhaps than the half of what is at present in Europe. But what has now become of it? Is it in the narrow compass of the Austrian provinces? No, surely: It has most of it returned to the several countries whence it came, and has followed that art and industry by which at first it was acquired. For above a thousand years, the money of Europe has been flowing to Rome, by an open and sensible current; but it has been emptied by many secret and insensible canals: and the want of industry and commerce renders at present the papal dominions the poorest territory in all Italy.

In short, a government has great reason to preserve with care its people and its manufactures. Its money it may safely trust to the course of human affairs, without fear or jealousy. Or if it ever give attention to this latter circumstance, it ought only to be so far as it affects the former.

Of Taxes

here is a prevailing maxim, among some reasoners, that every new tax creates a new ability in the subject to bear it, and that each increase of public burdens increases proportionably the industry of the people. This maxim is of such a nature as is most likely to be abused; and is so much the more dangerous as its truth cannot be altogether denied: but it must be owned, when kept within certain bounds, to have some foundation in reason and experience.

When a tax is laid upon commodities which are consumed by the common people, the necessary consequence may seem to be either that the poor must retrench something from their way of living or raise their wages, so as to make the burden of the tax fall entirely upon the rich. But there is a third consequence which often follows upon taxes, namely, that the poor increase their industry, perform more work, and live as well as before, without demanding more for their labour. Where taxes are moderate, are laid on gradually, and affect not the necessaries of life, this consequence naturally follows; and it is certain that such difficulties often serve to excite the industry of a people, and render them more opulent and laborious than others who enjoy the greatest advantages. For we may observe, as a parallel instance, that the most commercial nations have not always possessed the greatest extent of fertile land; but, on the contrary, that they have laboured under many natural disadvantages. Tyre, Athens, Carthage, Rhodes, Genoa, Venice, Holland are strong examples to this purpose. And in all history, we find only three instances of large and fertile countries which have possessed much trade: the Netherlands, England, and France. The two former seem to have been allured by the advantages of their maritime situation, and the necessity they lay under of frequenting foreign ports in order to procure what their own climate refused them. And as to France, trade has come late into that kingdom, and seems to have been the effect of reflection and observation in an ingenious and enterprising people, who remarked the riches ac-

quired by such of the neighbouring nations as cultivated navigation and commerce.

The places mentioned by Cicero as possessed of the greatest commerce in his time are Alexandria, Colchus, Tyre, Sidon, Andros, Cyprus, Pamphylia, Lycia, Rhodes, Chios, Byzantium, Lesbos, Smyrna, Miletum, Coos. All these, except Alexandria, were either small islands or narrow territories. And that city owed its trade entirely to the happiness of its situation.

Since therefore some natural necessities or disadvantages may be thought favourable to industry, why may not artificial burdens have the same effect? Sir William Temple, we may observe, ascribes the industry of the Dutch entirely to necessity, proceeding from their natural disadvantages; and illustrates his doctrine by a striking comparison with Ireland, "where," says he, "by the largeness and plenty of the soil, and scarcity of people, all things necessary to life are so cheap that an industrious man, by two days labour, may gain enough to feed him the rest of the week. Which I take to be a very plain ground of the laziness attributed to the people. For men naturally prefer ease before labour, and will not take pains if they can live idle; though when, by necessity, they have been inured to it, they cannot leave it, being grown a custom necessary to their health, and to their very entertainment. Nor perhaps is the change harder from constant ease to labour than from constant labour to ease." After which the author proceeds to confirm his doctrine, by enumerating, as above, the places where trade has most flourished, in ancient and modern times, and which are commonly observed to be such narrow confined territories as beget a necessity for industry.[1]

The best taxes are such as are levied upon consumptions, especially those of luxury, because such taxes are least felt by the people. They

1. 'Tis always observed, in years of scarcity, if it be not extreme, that the poor labour more, and really live better than in years of great plenty, when they indulge themselves in idleness and riot. I have been told, by a considerable manufacturer, that in the year 1740, when bread and provisions of all kinds were very dear, his workmen not only made a shift to live But paid debts which they had contracted in former years that were much more favourable and abundant.

   This doctrine, therefore, with regard to taxes, may be admitted in some degree: But beware of the abuse. Exorbitant taxes, like extreme necessity, destroy industry, by producing despair; and even before they reach this pitch, they raise the wages of the labourer and manufacturer, and heighten the price of all commodities. An attentive disinterested legislature will observe the point when the emolument ceases, and the prejudice begins: But as the contrary character is much more common, 'tis to be feared that taxes all over Europe are multiplying to such a degree as will entirely crush all art and industry; tho', perhaps, their first increase, together with other circumstances, might have contributed to the growth of these advantages.

seem, in some measure, voluntary, since a man may choose how far he will use the commodity which is taxed; they are paid gradually, and insensibly; they naturally produce sobriety and frugality, if judiciously imposed; and being confounded with the natural price of the commodity, they are scarcely perceived by the consumers. Their only disadvantage is that they are expensive in the levying.

Taxes upon possessions are levied without expense, but have every other disadvantage. Most states, however, are obliged to have recourse to them, in order to supply the deficiencies of the other.

But the most pernicious of all taxes are the arbitrary. They are commonly converted, by their management, into punishments on industry; and also, by their unavoidable inequality are more grievous than by the real burden which they impose. It is surprising, therefore, to see them have place among any civilized people.

In general, all poll-taxes, even when not arbitrary, which they commonly are, may be esteemed dangerous: because it is so easy for the sovereign to add a little more, and a little more, to the sum demanded, that these taxes are apt to become altogether oppressive and intolerable. On the other hand, a duty upon commodities checks itself; and a prince will soon find that an increase of the impost is no increase of his revenue. It is not easy, therefore, for a people to be altogether ruined by such taxes.

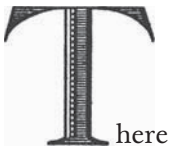
Historians inform us that one of the chief causes of the destruction of the Roman state was the alteration which Constantine introduced into the finances, by substituting a universal poll-tax in lieu of almost all the tithes, customs, and excises which formerly composed the revenue of the empire. The people, in all the provinces, were so grinded and oppressed by the publicans that they were glad to take refuge under the conquering arms of the barbarians, whose dominion, as they had fewer necessities and less art, was found preferable to the refined tyranny of the Romans.

It is an opinion, zealously promoted by some political writers, that since all taxes, as they pretend, fall ultimately upon land, it were better to lay them originally there, and abolish every duty upon consumptions. But it is denied that all taxes fall ultimately upon land. If a duty be laid upon any commodity consumed by an artisan, he has two obvious expedients for paying it: he may retrench somewhat of his expense, or he may increase his labour. Both these resources are more easy and natural than that of heightening his wages. We see that in years of scarcity, the weaver either consumes less or labours more or employs both these expedients of frugality and industry, by which he is enabled to reach the end of the year. It is but just that he should subject himself to the same hardships,

if they deserve the name, for the sake of the public, which gives him protection. By what contrivance can he raise the price of his labour? The manufacturer who employs him will not give him more: neither can he, because the merchant, who exports the cloth, cannot raise its price, being limited by the price which it yields in foreign markets. Every man, to be sure, is desirous of pushing off from himself the burden of any tax which is imposed, and of laying it upon others: but as every man has the same inclination, and is upon the defensive, no set of men can be supposed to prevail altogether in this contest. And why the landed gentleman should be the victim of the whole, and should not be able to defend himself as well as others are, I cannot readily imagine. All tradesmen, indeed, would willingly prey upon him, and divide him among them, if they could: but this inclination they always have, though no taxes were levied; and the same methods by which he guards against the imposition of tradesmen before taxes will serve him afterwards, and make them share the burden with him. They must be very heavy taxes, indeed, and very injudiciously levied, which the artisan will not, of himself, be enabled to pay, by superior industry and frugality, without raising the price of his labour.

I shall conclude this subject with observing that we have, with regard to taxes, an instance of what frequently happens in political institutions, that the consequences of things are diametrically opposite to what we should expect on the first appearance. It is regarded as a fundamental maxim of the Turkish government that the Grand Signior, though absolute master of the lives and fortunes of each individual, has no authority to impose a new tax; and every Ottoman prince who has made such an attempt either has been obliged to retract or has found the fatal effects of his perseverance. One would imagine that this prejudice or established opinion were the firmest barrier in the world against oppression; yet it is certain that its effect is quite contrary. The emperor, having no regular method of increasing his revenue, must allow all the bashaws and governors to oppress and abuse the subjects: and these he squeezes after their return from their government. Whereas, if he could impose a new tax, like our European princes, his interest would so far be united with that of his people that he would immediately feel the bad effects of these disorderly levies of money, and would find that a pound raised by a general imposition would have less pernicious effects than a shilling taken in so unequal and arbitrary a manner.

Of the Study of History



here is nothing which I would recommend more earnestly to my female readers than the study of history as an occupation, of all others, the best suited both to their sex and education, much more instructive than their ordinary books of amusement, and more entertaining than those serious compositions which are usually to be found in their closets. Among other important truths which they may learn from history they may be informed of two particulars, the knowledge of which may contribute very much to their quiet and repose: that our sex, as well as theirs, are far from being such perfect creatures as they are apt to imagine, and that Love is not the only passion which governs the male world, but is often overcome by avarice, ambition, vanity, and a thousand other passions. Whether they be the false representations of mankind in those two particulars which endear romances and novels so much to the fair sex, I know not; but must confess that I am sorry to see them have such an aversion to matter of fact, and such an appetite for falsehood. I remember I was once desired by a young beauty, for whom I had some passion, to send her some novels and romances for her amusement in the country; but was not so ungenerous as to take the advantage which such a course of reading might have given me, being resolved not to make use of poisoned arms against her. I therefore sent her Plutarch's *Lives,* assuring her, at the same time, that there was not a word of truth in them from beginning to end. She perused them very attentively, 'till she came to the lives of Alexander and Caesar, whose names she had heard of by accident; and then returned me the book, with many reproaches for deceiving her.

I may indeed be told that the fair sex have no such aversion to history as I have represented, provided it be secret history, and contain some memorable transaction proper to excite their curiosity. But as I do not find that truth, which is the basis of history, is at all regarded in those anec-

dotes, I cannot admit of this as a proof of their passion for that study. However this may be, I see not why the same curiosity might not receive a more proper direction, and lead them to desire accounts of those who lived in past ages, as well as of their contemporaries. What is it to Cleora whether Fulvia entertains a secret commerce of love with Philander or not? Has she not equal reason to be pleased when she is informed (what is whispered about among historians) that Cato's sister had an intrigue with Caesar, and palmed her son, Marcus Brutus, upon her husband for his own, tho' in reality he was her gallant's? And are not the loves of Messalina or Julia as proper subjects of discourse as any intrigue that this city has produced of late years?

But I know not whence it comes that I have been thus seduced into a kind of raillery against the ladies: unless, perhaps, it proceed from the same cause which makes the person who is the favourite of the company be often the object of their good-natured jests and pleasantries. We are pleased to address ourselves after any manner to one who is agreeable to us; and, at the same time, presume that nothing will be taken amiss by a person who is secure of the good opinion and affections of every one present. I shall now proceed to handle my subject more seriously, and shall point out the many advantages which flow from the study of history, and show how well suited it is to every one, but particularly to those who are debarred the severer studies, by the tenderness of their complexion, and the weakness of their education. The advantages found in history seem to be of three kinds, as it amuses the fancy, as it improves the understanding, and as it strengthens virtue.

In reality, what more agreeable entertainment to the mind than to be transported into the remotest ages of the world, and to observe human society, in its infancy, making the first faint essays towards the arts and sciences. To see the policy of government, and the civility of conversation, refining by degrees, and everything which is ornamental to human life advancing towards its perfection. To remark the rise, progress, declension, and final extinction of the most flourishing empires: the virtues which contributed to their greatness, and the vices which drew on their ruin. In short, to see all human race, from the beginning of time, pass, as it were, in review before us; appearing in their true colours, without any of those disguises which, during their lifetime, so much perplexed the judgment of the beholders. What spectacle can be imagined so magnificent, so various, so interesting? What amusement, either of the senses or imagination, can be compared with it? Shall those trifling pastimes which engross so much of our time be preferred as more satisfactory,

and more fit to engage our attention? How perverse must that taste be which is capable of so wrong a choice of pleasures?

But history is a most improving part of knowledge, as well as an agreeable amusement; and a great part of what we commonly call erudition, and value so highly, is nothing but an acquaintance with historical facts. An extensive knowledge of this kind belongs to men of letters; but I must think it an unpardonable ignorance in persons of whatever sex or condition not to be acquainted with the history of their own country, together with the histories of ancient Greece and Rome. A woman may behave herself with good manners, and have even some vivacity in her turn of wit; but where her mind is so unfurnished, 'tis impossible her conversation can afford any entertainment to men of sense and reflection.

I must add that history is not only a valuable part of knowledge but opens the door to many other parts, and affords materials to most of the sciences. And indeed, if we consider the shortness of human life, and our limited knowledge, even of what passes in our own time, we must be sensible that we should be forever children in understanding were it not for this invention, which extends our experience to all past ages, and to the most distant nations; making them contribute as much to our improvement in wisdom as if they had actually lain under our observation. A man acquainted with history may, in some respect, be said to have lived from the beginning of the world, and to have been making continual additions to his stock of knowledge in every century.

There is also an advantage in that experience which is acquired by history above what is learned by the practice of the world, that it brings us acquainted with human affairs, without diminishing in the least from the most delicate sentiments of virtue. And, to tell the truth, I know not any study or occupation so unexceptionable as history in this particular. Poets can paint virtue in the most charming colours; but, as they address themselves entirely to the passions, they often become advocates for vice. Even philosophers are apt to bewilder themselves in the subtility of their speculations; and we have seen some go as far as to deny the reality of all moral distinctions. But I think it a remark worthy the attention of the speculative that the historians have been, almost without exception, the true friends of virtue, and have always represented it in its proper colours, however they may have erred in their judgments of particular persons. Machiavel himself discovers a true sentiment of virtue in his history of Florence. When he talks as a politician, in his general reasonings, he considers poisoning, assassination and perjury as lawful arts of power; but when he speaks as a historian, in his particular narrations, he shows so

keen an indignation against vice, and so warm an approbation of virtue, in many passages, that I could not forbear applying to him that remark of Horace, that if you chase away nature, tho' with ever so great indignity, she will always return upon you. Nor is this combination of historians in favour of virtue at all difficult to be accounted for. When a man of business enters into life and action, he is more apt to consider the characters of men as they have relation to his interest than as they stand in themselves; and has his judgment warped on every occasion by the violence of his passion. When a philosopher contemplates characters and manners in his closet, the general abstract view of the objects leaves the mind so cold and unmoved that the sentiments of nature have no room to play, and he scarce feels the difference between vice and virtue. History keeps in a just medium betwixt these extremes, and places the objects in their true point of view. The writers of history, as well as the readers, are sufficiently interested in the characters and events to have a lively sentiment of blame or praise; and, at the same time, have no particular interest or concern to pervert their judgment.

The foregoing essays are from a collection of Hume's essays entitled
ESSAYS MORAL, POLITICAL AND LITERARY.

Plutarch

c. 46–120

The Greek biographer and philosopher Plutarch was born in Chaeronea in Boeotia. Little is known of his life, and not all of that is strictly reliable. He studied in Athens under Ammonius Saccas, the founder of Neoplatonism, and later lectured on philosophy in Rome. It is reported that the emperor Trajan gave him consular rank and that later the emperor Hadrian made him procurator of Greece. It is known, in any case, that he returned to his native Boeotia, where he officiated as a priest of Apollo at Delphi, and it was there that he died. A letter to his wife on the death of their only daughter has been preserved. Plutarch consoles her for her loss in tender and high-minded words and speaks of the four sons who remain to them and need their care.

The fame of Plutarch rests largely on his *Parallel Lives*,[1] in which he recounted the lives and fortunes of forty-six Greek and Roman statesmen and military leaders. Each Roman hero is paired with a Greek hero who is parallel to him in merits and in the odds he faced. He makes a close comparison of the abilities and moral excellence of the Greek hero with his Roman counterpart, which was a useful thing for a Greek to do at this time, when Greek influence was often resented in Rome. Those who wish to investigate will find that the Greeks come off very well in the comparison.

The influence of the *Parallel Lines* has been immense, but it would be difficult to trace because it is so often taken for granted. It was read for pleasure and instruction by most eminent writers and by statesmen when they were literate, and some learned all they knew about Plato and Aristotle from the absorbing biographies of Plu-

[1] See *Great Books of the Western World.*

tarch. Platonic ideas of the virtues and nobility proper to princes and generals were thus painlessly infused. As a girl Queen Elizabeth I read North's new English translation of the *Lives* with delight. Shakespeare took history, plots, and characters from North's translation, as in *Julius Caesar*, *Coriolanus*, and *Antony and Cleopatra*, and in the last play adopted some passages, including one long one, almost without a change. The *Lives* has not only proved a rich source for literature but also for the history of the classic world.

The essay that follows is from Plutarch's *Moralia*, which consists of about sixty essays dealing with a great variety of topics, mostly ethical. The treatment of even abstract subjects is concrete and pictorial: we are given one episode after another to illustrate the point. The frequent quotations from Greek dramatists, and from poems which are otherwise irretrievably lost, are an added attraction.

The essay which you are to read, like the others, is packed with anecdotes. If this seems surprising to you, try to think of a better way of putting across ethical ideas. Suppose you were going to maintain that lack of anger is a worse fault than truculence, or too much anger. You could give your reasons, but to convince your listener you would be obliged to give instances and illustrations or anecdotes. Anecdotes, Plutarch said, throw a sudden light on a man's character, rendering his "natural dispositions more plain than the famous battles won, wherein are slain ten thousand men." Montaigne and Francis Bacon were greatly influenced by the anecdotal style of Plutarch's essays. The essay form itself owes a great deal to his example.

Plutarch's essay *Of Bashfulness* is an ingenious development of Aristotle's theory that the virtues are means between extremes–between passions which are both vicious. In the *Nicomachean Ethics*, Aristotle points out that both shamelessness and bashfulness

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Notes from the artist: "The portrait of Plutarch is done in the manner of a Greek vase, the background incorporating other elements of Greek design. The head in the foreground is that of Pericles, subject of one of Plutarch's Parallel Lives*."*

PLVTARCH

are disapproved, and yet the modest man is praised. This is because the bashful man "is ashamed of everything," and the shameless man "is not ashamed of anything." In between these extremes is the modest man, who is ashamed on the proper occasions, for the right reasons, and in an appropriate degree.

Out of this abstract analysis comes all Plutarch's rich elaboration. He is particularly concerned to show the evils that flow from bashfulness. If you have always regarded too little shame as a worse fault than too much, you may well change your mind before you have finished this essay. You may even discover that you are a little inclined toward bashfulness yourself. Consider some of the marks of bashfulness given by Plutarch. Do you lend money to a friend who importunes you, though you yourself are short and know that you will be embarrassed later? Do you invite a man to your party when he brings up the subject, though you know he will spoil things for other guests? Is it hard to say No? Or, when seriously ill, do you send for the best doctor available in town, or do you call in a doctor friend who would otherwise be offended? And what do you say when your friend reads you his poem which is wretched, and waits for your praise?

More important than anything else–are you developing your talents and prospects sufficiently, or do you hate to push yourself forward and to be conspicuous? "Too much anxiety and timidity lest we may do wrong," Plutarch says, "is also to be avoided; because many men have become cowards and been deterred from generous undertakings." Fear of malice and envy, as well as the dangers and difficulties, holds them back.

In reading this essay you will find a number of names you do not know but do not be disturbed. You can find most of them in the Index of the *Lives* and the rest in a classical dictionary.

Of Bashfulness

Some plants there are, in their own nature wild and barren, and hurtful to seed and garden sets, which yet among able husbandmen pass for infallible signs of a rich and promising soil. In like manner, some passions of the mind not good in themselves yet serve as first shoots and promises of a disposition which is naturally good, and also capable of much improvement by cultivation. Among these I rank bashfulness, the subject of our present discourse; no ill sign indeed, but the cause and occasion of a great deal of harm. For the bashful oftentimes run into the same enormities as the most hardened and impudent, with this difference only, that the former feel a regret for such miscarriages, but the latter take a pleasure and satisfaction therein. The shameless person is without sense of grief for his baseness, and the bashful is in distress at the very appearance of it. For bashfulness is only modesty in the excess, and is aptly enough named *dusopia* [the being put out of countenance], since the face is in some sense confused and dejected with the mind. For as that grief which casts down the eyes is termed dejection, so that kind of modesty which cannot look another in the face is called bashfulness. The orator, speaking of a shameless fellow, said he carried harlots, not virgins, in his eyes; on the other hand, the sheepishly bashful betrays no less the effeminacy and softness of his mind in his looks, palliating his weakness, which exposes him to the mercy of impudence, with the specious name of modesty. Cato indeed was wont to say of young persons, he had a greater opinion of such as were subject to color than of those that looked pale; teaching us thereby to look with greater apprehension on the heinousness of an action than on the reprimand which might follow, and to be more afraid of the suspicion of doing an ill thing than of the danger of it. However, too much anxiety and timidity lest we may do wrong is also to be avoided; because many men have become cowards and been deterred from generous undertakings, no less for fear of calumny and detraction than by the danger or difficulty of such attempts.

While therefore we must not suffer the weakness in the one case to pass unnoticed, neither must we abet or countenance invincible impudence in the other, such as is reported of Anaxarchus,

> Whose doglike carriage and effrontery,
> Despising infamy, outfaced disgrace.

A convenient mien between both is rather to be endeavored after, by repressing the over impudent, and animating the too meek temper. But as this kind of cure is difficult, so is the restraining such excesses not without danger; for as a gardener, in stubbing up some wild or useless bushes, makes at them carelessly with his spade, or burns them off the ground, but in dressing a vine, or grafting an apple, or pruning an olive, carries his hand with the greatest wariness and deliberation, that he may not unluckily injure the tree; so a philosopher, in removing envy, that useless and untractable plant, or covetousness or immoderate love of pleasure from the mind of youth, may cut deep safely, and make a large scar; but if he be to apply his discourse to some more sensible or delicate part, such as the restraining excess of bashfulness, it lies upon him to be very careful not to cut off or eradicate modesty with the contrary vice. For nurses who too often wipe away the dirt from their infants are apt to tear their flesh and put them to pain. And in like manner we must not so far extirpate all bashfulness in youth as to leave them careless or impudent; but as those that pull down private houses adjoining to the temples of the Gods prop up such parts as are contiguous to them, so in undermining bashfulness, due regard is to be had to adjacent modesty, good nature, and humanity. And yet these are the very qualities by which bashfulness insinuates itself and becomes fixed in a man, flattering him that he is good-natured, courteous, and civil, and has common sense, and that he is not obstinate and inexorable. The Stoics, therefore, in their discourses of modesty, distinguish all along betwixt that and bashfulness, leaving not so much as ambiguity of terms for a pretense to the vice. However, asking their good leave, we shall make bold to use such words indifferently in either sense; or rather we shall follow the example of Homer, whose authority we have for it, that

> Much harm ofttimes from modesty befalls,
> Much good ofttimes.[1]

1. *The Iliad*, Book XXIV, 44 [Cf. *Great Books of the Western World* (Ed.).]

And it was not done amiss of him to make mention of the hurtfulness of it first, because modesty becomes profitable only through reason, which cuts off what is superfluous and leaves a just mean behind.

In the first place, therefore, the bashful man must be persuaded and satisfied that that distemper of the mind is prejudicial to him, and that nothing which is so can be eligible. And withal, he must be cautious how he suffers himself to be cajoled and led by the nose with the titles of courteous or sociable, in exchange for those of grave, great, and just; nor like Pegasus in Euripides, who, when Bellerophon mounted him,

> With trembling stooped more than his lord desired,

must he debase himself and yield to all who make their addresses to him, for fear of appearing hard and ungentle.

It is recorded of Bocchoris, king of Egypt, a man of a very cruel nature, that the goddess Isis sent a kind of a serpent (called aspis), which winding itself about his head cast a shadow over him from above, and was a means to him of determining causes according to equity. But bashfulness, on the contrary, happening upon remiss and spiritless tempers, suffers them not to express their dislike of anything or to argue against it, but perverts many times the sentence of arbitrators, and stops the mouths of skillful pleaders, forcing them often to act and speak contrary to their conviction. And the most reckless man will always tyrannize and domineer over such a one, forcing his bashfulness by his own strength of impudence. Upon this account it is that bashfulness, like a low piece of soft ground, can make no resistance and decline no encounter, but is exposed to the meanest actions and vilest passions. But, above all, this is the worst guardian of raw and inexperienced youth. For, as Brutus said, he seems to have had but an ill education that has not learned to deny any thing. And no better overseer is it of the marriage bed or the woman's apartment; as the repentant lady in Sophocles accuses the spark that had debauched her,

> Thy tongue, thy flattering tongue prevailed.

So this vice, happening upon a disposition inclinable to debauchery, prepares and opens the way, and leaves all things easy and accessible to such as are ready to prefer their wicked designs. Presents and treats are irresistible baits for common mercenary creatures; but importunity, befriended with bashfulness on their side, has sometimes undone the modestest women. I omit what inconveniences this kind of modesty occasions, when it obliges men to lend their money to such whose credit is blown upon in

the world, or to give bail for those they dare not trust; we do this, it is true, with an ill will, and in our heart reflect upon that old saying, Be bail, and pay for it, yet cannot make use of it in our practice.

How many this fault has ruined, it is no easy thing to recount. Creon in the play gave a very good lesson for others to follow, when he told Medea,

> 'Tis better now to brave thy direst hate,
> Than curse a foolish easiness too late.[2]

Yet afterwards, being wrought upon through his bashfulness to grant her but one day longer, he ruined himself and family by it. For the same reason, some, suspecting designs against them of murder or poisoning, have neglected to provide for their safety. Thus Dion could not be ignorant of the treachery of Callippus, yet thought it unfit to entertain such thoughts of his pretended friend and guest, and so perished. So again, Antipater, the son of Cassander, having entertained Demetrius at supper, and being engaged by him for the next night, because he was unwilling to distrust one who had trusted him, went, and had his throat cut after supper. Polysperchon had promised Cassander for a hundred talents to murder Hercules, the son of Alexander by Barsine. Upon this he invites him to sup; but the young man, having some suspicion of the thing, pretends himself indisposed. Polysperchon coming to him said: "Sir, above all things endeavor after your father's courteous behavior and obliging way to his friends, unless haply you look on us with suspicion as if we were compassing your health." The young man out of mere modesty was prevailed upon to go, and was strangled as he sat at meat. It is not therefore (as some will have us believe) insignificant or ridiculous, but on the contrary very wise advice, which Hesiod gives,

> Welcome a friend, but never call thy foe.

Be not bashful and mealy-mouthed in refusing him that you are satisfied has a pique against you; but never reject him that seemeth to put his trust in you. For if you invite, you must expect to be invited again; and sometime or other your entertainment will be repaid you, if bashfulness have once softened or turned the edge of that diffidence which ought to be your guard.

To the end therefore that we may get the better of this disease, which is the cause of so many evils, we must make our first attempts (as our cus-

2. Euripides, *Medea*, 290. [Cf. *Great Books of the Western World* (Ed.).]

tom is in other things) upon matters of no great difficulty. As, if one drink to you after you have taken what is sufficient, be not so foolishly modest to do violence to your nature, but rather venture to pass the glass. Another, it may be, would tempt you to play at dice while drinking; be not overpersuaded into a compliance, for fear of being the subject of his drollery, but reply with Xenophanes, when Lasus of Hermione called him coward because he refused to play at dice: "Yes," said he, "I confess myself the greatest coward in the world, for I dare not do an ill thing." Again, you light upon an impertinent talker, that sticks upon you like a burr; don't be bashful, but break off the discourse, and pursue your business. These evasions and repulses, whereby our resolution and assurance are exercised in matters of less moment, will accustom us to it by degrees in greater occasions. And here it will be but seasonable to give you a passage, as it is recorded of Demosthenes. The Athenians having one time been moved to send succors to Harpalus, and themselves to engage in a war against Alexander, it happened that Philoxenus, Alexander's admiral, unexpectedly arrived on their coast; and the people being so astonished as to be speechless for very fear, Demosthenes cried out: "How would they endure the sun who are not able to look against a lamp! Or how would you comport yourself in weightier concerns, while your prince or the people had an awe over you, if you cannot refuse a glass of wine when an acquaintance offers it, or turn off an impertinent babbler, but suffer the eternal trifler to walk over you without telling him, 'Another time, good sir, at present I am in haste.'"

Besides all this, the exercising such a resolution is of great use in praising others. If one of my friend's harpers play lewdly, or a comedian he has hired at a great rate murder a piece of Menander in the acting, although the vulgar clap their hands and admire, I think it no moroseness or ill breeding to sit silently all the while, without servilely joining in the common applauses contrary to my judgment. For if you scruple to deal openly with him in these cases, what will you do, should he repeat to you an insipid composition of his own, or submit to your revisal a ridiculous oration? You will applaud, of course, and enter yourself into the list of common parasites and flatterers! But how then can you direct him impartially in the greatest administrations of his life? How be free with him where he fails in any duties of his trust or marriage, or neglects the offices incumbent on him as a member of the community? I must confess, I cannot by any means approve of the reply Pericles made to a friend who besought him to give false evidence, and that too upon oath, when he thus answered: "As far as the altar I am wholly at your service." Methinks he

went too far. But he that has long before accustomed himself not to commend any thing against his judgment, or applaud an ill voice, or seem pleased with indecent scurrilities will never suffer things to come to that issue; nor will anyone be so bold as to solicit him in this manner: "Swear on my side, give false evidence, or bring in an unjust verdict."

After the same manner we may learn to refuse such as come to borrow considerable sums of us, if we have used to deny in little matters where refusal is easy. As Archelaus, king of Macedon, sat at supper, one of his retinue, a fellow who thought there was nothing so honest as to receive, begged of him a golden cup. But the king commanded a waiter to give it immediately to Euripides: "For you, sir," said he, "are fit indeed to ask anything, but to receive nothing; and he deserves to receive, though he lacks the confidence to ask." Thus wisely did he make his judgment, and not bashful timidity, his guide in bestowing favors. Yet we oftentimes, when the honesty, nearness, and necessities of our friends and relations are not motives sufficient to prevail with us to their relief, can give profusely to impudence and importunity, not out of any willingness to bestow our money so ill, but merely for want of confidence and resolution to deny. This was the case of Antigonus the elder. Being wearied out with the importunity of Bias, "Give," said he to his servants, "one talent to Bias and necessity." Yet at other times he was as expert at encountering such addresses as any prince, and dismissed them with as remarkable answers. Thus a certain Cynic one day begging of him a groat, he made answer, "That is not for a prince to give." And the poor man replying, "Then bestow a talent," he reparteed briskly, "Nor that for a Cynic or for a dog to receive." Diogenes went about begging to all the statues in the Ceramicus; and his answer to some that wondered at his fancy in it was he was practicing how to bear a repulse. But indeed it chiefly lies upon us to exercise ourselves in smaller matters to refuse an unreasonable request, that we may not be at loss how to refuse on occasions of greater magnitude. For no one, as Demosthenes says, who has spent all the money that he had in unnecessary expenses will have plenty of money that he has not for his necessary expenses. And our disgrace is increased manyfold, if we want what is necessary or decent, and abound in trifles and fopperies.

Yet bashfulness is not only a bad steward of our estate, but even in weightier concerns it refuses to hearken to the wholesome advice of right reason. Thus, in a dangerous fit of sickness, we send not to the ablest physician, for fear of giving offense to another of our acquaintance. Or, in taking tutors and governors for our children, we make choice of such as obtrude themselves upon us, not such as are better qualified for that service.

Or, in our lawsuits, we regard not to obtain counsel learned in the law, because we must gratify the son of some friend or relation, and give him an opportunity to show himself in the world. Nay, lastly, you shall find some that bear the name of philosophers, who call themselves Epicureans or Stoics, not out of choice, or upon the least conviction, but merely to oblige their friends or acquaintance, who have taken advantage of their modesty. Since then the case is so with us, we ought to prepare and exercise ourselves in things that we daily meet with and of course, not so much as indulging that foolish weakness in the choice of a barber or fuller, or in lodging in a paltry inn when better accommodation is to be had, to oblige the landlord who has cringed to us. But if it be merely to break ourselves of such follies, in those cases still we should make use of the best, though the difference be but inconsiderable: as the Pythagoreans were strict in observing not to cross their right knee with the left, or to use an even number with an odd, though all things else were indifferent. We must observe also, when we celebrate a sacrifice or keep a wedding or make a public entertainment, to deny ourselves so far as not to invite any that have been extremely complacent to us or that put themselves upon us, before those who are known for their good humor or whose conversation is like to prove beneficial. For he that has accustomed himself thus far will hardly be caught and surprised, nay, rather he shall not so much as be tempted, in greater instances.

And thus much may suffice concerning exercising ourselves. My first use of what has been said is to observe that all passions and distempers of the mind are still accompanied with those very evils which by their means we hoped to avoid. Thus disgrace pursues ambition; pain and indisposition, sensuality; softness and effeminacy are fretted with troubles; contentiousness, with disappointment and defeats. But this is nowhere more conspicuous than in bashfulness, which, endeavoring to avoid the smoke of reproach, throws itself into the fire. Such men, wanting confidence to withstand those that unreasonably importune them, afterwards feel shame before those who justly accuse them, and for fear of a slight private rebuke incur more public disgrace. For example, not having the heart to deny a friend that comes to borrow, in short time they are reduced to the same extremity themselves, and exposed openly. Some again, after promising to help friends in a lawsuit, are ashamed to face the opposite party, and are forced to hide their heads and run away. Many have been so unreasonably weak in this particular as to accept of disadvantageous proposals of marriage for a daughter or sister, and upon second thoughts have been forced to bring themselves off with an arrant lie.

One made this observation of the people of Asia, that they were all slaves to one man, merely because they could not pronounce that syllable No; but he spake only in raillery. But now the bashful man, though he be not able to say one word, has but to raise his brows or nod downward, as if he minded not, and he may decline many ungrateful and unreasonable offices. Euripides was wont to say, "Silence is an answer to a wise man"; but we seem to have greater occasion for it in our dealings with fools and unreasonable persons, for men of breeding and sense will be satisfied with reason and fair words. Upon this account we should be always provided with some notable sayings and choice apothegms of famous and excellent men, to repeat to the bashful—such as that of Phocion to Antipater, "You cannot have me for both a friend and a flatterer"; and that of his to the Athenians, when they called upon him to come in for his share to defray the expenses of a festival, "I am ashamed," said he, pointing to Callicles his creditor, "to contribute towards your follies, without paying this man his due." For, as Thucydides says, "It is an ill thing to be ashamed of one's poverty, but much worse not to make use of lawful endeavors to avoid it." [3] But he that is so foolishly good-natured that he cannot answer one that comes to borrow,

> My friend, no silver white have I in all my caves,

but gives him a promise to be better provided,

> The wretch has made himself a slave to shame,
> And drags a tiresome, though an unforged chain.

Persaeus, being about to accommodate a friend with a sum of money, paid it publicly in the market, and made the conditions before a banker, remembering, it may be, that of Hesiod,

> Seem not thy brother's honesty to doubt;
> Yet, smiling, call a witness to his hand.

But when his friend marveled and asked, "How now, so formally and according to law?" "Yea," quoth he, "because I would receive my money again as a friend, and not have to trouble the law to recover it." For many out of bashfulness, not taking care to have good security at first, have been forced afterwards to break with their friends, and to have recourse to law for their money.

Again, Plato writing to Dionysius, by Helicon of Cyzicus, gives the bearer a good character for honesty and moderation, but withal in the

3. *The Peloponnesian War*, Book II, 400 [Cf. *Great Books of the Western World* (Ed.).]

postscript tells him, "Yet this I write of a man, who, as such, is by nature an animal subject to change." Xenocrates, though a man of rigid morals, was prevailed upon by this kind of modesty to recommend to Polysperchon a person, as it proved in the end, not so honest as he was reputed. For when the Macedonian in compliment bade him call for whatever he wanted, he presently desired a talent of silver. Polysperchon ordered it accordingly to be paid him, but dispatched away letters immediately to Xenocrates, advising him for the future to be better acquainted with those he recommended. Now all this came to pass through Xenocrates's ignorance of his man; but we oftentimes give testimonials and squander away our money to advance such as we are very well satisfied have no qualification or desert to recommend them, and this too with the forfeiture of our reputation, and without the pleasure that men have who are profuse upon whores and flatterers, but all the while in an agony, and struggling with that impudence which does violence to our reason. Whereas, if at any time, that verse can here be properly used,

I know the dreadful consequence, and fear,[4]

when such persons are at a man to forswear himself, or to give a wrong sentence, or to vote for an unjust bill, or lastly to be bound for one that will never be able to pay the debt.

All passions of the mind have repentance still pursuing them closely, but it overtakes this of bashfulness in the very act. For we give with regret, and we are in confusion while we bear false witness; our reputation is questioned when we engage for others, and when we fail we are condemned by all men. From this imperfection also it proceeds that many things are imposed upon us not in our power to perform, as to recommend such a man to court, or to carry up an address to the governor, because we dare not, or at least we will not, confess that we are unknown to the prince or that another has more of his ear. Lysander, on the other hand, when he was in disgrace at court, but yet for his great services was thought to preserve something of his former esteem with Agesilaus, made no scruple to dismiss suitors, directing them to such as were more powerful with the king. For it is no disgrace not to be able to do everything; but to undertake or pretend to what you are not made for is not only shameful but extremely troublesome and vexatious.

But to proceed to another head, we must perform all reasonable and good offices to those that deserve them, not forced thereto by fear of

4. Euripides, *Medea*, 1078. [Cf. *Great Books of the Western World* (Ed.).]

shame, but cheerfully and readily. But where anything prejudicial or unhandsome is required of us, we ought to remember the story that is related of Zeno. Meeting a young man of his acquaintance that slunk away under a wall, as if he would not be seen, and having learned from him that he withdrew from a friend that importuned him to perjure himself, "What," replied he, "you novice! is that fellow not afraid or ashamed to require of thee what is unreasonable and unjust, and darest thou not stand against him in that which is just and honest?" For he that first started that doctrine, that knavery is the best defense against a knave, was but an ill teacher, advising us to keep off wickedness by imitating it. But for such as presume upon our modesty, to keep them off with their own weapons, and not gratify their unreasonable impudence with an easy compliance, is but just and good, and the duty of every wise man.

Neither is it a hard matter to put off some mean and ordinary people, which will be apt to prove troublesome to you in that nature. Some shift them off with a jest or a smart repartee; as Theocritus, being asked in the bath to lend his strigil [scraper] by two persons, whereof one was a stranger to him, and the other a notorious thief, made answer: "You, sir, I know not well enough, and you I know too well." And Lysimache, the priestess of Minerva Polias in Athens, when the muleteers that brought the provision for the festival desired her to let them drink, replied, "No; for I fear it may grow into a custom." So again, when a captain's son, a young fluttering bully but a great coward, petitioned Antigonus for promotion, the latter answered: "Sir, it is my way to reward my soldiers for their valor, not their parentage."

But if he that is importunate with us prove a man of great honor or interest (and such persons are not easily answered with excuses, when they come for our vote in the senate or judicial cases), at such a time perhaps it will be neither easy nor necessary to behave ourselves to them as Cato did towards Catulus. Catulus, a person of the highest rank among the Romans, and at that time censor, once waited on Cato, who was then quaestor and still a young man, on behalf of a friend whom Cato had fined; and when he had used a great deal of importunity to no purpose, yet would not be denied, Cato grew out of patience, and told him, "It would be an unseemly sight to have the censor dragged hence by my officers." Catulus at this went away, out of countenance and very angry. But consider whether the answers of Agesilaus and Themistocles have not in them much more of candor and equity. Agesilaus, being bidden by his own father to give sentence contrary to law, replied: "I have been always taught by you to be observant of the laws, and I shall endeavor to obey

you at this time, by doing nothing contrary to them." And Themistocles, when Simonides tempted him to commit a piece of injustice, said: "You would be no good poet, should you break the laws of verse; and should I judge against the law, I should make no better magistrate."

For it is not because of blunders in metre in lyric songs, as Plato observes, that cities and friends are set at variance to their utter ruin and destruction, but because of their blunders with regard to law and justice. Yet there are a sort of men that can be very curious and critical in their verses and letters and lyric measures, and yet would persuade others to neglect that justice and honesty which all men ought to observe in offices, in passing judgments, and in all actions. But these men are to be dealt with after the following manner. An orator perhaps presses you to show him favor in a cause to be heard before you, or a demagogue importunes you when you are a senator: tell him you are ready to please him, on condition that he make a solecism in the beginning of his oration, or be guilty of some barbarous expression in his narration. These terms, for shame, he will not accept; for some we see so superstitiously accurate as not to allow of two vowels meeting one another. Again, you are moved by a person of quality to something of ill reputation: bid him come over the market place at full noon dancing, or making buffoonlike grimaces; if he refuse, question him once more whether he think it a more heinous offense to make a solecism or a grimace than to break a law or to perjure one's self, or to show more favor to a rascal than to an honest man. Nicostratus the Argive, when Archidamus promised him a vast sum of money and his choice of the Spartan ladies in marriage if he would deliver up the town Cromnum into his hands, returned him this answer: He could no longer believe him descended from Hercules, he said, because Hercules traversed the world to destroy wicked men, but Archidamus made it his business to debauch those that were good. In like manner, if one that stands upon his quality or reputation presses us to do anything dishonorable, we must tell him freely he acts not as becomes a person of his character in the world.

But if it be a man of no quality that shall importune you, you may inquire of the covetous man whether he would lend you a considerable sum without any other security than your word; desire the proud man to give you the higher seat; or the ambitious, to quit his pretensions to some honor that lies fair for him. For, to deal plainly, it is a shameful thing that these men should continue so stiff, so resolute, and so unmoved in their vicious habits, while we, who profess ourselves lovers of justice and honesty, have too little command of ourselves not to give up and betray basely the cause of virtue. If they that would practice upon our modesty do this out of de-

sire of glory or power, why should we contract disgrace or infamy to ourselves to advance the authority or set off the reputation of others–like those who bestow the reward wrongfully in public games, or betray their trust in collecting the poll, who confer indeed garlands and honors upon other men, but at the same time forfeit their own reputation and good word? But suppose it be matter of interest only that puts them upon it; why should it not appear an unreasonable piece of service for us to forego our reputation and conscience to no other purpose than to satisfy another man's avarice or make his coffers the heavier? After all, these I am afraid are the grand motives with most men in such cases, and they are even conscious that they are guilty; as men that are challenged and compelled to take too large a glass raise a hundred scruples and make as many grimaces before they drink.

This weakness of the mind may be compared to a constitution of body that can endure neither heat nor cold. For let them be praised by those that thus impudently set upon them, and they are at once mollified and broken by the flattery; but let them be blamed or so much as suspected by the same men after their suit has been refused, and they are ready to die for woe and fear. We ought therefore to prepare and fortify ourselves against both extremes, so as to be made a prey neither to such as pretend to frighten nor to such as would cajole us. Thucydides is of opinion, since there is a necessary connection between envy and great undertakings, that he takes the wisest counsel who incurs envy by aiming the highest.[5] But we who esteem it less difficult to avoid the envy of all men than to escape the censure of those we live among ought to order things so as rather to grapple with the unjust hatred of evil men than to deserve their just accusation after we have served their base ends. We ought to go armed against that false and counterfeit praise such men are apt to fling upon us, not suffering ourselves like swine to be scratched and tickled by them, till, having got the advantage of us, they use us after their own pleasure. For they that reach out their ears to flatterers differ very little from such as stand fair and quiet to be tripped up, excepting that the former catch the more disgraceful fall. These put up with the affronts and forbear the correction of wicked men, to get the reputation of good-natured or merciful; or else are drawn into needless and perilous quarrels at the instance of flatterers, who bear them in hand all the while for the only men of judgment, the only men not to be caught with flattery, and

5. *The Peloponnesian War,* II, 64. [See *Great Books of the Western World* (Ed.).]

call them the only men who have mouths and voices. Bion used to compare these men to pitchers: "Take them," said he, "by the ears, and you may move them as you please." Thus Alexinus, the sophist, was reporting many scandalous things in the lyceum of Stilpo the Megarian; but when one present informed him that Stilpo always spake very honorably of him, "Why truly," says he, "he is one of the most obliging and best of men." But now Menedemus, when it was told him that Alexinus often praised him, replied: "That may be, but I always talk against him; for he must be bad who either praises a bad man or is blamed by an honest one." So wary was he of being caught by such baits, agreeably to that precept of Hercules in Antisthenes, who cautioned his sons not to be thankful to such as were used to praise them, thereby meaning no more than that they should be so far from being wheedled thereby as not even to return their flatteries. That of Pindar was very apposite, and enough to be said in such a case: when one told him, "I cry you up among all men, and speak to your advantage on all occasions"; "And I," replied he, "am always very thankful in that I take care you shall not tell a lie."

I shall conclude with one general rule, of sovereign use against all the passions and diseases of the mind, but particularly beneficial to such as labor under the present distemper, bashfulness. And it is this: whenever they have given way to this weakness, let them store up carefully such failings in their memory, and taking therein deep and lively impressions of what remorse and disquiet they occasioned, bestow much time in reflecting upon them and keeping them fresh. For as travelers that have got a dangerous fall against such a stone, or sailors shipwrecked upon a particular promontory, keeping the image of their misfortune continually before them, appear fearful and apprehensive not only of the same but even the like dangers; so they that keep in mind the disgraceful and prejudicial effects of bashfulness will soon be enabled to restrain themselves in like cases, and will not easily slip again on any occasion.

"Of Bashfulness" is from a collection of Plutarch's essays entitled MORALIA.

Robert Louis Stevenson[1]

1850–1894

This thoroughly delightful essay has depth and insight too. It pays honor to the wistful dreams and incantations of youth and to the spark of youth and poetry that remains in grown men. It derides Zola and the realists for pretending that the meaning of life lies in humdrum, vulgar, conventional circumstance, and for suppressing joy. "For to miss the joy," Stevenson says, "is to miss all. In the joy of the actors lies the sense of any action . . . hence the haunting and truly spectral unreality of realistic books." But if the motive force of human striving is joy and hidden symbols, would not the true realist be the romancer?

Stevenson knows how to pack a great deal of romance into a gaunt realistic setting. The rugged seacoast, the scattering of houses and scraggy vegetation, a few Dickens-like characters furnish the background of the boys' doings. For those who can see, it also has its enchantments. Stevenson shows us how a mood of mixed fear and exultation was mirrored in the sea: ". . . the coil of equinoctial tempests; . . . the boats with their reefed lugsails scudding for the harbour mouth, where danger lay. . . ." The cold eye of the realists, watching the boys at their round of amusements, would see nothing wonderful. They played golf, they went fishing, swam in the sea, and gazed from an eminence at the surrounding country and the steeples of nearby towns. Commonplace pleasures? Yes, when viewed objectively.

The greatest joy which they had was quite different. It would appear to a casual observer to be the last word in silliness. Stevenson tells how the boys made a ritual of hiding bull's-eye lanterns under

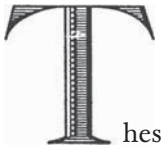
[1] For a biography of Stevenson, see Vol. 2, pp. 284–286, in this set.

their top-coats and huddling together in secret discussions at night. So concealed, the lanterns served no purpose, or so it seemed, except to convey a preposterous sense of mystery. Zola, Stevenson says, would have missed the inner meaning and would have turned out a masterly picture of "shallowness and dullness."

Stevenson's own interpretation of the strange ritual is rich but oblique, and he leaves a great deal to you, the reader. Why does the boy exult and sing over the knowledge that, in the dark night unknown to anyone, he carries under his top-coat a hidden flame? Does the flame symbolize a secret strength, a magical power? And could the boys, in their secret nighttime conversations, have been concerned with anything as important as "the possibilities of existence?"

More than one key will sometimes fit the same lock. Each reader has his hidden lantern and is likely to see this thing according to his own light.

The Lantern-Bearers



hese boys congregated every autumn about a certain easterly fisher-village, where they tasted in a high degree the glory of existence. The place was created seemingly on purpose for the diversion of young gentlemen. A street or two of houses, mostly red and many of them tiled; a number of fine trees clustered about the manse and the kirkyard, and turning the chief street into a shady alley; many little gardens more than usually bright with flowers; nets a-drying, and fisherwives scolding in the backward parts; a smell of fish, a genial smell of seaweed; whiffs of blowing sand at the street-corners; shops with golf-balls and bottled lollipops; another shop with penny pickwicks (that remarkable cigar) and the *London Journal,* dear to me for its startling pictures, and a few novels, dear for their suggestive names: such, as well as memory serves me, were the ingredients of the town. These you are to conceive posted on a spit between two sandy bays, and sparsely flanked with villas—enough for the boys to lodge in with their subsidiary parents, not enough (not yet enough) to cocknify the scene: a haven in the rocks in front; in front of that, a file of gray islets; to the left, endless links and sand wreaths, a wilderness of hiding-holes, alive with popping rabbits and soaring gulls; to the right, a range of seaward crags, one rugged brow beyond another, the ruins of a mighty and ancient fortress on the brink of one; coves between—now charmed into sunshine quiet, now whistling with wind and clamorous with bursting surges; the dens and sheltered hollows redolent of thyme and southernwood, the air at the cliff's edge brisk and clean and pungent of the sea—in front of all, the Bass Rock, tilted seaward like a doubtful bather, the surf ringing it with white, the solan geese hanging round its summit like a great and glittering smoke. This choice piece of seaboard was sacred, besides, to the wrecker; and the Bass, in the eye of fancy, still flew the colours of King James; and in the ear of fancy the arches of Tantallon still rang with horseshoe iron, and echoed to the commands of Bell-the-Cat.

There was nothing to mar your days, if you were a boy summering in that part, but the embarrassment of pleasure. You might golf if you wanted; but I seem to have been better employed. You might secrete yourself in the Lady's Walk, a certain sunless dingle of elders, all mossed over by the damp as green as grass, and dotted here and there by the streamside with roofless walls, the cold homes of anchorites. To fit themselves for life, and with a special eye to acquire the art of smoking, it was even common for the boys to harbour there; and you might have seen a single penny pickwick, honestly shared in lengths with a blunt knife, bestrew the glen with these apprentices. Again, you might join our fishing parties, where we sat perched as thick as solan geese, a covey of little anglers, boy and girl, angling over each other's heads, to the much entanglement of lines and loss of podleys and consequent shrill recrimination–shrill as the geese themselves. Indeed, had that been all, you might have done this often; but though fishing be a fine pastime, the podley is scarce to be regarded as a dainty for the table; and it was a point of honour that a boy should eat all that he had taken. Or again, you might climb the Law, where the whale's jaw-bone stood landmark in the buzzing wind, and behold the face of many counties, and the smoke and spires of many towns, and the sails of distant ships. You might bathe, now in the flaws of fine weather, that we pathetically call our summer, now in a gale of wind, with the sand scourging your bare hide, your clothes thrashing abroad from underneath their guardian stone, the froth of the great breakers casting you headlong ere it had drowned your knees. Or you might explore the tidal rocks, above all in the ebb of springs, when the very roots of the hills were for the nonce discovered; following my leader from one group to another, groping in slippery tangle for the wreck of ships, wading in pools after the abominable creatures of the sea, and ever with an eye cast backward on the march of the tide and the menaced line of your retreat. And then you might go Crusoeing, a word that covers all extempore eating in the open air: digging perhaps a house under the margin of the links, kindling a fire of the sea-ware, and cooking apples there–if they were truly apples, for I sometimes suppose the merchant must have played us off with some inferior and quite local fruit, capable of resolving, in the neighbourhood of fire, into mere sand and smoke and iodine; or perhaps pushing to Tantallon, you might lunch on sandwiches and visions in the grassy court, while the wind hummed in the crumbling turrets; or clambering along the coast, eat geans (the worst, I must suppose, in Christendom) from an adventurous gean tree that had taken root under a cliff, where it was shaken with an ague of east wind, and sil-

vered after gales with salt, and grew so foreign among its bleak surroundings that to eat of its produce was an adventure in itself.

There are mingled some dismal memories with so many that were joyous. Of the fisherwife, for instance, who had cut her throat at Canty Bay; and of how I ran with the other children to the top of the Quadrant, and beheld a posse of silent people escorting a cart, and on the cart, bound in a chair, her throat bandaged, and the bandage all bloody—horror!—the fisherwife herself, who continued thenceforth to hag-ride my thoughts, and even to-day (as I recall the scene) darkens daylight. She was lodged in the little old jail in the chief street; but whether or no she died there, with a wise terror of the worst, I never inquired. She had been tippling; it was but a dingy tragedy; and it seems strange and hard that, after all these years, the poor crazy sinner should be still pilloried on her cart in the scrap-book of my memory. Nor shall I readily forget a certain house in the Quadrant where a visitor died, and a dark old woman continued to dwell alone with the dead body; nor how this old woman conceived a hatred to myself and one of my cousins, and in the dread hour of the dusk, as we were clambering on the garden-walls, opened a window in that house of mortality and cursed us in a shrill voice and with a marrowy choice of language. It was a pair of very colourless urchins that fled down the lane from this remarkable experience! But I recall with a more doubtful sentiment, compounded out of fear and exultation, the coil of equinoctial tempests; trumpeting squalls, scouring flaws of rain; the boats with their reefed lugsails scudding for the harbour mouth, where danger lay, for it was hard to make when the wind had an east in it; the wives clustered with blowing shawls at the pier-head, where (if fate was against them) they might see boat and husband and sons—their whole wealth and their whole family—engulfed under their eyes; and (what I saw but once) a troop of neighbours forcing such an unfortunate homeward, and she squalling and battling in their midst, a figure scarcely human, a tragic maenad.

These are things that I recall with interest; but what my memory dwells upon the most, I have been all this while withholding. It was a sport peculiar to the place, and indeed to a week or so of our two months' holiday there. Maybe it still flourishes in its native spot; for boys and their pastimes are swayed by periodic forces inscrutable to man; so that tops and marbles reappear in their due season, regular like the sun and moon; and the harmless art of knucklebones has seen the fall of the Roman Empire and the rise of the United States. It may still flourish in its native spot, but

nowhere else, I am persuaded; for I tried myself to introduce it on Tweedside, and was defeated lamentably; its charm being quite local, like a country wine that cannot be exported.

The idle manner of it was this:

Toward the end of September, when school-time was drawing near and the nights were already black, we would begin to sally from our respective villas, each equipped with a tin bull's-eye lantern. The thing was so well known that it had worn a rut in the commerce of Great Britain; and the grocers, about the due time, began to garnish their windows with our particular brand of luminary. We wore them buckled to the waist upon a cricket belt, and over them, such was the rigour of the game, a buttoned top-coat. They smelled noisomely of blistered tin; they never burned aright, though they would always burn our fingers; their use was naught; the pleasure of them merely fanciful; and yet a boy with a bull's-eye under his top-coat asked for nothing more. The fishermen used lanterns about their boats, and it was from them, I suppose, that we had got the hint; but theirs were not bull's-eyes, nor did we ever play at being fishermen. The police carried them at their belts, and we had plainly copied them in that; yet we did not pretend to be policemen. Burglars, indeed, we may have had some haunting thoughts of; and we had certainly an eye to past ages when lanterns were more common, and to certain story-books in which we had found them to figure very largely. But take it for all in all, the pleasure of the thing was substantive; and to be a boy with a bull's-eye under his top-coat was good enough for us.

When two of these asses met, there would be an anxious "Have you got your lantern?" and a gratified "Yes!" That was the shibboleth, and very needful too; for, as it was the rule to keep our glory contained, none could recognize a lantern-bearer, unless (like the polecat) by the smell. Four or five would sometimes climb into the belly of a ten-man lugger, with nothing but the thwarts above them—for the cabin was usually locked—or choose out some hollow of the links where the wind might whistle overhead. There the coats would be unbuttoned and the bull's-eyes discovered; and in the chequering glimmer, under the huge windy hall of the night, and cheered by a rich steam of toasting tinware, these fortunate young gentlemen would crouch together in the cold sand of the links or on the scaly bilges of the fishing-boat, and delight themselves with inappropriate talk. Woe is me that I may not give some specimens—some of their foresights of life, or deep inquiries into the rudiments of man and nature, these were so fiery and so innocent, they were so richly silly, so ro-

mantically young. But the talk, at any rate, was but a condiment; and these gatherings themselves only accidents in the career of the lantern-bearer. The essence of this bliss was to walk by yourself in the black night; the slide shut, the top-coat buttoned; not a ray escaping, whether to conduct your footsteps or to make your glory public: a mere pillar of darkness in the dark; and all the while, deep down in the privacy of your fool's heart, to know you had a bull's-eye at your belt, and to exult and sing over the knowledge.

It is said that a poet has died young in the breast of the most stolid. It may be contended, rather, that this (somewhat minor) bard in almost every case survives, and is the spice of life to his possessor. Justice is not done to the versatility and the unplumbed childishness of man's imagination. His life from without may seem but a rude mound of mud; there will be some golden chamber at the heart of it, in which he dwells delighted; and for as dark as his pathway seems to the observer, he will have some kind of a bull's-eye at his belt.

It would be hard to pick out a career more cheerless than that of Dancer, the miser, as he figures in the "Old Bailey Reports," a prey to the most sordid persecutions, the butt of his neighbourhood, betrayed by his hired man, his house beleaguered by the impish schoolboy, and he himself grinding and fuming and impotently fleeing to the law against these pin-pricks. You marvel at first that any one should willingly prolong a life so destitute of charm and dignity; and then you call to memory that had he chosen, had he ceased to be a miser, he could have been freed at once from these trials, and might have built himself a castle and gone escorted by a squadron. For the love of more recondite joys, which we cannot estimate, which, it may be, we should envy, the man had willingly foregone both comfort and consideration. "His mind to him a kingdom was"; and sure enough, digging into that mind, which seems at first a dust-heap, we unearth some priceless jewels. For Dancer must have had the love of power and the disdain of using it, a noble character in itself; disdain of many pleasures, a chief part of what is commonly called wisdom; disdain of the inevitable end, that finest trait of mankind; scorn of men's opinions, another element of virtue; and at the back of all, a conscience just like yours and mine, whining like a cur, swindling like a thimblerigger, but still pointing (there or thereabout) to some conventional standard. Here were a cabinet portrait to which Hawthorne perhaps had done justice; and yet not Hawthorne either, for he was mildly minded, and it lay not in him to create for us that throb of the miser's pulse, his

fretful energy of gusto, his vast arms of ambition clutching in he knows not what: insatiable, insane, a god with a muck-rake. Thus, at least, looking in the bosom of the miser, consideration detects the poet in the full tide of life, with more, indeed, of the poetic fire than usually goes to epics; and tracing that mean man about his cold hearth, and to and fro in his discomfortable house, spies within him a blazing bonfire of delight. And so with others who do not live by bread alone but by some cherished and perhaps fantastic pleasure; who are meat salesmen to the external eye, and possibly to themselves are Shakespeares, Napoleons, or Beethovens; who have not one virtue to rub against another in the field of active life, and yet perhaps, in the life of contemplation, sit with the saints. We see them on the street, and we can count their buttons; but heaven knows in what they pride themselves! Heaven knows where they have set their treasure!

There is one fable that touches very near the quick of life: the fable of the monk who passed into the woods, heard a bird break into song, hearkened for a trill or two, and found himself on his return a stranger at his convent gates; for he had been absent fifty years, and of all his comrades there survived but one to recognize him. It is not only in the woods that this enchanter carols, though perhaps he is native there. He sings in the more doleful places. The miser hears him and chuckles, and the days are moments. With no more apparatus than an ill-smelling lantern, I have evoked him on the naked links. All life that is not merely mechanical is spun out of two strands: seeking for that bird and hearing him. And it is just this that makes life so hard to value, and the delight of each so incommunicable. And it is just a knowledge of this, and a remembrance of those fortunate hours in which the bird has sung to us, that fills us with such wonder when we turn the pages of the realist. There, to be sure, we find a picture of life in so far as it consists of mud and of old iron, cheap desires and cheap fears, that which we are ashamed to remember and that which we are careless whether we forget; but of the note of that time-devouring nightingale we hear no news.

The case of these writers of romance is most obscure. They have been boys and youths; they have lingered outside the window of the beloved, who was then most probably writing to some one else; they have sat before a sheet of paper, and felt themselves mere continents of congested poetry, not one line of which would flow; they have walked alone in the woods; they have walked in cities under the countless lamps; they have been to sea; they have hated; they have feared; they have longed to knife a man, and maybe done it; the wild taste of life has stung their palate.

Or, if you deny them all the rest, one pleasure at least they have tasted to the full—their books are there to prove it—the keen pleasure of successful literary composition. And yet they fill the globe with volumes whose cleverness inspires me with despairing admiration, and whose consistent falsity to all I care to call existence, with despairing wrath. If I had no better hope than to continue to revolve among the dreary and petty businesses, and to be moved by the paltry hopes and fears with which they surround and animate their heroes, I declare I would die now. But there has never an hour of mine gone quite so dully yet; if it were spent waiting at a railway junction, I would have some scattering thoughts, I could count some grains of memory, compared to which the whole of one of these romances seems but dross.

These writers would retort (if I take them properly) that this was very true; that it was the same with themselves and other persons of (what they call) the artistic temperament; that in this we were exceptional, and should apparently be ashamed of ourselves; but that our works must deal exclusively with (what they call) the average man, who was a prodigious dull fellow, and quite dead to all but the paltriest considerations. I accept the issue. We can only know others by ourselves. The artistic temperament (a plague on the expression!) does not make us different from our fellow-men, or it would make us incapable of writing novels; and the average man (a murrain on the word!) is just like you and me, or he would not be average. It was Whitman who stamped a kind of Birmingham sacredness upon the latter phrase; but Whitman knew very well, and showed very nobly, that the average man was full of joys and full of a poetry of his own. And this harping on life's dullness and man's meanness is a loud profession of incompetence; it is one of two things: the cry of the blind eye, *I cannot see,* or the complaint of the dumb tongue, *I cannot utter.* To draw a life without delights is to prove I have not realized it. To picture a man without some sort of poetry—well, it goes near to prove my case, for it shows an author may have little enough. To see Dancer only as a dirty, old, small-minded, impotently fuming man, in a dirty house, besieged by Harrow boys, and probably beset by small attorneys, is to show myself as keen an observer as . . . the Harrow boys. But these young gentlemen (with a more becoming modesty) were content to pluck Dancer by the coat-tails; they did not suppose they had surprised his secret or could put him living in a book: and it is there my error would have lain. Or say that in the same romance—I continue to call these books romances, in the hope of giving pain—say that in the same romance, which now begins really to take shape, I should leave to speak of Dancer,

and follow instead the Harrow boys; and say that I came on some such business as that of my lantern-bearers on the links; and described the boys as very cold, spat upon by flurries of rain, and drearily surrounded, all of which they were; and their talk as silly and indecent, which it certainly was. I might upon these lines, and had I Zola's genius, turn out, in a page or so, a gem of literary art, render the lantern-light with the touches of a master, and lay on the indecency with the ungrudging hand of love; and when all was done, what a triumph would my picture be of shallowness and dullness! How it would have missed the point! How it would have belied the boys! To the ear of the stenographer, the talk is merely silly and indecent; but ask the boys themselves, and they are discussing (as it is highly proper they should) the possibilities of existence. To the eye of the observer they are wet and cold and drearily surrounded; but ask themselves, and they are in the heaven of a recondite pleasure, the ground of which is an ill-smelling lantern.

For, to repeat, the ground of a man's joy is often hard to hit. It may hinge at times upon a mere accessory, like the lantern; it may reside, like Dancer's, in the mysterious inwards of psychology. It may consist with perpetual failure, and find exercise in the continued chase. It has so little bond with externals (such as the observer scribbles in his note-book) that it may even touch them not; and the man's true life, for which he consents to live, lies altogether in the field of fancy. The clergyman, in his spare hours, may be winning battles, the farmer sailing ships, the banker reaping triumph in the arts: all leading another life, plying another trade from that they chose, like the poet's housebuilder, who, after all is cased in stone,

> By his fireside, as impotent fancy prompts,
> Rebuilds it to his liking.

In such a case the poetry runs underground. The observer (poor soul, with his documents!) is all abroad. For to look at the man is but to court deception. We shall see the trunk from which he draws his nourishment; but he himself is above and abroad in the green dome of foliage, hummed through by winds and nested in by nightingales. And the true realism were that of the poets, to climb up after him like a squirrel, and catch some glimpse of the heaven for which he lives. And the true realism, always and everywhere, is that of the poets: to find out where joy resides, and give it a voice far beyond singing.

For to miss the joy is to miss all. In the joy of the actors lies the sense of

any action. That is the explanation, that the excuse. To one who has not the secret of the lanterns, the scene upon the links is meaningless. And hence the haunting and truly spectral unreality of realistic books. Hence, when we read the English realists, the incredulous wonder with which we observe the hero's constancy under the submerging tide of dullness, and how he bears up with his jibbing sweetheart, and endures the chatter of idiot girls, and stands by his whole unfeatured wilderness of an existence, instead of seeking relief in drink or foreign travel. Hence in the French, in that meat market of middle-aged sensuality, the disgusted surprise with which we see the hero drift sidelong, and practically quite untempted, into every description of misconduct and dishonour. In each, we miss the personal poetry, the enchanted atmosphere, that rainbow work of fancy that clothes what is naked and seems to ennoble what is base; in each, life falls dead like dough, instead of soaring away like a balloon into the colours of the sunset; each is true, each inconceivable; for no man lives in the external truth, among salts and acids, but in the warm, phantasmagoric chamber of his brain, with the painted windows and the storied walls.

Of this falsity we have had a recent example from a man who knows far better—Tolstoy's *Powers of Darkness.* Here is a piece full of force and truth, yet quite untrue. For before Mikita was led into so dire a situation he was tempted, and temptations are beautiful at least in part; and a work which dwells on the ugliness of crime, and gives no hint of any loveliness in the temptation, sins against the modesty of life, and even when a Tolstoy writes it, sinks to melodrama. The peasants are not understood; they saw their life in fairer colours; even the deaf girl was clothed in poetry for Mikita, or he had never fallen. And so, once again, even an Old Bailey melodrama, without some brightness of poetry and lustre of existence, falls into the inconceivable and ranks with fairy tales.

In nobler books we are moved with something like the emotions of life; and this emotion is very variously provoked. We are so moved when Levine labours in the field, when André sinks beyond emotion, when Richard Feverel and Lucy Desborough meet beside the river, when Antony, "not cowardly, puts off his helmet," when Kent has infinite pity on the dying Lear, when, in Dostoevsky's *Despised and Rejected,* the uncomplaining hero drains his cup of suffering and virtue. These are notes that please the great heart of man. Not only love, and the fields, and the bright face of danger but sacrifice and death and unmerited suffering humbly supported touch in us the vein of the poetic. We love to think of them, we

long to try them, we are humbly hopeful that we may prove heroes also.

We have heard, perhaps, too much of lesser matters. Here is the door, here is the open air. *Itur in antiquam silvam* [The way leads to an ancient wood].

"The Lantern-Bearers" is from a collection of Stevenson's essays entitled ACROSS THE PLAINS.

John Ruskin

1819–1900

John Ruskin, critic of art and of society, was born in London in 1819, the only child of Scottish parents, who were first cousins. His father was a prosperous wine merchant with a taste for art and literature, his mother a handsome, devoted woman with a stern Calvinist sense of duty. Their son's childhood was strictly supervised. Ruskin never owned a toy, was ignorant of all games, could neither dance nor ride to his dying day. On the other hand, he was a bookworm when he was five, by seven had begun to write a work of his own which grew to four volumes, and by the age of twenty had written a large body of poetry, drama, and romance, very little of which survives. He had also traveled almost everywhere in the civilized world and had acquired an exhaustive aesthetic education. Regarded by his parents as a prodigy, he was saved only by his own fine nature from being a prig.

Following his graduation in 1842 from Oxford, Ruskin began a career as an art critic that lasted for twenty years. He wrote *Modern Painters* in five volumes; the first volume, published in 1843, contained the famous defense of J. M. W. Turner, whose reputation Ruskin created. Two other works of this period were *The Seven Lamps of Architecture,* in which he laid down the principle that the

Notes from the artist: *"A landscape of fantasy surrounds the portrait of Ruskin. A wild olive plant, a bird, and a flower recall some of the subjects of Ruskin's works. Hidden among the foliage at the right is a profile of Michelangelo, suggesting Ruskin's writings on art; while below, at left, is J. A. M. Whistler, who sued for libel after Ruskin attacked his painting."*

art of a people is an expression of their life, and *The Stones of Venice,* which gave the city a special fame it has never lost.

After 1860 Ruskin turned from the study of art to social criticism. He had been stirred by the social injustice of the age and was henceforth to write endless articles and give countless lectures on the subject. None of these was as substantial as his works on art. Yet they were more forceful, so that he became famous as a social essayist. Among the collections of his pieces were *Unto This Last* (1862) and *Sesame and Lilies* (1865), where he laid out a scheme for society that was frankly utopian.

From 1869 to 1884 he was professor of art at Oxford, though he never ceased his social comment; indeed, art and social criticism had become one for him. In 1878 he suffered the first of a series of mental breakdowns which caused him increasing distress and made heavy work impossible. He also gave away to friends, charities, and various social objects the very large fortune which he had inherited from his father, as well as the considerable income from the sale of his books. The latter is said to have amounted to £4,000 a year–in modern money, perhaps $50,000. The last ten years of his life were spent in the care of friends, virtually in retirement. He died in 1900, probably the most celebrated figure in social criticism of his time.

The essays of Ruskin, as those of Emerson, tend to be inspired sermons; they exhort to honesty, achievement, truth, and to justice and a social conscience. But whereas Emerson remained serene and confident, Ruskin could sometimes denounce wholesale, as in the present essay, all the new gods and the distinctive progress of his age. Yet his wit was never caustic and unforgiving like Carlyle's, and there was more poetic sadness and nostalgia than wrath in his condemnation of the friends and life around him.

We are astounded to read the list of the things he denounces, for they are now mostly regarded as essentials of the good life. They include modern science; technology (which reduces the hours of labor while increasing its product); rapid transportation; and the kind of equality of individuals which goes along with democratic institutions. What can Ruskin be thinking of? What does he want to take the place of these modern innovations? He wants "admiration, hope, and love" to flourish. But admiration requires recognition of superiority and is supposedly inconsistent with equality, and love

and hope do not go with factories and materialistic science. To live again as we should, we must free our civilization from the contempt of "the Middle Ages and of their chivalry."

But let us be sympathetic; that is the way to understanding. Is it not true that the greatest love stories are laid in medieval times or share something of its atmosphere? Is it not true, as Carlyle claimed, that machines are the death of heroes—of the heroic spirit and devotion? Was it not a long time before romance could adapt itself to industrial life? We must remember also that when Ruskin wrote, industry was still new and raw. It had covered the beautiful English countryside with smoke and ugly chimneys and factories. The workers, deprived of a plot of land to work, and even of clean air, worked long hours for a pittance and lived in dingy squalor. Money there was in the factory system, of course, but it was siphoned into the hands of a few who cared nothing for beauty nor for simple human worth.

We have now tried to be fair, but when all has been said in defense of Ruskin's medievalism—and there is a great deal more that could be added—we may still be unconvinced. Have not the Middle Ages been overrated? Was this period especially favorable to admiration, hope, and love? The enormously high mortality rate, spreading heartbreak with a prodigal hand, was a cruel reversal of both hope and love. And how much can we admire the knights and their tournaments, whose work was mostly destruction?

We will want to ask ourselves, also, how far the "progress" which Ruskin deplored could have been arrested, even if this was what was needed. Perhaps what he should have demanded was a reform, not a termination, of industrial civilization. From this point of view we can learn a great deal from Ruskin.

An Idealist's Arraignment of the Age

For lo, the winter is past,
The rain is over and gone,
The flowers appear on the earth,
The time of the singing of birds is come,
Arise, oh my fair one, my dove,
And come.

My Friends,

It has been asked of me, very justly, why I have hitherto written to you of things you were little likely to care for, in words which it was difficult for you to understand. I have no fear but that you will one day understand all my poor words—the saddest of them perhaps too well. But I have great fear that you may never come to understand these written above, which are part of a king's love-song, in one sweet May, of many long since gone. I fear that for you the wild winter's rain may never pass, the flowers never appear on the earth; that for you no bird may ever sing; for you no perfect love arise and fulfil your life in peace. "And why not for us as for others?" Will you answer me so, and take my fear for you as an insult? Nay, it is no insult; nor am I happier than you. For me the birds do not sing, nor ever will. But they would for you, if you cared to have it so. When I told you that you would never understand that love-song, I meant only that you would not desire to understand it.

Are you again indignant with me? Do you think, though you should labour and grieve and be trodden down in dishonour all your days, at least you can keep that one joy of love and that one honour of home? Had you,

indeed, kept that, you had kept all. But no men yet, in the history of the race, have lost it so piteously. In many a country and many an age, women have been compelled to labour for their husbands' wealth or bread; but never until now were they so homeless as to say, like the poor Samaritan, "I have no husband." Women of every country and people have sustained without complaint the labour of fellowship; for the women of the latter days in England it has been reserved to claim the privilege of isolation.

This, then, is the end of your universal education and civilization, and contempt of the ignorance of the Middle Ages and of their chivalry. Not only do you declare yourselves too indolent to labour for daughters and wives, and too poor to support them, but you have made the neglected and distracted creatures hold it for an honour to be independent of you and shriek for some hold of the mattock for themselves. Believe it or not, as you may, there has not been so low a level of thought reached by any race since they grew to be male and female out of star-fish or chickweed or whatever else they have been made from by natural selection—according to modern science.

That modern science, also, economic and of other kinds, has reached its climax at last. For it seems to be the appointed function of the nineteenth century to exhibit in all things the elect pattern of perfect folly, for a warning to the farthest future. Thus the statement of principle which I quoted to you in my last letter, from the circular of the Emigration Society, that it is over-production which is the cause of distress, is accurately the most foolish thing, not only hitherto ever said by men, but which it is possible for men ever to say, respecting their own business. It is a kind of opposite pole (or negative acme of mortal stupidity) to Newton's discovery of gravitation as an acme of mortal wisdom: as no wise being on earth will ever be able to make such another wise discovery, so no foolish being on earth will ever be capable of saying such another foolish thing through all the ages.

And the same crisis has been exactly reached by our natural science and by our art. It has several times chanced to me, since I began these papers, to have the exact thing shown or brought to me that I wanted for illustration, just in time; and it happened that, on the very day on which I published my last letter, I had to go to the Kensington Museum, and there I saw the most perfectly and roundly ill-done thing which, as yet, in my whole life, I ever saw produced by art. It had a tablet in front of it, bearing this inscription:

> Statue in black and white marble, a Newfoundland Dog standing on a Serpent, which rests on a marble cushion, the pedestal ornamented with *pietra dura* fruits in relief.–*English. Present Century.* No. 1.

It was so very right for me, the Kensington people having been good enough to number it "1," the thing itself being almost incredible in its oneness; and, indeed, such a punctual accent over the iota of miscreation, so absolutely and exquisitely miscreant, that I am not myself capable of conceiving a number two or three, or any rivalship or association with it whatsoever. The extremity of its unvirtue consisted, observe, mainly in the quantity of instruction which was abused in it. It showed that the persons who produced it had seen everything, and practised everything; and misunderstood everything they saw, and misapplied everything they did. They had seen Roman work and Florentine work and Byzantine work and Gothic work; and misunderstanding of everything had passed through them as the mud does through earthworms, and here at last was their worm-cast of a production.

But the second chance that came to me that day was more significant still. From the Kensington Museum I went to an afternoon tea, at a house where I was sure to meet some nice people. And among the first I met was an old friend who had been hearing some lectures on botany at the Kensington Museum, and been delighted by them. She is the kind of person who gets good out of everything, and she was quite right in being delighted; besides that, as I found by her account of them, the lectures were really interesting and pleasantly given. She had expected botany to be dull, and had not found it so, and "had learned so much." On hearing this I proceeded naturally to inquire what; for my idea of her was that before she went to the lectures at all she had known more botany than she was likely to learn by them. So she told me that she had learned first of all that there "were seven sorts of leaves." Now, I have always a great suspicion of the number seven; because when I wrote *The Seven Lamps of Architecture,* it required all the ingenuity I was master of to prevent them from becoming eight, or even nine, on my hands. So I thought to myself that it would be very charming if there were only seven sorts of leaves; but that, perhaps, if one looked the woods and forests of the world carefully through, it was just possible that one might discover as many as eight sorts; and then where would my friend's new knowledge of botany be? So I said, "That was very pretty; but what more?" Then my friend told me that she had no idea, before, that petals were leaves. On which I thought to myself that it would not have been any great harm to

her if she had remained under her old impression that petals were petals. But I said, "That was very pretty, too; and what more?" So then my friend told me that the lecturer said "the object of his lectures would be entirely accomplished if he could convince his hearers that there was no such thing as a flower." Now, in that sentence you have the most perfect and admirable summary given you of the general temper and purposes of modern science. It gives lectures on botany, of which the object is to show that there is no such thing as a flower; on humanity, to show that there is no such thing as a man; and on theology, to show there is no such thing as a God. No such thing as a man, but only a mechanism; no such thing as a God, but only a series of forces. The two faiths are essentially one: if you feel yourself to be only a machine, constructed to be a regulator of minor machinery, you will put your statue of such science on your Holborn Viaduct, and necessarily recognize only major machinery as regulating you.

I must explain the real meaning to you, however, of that saying of the botanical lecturer, for it has a wide bearing. Some fifty years ago the poet Goethe discovered that all the parts of plants had a kind of common nature and would change into each other. Now, this was a true discovery and a notable one; and you will find that, in fact, all plants are composed of essentially two parts—the leaf and root; one loving the light, the other darkness; one liking to be clean, the other to be dirty; one liking to grow for the most part up, the other for the most part down; and each having faculties and purposes of its own. But the pure one, which loves the light, has, above all things, the purpose of being married to another leaf, and having child-leaves and children's children of leaves, to make the earth fair forever. And when the leaves marry, they put on wedding-robes and are more glorious than Solomon in all his glory, and they have feasts of honey; and we call them "Flowers."

In a certain sense, therefore, you see the botanical lecturer was quite right. There are no such things as flowers—there are only leaves. Nay, farther than this, there may be a dignity in the less happy but unwithering leaf, which is, in some sort, better than the brief lily of its bloom—which the great poets always knew well, Chaucer before Goethe, and the writer of the *First Psalm* before Chaucer. The botanical lecturer was, in a deeper sense than he knew, right.

But in the deepest sense of all, the botanical lecturer was, to the extremity of wrongness, wrong; for leaf and root and fruit exist, all of them, only that there may be flowers. He disregarded the life and passion of the creature, which were its essence. Had he looked for these, he would have

recognized that in the thought of Nature herself there is in a plant nothing else but its flowers.

Now, in exactly the sense that modern science declares there is no such thing as a flower, it has declared there is no such thing as a man but only a transitional form of ascidians and apes. It may or may not be true—it is not of the smallest consequence whether it be or not. The real fact is that, seen with human eyes, there is nothing else but Man; that all animals and beings beside him are only made that they may change into him; that the world truly exists only in the presence of Man, acts only in the passion of Man. The essence of light is in his eyes, the centre of force in his soul, the pertinence of action in his deeds. And all true science—which my Savoyard guide rightly scorned me when he thought I had not—all true science is *savoir vivre*. But all your modern science is the contrary of that. It is *savoir mourir*. And of its very discoveries, such as they are, it cannot make use.

That telegraphic signalling was a discovery; and conceivably, some day, may be a useful one. And there was some excuse for your being a little proud when, about last sixth of April (Coeur de Lion's death-day, and Albrecht Dürer's), you knotted a copper wire all the way to Bombay, and flashed a message along it and back. But what was the message, and what the answer? Is India the better for what you said to her? Are you the better for what she replied? If not, you have only wasted an all-round-the-world's length of copper wire—which is, indeed, about the sum of your doing. If you had had, perchance, two words of common sense to say, though you had taken wearisome time and trouble to send them—though you had written them slowly in gold, and sealed them with a hundred seals, and sent a squadron of ships of the line to carry the scroll; and the squadron had fought its way round the Cape of Good Hope, through a year of storms, with loss of all its ships but one—the two words of common sense would have been worth the carriage, and more. But you have not anything like so much as that to say, either to India or to any other place.

You think it a great triumph to make the sun draw brown landscapes for you. That was also a discovery, and some day may be useful. But the sun had drawn landscapes before for you, not in brown, but in green and blue and all imaginable colors, here in England. Not one of you ever looked at them then; not one of you cares for the loss of them now, when you have shut the sun out with smoke, so that he can draw nothing more except brown blots through a hole in a box. There was a rocky valley between Buxton and Bakewell, once upon a time, divine as the Vale of

Tempe; you might have seen the gods there morning and evening—Apollo and all the sweet Muses of the Light—walking in fair procession on the lawns of it and to and fro among the pinnacles of its crags. You cared neither for gods nor grass, but for cash (which you did not know the way to get); you thought you could get it by what the *Times* calls "Railroad Enterprise." You enterprised a railroad through the valley—you blasted its rocks away, heaped thousands of tons of shale into its lovely stream. The valley is gone, and the gods with it; and now every fool in Buxton can be at Bakewell in half an hour, and every fool in Bakewell at Buxton; which you think a lucrative process of exchange—you fools everywhere.

To talk at a distance, when you have nothing to say though you were ever so near; to go fast from this place to that, with nothing to do either at one or the other—these are powers certainly. Much more, power of increased production, if you indeed had got it, would be something to boast of. But are you so entirely sure that you *have* got it—that the mortal disease of plenty and afflictive affluence of good things are all you have to dread?

Observe. A man and a woman, with their children, properly trained, are able easily to cultivate as much ground as will feed them, to build as much wall and roof as will lodge them, and to spin and weave as much cloth as will clothe them. They can all be perfectly happy and healthy in doing this. Supposing that they invent machinery which will build, plough, thresh, cook, and weave, and that they have none of these things any more to do, but may read, or play croquet or cricket, all day long, I believe myself that they will neither be so good nor so happy as without the machines. But I waive my belief in this matter for the time. I will assume that they become more refined and moral persons, and that idleness is in future to be the mother of all good. But observe, I repeat, the power of your machine is only in enabling them to be idle. It will not enable them to live better than they did before, nor to live in greater numbers. Get your heads quite clear on this matter. Out of so much ground only so much living is to be got, with or without machinery. You may set a million of steam-ploughs to work on an acre, if you like—out of that acre only a given number of grains of corn will grow, scratch or scorch it as you will. So that the question is not at all whether, by having more machines, more of you can live. No machines will increase the possibilities of life. They only increase the possibilities of idleness. Suppose, for instance, you could get the oxen in your plough driven by a goblin, who would ask for no pay, not even a cream bowl (you have nearly managed to get it

driven by an iron goblin, as it is), well, your furrow will take no more seeds than if you had held the stilts yourself. But instead of holding them you sit, I presume, on a bank beside the field, under an eglantine–watch the goblin at his work, and read poetry. Meantime, your wife in the house has also got a goblin to weave and wash for her. And she is lying on the sofa, reading poetry.

Now, as I said, I don't believe you would be happier so, but I am willing to believe it; only, since you are already such brave mechanists, show me at least one or two places where you *are* happier. Let me see one small example of approach to this seraphic condition. I can show you examples, millions of them, of happy people made happy by their own industry. Farm after farm I can show you in Bavaria, Switzerland, the Tyrol, and such other places, where men and women are perfectly happy and good, without any iron servants. Show me, therefore, some English family, with its fiery familiar, happier than these. Or bring me–for I am not inconvincible by any kind of evidence–bring me the testimony of an English family or two to their increased felicity. Or if you cannot do so much as that, can you convince even themselves of it? They are perhaps happy, if only they knew how happy they were. Virgil thought so, long ago, of simple rustics; but you hear at present your steam-propelled rustics are crying out that they are anything else than happy, and that they regard their boasted progress "in the light of a monstrous Sham." I must tell you one little thing, however, which greatly perplexes my imagination of the relieved ploughman sitting under his rose-bower, reading poetry. I have told it you before, indeed, but I forget where. There was really a great festivity, and expression of satisfaction in the new order of things, down in Cumberland, a little while ago; some first of May, I think it was, a country festival such as the old heathens, who had no iron servants, used to keep with piping and dancing. So I thought, from the liberated country people–their work all done for them by goblins–we should have some extraordinary piping and dancing. But there was no dancing at all, and they could not even provide their own piping. They had their goblin to pipe for them. They walked in procession after their steam-plough, and their steam-plough whistled to them occasionally in the most melodious manner it could. Which seemed to me, indeed, a return to more than Arcadian simplicity; for in old Arcadia plough-boys truly whistled as they went, for want of thought, whereas here was verily a large company walking without thought but not having any more even the capacity of doing their own whistling.

But next, as to the inside of the house. Before you got your power-looms a woman could always make herself a chemise and petticoat of bright

and pretty appearance. I have seen a Bavarian peasant-woman at church in Munich looking a much grander creature, and more beautifully dressed, than any of the crossed and embroidered angels in Hesse's high-art frescoes (which happened to be just above her, so that I could look from one to the other). Well, here you are, in England, served by household demons, with five hundred fingers at least, weaving, for one that used to weave in the days of Minerva. You ought to be able to show me five hundred dresses for one that used to be; tidiness ought to have become five-hundred-fold tidier; tapestry should be increased into *cinquecento*-fold iridescence of tapestry. Not only your peasant-girl ought to be lying on the sofa, reading poetry, but she ought to have in her wardrobe five hundred petticoats instead of one. Is that, indeed, your issue? or are you only on a curiously crooked way to it?

It is just possible, indeed, that you may not have been allowed to get the use of the goblin's work—that other people may have got the use of it, and you none; because, perhaps, you have not been able to evoke goblins wholly for your own personal service, but have been borrowing goblins from the capitalist and paying interest, in the "position of William," on ghostly self-going planes. But suppose you had laid by capital enough, yourselves, to hire all the demons in the world—nay, all that are inside of it—are you quite sure you know what you might best set them to work at, and what "useful things" you should command them to make for you? I told you, last month, that no economist going (whether by steam or ghost) knew what are useful things and what are not. Very few of you know, yourselves, except by bitter experience of the want of them. And no demons, either of iron or spirit, can ever make them.

There are three material things, not only useful, but essential to life. No one "knows how to live" till he has got them.

These are pure air, water, and earth.

There are three immaterial things, not only useful, but essential to life. No one knows how to live till he has got them also.

These are admiration, hope, and love.

Admiration—the power of discerning and taking delight in what is beautiful in visible form and lovely in human character; and, necessarily, striving to produce what is beautiful in form and to become what is lovely in character.

Hope—the recognition, by true foresight, of better things to be reached hereafter, whether by ourselves or others; necessarily issuing in the straightforward and undisappointable effort to advance, according to our proper power, the gaining of them.

Love—both of family and neighbour, faithful and satisfied.

These are the six chiefly useful things to be got by political economy, when it *has* become a science. I will briefly tell you what modern political economy—the great *savoir mourir*—is doing with them.

The first three, I said, are pure air, water, and earth.

Heaven gives you the main elements of these. You can destroy them at your pleasure, or increase, almost without limit, the available quantities of them.

You can vitiate the air by your manner of life and of death to any extent. You might easily vitiate it so as to bring such a pestilence on the globe as would end all of you. You or your fellows, German and French, are at present vitiating it to the best of your power in every direction—chiefly at this moment with corpses and animal and vegetable ruin in war, changing men, horses, and garden-stuff into noxious gas. But everywhere, and all day long, you are vitiating it with foul chemical exhalations; and the horrible nests, which you call towns, are little more than laboratories for the distillation into heaven of venomous smokes and smells, mixed with effluvia from decaying animal matter and infectious miasmata from purulent disease. On the other hand, your power of purifying the air, by dealing properly and swiftly with all substances in corruption, by absolutely forbidding noxious manufactures, and by planting in all soils the trees which cleanse and invigorate earth and atmosphere, is literally infinite. You might make every breath of air you draw, food.

Secondly, your power over the rain and river-waters of the earth is infinite. You can bring rain where you will, by planting wisely and tending carefully; drought where you will, by ravage of woods and neglect of the soil. You might have the rivers of England as pure as the crystal of the rock; beautiful in falls, in lakes, in living pools; so full of fish that you might take them out with your hands instead of nets. Or you may do always as you have done now—turn every river of England into a common sewer, so that you cannot so much as baptize an English baby but with filth, unless you hold its face out in the rain; and even *that* falls dirty.

Then for the third, earth, meant to be nourishing for you and blossoming. You have learned about it that there is no such thing as a flower; and as far as your scientific hands and scientific brains, inventive of explosive and deathful instead of blossoming and life-giving dust, can contrive, you have turned the Mother Earth, Demeter, into the Avenger-Earth, Tisiphone—with the voice of your brother's blood crying out of it in one wild harmony round all its murderous sphere.

That is what you have done for the three material useful things.

Then for the three immaterial useful things. For admiration, you have learned contempt and conceit. There is no lovely thing ever yet done by man that you care for or can understand; but you are persuaded you are able to do much finer things yourselves. You gather and exhibit together, as if equally instructive, what is infinitely bad with what is infinitely good. You do not know which is which; you instinctively prefer the bad, and do more of it. You instinctively hate the good, and destroy it.

Then, secondly, for hope. You have not so much spirit of it in you as to begin any plan which will not pay for ten years; nor so much intelligence of it in you (either politicians or workmen) as to be able to form one clear idea of what you would like your country to become.

Then, thirdly, for love. You were ordered by the Founder of your religion to love your neighbour as yourselves. You have founded an entire science of political economy on what you have stated to be the constant instinct of man—the desire to defraud his neighbour. And you have driven your women mad, so that they ask no more for love nor for fellowship with you; but stand against you, and ask for "Justice."

Are there any of you who are tired of all this? Any of you, landlords or tenants? Employers or workmen? Are there any landlords, any masters, who would like better to be served by men than by iron devils? Any tenants, any workmen, who can be true to their leaders and to each other? Who can vow to work and to live faithfully, for the sake of the joy of their homes?

Will any such give the tenth of what they have and of what they earn, not to emigrate with, but to stay in England with, and do what is in their hands and hearts to make her a happy England?

I am not rich (as people now estimate riches), and great part of what I have is already engaged in maintaining art-workmen, or for other objects more or less of public utility. The tenth of whatever is left to me, estimated as accurately as I can (you shall see the accounts), I will make over to you in perpetuity, with the best security that English law can give, on Christmas Day of this year, with engagement to add the tithe of whatever I earn afterwards. Who else will help, with little or much? The object of such fund being to begin, and gradually—no matter how slowly—to increase, the buying and securing of land in England, which shall not be built upon, but cultivated by Englishmen with their own hands and such help of force as they can find in wind and wave. I do not care with how many or how few this thing is begun, nor on what inconsiderable scale—if it be but in two or three poor men's gardens. So much, at least, I can

buy, myself, and give them. If no help come, I have done and said what I could, and there will be an end. If any help come to me, it is to be on the following conditions:

We will try to make some small piece of English ground beautiful, peaceful, and fruitful. We will have no steam-engines upon it, and no railroads; we will have no untended or unthought-of creatures on it; none wretched but the sick; none idle but the dead. We will have no liberty upon it, but instant obedience to known law and appointed persons; no equality upon it, but recognition of every betterness that we can find, and reprobation of every worseness. When we want to go anywhere, we will go there quietly and safely, not at forty miles an hour in the risk of our lives; when we want to carry anything anywhere, we will carry it either on the backs of beasts or on our own, or in carts or boats. We will have plenty of flowers and vegetables in our gardens, plenty of corn and grass in our fields–and few bricks. We will have some music and poetry; the children shall learn to dance to it and sing it; perhaps some of the old people, in time, may also. We will have some art, moreover; we will at least try if, like the Greeks, we can't make some pots. The Greeks used to paint pictures of gods on their pots. We, probably, cannot do as much; but we may put some pictures of insects on them, and reptiles–butterflies and frogs, if nothing better. There was an excellent old potter in France who used to put frogs and vipers into his dishes, to the admiration of mankind; we can surely put something nicer than that. Little by little, some higher art and imagination may manifest themselves among us, and feeble rays of science may dawn for us–botany, though too dull to dispute the existence of flowers; and history, though too simple to question the nativity of men; nay, even perhaps an uncalculating and uncovetous wisdom, as of rude Magi presenting, at such nativity, gifts of gold and frankincense.

Faithfully yours,
JOHN RUSKIN

"An Idealist's Arraignment of the Age"
is Letter V
in Ruskin's FORS CLAVIGERA.

William James

1842–1910

William James was born in New York City on January 11, 1842. His father, Henry James, Sr., was heir to a fortune which made him independent and enabled him to live as a student and a man of the world. There were five children, the future novelist Henry James being the second. Despite its size, the James family was constantly traveling. As a result the children received their early education mostly from schools and private tutors in England, France, Switzerland, and Germany.

William James was slow in discovering his vocation. He studied painting with Hunt in Newport, attended the scientific school and then medical school at Harvard, accompanied the Agassiz expedition to Brazil, and pursued the study of psychology in Germany, before he became, in 1872, instructor of anatomy and physiology at Harvard. Two years later he began teaching psychology and set up the first laboratory in America in experimental psychology. From then until he completed his *Principles of Psychology* [1] his energies were mainly devoted to this subject.

Yet James had always been interested in the problems of philosophy. From 1890, when his great work on psychology was first published, until his death he devoted himself almost entirely to philosophy. Besides his teaching at Harvard, where he was appointed professor of philosophy, he gave many lectures and became a highly popular speaker, in demand from coast to coast. The first volume of his lectures appeared in 1897 under the title of *The Will to Believe and Other Essays in Popular Philosophy*.[2] In 1901–02 he delivered the Gifford Lectures on natural religion at the University

[1] See *Great Books of the Western World.*

[2] See Vol. 10, pp. 39–57, in this set for the title essay.

of Edinburgh; these were published as *The Varieties of Religious Experience*. He developed his own philosophy of pragmatism in a book of that title published in 1907 and met the criticism of it in *The Meaning of Truth* (1909) and *A Pluralistic Universe* (1909). These works are written in a nontechnical and vigorous style. He was engaged in giving a more technical analysis and expression to his philosophy when he died, August 26, 1910.

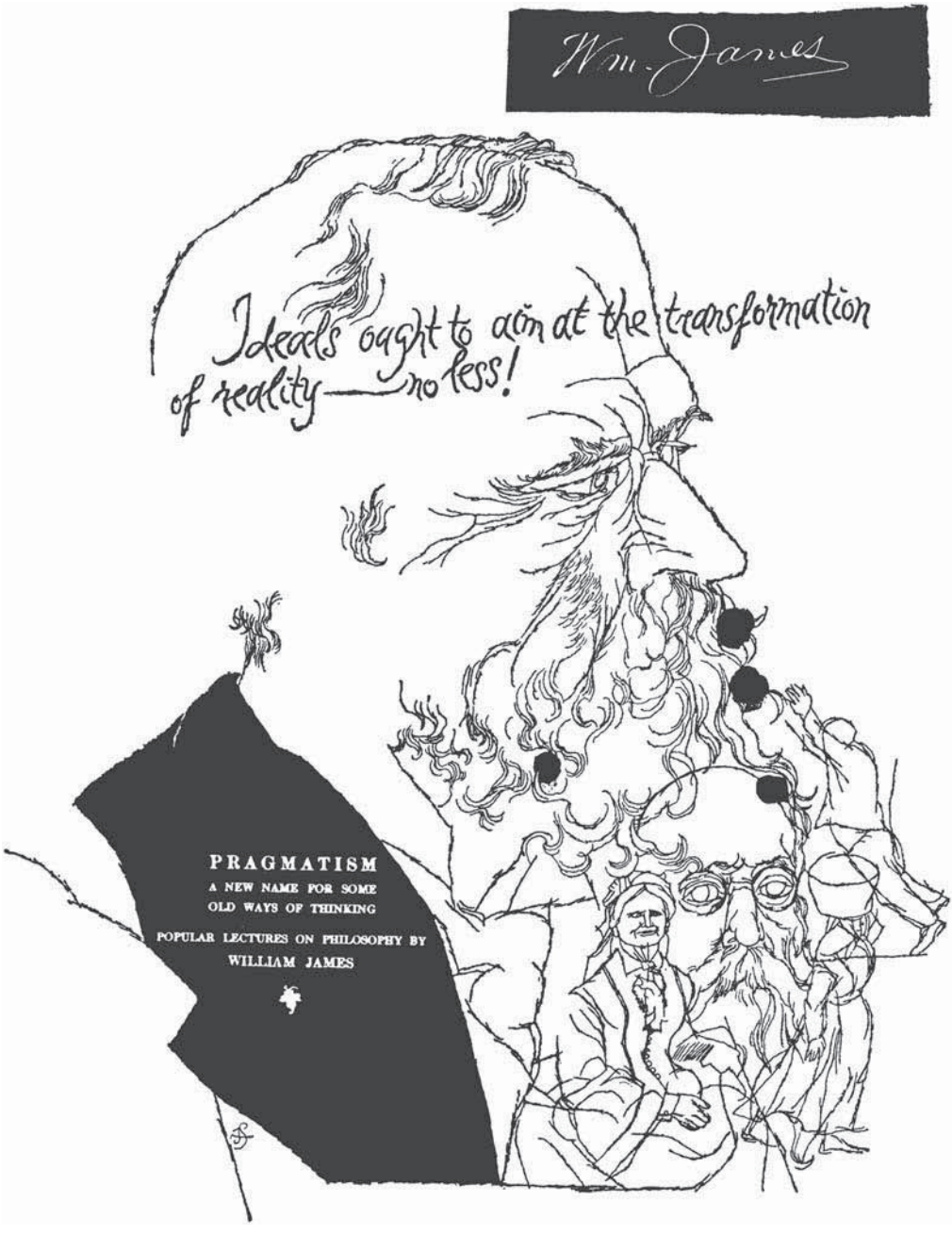
The three essays presented here were first given as lectures. In them James gives an analysis and defense of individualism. The essay *On a Certain Blindness in Human Beings* he describes as "providing the perception on which my whole individualistic philosophy is based." He takes the position that each individual is of unique value and the source of what he calls "vital significance." Realization of this can lead to great personal joy and exhilaration. James gives high praise to the essay by Stevenson entitled *The Lantern-Bearers,*[3] which expresses this insight.

If the individual is a source of unique value, it becomes a central problem of education to find ways of recognizing and releasing the energies of the individual. This is the main topic considered in *The Energies of Men*. Convinced that most men use only a small part of their powers, James asks how they may be brought to the top of their abilities. Among the "energy-releasing" agents, he considers the excitement of the unusual stimulus, the example of others or rivalry with them, the demands of duty, or the challenge of a new task. He notes that ascetic exercises aimed at disciplining the will may serve the same purpose, as may also the opposition of new and different ideas.

James constantly opposes anything that prevents the appreciation of individual worth. The opinion that man is merely the creature of

[3] See Vol. 7, pp. 112–121, in this set.

Notes from the artist: "William James in his later years. Woven into his beard are drawings of his mother and father, as well as figures from James's own sketchbook. The quotation is taken from his collected letters, while on his coat is a facsimile of the title page of Pragmatism."


Wm. James
Ideals ought to aim at the transformation of reality — no less!
PRAGMATISM
A NEW NAME FOR SOME
OLD WAYS OF THINKING
POPULAR LECTURES ON PHILOSOPHY BY
WILLIAM JAMES

his environment is, to James, among the worst offenders in this respect. In *Great Men and Their Environment* he attacks *this* opinion as it is expressed in what is known as Social Darwinism. James maintains that this is a wholly erroneous and misleading extension of the Darwinian theory of evolution.

In these essays James does more than merely pose the problem of individualism. He also explores some of its more important possibilities and does this in a way that merits comparison with such a classic statement as that of John Stuart Mill in his essay *On Liberty*.[4]

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[4] See *Great Books of the Western World.*

On a Certain Blindness in Human Beings

Our judgments concerning the worth of things, big or little, depend on the *feelings* the things arouse in us. Where we judge a thing to be precious in consequence of the *idea* we frame of it, this is only because the idea is itself associated already with a feeling. If we were radically feelingless, and if ideas were the only things our mind could entertain, we should lose all our likes and dislikes at a stroke, and be unable to point to any one situation or experience in life more valuable or significant than any other.

Now the blindness in human beings, of which this discourse will treat, is the blindness with which we all are afflicted in regard to the feelings of creatures and people different from ourselves.

We are practical beings, each of us with limited functions and duties to perform. Each is bound to feel intensely the importance of his own duties and the significance of the situations that call these forth. But this feeling is in each of us a vital secret, for sympathy with which we vainly look to others. The others are too much absorbed in their own vital secrets to take an interest in ours. Hence the stupidity and injustice of our opinions, so far as they deal with the significance of alien lives. Hence the falsity of our judgments, so far as they presume to decide in an absolute way on the value of other persons' conditions or ideals.

Take our dogs and ourselves, connected as we are by a tie more intimate than most ties in this world; and yet, outside of that tie of friendly fondness, how insensible, each of us, to all that makes life significant for the other!—we to the rapture of bones under hedges, or smells of trees and lampposts, they to the delights of literature and art. As you sit reading the most moving romance you ever fell upon, what sort of a judge is your fox terrier of your behavior? With all his good will toward you, the nature of your conduct is absolutely excluded from his

comprehension. To sit there like a senseless statue when you might be taking him to walk and throwing sticks for him to catch! What queer disease is this that comes over you every day, of holding things and staring at them like that for hours together, paralyzed of motion and vacant of all conscious life? The African savages came nearer the truth; but they, too, missed it when they gathered wonderingly round one of our American travelers who, in the interior, had just come into possession of a stray copy of the *New York Commercial Advertiser* and was devouring it column by column. When he got through, they offered him a high price for the mysterious object; and, being asked for what they wanted it, they said: "For an eye medicine"—that being the only reason they could conceive of for the protracted bath which he had given his eyes upon its surface.

The spectator's judgment is sure to miss the root of the matter, and to possess no truth. The subject judged knows a part of the world of reality which the judging spectator fails to see, knows more while the spectator knows less; and, wherever there is conflict of opinion and difference of vision, we are bound to believe that the truer side is the side that feels the more, and not the side that feels the less.

Let me take a personal example of the kind that befalls each one of us daily:

Some years ago, while journeying in the mountains of North Carolina, I passed by a large number of "coves," as they call them there, or heads of small valleys between the hills, which had been newly cleared and planted. The impression on my mind was one of unmitigated squalor. The settler had in every case cut down the more manageable trees, and left their charred stumps standing. The larger trees he had girdled and killed in order that their foliage should not cast a shade. He had then built a log cabin, plastering its chinks with clay, and had set up a tall zigzag rail fence around the scene of his havoc to keep the pigs and cattle out. Finally, he had irregularly planted the intervals between the stumps and trees with Indian corn, which grew among the chips; and there he dwelt with his wife and babes—an ax, a gun, a few utensils, and some pigs and chickens feeding in the woods being the sum total of his possessions.

The forest had been destroyed; and what had "improved" it out of existence was hideous, a sort of ulcer, without a single element of artificial grace to make up for the loss of Nature's beauty. Ugly, indeed, seemed the life of the squatter, scudding, as the sailors say, under bare poles, beginning again away back where our first ancestors started, and by

hardly a single item the better off for all the achievements of the intervening generations.

"Talk about going back to nature!" I said to myself, oppressed by the dreariness, as I drove by. Talk of a country life for one's old age and for one's children! Never thus, with nothing but the bare ground and one's bare hands to fight the battle! Never, without the best spoils of culture woven in! The beauties and commodities gained by the centuries are sacred. They are our heritage and birthright. No modern person ought to be willing to live a day in such a state of rudimentariness and denudation.

Then I said to the mountaineer who was driving me, "What sort of people are they who have to make these new clearings?" "All of us," he replied. "Why, we ain't happy here unless we are getting one of these coves under cultivation." I instantly felt that I had been losing the whole inward significance of the situation. Because to me the clearings spoke of naught but denudation, I thought that to those whose sturdy arms and obedient axes had made them they could tell no other story. But, when *they* looked on the hideous stumps, what they thought of was personal victory. The chips, the girdled trees, and the vile split rails spoke of honest sweat, persistent toil and final reward. The cabin was a warrant of safety for self and wife and babes. In short, the clearing, which to me was a mere ugly picture on the retina, was to them a symbol redolent with moral memories and sang a very paean of duty, struggle, and success.

I had been as blind to the peculiar ideality of their conditions as they certainly would also have been to the ideality of mine had they had a peep at my strange indoor academic ways of life at Cambridge.

Wherever a process of life communicates an eagerness to him who lives it, there the life becomes genuinely significant. Sometimes the eagerness is more knit up with the motor activities, sometimes with the perceptions, sometimes with the imagination, sometimes with reflective thought. But, wherever it is found, there is the zest, the tingle, the excitement of reality; and there *is* "importance" in the only real and positive sense in which importance ever anywhere can be.

Robert Louis Stevenson has illustrated this by a case, drawn from the sphere of the imagination, in an essay which I really think deserves to become immortal, both for the truth of its matter and the excellence of its form.

> Toward the end of September [Stevenson writes], when school-time was drawing near and the nights were already black, we would begin to

sally from our respective villas, each equipped with a tin bull's-eye lantern. The thing was so well known that it had worn a rut in the commerce of Great Britain; and the grocers, about the due time, began to garnish their windows with our particular brand of luminary. We wore them buckled to the waist upon a cricket belt, and over them, such was the rigour of the game, a buttoned top-coat. They smelled noisomely of blistered tin; they never burned aright, though they would always burn our fingers; their use was naught; the pleasure of them merely fanciful; and yet a boy with a bull's-eye under his top-coat asked for nothing more. The fishermen used lanterns about their boats, and it was from them, I suppose, that we had got the hint; but theirs were not bull's-eyes, nor did we ever play at being fishermen. The police carried them at their belts, and we had plainly copied them in that; yet we did not pretend to be policemen. Burglars, indeed, we may have had some haunting thought of; and we had certainly an eye to past ages when lanterns were more common, and to certain story-books in which we had found them to figure very largely. But take it for all in all, the pleasure of the thing was substantive; and to be a boy with a bull's-eye under his top-coat was good enough for us.

When two of these asses met, there would be an anxious "Have you got your lantern?" and a gratified "Yes!" That was the shibboleth, and very needful too; for, as it was the rule to keep our glory contained, none could recognize a lantern-bearer, unless (like the polecat) by the smell. Four or five would sometimes climb into the belly of a ten-man lugger, with nothing but the thwarts above them—for the cabin was usually locked—or choose out some hollow of the links where the wind might whistle overhead. Then the coats would be unbuttoned, and the bull's-eyes discovered; and in the chequering glimmer, under the huge, windy hall of the night, and cheered by a rich steam of toasting tinware, these fortunate young gentlemen would crouch together in the cold sand of the links, or on the scaly bilges of the fishing-boat, and delight themselves with inappropriate talk. Woe is me that I may not give some specimens. . . . But the talk, at any rate, was but a condiment; and these gatherings themselves only accidents in the career of the lantern-bearer. The essence of this bliss was to walk by yourself in the black night; the slide shut, the top-coat buttoned; not a ray escaping, whether to conduct your footsteps or to make your glory public: a mere pillar of darkness in the dark; and all the while, deep down in the privacy of your fool's heart, to know you had a bull's-eye at your belt, and to exult and sing over the knowledge.

It is said that a poet has died young in the breast of the most stolid. It may be contended, rather, that this (somewhat minor) bard in almost

every case survives, and is the spice of life to his possessor. Justice is not done to the versatility and the unplumbed childishness of man's imagination. His life from without may seem but a rude mound of mud; there will be some golden chamber at the heart of it, in which he dwells delighted; and for as dark as his pathway seems to the observer, he will have some kind of bull's-eye at his belt.

. . . There is one fable that touches very near the quick of life: the fable of the monk who passed into the woods, heard a bird break into song, hearkened for a trill or two, and found himself on his return a stranger at his convent gates; for he had been absent fifty years, and of all his comrades there survived but one to recognize him. It is not only in the woods that this enchanter carols, though perhaps he is native there. He sings in the most doleful places. The miser hears him and chuckles, and the days are moments. With no more apparatus than an ill-smelling lantern, I have evoked him on the naked links. All life that is not merely mechanical is spun out of two strands: seeking for that bird and hearing him. And it is just this that makes life so hard to value, and the delight of each so incommunicable. And it is just a knowledge of this, and a remembrance of those fortunate hours in which the bird has sung to us, that fills us with such wonder when we turn to the pages of the realist. There, to be sure, we find a picture of life in so far as it consists of mud and of old iron, cheap desires and cheap fears, that which we are ashamed to remember and that which we are careless whether we forget; but of the note of that time-devouring nightingale we hear no news.

. . . Say that I came [in such a realistic romance] on some such business as that of my lantern-bearers on the links; and described the boys as very cold, spat upon by flurries of rain, and drearily surrounded, all of which they were; and their talk as silly and indecent, which it certainly was. . . . To the eye of the observer they are wet and cold and drearily surrounded; but ask themselves, and they are in the heaven of a recondite pleasure, the ground of which is an ill-smelling lantern.

For, to repeat, the ground of a man's joy is often hard to hit. It may hinge at times upon a mere accessory, like the lantern; it may reside . . . in the mysterious inwards of psychology. . . . It has so little bond with externals . . . that it may even touch them not; and the man's true life, for which he consents to live, lies altogether in the field of fancy. . . . In such a case the poetry runs underground. The observer (poor soul, with his documents!) is all abroad. For to look at the man is but to court deception. We shall see the trunk from which he draws his nourishment; but he himself is above and abroad in the green dome of foliage, hummed through by winds and nested in by nightingales. And the true realism were that of the poets, to climb up after him like a squirrel, and

> catch some glimpse of the heaven for which he lives. And the true realism, always and everywhere, is that of the poets: to find out where joy resides, and give it a voice far beyond singing.
>
> For to miss the joy is to miss all. In the joy of the actors lies the sense of any action. That is the explanation, that the excuse. To one who has not the secret of the lanterns, the scene upon the links is meaningless. And hence the haunting and truly spectral unreality of realistic books. . . . In each, we miss the personal poetry, the enchanted atmosphere, that rainbow work of fancy that clothes what is naked and seems to ennoble what is base; in each, life falls dead like dough, instead of soaring away like a balloon into the colours of the sunset; each is true, each inconceivable; for no man lives in the external truth, among salts and acids, but in the warm, phantasmagoric chamber of his brain, with the painted windows and the storied wall.[1]

These paragraphs are the best thing I know in all Stevenson. "To miss the joy is to miss all." Indeed, it is. Yet we are but finite, and each one of us has some single specialized vocation of his own. And it seems as if energy in the service of its particular duties might be got only by hardening the heart toward everything unlike them. Our deadness toward all but one particular kind of joy would thus be the price we inevitably have to pay for being practical creatures. Only in some pitiful dreamer, some philosopher, poet, or romancer, or when the common practical man becomes a lover, does the hard externality give way, and a gleam of insight into the ejective world, as Clifford called it, the vast world of inner life beyond us, so different from that of outer seeming, illuminate our mind. Then the whole scheme of our customary values gets confounded, then our self is riven and its narrow interests fly to pieces, then a new center and a new perspective must be found.

The change is well described by my colleague, Josiah Royce:

> What, then, is our neighbor? Thou hast regarded his thought, his feeling, as somehow different from thine. Thou hast said, "A pain in him is not like a pain in me, but something far easier to bear." He seems to thee a little less living than thou; his life is dim, it is cold, it is a pale fire beside thy own burning desires. . . . So, dimly and by instinct hast thou lived with thy neighbor, and hast known him not, being blind. Thou hast made [of him] a thing, no Self at all. Have done with this illusion, and simply try to learn the truth. Pain is pain, joy is joy, everywhere, even as in thee. In all the songs of the forest birds; in all the cries of the wounded and dying, struggling in the captor's power; in the boundless

1. *The Lantern-Bearers*. [See Vol. 7, pp. 112–121, in this set (Ed.).]

> sea where the myriads of water creatures strive and die; amid all the countless hordes of savage men; in all sickness and sorrow; in all exultation and hope, everywhere, from the lowest to the noblest, the same conscious, burning, willful life is found, endlessly manifold as the forms of the living creatures, unquenchable as the fires of the sun, real as these impulses that even now throb in thine own little selfish heart. Lift up thy eyes, behold that life, and then turn away, and forget it as thou canst; but, if thou hast *known* that, thou hast begun to know thy duty.

This higher vision of an inner significance in what, until then, we had realized only in the dead external way often comes over a person suddenly; and, when it does so, it makes an epoch in his history. As Emerson says, there is a depth in those moments that constrains us to ascribe more reality to them than to all other experiences. The passion of love will shake one like an explosion, or some act will awaken a remorseful compunction that hangs like a cloud over all one's later day.

This mystic sense of hidden meaning starts upon us often from nonhuman natural things. I take this passage from *Obermann*, a French novel that had some vogue in its day:

> Paris, March 7.–It was dark and rather cold. I was gloomy, and walked because I had nothing to do. I passed by some flowers placed breast-high upon a wall. A jonquil in bloom was there. It is the strongest expression of desire: it was the first perfume of the year. I felt all the happiness destined for man. This unutterable harmony of souls, the phantom of the ideal world, arose in me complete. I never felt anything so great or so instantaneous. I know not what shape, what analogy, what secret of relation it was that made me see in this flower a limitless beauty . . . I shall never enclose in a conception this power, this immensity that nothing will express; this form that nothing will contain; this ideal of a better world which one feels, but which it would seem that nature has not made.

Wordsworth and Shelley are similarly full of this sense of a limitless significance in natural things. In Wordsworth it was a somewhat austere and moral significance–a "lonely cheer."

> To every natural form, rock, fruit, or flower,
> Even the loose stones that cover the highway,
> I gave a moral life: I saw them feel,
> Or linked them to some feeling: the great mass
> Lay bedded in some quickening soul, and all
> That I beheld respired with inward meaning.[2]

2. *The Prelude,* Book III.

"Authentic tidings of invisible things!" Just what this hidden presence in nature was, which Wordsworth so rapturously felt, and in the light of which he lived, tramping the hills for days together, the poet never could explain logically or in articulate conceptions. Yet to the reader who may himself have had gleaming moments of a similar sort, the verses in which Wordsworth simply proclaims the fact of them come with a heart-satisfying authority:

> Magnificent
> The morning rose, in memorable pomp,
> Glorious as e'er I had beheld. In front
> The sea lay laughing at a distance; near,
> The solid mountains shone, bright as the clouds,
> Grain-tinctured, drenched in empyrean light;
> And in the meadows and the lower grounds
> Was all the sweetness of a common dawn–
> Dews, vapours, and the melody of birds,
> And labourers going forth to till the fields.
>
> Ah! need I say, dear Friend, that to the brim
> My heart was full; I made no vows, but vows
> Were then made for me; bond unknown to me
> Was given, that I should be, else sinning greatly,
> A dedicated Spirit. On I walked
> In thankful blessedness, which yet survives.[3]

As Wordsworth walked, filled with his strange inner joy, responsive thus to the secret life of nature round about him, his rural neighbors, tightly and narrowly intent upon their own affairs, their crops and lambs and fences, must have thought him a very insignificant and foolish personage. It surely never occurred to any one of them to wonder what was going on inside of *him* or what it might be worth. And yet that inner life of his carried the burden of a significance that has fed the souls of others, and fills them to this day with inner joy.

Richard Jefferies has written a remarkable autobiographic document entitled *The Story of My Heart*. It tells in many pages of the rapture with which in youth the sense of the life of nature filled him. On a certain hilltop he says:

> I was utterly alone with the sun and the earth. Lying down on the grass, I spoke in my soul to the earth, the sun, the air, and the distant sea, far beyond sight. . . . With all the intensity of feeling which exalted me, all the intense communion I held with the earth, the sun and

3. *The Prelude,* Book IV.

> sky, the stars hidden by the light, with the ocean–in no manner can the thrilling depth of these feelings be written–with these I prayed as if they were the keys of an instrument. . . . The great sun, burning with light, the strong earth–dear earth–the warm sky, the pure air, the thought of ocean, the inexpressible beauty of all filled me with a rapture, an ecstasy, an inflatus. With this inflatus, too, I prayed. . . . The prayer, this soul-emotion, was in itself not for an object: it was a passion. I hid my face in the grass. I was wholly prostrated, I lost myself in the wrestle, I was rapt and carried away. . . . Had any shepherd accidentally seen me lying on the turf he would only have thought I was resting a few minutes. I made no outward show. Who could have imagined the whirlwind of passion that was going on in me as I reclined there!

Surely, a worthless hour of life when measured by the usual standards of commercial value. Yet in what other *kind* of value can the preciousness of any hour, made precious by any standard, consist if it consist not in feelings of excited significance like these, engendered in someone by what the hour contains?

Yet so blind and dead does the clamor of our own practical interests make us to all other things that it seems almost as if it were necessary to become worthless as a practical being if one is to hope to attain to any breadth of insight into the impersonal world of worths as such, to have any perception of life's meaning on a large objective scale. Only your mystic, your dreamer, or your insolvent tramp or loafer can afford so sympathetic an occupation, an occupation which will change the usual standards of human value in the twinkling of an eye, giving to foolishness a place ahead of power, and laying low in a minute the distinctions which it takes a hard-working conventional man a lifetime to build up. You may be a prophet at this rate; but you cannot be a worldly success.

Walt Whitman, for instance, is accounted by many of us a contemporary prophet. He abolishes the usual human distinctions, brings all conventionalisms into solution, and loves and celebrates hardly any human attributes save those elementary ones common to all members of the race. For this he becomes a sort of ideal tramp, a rider on omnibus tops and ferryboats, and, considered either practically or academically, a worthless, unproductive being. His verses are but ejaculations–things mostly without subject or verb, a succession of interjections on an immense scale. He felt the human crowd as rapturously as Wordsworth felt the mountains, felt it as an overpoweringly significant presence, simply to absorb one's mind in which should be business sufficient and worthy to fill the

days of a serious man. As he crosses Brooklyn ferry, this is what he feels:

Flood-tide below me! I watch you face to face;
Clouds of the west! sun there half an hour high! I see you also face to face.
Crowds of men and women attired in the usual costumes! how curious you are to me!
On the ferryboats, the hundreds and hundreds that cross, returning home, are more curious to me than you suppose;
And you that shall cross from shore to shore years hence are more to me, and more in my meditations, than you might suppose.
. . . . . .
Others will enter the gates of the ferry, and cross from shore to shore;
Others will watch the run of the flood-tide;
Others will see the shipping of Manhattan north and west, and the heights of Brooklyn to the south and east;
Others will see the islands large and small;
Fifty years hence, others will see them as they cross, the sun half an hour high;
A hundred years hence, or ever so many hundred years hence, others will see them,
Will enjoy the sunset, the pouring in of the flood-tide, the falling back to the sea of the ebb-tide.
It avails not, neither time or place–distance avails not;
. . . . . .
Just as you feel when you look on the river and sky, so I felt;
Just as any of you is one of a living crowd, I was one of a crowd;
Just as you are refreshed by the gladness of the river and the bright flow, I was refreshed;
Just as you stand and lean on the rail, yet hurry with the swift current, I stood, yet was hurried;
Just as you look on the numberless masts of ships, and the thick-stemmed pipes of steamboats, I looked.
I too many and many a time crossed the river, the sun half an hour high;
I watched the Twelfth-month sea-gulls–I saw them high in the air, floating with motionless wings, oscillating their bodies,
I saw how the glistening yellow lit up parts of their bodies, and left the rest in strong shadow,
I saw the slow-wheeling circles, and the gradual edging toward the south.
. . . . . .
Saw the white sails of schooners and sloops–saw the ships at anchor,
The sailors at work in the rigging, or out astride the spars,
. . . . . .
The scallop-edged waves in the twilight, the ladled cups, the frolicsome crests and glistening,

The stretch afar growing dimmer and dimmer, the gray walls of the granite storehouses by the docks,

. . . . . .

On the neighboring shore, the fires from the foundry chimneys burning high . . . into the night,
Casting their flicker of black . . . into the clefts of streets.
These, and all else, were to me the same as they are to you; [4]

And so on, through the rest of a divinely beautiful poem. And, if you wish to see what this hoary loafer considered the most worthy way of profiting by life's heaven-sent opportunities, read the delicious volume of his letters to a young car conductor who had become his friend:

NEW YORK, *Oct.* 9, 1868

DEAR PETE–It is splendid here this forenoon–bright and cool. I was out early taking a short walk by the river only two squares from where I live. . . . Shall I tell you about [my life] just to fill up? I generally spend the forenoon in my room writing, etc., then take a bath, fix up, and go out about twelve and loaf somewhere or call on someone down town or on business, or perhaps, if it is very pleasant and I feel like it, ride a trip with some driver friend on Broadway, from 23rd Street to Bowling Green, three miles each way. (Every day I find I have plenty to do, every hour is occupied with something.) You know it is a never ending amusement and study and recreation for me to ride a couple of hours on a pleasant afternoon on a Broadway stage in this way. You see everything as you pass, a sort of living, endless panorama–shops and splendid buildings and great windows: on the broad sidewalks crowds of women richly dressed continually passing, altogether different, superior in style and looks from any to be seen anywhere else–in fact a perfect stream of people–men, too, dressed in high style, and plenty of foreigners–and then in the streets the thick crowd of carriages, stages, carts, hotel and private coaches, and in fact all sorts of vehicles and many first-class teams, mile after mile, and the splendor of such a great street and so many tall, ornamental, noble buildings, many of them of white marble, and the gaiety and motion on every side: you will not wonder how much attraction all this is on a fine day to a great loafer like me, who enjoys so much seeing the busy world move by him and exhibiting itself for his amusement while he takes it easy and just looks on and observes.

Truly a futile way of passing the time, some of you may say, and not altogether creditable to a grownup man. And yet, from the deepest point of view, who knows the more of truth and who knows the less–

4. *Crossing Brooklyn Ferry.*

Whitman on his omnibus top, full of the inner joy with which the spectacle inspires him, or you, full of the disdain which the futility of his occupation excites?

When your ordinary Brooklynite or New Yorker, leading a life replete with too much luxury, or tired and careworn about his personal affairs, crosses the ferry or goes up Broadway, *his* fancy does not thus soar away "into the colours of the sunset," as did Whitman's, nor does he inwardly realize at all the indisputable fact that this world never did anywhere or at any time contain more of essential divinity, or of eternal meaning, than is embodied in the fields of vision over which his eyes so carelessly pass. There is life; and there, a step away, is death. There is the only kind of beauty there ever was. There is the old human struggle and its fruits together. There is the text and the sermon, the real and the ideal in one. But to the jaded and unquickened eye it is all dead and common, pure vulgarism, flatness, and disgust. "Hech! it is a sad sight!" says Carlyle, walking at night with someone who appeals to him to note the splendor of the stars. And that very repetition of the scene to new generations of men in *secula seculorum* [for ever and ever], that eternal recurrence of the common order, which so fills a Whitman with mystic satisfaction, is to a Schopenhauer, with the emotional anesthesia, the feeling of "awful inner emptiness" from out of which he views it all, the chief ingredient of the tedium it instills. What is life on the largest scale, he asks, but the same recurrent inanities, the same dog barking, the same fly buzzing forevermore? Yet of the kind of fiber of which such inanities consist is the material woven of all the excitements, joys, and meanings that ever were, or ever shall be, in this world.

To be rapt with satisfied attention, like Whitman, to the mere spectacle of the world's presence is one way, and the most fundamental way, of confessing one's sense of its unfathomable significance and importance. But how can one attain to the feeling of the vital significance of an experience if one have it not to begin with? There is no receipt which one can follow. Being a secret and a mystery, it often comes in mysteriously unexpected ways. It blossoms sometimes from out of the very grave wherein we imagined that our happiness was buried. Benvenuto Cellini, after a life all in the outer sunshine, made of adventures and artistic excitements, suddenly finds himself cast into a dungeon in the Castle of San Angelo. The place is horrible. Rats and wet and mold possess it. His leg is broken and his teeth fall out, apparently with scurvy. But his thoughts turn to God as they have never turned before. He gets a Bible, which he reads during the one hour in the twenty-four in which a wandering ray of daylight penetrates his cavern. He has religious visions. He

sings psalms to himself and composes hymns. And thinking, on the last day of July, of the festivities customary on the morrow in Rome, he says to himself: "All these past years I celebrated this holiday with the vanities of the world: from this year henceforward I will do it with the divinity of God. And then I said to myself, 'Oh, how much more happy I am for this present life of mine than for all those things remembered!' "

But the great understander of these mysterious ebbs and flows is Tolstoy. They throb all through his novels. In his *War and Peace*, the hero, Pierre, is supposed to be the richest man in the Russian Empire. During the French invasion he is taken prisoner and dragged through much of the retreat. Cold, vermin, hunger, and every form of misery assail him, the result being a revelation to him of the real scale of life's values.

> Here only, and for the first time, he appreciated, because he was deprived of it, the happiness of eating when he was hungry, of drinking when he was thirsty, of sleeping when he was sleepy, and of talking when he felt the desire to exchange some words. . . . Later in life he always recurred with joy to this month of captivity, and never failed to speak with enthusiasm of the powerful and ineffaceable sensations, and especially of the moral calm which he had experienced at this epoch. When at daybreak, on the morrow of his imprisonment, he saw [I abridge here Tolstoy's description] the mountains with their wooded slopes disappearing in the grayish mist; when he felt the cool breeze caress him; when he saw the light drive away the vapors, and the sun rise majestically behind the clouds and cupolas, and the crosses, the dew, the distance, the river, sparkle in the splendid, cheerful rays–his heart overflowed with emotion. This emotion kept continually with him and increased a hundredfold as the difficulties of his situation grew graver. . . . He learned that man is meant for happiness and that this happiness is in him, in the satisfaction of the daily needs of existence, and that unhappiness is the fatal result not of our need but of our abundance. . . . When calm reigned in the camp, and the embers paled and little by little went out, the full moon had reached the zenith. The woods and the fields round about lay clearly visible; and, beyond the inundation of light which filled them, the view plunged into the limitless horizon. Then Pierre cast his eyes upon the firmament, filled at that hour with myriads of stars. "All that is mine," he thought. "All that is in me, is me! And that is what they think they have taken prisoner! That is what they have shut up in a cabin!" So he smiled and turned in to sleep among his comrades.[5]

The occasion and the experience, then, are nothing. It all depends on

5. See *Great Books of the Western World* [Ed.].

the capacity of the soul to be grasped, to have its life currents absorbed by what is given. "Crossing a bare common," says Emerson, "in snow puddles, at twilight, under a clouded sky, without having in my thoughts any occurrence of special good fortune, I have enjoyed a perfect exhilaration. I am glad to the brink of fear."

Life is always worth living if one have such responsive sensibilities. But we of the highly educated classes (so called) have most of us got far, far away from Nature. We are trained to seek the choice, the rare, the exquisite exclusively, and to overlook the common. We are stuffed with abstract conceptions and glib with verbalities and verbosities; and in the culture of these higher functions the peculiar sources of joy connected with our simpler functions often dry up, and we grow stone-blind and insensible to life's more elementary and general goods and joys.

The remedy under such conditions is to descend to a more profound and primitive level. To be imprisoned or shipwrecked or forced into the army would permanently show the good of life to many an overeducated pessimist. Living in the open air and on the ground, the lopsided beam of the balance slowly rises to the level line; and the oversensibilities and insensibilities even themselves out. The good of all the artificial schemes and fevers fades and pales; and that of seeing, smelling, tasting, sleeping, and daring and doing with one's body grows and grows. The savages and children of Nature, to whom we deem ourselves so much superior, certainly are alive where we are often dead, along these lines; and, could they write as glibly as we do, they would read us impressive lectures on our impatience for improvement and on our blindness to the fundamental static goods of life. "Ah! my brother," said a chieftain to his white guest, "thou wilt never know the happiness of both thinking of nothing and doing nothing. This, next to sleep, is the most enchanting of all things. Thus we were before our birth, and thus we shall be after death. Thy people . . . when they have finished reaping one field, they begin to plow another; and, if the day were not enough, I have seen them plow by moonlight. What is their life to ours—the life that is naught to them? Blind that they are, they lose it all! But we live in the present."

The intense interest that life can assume when brought down to the nonthinking level, the level of pure sensorial perception, has been beautifully described by a man who can write, Mr. W. H. Hudson, in his volume *Idle Days in Patagonia.*

> I spent the greater part of one winter [says this admirable author] at a point on the Rio Negro seventy or eighty miles from the sea.

. . . It was my custom to go out every morning on horse-back with my gun and, followed by one dog, to ride away from the valley; and no sooner would I climb the terrace and plunge into the gray, universal thicket than I would find myself as completely alone as if five hundred instead of only five miles separated me from the valley and river. So wild and solitary and remote seemed that gray waste, stretching away into infinitude, a waste untrodden by man, and where the wild animals are so few that they have made no discoverable path in the wilderness of thorns. . . . Not once nor twice nor thrice, but day after day I returned to this solitude, going to it in the morning as if to attend a festival, and leaving it only when hunger and thirst and the westering sun compelled me. And yet I had no object in going–no motive which could be put into words; for, although I carried a gun, there was nothing to shoot–the shooting was all left behind in the valley. . . . Sometimes I would pass a whole day without seeing one mammal, and perhaps not more than a dozen birds of any size. The weather at that time was cheerless, generally with a gray film of cloud spread over the sky, and a bleak wind, often cold enough to make my bridle-hand quite numb. . . . At a slow pace, which would have seemed intolerable under other circumstances, I would ride about for hours together at a stretch. On arriving at a hill, I would slowly ride to its summit, and stand there to survey the prospect. On every side it stretched away in great undulations, wild and irregular. How gray it all was! Hardly less so near at hand than on the haze-wrapped horizon where the hills were dim and the outline obscured by distance. Descending from my outlook, I would take up my aimless wanderings again, and visit other elevations to gaze on the same landscape from another point; and so on for hours. And at noon I would dismount, and sit or lie on my folded poncho for an hour or longer. One day in these rambles I discovered a small grove composed of twenty or thirty trees, growing at a convenient distance apart, that had evidently been resorted to by a herd of deer or other wild animals. This grove was on a hill differing in shape from other hills in its neighbourhood; and, after a time, I made a point of finding and using it as a resting-place every day at noon. I did not ask myself why I made choice of that one spot, sometimes going out of my way to sit there, instead of sitting down under any one of the millions of trees and bushes on any other hillside. I thought nothing about it, but acted unconsciously. Only afterwards it seemed to me that, after having rested there once, each time I wished to rest again, the wish came associated with the image of that particular clump of trees, with polished stems and clean bed of sand beneath; and in a short time I formed a habit of returning, animal-like, to repose at that same spot.

It was, perhaps, a mistake to say that I would sit down and rest, since I was never tired; and yet, without being tired, that noonday pause, during which I sat for an hour without moving, was strangely grateful. All

> day there would be no sound, not even the rustling of a leaf. One day, while *listening* to the silence, it occurred to my mind to wonder what the effect would be if I were to shout aloud. This seemed at the time a horrible suggestion which almost made me shudder. But during those solitary days it was a rare thing for any thought to cross my mind. In the state of mind I was in, thought had become impossible. My state was one of *suspense and watchfulness;* yet I had no expectation of meeting an adventure, and felt as free from apprehension as I feel now while sitting in a room in London. The state seemed familiar rather than strange, and accompanied by a strong feeling of elation; and I did not know that something had come between me and my intellect until I returned to my former self–to thinking and the old insipid existence [again].
>
> I had undoubtedly *gone back;* and that state of intense watchfulness or alertness, rather, with suspension of the higher intellectual faculties, represented the mental state of the pure savage. He thinks little, reasons little, having a surer guide in his [mere sensory perceptions]. He is in perfect harmony with nature, and is nearly on a level, mentally, with the wild animals he preys on, and which in their turn sometimes prey on him.

For the spectator, such hours as Mr. Hudson writes of form a mere tale of emptiness, in which nothing happens, nothing is gained, and there is nothing to describe. They are meaningless and vacant tracts of time. To him who feels their inner secret, they tingle with an importance that unutterably vouches for itself. I am sorry for the boy or girl, or man or woman, who has never been touched by the spell of this mysterious sensorial life, with its irrationality, if so you like to call it, but its vigilance and its supreme felicity. The holidays of life are its most vitally significant portions, because they are, or at least should be, covered with just this kind of magically irresponsible spell.

And now what is the result of all these considerations and quotations? It is negative in one sense, but positive in another. It absolutely forbids us to be forward in pronouncing on the meaninglessness of forms of existence other than our own; and it commands us to tolerate, respect, and indulge those whom we see harmlessly interested and happy in their own ways, however unintelligible these may be to us. Hands off: neither the whole of truth nor the whole of good is revealed to any single observer, although each observer gains a partial superiority of insight from the peculiar position in which he stands. Even prisons and sickrooms have their special revelations. It is enough to ask of each of us that he should be faithful to his own opportunities and make the most of his own blessings, without presuming to regulate the rest of the vast field.

The Energies of Men

Everyone knows what it is to start a piece of work, either intellectual or muscular, feeling stale—or *oold*, as an Adirondack guide once put it to me. And everybody knows what it is to "warm up" to his job. The process of warming up gets particularly striking in the phenomenon known as "second wind." On usual occasions we make a practice of stopping an occupation as soon as we meet the first effective layer (so to call it) of fatigue. We have then walked, played, or worked "enough," so we desist. That amount of fatigue is an efficacious obstruction on this side of which our usual life is cast. But if an unusual necessity forces us to press onward, a surprising thing occurs. The fatigue gets worse up to a certain critical point, when gradually or suddenly it passes away, and we are fresher than before. We have evidently tapped a level of new energy, masked until then by the fatigue obstacle usually obeyed. There may be layer after layer of this experience. A third and a fourth "wind" may supervene. Mental activity shows the phenomenon as well as physical, and in exceptional cases we may find, beyond the very extremity of fatigue distress, amounts of ease and power that we never dreamed ourselves to own—sources of strength habitually not taxed at all, because habitually we never push through the obstruction, never pass those early critical points.

For many years I have mused on the phenomenon of second wind, trying to find a physiological theory. It is evident that our organism has stored-up reserves of energy that are ordinarily not called upon, but that may be called upon: deeper and deeper strata of combustible or explosible material, discontinuously arranged, but ready for use by anyone who probes so deep, and repairing themselves by rest as well as do the superficial strata. Most of us continue living unnecessarily near our surface. Our energy budget is like our nutritive budget. Physiologists say that a man is in "nutritive equilibrium" when day after day he neither gains nor loses weight. But the odd thing is that this condition

may obtain on astonishingly different amounts of food. Take a man in nutritive equilibrium, and systematically increase or lessen his rations. In the first case he will begin to gain weight, in the second case to lose it. The change will be the greatest on the first day, less on the second, less still on the third, and so on, till he has gained all that he will gain, or lost all that he will lose, on that altered diet. He is now in nutritive equilibrium again, but with a new weight; and this neither lessens nor increases because his various combustion processes have adjusted themselves to the changed dietary. He gets rid, in one way or another, of just as much N,C,H, etc., as he takes in per diem.

Just so one can be in what I might call "efficiency equilibrium" (neither gaining nor losing power when once the equilibrium is reached) on astonishingly different quantities of work, no matter in what direction the work may be measured. It may be physical work, intellectual work, moral work, or spiritual work.

Of course there are limits: the trees don't grow into the sky. But the plain fact remains that men the world over possess amounts of resource which only very exceptional individuals push to their extremes of use. But the very same individual, pushing his energies to their extreme, may in a vast number of cases keep the pace up day after day, and find no "reaction" of a bad sort, so long as decent hygienic conditions are preserved. His more active rate of energizing does not wreck him; for the organism adapts itself and, as the rate of waste augments, augments correspondingly the rate of repair.

I say the *rate* and not the *time* of repair. The busiest man needs no more hours of rest than the idler. Some years ago Professor Patrick, of the Iowa State University, kept three young men awake for four days and nights. When his observations on them were finished, the subjects were permitted to sleep themselves out. All awoke from this sleep completely refreshed, but the one who took the longest to restore himself from his long vigil only slept one-third more time than was regular with him.

If my reader will put together these two conceptions, first, that few men live at their maximum of energy, and second, that anyone may be in vital equilibrium at very different rates of energizing, he will find, I think, that a very pretty practical problem of national economy, as well as of individual ethics, opens upon his view. In rough terms, we may say that a man who energizes below his normal maximum fails by just so much to profit by his chance at life; and that a nation filled with such men is inferior to a nation run at higher pressure. The problem is, then, how can men be trained up to their most useful pitch of energy? And

how can nations make such training most accessible to all their sons and daughters. This, after all, is only the general problem of education, formulated in slightly different terms.

"Rough" terms, I said just now, because the words "energy" and "maximum" may easily suggest only *quantity* to the reader's mind, whereas in measuring the human energies of which I speak, qualities as well as quantities have to be taken into account. Everyone feels that his total *power* rises when he passes to a higher qualitative level of life.

Writing is higher than walking, thinking is higher than writing, deciding higher than thinking, deciding "no" higher than deciding "yes"—at least the man who passes from one of these activities to another will usually say that each later one involves a greater element of *inner work* than the earlier ones, even though the total heat given out or the foot-pounds expended by the organism may be less. Just how to conceive this inner work physiologically is as yet impossible, but psychologically we all know what the word means. We need a particular spur or effort to start us upon inner work; it tires us to sustain it; and when long sustained, we know how easily we lapse. When I speak of "energizing," and its rates and levels and sources, I mean therefore our inner as well as our outer work.

Let no one think, then, that our problem of individual and national economy is solely that of the maximum of pounds raisable against gravity, the maximum of locomotion, or of agitation of any sort, that human beings can accomplish. That might signify little more than hurrying and jumping about in unco-ordinated ways; whereas inner work, though it so often reinforces outer work, quite as often means its arrest. To relax, to say to ourselves (with the "new thoughters"), "Peace! be still!" is sometimes a great achievement of inner work. When I speak of human energizing in general, the reader must therefore understand that sum total of activities, some outer and some inner, some muscular, some emotional, some moral, some spiritual, of whose waxing and waning in himself he is at all times so well aware. How to keep it at an appreciable maximum? How not to let the level lapse? That is the great problem. But the work of men and women is of innumerable kinds, each kind being, as we say, carried on by a particular faculty; so the great problem splits into two subproblems thus:

1. What are the limits of human faculty in various directions?

2. By what diversity of means, in the differing types of human beings, may the faculties be stimulated to their best results?

Read in one way, these two questions sound both trivial and familiar:

there is a sense in which we have all asked them ever since we were born. Yet *as a methodical program of scientific inquiry*, I doubt whether they have ever been seriously taken up. If answered fully, almost the whole of mental science and of the science of conduct would find a place under them. I propose, in what follows, to press them on the reader's attention in an informal way.

The first point to agree upon in this enterprise is that *as a rule men habitually use only a small part of the powers which they actually possess and which they might use under appropriate conditions.*

Everyone is familiar with the phenomenon of feeling more or less alive on different days. Everyone knows on any given day that there are energies slumbering in him which the incitements of that day do not call forth, but which he might display if these were greater. Most of us feel as if a sort of cloud weighed upon us, keeping us below our highest notch of clearness in discernment, sureness in reasoning, or firmness in deciding. Compared with what we ought to be, we are only half awake. Our fires are damped, our drafts are checked. We are making use of only a small part of our possible mental and physical resources. In some persons this sense of being cut off from their rightful resources is extreme, and we then get the formidable neurasthenic and psychasthenic conditions, with life grown into one tissue of impossibilities, that so many medical books describe.

Stating the thing broadly, the human individual thus lives usually far within his limits; he possesses powers of various sorts which he habitually fails to use. He energizes below his *maximum,* and he behaves below his *optimum.* In elementary faculty, in co-ordination, in power of *inhibition* and control, in every conceivable way, his life is contracted like the field of vision of an hysteric subject–but with less excuse, for the poor hysteric is diseased, while in the rest of us it is only an inveterate *habit*–the habit of inferiority to our full self–that is bad.

Admit so much, then, and admit also that the charge of being inferior to their full self is far truer of some men than of others; then the practical question ensues: *to what do the better men owe their escape? And, in the fluctuations which all men feel in their own degree of energizing, to what are the improvements due when they occur?*

In general terms the answer is plain:

Either some unusual stimulus fills them with emotional excitement, or some unusual idea of necessity induces them to make an extra effort of will. *Excitements, ideas, and efforts,* in a word, are what carry us over the dam.

In those "hyperesthetic" conditions which chronic invalidism so often brings in its train, the dam has changed its normal place. The slightest functional exercise gives a distress which the patient yields to and stops. In such cases of "habit neurosis" a new range of power often comes in consequence of the "bullying treatment," of efforts which the doctor obliges the patient, much against his will, to make. First comes the very extremity of distress, then follows unexpected relief. There seems no doubt that *we are each and all of us to some extent victims of habit neurosis*. We have to admit the wider potential range and the habitually narrow actual use. We live subject to arrest by degrees of fatigue which we have come only from habit to obey. Most of us may learn to push the barrier farther off, and to live in perfect comfort on much higher levels of power.

Country people and city people, as a class, illustrate this difference. The rapid rate of life, the number of decisions in an hour, the many things to keep account of, in a busy city-man's or woman's life, seem monstrous to a country brother. He doesn't see how we live at all. A day in New York or Chicago fills him with terror. The danger and noise make it appear like a permanent earthquake. But *settle* him there, and in a year or two he will have caught the pulse beat. He will vibrate to the city's rhythms; and if he only succeeds in his avocation, whatever that may be, he will find a joy in all the hurry and the tension, he will keep the pace as well as any of us, and get as much out of himself in any week as he ever did in ten weeks in the country.

The stimuli of those who successfully respond and undergo the transformation here are duty, the example of others, and crowd pressure and contagion. The transformation, moreover, is a chronic one: the new level of energy becomes permanent. The duties of new offices of trust are constantly producing this effect on human beings appointed to them. The physiologists call a stimulus "dynamogenic" when it increases the muscular contractions of men to whom it is applied; but appeals can be dynamogenic morally as well as muscularly. We are witnessing here in America today the dynamogenic effect of a very exalted political office upon the energies of an individual who had already manifested a healthy amount of energy before the office came.

Humbler examples show perhaps still better what chronic effects duty's appeal may produce in chosen individuals. John Stuart Mill somewhere says that women excel men in the power of keeping up sustained moral excitement. Every case of illness nursed by wife or mother is a proof of this; and where can one find greater examples of

sustained endurance than in those thousands of poor homes where the woman successfully holds the family together and keeps it going by taking all the thought and doing all the work–nursing, teaching, cooking, washing, sewing, scrubbing, saving, helping neighbors, "choring" outside–where does the catalogue end? If she does a bit of scolding now and then who can blame her? But often she does just the reverse–keeping the children clean and the man good tempered, and soothing and smoothing the whole neighborhood into finer shape.

Eighty years ago a certain Montyon left to the Académie Francaise a sum of money to be given in small prizes to the best examples of "virtue" of the year. The academy's committees, with great good sense, have shown a partiality to virtues simple and chronic, rather than to her spasmodic and dramatic flights; and the exemplary housewives reported on have been wonderful and admirable enough. In Paul Bourget's report for this year we find numerous cases, of which this is a type: Jeanne Chaix, eldest of six children; mother insane; father chronically ill. Jeanne, with no money but her wages at a pasteboard-box factory, directs the household, brings up the children, and successfully maintains the family of eight, which thus subsists, morally as well as materially, by the sole force of her valiant will. In some of these French cases charity to outsiders is added to the inner family burden; or helpless relatives, young or old, are adopted, as if the strength were inexhaustible and ample for every appeal. Details are too long to quote here; but human nature, responding to the call of duty, appears nowhere sublimer than in the person of these humble heroines of family life.

Turning from more chronic to acuter proofs of human nature's reserves of power, we find that the stimuli that carry us over the usually effective dam are most often the classic emotional ones: love, anger, crowd contagion or despair. Despair lames most people, but it wakes others fully up. Every siege or shipwreck or polar expedition brings out some hero who keeps the whole company in heart. Last year there was a terrible colliery explosion at Courrières in France. Two hundred corpses, if I remember rightly, were exhumed. After twenty days of excavation, the rescuers heard a voice. "*Me voici* [Here I am]," said the first man unearthed. He proved to be a collier named Nemy, who had taken command of thirteen others in the darkness, disciplined them and cheered them, and brought them out alive. Hardly any of them could see or speak or walk when brought into the day. Five days later, a different type of vital endurance was unexpectedly unburied in the person of one Berton who,

isolated from any but dead companions, had been able to sleep away most of his time.

A new position of responsibility will usually show a man to be a far stronger creature than was supposed. Cromwell's and Grant's careers are the stock examples of how war will wake a man up. I owe to Professor C. E. Norton, my colleague, the permission to print part of a private letter from Colonel Baird-Smith written shortly after the six weeks' siege of Delhi, in 1857, for the victorious issue of which that excellent officer was chiefly to be thanked. He writes as follows:

> . . . My poor wife had some reason to think that war and disease between them had left very little of a husband to take under nursing when she got him again. An attack of camp-scurvy had filled my mouth with sores, shaken every joint in my body, and covered me all over with sores and livid spots, so that I was marvellously unlovely to look upon. A smart knock on the ankle-joint from the splinter of a shell that burst in my face, in itself a mere *bagatelle* of a wound, had been of necessity neglected under the pressing and incessant calls upon me, and had grown worse and worse until the whole foot below the ankle became a black mass and seemed to threaten mortification. I insisted, however, on being allowed to use it till the place was taken, mortification or no; and though the pain was sometimes horrible, I carried my point and kept up to the last. On the day after the assault I had an unlucky fall on some bad ground, and it was an open question for a day or two whether I hadn't broken my arm at the elbow. Fortunately it turned out to be only a severe sprain, but I am still conscious of the wrench it gave me. To crown the whole pleasant catalogue, I was worn to a shadow by a constant diarrhoea, and consumed as much opium as would have done credit to my father-in-law (Thomas De Quincey). However, thank God, I have a good share of Tapleyism in me and come out strong under difficulties. I think I may confidently say that no man ever saw me out of heart, or ever heard one croaking word from me even when our prospects were gloomiest. We were sadly scourged by the cholera, and it was almost appalling to me to find that out of twenty-seven officers present, I could only muster fifteen for the operations of the attack. However, it was done, and after it was done came the collapse. Don't be horrified when I tell you that for the whole of the actual siege, and in truth for some little time before, I almost lived on brandy. Appetite for food I had none, but I forced myself to eat just sufficient to sustain life, and I had an incessant craving for brandy as the strongest stimulant I could get. Strange to say, I was quite unconscious of its affecting me in the slightest degree. *The excitement of the work was so great that no lesser one*

> *seemed to have any chance against it, and I certainly never found my intellect clearer or my nerves stronger in my life*. It was only my wretched body that was weak, and the moment the real work was done by our becoming complete masters of Delhi, I broke down without delay and discovered that if I wished to live I must continue no longer the system that had kept me up until the crisis was passed. With it passed away as if in a moment all desire to stimulate, and a perfect loathing of my late staff of life took possession of me.

Such experiences show how profound is the alteration in the manner in which, under excitement, our organism will sometimes perform its physiological work. The processes of repair become different when the reserves have to be used, and for weeks and months the deeper use may go on.

Morbid cases, here as elsewhere, lay the normal machinery bare. In the first number of Dr. Morton Prince's *Journal of Abnormal Psychology*, Dr. Janet has discussed five cases of morbid impulse, with an explanation that is precious for my present point of view. One is a girl who eats, eats, eats, all day. Another walks, walks, walks, and gets her food from an automobile that escorts her. Another is a dipsomaniac. A fourth pulls out her hair. A fifth wounds her flesh and burns her skin. Hitherto such freaks of impulse have received Greek names (as bulimia, dromomania, etc.) and been scientifically disposed of as "episodic syndromata of hereditary degeneration." But it turns out that Janet's cases are all what he calls psychasthenics, or victims of a chronic sense of weakness, torpor, lethargy, fatigue, insufficiency, impossibility, unreality and powerlessness of will; and that in each and all of them the particular activity pursued, deleterious though it be, has the temporary result of raising the sense of vitality and making the patient feel alive again. These things reanimate: they would reanimate *us*, but it happens that in each patient the particular freak activity chosen is the only thing that does reanimate; and therein lies the morbid state. The way to treat such persons is to discover to them more usual and useful ways of throwing their stores of vital energy into gear.

Colonel Baird-Smith, needing to draw on altogether extraordinary stores of energy, found that brandy and opium were ways of throwing them into gear.

Such cases are humanly typical. We are all to some degree oppressed, unfree. We don't come to our own. It is there, but we don't get at it. The threshold must be made to shift. Then many of us find that an eccentric activity—a "spree," say—relieves. There is no doubt that to some men

sprees and excesses of almost any kind are medicinal, temporarily at any rate, in spite of what the moralists and doctors say.

But when the normal tasks and stimulations of life don't put a man's deeper levels of energy on tap, and he requires distinctly deleterious excitements, his constitution verges on the abnormal. The normal opener of deeper and deeper levels of energy is the will. The difficulty is to use it, to make the effort which the word volition implies. But if we *do* make it (or if a god, though he were only the god Chance, makes it through us), it will act dynamogenically on us for a month. It is notorious that a single successful effort of moral volition, such as saying "no" to some habitual temptation, or performing some courageous act, will launch a man on a higher level of energy for days and weeks, will give him a new range of power. "In the act of uncorking a whiskey bottle which I had brought home to get drunk upon," said a man to me, "I suddenly found myself running out into the garden, where I smashed it on the ground. I felt so happy and uplifted after this act that for two months I wasn't tempted to touch a drop."

The emotions and excitements due to usual situations are the usual inciters of the will. But these act discontinuously; and in the intervals the shallower levels of life tend to close in and shut us off. Accordingly the best practical knowers of the human soul have invented the thing known as methodical ascetic discipline to keep the deeper levels constantly in reach. Beginning with easy tasks, passing to harder ones, and exercising day by day, it is, I believe, admitted that disciples of asceticism can reach very high levels of freedom and power of will.

Ignatius Loyola's spiritual exercises must have produced this result in innumerable devotees. But the most venerable ascetic system, and the one whose results have the most voluminous experimental corroboration is undoubtedly the Yoga system in Hindustan. From time immemorial, by Hatha Yoga, Raja Yoga, Karma Yoga, or whatever code of practice it might be, Hindu aspirants to perfection have trained themselves, month in and out, for years. The result claimed, and certainly in many cases accorded by impartial judges, is strength of character, personal power, unshakability of soul. In an article in the *Philosophical Review*, from which I am largely copying here, I have quoted at great length the experience with Hatha Yoga of a very gifted European friend of mine who, by persistently carrying out for several months its methods of fasting from food and sleep, its exercises in breathing and thought concentration, and its fantastic posture gymnastics, seems to have succeeded in waking up deeper and deeper levels of will and moral and intellectual

power in himself, and to have escaped from a decidedly menacing brain condition of the "circular" type, from which he had suffered for years.

Judging by my friend's letters, of which the last I have is written fourteen months after the Yoga training began, there can be no doubt of his relative regeneration. He has undergone material trials with indifference, traveled third-class on Mediterranean steamers, and fourth-class on African trains, living with the poorest Arabs and sharing their unaccustomed food, all with equanimity. His devotion to certain interests has been put to heavy strain, and nothing is more remarkable to me than the changed moral tone with which he reports the situation. A profound modification has unquestionably occurred in the running of his mental machinery. The gearing has changed, and his will is available otherwise than it was.

My friend is a man of very peculiar temperament. Few of us would have had the will to start upon the yoga training, which, once started, seemed to conjure the further will power needed out of itself. And not all of those who could launch themselves would have reached the same results. The Hindus themselves admit that in some men the results may come without call or bell. My friend writes to me: "You are quite right in thinking that religious crises, love crises, indignation crises may awaken in a very short time powers similar to those reached by years of patient Yoga practice."

Probably most medical men would treat this individual's case as one of what it is fashionable now to call by the name of "self-suggestion," or "expectant attention"—as if those phrases were explanatory, or meant more than the fact that certain men can be influenced, while others cannot be influenced, by certain sorts of ideas. This leads me to say a word about ideas considered as dynamogenic agents, or stimuli for unlocking what would otherwise be unused reservoirs of individual power.

One thing that ideas do is to contradict other ideas and keep us from believing them. An idea that thus negates a first idea may itself in turn be negated by a third idea, and the first idea may thus regain its natural influence over our belief and determine our behavior. Our philosophic and religious development proceeds thus by credulities, negations, and the negating of negations.

But whether for arousing or for stopping belief, ideas may fail to be efficacious, just as a wire at one time alive with electricity may at another time be dead. Here our insight into causes fails us, and we can only note results in general terms. In general, whether a given idea shall be a

live idea depends more on the person into whose mind it is injected than on the idea itself. Which is the suggestive idea for this person, and which for that one? Mr. Fletcher's disciples regenerate themselves by the idea (and the fact) that they are chewing, and rechewing, and superchewing their food. Dr. Dewey's pupils regenerate themselves by going without their breakfast–a fact, but also an ascetic idea. Not everyone can use these ideas with the same success.

But apart from such individually varying susceptibilities, there are common lines along which men simply as men tend to be inflammable by ideas. As certain objects naturally awaken love, anger, or cupidity, so certain ideas naturally awaken the energies of loyalty, courage, endurance, or devotion. When these ideas are effective in an individual's life, their effect is often very great indeed. They may transfigure it, unlocking innumerable powers which, but for the idea, would never have come into play. "Fatherland," "the Flag," "the Union," "Holy Church," "the Monroe Doctrine," "Truth," "Science," "Liberty," Garibaldi's phrase "Rome or Death," etc., are so many examples of energy-releasing ideas. The social nature of such phrases is an essential factor of their dynamic power. They are forces of detent in situations in which no other force produces equivalent effects, and each is a force of detent only in a specific group of men.

The memory that an oath or vow has been made will nerve one to abstinences and efforts otherwise impossible; witness the "pledge" in the history of the temperance movement. A mere promise to his sweetheart will clean up a youth's life all over–at any rate for a time. For such effects an educated susceptibility is required. The idea of one's "honor," for example, unlocks energy only in those of us who have had the education of a "gentleman," so called.

That delightful being Prince Pueckler-Muskau writes to his wife from England that he has invented "a sort of artificial resolution respecting things that are difficult of performance. My device," he continues, "is this: *I give my word of honor most solemnly to myself* to do or to leave undone this or that. I am of course extremely cautious in the use of this expedient, but when once the word is given, even though I afterwards think I have been precipitate or mistaken, I hold it to be perfectly irrevocable, whatever inconveniences I foresee likely to result. If I were capable of breaking my word after such mature consideration, I should lose all respect for myself–and what man of sense would not prefer death to such an alternative? . . . When the mysterious formula is pronounced, no alteration in my own view, nothing short of physical impossi-

bilities, must, for the welfare of my soul, alter my will. . . . I find something very satisfactory in the thought that man has the power of framing such props and weapons out of the most trivial materials, indeed out of nothing, merely by the force of his will, which thereby truly deserves the name of omnipotent."

Conversions, whether they be political, scientific, philosophic, or religious, form another way in which bound energies are let loose. They unify us, and put a stop to ancient mental interferences. The result is freedom, and often a great enlargement of power. A belief that thus settles upon an individual always acts as a challenge to his will. But, for the particular challenge to operate, he must be the right challeng*ee*. In religious conversions we have so fine an adjustment that the idea may be in the mind of the challengee for years before it exerts its effects; and why it should do so then is often so far from obvious that the event is taken for a miracle of grace, and not a natural occurrence. Whatever it is, it may be a high-water mark of energy, in which "noes," once impossible, are easy, and in which a new range of "yeses" gains the right of way.

We are just now witnessing a very copious unlocking of energies by ideas in the persons of those converts to "New Thought," "Christian Science," "Metaphysical Healing," or other forms of spiritual philosophy, who are so numerous among us today. The ideas here are healthy minded and optimistic; and it is quite obvious that a wave of religious activity, analogous in some respects to the spread of early Christianity, Buddhism, and Mohammedanism, is passing over our American world. The common feature of these optimistic faiths is that they all tend to the suppression of what Mr. Horace Fletcher calls "fearthought." Fearthought he defines as the "self-suggestion of inferiority"; so that one may say that these systems all operate by the suggestion of power. And the power, small or great, comes in various shapes to the individual–power, as he will tell you, not to "mind" things that used to vex him, power to concentrate his mind, good cheer, good temper–in short, to put it mildly, a firmer, more elastic moral tone.

The most genuinely saintly person I have ever known is a friend of mine now suffering from cancer of the breast–I hope that she may pardon my citing her here as an example of what ideas can do. Her ideas have kept her a practically well woman for months after she should have given up and gone to bed. They have annulled all pain and weakness and given her a cheerful active life, unusually beneficent to others to whom she has afforded help. Her doctors, acquiescing in results they could not understand, have had the good sense to let her go her own way.

How far the mind-cure movement is destined to extend its influence, or what intellectual modifications it may yet undergo, no one can foretell. It is essentially a religious movement, and to academically nurtured minds its utterances are tasteless and often grotesque enough. It also incurs the natural enmity of medical politicians, and of the whole tradesunion wing of that profession. But no unprejudiced observer can fail to recognize its importance as a social phenomenon today, and the higher medical minds are already trying to interpret it fairly, and make its power available for their own therapeutic ends.

Dr. Thomas Hyslop, of the great West Riding Asylum in England, said last year to the British Medical Association that the best sleep-producing agent which his practice had revealed to him was *prayer*. I say this, he added (I am sorry here that I must quote from memory), purely as a medical man. The exercise of prayer, in those who habitually exert it, must be regarded by us doctors as the most adequate and normal of all the pacifiers of the mind and calmers of the nerves.

But in few of us are functions not tied up by the exercise of other functions. Relatively few medical men and scientific men, I fancy, can pray. Few can carry on any living commerce with "God." Yet many of us are well aware of how much freer and abler our lives would be were such important forms of energizing not sealed up by the critical atmosphere in which we have been reared. There are in every-one potential forms of activity that actually are shunted out from use. Part of the imperfect vitality under which we labor can thus be easily explained. One part of our mind dams up—even *damns* up!—the other parts.

Conscience makes cowards of us all. Social conventions prevent us from telling the truth after the fashion of the heroes and heroines of Bernard Shaw. We all know persons who are models of excellence, but who belong to the extreme philistine type of mind. So deadly is their intellectual respectability that we can't converse about certain subjects at all, can't let our minds play over them, can't even mention them in their presence. I have numbered among my dearest friends persons thus inhibited intellectually, with whom I would gladly have been able to talk freely about certain interests of mine, certain authors, say, as Bernard Shaw, Chesterton, Edward Carpenter, H. G. Wells, but it wouldn't do, it made them too uncomfortable, they wouldn't play, I had to be silent. An intellect thus tied down by literality and decorum makes on one the same sort of impression that an able-bodied man would who should habituate himself to do his work with only one of his fingers, locking up the rest of his organism and leaving it unused.

I trust that by this time I have said enough to convince the reader both of the truth and of the importance of my thesis. The two questions, first, that of the possible extent of our powers; and, second, that of the various avenues of approach to them, the various keys for unlocking them in diverse individuals, dominate the whole problem of individual and national education. We need a topography of the limits of human power, similar to the chart which oculists use of the field of human vision. We need also a study of the various types of human being with reference to the different ways in which their energy reserves may be appealed to and set loose. Biographies and individual experiences of every kind may be drawn upon for evidence here.

Great Men and Their Environment

remarkable parallel, which I think has never been noticed, obtains between the facts of social evolution on the one hand and of zoological evolution as expounded by Mr. Darwin on the other.

It will be best to prepare the ground for my thesis by a few very general remarks on the method of getting at scientific truth. It is a common platitude that a complete acquaintance with any one thing, however small, would require a knowledge of the entire universe. Not a sparrow falls to the ground but some of the remote conditions of his fall are to be found in the Milky Way, in our federal constitution, or in the early history of Europe. That is to say, alter the Milky Way, alter the federal Constitution, alter the facts of our barbarian ancestry, and the universe would so far be a different universe from what it now is. One fact involved in the difference might be that the particular little street boy who threw the stone which brought down the sparrow might not find himself opposite the sparrow at that particular moment; or, finding himself there, he might not be in that particular serene and disengaged mood of mind which expressed itself in throwing the stone. But, true as all this is, it would be very foolish for anyone who was inquiring the cause of the sparrow's fall to overlook the boy as too personal, proximate, and so to speak anthropomorphic an agent, and to say that the true cause is the federal Constitution, the westward migration of the Celtic race, or the structure of the Milky Way. If we proceeded on that method, we might say with perfect legitimacy that a friend of ours who had slipped on the ice upon his doorstep and cracked his skull some months after dining with thirteen at the table died because of that ominous feast. I know, in fact, one such instance; and I might, if I chose, contend with perfect logical propriety that the slip on the ice was no real accident. "There are no accidents," I might say, "for science. The whole history of the

world converged to produce that slip. If anything had been left out, the slip would not have occurred just there and then. To say it would is to deny the relations of cause and effect throughout the universe. The real cause of the death was not the slip, *but the conditions which engendered the slip*– and among them his having sat at a table, six months previous, one among thirteen. *That* is truly the reason why he died within the year."

It will soon be seen whose arguments I am, in form, reproducing here. I would fain lay down the truth without polemics or recrimination. But unfortunately we never fully grasp the import of any true statement until we have a clear notion of what the opposite untrue statement would be. The error is needed to set off the truth, much as a dark background is required for exhibiting the brightness of a picture. And the error which I am going to use as a foil to set off what seems to me the truth of my own statements is contained in the philosophy of Mr. Herbert Spencer and his disciples. Our problem is, What are the causes that make communities change from generation to generation–that make the England of Queen Anne so different from the England of Elizabeth, the Harvard College of today so different from that of thirty years ago?

I shall reply to this problem, The difference is due to the accumulated influences of individuals, of their examples, their initiatives, and their decisions. The Spencerian school replies, The changes are irrespective of persons, and independent of individual control. They are due to the environment, to the circumstances, the physical geography, the ancestral conditions, the increasing experience of outer relations; to everything, in fact, except the Grants and the Bismarcks, the Joneses and the Smiths.

Now, I say that these theorizers are guilty of precisely the same fallacy as he who should ascribe the death of his friend to the dinner with thirteen, or the fall of the sparrow to the Milky Way. Like the dog in the fable, who drops his real bone to snatch at its image, they drop the real causes to snatch at others, which from no possible human point of view are available or attainable. Their fallacy is a practical one. Let us see where it lies. Although I believe in free will myself, I will waive that belief in this discussion, and assume with the Spencerians the predestination of all human actions. On that assumption I gladly allow that were the intelligence investigating the man's or the sparrow's death omniscient and omnipresent, able to take in the whole of time and space at a single glance, there would not be the slightest objection to the Milky Way or the fatal feast being invoked among the sought-for causes. Such a divine in-

telligence would see instantaneously all the infinite lines of convergence towards a given result, and it would, moreover, see impartially: it would see the fatal feast to be as much a condition of the sparrow's death as of the man's; it would see the boy with the stone to be as much a condition of the man's fall as of the sparrow's.

The human mind, however, is constituted on an entirely different plan. It has no such power of universal intuition. Its finiteness obliges it to see but two or three things at a time. If it wishes to take wider sweeps it has to use "general ideas," as they are called, and in so doing to drop all concrete truths. Thus, in the present case, if we as men wish to feel the connection between the Milky Way and the boy and the dinner and the sparrow and the man's death, we can do so only by falling back on the enormous emptiness of what is called an abstract proposition. We must say, All things in the world are fatally predetermined, and hang together in the adamantine fixity of a system of natural law. But in the vagueness of this vast proposition we have lost all the concrete facts and links; and in all practical matters the concrete links are the only things of importance. The human mind is essentially partial. It can be efficient at all only by *picking out* what to attend to, and ignoring everything else– by narrowing its point of view. Otherwise, what little strength it has is dispersed, and it loses its way altogether. Man always wants his curiosity gratified for a particular purpose. If, in the case of the sparrow, the purpose is punishment, it would be idiotic to wander off from the cats, boys, and other possible agencies close by in the street to survey the early Celts and the Milky Way: the boy would meanwhile escape. And if, in the case of the unfortunate man, we lose ourselves in contemplation of the thirteen-at-table mystery, and fail to notice the ice on the step and cover it with ashes, some other poor fellow, who never dined out in his life, may slip on it in coming to the door, and fall and break his head too.

It is, then, a necessity laid upon us as human beings to limit our view. In mathematics we know how this method of ignoring and neglecting quantities lying outside of a certain range has been adopted in the differential calculus. The calculator throws out all the "infinitesimals" of the quantities he is considering. He treats them (under certain rules) as if they did not exist. In themselves they exist perfectly all the while; but they are as if they did not exist for the purposes of his calculation. Just so an astronomer, in dealing with the tidal movements of the ocean, takes no account of the waves made by the wind, or by the pressure of all the steamers which day and night are moving their thousands of tons upon its surface. Just so the marksman, in sighting his rifle, allows for the mo-

tion of the wind, but not for the equally real motion of the earth and solar system. Just so a businessman's punctuality may overlook an error of five minutes, while a physicist, measuring the velocity of light, must count each thousandth of a second.

There are, in short, *different cycles of operation* in nature; different departments, so to speak, relatively independent of one another, so that what goes on at any moment in one may be compatible with almost any condition of things at the same time in the next. The mold on the biscuit in the storeroom of a man-of-war vegetates in absolute indifference to the nationality of the flag, the direction of the voyage, the weather, and the human dramas that may go on on board; and a mycologist may study it in complete abstraction from all these larger details. Only by so studying it, in fact, is there any chance of the mental concentration by which alone he may hope to learn something of its nature. On the other hand, the captain who in maneuvering the vessel through a naval fight should think it necessary to bring the moldy biscuit into his calculations would very likely lose the battle by reason of the excessive "thoroughness" of his mind.

The causes which operate in these incommensurable cycles are connected with one another only *if we take the whole universe into account.* For all lesser points of view it is lawful—nay, more, it is for human wisdom necessary—to regard them as disconnected and irrelevant to one another.

And this brings us nearer to our special topic. If we look at an animal or a human being distinguished from the rest of his kind by the possession of some extraordinary peculiarity, good or bad, we shall be able to discriminate between the causes which originally *produced* the peculiarity in him and the causes that *maintain* it after it is produced; and we shall see, if the peculiarity be one that he was born with, that these two sets of causes belong to two such irrelevant cycles. It was the triumphant originality of Darwin to see this, and to act accordingly. Separating the causes of production under the title of "tendencies to spontaneous variation," and relegating them to a physiological cycle which he forthwith agreed to ignore altogether,[1] he confined his attention to the causes of preservation, and under the names of natural selection and sexual selec-

1. Darwin's theory of pangenesis is, it is true, an attempt to account (among other things) for variation. But it occupies its own separate place, and its author no more invokes the environment when he talks of the adhesions of gemmules than he invokes these adhesions when he talks of the relations of the whole animal to the environment. *Divide et impera* [Divide and conquer]!

tion studied them exclusively as functions of the cycle of the environment.

Pre-Darwinian philosophers had also tried to establish the doctrine of descent with modification; but they all committed the blunder of clumping the two cycles of causation into one. What preserves an animal with his peculiarity, if it be a useful one, they saw to be the nature of the environment to which the peculiarity was adjusted. The giraffe with his peculiar neck is preserved by the fact that there are in his environment tall trees whose leaves he can digest. But these philosophers went further, and said that the presence of the trees not only maintained an animal with a long neck to browse upon their branches but also produced him. They *made* his neck long by the constant striving they aroused in him to reach up to them. The environment, in short, was supposed by these writers to mold the animal by a kind of direct pressure, very much as a seal presses the wax into harmony with itself. Numerous instances were given of the way in which this goes on under our eyes. The exercise of the forge makes the right arm strong, the palm grows callous to the oar, the mountain air distends the chest, the chased fox grows cunning and the chased bird shy, the arctic cold stimulates the animal combustion, and so forth. Now these changes, of which many more examples might be adduced, are at present distinguished by the special name of *adaptive* changes. Their peculiarity is that that very feature in the environment to which the animal's nature grows adjusted itself produces the adjustment. The "inner relation," to use Mr. Spencer's phrase, "corresponds" with its own efficient cause.

Darwin's first achievement was to show the utter insignificance in amount of these changes produced by direct adaptation, the immensely greater mass of changes being produced by internal molecular accidents, of which we know nothing. His next achievement was to define the true problem with which we have to deal when we study the effects of the visible environment on the animal. That problem is simply this: Is the environment more likely to *preserve or to destroy him* on account of this or that peculiarity with which he may be born? In giving the name "of accidental variations" to those peculiarities with which an animal is born, Darwin does not for a moment mean to suggest that they are not the fixed outcome of natural law. If the total system of the universe be taken into account, the causes of these variations and the visible environment which preserves or destroys them undoubtedly do, in some remote and roundabout way, hang together. What Darwin means is that, since that environment is a perfectly known thing, and its relations to the

organism in the way of destruction or preservation are tangible and distinct, it would utterly confuse our finite understandings and frustrate our hopes of science to mix in with it facts from such a disparate and incommensurable cycle as that in which the variations are produced. This last cycle is that of occurrences before the animal is born. It is the cycle of influences upon ova and embryos; in which lie the causes that tip them and tilt them towards masculinity or femininity, towards strength or weakness, towards health or disease, and towards divergence from the parent type. What are the causes there?

In the first place, they are molecular and invisible–inaccessible, therefore, to direct observation of any kind. Secondly, their operations are compatible with any social, political, and physical conditions of environment. The same parents, living in the same environing conditions, may at one birth produce a genius, at the next an idiot or a monster. The visible external conditions are therefore not direct determinants of this cycle; and the more we consider the matter, the more we are forced to believe that two children of the same parents are made to differ from each other by causes as disproportionate to their ultimate effects as is the famous pebble on the Rocky Mountain crest, which separates two raindrops, to the Gulf of St. Lawrence and the Pacific Ocean toward which it makes them severally flow.

The great mechanical distinction between transitive forces and discharging forces is nowhere illustrated on such a scale as in physiology. Almost all causes there are forces of *detent*, which operate by simply unlocking energy already stored up. They are upsetters of unstable equilibria, and the resultant effect depends infinitely more on the nature of the materials upset than on that of the particular stimulus which joggles them down. Galvanic work, equal to unity, done on a frog's nerve will discharge from the muscle to which the nerve belongs mechanical work equal to seventy thousand; and exactly the same muscular effect will emerge if other irritants than galvanism are employed. The irritant has merely started or provoked something which then went on of itself–as a match may start a fire which consumes a whole town. And qualitatively as well as quantitatively the effect may be absolutely incommensurable with the cause. We find this condition of things in all organic matter. Chemists are distracted by the difficulties which the instability of albuminoid compounds opposes to their study. Two specimens, treated in what outwardly seem scrupulously identical conditions, behave in quite different ways. You know about the invisible factors of fermenta-

tion, and how the fate of a jar of milk—whether it turn into a sour clot or a mass of kumiss—depends on whether the lactic acid ferment or the alcoholic is introduced first and gets ahead of the other in starting the process. Now, when the result is the tendency of an ovum, itself invisible to the naked eye, to tip towards this direction or that in its further evolution—to bring forth a genius or a dunce, even as the raindrop passes east or west of the pebble—is it not obvious that the deflecting cause must lie in a region so recondite and minute, must be such a ferment of a ferment, an infinitesimal of so high an order that surmise itself may never succeed even in attempting to frame an image of it?

Such being the case, was not Darwin right to turn his back upon that region altogether, and to keep his own problem carefully free from all entanglement with matters such as these? The success of his work is a sufficiently affirmative reply.

And this brings us at last to the heart of our subject. The causes of production of great men lie in a sphere wholly inaccessible to the social philosopher. He must simply accept geniuses as data, just as Darwin accepts his spontaneous variations. For him, as for Darwin, the only problem is, these data being given, how does the environment affect them, and how do they affect the environment? Now, I affirm that the relation of the visible environment to the great man is in the main exactly what it is to the "variation" in the Darwinian philosophy. It chiefly adopts or rejects, preserves or destroys, in short *selects* him.[2] And whenever it adopts and preserves the great man, it becomes modified by his influence in an entirely original and peculiar way. He acts as a ferment, and changes its constitution, just as the advent of a new zoological species changes the faunal and floral equilibrium of the region in which it appears. We all recollect Mr. Darwin's famous statement of the influence of cats on the growth of clover in their neighborhood. We all have read of the effects of the European rabbit in New Zealand, and we have many of us taken part in the controversy about the English sparrow here—whether he kills most cankerworms, or drives away most native birds. Just so the great man, whether he be an importation from without like Clive in India or Agassiz here, or whether he spring from the soil like Mohammed or Franklin, brings about a rearrangement, on a large or a small scale, of the pre-existing social relations.

2. It is true that it remodels him, also, to some degree, by its educative influence, and that this constitutes a considerable difference between the social case and the zoological case. I neglect this aspect of the relation here, for the other is the more important. At the end of the article I will return to it incidentally.

The mutations of societies, then, from generation to generation, are in the main due directly or indirectly to the acts or the example of individuals whose genius was so adapted to the receptivities of the moment or whose accidental position of authority was so critical that they became ferments, initiators of movement, setters of precedent or fashion, centers of corruption, or destroyers of other persons, whose gifts, had they had free play, would have led society in another direction.

We see this power of individual initiative exemplified on a small scale all about us, and on a large scale in the case of the leaders of history. It is only following the common-sense method of a Lyell, a Darwin, and a Whitney to interpret the unknown by the known, and reckon up cumulatively the only causes of social change we can directly observe. Societies of men are just like individuals in that both at any given moment offer ambiguous potentialities of development. Whether a young man enters business or the ministry may depend on a decision which has to be made before a certain day. He takes the place offered in the countinghouse, and is *committed*. Little by little, the habits, the knowledges, of the other career, which once lay so near, cease to be reckoned even among his possibilities. At first, he may sometimes doubt whether the self he murdered in that decisive hour might not have been the better of the two; but with the years such questions themselves expire, and the old alternative *ego*, once so vivid, fades into something less substantial than a dream. It is no otherwise with nations. They may be committed by kings and ministers to peace or war, by generals to victory or defeat, by prophets to this religion or to that, by various geniuses to fame in art, science, or industry. A war is a true point of bifurcation of future possibilities. Whether it fail or succeed, its declaration must be the starting point of new policies. Just so does a revolution, or any great civic precedent, become a deflecting influence, whose operations widen with the course of time. Communities obey their ideals; and an accidental success fixes an ideal, as an accidental failure blights it.

Would England have today the "imperial" ideal which she now has if a certain boy named Bob Clive had shot himself, as he tried to do, at Madras? Would she be the drifting raft she is now in European affairs if a Frederick the Great had inherited her throne instead of a Victoria, and if Messrs. Bentham, Mill, Cobden, and Bright had all been born in Prussia? England has, no doubt, today precisely the same intrinsic value relatively to the other nations that she ever had. There is no such fine accumulation of human material upon the globe. But in England the material has lost effective form, while in Germany it has found it. Leaders

give the form. Would England be crying forward and backward at once, as she does now, "letting I will not wait upon I would," wishing to conquer but not to fight, if her ideal had in all these years been fixed by a succession of statesmen of supremely commanding personality, working in one direction? Certainly not. She would have espoused, for better or worse, either one course or another. Had Bismarck died in his cradle, the Germans would still be satisfied with appearing to themselves as a race of spectacled *Gelehrten* [scholars] and political herbivora, and to the French as *ces bons*, or *ces naifs*, *Allemands* [those good-hearted (or) those innocent Germans]. Bismarck's will showed them, to their own great astonishment, that they could play a far livelier game. The lesson will not be forgotten. Germany may have many vicissitudes, but they–

> will never do away, I ween,
> The marks of that which once hath been–

of Bismarck's initiative, namely, from 1860 to 1873.

The fermentative influence of geniuses must be admitted as, at any rate, one factor in the changes that constitute social evolution. The community *may* evolve in many ways. The accidental presence of this or that ferment decides in which way it *shall* evolve. Why, the very birds of the forest, the parrot, the myna, have the power of human speech, but never develop it of themselves; someone must be there to teach them. So with us individuals. Rembrandt must teach us to enjoy the struggle of light with darkness, Wagner to enjoy peculiar musical effects; Dickens gives a twist to our sentimentality, Artemus Ward to our humor; Emerson kindles a new moral light within us. But it is like Columbus' egg. "All can raise the flowers now, for all have got the seed." But if this be true of the individuals in the community, how can it be false of the community as a whole? If shown a certain way, a community may take it; if not, it will never find it. And the ways are to a large extent indeterminate in advance. A nation may obey either of many alternative impulses given by different men of genius and still live and be prosperous, just as a man may enter either of many businesses. Only, the prosperities may differ in their type.

But the indeterminism is not absolute. Not every "man" fits every "hour." Some incompatibilities there are. A given genius may come either too early or too late. Peter the Hermit would now be sent to a lunatic asylum. John Mill in the tenth century would have lived and died unknown. Cromwell and Napoleon need their revolutions, Grant his civil war. An Ajax gets no fame in the day of telescopic-sighted rifles; and, to

express differently an instance which Spencer uses, what could a Watt have effected in a tribe which no precursive genius had taught to smelt iron or to turn a lathe?

Now, the important thing to notice is that what makes a certain genius now incompatible with his surroundings is usually the fact that some previous genius of a different strain has warped the community away from the sphere of his possible effectiveness. After Voltaire, no Peter the Hermit; after Charles IX and Louis XIV, no general protestantization of France; after a Manchester school, a Beaconsfield's success is transient; after a Philip II, a Castelar makes little headway; and so on. Each bifurcation cuts off certain sides of the field altogether, and limits the future possible angles of deflection. A community is a living thing, and in words which I can do no better than quote from Professor Clifford,[3] "It is the peculiarity of living things not merely that they change under the influence of surrounding circumstances, but that any change which takes place in them is not lost but retained, and as it were built into the organism to serve as the foundation for future actions. If you cause any distortion in the growth of a tree and make it crooked, whatever you may do afterwards to make the tree straight the mark of your distortion is there; it is absolutely indelible; it has become part of the tree's nature. . . . Suppose, however, that you take a lump of gold, melt it, and let it cool. . . . No one can tell by examining a piece of gold how often it has been melted and cooled in geologic ages, or even in the last year by the hand of man. Anyone who cuts down an oak can tell by the rings in its trunk how many times winter has frozen it into widowhood, and how many times summer has warmed it into life. A living being must always contain within itself the history, not merely of its own existence, but of all its ancestors."

Every painter can tell us how each added line deflects his picture in a certain sense. Whatever lines follow must be built on those first laid down. Every author who starts to rewrite a piece of work knows how impossible it becomes to use any of the first-written pages again. The new beginning has already excluded the possibility of those earlier phrases and transitions, while it has at the same time created the possibility of an indefinite set of new ones, no one of which, however, is completely determined in advance. Just so the social surroundings of the past and present hour exclude the possibility of accepting certain contributions from individuals; but they do not positively define what contributions

3. *Lectures and Essays,* i. 82.

shall be accepted, for in themselves they are powerless to fix what the nature of the individual offerings shall be.[4]

Thus social evolution is a resultant of the interaction of two wholly distinct factors—the individual, deriving his peculiar gifts from the play of physiological and infrasocial forces, but bearing all the power of initiative and origination in his hands; and, second, the social environment, with its power of adopting or rejecting both him and his gifts. Both factors are essential to change. The community stagnates without the impulse of the individual. The impulse dies away without the sympathy of the community.

All this seems nothing more than common sense. All who wish to see it developed by a man of genius should read that golden little work, Bagehot's *Physics and Politics*, in which (it seems to me) the complete sense of the way in which concrete things grow and change is as livingly present as the straining after a pseudo philosophy of evolution is livingly absent. But there are never wanting minds to whom such views seem personal and contracted, and allied to an anthropomorphism long exploded in other fields of knowledge. "The individual withers, and the world is more and more," to these writers; and in a Buckle, a Draper, and a Taine we all know how much the "world" has come to be almost synonymous with the *climate*. We all know, too, how the controversy has been kept up between the partisans of a "science of history" and those who deny the existence of anything like necessary "laws" where human societies are concerned. Mr. Spencer, at the opening of his Study of Sociology, makes an onslaught on the "great-man theory" of history, from which a few passages may be quoted:

> The genesis of societies by the action of great men may be comfortably believed so long as, resting in general notions, you do not ask for particulars. But now, if, dissatisfied with vagueness, we demand that our ideas shall be brought into focus and exactly defined, we discover the hypothesis to be utterly incoherent. If, not stopping at the explanation of social progress as due to the great man, we go back a step, and ask, Whence comes the great man? we find that the theory breaks down completely. The question has two conceivable answers: his origin is supernatural, or it is natural. Is his origin supernatural? Then he is a deputy god, and we have theocracy once removed—or, rather, not removed at all. . . . Is

4. Mr. Grant Allen himself, in an article from which I shall presently quote, admits that a set of people who, if they had been exposed ages ago to the geographical agencies of Timbuktu would have developed into Negroes might now, after a protracted exposure to the conditions of Hamburg, never become Negroes if transplanted to Timbuktu.

> this an unacceptable solution? Then the origin of the great man is natural; and immediately this is recognized, he must be classed with all other phenomena in the society that gave him birth as a product of its antecedents. Along with the whole generation of which he forms a minute part, along with its institutions, language, knowledge, manners, and its multitudinous arts and appliances, he is a *resultant*. . . . You must admit that the genesis of the great man depends on the long series of complex influences which has produced the race in which he appears, and the social state into which that race has slowly grown. . . . Before he can remake his society, his society must make him. All those changes of which he is the proximate initiator have their chief causes in the generations he descended from. If there is to be anything like a real explanation of those changes, it must be sought in that aggregate of conditions out of which both he and they have arisen.

Now, it seems to me that there is something which one might almost call impudent in the attempt which Mr. Spencer makes, in the first sentence of this extract, to pin the reproach of vagueness upon those who believe in the power of initiative of the great man.

Suppose I say that the singular moderation which now distinguishes social, political, and religious discussion in England, and contrasts so strongly with the bigotry and dogmatism of sixty years ago, is largely due to J. S. Mill's example. I may possibly be wrong about the facts; but I am, at any rate, "asking for particulars," and not "resting in general notions." And if Mr. Spencer should tell me it started from no personal influence whatever, but from the "aggregate of conditions," the "generations," Mill and all his contemporaries "descended from," the whole past order of nature in short, surely he, not I, would be the person "satisfied with vagueness."

The fact is that Mr. Spencer's sociological method is identical with that of one who would invoke the zodiac to account for the fall of the sparrow, and the thirteen at table to explain the gentleman's death. It is of little more scientific value than the oriental method of replying to whatever question arises by the unimpeachable truism, "God is great." *Not* to fall back on the gods, where a proximate principle may be found, has with us Westerners long since become the sign of an efficient as distinguished from an inefficient intellect.

To believe that the cause of everything is to be found in its antecedents is the starting point, the initial postulate, not the goal and consummation, of science. If she is simply to lead us out of the labyrinth by the same hole we went in by three or four thousand years ago, it seems hardly worthwhile to have followed her through the darkness at all. If anything

is humanly certain it is that the great man's society, properly so called, does *not* make him before he can remake it. Physiological forces, with which the social, political, geographical, and to a great extent anthropological conditions have just as much and just as little to do as the condition of the crater of Vesuvius has to do with the flickering of this gas by which I write, are what make him. Can it be that Mr. Spencer holds the convergence of sociological pressures to have so impinged on Stratford-upon-Avon about the 26th of April, 1564, that a W. Shakespeare, with all his mental peculiarities, had to be born there–as the pressure of water outside a certain boat will cause a stream of a certain form to ooze into a particular leak? And does he mean to say that if the aforesaid W. Shakespeare had died of cholera infantum, another mother at Stratford-upon-Avon would needs have engendered a duplicate copy of him to restore the sociologic equilibrium–just as the same stream of water will reappear, no matter how often you pass a sponge over the leak, so long as the outside level remains unchanged? Or might the substitute arise at "Stratford-atte-Bowe"? Here, as elsewhere, it is very hard, in the midst of Mr. Spencer's vagueness, to tell what he does mean at all.

We have, however, in his disciple, Mr. Grant Allen, one who leaves us in no doubt whatever of his precise meaning. This widely informed, suggestive, and brilliant writer published last year a couple of articles in the *Gentleman's Magazine*, in which he maintained that individuals have no initiative in determining social change.

> The differences between one nation and another, whether in intellect, commerce, art, morals, or general temperament, ultimately depend, not upon any mysterious properties of race, nationality, or any other unknown and unintelligible abstractions, but simply and solely upon the physical circumstances to which they are exposed. If it be a fact, as we know it to be, that the French nation differs recognizably from the Chinese, and the people of Hamburg differ recognizably from the people of Timbuktu, then the notorious and conspicuous differences between them are wholly due to the geographical position of the various races. If the people who went to Hamburg had gone to Timbuktu, they would now be indistinguishable from the semibarbarian Negroes who inhabit that central African metropolis;[5] and if the people who went to Timbuktu

5. No! not even though they were bodily brothers! The geographical factor utterly vanishes before the ancestral factor. The difference between Hamburg and Timbuktu as a cause of ultimate divergence of two races is as nothing to the difference of constitution of the ancestors of the two races, even though as in twin brothers, this difference might be invisible to the naked eye. No two couples of the most homogeneous race could possibly be found so identical as, if set in identical environments, to give rise to two identical lineages. The minute divergence at the start grows broader with each generation, and ends with entirely dissimilar breeds.

> had gone to Hamburg, they would now have been white-skinned merchants driving a roaring trade in imitation sherry and indigestible port. . . . The differentiating agency must be sought in the great permanent geographical features of land and sea; . . . these have necessarily and inevitably molded the characters and histories of every nation upon the earth. . . . We cannot regard any nation as an active agent in differentiating itself. Only the surrounding circumstances can have any effect in such a direction. [These two sentences dogmatically deny the existence of the relatively independent physiological cycle of causation.] To suppose otherwise is to suppose that the mind of man is exempt from the universal law of causation. There is no caprice, no spontaneous impulse, in human endeavors. Even tastes and inclinations *must* themselves be the result of surrounding causes.

Elsewhere Mr. Allen, writing of the Greek culture, says:

> It was absolutely and unreservedly the product of the geographical Hellas, acting upon the given factor of the undifferentiated Aryan brain . . . . To me it seems a self-evident proposition that nothing whatsoever can differentiate one body of men from another, except the physical conditions in which they are set–including, of course, under the term *physical conditions* the relations of place and time in which they stand with regard to other bodies of men. To suppose otherwise is to deny the primordial law of causation. To imagine that the mind can differentiate itself is to imagine that it can be differentiated without a cause.

This outcry about the law of universal causation being undone, the moment we refuse to invest in the kind of causation which is peddled round by a particular school, makes one impatient. These writers have no imagination of alternatives. With them there is no *tertium quid* between outward environment and miracle. *Aut Caesar, aut nullus* [Either Caesar or no one]! *Aut* Spencerism, *aut* catechism!

If by "physical conditions" Mr. Allen means what he does mean, the outward cycle of visible nature and man, his assertion is simply physiologically false. For a national mind differentiates "itself" whenever a genius is born in its midst by causes acting in the invisible and molecular cycle. But if Mr. Allen means by "physical conditions" the whole of nature, his assertion, though true, forms but the vague Asiatic profession of belief in an all-enveloping fate, which certainly need not plume itself on any specially advanced or scientific character.

And how can a thinker so clever as Mr. Allen fail to have distinguished in these matters between *necessary* conditions and *sufficient* conditions of a given result? The French say that to have an omelet we must break

our eggs; that is, the breaking of eggs is a necessary condition of the omelet. But is it a sufficient condition? Does an omelet appear whenever three eggs are broken? So of the Greek mind. To get such versatile intelligence it may be that such commercial dealings with the world as the geographical Hellas afforded are a necessary condition. But if they are a sufficient condition, why did not the Phoenicians outstrip the Greeks in intelligence? No geographical environment can produce a given type of mind. It can only foster and further certain types fortuitously produced, and thwart and frustrate others. Once again, its function is simply selective, and determines what shall actually be only by destroying what is positively incompatible. An Arctic environment is incompatible with improvident habits in its denizens; but whether the inhabitants of such a region shall unite with their thrift the peacefulness of the Eskimo or the pugnacity of the Norseman is, so far as the climate is concerned, an accident. Evolutionists should not forget that we all have five fingers not because four or six would not do just as well, but merely because the first vertebrate above the fishes *happened* to have that number. He owed his prodigious success in founding a line of descent to some entirely other quality—we know not which—but the inessential five fingers were taken in tow and preserved to the present day. So of most social peculiarities. Which of them shall be taken in tow by the few qualities which the environment necessarily exacts is a matter of what physiological accidents shall happen among individuals. Mr. Allen promises to prove his thesis in detail by the examples of China, India, England, Rome, etc. I have not the smallest hesitation in predicting that he will do no more with these examples than he has done with Hellas. He will appear upon the scene after the fact, and show that the quality developed by each race was, naturally enough, not incompatible with its habitat. But he will utterly fail to show that the particular form of compatibility fallen into in each case was the one necessary and only possible form.

Naturalists know well enough how indeterminate the harmonies between a fauna and its environment are. An animal may better his chances of existence in either of many ways—growing aquatic, arboreal, or subterranean; small and swift, or massive and bulky; spiny, horny, slimy, or venomous; more timid or more pugnacious; more cunning or more fertile of offspring; more gregarious or more solitary; or in other ways besides—and any one of these ways may suit him to many widely different environments.

Readers of Mr. A. R. Wallace will well remember the striking illustrations of this in his *Malay Archipelago:*

> Borneo closely resembles New Guinea not only in its vast size and its freedom from volcanoes, but in its variety of geological structure, its uniformity of climate, and the general aspect of the forest vegetation that clothes its surface; the Moluccas are the counterpart of the Philippines in their volcanic structure, their extreme fertility, their luxuriant forests, and their frequent earthquakes; and Bali, with the east end of Java, has a climate almost as dry and a soil almost as arid as that of Timor. Yet between these corresponding groups of islands, constructed, as it were, after the same pattern, subjected to the same climate, and bathed by the same oceans, there exists the greatest possible contrast when we compare their animal productions. Nowhere does the ancient doctrine that differences or similarities in the various forms of life that inhabit different countries are due to corresponding physical differences or similarities in the countries themselves meet with so direct and palpable a contradiction. Borneo and New Guinea, as alike physically as two distinct countries can be, are zoologically wide as the poles asunder; while Australia, with its dry winds, its open plains, its stony deserts, and its temperate climate, yet produces birds and quadrupeds which are closely related to those inhabiting the hot, damp, luxuriant forests which everywhere clothe the plains and mountains of New Guinea.

Here we have similar physical-geography environments harmonizing with widely differing animal lives, and similar animal lives harmonizing with widely differing geographical environments. A singularly accomplished writer, E. Gryzanovski, in the *North American Review*, uses the instances of Sardinia and Corsica in support of this thesis with great effect. He says:

> These sister islands, lying in the very centre of the Mediterranean, at almost equal distances from the centres of Latin and Neo-Latin civilization, within easy reach of the Phoenician, the Greek, and the Saracen, with a coastline of more than a thousand miles, endowed with obvious and tempting advantages, and hiding untold sources of agricultural and mineral wealth, have nevertheless remained unknown, unheeded, and certainly uncared for during the thirty centuries of European history . . . . These islands have dialects, but no language; records of battles, but no history. They have customs, but no laws; the *vendetta*, but no justice. They have wants and wealth, but no commerce; timber and ports, but no shipping. They have legends, but no poetry; beauty, but no art; and twenty years ago it could still be said that they had universities, but no students. . . . That Sardinia, with all her emotional and picturesque barbarism, has never produced a single artist is almost as strange as her barbarism itself. . . . Near the focus of European civilization, in the very spot which an *à priori* geographer would point out as the most favorable

> place for material and intellectual, commercial, and political development, these strange sister islands have slept their secular sleep, like *nodes* on the sounding-board of history.

This writer then goes on to compare Sardinia and Sicily with some detail. All the material advantages are in favor of Sardinia, "and the Sardinian population, being of an ancestry more mixed than that of the English race, would justify far higher expectations than that of Sicily." Yet Sicily's past history has been brilliant in the extreme, and her commerce today is great. Dr. Gryzanovski has his own theory of the historic torpor of these favored isles. He thinks they stagnated because they never gained political autonomy, being always owned by some Continental power. I will not dispute the theory; but I will ask, Why did they not gain it? and answer immediately: Simply because no individuals were born there with patriotism and ability enough to inflame their countrymen with national pride, ambition, and thirst for independent life. Corsicans and Sardinians are probably as good stuff as any of their neighbors. But the best woodpile will not blaze till a torch is applied, and the appropriate torches seem to have been wanting.[6]

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6. I am well aware that in much that follows (though in nothing that precedes) I seem to be crossing the heavily shotted bows of Mr. Galton, for whose laborious investigations into the heredity of genius I have the greatest respect. Mr. Galton inclines to think that genius of intellect and passion is bound to express itself, whatever the outward opportunity, and that within any given race an equal number of geniuses of each grade must needs be born in every equal period of time; a subordinate race cannot possibly engender a large number of high-class geniuses, etc. He would, I suspect, infer the suppositions I go on to make—of great men fortuitously assembling around a given epoch and making it great, and of their being fortuitously absent from certain places and times (from Sardinia, from Boston now, etc.)—to be radically vicious. I hardly think, however, that he does justice to the great complexity of the conditions of *effective* greatness, and to the way in which the physiological averages of production may be masked entirely during long periods, either by the accidental mortality of geniuses in infancy, or by the fact that the particular geniuses born happened not to find tasks. I doubt the truth of his assertion that *intellectual* genius, like murder, "will out." It is true that certain types are irrepressible. Voltaire, Shelley, Carlyle can hardly be conceived leading a dumb and vegetative life in any epoch. But take Mr. Galton himself, take his cousin Mr. Darwin, and take Mr. Spencer: nothing is to me more conceivable than that at another epoch all three of these men might have died "with all their music in them," known only to their friends as persons of strong and original character and judgment. What has started them on their career of effective greatness is simply the accident of each stumbling upon a task vast, brilliant, and congenial enough to call out the convergence of all his passions and powers. I see no more reason why, in case they had not fallen in with their several hobbies at propitious periods in their life, they need necessarily have hit upon other hobbies, and made themselves equally great. Their case seems similar to that of the Washingtons, Cromwells, and Grants, who simply rose to their occasions. But apart from these causes of fallacy, I am strongly disposed to think that where transcendent geniuses are concerned the numbers anyhow are so small that their

Sporadic great men come everywhere. But for a community to get vibrating through and through with intensely active life, many geniuses coming together and in rapid succession are required. This is why great epochs are so rare–why the sudden bloom of a Greece, an early Rome, a Renaissance is such a mystery. Blow must follow blow so fast that no cooling can occur in the intervals. Then the mass of the nation grows incandescent, and may continue to glow by pure inertia long after the originators of its internal movement have passed away. We often hear surprise expressed that in these high tides of human affairs not only the people should be filled with stronger life but that individual geniuses should seem so exceptionally abundant. This mystery is just about as deep as the time-honored conundrum as to why great rivers flow by great towns. It is true that great public fermentations awaken and adopt many geniuses who in more torpid times would have had no chance to work. But over and above this there must be an exceptional concourse of genius about a time to make the fermentation begin at all. The unlikeliness of the concourse is far greater than the unlikeliness of any particular genius; hence the rarity of these periods and the exceptional aspect which they always wear.

It is folly, then, to speak of the "laws of history" as of something inevitable, which science has only to discover, and whose consequences anyone can then foretell but do nothing to alter or avert. Why, the very laws of physics are conditional, and deal with *ifs*. The physicist does not say, "The water will boil anyhow;" he only says it will boil if a fire be kindled beneath it. And so the utmost the student of sociology can ever predict is that *if* a genius of a certain sort shows the way, society will be sure to follow. It might long ago have been predicted with great confidence that both Italy and Germany would reach a stable unity if someone could but succeed in starting the process. It could not have been predicted, however, that the *modus operandi* in each case would be subordination to a paramount state rather than federation, because no historian could have calculated the freaks of birth and fortune which gave at the same moment such positions of authority to three such peculiar individuals as Napoleon III, Bismarck, and Cavour. So of our own politics. It is certain now that the movement of the independents, reformers, or whatever one please to call them, will triumph. But whether it do so

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appearance will not fit into any scheme of averages. That is, two or three might appear together, just as the two or three balls nearest the target center might be fired consecutively. Take longer epochs and more firing, and the great geniuses and near balls would on the whole be more spread out.

by converting the Republican party to its ends, or by rearing a new party on the ruins of both our present factions, the historian cannot say. There can be no doubt that the reform movement would make more progress in one year with an adequate personal leader than as now in ten without one. Were there a great citizen, splendid with every civic gift, to be its candidate, who can doubt that he would lead us to victory? But, at present, we, his environment, who sigh for him and would so gladly preserve and adopt him if he came, can neither move without him, nor yet do anything to bring him forth.[7]

To conclude: The evolutionary view of history, when it denies the vital importance of individual initiative, is, then, an utterly vague and unscientific conception, a lapse from modern scientific determinism into the most ancient oriental fatalism. The lesson of the analysis that we have made (even on the completely deterministic hypothesis with which we started) forms an appeal of the most stimulating sort to the energy of the individual. Even the dogged resistance of the reactionary conservative to changes which he cannot hope entirely to defeat is justified and shown to be effective. He retards the movement; deflects it a little by the concessions he extracts; gives it a resultant momentum, compounded of his inertia and his adversaries' speed; and keeps up, in short, a constant lateral pressure, which, to be sure, never heads it round about, but brings it up at last at a goal far to the right or left of that to which it would have drifted had he allowed it to drift alone.

I now pass to the last division of my subject, the function of the environment in *mental* evolution. After what I have already said, I may be quite concise. Here, if anywhere, it would seem at first sight as if that school must be right which makes the mind passively plastic, and the environment actively productive of the form and order of its conceptions; which, in a word, thinks that all mental progress must result from a series of adaptive changes, in the sense already defined of that word. We know what a vast part of our mental furniture consists of purely remembered, not reasoned, experience. The entire field of our habits and associations by contiguity belongs here. The entire field of those abstract conceptions which were taught us with the language into which we were born belongs here also. And, more than this, there is reason to think that the order of "outer relations" experienced by the individual may itself determine the order in which the general characters

7. Since this paper was written, President Cleveland has to a certain extent met the need. But who can doubt that if he had certain other qualities which he has not yet shown, his influence would have been still more decisive? (1896.)

imbedded therein shall be noticed and extracted by his mind.[8] The pleasures and benefits, moreover, which certain parts of the environment yield, and the pains and hurts which other parts inflict, determine the direction of our interest and our attention, and so decide at which points the accumulation of mental experiences shall begin. It might, accordingly, seem as if there were no room for any other agency than this; as if the distinction we have found so useful between "spontaneous variation," as the producer of changed forms, and the environment, as their preserver and destroyer, did not hold in the case of mental progress; as if, in a word, the parallel with Darwinism might no longer obtain, and Spencer might be quite right with his fundamental law of intelligence, which says, "The cohesion between psychical states is proportionate to the frequency with which the relation between the answering external phenomena has been repeated in experience."

But, in spite of all these facts, I have no hesitation whatever in holding firm to the Darwinian distinction even here. I maintain that the facts in question are all drawn from the lower strata of the mind, so to speak—from the sphere of its least evolved functions, from the region of intelligence which man possesses in common with the brutes. And I can easily show that throughout the whole extent of those mental departments which are highest, which are most characteristically human, Spencer's law is violated at every step; and that as a matter of fact the new conceptions, emotions, and active tendencies which evolve are originally produced in the shape of random images, fancies, accidental outbirths of spontaneous variation in the functional activity of the excessively instable human brain, which the outer environment simply confirms or refutes, adopts or rejects, preserves or destroys—selects, in short, just as it selects morphological and social variations due to molecular accidents of an analogous sort.

It is one of the tritest of truisms that human intelligences of a simple order are very literal. They are slaves of habit, doing what they have been taught without variation; dry, prosaic, and matter-of-fact in their remarks; devoid of humor, except of the coarse physical kind which rejoices in a practical joke; taking the world for granted; and possessing in their faithfulness and honesty the single gift by which they are sometimes able to warm us into admiration. But even this faithfulness seems to have a sort of inorganic ring, and to remind us more of the im-

8. That is, if a certain general character be rapidly repeated in our outer experience with a number of strongly contrasted concomitants, it will be sooner abstracted than if its associates are invariable or monotonous.

mutable properties of a piece of inanimate matter than of the steadfastness of a human will capable of alternative choice. When we descend to the brutes, all these peculiarities are intensified. No reader of Schopenhauer can forget his frequent allusions to the *trockener ernst* [dull earnestness] of dogs and horses, nor to their *ehrlichkeit* [honesty]. And every noticer of their ways must receive a deep impression of the fatally literal character of the few, simple, and treadmill-like operations of their minds.

But turn to the highest order of minds, and what a change! Instead of thoughts of concrete things patiently following one another in a beaten track of habitual suggestion, we have the most abrupt crosscuts and transitions from one idea to another, the most rarefied abstractions and discriminations, the most unheard-of combinations of elements, the subtlest associations of analogy; in a word, we seem suddenly introduced into a seething caldron of ideas, where everything is fizzling and bobbing about in a state of bewildering activity, where partnerships can be joined or loosened in an instant, treadmill routine is unknown, and the unexpected seems the only law. According to the idiosyncrasy of the individual, the scintillations will have one character or another. They will be sallies of wit and humor; they will be flashes of poetry and eloquence; they will be constructions of dramatic fiction or of mechanical device, logical or philosophic abstractions, business projects, or scientific hypotheses, with trains of experimental consequences based thereon; they will be musical sounds, or images of plastic beauty or picturesqueness, or visions of moral harmony. But, whatever their differences may be, they will all agree in this—that their genesis is sudden and, as it were, spontaneous. That is to say, the same premises would not, in the mind of another individual, have engendered just that conclusion; although, when the conclusion is offered to the other individual, he may thoroughly accept and enjoy it, and envy the brilliancy of him to whom it first occurred.

To Professor Jevons is due the great credit of having emphatically pointed out how the genius of discovery depends altogether on the number of these random notions and guesses which visit the investigator's mind. To be fertile in hypotheses is the first requisite, and to be willing to throw them away the moment experience contradicts them is the next. The Baconian method of collating tables of instances may be a useful aid at certain times. But one might as well expect a chemist's notebook to write down the name of the body analyzed, or a weather table to sum itself up into a prediction of probabilities of its own accord, as to hope

that the mere fact of mental confrontation with a certain series of facts will be sufficient to make *any* brain conceive their law. The conceiving of the law is a spontaneous variation in the strictest sense of the term. It flashes out of one brain, and no other, because the instability of that brain is such as to tip and upset itself in just that particular direction. But the important thing to notice is that the good flashes and the bad flashes, the triumphant hypotheses and the absurd conceits, are on an exact equality in respect of their origin. Aristotle's absurd Physics and his immortal Logic flow from one source: the forces that produce the one produce the other. When walking along the street, thinking of the blue sky or the fine spring weather, I may either smile at some grotesque whim which occurs to me, or I may suddenly catch an intuition of the solution of a long-unsolved problem, which at that moment was far from my thoughts. Both notions are shaken out of the same reservoir—the reservoir of a brain in which the reproduction of images in the relations of their outward persistence or frequency has long ceased to be the dominant law. But to the thought, when it is once engendered, the consecration of agreement with outward relations may come. The conceit perishes in a moment, and is forgotten. The scientific hypothesis arouses in me a fever of desire for verification. I read, write, experiment, consult experts. Everything corroborates my notion, which being then published in a book spreads from review to review and from mouth to mouth, till at last there is no doubt I am enshrined in the Pantheon of the great diviners of nature's ways. The environment *preserves* the conception which it was unable to *produce* in any brain less idiosyncratic than my own.

Now, the spontaneous upsettings of brains this way and that at particular moments into particular ideas and combinations are matched by their equally spontaneous permanent tiltings or saggings towards determinate directions. The humorous bent is quite characteristic; the sentimental one equally so. And the personal tone of each mind, which makes it more alive to certain classes of experience than others, more attentive to certain impressions, more open to certain reasons, is equally the result of that invisible and unimaginable play of the forces of growth within the nervous system which, irresponsibly to the environment, makes the brain peculiarly apt to function in a certain way. Here again the selection goes on. The products of the mind with the determined aesthetic bent please or displease the community. We adopt Wordsworth, and grow unsentimental and serene. We are fascinated by Schopenhauer, and learn from him the true luxury of woe. The adopted bent becomes a ferment in the community, and alters its tone. The alteration may be a

benefit or a misfortune, for it is (*pace* Mr. Allen) a differentiation from within, which has to run the gauntlet of the larger environment's selective power. Civilized Languedoc, taking the tone of its scholars, poets, princes, and theologians, fell a prey to its rude Catholic environment in the Albigensian crusade. France in 1792, taking the tone of its Saint-Justs and Marats, plunged into its long career of unstable outward relations. Prussia in 1806, taking the tone of its Humboldts and its Steins, proved itself in the most signal way "adjusted" to its environment in 1872.

Mr. Spencer, in one of the strangest chapters of his Psychology, tries to show the necessary order in which the development of conceptions in the human race occurs. No abstract conception can be developed, according to him, until the outward experiences have reached a certain degree of heterogeneity, definiteness, coherence, and so forth.

> Thus the belief in an unchanging order, the belief in *law*, is a belief of which the primitive man is absolutely incapable. . . . Experiences such as he receives furnish but few data for the conception of uniformity, whether as displayed in things or in relations. . . . The daily impressions which the savage gets yield the notion very imperfectly, and in but few cases. Of all the objects around—trees, stones, hills, pieces of water, clouds, and so forth,—most differ widely, . . . and few approach complete likeness so nearly as to make discrimination difficult. Even between animals of the same species it rarely happens that, whether alive or dead, they are presented in just the same attitudes. . . . It is only along with a gradual development of the arts . . . that there come frequent experiences of perfectly straight lines admitting of complete apposition, bringing the perceptions of equality and inequality. Still more devoid is savage life of the experiences which generate the conception of the uniformity of succession. The sequences observed from hour to hour and day to day seem anything but uniform; difference is a far more conspicuous trait among them. . . . So that if we contemplate primitive human life as a whole, we see that multiformity of sequence, rather than uniformity, is the notion which it tends to generate. . . . Only as fast as the practice of the arts develops the idea of measure can the consciousness of uniformity become clear. . . . Those conditions furnished by advancing civilization which make possible the notion of uniformity simultaneously make possible the notion of *exactness*. . . . Hence the primitive man has little experience which cultivates the consciousness of what we call *truth*. How closely allied this is to the consciousness which the practice of the arts cultivates is implied even in language. We speak of a true surface as well as a true statement. Exactness describes perfection in a mechanical fit, as well as perfect agreement between the results of calculations.

The whole burden of Mr. Spencer's book is to show the fatal way in which the mind, supposed passive, is molded by its experiences of "outer relations." In this chapter the yardstick, the balance, the chronometer, and other machines and instruments come to figure among the "relations" external to the mind. Surely they are so after they have been manufactured, but only because of the preservative power of the social environment. Originally all these things and all other institutions were flashes of genius in an individual head, of which the outer environment showed no sign. Adopted by the race and become its heritage, they then supply instigations to new geniuses whom they environ to make new inventions and discoveries; and so the ball of progress rolls. But take out the geniuses, or alter their idiosyncrasies, and what increasing uniformities will the environment show? We defy Mr. Spencer or anyone else to reply.

The plain truth is that the "philosophy" of evolution (as distinguished from our special information about particular cases of change) is a metaphysical creed, and nothing else. It is a mood of contemplation, an emotional attitude, rather than a system of thought–a mood which is old as the world, and which no refutation of any one incarnation of it (such as the Spencerian philosophy) will dispel; the mood of fatalistic pantheism, with its intuition of the One and All, which was, and is, and ever shall be, and from whose womb each single thing proceeds. Far be it from us to speak slightingly here of so hoary and mighty a style of looking on the world as this. What we at present call scientific discoveries had nothing to do with bringing it to birth, nor can one easily conceive that they should ever give it its *quietus*, no matter how logically incompatible with its spirit the ultimate phenomenal distinctions which science accumulates should turn out to be. It can laugh at the phenomenal distinctions on which science is based, for it draws its vital breath from a region which–whether above or below–is at least altogether different from that in which science dwells. A critic, however, who cannot disprove the truth of the metaphysic creed, can at least raise his voice in protest against its disguising itself in "scientific" plumes. I think that all who have had the patience to follow me thus far will agree that the Spencerian "philosophy" of social and intellectual progress is an obsolete anachronism, reverting to a pre-darwinian type of thought, just as the Spencerian philosophy of "Force," effacing all the previous distinctions between actual and potential energy, momentum, work, force, mass, etc., which physicists have with so much agony achieved, carries us back to a pre-Galilean age.

Arthur Schopenhauer [1]

1788–1860

The controversy over education is almost as ancient as philosophy itself. It begins with Plato and Aristotle. Plato's most famous dialogue, *The Republic,*[2] is in large part an attempt to outline an ideal educational program. Book VIII of Aristotle's *Politics* [3] is a criticism of Plato's program and a presentation of Aristotle's own plan for education. From this beginning, the debate on education continues throughout the history of philosophy. It eventually involves (among many others) Montaigne, Descartes, Rousseau, Kant, Schopenhauer, and John Dewey.

Though the education controversy is centuries old, it has never before raged so fiercely as it has in the United States in the twentieth century. During this period, we have witnessed clashes between *progressivists* and *classicists,* between those who favor courses in social adjustment and those who think that all such courses should be eliminated, between those who think that children should learn "at their own pace" and those who want children to be "challenged," between those who favor indoctrination and those who think that children should be given complete intellectual freedom, and so on. A listing of all of the various grounds of dispute would require several pages.

Are Schopenhauer's views on education relevant to any of these controversies? Indeed they are, but partisans of either "traditional" or "modern" education will be disappointed to find that he cannot definitely be aligned on either side of the argument. When he says that "the branches of knowledge which are to be studied at any

[1] For a biography of Schopenhauer, see Vol. 5, pp. 120–122, in this set.
[2] See *Great Books of the Western World.*
[3] See *Great Books of the Western World.*

period of life should be such as the mind is equal to at that period and can perfectly understand," he might appear to be on the side of the modernist. But when he insists that "the memory should be specially taxed in youth," he approaches the traditionalist side.

Schopenhauer's main concern is that the method of education should be as *natural* as possible. In other words, the advance of education should be from the observation of particular facts to the formulation of general principles–not vice versa. If general principles are taught first, says Schopenhauer, they soon become *prejudices* which hinder the individual from seeing the world as it really is. When this occurs (and according to Schopenhauer, it usually does), the individual often must spend most of his adult life *unlearning* his childhood prejudices.

Schopenhauer is one of the most independent thinkers who ever lived. He is almost completely free of the illusions that we tend to associate with thought in the nineteenth century. Reading him today is like reading a contemporary. In fact, in parts of his essay *On Education,* Schopenhauer seems to be in advance of contemporary thinkers.

On Education

The human intellect is said to be so constituted that general ideas arise by abstraction from particular observations, and therefore come after them in point of time. If this is what actually occurs, as happens in the case of a man who has to depend solely upon his own experience for what he learns—who has no teacher and no book—such a man knows quite well which of his particular observations belong to and are represented by each of his general ideas. He has a perfect acquaintance with both sides of his experience, and accordingly he treats everything that comes in his way from a right standpoint. This might be called the natural method of education.

Contrarily, the artificial method is to hear what other people say, to learn and to read, and so to get your head crammed full of general ideas before you have any sort of extended acquaintance with the world as it is, and as you may see it for yourself. You will be told that the particular observations which go to make these general ideas will come to you later on in the course of experience; but until that time arrives you apply your general ideas wrongly, you judge men and things from a wrong standpoint, you see them in a wrong light, and treat them in a wrong way. So it is that education perverts the mind.

This explains why it so frequently happens that, after a long course of learning and reading, we enter upon the world in our youth, partly with an artless ignorance of things, partly with wrong notions about them; so that our demeanor savors at one moment of a nervous anxiety, at another of a mistaken confidence. The reason of this is simply that our head is full of general ideas which we are now trying to turn to some use, but which we hardly ever apply rightly. This is the result of acting in direct opposition to the natural development of the mind by obtaining general ideas first, and particular observations last: it is putting the cart before the horse. Instead of developing the child's own faculties of dis-

cernment, and teaching it to judge and think for itself, the teacher uses all his energies to stuff its head full of the ready-made thoughts of other people. The mistaken views of life, which spring from a false application of general ideas, have afterwards to be corrected by long years of experience; and it is seldom that they are wholly corrected. This is why so few men of learning are possessed of common sense, such as is often to be met with in people who have had no instruction at all.

To acquire a knowledge of the world might be defined as the aim of all education; and it follows from what I have said that special stress should be laid upon beginning to acquire this knowledge at the right end. As I have shown, this means, in the main, that the particular observation of a thing shall precede the general idea of it; further, that narrow and circumscribed ideas shall come before ideas of a wide range. It means, therefore, that the whole system of education shall follow in the steps that must have been taken by the ideas themselves in the course of their formation. But whenever any of these steps are skipped or left out the instruction is defective, and the ideas obtained are false; and finally a distorted view of the world arises, peculiar to the individual himself–a view such as almost everyone entertains for some time, and most men for as long as they live. No one can look into his own mind without seeing that it was only after reaching a very mature age, and in some cases when he least expected it, that he came to a right understanding or a clear view of many matters in his life that, after all, were not very difficult or complicated. Up till then they were points in his knowledge of the world which were still obscure, due to his having skipped some particular lesson in those early days of his education, whatever it may have been like–whether artificial and conventional, or of that natural kind which is based upon individual experience.

It follows that an attempt should be made to find out the strictly natural course of knowledge, so that education may proceed methodically by keeping to it; and that children may become acquainted with the ways of the world without getting wrong ideas into their heads, which very often cannot be got out again. If this plan were adopted, special care would have to be taken to prevent children from using words without clearly understanding their meaning and application. The fatal tendency to be satisfied with words instead of trying to understand things–to learn phrases by heart, so that they may prove a refuge in time of need–exists, as a rule, even in children; and the tendency lasts on into manhood, making the knowledge of many learned persons to consist in mere verbiage.

However, the main endeavor must always be to let particular observations precede general ideas, and not vice versa, as is usually and unfortunately the case; as though a child should come feet foremost into the world, or a verse be begun by writing down the rhyme! The ordinary method is to imprint ideas and opinions, in the strict sense of the world, prejudices, on the mind of the child before it has had any but a very few particular observations. It is thus that he afterwards comes to view the world and gather experience through the medium of those ready-made ideas, rather than to let his ideas be formed for him out of his own experience of life, as they ought to be.

A man sees a great many things when he looks at the world for himself, and he sees them from many sides; but this method of learning is not nearly so short or so quick as the method which employs abstract ideas and makes hasty generalizations about everything. Experience, therefore, will be a long time in correcting preconceived ideas, or perhaps never bring its task to an end; for, wherever a man finds that the aspect of things seems to contradict the general ideas he has formed, he will begin by rejecting the evidence it offers as partial and one sided; nay, he will shut his eyes to it altogether and deny that it stands in any contradiction at all with his preconceived notions, in order that he may thus preserve them uninjured. So it is that many a man carries about a burden of wrong notions all his life long–crotchets, whims, fancies, prejudices, which at last become fixed ideas. The fact is that he has never tried to form his fundamental ideas for himself out of his own experience of life, his own way of looking at the world, because he has taken over his ideas ready made from other people; and this it is that makes him–as it makes how many others!–so shallow and superficial.

Instead of that method of instruction care should be taken to educate children on the natural lines. No idea should ever be established in a child's mind otherwise than by what the child can see for itself, or at any rate it should be verified by the same means; and the result of this would be that the child's ideas, if few, would be well grounded and accurate. It would learn how to measure things by its own standard rather than by another's; and so it would escape a thousand strange fancies and prejudices, and not need to have them eradicated by the lessons it will subsequently be taught in the school of life. The child would, in this way, have its mind once for all habituated to clear views and thoroughgoing knowledge: it would use its own judgment and take an unbiased estimate of things.

And, in general, children should not form their notions of what life is

like from the copy before they have learned it from the original, to whatever aspect of it their attention may be directed. Instead, therefore, of hastening to place books, and books alone, in their hands, let them be made acquainted, step by step, with things—with the actual circumstances of human life. And above all let care be taken to bring them to a clear and objective view of the world as it is, to educate them always to derive their ideas directly from real life, and to shape them in conformity with it—not to fetch them from other sources, such as books, fairy tales, or what people say, and then apply them ready made to real life. For this will mean that their heads are full of wrong notions, and that they will either see things in a false light or try in vain to remodel the world to suit their views, and so enter upon false paths; and that, too, whether they are only constructing theories of life or engaged in the actual business of it. It is incredible how much harm is done when the seeds of wrong notions are laid in the mind in those early years, later on to bear a crop of prejudice; for the subsequent lessons which are learned from real life in the world have to be devoted mainly to their extirpation. To unlearn the evil was the answer which, according to Diogenes Laërtius, Antisthenes gave when he was asked what branch of knowledge was most necessary; and we can see what he meant.

No child under the age of fifteen should receive instruction in subjects which may possibly be the vehicle of serious error, such as philosophy, religion, or any other branch of knowledge where it is necessary to take large views; because wrong notions imbibed early can seldom be rooted out, and of all the intellectual faculties judgment is the last to arrive at maturity. The child should give its attention either to subjects where no error is possible at all, such as mathematics, or to those in which there is no particular danger in making a mistake, such as languages, natural science, history, and so on. And in general, the branches of knowledge which are to be studied at any period of life should be such as the mind is equal to at that period and can perfectly understand. Childhood and youth form the time for collecting materials, for getting a special and thorough knowledge of individual and particular things. In those years it is too early to form views on a large scale; and ultimate explanations must be put off to a later date. The faculty of judgment, which cannot come into play without mature experience, should be left to itself; and care should be taken not to anticipate its action by inculcating prejudice, which will paralyze it forever.

On the other hand, the memory should be specially taxed in youth, since it is then that it is strongest and most tenacious. But in choosing

the things that should be committed to memory the utmost care and forethought must be exercised, as lessons well learned in youth are never forgotten. This precious soil must therefore be cultivated so as to bear as much fruit as possible. If you think how deeply rooted in your memory are those persons whom you knew in the first twelve years of your life, how indelible the impression made upon you by the events of those years, how clear your recollection of most of the things that happened to you then, most of what was told or taught you, it will seem a natural thing to take the susceptibility and tenacity of the mind at that period as the groundwork of education. This may be done by a strict observance of method, and a systematic regulation of the impressions which the mind is to receive.

But the years of youth allotted to man are short, and memory is, in general, bound within narrow limits; still more so the memory of any one individual. Since this is the case, it is all important to fill the memory with what is essential and material in any branch of knowledge, to the exclusion of everything else. The decision as to what is essential and material should rest with the masterminds in every department of thought; their choice should be made after the most mature deliberation, and the outcome of it fixed and determined. Such a choice would have to proceed by shifting the things which it is necessary and important for a man to know in general, and then necessary and important for him to know in any particular business or calling. Knowledge of the first kind would have to be classified, after an encyclopaedic fashion, in graduated courses, adapted to the degree of general culture which a man may be expected to have in the circumstances in which he is placed; beginning with a course limited to the necessary requirements of primary education, and extending upwards to the subjects treated of in all the branches of philosophical thought. The regulation of the second kind of knowledge would be left to those who had shown genuine mastery in the several departments into which it is divided; and the whole system would provide an elaborate rule or canon for intellectual education, which would, of course, have to be revised every ten years. Some such arrangement as this would employ the youthful power of the memory to best advantage, and supply excellent working material to the faculty of judgment, when it made its appearance later on.

A man's knowledge may be said to be mature, in other words, to have reached the most complete state of perfection to which he, as an individual, is capable of bringing it, when an exact correspondence is established between the whole of his abstract ideas and the things he has

actually perceived for himself. This will mean that each of his abstract ideas rests, directly or indirectly, upon a basis of observation, which alone endows it with any real value; and also that he is able to place every observation he makes under the right abstract idea which belongs to it. Maturity is the work of experience alone; and therefore it requires time. The knowledge we derive from our own observation is usually distinct from that which we acquire through the medium of abstract ideas; the one coming to us in the natural way, the other by what people tell us, and the course of instruction we receive, whether it is good or bad. The result is that in youth there is generally very little agreement or correspondence between our abstract ideas, which are merely phrases fixed in the mind, and that real knowledge which we have obtained by our own observation. It is only later on that a gradual approach takes place between these two kinds of knowledge, accompanied by a mutual correction of error; and knowledge is not mature until this coalition is accomplished. This maturity or perfection of knowledge is something quite independent of another kind of perfection, which may be of a high or a low order—the perfection, I mean, to which a man may bring his own individual faculties; which is measured, not by any correspondence between the two kinds of knowledge, but by the degree of intensity which each kind attains.

For the practical man the most needful thing is to acquire an accurate and profound knowledge of the ways of the world. But this, though the most needful, is also the most wearisome of all studies, as a man may reach a great age without coming to the end of his task; whereas, in the domain of the sciences, he masters the more important facts when he is still young. In acquiring that knowledge of the world, it is while he is a novice, namely, in boyhood and in youth, that the first and hardest lessons are put before him; but it often happens that even in later years there is still a great deal to be learned.

The study is difficult enough in itself; but the difficulty is doubled by novels, which represent a state of things in life and the world such as, in fact, does not exist. Youth is credulous, and accepts these views of life, which then become part and parcel of the mind; so that, instead of a merely negative condition of ignorance, you have positive error—a whole tissue of false notions to start with; and at a later date these actually spoil the schooling of experience, and put a wrong construction on the lessons it teaches. If, before this, the youth had no light at all to guide him, he is now misled by a will-o'-the-wisp; still more often is this the case with a girl. They have both had a false view of things foisted onto them

by reading novels; and expectations have been aroused which can never be fulfilled. This generally exercises a baneful influence on their whole life. In this respect those whose youth has allowed them no time or opportunity for reading novels–those who work with their hands and the like–are in a position of decided advantage. There are a few novels to which this reproach cannot be addressed–nay, which have an effect the contrary of bad. First and foremost, to give an example, *Gil Bias,* and the other works of Le Sage (or rather their Spanish originals); further, *The Vicar of Wakefield,* and, to some extent, Sir Walter Scott's novels. *Don Quixote* may be regarded as a satirical exhibition of the error to which I am referring.

The foregoing is from Schopenhauer's
STUDIES IN PESSIMISM.

Michael Faraday

1791–1867

Michael Faraday, one of the great men of science, was born in 1791 in a small village near London, England. His family was very poor, and it was necessary for him to begin working at an early age. When he was twelve, he became an errand boy for a bookseller and bookbinder. He made such an excellent impression upon his employer that a year later he was accepted as an apprentice bookbinder without fee.

Michael had little formal schooling, and the most important part of his early education was obtained from the books he came across in his work. He was particularly interested in works on chemistry and in the electrical treatises in *Encyclopædia Britannica.* When he was twenty, he attended a series of lectures on science by Sir Humphry Davy at the Royal Institution. He made careful notes of the lectures, bound them in a book, and sent them to Davy along with a request for employment at the Royal Institution. Davy at first attempted to discourage him from giving up the trade of bookbinding, but a few months later he offered Faraday the post of laboratory assistant. Faraday accepted, and from that time until his death he was closely associated with the Royal Institution.

As Davy's assistant, Faraday was engaged in many different types of scientific research, including studies of chlorine, glass, and the

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Notes from the artist: "A design based on the equipment used in his experiments on the induction of currents forms the background for the portrait of Faraday. The pose was adapted from a portrait taken by C. L. Dodgson, better known as Lewis Carroll."

Michael
Faraday

liquefaction of gases. In 1821 he began work in the field in which he was to make his most important contributions: electromagnetism. The scientific world had been stirred the previous year by the researches of a Danish scientist, H. C. Oersted, which indicated a relationship between electricity and magnetism. Faraday was fascinated with the subject, but he was unable to turn his full attention to it for almost a decade. Then, through a series of experiments made in 1831, he discovered that an electric current could be induced in a coil of wire by the movement of a magnet in its vicinity. He also observed that the same effect could be achieved if the coil was moved while the magnet remained stationary. Later he discovered that an electric current in one wire caused induction in a neighboring wire. These fundamental discoveries led directly to the dynamo and the transformer, and they formed the basis of all subsequent developments in electricity.

Faraday continued his electrical research for many years, keeping a careful record of his observations. He published his findings under the general title *Experimental Researches in Electricity*.[1] The greatness of this work was quickly recognized, and it has long been considered a scientific classic. During his long life, Faraday received almost every important honor which could be bestowed upon a man of science. After a long period of ill health, he died in 1867.

At the time Faraday composed his lecture *Observations on Mental Education*, there was considerable clamor in England about "spiritualism." The air was filled with reports of seances, in which the dead communicated with the living. In a typical seance, a group of persons desiring to communicate with the dead sat around a heavy table in a dimly lit room. If the table moved, it indicated the presence of the dead. Many stories were told of tables rising several feet in the air or moving across a room unassisted.

Faraday was particularly interested in spiritualistic phenomena because many people had attempted to explain them in terms of electricity and magnetism. Always an open-minded man, he refused to pass judgment on such theories until he had personally observed a seance. His observations convinced him that the claims of the spiritualists were completely without substance. He was very dis-

[1] See *Great Books of the Western World.*

turbed by what he learned about his fellow men through this experience. In a letter written to a friend at the time, he said, "What a weak, credulous, incredulous, unbelieving, superstitious, bold, frightened–what a ridiculous world ours is, as far as concerns the mind of men. How full of inconsistencies, contradictions, and absurdities it is!" He refers to his dealings with the table-movers several times in *Observations on Mental Education*, and the general theme of the lecture seems to have been directly inspired by them.

In his lecture Faraday argues that the greatest intellectual weakness of men is deficiency of judgment. By this he means primarily the tendency of men to draw sweeping conclusions from little or no evidence or to draw conclusions hastily without taking into account all the factors involved. Though he believes that the judgment can be partly trained through formal education, Faraday insists that it can be improved only if the individual is willing to make a strong personal effort. He describes in detail a series of steps by which the judgment can be self-educated.

Each of us is willing to admit that the judgments of others are often faulty, but we are inclined to assume that our own judgment is quite sound and dependable. Nevertheless, it is very unlikely that anyone can read *Observations on Mental Education* without discovering that he is guilty of one or more of the errors of judgment specified by Faraday. It is equally unlikely that the reader will fail to profit from Faraday's advice on how to improve his judgment.

The remarks at the beginning of this lecture are addressed to Prince Albert, who was present in the audience.

Observations on Mental Education

I take courage, Sir, from your presence here this day, to speak boldly that which is upon my mind. I feared that it might be unpleasant to some of my audience, but as I know that your Royal Highness is a champion for and desires the truth, I will believe that all here are united in the same cause, and therefore will give utterance, without hesitation, to what I have to say regarding the present condition of mental education.

If the term education may be understood in so large a sense as to include all that belongs to the improvement of the mind, either by the acquisition of the knowledge of others, or by increase of it through its own exertions, then I may hope to be justified for bringing forward a few desultory observations respecting the exercise of the mental powers in a particular direction, which otherwise might seem out of place. The points I have in view are general, but they are manifest in a striking manner, among the physical matters which have occupied my life; and as the latter afford a field for exercise in which cogitations and conclusions can be subjected to the rigid tests of fact and experiment—as all classes employ themselves more or less in the consideration of physical matters, and may do so with great advantage, if inclined in the least degree to profit by educational practices, so I hope that what I may say will find its application in every condition of life.

Before entering upon the subject, I must take one distinction which, however it may appear to others, is to me of the utmost importance. High as man is placed above the creatures around him, there is a higher and far more exalted position within his view; and the ways are infinite in which he occupies his thoughts about the fears, or hopes, or expectations of a future life. I believe that the truth of that future cannot be brought to his knowledge by any exertion of his mental powers, however exalted

they may be; that it is made known to him by other teaching than his own, and is received through simple belief of the testimony given. Let no one suppose for a moment that the self-education I am about to commend in respect of the things of this life, extends to any considerations of the hope set before us, as if man by reasoning could find out God. It would be improper here to enter upon this subject further than to claim an absolute distinction between religious and ordinary belief. I shall be reproached with the weakness of refusing to apply those mental operations which I think good in respect of high things to the very highest. I am content to bear the reproach. Yet, even in earthly matters, I believe that the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead; and I have never seen anything incompatible between those things of man which can be known by the spirit of man which is within him, and those higher things concerning his future which he cannot know by that spirit.

Claiming, then, the use of the ordinary faculties of the mind in ordinary things, let me next endeavour to point out what appears to me to be a great deficiency in the exercise of the mental powers in every direction; three words will express this great want, deficiency of judgment. I do not wish to make any startling assertion, but I know that in physical matters multitudes are ready to draw conclusions who have little or no power of judgment in the cases; that the same is true of other departments of knowledge; and that, generally, mankind is willing to leave the faculties which relate to judgment almost entirely uneducated, and their decisions at the mercy of ignorance, prepossessions, the passions, or even accident.

Do not suppose, because I stand here and speak thus, making no exceptions, that I except myself. I have learned to know that I fall infinitely short of that efficacious exercise of the judgment which may be attained. There are exceptions to my general conclusion, numerous and high; but if we desire to know how far education is required, we do not consider the few who need it not, but the many who have it not; and in respect of judgment, the number of the latter is almost infinite. I am moreover persuaded, that the clear and powerful minds which have realized in some degree the intellectual preparation I am about to refer to, will admit its importance, and indeed its necessity; and that they will not except themselves, nor think that I have made my statement too extensive.

As I believe that a very large proportion of the errors we make in judgment is a simple and direct result of our perfectly unconscious state, and think that a demonstration of the liabilities we are subject to would aid

greatly in providing a remedy, I will proceed first to a few illustrations of a physical nature. Nothing can better supply them than the intimations we derive from our senses; to them we trust directly; by them we become acquainted with external things, and gain the power of increasing and varying facts upon which we entirely depend. Our sense perceptions are wonderful. Even in the observant, but unreflective, infant they soon produce a result which looks like intuition because of its perfection. Coming to the mind as so many data, they are stored up and, without our being conscious of it, are ever after used in like circumstances in forming our judgment; and it is not wonderful that man is accustomed to trust them without examination. Nevertheless, the result is the effect of education: the mind has to be instructed with regard to the senses and their intimations through every step of life; and where the instruction is imperfect, it is astonishing how soon and how much their evidence fails us. Yet, in the latter years of life we do not consider this matter, but, having obtained the ordinary teaching sufficient for ordinary purposes, we venture to judge of things which are extraordinary for the time, and almost always with the more assurance as our powers of observation are less educated. Consider the following case of a physical impression, derived from the sense of touch, which can be examined and verified at pleasure: If the hands be brought towards each other so that the tips of the corresponding fingers touch, the end of any finger may be considered as an object to be felt by the opposed finger, thus the two middle fingers may for the present be so viewed. If the attention be directed to them, no difficulty will be experienced in moving each lightly in a circle round the tip of the other, so that they shall each feel the opposite, and the motion may be either in one direction or the other–looking at the fingers, or with eyes employed elsewhere–or with the remaining fingers touching quiescently, or moving in a like direction; all is easy, because each finger is employed in the ordinary or educated manner whilst obeying the will, and whilst communicating through the sentient organ with the brain. But turn the hands half way round, so that their backs shall be towards each other, and then, crossing them at the wrists, again bring the like fingers into contact at the tips. If it be now desired to move the extremities of the middle fingers round each other, or to follow the contour of one finger by the tip of the opposed one, all sorts of confusion in the motion will ensue; and as the finger of one hand tries, under the instruction of the will, to move in one course, the touched finger will convey an intimation that it is moving in another. If all the fingers move at once, all will be in confusion, the ease and simplicity of the first case having entirely disappeared. If, after some

considerable trial, familiarity with the new circumstances have removed part of the uncertainty, then, crossing the hands at the opposite sides of the wrists will renew it. These contrary results are dependent not on any change in the nature of the sentient indication, or of the surfaces or substances which the sense has to deal with, but upon the trifling circumstance of a little variation from the direction in which the sentient organs of these parts are usually exerted, and they show to what an extraordinary extent our interpretations of the sense impressions depend upon the experience, *i.e.*, the education which they have previously received, and their great inability to aid us at once in circumstances which are entirely new.

At other times they fail us because we cannot keep a true remembrance of former impressions. Thus, on the evening of the eleventh of March last, I and many others were persuaded that at one period the moon had a real green colour, and though I knew that the prevailing red tints of the general sky were competent to produce an effect of such a kind, yet there was so little of that in the neighbourhood of the planet, that I was doubtful whether the green tint was not produced on the moon by some aërial medium spread before it, until, by holding up white cards in a proper position, and comparing them with our satellite, I had determined experimentally that the effect was only one of contrast. In the midst of the surrounding tints, my memory could not recall the true sentient impression which the white of the moon most surely had before made upon the eye.

At other times the failure is because one impression is overpowered by another; for as the morning star disappears when the sun is risen, though still above the horizon and shining brightly as ever, so do stronger phenomena obscure weaker, even when both are of the same kind; till an uninstructed person is apt to pass the weaker unobserved, and even deny their existence.

So, error results occasionally from believing our senses: it ought to be considered, rather, as an error of the judgment than of the sense, for the latter has performed its duty; the indication is always correct, and in harmony with the great truth of nature. Where, then, is the mistake? Almost entirely with our judgment. We have not had that sufficient instruction by the senses which would justify our making a conclusion; we have to contrive extra and special means, by which their first impressions shall be corrected, or rather enlarged; and it is because our procedure was hasty, our data too few, and our judgment untaught, that we fell into mistake; not because the data were wrong. How frequently may each one of us perceive, in our neighbours, at least, that a result like this derived from the

observation of physical things, happens in the ordinary affairs of common life.

When I become convicted of such haste, which is not unfrequently the case, I look back upon the error as one of "presumptuous judgment." Under that form it is easily presentable to the mind, and has a useful corrective action. I do not think the expression too strong; for if we are led, either by simplicity or vanity, to give an opinion upon matters respecting which we are not instructed, either by the knowledge of others, or our own intimate observation; if we are induced to ascribe an effect to one force, or deny its relation to another, knowing little or nothing of the laws of the forces, or the necessary conditions of the effect to be considered; surely our judgment must be qualified as "presumptuous."

There are multitudes who think themselves competent to decide, after the most cursory observation, upon the cause of this or that event (and they may be really very acute and correct in things familiar to them)—a not unusual phrase with them is that "it stands to reason," that the effect they expect should result from the cause they assign to it, and yet it is very difficult, in numerous cases that appear plain, to show this reason, or to deduce the true and only rational relation of cause and effect. In matters connected with natural philosophy, we have wonderful aid in the progress and assurance in the character, of our final judgment, afforded us by the facts which supply our data, and the experience which multiplies their number and varies their testimony. A fundamental fact, like an elementary principle, never fails us, its evidence is always true; but, on the other hand, we frequently have to ask, "What is the fact?"—often fail in distinguishing it, often fail in the very statement of it, and mostly overpass or come short of its true recognition.

If we are subject to mistake in the interpretation of our mere sense impressions, we are much more liable to error when we proceed to deduce from these impressions (as supplied to us by our ordinary experience), the relation of cause and effect; and the accuracy of our judgment, consequently, is more endangered. Then our dependence should be upon carefully observed facts and the laws of nature; and I shall proceed to a further illustration of the mental deficiency I speak of, by a brief reference to one of these.

The laws of nature, as we understand them, are the foundation of our knowledge in natural things. So much as we know of them has been developed by the successive energies of the highest intellects, exerted through many ages. After a most rigid and scrutinizing examination upon principle and trial, a definite expression has been given to them; they have

become, as it were, our belief or trust. From day to day we still examine and test our expressions of them. We have no interest in their retention if erroneous; on the contrary, the greatest discovery a man could make would be to prove that one of these accepted laws was erroneous, and his greatest honour would be the discovery. Neither would there be any desire to retain the former expression–for we know that the new or the amended law would be far more productive in results, would greatly increase our intellectual acquisitions, and would prove an abundant source of fresh delight to the mind.

These laws are numerous, and are more or less comprehensive. They are also precise; for a law may present an apparent exception, and yet not be less a law to us, when the exception is included in the expression. Thus, that elevation of temperature expands all bodies is a well-defined law, though there be an exception in water for a limited temperature; because we are careful, whilst stating the law, to state the exception and its limits. Pre-eminent among these laws, because of its simplicity, its universality, and its undeviating truth, stands that enunciated by Newton (commonly called the law of gravitation), that matter attracts matter with a force inversely as the square of the distance. Newton showed that, by this law, the general condition of things on the surface of the earth is governed; and the globe itself, with all upon it, kept together as a whole. He demonstrated that the motions of the planets round the sun, and of the satellites about the planets, were subject to it. During and since his time, certain variations in the movements of the planets, which were called irregularities, and might, for aught that was then known, be due to some cause other than the attraction of gravitation, were found to be its necessary consequences. By the close and scrutinizing attention of minds the most persevering and careful, it was ascertained that even the distant stars were subject to this law; and, at last, to place as it were the seal of assurance to its never-failing truth, it became, in the minds of Leverrier and Addams (1845), the foreteller and the discoverer of an orb rolling in the depths of space, so large as to equal nearly sixty earths, yet so far away as to be invisible to the unassisted eye. What truth, beneath that of revelation, can have an assurance stronger than this!

Yet this law is often cast aside as of no value or authority, because of the unconscious ignorance amidst which we dwell. You hear at the present day, that some persons can place their fingers on a table, and then elevating their hands, the table will rise up and follow them; that the piece of furniture, though heavy, will ascend, and that their hands bear no weight, or are not drawn down to the wood; you do not hear of this as a

conjuring manoeuvre, to be shown for your amusement, but are expected seriously to believe it; and are told that it is an important fact, a great discovery amongst the truths of nature. Your neighbour, a well-meaning, conscientious person, believes it; and the assertion finds acceptance in every rank of society, and amongst classes which are esteemed to be educated. Now, what can this imply but that society, speaking generally, is not only ignorant as respects education of the judgment, but is also ignorant of its ignorance. The parties who are thus persuaded, and those who are inclined to think and to hope that they are right, throw up Newton's law at once, and that in a case which of all others is fitted to be tested by it; or if the law be erroneous, to test the law. I will not say they oppose the law, though I have heard the supposed fact quoted triumphantly against it; but as far as my observation has gone, they will not apply it. The law affords the simplest means of testing the fact, and if there be, indeed, anything in the latter new to our knowledge (and who shall say that new matter is not presented to us daily, passing away unrecognized), it also affords the means of placing that before us separately in its simplicity and truth. Then why not consent to apply the knowledge we have to that which is under development? Shall we educate ourselves in what is known, and then casting away all we have acquired, turn to our ignorance for aid to guide us among the unknown? If so, instruct a man to write, but employ one who is unacquainted with letters to read that which is written; the end will be just as unsatisfactory, though not so injurious, for the book of nature, which we have to read, is written by the finger of God. Why should not one who can thus lift a table, proceed to verify and simplify his fact, and bring it into relation with the law of Newton? Why should he not take the top of his table (it may be a small one), and placing it in a balance, or on a lever, proceed to ascertain how much weight he can raise by the draught of his fingers upwards; and of this weight, so ascertained, how much is unrepresented by any pull upon the fingers downward? He will then be able to investigate the further question, whether electricity, or any new force of matter, is made manifest in his operations; or whether action and reaction being unequal, he has at his command the source of a perpetual motion. Such a man, furnished with a nicely constructed carriage on a railway, ought to travel by the mere draught of his own fingers. A far less prize than this would gain him the attention of the whole scientific and commercial world; and he may rest assured, that if he can make the most delicate balance incline or decline by attraction, though it be only with the force of an ounce, or even a

grain, he will not fail to gain universal respect and most honourable reward.

When we think of the laws of nature (which by continued observation have become known to us), as the proper tests to which any new fact or our theoretical representation of it should, in the first place, be subjected, let us contemplate their assured and large character. Let us go out into the field and look at the heavens with their solar, starry, and planetary glories; the sky with its clouds; the waters descending from above or wandering at our feet; the animals, the trees, the plants; and consider the permanency of their actions and conditions under the government of these laws. The most delicate flower, the tenderest insect, continues in its species through countless years; always varying, yet ever the same. When we think we have discovered a departure, as in the *Aphides*, *Medusae*, *Distomae*, etc.,[1] the law concerned is itself the best means of instituting an investigation, and hitherto we have always found the witness to return to its original testimony. These frail things are never ceasing, never changing, evidence of the law's immutability. It would be well for a man who has an anomalous case before him to contemplate a blade of grass, and when he has considered the numerous ceaseless, yet certain, actions there located, and his inability to change the character of the least among them, to recur to his new subject; and, in place of accepting unwatched and unchecked results, to search for a like certainty and recurrence in the appearances and actions which belong to it.

Perhaps it may be said, the delusion of table-moving is past, and need not be recalled before an audience like the present [2]–even granting this, let us endeavour to make the subject leave one useful result; let it serve for an example, not to pass into forgetfulness. It is so recent, and was received by the public in a manner so strange, as to justify a reference to it, in proof of the uneducated condition of the general mind. I do not object

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1. See Claparède's *Account of Alternating Generation and the Metamorphoses of Inferior Animals*.
2. As an illustration of the present state of the subject, I will quote one letter from among many like it which I have received–M. F.

"April 5, 1854.

SIR, I am one of the clergymen of this parish, and have had the subject of table-turning brought under my notice by some of my younger parishioners; I gave your solution of it as a sufficient answer to the mystery. The reply was made, that you had since seen reason to alter your opinion. Would you have the politeness to inform me if you have done so? With many apologies for troubling you,

I am, your obedient servant,

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to table-moving, for *itself;* for being once stated it becomes a fit, though a very unpromising subject for experiment; but I am opposed to the unwillingness of its advocates to investigate; their boldness to assert; the credulity of the lookers-on; their desire that the reserved and cautious objector should be in error; and I wish, by calling attention to these things, to make the general want of mental discipline and education manifest.

Having endeavoured to point out this great deficiency in the exercise of the intellect, I will offer a few remarks upon the means of subjecting it to the improving processes of instruction. Perhaps many who watch over the interests of the community, and are anxious for its welfare, will conclude that the development of the judgment cannot properly be included in the general idea of education; that as the education proposed must, to a very large degree, be of *self*, it is so far incommunicable; that the master and the scholar merge into one, and both disappear; that the instructor is no wiser than the one to be instructed, and thus the usual relations of the two lose their power. Still, I believe that the judgment may be educated to a very large extent, and might refer to the fine arts, as giving proof in the affirmative; and though, as respects the community and its improvement in relation to common things, any useful education must be of *self*, I think that society, as a body, may act powerfully in the cause. Or it may still be objected that my experience is imperfect, is chiefly derived from exercise of the mind within the precincts of natural philosophy, and has not that generality of application which can make it of any value to society at large. I can only repeat my conviction, that society occupies itself now-a-days about physical matters, and judges them as common things. Failing in relation to them, it is equally liable to carry such failures into other matters of life. The proof of deficient judgment in one department shows the habit of mind, and the general want, in relation to others. I am persuaded that all persons may find in natural things an admirable school for self-instruction, and a field for the necessary mental exercise; that they may easily apply their habits of thought, thus formed, to a social use; and that they ought to do this, as a duty to themselves and their generation.

Let me first try to illustrate the former part of the case, and at the same time state what I think a man may and ought to do for himself.

The *self-education* to which he should be stimulated by the desire to improve his judgment, requires no blind dependence upon the dogmas of others, but is commended to him by the suggestions and dictates of his own common sense. The first part of it is founded in mental discipline: happily it requires no unpleasant avowals; appearances are preserved,

and vanity remains unhurt; but it is necessary that a man examine himself, and that not carelessly. On the contrary, as he advances, he should become more and more strict, till he ultimately prove a sharper critic to himself than any one else can be; and he ought to intend this, for, so far as he consciously falls short of it, he acknowledges that others may have reason on their side when they criticize him. A first result of this habit of mind will be an internal conviction of ignorance in many things respecting which his neighbours are taught, and, that his opinions and conclusions on such matters ought to be advanced with reservation. A mind so disciplined will be open to correction upon good grounds in all things, even in those it is best acquainted with; and should familiarize itself with the idea of such being the case: for though it sees no reason to suppose itself in error, yet the possibility exists. The mind is not enfeebled by this internal admission, but strengthened; for, if it cannot distinguish proportionately between the probable right and wrong of things known imperfectly, it will tend either to be rash or to hesitate; whilst that which admits the due amount of probability is likely to be justified in the end. It is right that we should stand by and act on our principles; but not right to hold them in obstinate blindness, or retain them when proved to be erroneous. I remember the time when I believed a spark was produced between voltaic metals as they approached to contact (and the reasons why it might be possible yet remain); but others doubted the fact and denied the proofs, and on re-examination I found reason to admit their corrections were well founded. Years ago I believed that electrolytes could conduct electricity by a conduction proper; that has also been denied by many through long time: though I believed myself right, yet circumstances have induced me to pay that respect to criticism as to reinvestigate the subject, and I have the pleasure of thinking that nature confirms my original conclusions. So though evidence may appear to preponderate extremely in favour of a certain decision, it is wise and proper to hear a counter-statement. You can have no idea how often and how much, under such an impression, I have desired that the marvellous descriptions which have reached me might prove, in some points, correct; and how frequently I have submitted myself to hot fires, to friction with magnets, to the passes of hands, etc., lest I should be shutting out discovery—encouraging the strong desire that something might be true, and that I might aid in the development of a new force of nature.

Among those points of self-education which take up the form of mental discipline, there is one of great importance, and, moreover, difficult to deal with, because it involves an internal conflict, and equally touches our

vanity and our ease. It consists in the tendency to deceive ourselves regarding all we wish for, and the necessity of resistance to these desires. It is impossible for any one who has not been constrained, by the course of his occupation and thoughts, to a habit of continual self-correction to be aware of the amount of error in relation to judgment arising from this tendency. The force of the temptation which urges us to seek for such evidence and appearances as are in favour of our desires, and to disregard those which oppose them, is wonderfully great. In this respect we are all, more or less, active promoters of error. In place of practising wholesome self-abnegation, we ever make the wish the father to the thought: we receive as friendly that which agrees with, we resist with dislike that which opposes us; whereas the very reverse is required by every dictate of common sense. Let me illustrate my meaning by a case where the proof being easy, the rejection of it under the temptation is the more striking. In old times a ring or a button would be tied by a boy to one end of a long piece of thread, which he would then hold at the other end, letting the button hang within a glass, or over a piece of slate-pencil, or sealing-wax, or a nail; he would wait and observe whether the button swung, and whether in swinging it tapped the glass as many times as the clock struck last, or moved along or across the slate-pencil, or in a circle or oval. In late times parties in all ranks of life have renewed and repeated the boy's experiment. They have sought to ascertain a very simple fact–namely, whether the effect was as reported; but how many were unable to do this? They were sure they could keep their hands immovable–were sure they could do so whilst watching the result–were sure that accordance of swing with an expected direction was not the result of their desires or involuntary motions. How easily all these points could be put to the proof by not looking at the objects, yet how difficult for the experimenter to deny himself that privilege. I have rarely found one who would freely permit the substance experimented with to be screened from his sight, and then its position changed.

When engaged in the investigation of table-turning, I constructed a very simple apparatus, serving as an index, to show the unconscious motions of the hands upon the table. The results were either that the index moved before the table, or that neither index nor table moved; and in numerous cases all moving power was annihilated. A universal objection was made to it by the table-turners. It was said to paralyze the powers of the mind–but the experimenters need not see the index; they may leave their friends to watch that, and their minds may revel in any power that their expectation or their imagination can confer. So restrained, a *dislike*

to the trial arises; but what is that except a proof that whilst they trust themselves they doubt themselves, and are not willing to proceed to the decision, lest the trust which they like should fail them, and the doubt which they dislike rise to the authority of truth.

Again, in respect of the action of magnets on the body, it is almost impossible for an uninstructed person to enter profitably upon such an inquiry. He may observe *any* symptom which his expectation has been accidentally directed to—yet be unconscious of any, if unaware of his subjection to the magnetic force or of the conditions and manner of its application.

As a proof of the extent of this influence, even on the minds of those well aware of its force, and desirous under every circumstance to escape from it, I will mention the practice of the chemist, who, dealing with the balance, that impartial decider which never fails in its indication but offers its evidence with all simplicity, durability, and truth, still remembers he should doubt himself; and, with the desire of rendering himself inaccessible to temptation, takes a counterpoised but unknown quantity of the substance for analysis, that he may remain ignorant of the proportions which he ought to obtain, and only at last compares the sum of his products with his counterpoise.

The inclination we exhibit in respect of any report or opinion that harmonizes with our preconceived notions, can only be compared in degree with the incredulity we entertain towards everything that opposes them; and these opposite and apparently incompatible, or at least inconsistent, conditions are accepted simultaneously in the most extraordinary manner. At one moment a departure from the laws of nature is admitted without the pretence of a careful examination of the proof; and at the next, the whole force of these laws, acting undeviatingly through all time, is denied, because the testimony they give is disliked.

It is my firm persuasion that no man can examine himself in the most common things, having any reference to him personally, or to any person, thought, or matter related to him, without being soon made aware of the temptation and the difficulty of opposing it. I could give you many illustrations personal to myself, about atmospheric magnetism, lines of force, attraction, repulsion, unity of power, nature of matter, etc.; or in things more general to our common nature, about likes and dislikes, wishes, hopes, and fears; but it would be unsuitable and also unnecessary, for each must be conscious of a large field sadly uncultivated in this respect. *I will simply express my strong belief that that point of self-education which consists in teaching the mind to resist its desires and inclinations,*

until they are proved to be right, is the most important of all, not only in things of natural philosophy, but in every department of daily life.

There are numerous precepts resulting more or less from the principles of mental discipline already insisted on as essential, which are very useful in forming a judgment about matters of fact, whether among natural things or between man and man. Such a precept, and one that should recur to the mind early in every new case, is to know the conditions of the matter, respecting which we are called upon to make a judgment. To suppose that any would judge before they professed to know the conditions would seem to be absurd; on the other hand, to assume that the community does wait to know the conditions before it judges is an assumption so large that I cannot accept it. Very few search out the conditions; most are anxious to sink those which oppose their preconceptions; yet none can be left out if a right judgment is to be formed. It is true that many conditions must ever remain unknown to us even in regard to the simplest things in nature: thus as to the wonderful action of gravity, whose law never fails us, we cannot say whether the bodies are acting truly at a distance, or by a physical line of force as a connecting link between them. The great majority think the former is the case; Newton's judgment is for the latter. But of the conditions which are within our reach we should search out all; for in relation to those which remain unknown or unsuspected, we are in that very ignorance (regarding judgment) which it is our present object, first to make manifest, and then to remove.

One exercise of the mind, which largely influences the power and character of the judgment, is the habit of forming clear and precise ideas. If, after considering a subject in our ordinary manner, we return upon it with the special purpose of noticing the condition of our thoughts, we shall be astonished to find how little precise they remain. On recalling the phenomena relating to a matter of fact, the circumstances modifying them, the kind and amount of action presented, the real or probable result, we shall find that the first impressions are scarcely fit for the foundation of a judgment, and that the second thoughts will be best. For the acquirement of a good condition of mind in this respect, the thoughts should be trained to a habit of clear and precise formation, so that vivid and distinct impressions of the matter in hand, its circumstances and consequences, may remain.

Before we proceed to consider any question involving physical principles, we should set out with clear ideas of the naturally possible and impossible. There are many subjects uniting more or less of the most sure

and valuable investigations of science with the most imaginary and unprofitable speculation, that are continually passing through their various phases of intellectual, experimental, or commercial development: some to be established, some to disappear, and some to recur again and again, like ill weeds that cannot be extirpated, yet can be cultivated to no result as wholesome food for the mind. Such, for instance, in different degrees, are the caloric engine, the electric light, the Pasilalinic sympathetic compass, mesmerism, homeopathy, odylism, the magneto-electric engine, the perpetual motion, etc.: all hear and talk of these things; all use their judgment more or less upon them, and all might do that effectively if they were to instruct themselves to the extent which is within their reach. I am persuaded that natural things offer an admirable school for self-instruction, a most varied field for the necessary mental practice, and that those who exercise themselves therein may easily apply the habits of thought thus formed to a social use. As a first step in such practice, clear ideas should be obtained of what is possible and what is impossible. Thus, it is impossible to *create* force. We may employ it; we may evoke it in one form by its consumption in another; we may hide it for a period; but we can neither create nor destroy it. We may cast it away; but where we dismiss it, there it will do its work. If, therefore, we desire to consider a proposition respecting the employment or evolution of power, let us carry our judgment, educated on this point, with us. If the proposal include the double use of a force with only one excitement, it implies a creation of power, and that cannot be. If we could by the fingers draw a heavy piece of wood or stone upward without effort, and then, letting it sink, could produce by its gravity an effort equal to its weight, that would be a creation of power, and cannot be.

So again we cannot annihilate matter, nor can we create it. But if we are satisfied to rest upon that dogma, what are we to think of table-lifting? If we could make the table to cease from acting by gravity upon the earth beneath it, or by reaction upon the hand supposed to draw it upwards, we should annihilate it, in respect of that very property which characterizes it as matter.

Considerations of this nature are very important aids to the judgment; and when a statement is made claiming our assent, we should endeavour to reduce it to some consequence which can be immediately compared with, and tried by, these or like compact and never failing truths. If incompatibility appears, then we have reason to suspend our conclusion, however attractive to the imagination the proposition may be, and pursue the inquiry further, until accordance is obtained; it must be a most un-

educated and presumptuous mind that can at once consent to cast off the tried truth and accept in its place the mere loud assertion. We should endeavour to separate the points before us, and concentrate each, so as to evolve a clear type idea of the ruling fact and its consequences; looking at the matter on every side, with the great purpose of distinguishing the constituent reality, and recognizing it under every variety of aspect.

In like manner we should accustom ourselves to clear and definite language, especially in physical matters, giving to a word its true and full, but measured, meaning, that we may be able to convey our ideas clearly to the minds of others. Two persons cannot mutually impart their knowledge, or compare and rectify their conclusions, unless both attend to the true intent and force of language. If by such words as attraction, electricity, polarity, or atom, they imply different things, they may discuss facts, deny results, and doubt consequences for an indefinite time without any advantageous progress. I hold it as a great point in self-education that the student should be continually engaged in forming exact ideas, and in expressing them clearly by language. Such practice insensibly opposes any tendency to exaggeration or mistake, and increases the sense and love of truth in every part of life.

I should be sorry, however, if what I have said were understood as meaning that education for the improvement and strengthening of the judgment is to be altogether repressive of the imagination, or confine the exercise of the mind to processes of a mathematical or mechanical character. I believe that, in the pursuit of physical science, the imagination should be taught to present the subject investigated in all possible, and even in impossible views; to search for analogies of likeness and (if I may say so) of opposition–inverse or contrasted analogies; to present the fundamental idea in every form, proportion, and condition; to clothe it with suppositions and probabilities, that all cases may pass in review, and be touched, if needful, by the Ithuriel spear of experiment. But all this must be under government, and the result must not be given to society until the judgment, educated by the process itself, has been exercised upon it. Let us construct our hypotheses for an hour, or a day, or for years; they are of the utmost value in the elimination of truth, "which is evolved more freely from error than from confusion"; but, above all things, let us not cease to be aware of the temptation they offer, or, because they gradually become familiar to us, accept them as established. We could not reason about electricity without thinking of it as a fluid, or a vibration, or some other existent state or form. We should give up half our advantage in the consideration of heat if we refused to con-

sider it as a principle, or a state of motion. We could scarcely touch such subjects by experiment, and we should make no progress in their practical application, without hypothesis; still it is absolutely necessary that we should learn to doubt the conditions we assume, and acknowledge we are uncertain, whether heat and electricity are vibrations or substances, or either.

When the different data required are in our possession, and we have succeeded in forming a clear idea of each, the mind should be instructed to balance them one against another, and not suffered carelessly to hasten to a conclusion. This reserve is most essential; and it is especially needful that the reasons which are adverse to our expectations or our desires should be carefully attended to. We often receive truth from unpleasant sources; we often have reason to accept unpalatable truths. We are never freely willing to admit information having this unpleasant character, and it requires much self-control in this respect, to preserve us even in a moderate degree from errors. I suppose there is scarcely one investigator in original research who has not felt the temptation to disregard the reasons and results which are against his views. I acknowledge that I have experienced it very often, and will not pretend to say that I have yet learned on all occasions to avoid the error. When a bar of bismuth or phosphorus is placed between the poles of a powerful magnet, it is drawn into a position across the line joining the poles; when only one pole is near the bar, the latter recedes; this and the former effect is due to repulsion, and is strikingly in contrast with the attraction shown by iron. To account for it, I at one time suggested the idea that a polarity was induced in the phosphorus or bismuth the reverse of the polarity induced in iron, and that opinion is still sustained by eminent philosophers. But observe a necessary result of such a supposition, which appears to follow when the phenomena are referred to elementary principles. Time is shown, by every result bearing on the subject, to be concerned in the coming on and passing away of the inductive condition produced by magnetic force, and the consequence, as Thomson pointed out, is, that if a ball of bismuth could be suspended between the poles of a magnet, so as to encounter no resistance from the surrounding medium, or from friction or torsion, and were once put in motion round a vertical axis, it would, because of the assumed polar state, go on for ever revolving, the parts which at any moment are axial moving like the bar, so as to become the next moment equatorial. Now, as we believe the mechanical forces of nature tend to bring things into a stable, and not into an unstable condition; as we believe that a perpetual motion is impossible; so because both these points

are involved in the notion of the reverse polarity, which itself is not supposed to be dependant on any consumption of power, I feel bound to hold the judgment balanced, and therefore hesitate to accept a conclusion founded on such a notion of the physical action; the more especially as the peculiar test facts [3] which prove the polarity of iron are not reproduced in the case of diamagnetic bodies.

As a result of this wholesome mental condition, we should be able to form a proportionate judgment. The mind naturally desires to settle upon one thing or another; to rest upon an affirmative or a negative; and that with a degree of absolutism which is irrational and improper. In drawing a conclusion it is very difficult, but not the less necessary, to make it proportionate to the evidence: except where certainty exists (a case of rare occurrence), we should consider our decisions as probable only. The probability may appear very great, so that in affairs of the world we often accept such as certainty, and trust our welfare or our lives upon it. Still, only an uneducated mind will confound probability with certainty, especially when it encounters a contrary conclusion drawn by another from like data. This suspension in degree of judgment will not make a man less active in life, or his conclusions less certain as truths; on the contrary, I believe him to be the more ready for the right amount and direction of action on any emergency; and am sure his conclusions and statements will carry more weight in the world than those of the incautious man.

When I was young, I received from one well able to aid a learner in his endeavours toward self-improvement, a curious lesson in the mode of estimating the amount of belief one might be induced to attach to our conclusions. The person was Dr. Wollaston, who, upon a given point, was induced to offer me a wager of two to one on the affirmative. I rather impertinently quoted Butler's well-known lines [4] about the kind of persons who use wagers for argument, and he gently explained to me, that he considered such a wager not as a thoughtless thing, but as an expression of the amount of belief in the mind of the person offering it; combining this curious application of the wager, as a meter, with the necessity that ever existed of drawing conclusions, not absolute but proportionate to the evidence.

Occasionally and frequently the exercise of the judgment ought to end

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3. *Experimental Researches in Electricity,* paragraphs 2657–2681. See *Great Books of the Western World*.
4. "Quoth she, 'I've heard old cunning stagers,
Say fools for arguments use wagers.' "

in absolute reservation. It may be very distasteful, and great fatigue, to suspend a conclusion, but as we are not infallible, so we ought to be cautious; we shall eventually find our advantage, for the man who rests in his position is not so far from right as he who, proceeding in a wrong direction, is ever increasing his distance. In the year 1824, Arago discovered that copper and other bodies placed in the vicinity of a magnet, and having no direct action of attraction or repulsion upon it, did affect it when moved, and was affected by it. A copper plate revolving near a magnet carried the magnet with it; or if the magnet revolved, and not the copper, it carried the copper with it. A magnetic needle vibrating freely over a disc of glass or wood, was exceedingly retarded in its motion when these were replaced by a disc of copper. Arago stated most clearly all the conditions, and resolved the forces into three directions, but not perceiving the physical cause of the action, exercised a most wise and instructive reservation as to his conclusion. Others, as Haldat, considered it as the proof of the universality of a magnetism of the ordinary kind, and held to that notion though it was contradicted by the further facts; and it was only at a future period that the true physical cause, namely, magneto-electric currents induced in the copper, became known to us. What an education Arago's mind must have received in relation to philosophical reservation; what an antithesis he forms with the mass of table-turners; and what a fine example he has left us of that condition of judgment to which we should strive to attain!

If I may give another illustration of the needful reservation of judgment, I will quote the case of oxygen and hydrogen gases, which, being mixed, will remain together uncombined for years in contact with glass, but in contact with spongy platinum combine at once. We have the same fact in many forms, and many suggestions have been made as to the mode of action, but as yet we do not know clearly how the result comes to pass. We cannot tell whether electricity acts or not. Then we should suspend our conclusions. Our knowledge of the fact itself, and the many varieties of it, is not the less abundant or sure; and when the truth shall hereafter emerge from the mist, we ought to have no opposing prejudice, but be prepared to receive it.

The education which I advocate will require patience and labour of thought in every exercise tending to improve the judgment. It matters not on what subject a person's mind is occupied, he should engage in it with the conviction that it will require mental labour. A powerful mind will be able to draw a conclusion more readily and more correctly than one of moderate character, but both will surpass themselves if they make an

earnest, careful investigation, instead of a careless or prejudiced one; and education for this purpose is the more necessary for the latter, because the man of less ability may, through it, raise his rank and amend his position. I earnestly urge this point of self-education, for I believe it to be more or less in the power of every man greatly to improve his judgment. I do not think that one has the complete capacity for judgment which another is naturally without. I am of opinion that all may judge, and that we only need to declare on every side the conviction that mental education is wanting, and lead men to see that through it they hold, in a large degree, their welfare and their character in their own hands, to cause in future years an abundant development of right judgment in every class.

This education has for its first and its last step *humility*. It can commence only because of a conviction of deficiency; and if we are not disheartened under the growing revelations which it will make, that conviction will become stronger unto the end. But the humility will be founded, not on comparison of ourselves with the imperfect standards around us, but on the increase of that internal knowledge which alone can make us aware of our internal wants. The first step in correction is to learn our deficiencies, and having learned them, the next step is almost complete: for no man who has discovered that his judgment is hasty, or illogical, or imperfect would go on with the same degree of haste, or irrationality, or presumption as before. I do not mean that all would at once be cured of bad mental habits, but I think better of human nature than to believe, that a man in any rank of life, who has arrived at the consciousness of such a condition, would deny his common sense, and still judge and act as before. And though such self-schooling must continue to the end of life to supply an experience of deficiency rather than of attainment, still there is abundant stimulus to excite any man to perseverance. What he has lost are things imaginary, not real; what he gains are riches before unknown to him, yet invaluable; and though he may think more humbly of his own character, he will find himself at every step of his progress more sought for than before, more trusted with responsibility and held in pre-eminence by his equals, and more highly valued by those whom he himself will esteem worthy of approbation.

And now a few words upon the mutual relation of two classes, namely, those who decline to educate their judgments in regard to the matters on which they decide, and those who, by self-education, have endeavoured to improve themselves; and upon the remarkable and somewhat unreasonable manner in which the latter are called upon, and occasionally

taunted, by the former. A man who makes assertions, or draws conclusions, regarding any given case, ought to be competent to investigate it. He has no right to throw the onus on others, declaring it their duty to prove him right or wrong. His duty is to demonstrate the truth of that which he asserts, or to cease from asserting. The men he calls upon to consider and judge have enough to do with themselves, in the examination, correction, or verification of their own views. The world little knows how many of the thoughts and theories which have passed through the mind of a scientific investigator have been crushed in silence and secrecy by his own severe criticism and adverse examination; that in the most successful instances, not a tenth of the suggestions, the hopes, the wishes, the preliminary conclusions have been realised. And is a man so occupied to be taken from his search after truth in the path he hopes may lead to its attainment, and occupied in vain upon nothing but a broad assertion?

Neither has the assertor of any new thing a right to claim an answer in the form of Yes or No; or think, because none is forthcoming, that he is to be considered as having established his assertion. So much is unknown to the wisest man, that he may often be without an answer: as frequently he is so, because the subject is in the region of hypothesis, and not of facts. In either case he has the right to refuse to speak. I cannot tell whether there are two fluids of electricity or any fluid at all. I am not bound to explain how a table tilts any more than to indicate how, under the conjurer's hands, a pudding appears in a hat. The means are not known to me. I am persuaded that the results, however strange they may appear, are in accordance with that which is truly known, and if carefully investigated would justify the well-tried laws of nature; but, as life is limited, I am not disposed to occupy the time it is made of in the investigation of matters which, in what is known to me of them, offer no reasonable prospect of any useful progress, or anything but negative results. We deny the right of those who call upon us to answer their speculations "if we can," whilst we have so many of our own to develop and correct; and claim the right for ourselves of withholding either our conclusions or the reasons for them, without in the least degree admitting that their affirmations are unanswerable. We are not even called upon to give an answer to the best of our belief: nor bound to admit a bold assertion because we do not know to the contrary. No one is justified in claiming our assent to the spontaneous generation of insects, because we cannot circumstantially explain how a mite or the egg of a mite has entered into a particular bottle. Let those who affirm the exception to the

general law of nature, or those others who upon the affirmation accept the result, work out the experimental proof. It has been done in this case by Schulze, and is in the negative; but how few among the many who make, or repeat, the assertion, would have the requisite self-abnegation, the subjected judgment, the perseverance, and the precision which has been displayed in that research.

When men, more or less marked by their advance, are led by circumstances to give an opinion adverse to any popular notion, or to the assertions of any sanguine inventor, nothing is more usual than the attempt to neutralize the force of such an opinion by reference to the mistakes which like educated men have made; and their occasional misjudgments and erroneous conclusions are quoted, as if they were less competent than others to give an opinion, being even disabled from judging like matters to those which are included in their pursuits by the very exercise of their minds upon them. How frequently has the reported judgment of Davy, upon the impossibility of gas-lighting on a large scale, been quoted by speculators engaged in tempting monied men into companies, or in the pages of journals occupied with the popular fancies of the day; as if an argument were derivable from that in favour of some special object to be commended. Why should not men taught in the matter of judgment far beyond their neighbours, be expected to err sometimes, since the very education in which they are advanced can only terminate with their lives? What is there about them, derived from this education, which sets up the shadow of a pretence to perfection? Such men cannot learn all things, and may often be ignorant. The very progress which science makes amongst them as a body is a continual correction of ignorance—*i.e.*, of a state which is ignorance in relation to the future, though wisdom and knowledge in relation to the past. In 1823 Wollaston discovered that beautiful substance which he called titanium, believing it to be a simple metal: and it was so accepted by all philosophers. Yet this was a mistake, for Wöhler, in 1850, showed the substance was a very compound body. This is no reproach to Wollaston or to those who trusted in him; he made a step in metallurgy which advanced knowledge, and perhaps we may hereafter, through it, learn to know that metals are compound bodies. Who, then, has a right to quote his mistake as a reproach against him? Who could correct him but men intellectually educated as he himself was? Who does not feel that the investigation remains a bright gem in the circlet that memory offers to his honour?

If we are to estimate the utility of an educated judgment, do not let us hear merely of the errors of scientific men, which have been corrected

by others taught in the same careful school; but let us see what, as a body, they have produced, compared with that supplied by their reproachers. Where are the established truths and triumphs of ring-swingers, table-turners, table-speakers? What one result in the numerous divisions of science or its applications can be traced to their exertions? Where is the investigation completed, so that, as in gas-lighting, all may admit that the principles are established and a good end obtained, without the shadow of a doubt?

If we look to electricity, it, in the hands of the careful investigator, has advanced to the most extraordinary results: it approaches at the motion of his hand; bursts from the metal; descends from the atmosphere; surrounds the globe: it talks, it writes, it records, it appears to him (cautious as he has learned to become) as a universal spirit in nature. If we look to photography, whose origin is of our own day, and see what it has become in the hands of its discoverers and their successors, how wonderful are the results! The light is made to yield impressions upon the dead silver or the coarse paper, beautiful as those it produced upon the living and sentient retina: its most transient impression is rendered durable for years; it is made to leave a visible or an invisible trace; to give a result to be seen now or a year hence; made to paint all natural forms and even colours; it serves the offices of war, of peace, of art, science, and economy: it replaces even the mind of the human being in some of its lower services; for a little camphine lamp is set down and left to itself, to perform the duty of watching the changes of magnetism, heat, and other forces of nature, and to record the results, in pictorial curves, which supply an enduring record of their most transitory actions.

What has clairvoyance, or mesmerism, or table-rapping done in comparison with results like these? What have the snails at Paris told us from the snails at New York? What have any of these intelligences done in aiding such developments? Why did they not inform us of the possibility of photography? Or when that became known, why did they not favour us with some instructions for its improvement? They all profess to deal with agencies far more exalted in character than an electric current or a ray of light: they also deal with mechanical forces; they employ both the bodily organs and the mental; they profess to lift a table, to turn a hat, to see into a box, or into the next room, or a town–why should they not move a balance, and so give us the element of a new mechanical power? Take cognizance of a bottle and its contents, and tell us how they will act upon those of a neighbouring bottle? Either see or feel into a crystal, and inform us of what it is composed? Why have they not added one

metal to the fifty known to mankind, or one planet to the number daily increasing under the observant eye of the astronomer? Why have they not corrected one of the mistakes of the philosophers? There are no doubt very many that require it. There has been plenty of time for the development and maturation of some of the numerous public pretences that have risen up in connexion with these supposed agencies; how is it that not one new power has been added to the means of investigation employed by the philosophers, or one valuable utilitarian application presented to society?

In conclusion, I will freely acknowledge that all I have said regarding the great want of judgment manifested by society as a body, and the high value of any means which would tend to supply the deficiency, have been developed and declared on numerous occasions, by authority far above any I possess. The deficiency is known hypothetically, but I doubt if in reality; the individual acknowledges the state in respect of others, but is unconscious of it in regard to himself. As to the world at large, the condition is accepted as a necessary fact; and so it is left untouched, almost ignored. I think that education in a large sense should be applied to this state of the subject, and that society, though it can do little in the way of communicated experience, can do much, by a declaration of the evil that exists and of its remediable character; by keeping alive a sense of the deficiency to be supplied; and by directing the minds of men to the practice and enlargement of that self-education which every one pursues more or less, but which under conviction and method would produce a tenfold amount of good. I know that the multitude will always be behindhand in this education, and to a far greater extent than in respect of the education which is founded on book learning. Whatever advance books make, they retain; but each new being comes on to the stage of life, with the same average amount of conceit, desires, and passions, as his predecessors, and in respect of self-education has all to learn. Does the circumstance that we can do little more than proclaim the necessity of instruction justify the ignorance? Or our silence? Or make the plea for this education less strong? Should it not, on the contrary, gain its strength from the fact that all are wanting more or less? I desire we should admit that, as a body, we are universally deficient in judgment. I do not mean that we are utterly ignorant, but that we have advanced only a little way in the requisite education, compared with what is within our power.

If the necessity of the education of the judgment were a familiar and habitual idea with the public, it would often afford a sufficient answer to

the statement of an ill-informed or incompetent person; if quoted to recall to his remembrance the necessity of a mind instructed in a matter, and accustomed to balance evidence, it might frequently be an answer to the individual himself. Adverse influence might, and would, arise from the careless, the confident, the presumptuous, the hasty, and the dilatory man, perhaps extreme opposition; but I believe that the mere acknowledgment and proclamation of the ignorance, by society at large, would, through its moral influence, destroy the opposition, and be a great means to the attainment of the good end desired: for if no more be done than to lead such to turn their thoughts inwards, a step in education is gained: if they are convinced in any degree, an important advance is made; if they learn only to suspend their judgment, the improvement will be one above price.

It is an extraordinary thing that man, with a mind so wonderful that there is nothing to compare with it elsewhere in the known creation, should leave it to run wild in respect of its highest elements and qualities. He has a power of comparison and judgment, by which his final resolves, and all those acts of his material system which distinguish him from the brutes, are guided–shall he omit to educate and improve them when education can do much? Is it towards the very principles and privileges that distinguish him above other creatures, he should feel indifference? Because the education is internal, it is not the less needful; nor is it more the duty of a man that he should cause his child to be taught than that he should teach himself. Indolence may tempt him to neglect the self-examination and experience which form his school, and weariness may induce the evasion of the necessary practices; but surely a thought of the prize should suffice to stimulate him to the requisite exertion: and to those who reflect upon the many hours and days, devoted by a lover of sweet sounds, to gain a moderate facility upon a mere mechanical instrument, it ought to bring a correcting blush of shame, if they feel convicted of neglecting the beautiful living instrument, wherein play all the powers of the mind.

I will conclude this subject–believe me when I say I have been speaking from self-conviction. I did not think this an occasion on which I ought to seek for flattering words regarding our common nature; if so, I should have felt unfaithful to the trust I had taken up; so I have spoken from experience. In thought I hear the voice, which judges me by the precepts I have uttered. I know that I fail frequently in that very exercise of judgment to which I call others; and have abundant reason to believe that much more frequently I stand manifest to those around me, as one

who errs, without being corrected by knowing it. I would willingly have evaded appearing before you on this subject, for I shall probably do but little good, and may well think it was an error of judgment to consent: having consented, my thoughts would flow back amongst the events and reflections of my past life, until I found nothing present itself but an open declaration, almost a confession, as the means of performing the duty due to the subject and to you.

"Observations on Mental Education"
is from Faraday's
LECTURES ON EDUCATION.

Edmund Burke

1729–1797

Edmund Burke was born in Dublin. January 12, 1729, is the most probable date. His father, a well-to-do lawyer, was a Protestant, his mother a Roman Catholic. Burke took his B.A. at Trinity College, Dublin. In 1750 he began to read law at the Middle Temple, London. He soon turned to writing. His first two books appeared in 1756. The same year he married the daughter of a Dr. Nugent, of Bath.

In 1761 he went back to Dublin for a while in the household of the Secretary for Ireland. When Rockingham became British Prime Minister in 1765, he hired Burke as his secretary. Burke went into Parliament as a member for Wendover. Two speeches on the American problem made his reputation. About this time he joined "The Club," whose members, then or later, included Dr. Johnson, Gibbon, Adam Smith, Boswell, and Burke's father-in-law, Dr. Nugent.

Burke fought hard to get workable justice for the American Colonies. Out of this quarrel sprang such powerful arguments as his *Speech on Conciliation with America* and the *Letter to the Sheriffs of Bristol* (see below). Some of his most famous speeches were delivered during his fourteen-year prosecution of Warren Hastings for high crimes in India. Hastings was acquitted.

In 1790 Burke's *Reflections on the Revolution in France* became the manifesto of conservative Europe. George III and Catherine of Russia praised it. It ran through eleven editions in about a year. Thomas Paine replied to it in *The Rights of Man*. Most of the other Whig leaders favored the French Revolution at first. Thus Burke was thrust more and more outside his party's councils. In 1794 he resigned from Parliament. He was given a pension of £2,500. The Duke of Bedford and Lord Lauderdale objected to this. Burke

replied with a last great flash of eloquence in *A Letter to a Noble Lord.* He died on July 9, 1797.

In the late twentieth century we have speeches and White House press conferences on the television networks. At the same moment a whole nation may see and listen to the President, a senator, or a candidate. Burke, like Lincoln and Washington, spoke to a few hundred people. His printed words might reach a few thousand more. He held no great offices, led no armies, put his name to no important treaties. So we find it hard to imagine how he gained his tremendous reputation.

Part of the answer lies in his concentration. He was a statesman—altogether that, and nothing but that. Everything he did was done in that light. Unlike Cicero, his model as a writer and a man, he was not an effective orator. He lacked the commanding voice and presence. Nor was he a great politician. His record, as a party strategist and at the polls, is dotted with errors. Moreover, he seems to have been—a little too often—the honorable champion of lost causes. But he comes down to us, formidable still, as the great framer of issues. He was the one man in his nation and time who could fasten on some political problem, spell it out in bold letters, and place it in relation to the general ideas that influence the life of mankind.

His talent is close to its best in a *Letter to the Sheriffs of Bristol.* Here his famous style—large, firm, bold—builds a solid house of argument. When the letter was written, he was a member of Parliament from Bristol, at that time the second largest city in England. It is a "letter" in format only—in fact, like all his writings, it is a speech. He is aware that he has been criticized for "steadily pursuing the pernicious maxim of not obeying the voice of his constituents." Here—to the sheriffs, who were important local officials, and through

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Notes from the artist: "Burke is shown sitting under a quotation from Reflections on the Revolution in France. *He had defended the American Revolution but attacked the French because of its excesses and what he considered to be crimes against humanity."*

Because half a dozen grasshoppers under a fern make the field ring with their importunate chink, whilst thousands of great cattle, reposed beneath the shadow of the British oak, chew the cud and are silent, pray do not imagine that those who make the noise are the only inhabitants of the field; that, of course, they are many in number, or that, after all, they are other than the little, shrivelled, meagre, hopping, though loud and troublesome *insects* of the hour.

them to the voters—Burke gives an account of his recent service in Parliament and of the motives that led him to act as he did.

But this is only the immediate pretext for his letter. He writes in the midst of the American Revolution. He knows that many of the voters in his district are anti-American. He lays out the full force of his logic in the hope that he can persuade them to his own views. Here his political intentions and his devotion to the ruling ideas of freedom and justice merge in one powerful argument. Thoroughness, as John Morley said, was one of his great virtues. He knows what he is talking about. He does not set Englishmen against Americans, as the war has done. He speaks of both as Englishmen, and argues that what hurts one hurts the other. The partial suspension of habeas corpus is as dangerous to English liberty as it is unjust to Americans. "Bodies," he writes, "tied together by so unnatural a bond of union as mutual hatred are only connected to their ruin." So he pleads for a quick ending to the war in "an honourable and liberal accommodation."

Few Englishmen listened. Burke and his friends could only wait for the muffled drums of Yorktown in 1781.

Letter to the Sheriffs of Bristol

entlemen–I have the honour of sending you the two last acts which have been passed with regard to the troubles in America. These acts are similar to all the rest which have been made on the same subject. They operate by the same principle, and they are derived from the very same policy. I think they complete the number of this sort of statutes to nine. It affords no matter for very pleasing reflection to observe that our subjects diminish as our laws increase.

If I have the misfortune of differing with some of my fellow-citizens on this great and arduous subject, it is no small consolation to me that I do not differ from you. With you I am perfectly united. We are heartily agreed in our detestation of a civil war. We have ever expressed the most unqualified disapprobation of all the steps which have led to it, and of all those which tend to prolong it. And I have no doubt that we feel exactly the same emotions of grief and shame on all its miserable consequences, whether they appear, on the one side or the other, in the shape of victories or defeats, of captures made from the English on the continent or from the English in these islands, of legislative regulations which subvert the liberties of our brethren or which undermine our own.

Of the first of these statutes (that for the letter of marque) I shall say little. Exceptionable as it may be, and as I think it is in some particulars, it seems the natural, perhaps necessary, result of the measures we have taken and the situation we are in. The other (for a partial suspension of the *habeas corpus*) appears to me of a much deeper malignity. During its progress through the House of Commons, it has been amended, so as to express, more distinctly than at first it did, the avowed sentiments of those who framed it; and the main ground of my exception to it is, because it does express, and does carry into execution, purposes which appear to me so contradictory to all the principles, not only of the constitutional policy

of Great Britain, but even of that species of hostile justice which no asperity of war wholly extinguishes in the minds of a civilized people.

It seems to have in view two capital objects: the first, to enable administration to confine, as long as it shall think proper, those whom that act is pleased to qualify by the name of *pirates*. Those so qualified I understand to be the commanders and mariners of such privateers and ships of war belonging to the colonies as in the course of this unhappy contest may fall into the hands of the crown. They are therefore to be detained in prison, under the criminal description of piracy, to a future trial and ignominious punishment, whenever circumstances shall make it convenient to execute vengeance on them, under the colour of that odious and infamous offence.

To this first purpose of the law I have no small dislike, because the act does not (as all laws and all equitable transactions ought to do) fairly describe its object. The persons who make a naval war upon us, in consequence of the present troubles, may be rebels; but to call and treat them as pirates is confounding not only the natural distinction of things, but the order of crimes–which, whether by putting them from a higher part of the scale to the lower or from the lower to the higher, is never done without dangerously disordering the whole frame of jurisprudence. Though piracy may be, in the eye of the law, a *less* offence than treason, yet, as both are, in effect, punished with the same death, the same forfeiture, and the same corruption of blood, I never would take from any fellow-creature whatever any sort of advantage which he may derive to his safety from the pity of mankind, or to his reputation from their general feelings, by degrading his offence, when I cannot soften his punishment. The general sense of mankind tells me that those offences which may possibly arise from mistaken virtue are not in the class of infamous actions. Lord Coke, the oracle of the English law, conforms to that general sense, where he says that "those things which are of the highest criminality may be of the least disgrace." The act prepares a sort of masked proceeding, not honourable to the justice of the kingdom, and by no means necessary for its safety. I cannot enter into it. If Lord Balmerino, in the last rebellion, had driven off the cattle of twenty clans, I should have thought it would have been a scandalous and low juggle, utterly unworthy of the manliness of an English judicature, to have tried him for felony as a stealer of cows.

Besides, I must honestly tell you that I could not vote for, or countenance in any way, a statute which stigmatizes with the crime of piracy these men whom an act of Parliament had previously put out of the protection of the law. When the legislature of this kingdom had ordered all

their ships and goods, for the mere new-created offence of exercising trade, to be divided as a spoil among the seamen of the navy—to consider the necessary reprisal of an unhappy, proscribed, interdicted people, as the crime of piracy, would have appeared, in any other legislature than ours, a strain of the most insulting and most unnatural cruelty and injustice. I assure you I never remember to have heard of anything like it in any time or country.

The second professed purpose of the act is to detain in England for trial those who shall commit high treason in America.

That you may be enabled to enter into the true spirit of the present law, it is necessary, Gentlemen, to apprise you that there is an act, made so long ago as in the reign of Henry VIII, before the existence or thought of any English colonies in America, for the trial in this kingdom of treasons committed out of the realm. In the year 1769 Parliament thought proper to acquaint the crown with their construction of that act in a formal address, wherein they entreated his Majesty to cause persons charged with high treason in America to be brought into this kingdom for trial. By this act of Henry VIII, so construed and so applied, almost all that is substantial and beneficial in a trial by jury is taken away from the subject in the colonies. This is, however, saying too little; for to try a man under that act is, in effect, to condemn him unheard. A person is brought hither in the dungeon of a ship's hold; thence he is vomited into a dungeon on land, loaded with irons, unfurnished with money, unsupported by friends, three thousand miles from all means of calling upon or confronting evidence, where no one local circumstance that tends to detect perjury can possibly be judged of; such a person may be executed according to form, but he can never be tried according to justice.

I therefore could never reconcile myself to the bill I send you, which is expressly provided to remove all inconveniences from the establishment of a mode of trial which has ever appeared to me most unjust and most unconstitutional. Far from removing the difficulties which impede the execution of so mischievous a project, I would heap new difficulties upon it, if it were in my power. All the ancient, honest, juridical principles and institutions of England are so many clogs to check and retard the headlong course of violence and oppression. They were invented for this one good purpose, that what was not just should not be convenient. Convinced of this, I would leave things as I found them. The old, cool-headed, general law is as good as any deviation dictated by present heat.

I could see no fair, justifiable expedience pleaded to favour this new suspension of the liberty of the subject. If the English in the colonies can

support the independency to which they have been unfortunately driven, I suppose nobody has such a fanatical zeal for the criminal justice of Henry VIII that he will contend for executions which must be retaliated tenfold on his own friends, or who has conceived so strange an idea of English dignity as to think the defeats in America compensated by the triumphs at Tyburn. If, on the contrary, the colonies are reduced to the obedience of the crown, there must be, under that authority, tribunals in the country itself fully competent to administer justice on all offenders. But if there are not, and that we must suppose a thing so humiliating to our government as that all this vast continent should unanimously concur in thinking that no ill fortune can convert resistance to the royal authority into a criminal act, we may call the effect of our victory peace, or obedience, or what we will, but the war is not ended; the hostile mind continues in full vigour, and it continues under a worse form. If your peace be nothing more than a sullen pause from arms, if their quiet be nothing but the meditation of revenge, where smitten pride smarting from its wounds festers into new rancour, neither the act of Henry VIII nor its handmaid of this reign will answer any wise end of policy or justice. For, if the bloody fields which they saw and felt are not sufficient to subdue the reason of America, (to use the expressive phrase of a great lord in office,) it is not the judicial slaughter which is made in another hemisphere against their universal sense of justice that will ever reconcile them to the British government.

I take it for granted, Gentlemen, that we sympathize in a proper horror of all punishment further than as it serves for an example. To whom, then, does the example of an execution in England for this American rebellion apply? Remember, you are told every day, that the present is a contest between the two countries, and that we in England are at war for our own dignity against our rebellious children. Is this true? If it be, it is surely among such rebellious children that examples for disobedience should be made, to be in any degree instructive: for who ever thought of teaching parents their duty by an example from the punishment of an undutiful son? As well might the execution of a fugitive Negro in the plantations be considered as a lesson to teach masters humanity to their slaves. Such executions may, indeed satiate our revenge; they may harden our hearts, and puff us up with pride and arrogance. Alas! this is not instruction.

If anything can be drawn from such examples by a parity of the case, it is to show how deep their crime and how heavy their punishment will be, who shall at any time dare to resist a distant power actually disposing

of their property without their voice or consent to the disposition, and overturning their franchises without charge or hearing. God forbid that England should ever read this lesson written in the blood of any of her offspring!

War is at present carried on between the king's natural and foreign troops, on one side, and the English in America, on the other, upon the usual footing of other wars; and accordingly an exchange of prisoners has been regularly made from the beginning. If, notwithstanding this hitherto equal procedure, upon some prospect of ending the war with success (which, however, may be delusive) administration prepares to act against those as traitors who remain in their hands at the end of the troubles, in my opinion we shall exhibit to the world as indecent a piece of injustice as ever civil fury has produced. If the prisoners who have been exchanged have not by that exchange been virtually pardoned, the cartel (whether avowed or understood) is a cruel fraud; for you have received the life of a man, and you ought to return a life for it, or there is no parity or fairness in the transaction.

If, on the other hand, we admit that they who are actually exchanged are pardoned, but contend that you may justly reserve for vengeance those who remain unexchanged, then this unpleasant and unhandsome consequence will follow: that you judge of the delinquency of men merely by the time of their guilt, and not by the heinousness of it; and you make fortune and accidents, and not the moral qualities of human action, the rule of your justice.

These strange incongruities must ever perplex those who confound the unhappiness of civil dissension with the crime of treason. Whenever a rebellion really and truly exists, which is as easily known in fact as it is difficult to define in words, government has not entered into such military conventions, but has ever declined all intermediate treaty which should put rebels in possession of the law of nations with regard to war. Commanders would receive no benefits at their hands, because they could make no return for them. Who has ever heard of capitulation, and parole of honour, and exchange of prisoners in the late rebellions in this kingdom? The answer to all demands of that sort was, "We can engage for nothing; you are at the king's pleasure." We ought to remember, that, if our present enemies be in reality and truth rebels, the king's generals have no right to release them upon any conditions whatsoever; and they are themselves answerable to the law, and as much in want of a pardon, for doing so, as the rebels whom they release.

Lawyers, I know, cannot make the distinction for which I contend; be-

cause they have their strict rule to go by. But legislators ought to do what lawyers cannot; for they have no other rules to bind them but the great principles of reason and equity and the general sense of mankind. These they are bound to obey and follow; and rather to enlarge and enlighten law by the liberality of legislative reason than to fetter and bind their higher capacity by the narrow constructions of subordinate, artificial justice. If we had adverted to this, we never could consider the convulsions of a great empire, not disturbed by a little disseminated faction, but divided by whole communities and provinces, and entire legal representatives of a people, as fit matter of discussion under a commission of Oyer and Terminer. It is as opposite to reason and prudence as it is to humanity and justice.

This act, proceeding on these principles, that is, preparing to end the present troubles by a trial of one sort of hostility under the name of piracy, and of another by the name of treason, and executing the act of Henry VIII according to a new and unconstitutional interpretation, I have thought evil and dangerous, even though the instruments of effecting such purposes had been merely of a neutral quality.

But it really appears to me, that the means which this act employs are, at least, as exceptionable as the end. Permit me to open myself a little upon this subject, because it is of importance to me, when I am obliged to submit to the power without acquiescing in the reason of an act of legislature, that I should justify my dissent by such arguments as may be supposed to have weight with a sober man.

The main operative regulation of the act is to suspend the common law, and the statute *habeas corpus* (the sole securities either for liberty or justice), with regard to all those who have been out of the realm, or on the high seas, within a given time. The rest of the people, as I understand, are to continue as they stood before.

I confess, Gentlemen, that this appears to me as bad in the principle, and far worse in its consequence, than a universal suspension of the *Habeas Corpus* Act; and the limiting qualification, instead of taking out the sting, does in my humble opinion sharpen and envenom it to a greater degree. Liberty, if I understand it at all, is a general principle, and the clear right of all the subjects within the realm or of none. Partial freedom seems to me a most invidious mode of slavery. But, unfortunately, it is the kind of slavery the most easily admitted in times of civil discord; for parties are but too apt to forget their own future safety in their desire of sacrificing their enemies. People without much difficulty admit the entrance of that injustice of which they are not to be the immediate victims.

In times of high proceeding it is never the faction of the predominant power that is in danger; for no tyranny chastises its own instruments. It is the obnoxious and the suspected who want the protection of law; and there is nothing to bridle the partial violence of state factions but this: "that whenever an act is made for a cessation of law and justice, the whole people should be universally subjected to the same suspension of their franchises." The alarm of such a proceeding would then be universal. It would operate as a sort of call of the nation. It would become every man's immediate and instant concern to be made very sensible of the absolute necessity of this total eclipse of liberty. They would more carefully advert to every renewal, and more powerfully resist it. These great determined measures are not commonly so dangerous to freedom. They are marked with too strong lines to slide into use. No plea, nor pretence, of inconvenience or evil example (which must in their nature be daily and ordinary incidents) can be admitted as a reason for such mighty operations. But the true danger is, when liberty is nibbled away, for expedients, and by parts. The *Habeas Corpus* Act supposes, contrary to the genius of most other laws, that the lawful magistrate may see particular men with a malignant eye, and it provides for that identical case. But when men, in particular descriptions, marked out by the magistrate himself, are delivered over by Parliament to this possible malignity, it is not the *habeas corpus* that is occasionally suspended, but its spirit that is mistaken, and its principle that is subverted. Indeed nothing is security to any individual but the common interest of all.

This act, therefore, has this distinguished evil in it, that it is the first *partial* suspension of the *habeas corpus* that has been made. The precedent, which is always of very great importance, is now established. For the first time a distinction is made among the people within this realm. Before this act, every man putting his foot on English ground, every stranger owing only a local and temporary allegiance, even Negro slaves who had been sold in the colonies and under an act of Parliament, became as free as every other man who breathed the same air with them. Now a line is drawn, which may be advanced farther and farther at pleasure on the same argument of mere expedience on which it was first described. There is no equality among us; we are not fellow-citizens, if the mariner who lands on the quay does not rest on as firm legal ground as the merchant who sits in his counting-house. Other laws may injure the community, this dissolves it. As things now stand, every man in the West Indies, every one inhabitant of three unoffending provinces on the continent, every person coming from the East Indies, every gentleman who

has travelled for his health or education, every mariner who has navigated the seas, is, for no other offence, under a temporary proscription. Let any of these facts (now become presumptions of guilt) be proved against him, and the bare suspicion of the crown puts him out of the law. It is even by no means clear to me whether the negative proof does not lie upon the person apprehended on suspicion to the subversion of all justice.

I have not debated against this bill in its progress through the House, because it would have been vain to oppose and impossible to correct it. It is some time since I have been clearly convinced that in the present state of things all opposition to any measures proposed by ministers, where the name of America appears, is vain and frivolous. You may be sure that I do not speak of my opposition, which in all circumstances must be so, but that of men of the greatest wisdom and authority in the nation. Everything proposed against America is supposed of course to be in favour of Great Britain. Good and ill success are equally admitted as reasons for persevering in the present methods. Several very prudent and very well-intentioned persons were of opinion that during the prevalence of such dispositions, all struggle rather inflamed than lessened the distemper of the public councils. Finding such resistance to be considered as factious by most within doors, and by very many without, I cannot conscientiously support what is against my opinion, nor prudently contend with what I know is irresistible. Preserving my principles unshaken, I reserve my activity for rational endeavours; and I hope that my past conduct has given sufficient evidence that if I am a single day from my place, it is not owing to indolence or love of dissipation. The slightest hope of doing good is sufficient to recall me to what I quitted with regret. In declining for some time my usual strict attendance, I do not in the least condemn the spirit of those gentlemen who, with a just confidence in their abilities (in which I claim a sort of share from my love and admiration of them), were of opinion that their exertions in this desperate case might be of some service. They thought that by contracting the sphere of its application they might lessen the malignity of an evil principle. Perhaps they were in the right. But when my opinion was so very clearly to the contrary, for the reasons I have just stated, I am sure my attendance would have been ridiculous.

I must add in further explanation of my conduct that, far from softening the features of such a principle, and thereby removing any part of the popular odium or natural terrors attending it, I should be sorry that anything framed in contradiction to the spirit of our Constitution did not in-

stantly produce, in fact, the grossest of the evils with which it was pregnant in its nature. It is by lying dormant a long time, or being at first very rarely exercised, that arbitrary power steals upon a people. On the next unconstitutional act, all the fashionable world will be ready to say—Your prophecies are ridiculous, your fears are vain, you see how little of the mischiefs which you formerly foreboded are come to pass. Thus, by degrees, that artful softening of all arbitrary power, the alleged infrequency or narrow extent of its operation, will be received as a sort of aphorism—and Mr. Hume will not be singular in telling us that the felicity of mankind is no more disturbed by it than by earthquakes or thunder or the other more unusual accidents of nature.

The act of which I speak is among the fruits of the American war; a war in my humble opinion productive of many mischiefs of a kind which distinguish it from all others. Not only our policy is deranged, and our empire distracted, but our laws and our legislative spirit appear to have been totally perverted by it. We have made war on our colonies, not by arms only, but by laws. As hostility and law are not very concordant ideas, every step we have taken in this business has been made by trampling on some maxim of justice, or some capital principle of wise government. What precedents were established, and what principles overturned (I will not say of English privilege, but of general justice), in the Boston Port, the Massachusetts Charter, the Military Bill, and all that long array of hostile acts of Parliament by which the war with America has been begun and supported! Had the principles of any of these acts been first exerted on English ground they would probably have expired as soon as they touched it. But by being removed from our persons they have rooted in our laws, and the latest posterity will taste the fruits of them.

Nor is it the worst effect of this unnatural contention that our laws are corrupted. Whilst manners remain entire, they will correct the vices of law, and soften it at length to their own temper. But we have to lament that in most of the late proceedings we see very few traces of that generosity, humanity, and dignity of mind which formerly characterized this nation. War suspends the rules of moral obligation, and what is long suspended is in danger of being totally abrogated. Civil wars strike deepest of all into the manners of the people. They vitiate their politics; they corrupt their morals; they pervert even the natural taste and relish of equity and justice. By teaching us to consider our fellow-citizens in a hostile light, the whole body of our nation becomes gradually less dear to us. The very names of affection and kindred, which were the bond of charity whilst we agreed, become new incentives to hatred and rage,

when the communion of our country is dissolved. We may flatter ourselves that we shall not fall into this misfortune. But we have no charter of exemption, that I know of, from the ordinary frailties of our nature.

What but that blindness of heart which arises from the frenzy of civil contention could have made any persons conceive the present situation of the British affairs as an object of triumph to themselves, or of congratulation to their sovereign? Nothing surely could be more lamentable to those who remember the flourishing days of this kingdom than to see the insane joy of several unhappy people, amidst the sad spectacle which our affairs and conduct exhibit to the scorn of Europe. We behold (and it seems some people rejoice in beholding) our native land, which used to sit the envied arbiter of all her neighbours, reduced to a servile dependence on their mercy—acquiescing in assurances of friendship which she does not trust, complaining of hostilities which she dares not resent, deficient to her allies, lofty to her subjects, and submissive to her enemies—whilst the liberal government of this free nation is supported by the hireling sword of German boors and vassals, and three millions of the subjects of Great Britain are seeking for protection to English privileges in the arms of France!

These circumstances appear to me more like shocking prodigies than natural changes in human affairs. Men of firmer minds may see them without staggering or astonishment. Some may think them matters of congratulation and complimentary addresses; but I trust your candour will be so indulgent to my weakness as not to have the worse opinion of me for my declining to participate in this joy, and my rejecting all share whatsoever in such a triumph. I am too old, too stiff in my inveterate partialities, to be ready at all the fashionable evolutions of opinion. I scarcely know how to adapt my mind to the feelings with which the Court Gazettes mean to impress the people. It is not instantly that I can be brought to rejoice, when I hear of the slaughter and captivity of long lists of those names which have been familiar to my ears from my infancy, and to rejoice that they have fallen under the sword of strangers, whose barbarous appellations I scarcely know how to pronounce. The glory acquired at the White Plains by Colonel Rahl has no charms for me, and I fairly acknowledge that I have not yet learned to delight in finding Fort Kniphausen in the heart of the British dominions.

It might be some consolation for the loss of our old regards, if our reason were enlightened in proportion as our honest prejudices are removed. Wanting feelings for the honour of our country, we might then in

cold blood be brought to think a little of our interests as individual citizens and our private conscience as moral agents.

Indeed, our affairs are in a bad condition. I do assure those gentlemen who have prayed for war, and obtained the blessing they have sought, that they are at this instant in very great straits. The abused wealth of this country continues a little longer to feed its distemper. As yet they, and their German allies of twenty hireling states, have contended only with the unprepared strength of our own infant colonies. But America is not subdued. Not one unattacked village which was originally adverse throughout that vast continent has yet submitted from love or terror. You have the ground you encamp on, and you have no more. The cantonments of your troops and your dominions are exactly of the same extent. You spread devastation, but you do not enlarge the sphere of authority.

The events of this war are of so much greater magnitude than those who either wished or feared it ever looked for, that this alone ought to fill every considerate mind with anxiety and diffidence. Wise men often tremble at the very things which fill the thoughtless with security. For many reasons I do not choose to expose to public view all the particulars of the state in which you stood with regard to foreign powers during the whole course of the last year. Whether you are yet wholly out of danger from them is more than I know, or than your rulers can divine. But even if I were certain of my safety, I could not easily forgive those who had brought me into the most dreadful perils, because by accidents, unforeseen by them or me, I have escaped.

Believe me, Gentlemen, the way still before you is intricate, dark, and full of perplexed and treacherous mazes. Those who think they have the clue may lead us out of this labyrinth. We may trust them as amply as we think proper; but as they have most certainly a call for all the reason which their stock can furnish, why should we think it proper to disturb its operation by inflaming their passions? I may be unable to lend a helping hand to those who direct the state; but I should be ashamed to make myself one of a noisy multitude to halloo and hearten them into doubtful and dangerous courses. A conscientious man would be cautious how he dealt in blood. He would feel some apprehension at being called to a tremendous account for engaging in so deep a play without any sort of knowledge of the game. It is no excuse for presumptuous ignorance, that it is directed by insolent passion. The poorest being that crawls on earth, contending to save itself from injustice and oppression, is an object respectable in the eyes of God and man. But I cannot conceive any

existence under heaven (which in the depths of its wisdom tolerates all sorts of things) that is more truly odious and disgusting than an impotent, helpless creature, without civil wisdom or military skill, without a consciousness of any other qualification for power but his servility to it, bloated with pride and arrogance, calling for battles which he is not to fight, contending for a violent dominion which he can never exercise, and satisfied to be himself mean and miserable, in order to render others contemptible and wretched.

If you and I find our talents not of the great and ruling kind, our conduct, at least, is conformable to our faculties. No man's life pays the forfeit of our rashness. No desolate widow weeps tears of blood over our ignorance. Scrupulous and sober in a well-grounded distrust of ourselves, we would keep in the port of peace and security; and perhaps in recommending to others something of the same diffidence, we should show ourselves more charitable to their welfare than injurious to their abilities.

There are many circumstances in the zeal shown for civil war which seem to discover but little of real magnanimity. The addressers offer their own persons, and they are satisfied with hiring Germans. They promise their private fortunes, and they mortgage their country. They have all the merit of volunteers, without risk of person or charge of contribution; and when the unfeeling arm of a foreign soldiery pours out their kindred blood like water, they exult and triumph as if they themselves had performed some notable exploit. I am really ashamed of the fashionable language which has been held for some time past, which, to say the best of it, is full of levity. You know that I allude to the general cry against the cowardice of the Americans, as if we despised them for not making the king's soldiery purchase the advantage they have obtained at a dearer rate. It is not, Gentlemen, it is not to respect the dispensations of Providence, nor to provide any decent retreat in the mutability of human affairs. It leaves no medium between insolent victory and infamous defeat. It tends to alienate our minds further and further from our natural regards, and to make an eternal rent and schism in the British nation. Those who do not wish for such a separation would not dissolve that cement of reciprocal esteem and regard which can alone bind together the parts of this great fabric. It ought to be our wish, as it is our duty, not only to forbear this style of outrage ourselves, but to make every one as sensible as we can of the impropriety and unworthiness of the tempers which give rise to it, and which designing men are labouring with such malignant industry to diffuse amongst us. It is our business to counteract them, if possible—if possible, to awake our natural regards, and to revive

the old partiality to the English name. Without something of this kind I do not see how it is ever practicable really to reconcile with those whose affection, after all, must be the surest hold of our government, and which is a thousand times more worth to us than the mercenary zeal of all the circles of Germany.

I can well conceive a country completely overrun, and miserably wasted, without approaching in the least to settlement. In my apprehension, as long as English government is attempted to be supported over Englishmen by the sword alone, things will thus continue. I anticipate in my mind the moment of the final triumph of foreign military force. When that hour arrives (for it may arrive), then it is that all this mass of weakness and violence will appear in its full light. If we should be expelled from America, the delusion of the partisans of military government might still continue. They might still feed their imaginations with the possible good consequences which might have attended success. Nobody could prove the contrary by facts. But in case the sword should do all that the sword can do, the success of their arms and the defeat of their policy will be one and the same thing. You will never see any revenue from America. Some increase of the means of corruption, without ease of the public burdens, is the very best that can happen. Is it for this that we are at war—and in such a war?

As to the difficulties of laying once more the foundations of that government which, for the sake of conquering what was our own, has been voluntarily and wantonly pulled down by a court faction here, I tremble to look at them. Has any of these gentlemen who are so eager to govern all mankind shown himself possessed of the first qualification towards government, some knowledge of the object, and of the difficulties which occur in the task they have undertaken?

I assure you, that, on the most prosperous issue of your arms, you will not be where you stood when you called in war to supply the defects of your political establishment. Nor would any disorder or disobedience to government which could arise from the most abject concession on our part ever equal those which will be felt after the most triumphant violence. You have got all the intermediate evils of war into the bargain.

I think I know America—if I do not, my ignorance is incurable, for I have spared no pains to understand it—and I do most solemnly assure those of my constituents who put any sort of confidence in my industry and integrity, that everything that has been done there has arisen from a total misconception of the object: that our means of originally holding America, that our means of reconciling with it after quarrel, of recover-

ing it after separation, of keeping it after victory, did depend, and must depend, in their several stages and periods, upon a total renunciation of that unconditional submission which has taken such possession of the minds of violent men. The whole of those maxims upon which we have made and continued this war must be abandoned. Nothing, indeed (for I would not deceive you), can place us in our former situation. That hope must be laid aside. But there is a difference between bad and the worst of all. Terms relative to the cause of the war ought to be offered by the authority of Parliament. An arrangement at home promising some security for them ought to be made. By doing this, without the least impairing of our strength, we add to the credit of our moderation, which, in itself, is always strength more or less.

I know many have been taught to think that moderation in a case like this is a sort of treason, and that all arguments for it are sufficiently answered by railing at rebels and rebellion, and by charging all the present or future miseries which we may suffer on the resistance of our brethren. But I would wish them, in this grave matter, and if peace is not wholly removed from their hearts, to consider seriously, first, that to criminate and recriminate never yet was the road to reconciliation, in any difference amongst men. In the next place, it would be right to reflect that the American English (whom they may abuse, if they think it honourable to revile the absent) can, as things now stand, neither be provoked at our railing or bettered by our instruction. All communication is cut off between us. But this we know with certainty, that, though we cannot reclaim them, we may reform ourselves. If measures of peace are necessary, they must begin somewhere; and a conciliatory temper must precede and prepare every plan of reconciliation. Nor do I conceive that we suffer anything by thus regulating our own minds. We are not disarmed by being disencumbered of our passions. Declaiming on rebellion never added a bayonet or a charge of powder to your military force; but I am afraid that it has been the means of taking up many muskets against you.

This outrageous language, which has been encouraged and kept alive by every art, has already done incredible mischief. For a long time, even amidst the desolations of war, and the insults of hostile laws daily accumulated on one another, the American leaders seem to have had the greatest difficulty in bringing up their people to a declaration of total independence. But the Court Gazette accomplished what the abettors of independence had attempted in vain. When that disingenuous compilation and strange medley of railing and flattery was adduced as a proof

of the united sentiments of the people of Great Britain, there was a great change throughout all America. The tide of popular affection, which had still set towards the parent country, began immediately to turn, and to flow with great rapidity in a contrary course. Far from concealing these wild declarations of enmity, the author of the celebrated pamphlet which prepared the minds of the people for independence [1] insists largely on the multitude and the spirit of these addresses; and he draws an argument from them, which, if the fact were as he supposes, must be irresistible. For I never knew a writer on the theory of government so partial to authority as not to allow that the hostile mind of the rulers to their people did fully justify a change of government; nor can any reason whatever be given why one people should voluntarily yield any degree of pre-eminence to another but on a supposition of great affection and benevolence towards them. Unfortunately, your rulers, trusting to other things, took no notice of this great principle of connection. From the beginning of this affair, they have done all they could to alienate your minds from your own kindred; and if they could excite hatred enough in one of the parties towards the other, they seemed to be of opinion that they had gone half the way towards reconciling the quarrel.

I know it is said, that your kindness is only alienated on account of their resistance, and therefore, if the colonies surrender at discretion, all sort of regard, and even much indulgence, is meant towards them in future. But can those who are partisans for continuing a war to enforce such a surrender be responsible (after all that has passed) for such a future use of a power that is bound by no compacts and restrained by no terror? Will they tell us what they call indulgences? Do they not at this instant call the present war and all its horrors a lenient and merciful proceeding?

No conqueror that I ever heard of has professed to make a cruel, harsh, and insolent use of his conquest. No! The man of the most declared pride scarcely dares to trust his own heart with this dreadful secret of ambition. But it will appear in its time; and no man who professes to reduce another to the insolent mercy of a foreign arm ever had any sort of goodwill towards him. The profession of kindness, with that sword in his hand, and that demand of surrender, is one of the most provoking acts of his hostility. I shall be told that all this is lenient as against rebellious adversaries. But are the leaders of their faction more lenient to those who submit? Lord Howe and General Howe have powers, under an act of

1. Burke refers to Thomas Paine's *Common Sense*.

Parliament, to restore to the king's peace and to free trade any men or district which shall submit. Is this done? We have been over and over informed by the authorized gazette, that the city of New York and the countries of Staten and Long Island have submitted voluntarily and cheerfully, and that many are very full of zeal to the cause of administration. Were they instantly restored to trade? Are they yet restored to it? Is not the benignity of two commissioners, naturally most humane and generous men, some way fettered by instructions, equally against their dispositions and the spirit of Parliamentary faith, when Mr. Tryon, vaunting of the fidelity of the city in which he is governor, is obliged to apply to ministry for leave to protect the king's loyal subjects, and to grant to them, not the disputed rights and privileges of freedom, but the common rights of men, by the name of *graces?* Why do not the commissioners restore them on the spot? Were they not named as commissioners for that express purpose? But we see well enough to what the whole leads. The trade of America is to be dealt out in private indulgences and graces, that is, in jobs to recompense the incendiaries of war. They will be informed of the proper time in which to send out their merchandise. From a national, the American trade is to be turned into a personal monopoly, and one set of merchants are to be rewarded for the pretended zeal of which another set are the dupes; and thus, between craft and credulity, the voice of reason is stifled, and all the misconduct, all the calamities of the war are covered and continued.

If I had not lived long enough to be little surprised at anything, I should have been in some degree astonished at the continued rage of several gentlemen, who, not satisfied with carrying fire and sword into America, are animated nearly with the same fury against those neighbours of theirs whose only crime it is, that they have charitably and humanely wished them to entertain more reasonable sentiments, and not always to sacrifice their interest to their passion. All this rage against unresisting dissent convinces me, that, at bottom, they are far from satisfied they are in the right. For what is it they would have? A war? They certainly have at this moment the blessing of something that is very like one; and if the war they enjoy at present be not sufficiently hot and extensive, they may shortly have it as warm and as spreading as their hearts can desire. Is it the force of the kingdom they call for? They have it already; and if they choose to fight their battles in their own person, nobody prevents their setting sail to America in the next transports. Do they think that the service is stinted for want of liberal supplies? Indeed they complain without reason. The table of the House of Commons will glut them, let their appetite for expense be never so keen. And I assure them further, that

those who think with them in the House of Commons are full as easy in the control as they are liberal in the vote of these expenses. If this be not supply or confidence sufficient, let them open their own private purse-strings, and give, from what is left to them, as largely and with as little care as they think proper.

Tolerated in their passions, let them learn not to persecute the moderation of their fellow-citizens. If all the world joined them in a full cry against rebellion, and were as hotly inflamed against the whole theory and enjoyment of freedom as those who are the most factious for servitude, it could not, in my opinion, answer any one end whatsoever in this contest. The leaders of this war could not hire (to gratify their friends) one German more than they do, or inspire him with less feeling for the persons or less value for the privileges of their revolted brethren. If we all adopted their sentiments to a man, their allies, the savage Indians, could not be more ferocious than they are: they could not murder one more helpless woman or child, or with more exquisite refinements of cruelty torment to death one more of their English flesh and blood, than they do already. The public money is given to purchase this alliance; and they have their bargain.

They are continually boasting of unanimity, or calling for it. But before this unanimity can be matter either of wish or congratulation, we ought to be pretty sure that we are engaged in a rational pursuit. Frenzy does not become a slighter distemper on account of the number of those who may be infected with it. Delusion and weakness produce not one mischief the less because they are universal. I declare that I cannot discern the least advantage which could accrue to us, if we were able to persuade our colonies that they had not a single friend in Great Britain. On the contrary, if the affections and opinions of mankind be not exploded as principles of connection, I conceive it would be happy for us, if they were taught to believe that there was even a formed American party in England, to whom they could always look for support. Happy would it be for us, if, in all tempers, they might turn their eyes to the parent state, so that their very turbulence and sedition should find vent in no other place than this! I believe there is not a man (except those who prefer the interest of some paltry faction to the very being of their country) who would not wish that the Americans should from time to time carry many points, and even some of them not quite reasonable, by the aid of any denomination of men here, rather than they should be driven to seek for protection against the fury of foreign mercenaries and the waste of savages in the arms of France.

When any community is subordinately connected with another, the

great danger of the connection is the extreme pride and self-complacency of the superior, which in all matters of controversy will probably decide in its own favour. It is a powerful corrective to such a very rational cause of fear, if the inferior body can be made to believe that the party inclination or political views of several in the principal state will induce them in some degree to counteract this blind and tyrannical partiality. There is no danger that any one acquiring consideration or power in the presiding state should carry this leaning to the inferior too far. The fault of human nature is not of that sort. Power, in whatever hands, is rarely guilty of too strict limitations on itself. But one great advantage to the support of authority attends such an amicable and protecting connection: that those who have conferred favours obtain influence, and from the foresight of future events can persuade men who have received obligations sometimes to return them. Thus, by the mediation of those healing principles (call them good or evil), troublesome discussions are brought to some sort of adjustment, and every hot controversy is not a civil war.

But, if the colonies (to bring the general matter home to us) could see that in Great Britain the mass of the people is melted into its government, and that every dispute with the ministry must of necessity be always a quarrel with the nation, they can stand no longer in the equal and friendly relation of fellow-citizens to the subjects of this kingdom. Humble as this relation may appear to some, when it is once broken, a strong tie is dissolved. Other sort of connections will be sought. For there are very few in the world who will not prefer a useful ally to an insolent master.

Such discord has been the effect of the unanimity into which so many have of late been seduced or bullied, or into the appearance of which they have sunk through mere despair. They have been told that their dissent from violent measures is an encouragement to rebellion. Men of great presumption and little knowledge will hold a language which is contradicted by the whole course of history. General rebellions and revolts of a whole people never were encouraged, now or at any time. They are always provoked. But if this unheard-of doctrine of the encouragement of rebellion were true, if it were true that an assurance of the friendship of numbers in this country towards the colonies could become an encouragement to them to break off all connection with it, what is the inference? Does anybody seriously maintain, that, charged with my share of the public councils, I am obliged not to resist projects which I think mischievous, lest men who suffer should be encouraged to resist? The very tendency of such projects to produce rebellion is one of the chief reasons against them. Shall that reason not be given? Is it, then, a rule,

that no man in this nation shall open his mouth in favour of the colonies, shall defend their rights, or complain of their sufferings—or when war finally breaks out, no man shall express his desires of peace? Has this been the law of our past, or is it to be the terms of our future connection? Even looking no further than ourselves, can it be true loyalty to any government, or true patriotism towards any country, to degrade their solemn councils into servile drawing-rooms, to flatter their pride and passions rather than to enlighten their reason, and to prevent them from being cautioned against violence lest others should be encouraged to resistance? By such acquiescence great kings and mighty nations have been undone; and if any are at this day in a perilous situation from rejecting truth and listening to flattery, it would rather become them to reform the errors under which they suffer than to reproach those who forewarned them of their danger.

But the rebels looked for assistance from this country. They did so, in the beginning of this controversy, most certainly; and they sought it by earnest supplications to government, which dignity rejected, and by a suspension of commerce, which the wealth of this nation enabled you to despise. When they found that neither prayers nor menaces had any sort of weight, but that a firm resolution was taken to reduce them to unconditional obedience by a military force, they came to the last extremity. Despairing of us, they trusted in themselves. Not strong enough themselves, they sought succour in France. In proportion as all encouragement here lessened, their distance from this country increased. The encouragement is over; the alienation is complete.

In order to produce this favourite unanimity in delusion, and to prevent all possibility of a return to our ancient happy concord, arguments for our continuance in this course are drawn from the wretched situation itself into which we have been betrayed. It is said, that, being at war with the colonies, whatever our sentiments might have been before, all ties between us are now dissolved, and all the policy we have left is to strengthen the hands of government to reduce them. On the principle of this argument, the more mischiefs we suffer from any administration, the more our trust in it is to be confirmed. Let them but once get us into a war, and then their power is safe, and an act of oblivion passed for all their misconduct.

But is it really true that government is always to be strengthened with the instruments of war, but never furnished with the means of peace? In former times, ministers, I allow, have been sometimes driven by the popular voice to assert by arms the national honour against foreign pow-

ers. But the wisdom of the nation has been far more clear, when those ministers have been compelled to consult its interests by treaty. We all know that the sense of the nation obliged the court of Charles the Second to abandon the Dutch War: a war, next to the present, the most impolitic which we ever carried on. The good people of England considered Holland as a sort of dependency on this kingdom; they dreaded to drive it to the protection or subject it to the power of France by their own inconsiderate hostility. They paid but little respect to the court jargon of that day; nor were they inflamed by the pretended rivalship of the Dutch in trade–by the massacre at Amboyna, acted on the stage to provoke the public vengeance–nor by declamations against the ingratitude of the United Provinces for the benefits England had conferred upon them in their infant state. They were not moved from their evident interest by all these arts; nor was it enough to tell them, they were at war, that they must go through with it, and that the cause of the dispute was lost in the consequences. The people of England were then, as they are now, called upon to make government strong. They thought it a great deal better to make it wise and honest.

When I was amongst my constituents at the last summer assizes, I remember that men of all descriptions did then express a very strong desire for peace, and no slight hopes of attaining it from the commission sent out by my Lord Howe. And it is not a little remarkable, that, in proportion as every person showed a zeal for the court measures, he was then earnest in circulating an opinion of the extent of the supposed powers of that commission. When I told them that Lord Howe had no powers to treat, or to promise satisfaction on any point whatsoever of the controversy, I was hardly credited, so strong and general was the desire of terminating this war by the method of accommodation. As far as I could discover, this was the temper then prevalent through the kingdom. The king's forces, it must be observed, had at that time been obliged to evacuate Boston. The superiority of the former campaign rested wholly with the colonists. If such powers of treaty were to be wished whilst success was very doubtful, how came they to be less so, since his Majesty's arms have been crowned with many considerable advantages? Have these successes induced us to alter our mind, as thinking the season of victory not the time for treating with honour or advantage? Whatever changes have happened in the national character, it can scarcely be our wish that terms of accommodation never should be proposed to our enemy, except when they must be attributed solely to our fears. It has happened, let me say unfortunately, that we read of his Majesty's commission for making

peace, and his troops evacuating his last town in the Thirteen Colonies, at the same hour and in the same gazette. It was still more unfortunate that no commission went to America to settle the troubles there, until several months after an act had been passed to put the colonies out of the protection of this government, and to divide their trading property, without a possibility of restitution, as spoil among the seamen of the navy. The most abject submission on the part of the colonies could not redeem them. There was no man on that whole continent, or within three thousand miles of it, qualified by law to follow allegiance with protection or submission with pardon. A proceeding of this kind has no example in history. Independency, and independency with an enmity (which, putting ourselves out of the question, would be called natural and much provoked), was the inevitable consequence. How this came to pass the nation may be one day in a humour to inquire.

All the attempts made this session to give fuller powers of peace to the commanders in America were stifled by the fatal confidence of victory and the wild hopes of unconditional submission. There was a moment favourable to the king's arms, when, if any powers of concession had existed on the other side of the Atlantic, even after all our errors, peace in all probability might have been restored. But calamity is unhappily the usual season of reflection; and the pride of men will not often suffer reason to have any scope, until it can be no longer of service.

I have always wished, that as the dispute had its apparent origin from things done in Parliament, and as the acts passed there had provoked the war, that the foundations of peace should be laid in Parliament also. I have been astonished to find that those whose zeal for the dignity of our body was so hot as to light up the flames of civil war should even publicly declare that these delicate points ought to be wholly left to the crown. Poorly as I may be thought affected to the authority of Parliament, I shall never admit that our constitutional rights can ever become a matter of ministerial negotiation.

I am charged with being an American. If warm affection towards those over whom I claim any share of authority be a crime, I am guilty of this charge. But I do assure you (and they who know me publicly and privately will bear witness to me) that if ever one man lived more zealous than another for the supremacy of Parliament and the rights of this imperial crown, it was myself. Many others, indeed, might be more knowing in the extent of the foundation of these rights. I do not pretend to be an antiquary, a lawyer, or qualified for the chair of professor in metaphysics. I never ventured to put your solid interests upon speculative grounds. My

having constantly declined to do so has been attributed to my incapacity for such disquisitions; and I am inclined to believe it is partly the cause. I never shall be ashamed to confess, that, where I am ignorant, I am diffident. I am, indeed, not very solicitous to clear myself of this imputed incapacity; because men even less conversant than I am in this kind of subtleties, and placed in stations to which I ought not to aspire, have, by the mere force of civil discretion, often conducted the affairs of great nations with distinguished felicity and glory.

When I first came into a public trust, I found your Parliament in possession of an unlimited legislative power over the colonies. I could not open the statute-book without seeing the actual exercise of it, more or less, in all cases whatsoever. This possession passed with me for a title. It does so in all human affairs. No man examines into the defects of his title to his paternal estate or to his established government. Indeed, common sense taught me that a legislative authority not actually limited by the express terms of its foundation, or by its own subsequent acts, cannot have its powers parcelled out by argumentative distinctions, so as to enable us to say that here they can and there they cannot bind. Nobody was so obliging as to produce to me any record of such distinctions, by compact or otherwise, either at the successive formation of the several colonies or during the existence of any of them. If any gentlemen were able to see how one power could be given up (merely on abstract reasoning) without giving up the rest, I can only say that they saw further than I could. Nor did I ever presume to condemn any one for being clear-sighted when I was blind. I praise their penetration and learning, and hope that their practice has been correspondent to their theory.

I had, indeed, very earnest wishes to keep the whole body of this authority perfect and entire as I found it, and to keep it so, not for our advantage solely, but principally for the sake of those on whose account all just authority exists: I mean the people to be governed. For I thought I saw that many cases might well happen in which the exercise of every power comprehended in the broadest idea of legislature might become, in its time and circumstances, not a little expedient for the peace and union of the colonies amongst themselves, as well as for their perfect harmony with Great Britain. Thinking so (perhaps erroneously, but being honestly of that opinion), I was at the same time very sure that the authority of which I was so jealous could not, under the actual circumstances of our plantations, be at all preserved in any of its members, but by the greatest reserve in its application, particularly in those delicate points in which the feelings of mankind are the most irritable. They who

thought otherwise have found a few more difficulties in their work than (I hope) they were thoroughly aware of, when they undertook the present business. I must beg leave to observe, that it is not only the invidious branch of taxation that will be resisted, but that no other given part of legislative rights can be exercised, without regard to the general opinion of those who are to be governed. That general opinion is the vehicle and organ of legislative omnipotence. Without this, it may be a theory to entertain the mind, but it is nothing in the direction of affairs. The completeness of the legislative authority of Parliament over this kingdom is not questioned; and yet many things indubitably included in the abstract idea of that power, and which carry no absolute injustice in themselves, yet being contrary to the opinions and feelings of the people, can as little be exercised as if Parliament in that case had been possessed of no right at all. I see no abstract reason, which can be given, why the same power which made and repealed the High Commission Court and the Star-chamber might not revive them again; and these courts, warned by their former fate, might possibly exercise their powers with some degree of justice. But the madness would be as unquestionable as the competence of that Parliament which should attempt such things. If anything can be supposed out of the power of human legislature, it is religion; I admit, however, that the established religion of this country has been three or four times altered by act of Parliament, and therefore that a statute binds even in that case. But we may very safely affirm, that, notwithstanding this apparent omnipotence, it would be now found as impossible for King and Parliament to alter the established religion of this country as it was to King James alone, when he attempted to make such an alteration without a Parliament. In effect, to follow, not to force, the public inclination, to give a direction, a form, a technical dress, and a specific sanction, to the general sense of the community, is the true end of legislature.

It is so with regard to the exercise of all the powers which our Constitution knows in any of its parts, and indeed to the substantial existence of any of the parts themselves. The king's negative to bills is one of the most indisputed of the royal prerogatives; and it extends to all cases whatsoever. I am far from certain, that if several laws, which I know, had fallen under the stroke of that sceptre, that the public would have had a very heavy loss. But it is not the propriety of the exercise which is in question. The exercise itself is wisely forborne. Its repose may be the preservation of its existence; and its existence may be the means of saving the Constitution itself, on an occasion worthy of bringing it forth.

As the disputants whose accurate and logical reasonings have brought

us into our present condition think it absurd that powers or members of any constitution should exist, rarely, if ever, to be exercised, I hope I shall be excused in mentioning another instance that is material. We know that the Convocation of the Clergy had formerly been called, and sat with nearly as much regularity to business as Parliament itself. It is now called for form only. It sits for the purpose of making some polite ecclesiastical compliments to the king, and, when that grace is said, retires and is heard of no more. It is, however, a part of the Constitution, and may be called out into act and energy, whenever there is occasion, and whenever those who conjure up that spirit will choose to abide the consequences. It is wise to permit its legal existence: it is much wiser to continue it a legal existence only. So truly has prudence (constituted as the god of this lower world) the entire dominion over every exercise of power committed into its hands! And yet I have lived to see prudence and conformity to circumstances wholly set at nought in our late controversies, and treated as if they were the most contemptible and irrational of all things. I have heard it a hundred times very gravely alleged, that, in order to keep power in wind, it was necessary, by preference, to exert it in those very points in which it was most likely to be resisted and the least likely to be productive of any advantage.

These were the considerations, Gentlemen, which led me early to think, that, in the comprehensive dominion which the Divine Providence had put into our hands, instead of troubling our understandings with speculations concerning the unity of empire and the identity or distinction of legislative powers, and inflaming our passions with the heat and pride of controversy, it was our duty, in all soberness, to conform our government to the character and circumstances of the several people who composed this mighty and strangely diversified mass. I never was wild enough to conceive that one method would serve for the whole, that the natives of Hindostan and those of Virginia could be ordered in the same manner, or that the cutchery court and the grand jury of Salem could be regulated on a similar plan. I was persuaded that government was a practical thing, made for the happiness of mankind, and not to furnish out a spectacle of uniformity to gratify the schemes of visionary politicians. Our business was to rule, not to wrangle; and it would have been a poor compensation that we had triumphed in a dispute, whilst we lost an empire.

If there be one fact in the world perfectly clear, it is this, "that the disposition of the people of America is wholly averse to any other than a free government"; and this is indication enough to any honest statesman how

he ought to adapt whatever power he finds in his hands to their case. If any ask me what a free government is, I answer, that, for any practical purpose, it is what the people think so, and that they, and not I, are the natural, lawful, and competent judges of this matter. If they practically allow me a greater degree of authority over them than is consistent with any correct ideas of perfect freedom, I ought to thank them for so great a trust, and not to endeavour to prove from thence that they have reasoned amiss, and that, having gone so far, by analogy they must hereafter have no enjoyment but by my pleasure.

If we had seen this done by any others, we should have concluded them far gone in madness. It is melancholy, as well as ridiculous, to observe the kind of reasoning with which the public has been amused, in order to divert our minds from the common sense of our American policy. There are people who have split and anatomized the doctrine of free government, as if it were an abstract question concerning metaphysical liberty and necessity, and not a matter of moral prudence and natural feeling. They have disputed whether liberty be a positive or a negative idea; whether it does not consist in being governed by laws, without considering what are the laws, or who are the makers; whether man has any rights by Nature; and whether all the property he enjoys be not the alms of his government, and his life itself their favour and indulgence. Others, corrupting religion as these have perverted philosophy, contend that Christians are redeemed into captivity, and the blood of the Saviour of mankind has been shed to make them the slaves of a few proud and insolent sinners. These shocking extremes provoking to extremes of another kind, speculations are let loose as destructive to all authority as the former are to all freedom; and every government is called tyranny and usurpation which is not formed on their fancies. In this manner the stirrers-up of this contention, not satisfied with distracting our dependencies and filling them with blood and slaughter, are corrupting our understandings: they are endeavouring to tear up, along with practical liberty, all the foundations of human society, all equity and justice, religion and order.

Civil freedom, Gentlemen, is not, as many have endeavoured to persuade you, a thing that lies hid in the depth of abstruse science. It is a blessing and a benefit, not an abstract speculation; and all the just reasoning that can be upon it is of so coarse a texture as perfectly to suit the ordinary capacities of those who are to enjoy, and of those who are to defend it. Far from any resemblance to those propositions in geometry and metaphysics which admit no medium, but must be true or false in all

their latitude, social and civil freedom, like all other things in common life, are variously mixed and modified, enjoyed in very different degrees, and shaped into an infinite diversity of forms, according to the temper and circumstances of every community. The extreme of liberty (which is its abstract perfection, but its real fault) obtains nowhere, nor ought to obtain anywhere; because extremes, as we all know, in every point which relates either to our duties or satisfactions in life, are destructive both to virtue and enjoyment. Liberty, too, must be limited in order to be possessed. The degree of restraint it is impossible in any case to settle precisely. But it ought to be the constant aim of every wise public counsel to find out by cautious experiments, and rational, cool endeavours, with how little, not how much, of this restraint the community can subsist: for liberty is a good to be improved, and not an evil to be lessened. It is not only a private blessing of the first order, but the vital spring and energy of the state itself, which has just so much life and vigour as there is liberty in it. But whether liberty be advantageous or not (for I know it is a fashion to decry the very principle), none will dispute that peace is a blessing; and peace must, in the course of human affairs, be frequently bought by some indulgence and toleration at least to liberty: for, as the Sabbath (though of divine institution) was made for man, not man for the Sabbath, government, which can claim no higher origin or authority, in its exercise at least, ought to conform to the exigencies of the time, and the temper and character of the people with whom it is concerned, and not always to attempt violently to bend the people to their theories of subjection. The bulk of mankind, on their part, are not excessively curious concerning any theories whilst they are really happy; and one sure symptom of an ill-conducted state is the propensity of the people to resort to them.

But when subjects, by a long course of such ill conduct, are once thoroughly inflamed, and the state itself violently distempered, the people must have some satisfaction to their feelings more solid than a sophistical speculation on law and government. Such was our situation: and such a satisfaction was necessary to prevent recourse to arms; it was necessary towards laying them down; it will be necessary to prevent the taking them up again and again. Of what nature this satisfaction ought to be I wish it had been the disposition of Parliament seriously to consider. It was certainly a deliberation that called for the exertion of all their wisdom.

I am, and ever have been, deeply sensible of the difficulty of reconciling the strong presiding power, that is so useful towards the conservation of

a vast, disconnected, infinitely diversified empire, with that liberty and safety of the provinces which they must enjoy (in opinion and practice at least), or they will not be provinces at all. I know, and have long felt, the difficulty of reconciling the unwieldy haughtiness of a great ruling nation, habituated to command, pampered by enormous wealth, and confident from a long course of prosperity and victory, to the high spirit of free dependencies, animated with the first glow and activity of juvenile heat, and assuming to themselves, as their birthright, some part of that very pride which oppresses them. They who perceive no difficulty in reconciling these tempers (which, however, to make peace, must some way or other be reconciled) are much above my capacity, or much below the magnitude of the business. Of one thing I am perfectly clear: that it is not by deciding the suit, but by compromising the difference, that peace can be restored or kept. They who would put an end to such quarrels by declaring roundly in favour of the whole demands of either party have mistaken, in my humble opinion, the office of a mediator.

The war is now of full two years' standing: the controversy of many more. In different periods of the dispute, different methods of reconciliation were to be pursued. I mean to trouble you with a short state of things at the most important of these periods, in order to give you a more distinct idea of our policy with regard to this most delicate of all objects. The colonies were from the beginning subject to the legislature of Great Britain on principles which they never examined; and we permitted to them many local privileges, without asking how they agreed with that legislative authority. Modes of administration were formed in an insensible and very unsystematic manner. But they gradually adapted themselves to the varying condition of things. What was first a single kingdom stretched into an empire; and an imperial superintendency, of some kind or other, became necessary. Parliament, from a mere representative of the people, and a guardian of popular privileges for its own immediate constituents, grew into a mighty sovereign. Instead of being a control on the crown on its own behalf, it communicated a sort of strength to the royal authority, which was wanted for the conservation of a new object, but which could not be safely trusted to the crown alone. On the other hand, the colonies, advancing by equal steps, and governed by the same necessity, had formed within themselves, either by royal instruction or royal charter, assemblies so exceedingly resembling a parliament, in all their forms, functions, and powers, that it was impossible they should not imbibe some opinion of a similar authority.

At the first designation of these assemblies, they were probably not

intended for anything more (nor perhaps did they think themselves much higher) than the municipal corporations within this island, to which some at present love to compare them. But nothing in progression can rest on its original plan. We may as well think of rocking a grown man in the cradle of an infant. Therefore, as the colonies prospered and increased to a numerous and mighty people, spreading over a very great tract of the globe, it was natural that they should attribute to assemblies so respectable in their formal constitution some part of the dignity of the great nations which they represented. No longer tied to by-laws, these assemblies made acts of all sorts and in all cases whatsoever. They levied money, not for parochial purposes, but upon regular grants to the crown, following all the rules and principles of a parliament, to which they approached every day more and more nearly. Those who think themselves wiser than Providence and stronger than the course of Nature may complain of all this variation, on the one side or the other, as their several humours and prejudices may lead them. But things could not be otherwise; and English colonies must be had on these terms, or not had at all. In the mean time neither party felt any inconvenience from this double legislature, to which they had been formed by imperceptible habits, and old custom, the great support of all the governments in the world. Though these two legislatures were sometimes found perhaps performing the very same functions, they did not very grossly or systematically clash. In all likelihood this arose from mere neglect, possibly from the natural operation of things, which, left to themselves, generally fall into their proper order. But whatever was the cause, it is certain that a regular revenue, by the authority of Parliament, for the support of civil and military establishments, seems not to have been thought of until the colonies were too proud to submit, too strong to be forced, too enlightened not to see all the consequences which must arise from such a system.

If ever this scheme of taxation was to be pushed against the inclinations of the people, it was evident that discussions must arise, which would let loose all the elements that composed this double constitution, would show how much each of their members had departed from its original principles, and would discover contradictions in each legislature, as well to its own first principles as to its relation to the other, very difficult, if not absolutely impossible, to be reconciled.

Therefore, at the first fatal opening of this contest, the wisest course seemed to be to put an end as soon as possible to the immediate causes of the dispute, and to quiet a discussion, not easily settled upon clear principles, and arising from claims which pride would permit neither

party to abandon, by resorting as nearly as possible to the old, successful course. A mere repeal of the obnoxious tax, with a declaration of the legislative authority of this kingdom, was then fully sufficient to procure peace to both sides. Man is a creature of habit, and, the first breach being of very short continuance, the colonies fell back exactly into their ancient state. The Congress has used an expression with regard to this pacification which appears to me truly significant. After the repeal of the Stamp Act, "the colonies fell," says this assembly, "into their ancient state of unsuspecting confidence in the mother country." This unsuspecting confidence is the true centre of gravity amongst mankind, about which all the parts are at rest. It is this unsuspecting confidence that removes all difficulties, and reconciles all the contradictions which occur in the complexity of all ancient puzzled political establishments. Happy are the rulers which have the secret of preserving it!

The whole empire has reason to remember with eternal gratitude the wisdom and temper of that man and his excellent associates, who, to recover this confidence, formed a plan of pacification in 1766. That plan, being built upon the nature of man, and the circumstances and habits of the two countries, and not on any visionary speculations, perfectly answered its end, as long as it was thought proper to adhere to it. Without giving a rude shock to the dignity (well or ill understood) of this Parliament, they gave perfect content to our dependencies. Had it not been for the mediatorial spirit and talents of that great man between such clashing pretensions and passions, we should then have rushed headlong (I know what I say) into the calamities of that civil war in which, by departing from his system, we are at length involved; and we should have been precipitated into that war at a time when circumstances both at home and abroad were far, very far, more unfavourable unto us than they were at the breaking out of the present troubles.

I had the happiness of giving my first votes in Parliament for that pacification. I was one of those almost unanimous members who, in the necessary concessions of Parliament, would as much as possible have preserved its authority and respected its honour. I could not at once tear from my heart prejudices which were dear to me, and which bore a resemblance to virtue. I had then, and I have still, my partialities. What Parliament gave up I wished to be given as of grace and favour and affection, and not as a restitution of stolen goods. High dignity relented as it was soothed; and a benignity from old acknowledged greatness had its full effect on our dependencies. Our unlimited declaration of legislative authority produced not a single murmur. If this undefined power has be-

come odious since that time, and full of horror to the colonies, it is because the unsuspicious confidence is lost, and the parental affection, in the bosom of whose boundless authority they reposed their privileges, is become estranged and hostile.

It will be asked, if such was then my opinion of the mode of pacification, how I came to be the very person who moved, not only for a repeal of all the late coercive statutes, but for mutilating, by a positive law, the entireness of the legislative power of Parliament, and cutting off from it the whole right of taxation. I answer, Because a different state of things requires a different conduct. When the dispute had gone to these last extremities (which no man laboured more to prevent than I did), the concessions which had satisfied in the beginning could satisfy no longer; because the violation of tacit faith required explicit security. The same cause which has introduced all formal compacts and covenants among men made it necessary: I mean habits of soreness, jealousy, and distrust. I parted with it as with a limb, but as a limb to save the body: and I would have parted with more, if more had been necessary; anything rather than a fruitless, hopeless, unnatural civil war. This mode of yielding would, it is said, give way to independency without a war. I am persuaded, from the nature of things, and from every information, that it would have had a directly contrary effect. But if it had this effect, I confess that I should prefer independency without war to independency with it; and I have so much trust in the inclinations and prejudices of mankind, and so little in anything else, that I should expect ten times more benefit to this kingdom from the affection of America, though under a separate establishment, than from her perfect submission to the crown and Parliament, accompanied with her terror, disgust, and abhorrence. Bodies tied together by so unnatural a bond of union as mutual hatred are only connected to their ruin.

One hundred and ten respectable members of Parliament voted for that concession. Many not present when the motion was made were of the sentiments of those who voted. I knew it would then have made peace. I am not without hopes that it would do so at present, if it were adopted. No benefit, no revenue, could be lost by it; something might possibly be gained by its consequences. For be fully assured, that, of all the phantoms that ever deluded the fond hopes of a credulous world, a Parliamentary revenue in the colonies is the most perfectly chimerical. Your breaking them to any subjection, far from relieving your burdens (the pretext for this war), will never pay that military force which will be kept up to the destruction of their liberties and yours. I risk nothing in this prophecy.

Gentlemen, you have my opinions on the present state of public affairs. Mean as they may be in themselves, your partiality has made them of some importance. Without troubling myself to inquire whether I am under a formal obligation to it, I have a pleasure in accounting for my conduct to my constituents. I feel warmly on this subject, and I express myself as I feel. If I presume to blame any public proceeding, I cannot be supposed to be personal. Would to God I could be suspected of it! My fault might be greater, but the public calamity would be less extensive. If my conduct has not been able to make any impression on the warm part of that ancient and powerful party with whose support I was not honoured at my election, on my side, my respect, regard, and duty to them is not at all lessened. I owe the gentlemen who compose it my most humble service in everything. I hope that whenever any of them were pleased to command me, that they found me perfectly equal in my obedience. But flattery and friendship are very different things; and to mislead is not to serve them. I cannot purchase the favour of any man by concealing from him what I think his ruin.

By the favour of my fellow-citizens, I am the representative of an honest, well-ordered, virtuous city, of a people who preserve more of the original English simplicity and purity of manners than perhaps any other. You possess among you several men and magistrates of large and cultivated understandings, fit for any employment in any sphere. I do, to the best of my power, act so as to make myself worthy of so honourable a choice. If I were ready, on any call of my own vanity or interest, or to answer any election purpose, to forsake principles (whatever they are) which I had formed at a mature age, on full reflection, and which had been confirmed by long experience, I should forfeit the only thing which makes you pardon so many errors and imperfections in me.

Not that I think it fit for any one to rely too much on his own understanding, or to be filled with a presumption not becoming a Christian man in his own personal stability and rectitude. I hope I am far from that vain confidence which almost always fails in trial. I know my weakness in all respects, as much at least as any enemy I have; and I attempt to take security against it. The only method which has ever been found effectual to preserve any man against the corruption of nature and example is a habit of life and communication of councils with the most virtuous and public-spirited men of the age you live in. Such a society cannot be kept without advantage, or deserted without shame. For this rule of conduct I may be called in reproach a party man; but I am little affected with such aspersions. In the way which they call party I worship the Constitution of your fathers; and I shall never blush for my political com-

pany. All reverence to honour, all idea of what it is, will be lost out of the world, before it can be imputed as a fault to any man, that he has been closely connected with those incomparable persons, living and dead, with whom for eleven years I have constantly thought and acted. If I have wandered out of the paths of rectitude into those of interested faction, it was in company with the Saviles, the Dowdeswells, the Wentworths, the Bentincks; with the Lenoxes, the Manchesters, the Keppels, the Saunderses; with the temperate, permanent, hereditary virtue of the whole house of Cavendish: names, among which, some have extended your fame and empire in arms, and all have fought the battle of your liberties in fields not less glorious. These, and many more like these, grafting public principles on private honour, have redeemed the present age, and would have adorned the most splendid period in your history. Where could any man, conscious of his own inability to act alone, and willing to act as he ought to do, have arranged himself better? If any one thinks this kind of society to be taken up as the best method of gratifying low personal pride or ambitious interest, he is mistaken, and knows nothing of the world.

Preferring this connection, I do not mean to detract in the slightest degree from others. There are some of those whom I admire at something of a greater distance, with whom I have had the happiness also perfectly to agree, in almost all the particulars in which I have differed with some successive administrations; and they are such as it never can be reputable to any government to reckon among its enemies.

I hope there are none of you corrupted with the doctrine taught by wicked men for the worst purposes, and received by the malignant credulity of envy and ignorance, which is, that the men who act upon the public stage are all alike, all equally corrupt, all influenced by no other views than the sordid lure of salary and pension. The thing I know by experience to be false. Never expecting to find perfection in men, and not looking for divine attributes in created beings, in my commerce with my contemporaries I have found much human virtue. I have seen not a little public spirit, a real subordination of interest to duty, and a decent and regulated sensibility to honest fame and reputation. The age unquestionably produces (whether in a greater or less number than former times I know not) daring profligates and insidious hypocrites. What then? Am I not to avail myself of whatever good is to be found in the world, because of the mixture of evil that will always be in it? The smallness of the quantity in currency only heightens the value. They who raise suspicions on the good on account of the behaviour of ill men are of the party

of the latter. The common cant is no justification for taking this party. I have been deceived, say they, by Titius and Maevius; I have been the dupe of this pretender or of that mountebank; and I can trust appearances no longer. But my credulity and want of discernment cannot, as I conceive, amount to a fair presumption against any man's integrity. A conscientious person would rather doubt his own judgment than condemn his species. He would say, "I have observed without attention, or judged upon erroneous maxims; I trusted to profession, when I ought to have attended to conduct." Such a man will grow wise, not malignant, by his acquaintance with the world. But he that accuses all mankind of corruption ought to remember that he is sure to convict only one. In truth, I should much rather admit those whom at any time I have disrelished the most to be patterns of perfection than seek a consolation to my own unworthiness in a general communion of depravity with all about me.

That this ill-natured doctrine should be preached by the missionaries of a court I do not wonder. It answers their purpose. But that it should be heard among those who pretend to be strong assertors of liberty is not only surprising, but hardly natural. This moral levelling is a servile principle. It leads to practical passive obedience far better than all the doctrines which the pliant accommodation of theology to power has ever produced. It cuts up by the roots, not only all idea of forcible resistance, but even of civil opposition. It disposes men to an abject submission, not by opinion, which may be shaken by argument or altered by passion, but by the strong ties of public and private interest. For, if all men who act in a public situation are equally selfish, corrupt, and venal, what reason can be given for desiring any sort of change, which, besides the evils which must attend all changes, can be productive of no possible advantage? The active men in the state are true samples of the mass. If they are universally depraved, the commonwealth itself is not sound. We may amuse ourselves with talking as much as we please of the virtue of middle or humble life; that is, we may place our confidence in the virtue of those who have never been tried. But if the persons who are continually emerging out of that sphere be no better than those whom birth has placed above it, what hopes are there in the remainder of the body which is to furnish the perpetual succession of the state? All who have ever written on government are unanimous, that among a people generally corrupt liberty cannot long exist. And, indeed, how is it possible, when those who are to make the laws, to guard, to enforce, or to obey them, are, by a tacit confederacy of manners, indisposed to the spirit of all generous and noble institutions?

I am aware that the age is not what we all wish. But I am sure that the only means of checking its precipitate degeneracy is heartily to concur with whatever is the best in our time, and to have some more correct standard of judging what that best is than the transient and uncertain favour of a court. If once we are able to find, and can prevail on ourselves to strengthen a union of such men, whatever accidentally becomes indisposed to ill-exercised power, even by the ordinary operation of human passions, must join with that society, and cannot long be joined without in some degree assimilating to it. Virtue will catch as well as vice by contact; and the public stock of honest, manly principle will daily accumulate. We are not too nicely to scrutinize motives as long as action is irreproachable. It is enough (and for a worthy man perhaps too much) to deal out its infamy to convicted guilt and declared apostasy.

This, Gentlemen, has been from the beginning the rule of my conduct; and I mean to continue it, as long as such a body as I have described can by any possibility be kept together; for I should think it the most dreadful of all offences, not only towards the present generation, but to all the future, if I were to do anything which could make the minutest breach in this great conservatory of free principles. Those who perhaps have the same intentions, but are separated by some little political animosities, will, I hope, discern at last how little conducive it is to any rational purpose to lower its reputation. For my part, Gentlemen, from much experience, from no little thinking, and from comparing a great variety of things, I am thoroughly persuaded that the last hopes of preserving the spirit of the English Constitution, or of reuniting the dissipated members of the English race upon a common plan of tranquillity and liberty, does entirely depend on their firm and lasting union, and above all on their keeping themselves from that despair which is so very apt to fall on those whom a violence of character and a mixture of ambitious views do not support through a long, painful, and unsuccessful struggle.

There never, Gentlemen, was a period in which the steadfastness of some men has been put to so sore a trial. It is not very difficult for well-formed minds to abandon their interest; but the separation of fame and virtue is a harsh divorce. Liberty is in danger of being made unpopular to Englishmen. Contending for an imaginary power, we begin to acquire the spirit of domination, and to lose the relish of honest equality. The principles of our forefathers become suspected to us, because we see them animating the present opposition of our children. The faults which grow out of the luxuriance of freedom appear much more shocking to us than the base vices which are generated from the rankness of servitude.

Accordingly, the least resistance to power appears more inexcusable in our eyes than the greatest abuses of authority. All dread of a standing military force is looked upon as a superstitious panic. All shame of calling in foreigners and savages in a civil contest is worn off. We grow indifferent to the consequences inevitable to ourselves from the plan of ruling half the empire by a mercenary sword. We are taught to believe that a desire of domineering over our countrymen is love to our country, that those who hate civil war abet rebellion, and that the amiable and conciliatory virtues of lenity, moderation, and tenderness to the privileges of those who depend on this kingdom are a sort of treason to the state.

It is impossible that we should remain long in a situation which breeds such notions and dispositions without some great alteration in the national character. Those ingenuous and feeling minds who are so fortified against all other things, and so unarmed to whatever approaches in the shape of disgrace, finding these principles, which they considered as sure means of honour, to be grown into disrepute, will retire disheartened and disgusted. Those of a more robust make, the bold, able, ambitious men, who pay some of their court to power through the people, and substitute the voice of transient opinion in the place of true glory, will give into the general mode; and those superior understandings which ought to correct vulgar prejudice will confirm and aggravate its errors. Many things have been long operating towards a gradual change in our principles; but this American war has done more in a very few years than all the other causes could have effected in a century. It is therefore not on its own separate account, but because of its attendant circumstances, that I consider its continuance, or its ending in any way but that of an honourable and liberal accommodation, as the greatest evils which can befall us. For that reason I have troubled you with this long letter. For that reason I entreat you, again and again, neither to be persuaded, shamed, or frighted out of the principles that have hitherto led so many of you to abhor the war, its cause, and its consequences. Let us not be amongst the first who renounce the maxims of our forefathers.

I have the honour to be,

Gentlemen,

Your most obedient and faithful humble servant,

EDMUND BURKE.

Beaconsfield, April 3, 1777.

P. S. You may communicate this letter in any manner you think proper to my constituents.

John C. Calhoun

1782–1850

Few American statesmen have had so illustrious a career as John C. Calhoun. From 1807 to 1850 he was (in succession) a state legislator, a United States Congressman, Secretary of War, Vice-President, Senator, Presidential candidate, and Secretary of State. He was also an astute political thinker. Some of his speeches and essays are generally considered to be the classic statements of the political position of the South prior to the Civil War.

Calhoun was born in the Abbeville district of South Carolina in 1782. Because he had little opportunity for education there, he was sent to live with his brother-in-law, a Presbyterian minister. In 1802 he entered Yale College as a junior. After being graduated from Yale, he went to the Litchfield Law School, in Connecticut, and by 1807 was a licensed lawyer. In 1808 he became a member of the South Carolina legislature.

Calhoun's national political career began in 1811, when he was elected to the U.S. House of Representatives. At first he was a fervent nationalist, but as the years passed he became more and more concerned about preserving the institutions of the South. Though he always insisted that his primary aim was to save the Union, he gradually came to be thought of as a sectionalist.

Calhoun was Secretary of War from 1817 to 1825, and he served

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Notes from the artist: ". . . a stern portrait of Calhoun with a war hawk on his shoulder, symbolizing the militancy of his position on states' rights. At the left, Andrew Jackson, Calhoun's antagonist in the federal-state argument. Jackson once admitted that his only regret was not having hanged Calhoun."

J. C. Calhoun

as Vice-President under two Presidents, John Quincy Adams and Andrew Jackson. He resigned the Vice-Presidency in 1832 (the only man ever to do so) because of his opposition to certain government policies, particularly tariff policies.

In 1824 and 1828 Congress had passed tariff laws which were designed to protect northern industries but which proved to be harmful to the South. Calhoun maintained that the southern states had the right to declare those laws unconstitutional. He argued that since the states had entered into the federal union to secure certain benefits, they had the right to "nullify" those federal laws which were harmful to their interests. In advancing this argument, he advocated the "strict construction" of the Constitution. (According to the strict constitution theory, the federal government has only those powers *explicitly* granted to it by the Constitution.)

Shortly after his resignation from the Vice-Presidency, Calhoun was elected to the Senate from South Carolina. There he engaged in a debate on nullification with Daniel Webster. Webster's views eventually triumphed, and the nullification theory was rejected. During the remainder of his Senate career, Calhoun did his best to defend states' rights and the slavery system, but the movement of history was against him. In the election of 1844 he was temporarily a presidential candidate. He withdrew from the race and was appointed Secretary of State. In 1845 he was re-elected to the Senate, where he remained until a few days before his death in 1850.

Since the appearance of John Stuart Mill's essay *On Liberty*,[1] the phrase "tyranny of the majority" has become part of the common language of political discussion. But Mill was by no means the first to realize that the majority in a society might use its power to oppress the minority. John C. Calhoun had recognized this danger almost a generation earlier, and he had offered his remedy for it in "The Concurrent Majority."

Calhoun begins by attempting to prove, through an analysis of human nature, the necessity of government. He maintains that each individual's feeling for himself is stronger than his feeling for others, and that each individual is ready to sacrifice the interests of others in order to further his own. Government is necessary, therefore, to protect men from exploitation and oppression by others.

[1] See *Great Books of the Western World.*

Following this preliminary analysis, Calhoun turns to the central question of his essay: if men pursue their own interests at the expense of others, and if governments are composed of men, how can we guarantee that the men who control the government will not use their power to oppress the governed? Calhoun thinks that the answer is some form of representative government–that is, a government whose leaders are chosen by the governed. But, according to Calhoun, representative government based upon a simple *numerical* majority is not a sufficient guarantee against oppression.

It is true that the ultimate power of government has been transferred from the government itself to the people who are governed, and that a government which acts against the interests of the majority cannot long survive. But what is to prevent a majority of the people from using the government to oppress a minority? Calhoun insists that there is nothing to prevent it, and that it can be prevented only by introducing the principle of the *concurrent* majority.

Calhoun's thinking was undoubtedly influenced by his conviction that the interests of the South were slowly being undermined by a government controlled by the North and the West. The adoption of the principle of the concurrent majority, which in effect gives veto power to minorities, would have protected the South–at least temporarily. Whether such protection was desirable is still very much a disputed matter. But whatever our views concerning the Old South and its institutions, we must not underestimate the importance of the issue raised by Calhoun. How are we to prevent a representative democracy from turning into a "tyranny of the majority"? Perhaps, as Calhoun says, it can be prevented only by the application of some form of the principle of the concurrent majority.

The Concurrent Majority

from *A Disquisition on Government*

In order to have a clear and just conception of the nature and object of government, it is indispensable to understand correctly what that constitution or law of our nature is in which government originates; or, to express it more fully and accurately, that law without which government would not, and with which it must necessarily, exist. Without this, it is as impossible to lay any solid foundation for the science of government as it would be to lay one for that of astronomy without a like understanding of that constitution or law of the material world according to which the several bodies composing the solar system mutually act on each other and by which they are kept in their respective spheres. The first question, accordingly, to be considered is: What is that constitution or law of our nature without which government would not exist and with which its existence is necessary?

In considering this, I assume, as an incontestable fact, that man is so constituted as to be a social being. His inclinations and wants, physical and moral, irresistibly impel him to associate with his kind; and he has, accordingly, never been found, in any age or country, in any state other than the social. In no other, indeed, could he exist; and in no other—were it possible for him to exist—could he attain to a full development of his moral and intellectual faculties or raise himself, in the scale of being, much above the level of the brute creation.

I next assume, also, as a fact not less incontestable, that, while man is so constituted as to make the social state necessary to his existence and the full development of his faculties, this state itself cannot exist without government. The assumption rests on universal experience. In no age or country has any society or community ever been found, whether enlightened or savage, without government of some description.

Having assumed these, as unquestionable phenomena of our nature, I

shall, without further remark, proceed to the investigation of the primary and important question: What is that constitution of our nature which, while it impels man to associate with his kind, renders it impossible for society to exist without government?

The answer will be found in the fact (not less incontestable than either of the others) that, while man is created for the social state, and is accordingly so formed as to feel what affects others as well as what affects himself, he is, at the same time, so constituted as to feel more intensely what affects him directly than what affects him indirectly through others; or, to express it differently, he is so constituted that his direct or individual affections are stronger than his sympathetic or social feelings. I intentionally avoid the expression "*selfish* feelings" as applicable to the former, because, as commonly used, it implies an unusual excess of the individual over the social feelings in the person to whom it is applied, and, consequently, something depraved and vicious. My object is to exclude such inference and to restrict the inquiry exclusively to facts in their bearings on the subject under consideration, viewed as mere phenomena appertaining to our nature—constituted as it is—and which are as unquestionable as is that of gravitation or any other phenomenon of the material world.

In asserting that our individual are stronger than our social feelings, it is not intended to deny that there are instances, growing out of peculiar relations—as that of a mother and her infant—or resulting from the force of education and habit over peculiar constitutions, in which the latter have overpowered the former; but these instances are few and always regarded as something extraordinary. The deep impression they make, whenever they occur, is the strongest proof that they are regarded as exceptions to some general and well-understood law of our nature, just as some of the minor powers of the material world are apparently to gravitation.

I might go further and assert this to be a phenomenon, not of our nature only, but of all animated existence, throughout its entire range, so far as our knowledge extends. It would, indeed, seem to be essentially connected with the great law of self-preservation which pervades all that feels, from man down to the lowest and most insignificant reptile or insect. In none is it stronger than in man. His social feelings may, indeed, in a state of safety and abundance, combined with high intellectual and moral culture, acquire great expansion and force; but not so great as to overpower this all-pervading and essential law of animated existence.

But that constitution of our nature which makes us feel more intensely

what affects us directly than what affects us indirectly through others necessarily leads to conflict between individuals. Each, in consequence, has a greater regard for his own safety or happiness than for the safety or happiness of others and, where these come in opposition, is ready to sacrifice the interests of others to his own. And, hence, the tendency to a universal state of conflict between individual and individual, accompanied by the connected passions of suspicion, jealousy, anger, and revenge—followed by insolence, fraud, and cruelty—and, if not prevented by some controlling power, ending in a state of universal discord and confusion, destructive of the social state and the ends for which it is ordained. This controlling power, wherever vested, or by whomsoever exercised, is GOVERNMENT.

It follows, then, that man is so constituted that government is necessary to the existence of society, and society to his existence and the perfection of his faculties. It follows, also, that government has its origin in this twofold constitution of his nature: the sympathetic or social feelings constituting the remote, and the individual or direct, the proximate, cause.

If man had been differently constituted in either particular—if, instead of being social in his nature, he had been created without sympathy for his kind, and independent of others for his safety and existence; or if, on the other hand, he had been so created as to feel more intensely what affected others than what affected himself (if that were possible), or, even, had this supposed interest been equal—it is manifest that, in either case, there would have been no necessity for government and that none would ever have existed. But, although society and government are thus intimately connected with and dependent on each other—of the two society is the greater. It is the first in the order of things and in the dignity of its object: that of society being primary, to preserve and perfect our race; and that of government secondary and subordinate, to preserve and perfect society. Both are, however, necessary to the existence and well-being of our race and equally of divine ordination.

I have said if it were possible for man to be so constituted as to feel what affects others more strongly than what affects himself or even as strongly, because it may be well doubted whether the stronger feeling or affection of individuals for themselves, combined with a feebler and subordinate feeling or affection for others, is not, in beings of limited reason and faculties, a constitution necessary to their preservation and existence. If reversed—if their feelings and affections were stronger for others than for themselves, or even as strong—the necessary result would seem to be that all individuality would be lost, and boundless and remediless dis-

order and confusion would ensue. For each, at the same moment, intensely participating in all the conflicting emotions of those around him, would, of course, forget himself and all that concerned him immediately, in his officious intermeddling with the affairs of all others; which, from his limited reason and faculties, he could neither properly understand nor manage. Such a state of things would, as far as we can see, lead to endless disorder and confusion, not less destructive to our race than a state of anarchy. It would, besides, be remediless, for government would be impossible; or, if it could by possibility exist, its object would be reversed. Selfishness would have to be encouraged and benevolence discouraged. Individuals would have to be encouraged, by rewards, to become more selfish and deterred, by punishments, from being too benevolent; and this, too, by a government administered by those who, on the supposition, would have the greatest aversion for selfishness and the highest admiration for benevolence.

To the Infinite Being, the Creator of all, belongs exclusively the care and superintendence of the whole. He, in His infinite wisdom and goodness, has allotted to every class of animated beings its condition and appropriate functions and has endowed each with feelings, instincts, capacities, and faculties best adapted to its allotted condition. To man He has assigned the social and political state as best adapted to develop the great capacities and faculties, intellectual and moral, with which He has endowed him and has, accordingly, constituted him so as not only to impel him into the social state but to make government necessary for his preservation and well-being.

But government, although intended to protect and preserve society, has itself a strong tendency to disorder and abuse of its powers, as all experience and almost every page of history testify. The cause is to be found in the same constitution of our nature which makes government indispensable. The powers which it is necessary for government to possess, in order to repress violence and preserve order, cannot execute themselves. They must be administered by men in whom, like others, the individual are stronger than the social feelings. And, hence, the powers vested in them to prevent injustice and oppression on the part of others will, if left unguarded, be by them converted into instruments to oppress the rest of the community. That by which this is prevented, by whatever name called, is what is meant by CONSTITUTION, in its most comprehensive sense, when applied to GOVERNMENT.

Having its origin in the same principle of our nature, *constitution* stands to *government* as *government* stands to *society*, and as the end for

which society is ordained would be defeated without government, so that for which government is ordained would, in a great measure, be defeated without constitution. But they differ in this striking particular: There is no difficulty in forming government. It is not even a matter of choice whether there shall be one or not. Like breathing, it is not permitted to depend on our volition. Necessity will force it on all communities in some one form or another. Very different is the case as to constitution. Instead of a matter of necessity, it is one of the most difficult tasks imposed on man to form a constitution worthy of the name; while to form a perfect one—one that would completely counteract the tendency of government to oppression and abuse and hold it strictly to the great ends for which it is ordained—has thus far exceeded human wisdom and possibly ever will. From this another striking difference results. Constitution is the contrivance of man, while government is of divine ordination. Man is left to perfect what the wisdom of the Infinite ordained as necessary to preserve the race.

With these remarks, I proceed to the consideration of the important and difficult question: How is this tendency of government to be counteracted? Or, to express it more fully: How can those who are invested with the powers of government be prevented from employing them as the means of aggrandizing themselves instead of using them to protect and preserve society? It cannot be done by instituting a higher power to control the government and those who administer it. This would be but to change the seat of authority and to make this higher power, in reality, the government; with the same tendency, on the part of those who might control its powers, to pervert them into instruments of aggrandizement. Nor can it be done by limiting the powers of government, so as to make it too feeble to be made an instrument of abuse; for, passing by the difficulty of so limiting its powers, without creating a power higher than the government itself to enforce the observance of the limitations, it is a sufficient objection that it would, if practicable, defeat the end for which government is ordained, by making it too feeble to protect and preserve society. The powers necessary for this purpose will ever prove sufficient to aggrandize those who control it, at the expense of the rest of the community. . . .

In answering the important question under consideration, it is not necessary to enter into an examination of the various contrivances adopted by these celebrated governments to counteract this tendency to disorder and abuse, nor to undertake to treat of constitution in its most comprehensive sense. What I propose is far more limited—to explain on what

principles government must be formed in order to resist, by its own interior structure—or, to use a single term, *organism*—the tendency to abuse of power. This structure, or organism, is what is meant by constitution in its strict and more usual sense; and it is this which distinguishes what are called constitutional governments from absolute. It is in this strict and more usual sense that I propose to use the term hereafter.

How government, then, must be constructed in order to counteract, through its organism, this tendency on the part of those who make and execute the laws to oppress those subject to their operation is the next question which claims attention.

There is but one way in which this can possibly be done, and that is by such an organism as will furnish the ruled with the means of resisting successfully this tendency on the part of the rulers to oppression and abuse. Power can only be resisted by power—and tendency by tendency. Those who exercise power and those subject to its exercise—the rulers and the ruled—stand in antagonistic relations to each other. The same constitution of our nature which leads rulers to oppress the ruled—regardless of the object for which government is ordained—will, with equal strength, lead the ruled to resist when possessed of the means of making peaceable and effective resistance. Such an organism, then, as will furnish the means by which resistance may be systematically and peaceably made on the part of the ruled to oppression and abuse of power on the part of the rulers is the first and indispensable step toward *forming* a constitutional government. And as this can only be effected by or through the right of suffrage (the right on the part of the ruled to choose their rulers at proper intervals, and to hold them thereby responsible for their conduct) the responsibility of the rulers to the ruled, through the right of suffrage, is the indispensable and primary principle in the *foundation* of a constitutional government. When this right is properly guarded, and the people sufficiently enlightened to understand their own rights and the interests of the community, and duly to appreciate the motives and conduct of those appointed to make and execute the laws, it is all sufficient to give to those who elect effective control over those they have elected.

I call the right of suffrage the indispensable and primary principle, for it would be a great and dangerous mistake to suppose, as many do, that it is of itself sufficient to form constitutional governments. To this erroneous opinion may be traced one of the causes why so few attempts to form constitutional governments have succeeded; and why, of the few which have, so small a number have had durable existence. It has led,

not only to mistakes in the attempts to form such governments, but to their overthrow, when they have, by some good fortune, been correctly formed. So far from being of itself sufficient—however well guarded it might be, and however enlightened the people—it would, unaided by other provisions, leave the government as absolute as it would be in the hands of irresponsible rulers; and with a tendency, at least as strong, toward oppression and abuse of its powers, as I shall next proceed to explain.

The right of suffrage of itself can do no more than give complete control to those who elect over the conduct of those they have elected. In doing this, it accomplishes all it possibly can accomplish. This is its aim—and, when this is attained, its end is fulfilled. It can do no more, however enlightened the people, or however widely extended or well guarded the right may be. The sum total, then, of its effects, when most successful, is to make those elected the true and faithful representatives of those who elected them—instead of irresponsible rulers—as they would be without it; and thus, by converting it into an agency, and the rulers into agents, to divest government of all claims to sovereignty and to retain it unimpaired to the community. But it is manifest that the right of suffrage, in making these changes, transfers, in reality, the actual control over the government from those who make and execute the laws to the body of the community and thereby places the powers of the government as fully in the mass of the community as they would be if they, in fact, had assembled, made, and executed the laws themselves without the intervention of representatives or agents. The more perfectly it does this, the more perfectly it accomplishes its ends; but, in doing so, it only changes the seat of authority, without counteracting, in the least, the tendency of the government to oppression and abuse of its powers.

If the whole community had the same interests, so that the interest of each and every portion would be so affected by the action of the government that the laws which oppressed or impoverished one portion would necessarily oppress and impoverish all others—or the reverse—then the right of suffrage of itself would be all-sufficient to counteract the tendency of the government to oppression and abuse of its powers and, of course, would form of itself a perfect constitutional government. The interest of all being the same, by supposition, as far as the action of the government was concerned, all would have like interests as to what laws should be made and how they should be executed. All strife and struggle would cease as to who should be elected to make and execute them. The only question would be who was most fit; who the wisest and most capa-

ble of understanding the common interest of the whole. This decided, the election would pass off quietly and without party discord, as no one portion could advance its own peculiar interest without regard to the rest by electing a favorite candidate.

But such is not the case. On the contrary, nothing is more difficult than to equalize the action of the government in reference to the various and diversified interests of the community; and nothing more easy than to pervert its powers into instruments to aggrandize and enrich one or more interests by oppressing and impoverishing the others; and this too under the operation of laws couched in general terms—and which, on their face, appear fair and equal. Nor is this the case in some particular communities only. It is so in all; the small and the great, the poor and the rich, irrespective of pursuits, productions, or degrees of civilization—with, however, this difference: that the more extensive and populous the country, the more diversified the condition and pursuits of its population; and the richer, more luxurious, and dissimilar the people, the more difficult is it to equalize the action of the government and the more easy for one portion of the community to pervert its powers to oppress and plunder the other.

Such being the case, it necessarily results that the right of suffrage, by placing the control of the government in the community, must, from the same constitution of our nature which makes government necessary to preserve society, lead to conflict among its different interests—each striving to obtain possession of its powers, as the means of protecting itself against the others, or of advancing its respective interests, regardless of the interests of others. For this struggle, a struggle will take place between the various interests to obtain a majority in order to control the government. If no one interest be strong enough of itself to obtain it, a combination will be formed between those whose interests are most alike—each conceding something to the others, until a sufficient number is obtained to make a majority. The process may be slow, and much time may be required before a compact, organized majority can be thus formed; but formed it will be in time, even without preconcert or design, by the sure workings of that principle or constitution of our nature in which government itself originates. When once formed, the community will be divided into two great parties—a major and minor—between which there will be incessant struggles on the one side to retain and on the other to obtain the majority—and, thereby, the control of the government and the advantages it confers. . . .

As, then, the right of suffrage, without some other provision, cannot

counteract this tendency of government, the next question for consideration is: What is that other provision? This demands the most serious consideration, for, of all the questions embraced in the science of government, it involves a principle the most important and the least understood, and, when understood, the most difficult of application in practice. It is, indeed, emphatically, that principle which *makes* the constitution, in its strict and limited sense.

From what has been said it is manifest that this provision must be of a character calculated to prevent any one interest, or combination of interests, from using the powers of government to aggrandize itself at the expense of the others. Here lies the evil; and just in proportion as it shall prevent, or fail to prevent it, in the same degree it will effect, or fail to effect, the end intended to be accomplished. There is but one certain mode in which this result can be secured, and that is by the adoption of some restriction or limitation which shall so effectually prevent any one interest, or combination of interests, from obtaining the exclusive control of the government as to render hopeless all attempts directed to that end. There is, again, but one mode in which this can be affected, and that is by taking the sense of each interest or portion of the community, which may be unequally and injuriously affected by the action of the government, separately, through its own majority, or in some other way by which its voice may be fairly expressed; and to require the consent of each interest either to put or to keep the government in action. This, too, can be accomplished only in one way—and that is by such an organism of the government—and, if necessary for the purpose, of the community also—as will, by dividing and distributing the powers of government, give to each division or interest, through its appropriate organ, either a concurrent voice in making and executing the laws or a veto on their execution. It is only by such an organism that the assent of each can be made necessary to put the government in motion; or the power made effectual to arrest its action when put in motion—and it is only by the one or the other that the different interests, orders, classes, or portions into which the community may be divided can be protected, and all conflict and struggle between them prevented—by rendering it impossible to put or to keep it in action, without the concurrent consent of all.

Such an organism as this, combined with the right of suffrage, constitutes, in fact, the elements of constitutional government. The one, by rendering those who make and execute the laws responsible to those on whom they operate, prevents the rulers from oppressing the ruled; and the other, by making it impossible for any one interest or combination of

interests or class, or order, or portion of the community to obtain exclusive control, prevents any one of them from oppressing the other. It is clear that oppression and abuse of power must come, if at all, from the one or the other quarter. From no other can they come. It follows that the two, suffrage and proper organism combined, are sufficient to counteract the tendency of government to oppression and abuse of power and to restrict it to the fulfilment of the great ends for which it is ordained. . . .

It may be readily inferred from what has been stated that the effect of organism is neither to supersede nor diminish the importance of the right of suffrage but to aid and perfect it. The object of the latter is to collect the sense of the community. The more fully and perfectly it accomplishes this, the more fully and perfectly it fulfils its end. But the most it can do, of itself, is to collect the sense of the greater number; that is, of the stronger interests, or combination of interests; and to assume this to be the sense of the community. It is only when aided by a proper organism that it can collect the sense of the entire community—of each and all its interests; of each, through its appropriate organ, and of the whole, through all of them united. This would truly be the sense of the entire community, for whatever diversity each interest might have within itself—as all would have the same interest in reference to the action of the government—the individuals composing each would be fully and truly represented by its own majority or appropriate organ, regarded in reference to the other interests. In brief, every individual of every interest might trust, with confidence, its majority or appropriate organ against that of every other interest.

It results, from what has been said, that there are two different modes in which the sense of the community may be taken: one, simply by the right of suffrage, unaided; the other, by the right through a proper organism. Each collects the sense of the majority. But one regards numbers only and considers the whole community as a unit, having but one common interest throughout, and collects the sense of the greater number of the whole as that of the community. The other, on the contrary, regards interests as well as numbers—considering the community as made up of different and conflicting interests as far as the action of the government is concerned—and takes the sense of each, through its majority or appropriate organ, and the united sense of all as the sense of the entire community. The former of these I shall call the numerical or absolute majority; and the latter, the concurrent or constitutional majority. I call it the constitutional majority, because it is an essential element in every

constitutional government—be its form what it may. So great is the difference, politically speaking, between the two majorities that they cannot be confounded without leading to great and fatal errors; and yet the distinction between them has been so entirely overlooked that, when the term *majority* is used in political discussions, it is applied exclusively to designate the numerical—as if there were no other. Until this distinction is recognized, and better understood, there will continue to be great liability to error in properly constructing constitutional governments, especially of the popular form, and of preserving them when properly constructed. Until then, the latter will have a strong tendency to slide, first, into the government of the numerical majority and, finally, into absolute government of some other form. To show that such must be the case, and at the same time to mark more strongly the difference between the two, in order to guard against the danger of overlooking it, I propose to consider the subject more at length.

The first and leading error which naturally arises from overlooking the distinction referred to is to confound the numerical majority with the people, and this so completely as to regard them as identical. This is a consequence that necessarily results from considering the numerical as the only majority. All admit that a popular government, or democracy, is the government of the people, for the terms imply this. A perfect government of the kind would be one which would embrace the consent of every citizen or member of the community; but as this is impracticable, in the opinion of those who regard the numerical as the only majority, and who can perceive no other way by which the sense of the people can be taken, they are compelled to adopt this as the only true basis of popular government, in contradistinction to governments of the aristocratical or monarchical form. Being thus constrained, they are, in the next place, forced to regard the numerical majority as, in effect, the entire people; that is, the greater part as the whole; and the government of the greater part as the government of the whole. It is thus the two come to be confounded, and a part made identical with the whole. And it is thus, also, that all the rights, powers, and immunities of the whole people come to be attributed to the numerical majority; and, among others, the supreme, sovereign authority of establishing and abolishing governments at pleasure.

This radical error, the consequence of confounding the two, and of regarding the numerical as the only majority, has contributed more than any other cause to prevent the formation of popular constitutional governments—and to destroy them even when they have been formed. It

leads to the conclusion that, in their formation and establishment, nothing more is necessary than the right of suffrage—and the allotment to each division of the community a representation in the government, in proportion to numbers. If the numerical majority were really the people, and if to take its sense truly were to take the sense of the people truly, a government so constituted would be a true and perfect model of a popular constitutional government; and every departure from it would detract from its excellence. But, as such is not the case—as the numerical majority, instead of being the people, is only a portion of them—such a government, instead of being a true and perfect model of the people's government, that is, a people self-governed, is but the government of a part over a part, the major over the minor portion. . . .

Nor would the division of government into separate and, as it regards each other, independent departments prevent this result. Such a division may do much to facilitate its operations and to secure to its administration greater caution and deliberation; but as each and all the departments—and, of course, the entire government—would be under the control of the numerical majority, it is too clear to require explanation that a mere distribution of its powers among its agents or representatives could do little or nothing to counteract its tendency to oppression and abuse of power. To effect this, it would be necessary to go one step further and make the several departments the organs of the distinct interests or portions of the community and to clothe each with a negative on the others. But the effect of this would be to change the government from the numerical into the concurrent majority.

Having now explained the reasons why it is so difficult to form and preserve popular constitutional government, so long as the distinction between the two majorities is overlooked, and the opinion prevails that a written constitution, with suitable restrictions and a proper division of its powers, is sufficient to counteract the tendency of the numerical majority to the abuse of its power, I shall next proceed to explain, more fully, why the concurrent majority is an indispensable element in forming constitutional governments and why the numerical majority, of itself, must, in all cases, make governments absolute.

The necessary consequence of taking the sense of the community by the concurrent majority is, as has been explained, to give to each interest or portion of the community a negative on the others. It is this mutual negative among its various conflicting interests which invests each with the power of protecting itself—and places the rights and safety of each, where only they can be securely placed, under its own guardianship.

Without this there can be no systematic, peaceful, or effective resistance to the natural tendency of each to come into conflict with the others; and without this there can be no constitution. It is this negative power—the power of preventing or arresting the action of the government—be it called by what term it may, veto, interposition, nullification, check, or balance of power—which, in fact, forms the constitution. They are all but different names for the negative power. In all its forms, and under all its names, it results from the concurrent majority. Without this there can be no negative and, without a negative, no constitution. The assertion is true in reference to all constitutional governments, be their forms what they may. It is, indeed, the negative power which makes the constitution—and the positive which makes the government. The one is the power of acting—and the other the power of preventing or arresting action. The two, combined, make constitutional governments.

But, as there can be no constitution without the negative power, and no negative power without the concurrent majority, it follows, necessarily, that where the numerical majority has the sole control of the government, there can be no constitution, as constitution implies limitation or restriction—and, of course, is inconsistent with the idea of sole or exclusive power. And hence, the numerical, unmixed with the concurrent majority, necessarily forms, in all cases, absolute government. . . .

Liberty, indeed, though among the greatest of blessings, is not so great as that of protection; inasmuch as the end of the former is the progress and improvement of the race—while that of the latter is its preservation and perpetuation. And hence, when the two come into conflict, liberty must, and ever ought, to yield to protection, as the existence of the race is of greater moment than its improvement.

It follows, from what has been stated, that it is a great and dangerous error to suppose that all people are equally entitled to liberty. It is a reward to be earned, not a blessing to be gratuitously lavished on all alike—a reward reserved for the intelligent, the patriotic, the virtuous and deserving—and not a boon to be bestowed on a people too ignorant, degraded, and vicious to be capable either of appreciating or of enjoying it. Nor is it any disparagement to liberty that such is and ought to be the case. On the contrary, its greatest praise, its proudest distinction, is that an all-wise Providence has reserved it as the noblest and highest reward for the development of our faculties, moral and intellectual. A reward more appropriate than liberty could not be conferred on the deserving, nor a punishment inflicted on the undeserving more just than to be sub-

ject to lawless and despotic rule. This dispensation seems to be the result of some fixed law—and every effort to disturb or defeat it, by attempting to elevate a people in the scale of liberty above the point to which they are entitled to rise, must ever prove abortive and end in disappointment. The progress of a people rising from a lower to a higher point in the scale of liberty is necessarily slow—and, by attempting to precipitate, we either retard or permanently defeat it.

There is another error, not less great and dangerous, usually associated with the one which has just been considered. I refer to the opinion that liberty and equality are so intimately united that liberty cannot be perfect without perfect equality.

That they are united to a certain extent and that equality of citizens, in the eyes of the law, is essential to liberty in a popular government are conceded. But to go further and make equality of *condition* essential to liberty would be to destroy both liberty and progress. The reason is that inequality of condition, while it is a necessary consequence of liberty, is, at the same time, indispensable to progress. In order to understand why this is so, it is necessary to bear in mind that the mainspring to progress is the desire of individuals to better their condition and that the strongest impulse which can be given to it is to leave individuals free to exert themselves in the manner they may deem best for that purpose, as far at least as it can be done consistently with the ends for which government is ordained—and to secure to all the fruits of their exertions. Now, as individuals differ greatly from each other, in intelligence, sagacity, energy, perseverance, skill, habits of industry and economy, physical power, position, and opportunity, the necessary effect of leaving all free to exert themselves to better their condition must be a corresponding inequality between those who may possess these qualities and advantages in a high degree and those who may be deficient in them. The only means by which this result can be prevented are either to impose such restrictions on the exertions of those who may possess them in a high degree as will place them on a level with those who do not or to deprive them of the fruits of their exertions. But to impose such restrictions on them would be destructive of liberty, while to deprive them of the fruits of their exertions would be to destroy the desire of bettering their condition. It is, indeed, this inequality of condition between the front and rear ranks, in the march of progress, which gives so strong an impulse to the former to maintain their position and to the latter to press forward into their files. This gives to progress its greatest impulse. To force the front rank back to the rear, or attempt to push forward the rear into line

with the front, by the interposition of the government, would put an end to the impulse and effectually arrest the march of progress.

These great and dangerous errors have their origin in the prevalent opinion that all men are born free and equal–than which nothing can be more unfounded and false. It rests upon the assumption of a fact which is contrary to universal observation in whatever light it may be regarded. It is, indeed, difficult to explain how an opinion so destitute of all sound reason ever could have been so extensively entertained, unless we regard it as being confounded with another, which has some semblance of truth–but which, when properly understood, is not less false and dangerous. I refer to the assertion that all men are equal in the state of nature, meaning, by a state of nature, a state of individuality, supposed to have existed prior to the social and political state and in which men lived apart and independent of each other. If such a state ever did exist, all men would have been, indeed, free and equal in it; that is, free to do as they please and exempt from the authority or control of others–as, by supposition, it existed anterior to society and government. But such a state is purely hypothetical. It never did nor can exist, as it is inconsistent with the preservation and perpetuation of the race. It is, therefore, a great misnomer to call it *the state of nature*. Instead of being the natural state of man, it is, of all conceivable states, the most opposed to his nature, most repugnant to his feelings, and most incompatible with his wants. His natural state is the social and political–the one for which his Creator made him, and the only one in which he can preserve and perfect his race. As, then, there never was such a state as the so-called state of nature, and never can be, it follows that men, instead of being born in it, are born in the social and political state and, of course, instead of being born free and equal, are born subject not only to parental authority but to the laws and institutions of the country where born and under whose protection they draw their first breath. . . .

The foregoing is taken from Calhoun's A DISQUISITION ON GOVERNMENT.

Thomas Babington Macaulay

1800–1859

Thomas Babington Macaulay was born on October 25, 1800, at Rothley Temple, Leicestershire, England. His father, Zachary, was a noted reformer strongly opposed to the slave trade, and a leading layman of the Evangelical party of the Church of England.

Thomas was a child prodigy, who learned to read when he was three years old and talked in a bookish manner at the age when most youngsters are still learning to speak sentences. When a servant spilled hot coffee on the four-year-old boy's legs, he said to his apologetic hostess, "Thank you, Madam, the agony is abated."

In 1812 Macaulay was sent to a private school run by an Evangelical minister. When he was eighteen he went to Cambridge, where he was a brilliant student in all subjects except mathematics. He twice won the medal for English verse, and gained a reputation as an accomplished debater.

Macaulay was admitted to the bar in 1826, but his career as a writer had already begun, and he never actively practiced law. In 1825 his essay on Milton had appeared in the *Edinburgh Review*. This was the first of a series of essays that brought fame to both Macaulay and the *Review* for twenty years.

Elected to Parliament in 1830, Macaulay championed reform legislation and worked for a bill to abolish slavery in the English colonies. In 1834 Macaulay accepted a seat in the Supreme Council of India. Until 1838 he stayed in India, where he prepared a new penal code and worked to increase the education of the natives.

Macaulay spent the rest of his life serving in Parliament and writing. He won many honors for both activities, including a degree

of Doctor of Civil Law at Oxford. In 1857 he was made Baron Macaulay of Rothley.

The book on which he spent most of his time was the ambitious *The History of England from the Accession of James II.* It was probably the most popular history ever written. Macaulay used the techniques of the historical novel–reconstructing incidents and giving social background–to make his history interesting and lively. As popular as his essays and history was a group of long narrative poems, *Lays of Ancient Rome,* which includes the once widely memorized "Horatius at the Bridge."

Macaulay had completed four volumes and part of a fifth of his ambitious history when he died on December 28, 1859. He was buried in the Poets' Corner of Westminster Abbey.

Macaulay, in this essay, endeavors to prove that Machiavelli was not the devil incarnate, but a brilliant, sagacious, enlightened, and patriotic man of his time. The time was the Italian Renaissance, the greatest flowering season of the arts, literature, and science in modern history, but also the period of the most destructive invasions and internal dissensions. The then life expectancy on the Italian peninsula, incomparably rich in treasures, art and genius, has been estimated at sixteen years.

The evils that afflicted Italy, like those of ancient Greece, might be remedied if only the country could be unified under a strong ruler. But how could this be accomplished? In *The Prince,* Machiavelli defines the wise but ruthless course the prince must take. He must not shrink from any useful treachery or bloodshed. Men and principles alike must be considered as means to the supreme ends of power, order, and peace.

Such immoralism, says Macaulay, was not an invention of Machiavelli. He simply expressed in lucid language and for long-range patriotic ends maxims commonly accepted at the time and employed

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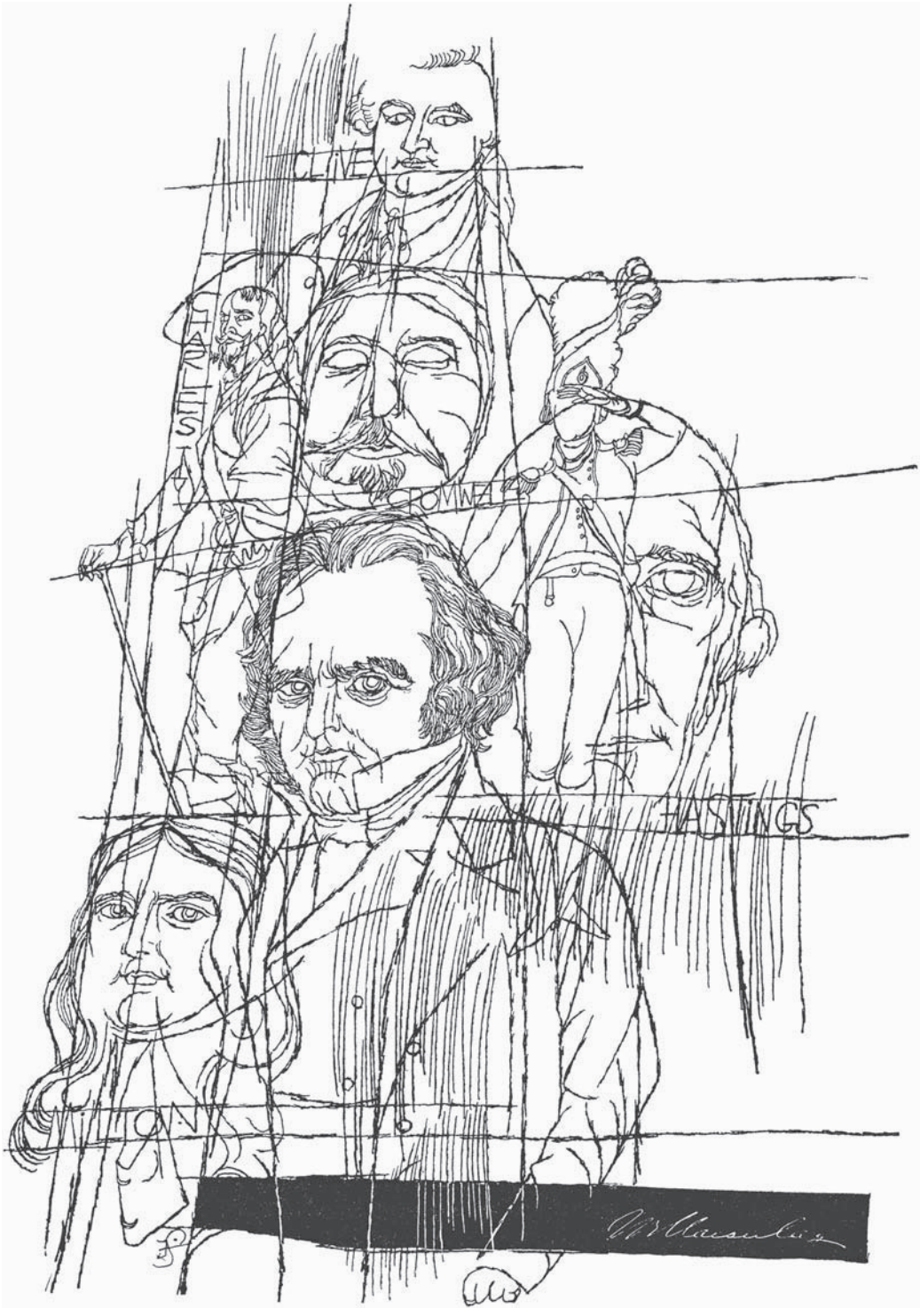
Notes from the artist: "Macaulay and some of the subjects of his essays: Clive, Cromwell, and Charles I; Hastings and a soldier of the East India Company; Milton."


CLIVE
HASTINGS

for narrow selfish goals. The mercenaries whom his countrymen relied on to defend their lands–their women and children and treasures–were useless against the warlike, rapacious conquerors from the North. Italy, the repository and seedbed of culture, was at their mercy. Machiavelli tried to strengthen the defense by organizing a militia in Florence, but it came too late. He realized that only a great prince like Cesare Borgia, coldly calculating and remorseless, could create a power sufficient to resist them.

It is easy to condemn. Macaulay seeks to understand Machiavelli as a historical product and makes brilliant forays back and forth in history to present the Florentine historian, political analyst, dramatist, and statesman in his proper colors. Is it true that "to understand all is to forgive all"? Macaulay's criticism of Machiavelli may seem to you too mild. He considers means more than ends, Macaulay says, and he does not sufficiently recognize that society and laws are justified only if they promote "the sum of private happiness." The idea that there is a good of the state distinct from the good of its members, he points out, is a widespread and dangerous error.

Macaulay adds, however, that these are errors which Machiavelli, situated as he was, "could scarcely avoid." Do you agree with him? If not, what advice should Machiavelli have given the prince at the time?

Machiavelli

Those who have attended to the practice of our literary tribunal are well aware that, by means of certain legal fictions similar to those of Westminster Hall, we are frequently enabled to take cognizance of cases lying beyond the sphere of our original jurisdiction. We need hardly say, therefore, that in the present instance M. [J. V.] Périer [translator of Machiavelli's works] is merely a Richard Roe, who will not be mentioned in any subsequent stage of the proceedings, and whose name is used for the sole purpose of bringing Machiavelli into court.

We doubt whether any name in literary history be so generally odious as that of the man whose character and writings we now propose to consider. The terms in which he is commonly described would seem to import that he was the Tempter, the Evil Principle, the discoverer of ambition and revenge, the original inventor of perjury; and that, before the publication of his fatal *Prince,* there had never been a hypocrite, a tyrant, or a traitor, a simulated virtue, or a convenient crime. One writer gravely assures us that Maurice of Saxony learned all his fraudulent policy from that execrable volume. Another remarks that since it was translated into Turkish, the sultans have been more addicted than formerly to the custom of strangling their brothers. Lord Lyttelton charges the poor Florentine with the manifold treasons of the house of Guise, and with the massacre of St. Bartholomew. Several authors have hinted that the Gunpowder Plot is to be primarily attributed to his doctrines, and seem to think that his effigy ought to be substituted for that of Guy Fawkes, in those processions by which the ingenious youth of England annually commemorate the preservation of the Three Estates. The Church of Rome has pronounced his works accursed things. Nor have our own countrymen been backward in testifying their opinion of his merits. Out of his

surname they have coined an epithet for a knave, and out of his Christian name a synonym for the Devil.[1]

It is indeed scarcely possible for any person, not well acquainted with the history and literature of Italy, to read without horror and amazement the celebrated treatise which has brought so much obloquy on the name of Machiavelli. Such a display of wickedness, naked yet not ashamed, such cool, judicious, scientific atrocity, seemed rather to belong to a fiend than to the most depraved of men. Principles which the most hardened ruffian would scarcely hint to his most trusted accomplice, or avow, without the disguise of some palliating sophism, even to his own mind, are professed without the slightest circumlocution, and assumed as the fundamental axioms of all political science.

It is not strange that ordinary readers should regard the author of such a book as the most depraved and shameless of human beings. Wise men, however, have always been inclined to look with great suspicion on the angels and demons of the multitude: and in the present instance, several circumstances have led even superficial observers to question the justice of the vulgar decision. It is notorious that Machiavelli was, through life, a zealous republican. In the same year in which he composed his manual of king-craft, he suffered imprisonment and torture in the cause of public liberty. It seems inconceivable that the martyr of freedom should have designedly acted as the apostle of tyranny. Several eminent writers have, therefore, endeavoured to detect in this unfortunate performance some concealed meaning, more consistent with the character and conduct of the author than that which appears at the first glance.

One hypothesis is that Machiavelli intended to practise on the young Lorenzo de' Medici a fraud similar to that which Sunderland is said to have employed against our James the Second, and that he urged his pupil to violent and perfidious measures, as the surest means of accelerating the moment of deliverance and revenge. Another supposition which Lord Bacon seems to countenance, is that the treatise was merely a piece of grave irony, intended to warn nations against the arts of ambitious men. It would be easy to show that neither of these solutions is consistent with many passages in *The Prince* itself. But the most decisive refutation is that which is furnished by the other works of Machiavelli. In all the writings which he gave to the public, and in all those which the research of editors has, in the course of three centuries, discovered, in his come-

1. Nick Machiavel had ne'er a trick,
   Tho' he gave his name to our old Nick.
   Hudibras, Part III, Canto I.
   But, we believe, there is a schism on this subject among the antiquarians.

dies, designed for the entertainment of the multitude, in his comments on Livy, intended for the perusal of the most enthusiastic patriots of Florence, in his *History,* inscribed to one of the most amiable and estimable of the Popes, in his public despatches, in his private memoranda, the same obliquity of moral principle for which *The Prince* is so severely censured is more or less discernible. We doubt whether it would be possible to find, in all the many volumes of his compositions, a single expression indicating that dissimulation and treachery had ever struck him as discreditable.

After this, it may seem ridiculous to say that we are acquainted with few writings which exhibit so much elevation of sentiment, so pure and warm a zeal for the public good, or so just a view of the duties and rights of citizens, as those of Machiavelli. Yet so it is. And even from *The Prince* itself we could select many passages in support of this remark. To a reader of our age and country this inconsistency is, at first, perfectly bewildering. The whole man seems to be an enigma, a grotesque assemblage of incongruous qualities, selfishness and generosity, cruelty and benevolence, craft and simplicity, abject villainy and romantic heroism. One sentence is such as a veteran diplomatist would scarcely write in cipher for the direction of his most confidential spy; the next seems to be extracted from a theme composed by an ardent schoolboy on the death of Leonidas. An act of dexterous perfidy, and an act of patriotic self-devotion, call forth the same kind and the same degree of respectful admiration. The moral sensibility of the writer seems at once to be morbidly obtuse and morbidly acute. Two characters altogether dissimilar are united in him. They are not merely joined, but interwoven. They are the warp and the woof of his mind; and their combination, like that of the variegated threads in shot silk, gives to the whole texture a glancing and ever changing appearance. The explanation might have been easy, if he had been a very weak or a very affected man. But he was evidently neither the one nor the other. His works prove, beyond all contradiction, that his understanding was strong, his taste pure, and his sense of the ridiculous exquisitely keen.

This is strange: and yet the strangest is behind. There is no reason whatever to think that those amongst whom he lived saw anything shocking or incongruous in his writings. Abundant proofs remain of the high estimation in which both his works and his person were held by the most respectable among his contemporaries. Clement the Seventh patronized the publication of those very books which the Council of Trent, in the following generation, pronounced unfit for the perusal of Chris-

tians. Some members of the democratical party censured the Secretary for dedicating *The Prince* to a patron who bore the unpopular name of Medici. But to those immoral doctrines which have since called forth such severe reprehensions no exception appears to have been taken. The cry against them was first raised beyond the Alps, and seems to have been heard with amazement in Italy. The earliest assailant, as far as we are aware, was a countryman of our own, Cardinal Pole. The author of the Anti-Machiavelli was a French Protestant.

It is, therefore, in the state of moral feeling among the Italians of those times that we must seek for the real explanation of what seems most mysterious in the life and writings of this remarkable man. As this is a subject which suggests many interesting considerations, both political and metaphysical, we shall make no apology for discussing it at some length.

During the gloomy and disastrous centuries which followed the downfall of the Roman Empire, Italy had preserved, in a far greater degree than any other part of Western Europe, the traces of ancient civilization. The night which descended upon her was the night of an Arctic summer. The dawn began to reappear before the last reflection of the preceding sunset had faded from the horizon. It was in the time of the French Merovingians and of the Saxon Heptarchy that ignorance and ferocity seemed to have done their worst. Yet even then the Neapolitan provinces, recognizing the authority of the Eastern Empire, preserved something of Eastern knowledge and refinement. Rome, protected by the sacred character of her Pontiffs, enjoyed at least comparative security and repose. Even in those regions where the sanguinary Lombards had fixed their monarchy, there was incomparably more of wealth, of information, of physical comfort, and of social order than could be found in Gaul, Britain, or Germany.

That which most distinguished Italy from the neighbouring countries was the importance which the population of the towns, at a very early period, began to acquire. Some cities had been founded in wild and remote situations, by fugitives who had escaped from the rage of the barbarians. Such were Venice and Genoa, which preserved their freedom by their obscurity, till they became able to preserve it by their power. Other cities seem to have retained, under all the changing dynasties of invaders, under Odoacer and Theodoric, Narses and Alboin, the municipal institutions which had been conferred on them by the liberal policy of the Great Republic. In provinces which the central government was too feeble either to protect or to oppress, these institutions gradually acquired stability and vigour. The citizens, defended by their walls, and

governed by their own magistrates and their own by-laws, enjoyed a considerable share of republican independence. Thus a strong democratic spirit was called into action. The Carlovingian sovereigns were too imbecile to subdue it. The generous policy of Otho encouraged it. It might perhaps have been suppressed by a close coalition between the Church and the Empire. It was fostered and invigorated by their disputes. In the twelfth century it attained its full vigour, and, after a long and doubtful conflict, triumphed over the abilities and courage of the Swabian princes.

The assistance of the Ecclesiastical power had greatly contributed to the success of the Guelphs. That success would, however, have been a doubtful good, if its only effect had been to substitute a moral for a political servitude, and to exalt the Popes at the expense of the Caesars. Happily the public mind of Italy had long contained the seeds of free opinions, which were now rapidly developed by the genial influence of free institutions. The people of that country had observed the whole machinery of the Church, its saints and its miracles, its lofty pretensions and its splendid ceremonial, its worthless blessings and its harmless curses, too long and too closely to be duped. They stood behind the scenes on which others were gazing with childish awe and interest. They witnessed the arrangement of the pulleys, and the manufacture of the thunders. They saw the natural faces and heard the natural voices of the actors. Distant nations looked on the Pope as the Vicegerent of the Almighty, the oracle of the All-wise, the umpire from whose decisions, in the disputes either of theologians or of kings, no Christian ought to appeal. The Italians were acquainted with all the follies of his youth, and with all the dishonest arts by which he had attained power. They knew how often he had employed the keys of the Church to release himself from the most sacred engagements, and its wealth to pamper his mistresses and nephews. The doctrines and rites of the established religion they treated with decent reverence. But though they still called themselves Catholics, they had ceased to be Papists. Those spiritual arms which carried terror into the palaces and camps of the proudest sovereigns excited only contempt in the immediate neighbourhood of the Vatican. Alexander, when he commanded our Henry the Second to submit to the lash before the tomb of a rebellious subject, was himself an exile. The Romans, apprehending that he entertained designs against their liberties, had driven him from their city; and though he solemnly promised to confine himself for the future to his spiritual functions, they still refused to readmit him.

In every other part of Europe, a large and powerful privileged class

trampled on the people and defied the government. But in the most flourishing parts of Italy, the feudal nobles were reduced to comparative insignificance. In some districts they took shelter under the protection of the powerful commonwealths which they were unable to oppose, and gradually sank into the mass of burghers. In other places they possessed great influence; but it was an influence widely different from that which was exercised by the aristocracy of any transalpine kingdom. They were not petty princes, but eminent citizens. Instead of strengthening their fastnesses among the mountains, they embellished their palaces in the market-place. The state of society in the Neapolitan dominions, and in some parts of the Ecclesiastical State, more nearly resembled that which existed in the great monarchies of Europe. But the governments of Lombardy and Tuscany, through all their revolutions, preserved a different character. A people, when assembled in a town, is far more formidable to its rulers than when dispersed over a wide extent of country. The most arbitrary of the Caesars found it necessary to feed and divert the inhabitants of their unwieldy capital at the expense of the provinces. The citizens of Madrid have more than once besieged their sovereign in his own palace, and extorted from him the most humiliating concessions. The sultans have often been compelled to propitiate the furious rabble of Constantinople with the head of an unpopular vizier. From the same cause there was a certain tinge of democracy in the monarchies and aristocracies of Northern Italy.

Thus liberty, partially indeed and transiently, revisited Italy; and with liberty came commerce and empire, science and taste, all the comforts and all the ornaments of life. The Crusades, from which the inhabitants of other countries gained nothing but relics and wounds, brought to the rising commonwealths of the Adriatic and Tyrrhene seas a large increase of wealth, dominion, and knowledge. The moral and geographical position of those commonwealths enabled them to profit alike by the barbarism of the West and by the civilization of the East. Italian ships covered every sea. Italian factories rose on every shore. The tables of Italian money-changers were set in every city. Manufactures flourished. Banks were established. The operations of the commercial machine were facilitated by many useful and beautiful inventions. We doubt whether any country of Europe, our own excepted, have at the present time reached so high a point of wealth and civilization as some parts of Italy had attained four hundred years ago. Historians rarely descend to those details from which alone the real state of a community can be collected. Hence posterity is too often deceived by the vague hyperboles of poets and

rhetoricians, who mistake the splendour of a court for the happiness of a people. Fortunately, John Villani has given us an ample and precise account of the state of Florence in the early part of the fourteenth century. The revenue of the Republic amounted to three hundred thousand florins; a sum which, allowing for the depreciation of the precious metals, was at least equivalent to six hundred thousand pounds sterling; a larger sum than England and Ireland, two centuries ago, yielded annually to Elizabeth. The manufacture of wool alone employed two hundred factories and thirty thousand workmen. The cloth annually produced sold, at an average, for twelve hundred thousand florins; a sum fully equal in exchangeable value to two millions and a half of our money. Four hundred thousand florins were annually coined. Eighty banks conducted the commercial operations, not of Florence only but of all Europe. The transactions of these establishments were sometimes of a magnitude which may surprise even the contemporaries of the Barings and the Rothschilds. Two houses advanced to Edward the Third of England upwards of three hundred thousand marks, at a time when the mark contained more silver than fifty shillings of the present day, and when the value of silver was more than quadruple of what it now is. The city and its environs contained a hundred and seventy thousand inhabitants. In the various schools about ten thousand children were taught to read; twelve hundred studied arithmetic; six hundred received a learned education.

The progress of elegant literature and of the fine arts was proportioned to that of the public prosperity. Under the despotic successors of Augustus, all the fields of intellect had been turned into arid wastes, still marked out by formal boundaries, still retaining the traces of old cultivation, but yielding neither flowers nor fruit. The deluge of barbarism came. It swept away all the landmarks. It obliterated all the signs of former tillage. But it fertilized while it devastated. When it receded, the wilderness was as the garden of God, rejoicing on every side, laughing, clapping its hands, pouring forth, in spontaneous abundance, everything brilliant, or fragrant, or nourishing. A new language, characterized by simple sweetness and simple energy, had attained perfection. No tongue ever furnished more gorgeous and vivid tints to poetry; nor was it long before a poet appeared who knew how to employ them. Early in the fourteenth century came forth the *Divine Comedy,* beyond comparison the greatest work of imagination which had appeared since the poems of Homer. The following generation produced indeed no second Dante: but it was eminently distinguished by general intellectual activity. The study of the Latin writers had never been wholly neglected in Italy. But

Petrarch introduced a more profound, liberal, and elegant scholarship, and communicated to his countrymen that enthusiasm for the literature, the history, and the antiquities of Rome, which divided his own heart with a frigid mistress and a more frigid Muse. Boccaccio turned their attention to the more sublime and graceful models of Greece.

From this time, the admiration of learning and genius became almost an idolatry among the people of Italy. Kings and republics, cardinals and doges, vied with each other in honouring and flattering Petrarch. Embassies from rival states solicited the honour of his instructions. His coronation agitated the Court of Naples and the people of Rome as much as the most important political transaction could have done. To collect books and antiques, to found professorships, to patronize men of learning, became almost universal fashions among the great. The spirit of literary research allied itself to that of commercial enterprise. Every place to which the merchant princes of Florence extended their gigantic traffic, from the bazaars of the Tigris to the monasteries of the Clyde, was ransacked for medals and manuscripts. Architecture, painting, and sculpture were munificently encouraged. Indeed it would be difficult to name an Italian of eminence, during the period of which we speak, who, whatever may have been his general character, did not at least affect a love of letters and of the arts.

Knowledge and public prosperity continued to advance together. Both attained their meridian in the age of Lorenzo the Magnificent. We cannot refrain from quoting the splendid passage, in which the Tuscan Thucydides describes the state of Italy at that period. *Ridotta tutta in somma pace e tranquillità, coltivata non meno ne' luoghi più montuosi e più sterili che nelle pianure e regioni più fertili, nè sottoposta ad altro imperio che de' suoi medesimi, non solo era abbondantissima d' abitatori e di ricchezze; ma illustrata sommamente dalla magnificenza di molti principi, dallo splendore di molte nobilissime e bellissime città, dalla sedia e maestà della religione, fioriva d' uomini prestantissimi nell' amministrazione delle cose pubbliche, e d' ingegni molto nobili in tutte le scienze, ed in qualunque arte preclara ed industriosa.* [The whole country basked in sublime peace and tranquillity, cultivated not less in the more mountainous and barren spots than in the plains and more fertile areas. Subject to no other authority than its own, it not only overflowed with inhabitants and wealth but was most especially famous for the magnificence of many princes, for the splendour of many noble and fair cities, for the seat and majesty of religion. It abounded in men who excelled in the administration of public activities and in the highest

genius in all sciences, as well as in every illustrious and useful art.] When we peruse this just and splendid description, we can scarcely persuade ourselves that we are reading of times in which the annals of England and France present us only with a frightful spectacle of poverty, barbarity, and ignorance. From the oppressions of illiterate masters, and the sufferings of a degraded peasantry, it is delightful to turn to the opulent and enlightened States of Italy, to the vast and magnificent cities, the ports, the arsenals, the villas, the museums, the libraries, the marts filled with every article of comfort or luxury, the factories swarming with artisans, the Apennines covered with rich cultivation up to their very summits, the Po wafting the harvests of Lombardy to the granaries of Venice, and carrying back the silks of Bengal and the furs of Siberia to the palaces of Milan. With peculiar pleasure, every cultivated mind must repose on the fair, the happy, the glorious Florence, the halls which rang with the mirth of Pulci, the cell where twinkled the midnight lamp of Politian, the statues on which the young eye of Michael Angelo glared with the frenzy of a kindred inspiration, the gardens in which Lorenzo meditated some sparkling song for the May-day dance of the Etrurian virgins. Alas for the beautiful city! Alas for the wit and the learning, the genius and the love:

Le donne, e i cavalier, gli affanni, e gli agi,
Che ne 'nvogliava amore e cortesia
Là dove i cuor son fatti sì malvagi.
[The ladies and the knights, the toils and the sports
To which love and courtesy inspired us,
There where hearts have become so wicked.]

A time was at hand, when all the seven vials of the Apocalypse were to be poured forth and shaken out over those pleasant countries, a time of slaughter, famine, beggary, infamy, slavery, despair.

In the Italian States, as in many natural bodies, untimely decrepitude was the penalty of precocious maturity. Their early greatness, and their early decline, are principally to be attributed to the same cause, the preponderance which the towns acquired in the political system.

In a community of hunters or of shepherds, every man easily and necessarily becomes a soldier. His ordinary avocations are perfectly compatible with all the duties of military service. However remote may be the expedition on which he is bound, he finds it easy to transport with him the stock from which he derives his subsistence. The whole people is an

army; the whole year a march. Such was the state of society which facilitated the gigantic conquests of Attila and Tamerlane.

But a people which subsists by the cultivation of the earth is in a very different situation. The husbandman is bound to the soil on which he labours. A long campaign would be ruinous to him. Still his pursuits are such as give to his frame both the active and the passive strength necessary to a soldier. Nor do they, at least in the infancy of agricultural science, demand his uninterrupted attention. At particular times of the year he is almost wholly unemployed, and can, without injury to himself, afford the time necessary for a short expedition. Thus the legions of Rome were supplied during its earlier wars. The season during which the fields did not require the presence of the cultivators sufficed for a short inroad and a battle. These operations, too frequently interrupted to produce decisive results, yet served to keep up among the people a degree of discipline and courage which rendered them not only secure but formidable. The archers and billmen of the Middle Ages, who, with provisions for forty days at their backs, left the fields for the camp, were troops of the same description.

But when commerce and manufactures begin to flourish a great change takes place. The sedentary habits of the desk and the loom render the exertions and hardships of war insupportable. The business of traders and artisans requires their constant presence and attention. In such a community there is little superfluous time; but there is generally much superfluous money. Some members of the society are, therefore, hired to relieve the rest from a task inconsistent with their habits and engagements.

The history of Greece is, in this, as in many other respects, the best commentary on the history of Italy. Five hundred years before the Christian era, the citizens of the republics round the Aegean Sea formed perhaps the finest militia that ever existed. As wealth and refinement advanced, the system underwent a gradual alteration. The Ionian States were the first in which commerce and the arts were cultivated, and the first in which the ancient discipline decayed. Within eighty years after the battle of Plataea, mercenary troops were everywhere plying for battles and sieges. In the time of Demosthenes, it was scarcely possible to persuade or compel the Athenians to enlist for foreign service. The laws of Lycurgus prohibited trade and manufactures. The Spartans, therefore, continued to form a national force long after their neighbours had begun to hire soldiers. But their military spirit declined with their singular institutions. In the second century before Christ, Greece contained only one

nation of warriors, the savage highlanders of Aetolia, who were some generations behind their countrymen in civilization and intelligence.

All the causes which produced these effects among the Greeks acted still more strongly on the modern Italians. Instead of a power like Sparta, in its nature warlike, they had amongst them an ecclesiastical state, in its nature pacific. Where there are numerous slaves, every freeman is induced by the strongest motives to familiarize himself with the use of arms. The commonwealths of Italy did not, like those of Greece, swarm with thousands of these household enemies. Lastly, the mode in which military operations were conducted during the prosperous times of Italy was peculiarly unfavourable to the formation of an efficient militia. Men covered with iron from head to foot, armed with ponderous lances, and mounted on horses of the largest breed, were considered as composing the strength of an army. The infantry was regarded as comparatively worthless, and was neglected till it became really so. These tactics maintained their ground for centuries in most parts of Europe. That foot-soldiers could withstand the charge of heavy cavalry was thought utterly impossible till, towards the close of the fifteenth century, the rude mountaineers of Switzerland dissolved the spell, and astounded the most experienced generals by receiving the dreaded shock on an impenetrable forest of pikes.

The use of the Grecian spear, the Roman sword, or the modern bayonet, might be acquired with comparative ease. But nothing short of the daily exercise of years could train the man-at-arms to support his ponderous panoply, and manage his unwieldy weapon. Throughout Europe this most important branch of war became a separate profession. Beyond the Alps, indeed, though a profession, it was not generally a trade. It was the duty and the amusement of a large class of country gentlemen. It was the service by which they held their lands, and the diversion by which, in the absence of mental resources, they beguiled their leisure. But in the Northern States of Italy, as we have already remarked, the growing power of the cities, where it had not exterminated this order of men, had completely changed their habits. Here, therefore, the practice of employing mercenaries became universal, at a time when it was almost unknown in other countries.

When war becomes the trade of a separate class, the least dangerous course left to a government is to force that class into a standing army. It is scarcely possible that men can pass their lives in the service of one state without feeling some interest in its greatness. Its victories are their victories. Its defeats are their defeats. The contract loses something

of its mercantile character. The services of the soldier are considered as the effects of patriotic zeal, his pay as the tribute of national gratitude. To betray the power which employs him, to be even remiss in its service, are in his eyes the most atrocious and degrading of crimes.

When the princes and commonwealths of Italy began to use hired troops, their wisest course would have been to form separate military establishments. Unhappily this was not done. The mercenary warriors of the Peninsula, instead of being attached to the service of different powers, were regarded as the common property of all. The connection between the state and its defenders was reduced to the most simple and naked traffic. The adventurer brought his horse, his weapons, his strength, and his experience into the market. Whether the King of Naples or the Duke of Milan, the Pope or the Signory of Florence struck the bargain was to him a matter of perfect indifference. He was for the highest wages and the longest term. When the campaign for which he had contracted was finished, there was neither law nor punctilio to prevent him from instantly turning his arms against his late masters. The soldier was altogether disjoined from the citizen and from the subject.

The natural consequences followed. Left to the conduct of men who neither loved those whom they defended, nor hated those whom they opposed, who were often bound by stronger ties to the army against which they fought than to the state which they served, who lost by the termination of the conflict, and gained by its prolongation, war completely changed its character. Every man came into the field of battle impressed with the knowledge that, in a few days, he might be taking the pay of the power against which he was then employed, and fighting by the side of his enemies against his associates. The strongest interests and the strongest feelings concurred to mitigate the hostility of those who had lately been brethren in arms, and who might soon be brethren in arms once more. Their common profession was a bond of union not to be forgotten even when they were engaged in the service of contending parties. Hence it was that operations, languid and indecisive beyond any recorded in history, marches and countermarches, pillaging expeditions and blockades, bloodless capitulations and equally bloodless combats make up the military history of Italy during the course of nearly two centuries. Mighty armies fight from sunrise to sunset. A great victory is won. Thousands of prisoners are taken; and hardly a life is lost. A pitched battle seems to have been really less dangerous than an ordinary civil tumult.

Courage was now no longer necessary even to the military character. Men grew old in camps, and acquired the highest renown by their warlike achievements, without being once required to face serious danger. The political consequences are too well known. The richest and most enlightened part of the world was left undefended to the assaults of every barbarous invader, to the brutality of Switzerland, the insolence of France, and the fierce rapacity of Aragon. The moral effects which followed from this state of things were still more remarkable.

Among the rude nations which lay beyond the Alps, valour was absolutely indispensable. Without it none could be eminent; few could be secure. Cowardice was, therefore, naturally considered as the foulest reproach. Among the polished Italians, enriched by commerce, governed by law, and passionately attached to literature, everything was done by superiority and intelligence. Their very wars, more pacific than the peace of their neighbours, required rather civil than military qualifications. Hence, while courage was the point of honour in other countries, ingenuity became the point of honour in Italy.

From these principles were deduced, by processes strictly analogous, two opposite systems of fashionable morality. Through the greater part of Europe, the vices which peculiarly belong to timid dispositions, and which are the natural defence of weakness, fraud, and hypocrisy, have always been most disreputable. On the other hand, the excesses of haughty and daring spirits have been treated with indulgence, and even with respect. The Italians regarded with corresponding lenity those crimes which require self-command, address, quick observation, fertile invention, and profound knowledge of human nature.

Such a prince as our Henry the Fifth would have been the idol of the North. The follies of his youth, the selfish ambition of his manhood, the Lollards roasted at slow fires, the prisoners massacred on the field of battle, the expiring lease of priestcraft renewed for another century, the dreadful legacy of a causeless and hopeless war bequeathed to a people who had no interest in its event—everything is forgotten but the victory of Agincourt. Francis Sforza, on the other hand, was the model of Italian heroes. He made his employers and his rivals alike his tools. He first overpowered his open enemies by the help of faithless allies; he then armed himself against his allies with the spoils taken from his enemies. By his incomparable dexterity, he raised himself from the precarious and dependent situation of a military adventurer to the first throne of Italy. To such a man much was forgiven, hollow friendship, ungenerous enmity,

violated faith. Such are the opposite errors which men commit, when their morality is not a science but a taste, when they abandon eternal principles for accidental associations.

We have illustrated our meaning by an instance taken from history. We will select another from fiction. Othello murders his wife; he gives orders for the murder of his lieutenant; he ends by murdering himself. Yet he never loses the esteem and affection of Northern readers. His intrepid and ardent spirit redeems everything. The unsuspecting confidence with which he listens to his adviser, the agony with which he shrinks from the thought of shame, the tempest of passion with which he commits his crimes, and the haughty fearlessness with which he avows them give an extraordinary interest to his character. Iago, on the contrary, is the object of universal loathing. Many are inclined to suspect that Shakespeare has been seduced into an exaggeration unusual with him, and has drawn a monster who has no archetype in human nature. Now we suspect that an Italian audience in the fifteenth century would have felt very differently. Othello would have inspired nothing but detestation and contempt. The folly with which he trusts the friendly professions of a man whose promotion he had obstructed, the credulity with which he takes unsupported assertions, and trivial circumstances, for unanswerable proofs, the violence with which he silences the exculpation till the exculpation can only aggravate his misery would have excited the abhorrence and disgust of the spectators. The conduct of Iago they would assuredly have condemned; but they would have condemned it as we condemn that of his victim. Something of interest and respect would have mingled with their disapprobation. The readiness of the traitor's wit, the clearness of his judgment, the skill with which he penetrates the dispositions of others and conceals his own would have ensured to him a certain portion of their esteem.

So wide was the difference between the Italians and their neighbours. A similar difference existed between the Greeks of the second century before Christ, and their masters the Romans. The conquerors, brave and resolute, faithful to their engagements, and strongly influenced by religious feelings, were, at the same time, ignorant, arbitrary, and cruel. With the vanquished people were deposited all the art, the science, and the literature of the Western world. In poetry, in philosophy, in painting, in architecture, in sculpture, they had no rivals. Their manners were polished, their perceptions acute, their invention ready; they were tolerant, affable, humane; but of courage and sincerity they were almost utterly destitute. Every rude centurion consoled himself for his intellectual infe-

riority, by remarking that knowledge and taste seemed only to make men atheists, cowards, and slaves. The distinction long continued to be strongly marked, and furnished an admirable subject for the fierce sarcasms of Juvenal.

The citizen of an Italian commonwealth was the Greek of the time of Juvenal and the Greek of the time of Pericles, joined in one. Like the former, he was timid and pliable, artful and mean. But, like the latter, he had a country. Its independence and prosperity were dear to him. If his character were degraded by some base crimes, it was, on the other hand, ennobled by public spirit and by an honourable ambition.

A vice sanctioned by the general opinion is merely a vice. The evil terminates in itself. A vice condemned by the general opinion produces a pernicious effect on the whole character. The former is a local malady, the latter a constitutional taint. When the reputation of the offender is lost, he too often flings the remains of his virtue after it in despair. The Highland gentleman who, a century ago, lived by taking blackmail from his neighbours, committed the same crime for which Wild was accompanied to Tyburn by the huzzas of two hundred thousand people. But there can be no doubt that he was a much less depraved man than Wild. The deed for which Mrs. Brownrigg was hanged sinks into nothing, when compared with the conduct of the Roman who treated the public to a hundred pair of gladiators. Yet we should greatly wrong such a Roman if we supposed that his disposition was as cruel as that of Mrs. Brownrigg. In our own country, a woman forfeits her place in society by what, in a man, is too commonly considered as an honourable distinction, and, at worst, as a venial error. The consequence is notorious. The moral principle of a woman is frequently more impaired by a single lapse from virtue than that of a man by twenty years of intrigues. Classical antiquity would furnish us with instances stronger, if possible, than those to which we have referred.

We must apply this principle to the case before us. Habits of dissimulation and falsehood, no doubt, mark a man of our age and country as utterly worthless and abandoned. But it by no means follows that a similar judgment would be just in the case of an Italian of the middle ages. On the contrary, we frequently find those faults which we are accustomed to consider as certain indications of a mind altogether depraved, in company with great and good qualities, with generosity, with benevolence, with disinterestedness. From such a state of society, Palamedes, in the admirable dialogue of Hume, might have drawn illustrations of his theory as striking as any of those with which Fourli furnished him. These are not, we well know, the lessons which historians are generally most careful to

teach, or readers most willing to learn. But they are not therefore useless. How Philip disposed his troops at Chaeronea, where Hannibal crossed the Alps, whether Mary blew up Darnley, or Siquier shot Charles the Twelfth, and ten thousand other questions of the same description are in themselves unimportant. The inquiry may amuse us, but the decision leaves us no wiser. He alone reads history aright who, observing how powerfully circumstances influence the feelings and opinions of men, how often vices pass into virtues and paradoxes into axioms, learns to distinguish what is accidental and transitory in human nature from what is essential and immutable.

In this respect no history suggests more important reflections than that of the Tuscan and Lombard commonwealths. The character of the Italian statesman seems, at first sight, a collection of contradictions, a phantom as monstrous as the portress of hell in Milton, half divinity, half snake, majestic and beautiful above, grovelling and poisonous below. We see a man whose thoughts and words have no connection with each other, who never hesitates at an oath when he wishes to seduce, who never wants a pretext when he is inclined to betray. His cruelties spring not from the heat of blood or the insanity of uncontrolled power but from deep and cool meditation. His passions, like well-trained troops, are impetuous by rule, and in their most headstrong fury never forget the discipline to which they have been accustomed. His whole soul is occupied with vast and complicated schemes of ambition: yet his aspect and language exhibit nothing but philosophical moderation. Hatred and revenge eat into his heart: yet every look is a cordial smile, every gesture a familiar caress. He never excites the suspicion of his adversaries by petty provocations. His purpose is disclosed only when it is accomplished. His face is unruffled, his speech is courteous, till vigilance is laid asleep, till a vital point is exposed, till a sure aim is taken; and then he strikes for the first and last time. Military courage, the boast of the sottish German, of the frivolous and prating Frenchman, of the romantic and arrogant Spaniard, he neither possesses nor values. He shuns danger, not because he is insensible to shame, but because, in the society in which he lives, timidity has ceased to be shameful. To do an injury openly is, in his estimation, as wicked as to do it secretly, and far less profitable. With him the most honourable means are those which are the surest, the speediest, and the darkest. He cannot comprehend how a man should scruple to deceive those whom he does not scruple to destroy. He would think it madness to declare open hostilities against rivals whom he might stab in a friendly embrace, or poison in a consecrated wafer.

Yet this man, black with the vices which we consider as most loathsome, traitor, hypocrite, coward, assassin, was by no means destitute even of those virtues which we generally consider as indicating superior elevation of character. In civil courage, in perseverance, in presence of mind, those barbarous warriors, who were foremost in the battle or the breach, were far his inferiors. Even the dangers which he avoided with a caution almost pusillanimous never confused his perceptions, never paralysed his inventive faculties, never wrung out one secret from his smooth tongue, and his inscrutable brow. Though a dangerous enemy, and a still more dangerous accomplice, he could be a just and beneficent ruler. With so much unfairness in his policy, there was an extraordinary degree of fairness in his intellect. Indifferent to truth in the transactions of life, he was honestly devoted to truth in the researches of speculation. Wanton cruelty was not in his nature. On the contrary, where no political object was at stake, his disposition was soft and humane. The susceptibility of his nerves and the activity of his imagination inclined him to sympathize with the feelings of others, and to delight in the charities and courtesies of social life. Perpetually descending to actions which might seem to mark a mind diseased through all its faculties, he had nevertheless an exquisite sensibility, both for the natural and the moral sublime, for every graceful and every lofty conception. Habits of petty intrigue and dissimulation might have rendered him incapable of great general views, but that the expanding effect of his philosophical studies counteracted the narrowing tendency. He had the keenest enjoyment of wit, eloquence, and poetry. The fine arts profited alike by the severity of his judgment, and by the liberality of his patronage. The portraits of some of the remarkable Italians of those times are perfectly in harmony with this description. Ample and majestic foreheads, brows strong and dark, but not frowning, eyes of which the calm full gaze, while it expresses nothing, seems to discern everything, cheeks pale with thought and sedentary habits, lips formed with feminine delicacy, but compressed with more than masculine decision, mark out men at once enterprising and timid, men equally skilled in detecting the purposes of others, and in concealing their own, men who must have been formidable enemies and unsafe allies, but men, at the same time, whose tempers were mild and equable, and who possessed an amplitude and subtlety of intellect which would have rendered them eminent either in active or in contemplative life, and fitted them either to govern or to instruct mankind.

Every age and every nation has certain characteristic vices, which prevail almost universally, which scarcely any person scruples to avow, and

which even rigid moralists but faintly censure. Succeeding generations change the fashion of their morals, with the fashion of their hats and their coaches; take some other kind of wickedness under their patronage, and wonder at the depravity of their ancestors. Nor is this all. Posterity, that high court of appeal which is never tired of eulogizing its own justice and discernment, acts on such occasions like a Roman dictator after a general mutiny. Finding the delinquents too numerous to be all punished, it selects some of them at hazard, to bear the whole penalty of an offence in which they are not more deeply implicated than those who escape. Whether decimation be a convenient mode of military execution, we know not; but we solemnly protest against the introduction of such a principle into the philosophy of history.

In the present instance, the lot has fallen on Machiavelli, a man whose public conduct was upright and honourable, whose views of morality, where they differed from those of the persons around him, seemed to have differed for the better, and whose only fault was that, having adopted some of the maxims then generally received, he arranged them more luminously, and expressed them more forcibly, than any other writer.

Having now, we hope, in some degree cleared the personal character of Machiavelli, we come to the consideration of his works. As a poet he is not entitled to a high place; but his comedies deserve attention.

The *Mandragola,* in particular, is superior to the best of Goldoni, and inferior only to the best of Molière. It is the work of a man who, if he had devoted himself to the drama, would probably have attained the highest eminence, and produced a permanent and salutary effect on the national taste. This we infer, not so much from the degree, as from the kind of its excellence. There are compositions which indicate still greater talent, and which are perused with still greater delight, from which we should have drawn very different conclusions. Books quite worthless are quite harmless. The sure sign of the general decline of an art is the frequent occurrence, not of deformity, but of misplaced beauty. In general, Tragedy is corrupted by eloquence, and Comedy by wit.

The real object of the drama is the exhibition of human character. This, we conceive, is no arbitrary canon, originating in local and temporary associations, like those canons which regulate the number of acts in a play, or of syllables in a line. To this fundamental law every other regulation is subordinate. The situations which most signally develop character form the best plot. The mother tongue of the passions is the best style.

This principle, rightly understood, does not debar the poet from any

grace of composition. There is no style in which some man may not under some circumstances express himself. There is therefore no style which the drama rejects, none which it does not occasionally require. It is in the discernment of place, of time, and of person that the inferior artists fail. The fantastic rhapsody of Mercutio, the elaborate declamation of Antony, are, where Shakespeare has placed them, natural and pleasing. But Dryden would have made Mercutio challenge Tybalt in hyperboles as fanciful as those in which he describes the chariot of Mab. Corneille would have represented Antony as scolding and coaxing Cleopatra with all the measured rhetoric of a funeral oration.

No writers have injured the Comedy of England so deeply as Congreve and Sheridan. Both were men of splendid wit and polished taste. Unhappily, they made all their characters in their own likeness. Their works bear the same relation to the legitimate drama which a transparency bears to a painting. There are no delicate touches, no hues imperceptibly fading into each other: the whole is lighted up with an universal glare. Outlines and tints are forgotten in the common blaze which illuminates all. The flowers and fruits of the intellect abound; but it is the abundance of a jungle, not of a garden, unwholesome, bewildering, unprofitable from its very plenty, rank from its very fragrance. Every fop, every boor, every valet is a man of wit. The very butts and dupes, Tattle, Witwould, Puff, Acres, outshine the whole Hotel of Rambouillet. To prove the whole system of this school erroneous, it is only necessary to apply the test which dissolved the enchanted Florimel, to place the true by the false Thalia, to contrast the most celebrated characters which have been drawn by the writers of whom we speak with the Bastard in *King John* or the Nurse in *Romeo and Juliet*. It was not surely from want of wit that Shakespeare adopted so different a manner. Benedick and Beatrice throw Mirabel and Millamant into the shade. All the good sayings of the facetious houses of Absolute and Surface might have been clipped from the single character of Falstaff, without being missed. It would have been easy for that fertile mind to have given Bardolph and Shallow as much wit as Prince Hal, and to have made Dogberry and Verges retort on each other in sparkling epigrams. But he knew that such indiscriminate prodigality was, to use his own admirable language, "from the purpose of playing, whose end, both at the first and now, was and is, to hold, as 'twere, the mirror up to Nature."

This digression will enable our readers to understand what we mean when we say that in the *Mandragola,* Machiavelli has proved that he completely understood the nature of the dramatic art, and possessed tal-

ents which would have enabled him to excel in it. By the correct and vigorous delineation of human nature, it produces interest without a pleasing or skilful plot, and laughter without the least ambition of wit. The lover, not a very delicate or generous lover, and his adviser, the parasite, are drawn with spirit. The hypocritical confessor is an admirable portrait. He is, if we mistake not, the original of Father Dominic, the best comic character of Dryden. But old Nicias is the glory of the piece. We cannot call to mind anything that resembles him. The follies which Molière ridicules are those of affection, not those of fatuity. Coxcombs and pedants, not absolute simpletons, are his game. Shakespeare has indeed a vast assortment of fools; but the precise species of which we speak is not, if we remember right, to be found there. Shallow is a fool. But his animal spirits supply, to a certain degree, the place of cleverness. His talk is to that of Sir John what soda-water is to champagne. It has the effervescence though not the body or the flavour. Slender and Sir Andrew Aguecheek are fools, troubled with an uneasy consciousness of their folly, which in the latter produces meekness and docility, and in the former, awkwardness, obstinacy, and confusion. Cloten is an arrogant fool, Osric a foppish fool, Ajax a savage fool; but Nicias is, as Thersites says of Patroclus, a fool positive. His mind is occupied by no strong feeling; it takes every character, and retains none; its aspect is diversified, not by passions, but by faint and transitory semblances of passion, a mock joy, a mock fear, a mock love, a mock pride, which chase each other like shadows over its surface, and vanish as soon as they appear. He is just idiot enough to be an object, not of pity or horror, but of ridicule. He bears some resemblance to poor Calandrino, whose mishaps, as recounted by Boccaccio, have made all Europe merry for more than four centuries. He perhaps resembles still more closely Simon da Villa, to whom Bruno and Buffalmacco promised the love of the Countess Civilian. Nicias is, like Simon, of a learned profession; and the dignity with which he wears the doctoral fur renders his absurdities infinitely more grotesque. The old Tuscan is the very language for such a being. Its peculiar simplicity gives even to the most forcible reasoning and the most brilliant wit an infantine air, generally delightful, but to a foreign reader sometimes a little ludicrous. Heroes and statesmen seem to lisp when they use it. It becomes Nicias incomparably, and renders all his silliness infinitely more silly.

We may add that the verses with which the *Mandragola* is interspersed appear to us to be the most spirited and correct of all that Machiavelli has written in metre. He seems to have entertained the same opinion, for he has introduced some of them in other places. The con-

temporaries of the author were not blind to the merits of this striking piece. It was acted at Florence with the greatest success. Leo the Tenth was among its admirers, and by his order it was represented at Rome.[2]

The *Clizia* is an imitation of the *Casina* of Plautus, which is itself an imitation of the lost *kleroumenoi* [appointed ones] of Diphilus. Plautus was, unquestionably, one of the best Latin writers; but the *Casina* is by no means one of his best plays; nor is it one which offers great facilities to an imitator. The story is as alien from modern habits of life as the manner in which it is developed from the modern fashion of composition. The lover remains in the country and the heroine in her chamber during the whole action, leaving their fate to be decided by a foolish father, a cunning mother, and two knavish servants. Machiavelli has executed his task with judgment and taste. He has accommodated the plot to a different state of society, and has very dexterously connected it with the history of his own times. The relation of the trick put on the doting old lover is exquisitely humorous. It is far superior to the corresponding passage in the Latin comedy, and scarcely yields to the account which Falstaff gives of his ducking.

Two other comedies without titles, the one in prose, the other in verse, appear among the works of Machiavelli. The former is very short, lively enough, but of no great value. The latter we can scarcely believe to be genuine. Neither its merits nor its defects remind us of the reputed author. It was first printed in 1796, from a manuscript discovered in the celebrated library of the Strozzi. Its genuineness, if we have been rightly informed, is established solely by the comparison of hands. Our suspicions are strengthened by the circumstance that the same manuscript contained a description of the plague of 1527, which has also, in consequence, been added to the works of Machiavelli. Of this last composition the strongest external evidence would scarcely induce us to believe him guilty. Nothing was ever written more detestable in matter and manner. The narrations, the reflections, the jokes, the lamentations, are all the very worst of their respective kinds, at once trite and affected, threadbare tinsel from the Rag Fairs and Monmouth Streets of literature. A foolish schoolboy might write such a piece, and, after he had written it, think it much finer than the incomparable introduction of the *Decameron*. But that a shrewd statesman, whose earliest works are characterized by

2. Nothing can be more evident than that Paulus Jovius designates the *Mandragola* under the name of the *Nicias*. We should not have noticed what is so perfectly obvious, were it not that this natural and palpable misnomer has led the sagacious and industrious Bayle into a gross error.

manliness of thought and language, should, at near sixty years of age, descend to such puerility, is utterly inconceivable.

The little novel of *Belphegor* is pleasantly conceived and pleasantly told. But the extravagance of the satire in some measure injures its effect. Machiavelli was unhappily married; and his wish to avenge his own cause, and that of his brethren in misfortune, carried him beyond even the licence of fiction. Jonson seems to have combined some hints taken from this tale, with others from Boccaccio, in the plot of *The Devil Is an Ass,* a play which, though not the most highly finished of his compositions, is perhaps that which exhibits the strongest proofs of genius.

The political correspondence of Machiavelli, first published in 1767, is unquestionably genuine, and highly valuable. The unhappy circumstances in which his country was placed during the greater part of his public life gave extraordinary encouragement to diplomatic talents. From the moment that Charles the Eighth descended from the Alps, the whole character of Italian politics was changed. The governments of the Peninsula ceased to form an independent system. Drawn from their old orbit by the attraction of the larger bodies which now approached them, they became mere satellites of France and Spain. All their disputes, internal and external, were decided by foreign influence. The contests of opposite factions were carried on, not as formerly in the senate-house or in the market-place, but in the antechambers of Louis and Ferdinand. Under these circumstances, the prosperity of the Italian States depended far more on the ability of their foreign agents, than on the conduct of those who were entrusted with the domestic administration. The ambassador had to discharge functions far more delicate than transmitting orders of knighthood, introducing tourists, or presenting his brethren with the homage of his high consideration. He was an advocate to whose management the dearest interests of his clients were entrusted, a spy clothed with an inviolable character. Instead of consulting, by a reserved manner and ambiguous style, the dignity of those whom he represented, he was to plunge into all the intrigues of the Court at which he resided, to discover and flatter every weakness of the prince, and of the favourite who governed the prince, and of the lackey who governed the favourite. He was to compliment the mistress and bribe the confessor, to panegyrize or supplicate, to laugh or weep, to accommodate himself to every caprice, to lull every suspicion, to treasure every hint, to be everything, to observe everything, to endure everything. High as the art of political intrigue had been carried in Italy, these were times which required it all.

On these arduous errands Machiavelli was frequently employed. He

was sent to treat with the King of the Romans and with the Duke of Valentinois. He was twice ambassador of the Court of Rome, and thrice at that of France. In these missions, and in several others of inferior importance, he acquitted himself with great dexterity. His despatches form one of the most amusing and instructive collections extant. The narratives are clear and agreeably written; the remarks on men and things clever and judicious. The conversations are reported in a spirited and characteristic manner. We find ourselves introduced into the presence of the men who, during twenty eventful years, swayed the destinies of Europe. Their wit and their folly, their fretfulness and their merriment, are exposed to us. We are admitted to overhear their chat, and to watch their familiar gestures. It is interesting and curious to recognize, in circumstances which elude the notice of historians, the feeble violence and shallow cunning of Louis the Twelfth; the bustling insignificance of Maximilian, cursed with an impotent pruriency for renown, rash yet timid, obstinate yet fickle, always in a hurry, yet always too late; the fierce and haughty energy which gave dignity to the eccentricities of Julius; the soft and graceful manners which masked the insatiable ambition and the implacable hatred of Cesare Borgia.

We have mentioned Cesare Borgia. It is impossible not to pause for a moment on the name of a man in whom the political morality of Italy was so strongly personified, partially blended with the sterner lineaments of the Spanish character. On two important occasions Machiavelli was admitted to his society; once, at the moment when Cesare's splendid villainy achieved its most signal triumph, when he caught in one snare and crushed at one blow all his most formidable rivals; and again when, exhausted by disease and overwhelmed by misfortunes, which no human prudence could have averted, he was the prisoner of the deadliest enemy of his house. These interviews between the greatest speculative and the greatest practical statesman of the age are fully described in the *Correspondence,* and form perhaps the most interesting part of it. From some passages in *The Prince,* and perhaps also from some indistinct traditions, several writers have supposed a connection between those remarkable men much closer than ever existed. The Envoy has even been accused of prompting the crimes of the artful and merciless tyrant. But from the official documents it is clear that their intercourse, though ostensibly amicable, was in reality hostile. It cannot be doubted, however, that the imagination of Machiavelli was strongly impressed, and his speculations on government coloured, by the observations which he made on the singular character and equally singular fortunes of a man who under such dis-

advantages had achieved such exploits; who, when sensuality, varied through innumerable forms, could no longer stimulate his sated mind, found a more powerful and durable excitement in the intense thirst of empire and revenge; who emerged from the sloth and luxury of the Roman purple the first prince and general of the age; who, trained in an unwarlike profession, formed a gallant army out of the dregs of an unwarlike people; who, after acquiring sovereignty by destroying his enemies, acquired popularity by destroying his tools; who had begun to employ for the most salutary ends the power which he had attained by the most atrocious means; who tolerated within the sphere of his iron despotism no plunderer or oppressor but himself; and who fell at last amidst the mingled curses and regrets of a people of whom his genius had been the wonder, and might have been the salvation. Some of those crimes of Borgia which to us appear the most odious would not, from causes which we have already considered, have struck an Italian of the fifteenth century with equal horror. Patriotic feeling also might induce Machiavelli to look with some indulgence and regret on the memory of the only leader who could have defended the independence of Italy against the confederate spoilers of Cambrai.

On this subject Machiavelli felt most strongly. Indeed the expulsion of the foreign tyrants, and the restoration of that golden age which had preceded the irruption of Charles the Eighth, were projects which, at that time, fascinated all the master-spirits of Italy. The magnificent vision delighted the great but ill-regulated mind of Julius. It divided, with manuscripts and sauces, painters, and falcons, the attention of the frivolous Leo. It prompted the generous treason of Morone. It imparted a transient energy to the feeble mind and body of the last Sforza. It excited for one moment an honest ambition in the false heart of Pescara. Ferocity and insolence were not among the vices of the national character. To the discriminating cruelties of politicians, committed for great ends on select victims, the moral code of the Italians was too indulgent. But though they might have recourse to barbarity as an expedient, they did not require it as a stimulant. They turned with loathing from the atrocity of the strangers who seemed to love blood for its own sake, who, not content with subjugating, were impatient to destroy, who found a fiendish pleasure in razing magnificent cities, cutting the throats of enemies who cried for quarter, or suffocating an unarmed population by thousands in the caverns to which it had fled for safety. Such were the cruelties which daily excited the terror and disgust of a people among whom, till lately, the worst that a soldier had to fear in a pitched battle was the loss of his

horse and the expense of his ransom. The swinish intemperance of Switzerland, the wolfish avarice of Spain, the gross licentiousness of the French, indulged in violation of hospitality, of decency, of love itself, the wanton inhumanity which was common to all the invaders had made them objects of deadly hatred to the inhabitants of the Peninsula. The wealth which had been accumulated during centuries of prosperity and repose was rapidly melting away. The intellectual superiority of the oppressed people only rendered them more keenly sensible of their political degradation. Literature and taste, indeed, still disguised with a flush of hectic loveliness and brilliancy the ravages of an incurable decay. The iron had not yet entered into the soul. The time was not yet come when eloquence was to be gagged, and reason to be hoodwinked, when the harp of the poet was to be hung on the willows of Arno, and the right hand of the painter to forget its cunning. Yet a discerning eye might even then have seen that genius and learning would not long survive the state of things from which they had sprung, and that the great men whose talents gave lustre to that melancholy period had been formed under the influence of happier days, and would leave no successors behind them. The times which shine with the greatest splendour in literary history are not always those to which the human mind is most indebted. Of this we may be convinced, by comparing the generation which follows them with that which had preceded them. The first fruits which are reaped under a bad system often spring from seed sown under a good one. Thus it was, in some measure, with the Augustan age. Thus it was with the age of Raphael and Ariosto, of Aldus and Vida.

Machiavelli deeply regretted the misfortunes of his country, and clearly discerned the cause and the remedy. It was the military system of the Italian people which had extinguished their value and discipline, and left their wealth an easy prey to every foreign plunderer. The Secretary projected a scheme alike honourable to his heart and to his intellect, for abolishing the use of mercenary troops, and for organizing a national militia.

The exertions which he made to effect this great object ought alone to rescue his name from obloquy. Though his situation and his habits were pacific, he studied with intense assiduity the theory of war. He made himself master of all its details. The Florentine government entered into his views. A council of war was appointed. Levies were decreed. The indefatigable minister flew from place to place in order to superintend the execution of his design. The times were, in some respects, favourable to the experiment. The system of military tactics had undergone a great

revolution. The cavalry was no longer considered as forming the strength of an army. The hours which a citizen could spare from his ordinary employments, though by no means sufficient to familiarize him with the exercise of a man-at-arms, might render him an useful foot-soldier. The dread of a foreign yoke, of plunder, massacre, and conflagration, might have conquered that repugnance to military pursuits which both the industry and the idleness of great towns commonly generate. For a time the scheme promised well. The new troops acquitted themselves respectably in the field. Machiavelli looked with parental rapture on the success of his plan, and began to hope that the arms of Italy might once more be formidable to the barbarians of the Tagus and the Rhine. But the tide of misfortune came on before the barriers which should have withstood it were prepared. For a time, indeed, Florence might be considered as peculiarly fortunate. Famine and sword and pestilence had devastated the fertile plains and the stately cities of the Po. All the curses denounced of old against Tyre seemed to have fallen on Venice. Her merchants already stood afar off, lamenting for their great city. The time seemed near when the seaweed should overgrow her silent Rialto, and the fisherman wash his nets in her deserted arsenal. Naples had been four times conquered and reconquered by tyrants equally indifferent to its welfare, and equally greedy for its spoils. Florence, as yet, had only to endure degradation and extortion, to submit to the mandates of foreign powers, to buy over and over again, at an enormous price, what was already justly her own, to return thanks for being wronged, and to ask pardon for being in the right. She was at length deprived of the blessings even of this infamous and servile repose. Her military and political institutions were swept away together. The Medici returned, in the train of foreign invaders, from their long exile. The policy of Machiavelli was abandoned; and his public services were requited with poverty, imprisonment, and torture.

The fallen statesman still clung to his project with unabated ardour. With the view of vindicating it from some popular objections and of refuting some prevailing errors on the subject of military science, he wrote his seven books on *The Art of War*. This excellent work is in the form of a dialogue. The opinions of the writer are put into the mouth of Fabrizio Colonna, a powerful nobleman of the Ecclesiastical State, and an officer of distinguished merit in the service of the King of Spain. Colonna visits Florence on his way from Lombardy to his own domains. He is invited to meet some friends at the house of Cosimo Rucellai, an amiable and accomplished young man, whose early death Machiavelli

feelingly deplores. After partaking of an elegant entertainment, they retire from the heat into the most shady recesses of the garden. Fabrizio is struck by the sight of some uncommon plants. Cosimo says that, though rare in modern days, they are frequently mentioned by the classical authors, and that his grandfather, like many other Italians, amused himself with practising the ancient methods of gardening. Fabrizio expresses his regret that those who, in later times, affected the manners of the old Romans should select for imitation the most trifling pursuits. This leads to a conversation on the decline of military discipline and on the best means of restoring it. The institution of the Florentine militia is ably defended; and several improvements are suggested in the details.

The Swiss and the Spaniards were, at that time, regarded as the best soldiers in Europe. The Swiss battalion consisted of pikemen, and bore a close resemblance to the Greek phalanx. The Spaniards, like the soldiers of Rome, were armed with the sword and the shield. The victories of Flamininus and Aemilius over the Macedonian kings seem to prove the superiority of the weapons used by the legions. The same experiment had been recently tried with the same result at the battle of Ravenna, one of those tremendous days into which human folly and wickedness compress the whole devastation of a famine or a plague. In that memorable conflict, the infantry of Aragon, the old companions of Gonsalvo, deserted by all their allies, hewed a passage through the thickest of the imperial pikes, and effected an unbroken retreat, in the face of the gendarmerie of De Foix, and the renowned artillery of Este. Fabrizio, or rather Machiavelli, proposes to combine the two systems, to arm the foremost lines with the pike for the purpose of repulsing cavalry, and those in the rear with the sword, as being a weapon better adapted for every other purpose. Throughout the work, the author expresses the highest admiration of the military science of the ancient Romans, and the greatest contempt for the maxims which had been in vogue amongst the Italian commanders of the preceding generation. He prefers infantry to cavalry, and fortified camps to fortified towns. He is inclined to substitute rapid movements and decisive engagements for the languid and dilatory operations of his countrymen. He attaches very little importance to the invention of gunpowder. Indeed he seems to think that it ought scarcely to produce any change in the mode of arming or of disposing troops. The general testimony of historians, it must be allowed, seems to prove that the ill-constructed and ill-served artillery of those times, though useful in a siege, was of little value on the field of battle.

Of the tactics of Machiavelli we will not venture to give an opinion:

but we are certain that his book is most able and interesting. As a commentary on the history of his times, it is invaluable. The ingenuity, the grace, and the perspicuity of the style, and the eloquence and animation of particular passages must give pleasure even to readers who take no interest in the subject.

The Prince and the *Discourses on Livy* were written after the fall of the Republican government. The former was dedicated to the Young Lorenzo de' Medici. This circumstance seems to have disgusted the contemporaries of the writer far more than the doctrines which have rendered the name of the work odious in later times. It was considered as an indication of political apostasy. The fact however seems to have been that Machiavelli, despairing of the liberty of Florence, was inclined to support any government which might preserve her independence. The interval which separated a democracy and a despotism, Soderini and Lorenzo, seemed to vanish when compared with the difference between the former and the present state of Italy, between the security, the opulence, and the repose which she had enjoyed under her native rulers, and the misery in which she had been plunged since the fatal year in which the first foreign tyrant had descended from the Alps. The noble and pathetic exhortation with which *The Prince* concludes shows how strongly the writer felt upon this subject.

The Prince traces the progress of an ambitious man, the *Discourses* the progress of an ambitious people. The same principles on which, in the former work, the elevation of an individual is explained are applied in the latter to the longer duration and more complex interest of a society. To a modern statesman the form of the *Discourses* may appear to be puerile. In truth Livy is not an historian on whom implicit reliance can be placed, even in cases where he must have possessed considerable means of information. And the first Decade, to which Machiavelli has confined himself, is scarcely entitled to more credit than our Chronicle of British Kings who reigned before the Roman invasion. But the commentator is indebted to Livy for little more than a few texts which he might as easily have extracted from the *Vulgate* or the *Decameron.* The whole train of thought is original.

On the peculiar immorality which has rendered *The Prince* unpopular, and which is almost equally discernible in the *Discourses,* we have already given our opinion at length. We have attempted to show that it belonged rather to the age than to the man, that it was a partial taint, and by no means implied general depravity. We cannot, however, deny that it is a great blemish, and that it considerably diminishes the pleasure

which, in other respects, those works must afford to every intelligent mind.

It is, indeed, impossible to conceive a more healthful and vigorous constitution of the understanding than that which these works indicate. The qualities of the active and the contemplative statesman appear to have been blended in the mind of the writer into a rare and exquisite harmony. His skill in the details of business had not been acquired at the expense of his general powers. It had not rendered his mind less comprehensive; but it had served to correct his speculations and to impart to them that vivid and practical character which so widely distinguishes them from the vague theories of most political philosophers.

Every man who has seen the world knows that nothing is so useless as a general maxim. If it be very moral and very true, it may serve for a copy to a charity-boy. If, like those of Rochefoucauld, it be sparkling and whimsical, it may make an excellent motto for an essay. But few indeed of the many wise apophthegms which have been uttered, from the time of the Seven Sages of Greece to that of Poor Richard, have prevented a single foolish action. We give the highest and the most peculiar praise to the precepts of Machiavelli when we say that they may frequently be of real use in regulating conduct, not so much because they are more just or more profound than those which might be culled from other authors, as because they can be more readily applied to the problems of real life.

There are errors in these works. But they are errors which a writer, situated like Machiavelli, could scarcely avoid. They arise, for the most part, from a single defect which appears to us to pervade his whole system. In his political scheme, the means had been more deeply considered than the ends. The great principle, that societies and laws exist only for the purpose of increasing the sum of private happiness, is not recognized with sufficient clearness. The good of the body, distinct from the good of the members, and sometimes hardly compatible with the good of the members, seems to be the object which he proposes to himself. Of all political fallacies, this has perhaps had the widest and the most mischievous operation. The state of society in the little commonwealths of Greece, the close connection and mutual dependence of the citizens, and the severity of the laws of war tended to encourage an opinion which, under such circumstances, could hardly be called erroneous. The interests of every individual were inseparably bound up with those of the State. An invasion destroyed his cornfields and vineyards, drove him from his home, and compelled him to encounter all the hardships of a military life. A treaty of peace restored him to security

and comfort. A victory doubled the number of his slaves. A defeat perhaps made him a slave himself. When Pericles, in the Peloponnesian War, told the Athenians that, if their country triumphed, their private losses would speedily be repaired, but that, if their arms failed of success, every individual amongst them would probably be ruined, he spoke no more than the truth. He spoke to men whom the tribute of vanquished cities supplied with food and clothing, with the luxury of the bath and the amusements of the theatre, on whom the greatness of their country conferred rank, and before whom the members of less prosperous communities trembled; to men who, in case of a change in the public fortunes, would, at least, be deprived of every comfort and every distinction which they enjoyed. To be butchered on the smoking ruins of their city, to be dragged in chains to a slave-market, to see one child torn from them to dig in the quarries of Sicily, and another to guard the harems of Persepolis, these were the frequent and probable consequences of national calamities. Hence, among the Greeks, patriotism became a governing principle, or rather an ungovernable passion. Their legislators and their philosophers took it for granted that, in providing for the strength and greatness of the state, they sufficiently provided for the happiness of the people. The writers of the Roman empire lived under despots, into whose dominion a hundred nations were melted down, and whose gardens would have covered the little commonwealths of Phlius and Plataea. Yet they continued to employ the same language, and to cant about the duty of sacrificing everything to a country to which they owed nothing.

Causes similar to those which had influenced the disposition of the Greeks operated powerfully on the less vigorous and daring character of the Italians. The Italians, like the Greeks, were members of small communities. Every man was deeply interested in the welfare of the society to which he belonged, a partaker in its wealth and its poverty, in its glory and its shame. In the age of Machiavelli this was peculiarly the case. Public events had produced an immense sum of misery to private citizens. The Northern invaders had brought want to their boards, infamy to their beds, fire to their roofs, and the knife to their throats. It was natural that a man who lived in times like these should overrate the importance of those measures by which a nation is rendered formidable to its neighbours, and undervalue those which make it prosperous within itself.

Nothing is more remarkable in the political treatises of Machiavelli than the fairness of mind which they indicate. It appears where the author is in the wrong, almost as strongly as where he is in the right.

He never advances a false opinion because it is new or splendid, because he can clothe it in a happy phrase, or defend it by an ingenious sophism. His errors are at once explained by a reference to the circumstances in which he was placed. They evidently were not sought out; they lay in his way, and could scarcely be avoided. Such mistakes must necessarily be committed by early speculators in every science.

In this respect it is amusing to compare *The Prince* and the *Discourses* with the *Spirit of Laws*. Montesquieu enjoys, perhaps, a wider celebrity than any political writer of modern Europe. Something he doubtless owes to his merit, but much more to his fortune. He had the good luck of a Valentine. He caught the eye of the French nation, at the moment when it was waking from the long sleep of political and religious bigotry; and, in consequence, he became a favourite. The English, at that time, considered a Frenchman who talked about constitutional checks and fundamental laws as a prodigy not less astonishing than the learned pig or the musical infant. Specious but shallow, studious of effect, indifferent to truth, eager to build a system, but careless of collecting those materials out of which alone a sound and durable system can be built, the lively President constructed theories as rapidly and as slightly as card-houses, no sooner projected than completed, no sooner completed than blown away, no sooner blown away than forgotten. Machiavelli errs only because his experience, acquired in a very peculiar state of society, could not always enable him to calculate the effect of institutions differing from those of which he had observed the operation. Montesquieu errs, because he has a fine thing to say, and is resolved to say it. If the phenomena which lie before him will not suit his purpose, all history must be ransacked. If nothing established by authentic testimony can be racked or chipped to suit his Procrustean hypothesis, he puts up with some monstrous fable about Siam, or Bantam, or Japan, told by writers compared with whom Lucian and Gulliver were veracious, liars by a double right, as travellers and as Jesuits.

Propriety of thought, and propriety of diction, are commonly found together. Obscurity and affectation are the two greatest faults of style. Obscurity of expression generally springs from confusion of ideas; and the same wish to dazzle at any cost, which produces affectation in the manner of a writer, is likely to produce sophistry in his reasonings. The judicious and candid mind of Machiavelli shows itself in his luminous, manly, and polished language. The style of Montesquieu, on the other hand, indicates in every page a lively and ingenious, but an unsound, mind. Every trick of expression, from the mysterious conciseness of an

oracle to the flippancy of a Parisian coxcomb, is employed to disguise the fallacy of some positions, and the triteness of others. Absurdities are brightened into epigrams; truisms are darkened into enigmas. It is with difficulty that the strongest eye can sustain the glare with which some parts are illuminated, or penetrate the shade in which others are concealed.

The political works of Machiavelli derive a peculiar interest from the mournful earnestness which he manifests whenever he touches on topics connected with the calamities of his native land. It is difficult to conceive any situation more painful than that of a great man, condemned to watch the lingering agony of an exhausted country, to tend it during the alternate fits of stupefaction and raving which precede its dissolution, and to see the symptoms of vitality disappear one by one, till nothing is left but coldness, darkness, and corruption. To this joyless and thankless duty was Machiavelli called. In the energetic language of the prophet, he was "mad for the sight of his eyes which he saw," disunion in the council, effeminacy in the camp, liberty extinguished, commerce decaying, national honour sullied, an enlightened and flourishing people given over to the ferocity of ignorant savages. Though his opinions had not escaped the contagion of that political immorality which was common among his countrymen, his natural disposition seems to have been rather stern and impetuous than pliant and artful. When the misery and degradation of Florence and the foul outrage which he had himself sustained recur to his mind, the smooth craft of his profession and his nation is exchanged for the honest bitterness of scorn and anger. He speaks like one sick of the calamitous times and abject people among whom his lot is cast. He pines for the strength and glory of ancient Rome, for the fasces of Brutus, and the sword of Scipio, the gravity of the curule chair, and the bloody pomp of the triumphal sacrifice. He seems to be transported back to the days when eight hundred thousand Italian warriors sprung to arms at the rumour of a Gallic invasion. He breathes all the spirit of those intrepid and haughty senators who forgot the dearest ties of nature in the claims of public duty, who looked with disdain on the elephants and on the gold of Pyrrhus, and listened with unaltered composure to the tremendous tidings of Cannae. Like an ancient temple deformed by the barbarous architecture of a later age, his character acquires an interest from the very circumstances which debase it. The original proportions are rendered more striking by the contrast which they present to the mean and incongruous additions.

The influence of the sentiments which we have described was not

apparent in his writings alone. His enthusiasm, barred from the career which it would have selected for itself, seems to have found a vent in desperate levity. He enjoyed a vindictive pleasure in outraging the opinions of a society which he despised. He became careless of the decencies which were expected from a man so highly distinguished in the literary and political world. The sarcastic bitterness of his conversation disgusted those who were more inclined to accuse his licentiousness than their own degeneracy, and who were unable to conceive the strength of those emotions which are concealed by the jests of the wretched, and by the follies of the wise.

The historical works of Machiavelli still remain to be considered. The *Life of Castruccio Castracani* will occupy us for a very short time, and would scarcely have demanded our notice, had it not attracted a much greater share of public attention than it deserves. Few books, indeed, could be more interesting than a careful and judicious account, from such a pen, of the illustrious Prince of Lucca, the most eminent of those Italian chiefs who, like Pisistratus and Gelon, acquired a power felt rather than seen, and resting, not on law or on prescription, but on the public favour and on their great personal qualities. Such a work would exhibit to us the real nature of that species of sovereignty, so singular and so often misunderstood, which the Greeks denominated tyranny, and which, modified in some degree by the feudal system, reappeared in the commonwealths of Lombardy and Tuscany. But this little composition of Machiavelli is in no sense a history. It has no pretensions to fidelity. It is a trifle, and not a very successful trifle. It is scarcely more authentic than the novel of *Belphegor,* and is very much duller.

The last great work of this illustrious man was the history of his native city. It was written by command of the Pope, who, as chief of the house of Medici, was at that time sovereign of Florence. The characters of Cosimo, of Piero, and of Lorenzo are, however, treated with a freedom and impartiality equally honourable to the writer and to the patron. The miseries and humiliations of dependence, the bread which is more bitter than every other food, the stairs which are more painful than every other ascent, had not broken the spirit of Machiavelli. The most corrupting post in a corrupting profession had not depraved the generous heart of Clement.

The *History* does not appear to be the fruit of much industry or research. It is unquestionably inaccurate. But it is elegant, lively, and picturesque, beyond any other in the Italian language. The reader, we believe, carries away from it a more vivid and a more faithful impression

of the national character and manners than from more correct accounts. The truth is that the book belongs rather to ancient than to modern literature. It is in the style, not of Davila and Clarendon, but of Herodotus and Tacitus. The classical histories may almost be called romances founded in fact. The relation is, no doubt, in all its principal points, strictly true. But the numerous little incidents which heighten the interest, the words, the gestures, the looks are evidently furnished by the imagination of the author. The fashion of later times is different. A more exact narrative is given by the writer. It may be doubted whether more exact notions are conveyed to the reader. The best portraits are perhaps those in which there is a slight mixture of caricature, and we are not certain that the best histories are not those in which a little of the exaggeration of fictitious narrative is judiciously employed. Something is lost in accuracy; but much is gained in effect. The fainter lines are neglected; but the great characteristic features are imprinted on the mind for ever.

The *History* terminates with the death of Lorenzo de' Medici. Machiavelli had, it seems, intended to continue his narrative to a later period. But his death prevented the execution of his design; and the melancholy task of recording the desolation and shame of Italy devolved on Guicciardini.

Machiavelli lived long enough to see the commencement of the last struggle for Florentine liberty. Soon after his death monarchy was finally established, not such a monarchy as that of which Cosimo had laid the foundations deep in the institutions and feelings of his countryman, and which Lorenzo had embellished with the trophies of every science and every art; but a loathsome tyranny, proud and mean, cruel and feeble, bigoted and lascivious. The character of Machiavelli was hateful to the new masters of Italy; and those parts of his theory which were in strict accordance with their own daily practice afforded a pretext for blackening his memory. His works were misrepresented by the learned, misconstrued by the ignorant, censured by the Church, abused with all the rancour of simulated virtue by the tools of a base government, and the priests of a baser superstition. The name of the man whose genius had illuminated all the dark places of policy, and to whose patriotic wisdom an oppressed people had owed their last chance of emancipation and revenge, passed into a proverb of infamy. For more than two hundred years his bones lay undistinguished. At length, an English nobleman paid the last honours to the greatest statesman of Florence. In the church of Santa Croce a monument was erected to his memory, which is contemplated with reverence by all who can distinguish the virtues of a great

mind through the corruptions of a degenerate age, and which will be approached with still deeper homage when the object to which his public life was devoted shall be attained, when the foreign yoke shall be broken, when a second Procida shall avenge the wrongs of Naples, when a happier Rienzi shall restore the good estate of Rome, when the streets of Florence and Bologna shall again resound with their ancient war-cry, *Popolo; popolo; muoiano i tiranni* [The people; the people; May tyrants die]!

"Machiavelli" is from a collection of Macaulay's essays entitled CRITICAL AND HISTORICAL ESSAYS.

Voltaire [1]

1694–1778

The years of exile which Voltaire spent in England, from 1726 to 1729, were the crucial ones of his life. They made him serious. Until then he had been a talented littérateur with a faculty for criticizing and infuriating the orthodoxies of his day. He was welcomed in England as an exile from French illiberality. Accepted in all the leading literary circles, he also moved in the highest ranks of society. Of more significance, he found a subject to study and to write about. The first results appeared in 1733 after he had returned to France. They consisted, as originally entitled, of *Philosophical Letters on the English.*

Voltaire claims that "a Frenchman who arrives in London will find philosophy, like everything else, very much changed there." The center and source of the change he traces to the empirical science and philosophy which had Sir Isaac Newton as its idol. In these letters Voltaire set himself the task, among others, of expounding this new philosophy. Those dealing with Bacon, Newton, and Locke serve in fact as popular introductions to the major work of these authors. He even attempts the far from easy task of simplifying and popularizing Newton's theory of gravitational attraction, of the decomposition of light, and of the calculus, or the theory of fluxions as it was then known.

Voltaire in fact became so interested in the physics of Newton that he set up a laboratory for conducting experiments in the château at Cirey, where he lived on returning to France. The Marquise du Châtelet, to whom the château belonged, was an accomplished mathematician and physicist. She collaborated with Voltaire on a

[1] For a biography of Voltaire, see Vol. 2, pp. 237–239, in this set.

long treatise on the Newtonian system. In addition to writing another treatise on physics, she also made the first French translation of Newton's great work.

Voltaire rarely wrote anything that was entirely without a political purpose. The *Letters* pretend to be a report on conditions in England. At the time that Voltaire was there, England was still thought of as a land of political unrest, even of revolution, since memory of the Civil War of the seventeenth century was still fresh. Yet under the guise of a panegyric on English ways, the *Letters* constitute an attack on all the authorities then reigning in France. Praise of the new empirical philosophy is turned into criticism of the philosophy and physics of Descartes, then dominant in France. The account of liberty in England is made an attack upon the despotism of the French church and state. The *Letters* were originally published with certain "remarks" upon Pascal which were found so offensive to orthodoxy that the book was condemned and burned.

Reason and its triumphs is a theme that runs throughout the *Letters* as well as the *Philosophical Dictionary*[2] and the science-fiction story *Micromégas*.[3] In this Voltaire well illustrates what is usually referred to as the rationalism of the French Enlightenment. It shows the climate of opinion, which Voltaire himself helped to form, that resulted in the French Revolution and the downfall of the ancient regime.

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[2] See Vol. 10, pp. 453–474, in this set.
[3] See Vol. 2, pp. 241–256, in this set.

English Men and Ideas

from *Letters on the English*

ON THE PARLIAMENT

The members of the English Parliament are fond of comparing themselves to the old Romans.

Not long since Mr. Shippen opened a speech in the House of Commons with these words, "The majesty of the people of England would be wounded." The singularity of the expression occasioned a loud laugh; but this gentleman, so far from being disconcerted, repeated the same words with a resolute tone of voice, and the laugh ceased. In my opinion, the majesty of the people of England has nothing in common with that of the people of Rome, much less is there any affinity between their governments. There is in London a senate, some of the members whereof are accused (doubtless very unjustly) of selling their voices on certain occasions, as was done in Rome; this is the only resemblance. Besides, the two nations appear to me quite opposite in character, with regard both to good and evil. The Romans never knew the dreadful folly of religious wars, an abomination reserved for devout preachers of patience and humility. Marious and Sylla, Caesar and Pompey, Anthony and Augustus, did not draw their swords and set the world in a blaze merely to determine whether the flamen should wear his shirt over his robe, or his robe over his shirt, or whether the sacred chickens should eat and drink, or eat only, in order to take the augury. The English have hanged one another by law, and cut one another to pieces in pitched battles, for quarrels of as trifling nature. The sects of the Episcopalians and Presbyterians quite distracted these very serious heads for a time. But I fancy they will hardly ever be so silly again, they seeming to be grown wiser at their own expense; and I do not perceive the least inclination in them to murder one another merely about syllogisms, as some zealots among them once did.

But here follows a more essential difference between Rome and England, which gives the advantage entirely to the latter—viz., that the civil wars of Rome ended in slavery, and those of the English in liberty. The English are the only people upon earth who have been able to prescribe limits to the power of kings by resisting them; and who, by a series of struggles, have at last established that wise government where the prince is all powerful to do good, and, at the same time, is restrained from committing evil; where the nobles are great without insolence, though there are no vassals; and where the people share in the government without confusion.

The House of Lords and that of the Commons divide the legislative power under the King, but the Romans had no such balance. The patricians and plebeians in Rome were perpetually at variance, and there was no intermediate power to reconcile them. The Roman senate, who were so unjustly, so criminally proud as not to suffer the plebeians to share with them in anything, could find no other artifice to keep the latter out of the administration than by employing them in foreign wars. They considered the plebeians as a wild beast, whom it behoved them to let loose upon their neighbours, for fear they should devour their masters. Thus the greatest defect in the government of the Romans raised them to be conquerors. By being unhappy at home, they triumphed over and possessed themselves of the world, till at last their divisions sunk them to slavery.

The government of England will never rise to so exalted a pitch of glory, nor will its end be so fatal. The English are not fired with the splendid folly of making conquests, but would only prevent their neighbours from conquering. They are not only jealous of their own liberty, but even of that of other nations. The English were exasperated against Louis XIV for no other reason but because he was ambitious, and declared war against him merely out of levity, not from any interested motives.

The English have doubtless purchased their liberties at a very high price, and waded through seas of blood to drown the idol of arbitrary power. Other nations have been involved in as great calamities, and have shed as much blood; but then the blood they spilt in defence of their liberties only enslaved them the more.

That which rises to a revolution in England is no more than a sedition in other countries. A city in Spain, in Barbary, or in Turkey takes up arms in defence of its privileges, when immediately it is stormed by mercenary troops, it is punished by executioners, and the rest of the nation kiss the

chains they are loaded with. The French are of opinion that the government of this island is more tempestuous than the sea which surrounds it, which indeed is true; but then it is never so but when the King raises the storm—when he attempts to seize the ship of which he is only the chief pilot. The civil wars of France lasted longer, were more cruel, and productive of greater evils than those of England; but none of these civil wars had a wise and prudent liberty for their object.

In the detestable reigns of Charles IX and Henry III the whole affair was only whether the people should be slaves to the Guises. With regard to the last war of Paris, it deserves only to be hooted at. Methinks I see a crowd of schoolboys rising up in arms against their master, and afterwards whipped for it. Cardinal de Retz, who was witty and brave (but to no purpose), rebellious without a cause, factious without design, and head of a defenceless party, caballed for caballing's sake, and seemed to foment the civil war merely out of diversion. The parliament did not know what he intended, nor what he did not intend. He levied troops by act of Parliament, and the next moment cashiered them. He threatened, he begged pardon; he set a price upon Cardinal Mazarin's head, and afterwards congratulated him in a public manner. Our civil wars under Charles VI were bloody and cruel, those of the League execrable, and that of the Frondeurs ridiculous.

That for which the French chiefly reproach the English nation is the murder of King Charles I, whom his subjects treated exactly as he would have treated them had his reign been prosperous. After all, consider on one side Charles I, defeated in a pitched battle, imprisoned, tried, sentenced to die in Westminster Hall, and then beheaded. And on the other, the Emperor Henry VII, poisoned by his chaplain at his receiving the Sacrament; Henry III stabbed by a monk; thirty assassinations projected against Henry IV, several of them put in execution, and the last bereaving that great monarch of his life. Weigh, I say, all these wicked attempts and then judge.

ON THE GOVERNMENT

That mixture in the English government, that harmony between King, Lords, and Commons, did not always subsist. England was enslaved for a long series of years by the Romans, the Saxons, the Danes, and the French successively. William the Conqueror particularly, ruled them with a rod of iron. He disposed as absolutely of the lives and fortunes of his conquered subjects as an eastern monarch; and forbade, upon pain of death,

the English either fire or candle in their houses after eight o'clock; whether he did this to prevent their nocturnal meetings, or only to try, by this odd and whimsical prohibition, how far it was possible for one man to extend his power over his fellow-creatures. It is true, indeed, that the English had parliaments before and after William the Conqueror, and they boast of them, as though these assemblies then called parliaments, composed of ecclesiastical tyrants and of plunderers entitled barons, had been the guardians of the public liberty and happiness.

The barbarians who came from the shores of the Baltic, and settled in the rest of Europe, brought with them the form of government called states or parliaments, about which so much noise is made, and which are so little understood. Kings, indeed, were not absolute in those days; but then the people were more wretched upon that very account, and more completely enslaved. The chiefs of these savages, who had laid waste France, Italy, Spain, and England, made themselves monarchs. Their generals divided among themselves the several countries they had conquered, whence sprung those margraves, those peers, those barons, those petty tyrants, who often contested with their sovereigns for the spoils of whole nations. These were birds of prey fighting with an eagle for doves whose blood the victorious was to suck. Every nation, instead of being governed by one master, was trampled upon by a hundred tyrants. The priests soon played a part among them. Before this it had been the fate of the Gauls, the Germans, and the Britons to be always governed by their Druids and the chiefs of their villages, an ancient kind of barons, not so tyrannical as their successors. These Druids pretended to be mediators between God and man. They enacted laws, they fulminated their excommunications, and sentenced to death. The bishops succeeded, by insensible degrees, to their temporal authority in the Goth and Vandal government. The popes set themselves at their head, and armed with their briefs, their bulls, and reinforced by monks, they made even kings tremble, deposed and assassinated them at pleasure, and employed every artifice to draw into their own purses moneys from all parts of Europe. The weak Ina, one of the tyrants of the Saxon Heptarchy in England, was the first monarch who submitted, in his pilgrimage to Rome, to pay St. Peter's penny (equivalent very near to a French crown) for every house in his dominions. The whole island soon followed his example; England became insensibly one of the Pope's provinces, and the Holy Father used to send from time to time his legates thither to levy exorbitant taxes. At last King John delivered up by a public instrument the kingdom of England to the Pope, who had excommunicated him; but

the barons, not finding their account in this resignation, dethroned the wretched King John and seated Louis, father to St. Louis, King of France, in his place. However, they were soon weary of their new monarch, and accordingly obliged him to return to France.

Whilst that the barons, the bishops, and the popes, all laid waste England, where all were for ruling; the most numerous, the most useful, even the most virtuous, and consequently the most venerable part of mankind, consisting of those who study the laws and the sciences, of traders, of artificers, in a word, of all who were not tyrants—that is, those who are called the people: these, I say, were by them looked upon as so many animals beneath the dignity of the human species. The Commons in those ages were far from sharing in the government, they being villains or peasants, whose labour, whose blood, were the property of their masters who entitled themselves the nobility. The major part of men in Europe were at that time what they are to this day in several parts of the world—they were villains or bondsmen of lords—that is, a kind of cattle bought and sold with the land. Many ages passed away before justice could be done to human nature—before mankind were conscious that it was abominable for many to sow and but few reap. And was not France very happy when the power and authority of those petty robbers was abolished by the lawful authority of kings and of the people?

Happily, in the violent shocks which the divisions between kings and the nobles gave to empires, the chains of nations were more or less heavy. Liberty in England sprang from the quarrels of tyrants. The barons forced King John and King Henry III to grant the famous Magna Carta, the chief design of which was indeed to make kings dependent on the Lords; but then the rest of the nation were a little favoured in it, in order that they might join on proper occasions with their pretended masters. This great charter, which is considered as the sacred origin of the English liberties, shows in itself how little liberty was known.

The title alone proves that the king thought he had a just right to be absolute; and that the barons, and even the clergy, forced him to give up the pretended right, for no other reason but because they were the most powerful.

Magna Carta begins in this style: "We grant, of our own free will, the following privileges to the archbishops, bishops, priors, and barons of our kingdom," etc.

The House of Commons is not once mentioned in the articles of this charter—a proof that it did not yet exist, or that it existed without power. Mention is therein made, by name, of the freemen of England—a

melancholy proof that some were not so. It appears, by Article XXXII, that these pretended freemen owed service to their lords. Such a liberty as this was not many removes from slavery.

By Article XXI, the king ordains that his officers shall not henceforward seize upon, unless they pay for them, the horses and carts of freemen. The people considered this ordinance as a real liberty, though it was a greater tyranny. Henry VII, that happy usurper and great politician, who pretended to love the barons, though he in reality hated and feared them, got their lands alienated. By this means the villains, afterwards acquiring riches by their industry, purchased the estates and country seats of the illustrious peers who had ruined themselves by their folly and extravagance, and all the lands got by insensible degrees into other hands.

The power of the House of Commons increased every day. The families of the ancient peers were at last extinct; and as peers only are properly noble in England, there would be no such thing in strictness of law as nobility in that island, had not the kings created new barons from time to time, and preserved the body of peers, once a terror to them, to oppose them to the Commons, since become so formidable.

All these new peers who compose the higher house receive nothing but their titles from the king, and very few of them have estates in those places whence they take their titles. One shall be Duke of D—, though he has not a foot of land in Dorsetshire; and another is Earl of a village, though he scarce knows where it is situated. The peers have power, but it is only in the parliament house.

There is no such thing here as *haute*, *moyenne*, and *basse justice* [high, middle, and low justice]—that is, a power to judge in all matters civil and criminal; nor a right or privilege of hunting in the grounds of a citizen, who at the same time is not permitted to fire a gun in his own field.

No one is exempted in this country from paying certain taxes because he is a nobleman or a priest. All duties and taxes are settled by the House of Commons, whose power is greater than that of the Peers, though inferior to it in dignity. The spiritual as well as temporal Lords have the liberty to reject a money bill brought in by the Commons; but they are not allowed to alter anything in it, and must either pass or throw it out without restriction. When the bill has passed the Lords and is signed by the King, then the whole nation pays, every man in proportion to his revenue or estate, not according to his title, which would be absurd. There is no such thing as an arbitrary subsidy or poll-tax, but a real tax on the lands, of all which an estimate was made in the reign of the famous King William III.

The land-tax continues still upon the same foot, though the revenue of the lands is increased. Thus no one is tyrannized over, and every one is easy. The feet of the peasants are not bruised by wooden shoes; they eat white bread, are well clothed, and are not afraid of increasing their stock of cattle, nor of tiling their houses, from any apprehension that their taxes will be raised the year following. The annual income of the estates of a great many commoners in England amounts to two hundred thousand livres, and yet these do not think it beneath them to plough the lands which enrich them, and on which they enjoy their liberty.

ON TRADE

As trade enriched the citizens in England, so it contributed to their freedom, and this freedom on the other side extended their commerce, whence arose the grandeur of the state. Trade raised by insensible degrees the naval power, which gives the English a superiority over the seas, and they now are masters of very near two hundred ships of war. Posterity will very probably be surprised to hear that an island whose only produce is a little lead, tin, fuller's-earth, and coarse wool should become so powerful by its commerce as to be able to send, in 1723, three fleets at the same time to three different and far distanced parts of the globe. One before Gibraltar, conquered and still possessed by the English; a second to Porto Bello, to dispossess the King of Spain of the treasures of the West Indies; and a third into the Baltic, to prevent the Northern Powers from coming to an engagement.

At the time when Louis XIV made all Italy tremble, and that his armies, which had already possessed themselves of Savoy and Piedmont, were upon the point of taking Turin, Prince Eugene was obliged to march from the middle of Germany in order to succour Savoy. Having no money, without which cities cannot be either taken or defended, he addressed himself to some English merchants. These, at an hour and a half's warning, lent him five millions, whereby he was enabled to deliver Turin, and to beat the French; after which he wrote the following short letter to the persons who had disbursed him the above-mentioned sums: "Gentlemen, I received your money, and flatter myself that I have laid it out to your satisfaction." Such a circumstance as this raises a just pride in an English merchant, and makes him presume (not without some reason) to compare himself to a Roman citizen; and, indeed, a peer's brother does not think traffic beneath him. When the Lord Townshend was Minister of

State, a brother of his was content to be a city merchant; and at the time that the Earl of Oxford governed Great Britain, his younger brother was no more than a factor in Aleppo, where he chose to live, and where he died. This custom, which begins, however, to be laid aside, appears monstrous to Germans, vainly puffed up with their extraction. These think it morally impossible that the son of an English peer should be no more than a rich and powerful citizen, for all are princes in Germany. There have been thirty highnesses of the same name, all whose patrimony consisted only in their escutcheons and their pride.

In France the title of marquis is given gratis to any one who will accept of it; and whosoever arrives at Paris from the midst of the most remote provinces with money in his purse, and a name terminating in *ac* or *ille*, may strut about and cry, "Such a man as I! A man of my rank and figure!" and may look down upon a trader with sovereign contempt; whilst the trader on the other side, by thus often hearing his profession treated so disdainfully, is fool enough to blush at it. However, I need not say which is most useful to a nation; a lord, powdered in the tip of the mode, who knows exactly at what o'clock the king rises and goes to bed, and who gives himself airs of grandeur and state, at the same time that he is acting the slave in the ante-chamber of a prime minister; or a merchant, who enriches his country, dispatches orders from his counting-house to Surat and Grand Cairo, and contributes to the felicity of the world.

ON INOCULATION

It is inadvertently affirmed in the Christian countries of Europe that the English are fools and madmen. Fools, because they give their children the smallpox to prevent their catching it; and madmen, because they wantonly communicate a certain and dreadful distemper to their children, merely to prevent an uncertain evil. The English, on the other side, call the rest of the Europeans cowardly and unnatural. Cowardly, because they are afraid of putting their children to a little pain; unnatural, because they expose them to die one time or other of the smallpox. But that the reader may be able to judge whether the English or those who differ from them in opinion are in the right, here follows the history of the famed inoculation, which is mentioned with so much dread in France.

The Circassian women have, from time immemorial, communicated the smallpox to their children when not above six months old by making an incision in the arm, and by putting into this incision a pustule, taken care-

fully from the body of another child. This pustule produces the same effect in the arm it is laid in as yeast in a piece of dough; it ferments, and diffuses through the whole mass of blood the qualities with which it is impregnated. The pustules of the child in whom the artificial smallpox has been thus inoculated are employed to communicate the same distemper to others. There is an almost perpetual circulation of it in Circassia; and when unhappily the smallpox has quite left the country, the inhabitants of it are in as great trouble and perplexity as other nations when their harvest has fallen short.

The circumstance that introduced a custom in Circassia, which appears so singular to others, is nevertheless a cause common to all nations–I mean maternal tenderness and interest.

The Circassians are poor, and their daughters are beautiful, and indeed, it is in them they chiefly trade. They furnish with beauties the seraglios of the Turkish Sultan, of the Persian Sophy, and of all those who are wealthy enough to purchase and maintain such precious merchandise. These maidens are very honourably and virtuously instructed to fondle and caress men; are taught dances of a very polite and effeminate kind; and how to heighten by the most voluptuous artifices the pleasures of their disdainful masters for whom they are designed. These unhappy creatures repeat their lesson to their mothers, in the same manner as little girls among us repeat their catechism without understanding one word they say.

Now it often happened that, after a father and mother had taken the utmost care of the education of their children, they were frustrated of all their hopes in an instant. The smallpox getting into the family, one daughter died of it, another lost an eye, a third had a great nose at her recovery, and the unhappy parents were completely ruined. Even, frequently, when the smallpox became epidemical, trade was suspended for several years, which thinned very considerably the seraglios of Persia and Turkey.

A trading nation is always watchful over its own interests, and grasps at every discovery that may be of advantage to its commerce. The Circassians observed that scarce one person in a thousand was ever attacked by a smallpox of a violent kind. That some, indeed, had this distemper very favourably three or four times, but never twice so as to prove fatal; in a word, that no one ever had it in a violent degree twice in his life. They observed further, that when the smallpox is of the milder sort, and the pustules have only a tender, delicate skin to break through, they never

leave the least scar in the face. From these natural observations they concluded that in case an infant of six months or a year old should have a milder sort of smallpox, he would not die of it, would not be marked, nor be ever afflicted with it again.

In order, therefore, to preserve the life and beauty of their children, the only thing remaining was to give them the smallpox in their infant years. This they did by inoculating in the body of a child a pustule taken from the most regular and at the same time the most favourable sort of smallpox that could be procured.

The experiment could not possibly fail. The Turks, who are people of good sense, soon adopted this custom, insomuch that at this time there is not a bassa in Constantinople but communicates the smallpox to his children of both sexes immediately upon their being weaned.

Some pretend that the Circassians borrowed this custom anciently from the Arabians; but we shall leave the clearing up of this point of history to some learned Benedictine, who will not fail to compile a great many folios on this subject, with the several proofs or authorities. All I have to say upon it is that, in the beginning of the reign of King George I, the Lady Wortley Montagu, a woman of as fine a genius, and endued with as great a strength of mind, as any of her sex in the British Kingdoms, being with her husband, who was ambassador at the Porte, made no scruple to communicate the smallpox to an infant of which she was delivered in Constantinople.

The chaplain represented to his lady, but to no purpose, that this was an un-Christian operation, and therefore that it could succeed with none but infidels. However, it had the most happy effect upon the son of the Lady Wortley Montagu, who, at her return to England, communicated the experiment to the Princess of Wales, now Queen of England. It must be confessed that this princess abstracted from her crown and titles, was born to encourage the whole circle of arts, and to do good to mankind. She appears as an amiable philosopher on the throne, having never let slip one opportunity of improving the great talents she received from Nature, nor of exerting her beneficence. It is she who, being informed that a daughter of Milton was living, but in miserable circumstances, immediately sent her a considerable present. It is she who protects the learned Father Courayer. It is she who condescended to attempt a reconciliation between Dr. Clark and Mr. Leibnitz. The moment this princess heard of inoculation, she caused an experiment of it to be made on four criminals sentenced to die, and by that means preserved their lives doubly; for she

not only saved them from the gallows, but by means of this artificial smallpox prevented their ever having that distemper in a natural way, with which they would very probably have been attacked one time or other, and might have died of in a more advanced age.

The princess being assured of the usefulness of this operation, caused her own children to be inoculated. A great part of the kingdom followed her example, and since that time ten thousand children, at least, of persons of condition owe in this manner their lives to her Majesty and to the Lady Wortley Montagu; and as many of the fair sex are obliged to them for their beauty.

Upon a general calculation, threescore persons in every hundred have the smallpox. Of these threescore, twenty die of it in the most favourable season of life, and as many more wear the disagreeable remains of it in their faces so long as they live. Thus, a fifth part of mankind either die or are disfigured by this distemper. But it does not prove fatal to so much as one among those who are inoculated in Turkey or in England, unless the patient be infirm, or would have died had not the experiment been made upon him. Besides, no one is disfigured, no one has the smallpox a second time, if the inoculation was perfect. It is therefore certain that had the lady of some French ambassador brought this secret from Constantinople to Paris, the nation would have been for ever obliged to her. Then the Duke de Villequier, father to the Duke d'Aumont, who enjoys the most vigorous constitution, and is the healthiest man in France, would not have been cut off in the flower of his age.

The Prince of Soubise, happy in the finest flush of health, would not have been snatched away at five-and-twenty, nor the Dauphin, grandfather to Louis XV, have been laid in his grave in his fiftieth year. Twenty thousand persons whom the smallpox swept away at Paris in 1723 would have been alive at this time. But are not the French fond of life, and is beauty so inconsiderable an advantage as to be disregarded by the ladies? It must be confessed that we are an odd kind of people. Perhaps our nation will imitate ten years hence this practice of the English, if the clergy and the physicians will but give them leave to do it; or possibly our countrymen may introduce inoculation three months hence in France out of mere whim, in case the English should discontinue it through fickleness.

I am informed that the Chinese have practised inoculation these hundred years, a circumstance that argues very much in its favour, since they are thought to be the wisest and best governed people in the world. The Chinese, indeed, do not communicate this distemper by inoculation, but at the nose, in the same manner as we take snuff. This is a more

agreeable way, but then it produces the like effects; and proves at the same time that had inoculation been practised in France it would have saved the lives of thousands.

ON THE LORD BACON

Not long since the trite and frivolous question following was debated in a very polite and learned company, viz., Who was the greatest man, Caesar, Alexander, Tamerlane, Cromwell, etc.?

Somebody answered that Sir Isaac Newton excelled them all. The gentleman's assertion was very just; for if true greatness consists in having received from heaven a mighty genius, and in having employed it to enlighten our own mind and that of others, a man like Sir Isaac Newton, whose equal is hardly found in a thousand years, is the truly great man. And those politicians and conquerors (and all ages produce some) were generally so many illustrious wicked men. That man claims our respect who commands over the minds of the rest of the world by the force of truth, not those who enslave their fellow-creatures: he who is acquainted with the universe, not they who deface it.

Since, therefore, you desire me to give you an account of the famous personages whom England has given birth to, I shall begin with Lord Bacon, Mr. Locke, Sir Isaac Newton, etc. Afterwards the warriors and ministers of state shall come in their order.

I must begin with the celebrated Viscount Verulam, known in Europe by the name of Bacon, which was that of his family. His father had been Lord Keeper, and himself was a great many years Lord Chancellor under King James I. Nevertheless, amidst the intrigues of a court, and the affairs of his exalted employment, which alone were enough to engross his whole time, he yet found so much leisure for study as to make himself a great philosopher, a good historian, and an elegant writer; and a still more surprising circumstance is that he lived in an age in which the art of writing justly and elegantly was little known, much less true philosophy. Lord Bacon, as is the fate of man, was more esteemed after his death than in his lifetime. His enemies were in the British court, and his admirers were foreigners.

When the Marquis d'Effiat attended in England upon the Princess Henrietta Maria, daughter to Henry IV, whom King Charles I had married, that minister went and visited the Lord Bacon, who, being at that time sick in his bed, received him with the curtains shut close. "You resemble the angels," said the Marquis to him; "we hear those beings

spoken of perpetually, and we believe them superior to men, but are never allowed the consolation to see them."

You know that this great man was accused of a crime very unbecoming a philosopher: I mean bribery and extortion. You know that he was sentenced by the House of Lords to pay a fine of about four hundred thousand French livres, to lose his peerage and his dignity of Chancellor; but in the present age the English revere his memory to such a degree, that they will scarce allow him to have been guilty. In case you should ask what are my thoughts on this head, I shall answer you in the words which I heard the Lord Bolingbroke use on another occasion. Several gentlemen were speaking, in his company, of the avarice with which the late Duke of Marlborough had been charged, some examples whereof being given, the Lord Bolingbroke was appealed to (who, having been in the opposite party, might perhaps, without the imputation of indecency, have been allowed to clear up that matter): "He was so great a man," replied his lordship, "that I have forgot his vices."

I shall therefore confine myself to those things which so justly gained Lord Bacon the esteem of all Europe.

The most singular and the best of all his pieces is that which, at this time, is the most useless and the least read I mean his *Novum Scientiarum Organum.* This is the scaffold with which the new philosophy was raised; and when the edifice was built, part of it at least, the scaffold was no longer of service.

The Lord Bacon was not yet acquainted with nature, but then he knew, and pointed out, the several paths that lead to it. He had despised in his younger years the thing called philosophy in the universities, and did all that lay in his power to prevent those societies of men instituted to improve human reason from depraving it by their quiddities, their horrors of the vacuum, their substantial forms, and all those impertinent terms which not only ignorance had rendered venerable, but which had been made sacred by their being ridiculously blended with religion.

He is the father of experimental philosophy. It must, indeed, be confessed that very surprising secrets had been found out before his time—the sea-compass, printing, engraving on copper plates, oil-painting, looking-glasses; the art of restoring, in some measure, old men to their sight by spectacles; gunpowder, etc., had been discovered. A new world has been sought for, found, and conquered. Would not one suppose that these sublime discoveries had been made by the greatest philosophers, and in ages much more enlightened than the present? But it was far otherwise; all these great changes happened in the most stupid and barbarous times. Chance only gave birth to most of those inventions; and

it is very probable that what is called chance contributed very much to the discovery of America; at least, it has been always thought that Christopher Columbus undertook his voyage merely on the relation of a captain of a ship which a storm had driven as far westward as the Caribbean Islands. Be this as it will, men had sailed round the world, and could destroy cities by an artificial thunder more dreadful than the real one; but, then, they were not acquainted with the circulation of the blood, the weight of the air, the laws of motion, light, the number of our planets, etc. And a man who maintained a thesis on Aristotle's "Categories," on the universals *a parte rei* [from the material side], or such-like nonsense, was looked upon as a prodigy.

The most astonishing, the most useful inventions, are not those which reflect the greatest honour on the human mind. It is to a mechanical instinct, which is found in many men, and not to true philosophy, that most arts owe their origin.

The discovery of fire, the art of making bread, of melting and preparing metals, of building houses, and the invention of the shuttle, are infinitely more beneficial to mankind than printing or the sea-compass: and yet these arts were invented by uncultivated, savage men.

What a prodigious use the Greeks and Romans made afterwards of mechanics! Nevertheless, they believed that there were crystal heavens, that the stars were small lamps which sometimes fell into the sea, and one of their greatest philosophers, after long researches, found that the stars were so many flints which had been detached from the earth.

In a word, no one before the Lord Bacon was acquainted with experimental philosophy, nor with the several physical experiments which have been made since his time. Scarce one of them but is hinted at in his work, and he himself had made several. He made a kind of pneumatic engine, by which he guessed the elasticity of the air. He approached, on all sides as it were, to the discovery of its weight, and had very near attained it, but some time after Torricelli seized upon this truth. In a little time experimental philosophy began to be cultivated on a sudden in most parts of Europe. It was a hidden treasure which the Lord Bacon had some notion of, and which all the philosophers, encouraged by his promises, endeavoured to dig up.

But that which surprised me most was to read in his work, in express terms, the new attraction, the invention of which is ascribed to Sir Isaac Newton.

We must search, says Lord Bacon, whether there may not be a kind of magnetic power which operates between the earth and heavy bodies, between the moon and the ocean, between the planets, etc. In another place

he says either heavy bodies must be carried towards the centre of the earth, or must be reciprocally attracted by it; and in the latter case it is evident that the nearer bodies, in their falling, draw towards the earth, the stronger they will attract one another. We must, says he, make an experiment to see whether the same clock will go faster on the top of a mountain or at the bottom of a mine; whether the strength of the weights decreases on the mountain and increases in the mine. It is probable that the earth has a true attractive power.

This forerunner in philosophy was also an elegant writer, an historian, and a wit.

His moral essays are greatly esteemed, but they were drawn up in the view of instructing rather than of pleasing; and, as they are not a satire upon mankind, like La Rochefoucauld's *Maxims*, nor written upon a sceptical plan, like Montaigne's *Essays*, they are not so much read as those two ingenious authors.

His *History of Henry VII* was looked upon as a masterpiece, but how is it possible that some persons can presume to compare so little a work with the history of our illustrious Thuanus?

Speaking about the famous impostor Perkin, son to a converted Jew, who assumed boldly the name and title of Richard IV, King of England, at the instigation of the Duchess of Burgundy, and who disputed the crown with Henry VII, the Lord Bacon writes as follows:

> At this time the King began again to be haunted with sprites, by the magic and curious arts of the Lady Margaret, who raised up the ghost of Richard, Duke of York, second son to King Edward IV, to walk and vex the King.
>
> After such time as she (Margaret of Burgundy) thought he (Perkin Warbeck) was perfect in his lesson, she began to cast with herself from what coast this blazing star should first appear, and at what time it must be upon the horizon of Ireland; for there had the like meteor strong influence before.

Methinks our sagacious Thuanus does not give in to such fustian, which formerly was looked upon as sublime, but in this age is justly called nonsense.

ON MR. LOCKE

Perhaps no man ever had a more judicious or more methodical genius, or was a more acute logician than Mr. Locke, and yet he was not deeply skilled in the mathematics. This great man could never subject himself to

the tedious fatigue of calculations, nor to the dry pursuit of mathematical truths, which do not at first present any sensible objects to the mind; and no one has given better proofs than he that it is possible for a man to have a geometrical head without the assistance of geometry. Before his time, several great philosophers had declared, in the most positive terms, what the soul of man is; but as these absolutely knew nothing about it, they might very well be allowed to differ entirely in opinion from one another.

In Greece, the infant seat of arts and of errors, and where the grandeur as well as folly of the human mind went such prodigious lengths, the people used to reason about the soul in the very same manner as we do.

The divine Anaxagoras, in whose honour an altar was erected for his having taught mankind that the sun was greater than Peloponnesus, that snow was black, and that the heavens were of stone, affirmed that the soul was an aerial spirit, but at the same time immortal. Diogenes (not he who was a cynical philosopher after having coined base money) declared that the soul was a portion of the substance of God: an idea which we must confess was very sublime. Epicurus maintained that it was composed of parts in the same manner as the body.

Aristotle, who has been explained a thousand ways, because he is unintelligible, was of opinion, according to some of his disciples, that the understanding in all men is one and the same substance.

The divine Plato, master of the divine Aristotle–and the divine Socrates, master of the divine Plato–used to say that the soul was corporeal and eternal. No doubt but the demon of Socrates had instructed him in the nature of it. Some people, indeed, pretend that a man who boasted his being attended by a familiar genius must infallibly be either a knave or a madman, but this kind of people are seldom satisfied with anything but reason.

With regard to the Fathers of the Church, several in the primitive ages believed that the soul was human, and the angels and God corporeal. Men naturally improve upon every system. St. Bernard, as Father Mabillon confesses, taught that the soul after death does not see God in the celestial regions, but converses with Christ's human nature only. However, he was not believed this time on his bare word; the adventure of the crusade having a little sunk the credit of his oracles. Afterwards a thousand schoolmen arose, such as the Irrefragable Doctor, the Subtile Doctor, the Angelic Doctor, the Seraphic Doctor, and the Cherubic Doctor, who were all sure that they had a very clear and distinct idea of the soul, and yet wrote in such a manner that one would conclude they were resolved no one should understand a word in their writings. Our Descartes, born to

discover the errors of antiquity, and at the same time to substitute his own; and hurried away by that systematic spirit which throws a cloud over the minds of the greatest men, thought he had demonstrated that the soul is the same thing as thought, in the same manner as matter, in his opinion, is the same as extension. He asserted that man thinks eternally, and that the soul, at its coming into the body, is informed with the whole series of metaphysical notions: knowing God, infinite space, possessing all abstract ideas—in a word, completely endued with the most sublime lights, which it unhappily forgets at its issuing from the womb.

Father Malebranche, in his sublime illusions, not only admitted innate ideas, but did not doubt of our living wholly in God, and that God is, as it were, our soul.

Such a multitude of reasoners having written the romance of the soul, a sage at last arose, who gave, with an air of the greatest modesty, the history of it. Mr. Locke has displayed the human soul in the same manner as an excellent anatomist explains the springs of the human body. He everywhere takes the light of physics for his guide. He sometimes presumes to speak affirmatively, but then he presumes also to doubt. Instead of concluding at once what we know not, he examines gradually what we would know. He takes an infant at the instant of his birth; he traces, step by step, the progress of his understanding; examines what things he has in common with beasts, and what he possesses above them. Above all, he consults himself: the being conscious that he himself thinks.

"I shall leave," says he, "to those who know more of this matter than myself, the examining whether the soul exists before or after the organization of our bodies. But I confess that it is my lot to be animated with one of those heavy souls which do not think always; and I am even so unhappy as not to conceive that it is more necessary the soul should think perpetually than that bodies should be for ever in motion."

With regard to myself, I shall boast that I have the honour to be as stupid in this particular as Mr. Locke. No one shall ever make me believe that I think always; and I am as little inclined as he could be to fancy that some weeks after I was conceived I was a very learned soul, knowing at that time a thousand things which I forgot at my birth, and possessing when in the womb (though to no manner of purpose) knowledge which I lost the instant I had occasion for it, and which I have never since been able to recover perfectly.

Mr. Locke, after having destroyed innate ideas, after having fully renounced the vanity of believing that we think always, after having laid down—from the most solid principles—that ideas enter the mind

through the senses, having examined our simple and complex ideas, having traced the human mind through its several operations, having shown that all the languages in the world are imperfect, and the great abuse that is made of words every moment, he at last comes to consider the extent or rather the narrow limits of human knowledge. It was in this chapter he presumed to advance, but very modestly, the following words: "We shall, perhaps, never be capable of knowing whether a being, purely material, thinks or not." This sage assertion was, by more divines than one, looked upon as a scandalous declaration that the soul is material and mortal. Some Englishmen, devout after their way, sounded an alarm. The superstitious are the same in society as cowards in an army; they themselves are seized with a panic fear, and communicate it to others. It was loudly exclaimed that Mr. Locke intended to destroy religion; nevertheless, religion had nothing to do in the affair, it being a question purely philosophical, altogether independent of faith and revelation. Mr. Locke's opponents needed but to examine, calmly and impartially, whether the declaring that matter can think implies a contradiction, and whether God is able to communicate thought to matter. But divines are too apt to begin their declarations with saying that God is offended when people differ from them in opinion; in which they too much resemble the bad poets, who used to declare publicly that Boileau spoke irreverently of Louis XIV, because he ridiculed their stupid productions. Bishop Stillingfleet got the reputation of a calm and unprejudiced divine because he did not expressly make use of injurious terms in his dispute with Mr. Locke. That divine entered the lists against him, but was defeated; for he argued as a schoolman, and Locke as a philosopher, who was perfectly acquainted with the strong as well as the weak side of the human mind, and who fought with weapons whose temper he knew. If I might presume to give my opinion on so delicate a subject after Mr. Locke, I would say that men have long disputed on the nature and the immortality of the soul. With regard to its immortality, it is impossible to give a demonstration of it, since its nature is still the subject of controversy; which, however, must be thoroughly understood before a person can be able to determine whether it be immortal or not. Human reason is so little able, merely by its own strength, to demonstrate the immortality of the soul that it was absolutely necessary religion should reveal it to us. It is of advantage to society in general that mankind should believe the soul to be immortal; faith commands us to do this; nothing more is required, and the matter is cleared up at once. But it is otherwise with respect to its nature; it is of little importance to religion, which only requires the soul to be virtuous, whatever

substance it may be made of. It is a clock which is given us to regulate, but the artist has not told us of what materials the spring of this clock is composed.

I am a body, and, I think, that's all I know of the matter. Shall I ascribe to an unknown cause what I can so easily impute to the only second cause I am acquainted with? Here all the school philosophers interrupt me with their arguments, and declare that there is only extension and solidity in bodies, and that there they can have nothing but motion and figure. Now motion, figure, extension and solidity cannot form a thought, and consequently the soul cannot be matter. All this so often repeated mighty series of reasoning amounts to no more than this: I am absolutely ignorant what matter is; I guess, but imperfectly, some properties of it; now I absolutely cannot tell whether these properties may be joined to thought. As I therefore know nothing, I maintain positively that matter cannot think. In this manner do the schools reason.

Mr. Locke addressed these gentlemen in the candid, sincere manner following: At least confess yourselves to be as ignorant as I. Neither your imaginations nor mine are able to comprehend in what manner a body is susceptible of ideas; and do you conceive better in what manner a substance, of what kind soever, is susceptible of them? As you cannot comprehend either matter or spirit, why will you presume to assert anything?

The superstitious man comes afterwards and declares that all those must be burned for the good of their souls who so much as suspect that it is possible for the body to think without any foreign assistance. But what would these people say should they themselves be proved irreligious? And indeed, what man can presume to assert, without being guilty at the same time of the greatest impiety, that it is impossible for the Creator to form matter with thought and sensation? Consider only, I beg you, what a dilemma you bring yourselves into, you who confine in this manner the power of the Creator. Beasts have the same organs, the same sensations, the same perceptions as we; they have memory, and combine certain ideas. In case it was not in the power of God to animate matter, and inform it with sensation, the consequence would be either that beasts are mere machines or that they have a spiritual soul.

Methinks it is clearly evident that beasts cannot be mere machines, which I prove thus. God has given to them the very same organs of sensation as to us: if therefore they have no sensation, God has created a useless thing; now according to your own confession God does nothing in vain; He therefore did not create so many organs of sensation, merely for

them to be uninformed with this faculty; consequently beasts are not mere machines. Beasts, according to your assertion, cannot be animated with a spiritual soul; you will, therefore, in spite of yourself, be reduced to this only assertion, viz., that God has endued the organs of beasts, who are mere matter, with the faculties of sensation and perception, which you call instinct in them. But why may not God, if He pleases, communicate to our more delicate organs that faculty of feeling, perceiving, and thinking which we call human reason? To whatever side you turn, you are forced to acknowledge your own ignorance, and the boundless power of the Creator. Exclaim therefore no more against the sage, the modest philosophy of Mr. Locke, which so far from interfering with religion, would be of use to demonstrate the truth of it, in case religion wanted any such support. For what philosophy can be of a more religious nature than that, which affirming nothing but what it conceives clearly, and conscious of its own weakness, declares that we must always have recourse to God in our examining of the first principles?

Besides, we must not be apprehensive that any philosophical opinion will ever prejudice the religion of a country. Though our demonstrations clash directly with our mysteries, that is nothing to the purpose, for the latter are not less revered upon that account by our Christian philosophers, who know very well that the objects of reason and those of faith are of a very different nature. Philosophers will never form a religious sect, the reason of which is their writings are not calculated for the vulgar, and they themselves are free from enthusiasm. If we divide mankind into twenty parts, it will be found that nineteen of these consist of persons employed in manual labour, who will never know that such a man as Mr. Locke existed. In the remaining twentieth part how few are readers? And among such as are so, twenty amuse themselves with romances to one who studies philosophy. The thinking part of mankind is confined to a very small number, and these will never disturb the peace and tranquillity of the world.

Neither Montaigne, Locke, Bayle, Spinoza, Hobbes, the Lord Shaftesbury, Collins, nor Toland lighted up the firebrand of discord in their countries; this has generally been the work of divines, who being at first puffed up with the ambition of becoming chiefs of a sect, soon grew very desirous of being at the head of a party. But what do I say? All the works of the modern philosophers put together will never make so much noise as even the dispute which arose among the Franciscans, merely about the fashion of their sleeves and of their cowls.

ON DESCARTES AND SIRI ISAAC NEWTON

A Frenchman who arrives in London will find philosophy, like everything else, very much changed there. He had left the world a plenum, and he now finds it a vacuum. At Paris the universe is seen composed of vortices of subtile matter; but nothing like it is seen in London. In France it is the pressure of the moon that causes the tides; but in England it is the sea that gravitates towards the moon; so that when you think that the moon should make it flood with us, those gentlemen fancy it should be ebb, which very unluckily cannot be proved. For to be able to do this, it is necessary the moon and the tides should have been inquired into at the very instant of the creation.

You will observe further that the sun, which in France is said to have nothing to do in the affair, comes in here for very near a quarter of its assistance. According to your Cartesians, everything is performed by an impulsion, of which we have very little notion; and according to Sir Isaac Newton, it is by an attraction, the cause of which is as much unknown to us. At Paris you imagine that the earth is shaped like a melon, or of an oblique figure; at London it has an oblate one. A Cartesian declares that light exists in the air; but a Newtonian asserts that it comes from the sun in six minutes and a half. The several operations of your chemistry are performed by acids, alkalies and subtile matter; but attraction prevails even in chemistry among the English.

The very essence of things is totally changed. You neither are agreed upon the definition of the soul, nor on that of matter. Descartes, as I observed in my last, maintains that the soul is the same thing with thought, and Mr. Locke has given a pretty good proof of the contrary.

Descartes asserts further that extension alone constitutes matter, but Sir Isaac adds solidity to it.

How furiously contradictory are these opinions!

Non nostrum inter vos tantas componere lites.

Virgil, Eclog. III.

'Tis not for us to end such great disputes.

This famous Newton, this destroyer of the Cartesian system, died in March, *anno* 1727. His countrymen honoured him in his lifetime, and interred him as though he had been a king who had made his people happy.

The English read with the highest satisfaction, and translated into their

tongue, the eulogium of Sir Isaac Newton, which M. de Fontenelle spoke in the Academy of Sciences. M. de Fontenelle presides as judge over philosophers; and the English expected his decision, as a solemn declaration of the superiority of the English philosophy over that of the French. But when it was found that this gentleman had compared Descartes to Sir Isaac, the whole Royal Society in London rose up in arms. So far from acquiescing with M. Fontenelle's judgment, they criticized his discourse. And even several (who, however, were not the ablest philosophers in that body) were offended at the comparison, and for no other reason but because Descartes was a Frenchman.

It must be confessed that these two great men differed very much in conduct, in fortune, and in philosophy.

Nature had indulged Descartes with a shining and strong imagination, whence he became a very singular person both in private life and in his manner of reasoning. This imagination could not conceal itself even in his philosophical works, which are everywhere adorned with very shining, ingenious metaphors and figures. Nature had almost made him a poet; and indeed he wrote a piece of poetry for the entertainment of Christina, Queen of Sweden, which however was suppressed in honour to his memory.

He embraced a military life for some time, and afterwards becoming a complete philosopher, he did not think the passion of love derogatory to his character. He had by his mistress a daughter called Froncine, who died young, and was very much regretted by him. Thus he experienced every passion incident to mankind.

He was a long time of opinion that it would be necessary for him to fly from the society of his fellow creatures, and especially from his native country, in order to enjoy the happiness of cultivating his philosophical studies in full liberty.

Descartes was very right, for his contemporaries were not knowing enough to improve and enlighten his understanding, and were capable of little else than of giving him uneasiness.

He left France purely to go in search of truth, which was then persecuted by the wretched philosophy of the schools. However, he found that reason was as much disguised and depraved in the universities of Holland, into which he withdrew, as in his own country. For at the time that the French condemned the only propositions of his philosophy which were true, he was persecuted by the pretended philosophers of Holland, who understood him no better; and who, having a nearer view of his glory, hated his person the more, so that he was obliged to leave Utrecht.

Descartes was injuriously accused of being an atheist, the last refuge of religious scandal: and he who had employed all the sagacity and penetration of his genius in searching for new proofs of the existence of a God was suspected to believe there was no such Being.

Such a persecution from all sides must necessarily suppose a most exalted merit as well as a very distinguished reputation, and indeed he possessed both. Reason at that time darted a ray upon the world through the gloom of the schools, and the prejudices of popular superstition. At last his name spread so universally that the French were desirous of bringing him back into his native country by rewards, and accordingly offered him an annual pension of a thousand crowns. Upon these hopes Descartes returned to France; paid the fees of his patent, which was sold at that time, but no pension was settled upon him. Thus disappointed, he returned to his solitude in North Holland, where he again pursued the study of philosophy, whilst the great Galileo, at fourscore years of age, was groaning in the prisons of the Inquisition, only for having demonstrated the earth's motion.

At last Descartes was snatched from the world in the flower of his age at Stockholm. His death was owing to a bad regimen, and he expired in the midst of some literati who were his enemies, and under the hands of a physician to whom he was odious.

The progress of Sir Isaac Newton's life was quite different. He lived happy, and very much honoured in his native country, to the age of fourscore and five years.

It was his peculiar felicity, not only to be born in a country of liberty, but in an age when all scholastic impertinences were banished from the world. Reason alone was cultivated, and mankind could only be his pupil, not his enemy.

One very singular difference in the lives of these two great men is that Sir Isaac, during the long course of years he enjoyed, was never sensible to any passion, was not subject to the common frailties of mankind, nor ever had any commerce with women—a circumstance which was assured me by the physician and surgeon who attended him in his last moments.

We may admire Sir Isaac Newton on this occasion, but then we must not censure Descartes.

The opinion that generally prevails in England with regard to these new philosophers is that the latter was a dreamer, and the former a sage.

Very few people in England read Descartes, whose works indeed are now useless. On the other side, but a small number peruse those of Sir Isaac, because to do this the student must be deeply skilled in the

mathematics, otherwise those works will be unintelligible to him. But notwithstanding this, these great men are the subject of everyone's discourse. Sir Isaac Newton is allowed every advantage, whilst Descartes is not indulged a single one. According to some, it is to the former that we owe the discovery of a vacuum, that the air is a heavy body, and the invention of telescopes. In a word, Sir Isaac Newton is here as the Hercules of fabulous story, to whom the ignorant ascribed all the feats of ancient heroes.

In a critique that was made in London on M. de Fontenelle's discourse, the writer presumed to assert that Descartes was not a great geometrician. Those who make such a declaration may justly be reproached with flying in their master's face. Descartes extended the limits of geometry as far beyond the place where he found them as Sir Isaac did after him. The former first taught the method of expressing curves by equations. This geometry which, thanks to him for it, is now grown common was so abstruse in his time that not so much as one professor would undertake to explain it; and Schotten in Holland, and Format in France, were the only men who understood it.

He applied this geometrical and inventive genius to dioptrics, which, when treated of by him, became a new art. And if he was mistaken in some things, the reason of that is a man who discovers a new tract of land cannot at once know all the properties of the soil. Those who come after him, and make these lands fruitful, are at least obliged to him for the discovery. I will not deny but that there are innumerable errors in the rest of Descartes' works.

Geometry was a guide he himself had in some measure fashioned, which would have conducted him safely through the several paths of natural philosophy. Nevertheless, he at last abandoned this guide, and gave entirely into the humour of forming hypotheses; and then philosophy was no more than an ingenious romance, fit only to amuse the ignorant. He was mistaken in the nature of the soul, in the proofs of the existence of a God, in matter, in the laws of motion, and in the nature of light. He admitted innate ideas, he invented new elements, he created a world; he made man according to his own fancy; and it is justly said that the man of Descartes is, in fact, that of Descartes only, very different from the real one.

He pushed his metaphysical errors so far as to declare that two and two make four for no other reason but because God would have it so. However, it will not be making him too great a compliment if we affirm that he was valuable even in his mistakes. He deceived himself, but then

it was at least in a methodical way. He destroyed all the absurd chimeras with which youth had been infatuated for two thousand years. He taught his contemporaries how to reason, and enabled them to employ his own weapons against himself. If Descartes did not pay in good money, he however did great service in crying down that of a base alloy.

I indeed believe that very few will presume to compare his philosophy in any respect with that of Sir Isaac Newton. The former is an essay, the latter a masterpiece. But then the man who first brought us to the path of truth was perhaps as great a genius as he who afterwards conducted us through it.

Descartes gave sight to the blind. These saw the errors of antiquity and of the sciences. The path he struck out is since become boundless. Robault's little work was, during some years, a complete system of physics; but now all the Transactions of the several academies in Europe put together do not form so much as the beginning of a system. In fathoming this abyss no bottom has been found. We are now to examine what discoveries Sir Isaac Newton has made in it.

ON ATTRACTION

The discoveries which gained Sir Isaac Newton so universal a reputation relate to the system of the world, to light, to geometrical infinities, and lastly, to chronology, with which he used to amuse himself after the fatigue of his severer studies.

I will now acquaint you (without prolixity if possible) with the few things I have been able to comprehend of all these sublime ideas. With regard to the system of our world, disputes were a long time maintained on the cause that turns the planets and keeps them in their orbits, and on those causes which make all bodies here below descend towards the surface of the earth.

The system of Descartes, explained and improved since his time, seemed to give a plausible reason for all those phenomena; and this reason seemed more just, as it is simple and intelligible to all capacities. But in philosophy, a student ought to doubt of the things he fancies he understands too easily, as much as of those he does not understand.

Gravity, the falling of accelerated bodies on the earth, the revolution of the planets in their orbits, their rotations round their axis, all this is mere motion. Now motion cannot perhaps be conceived any otherwise than by impulsion; therefore all those bodies must be impelled. But by what are they impelled? All space is full, it therefore is filled with a very subtile

matter, since this is imperceptible to us; this matter goes from west to east, since all the planets are carried from west to east. Thus from hypothesis to hypothesis, from one appearance to another, philosophers have imagined a vast whirlpool of subtile matter, in which the planets are carried round the sun; they also have created another particular vortex which floats in the great one, and which turns daily round the planets. When all this is done, it is pretended that gravity depends on this diurnal motion; for, say these, the velocity of the subtile matter that turns round our little vortex must be seventeen times more rapid than that of the earth; or, in case its velocity is seventeen times greater than that of the earth, its centrifugal force must be vastly greater, and consequently impel all bodies towards the earth. This is the cause of gravity, according to the Cartesian system. But the theorist, before he calculated the centrifugal force and velocity of the subtile matter, should first have been certain that it existed.

Sir Isaac Newton seems to have destroyed all these great and little vortices, both that which carries the planets round the sun, as well as the other which supposes every planet to turn on its own axis.

First, with regard to the pretended little vortex of the earth, it is demonstrated that it must lose its motion by insensible degrees; it is demonstrated that if the earth swims in a fluid its density must be equal to that of the earth; and in case its density be the same, all the bodies we endeavour to move must meet with an insuperable resistance.

With regard to the great vortices, they are still more chimerical, and it is impossible to make them agree with Kepler's law, the truth of which has been demonstrated. Sir Isaac shows that the revolution of the fluid in which Jupiter is supposed to be carried is not the same with regard to the revolution of the fluid of the earth as the revolution of Jupiter with respect to that of the earth. He proves that as the planets make their revolutions in ellipses, and consequently being at a much greater distance one from the other in their aphelia and a little nearer in their perihelia, the earth's velocity, for instance, ought to be greater when it is nearer Venus and Mars, because the fluid that carries it along, being then more pressed, ought to have a greater motion; and yet it is even then that the earth's motion is slower.

He proves that there is no such thing as a celestial matter which goes from west to east, since the comets traverse those spaces, sometimes from east to west, and at other times from north to south.

In fine, the better to resolve, if possible, every difficulty, he proves, and even by experiments, that it is impossible there should be a plenum, and

brings back the vacuum, which Aristotle and Descartes had banished from the world.

Having by these and several other arguments destroyed the Cartesian vortices, he despaired of ever being able to discover whether there is a secret principle in nature which, at the same time, is the cause of the motion of all celestial bodies, and that of gravity on the earth. But being retired in 1666, upon account of the Plague, to a solitude near Cambridge, as he was walking one day in his garden and saw some fruits fall from a tree, he fell into a profound meditation on that gravity, the cause of which had so long been sought, but in vain, by all the philosophers, whilst the vulgar think there is nothing mysterious in it. He said to himself that from what height soever in our hemisphere those bodies might descend, their fall would certainly be in the progression discovered by Galileo; and the spaces they run through would be as the square of the times. Why may not this power which causes heavy bodies to descend, and is the same without any sensible diminution at the remotest distance from the centre of the earth, or on the summits of the highest mountains, why, said Sir Isaac, may not this power extend as high as the moon? And in case its influence reaches so far, is it not very probable that this power retains it in its orbit, and determines its motion? But in case the moon obeys this principle (whatever it be) may we not conclude very naturally that the rest of the planets are equally subject to it? In case this power exists (which besides is proved) it must increase in an inverse ratio of the squares of the distances. All, therefore, that remains is to examine how far a heavy body which should fall upon the earth from a moderate height would go, and how far in the same time a body which should fall from the orbit of the moon would descend. To find this, nothing is wanted but the measure of the earth, and the distance of the moon from it.

Thus Sir Isaac Newton reasoned. But at that time the English had but a very imperfect measure of our globe, and depended on the uncertain supposition of mariners, who computed a degree to contain but sixty English miles, whereas it consists in reality of near seventy. As this false computation did not agree with the conclusions which Sir Isaac intended to draw from them, he laid aside this pursuit. A half-learned philosopher, remarkable only for his vanity, would have made the measure of the earth agree, anyhow, with his system. Sir Isaac, however, chose rather to quit the researches he was then engaged in. But after Mr. Picard had measured the earth exactly, by tracing that meridian which redounds so much to the honour of the French, Sir Isaac Newton resumed his former reflections, and found his account in Mr. Picard's calculation.

A circumstance which has always appeared wonderful to me is that

such sublime discoveries should have been made by the sole assistance of a quadrant and a little arithmetic.

The circumference of the earth is 123,249,600 feet. This, among other things, is necessary to prove the system of attraction.

The instant we know the earth's circumference, and the distance of the moon, we know that of the moon's orbit, and the diameter of this orbit. The moon performs its revolution in that orbit in twenty-seven days, seven hours, forty-three minutes. It is demonstrated that the moon in its mean motion makes a hundred and fourscore and seven thousand nine hundred and sixty feet (of Paris) in a minute. It is likewise demonstrated, by a known theorem, that the central force which should make a body fall from the height of the moon would make its velocity no more than fifteen Paris feet in a minute of time. Now if the law by which bodies gravitate and attract one another in an inverse ratio to the squares of the distances be true, if the same power acts according to that law throughout all nature, it is evident that as the earth is sixty semi-diameters distant from the moon, a heavy body must necessarily fall (on the earth) fifteen feet in the first second, and fifty-four thousand feet in the first minute.

Now a heavy body falls, in reality, fifteen feet in the first second, and goes in the first minute fifty-four thousand feet, which number is the square of sixty multiplied by fifteen. Bodies, therefore, gravitate in an inverse ratio of the squares of the distances; consequently, what causes gravity on earth, and keeps the moon in its orbit, is one and the same power; it being demonstrated that the moon gravitates on the earth, which is the centre of its particular motion, it is demonstrated that the earth and the moon gravitate on the sun which is the centre of their annual motion.

The rest of the planets must be subject to this general law; and if this law exists, these planets must follow the laws which Kepler discovered. All these laws, all these relations are indeed observed by the planets with the utmost exactness; therefore, the power of attraction causes all the planets to gravitate towards the sun, in like manner as the moon gravitates towards our globe.

Finally as in all bodies reaction is equal to action, it is certain that the earth gravitates also towards the moon, and that the sun gravitates towards both. That every one of the satellites of Saturn gravitates towards the other four, and the other four towards it; all five towards Saturn, and Saturn towards all. That it is the same with regard to Jupiter; and that all these globes are attracted by the sun, which is reciprocally attracted by them.

This power of gravitation acts proportionably to the quantity of matter

in bodies, a truth which Sir Isaac has demonstrated by experiments. This new discovery has been of use to show that the sun (the centre of the planetary system) attracts them all in a direct ratio of their quantity of matter combined with their nearness. From hence Sir Isaac, rising by degrees to discoveries which seemed not to be formed for the human mind, is bold enough to compute the quantity of matter contained in the sun and in every planet; and in this manner shows, from the simple laws of mechanics, that every celestial globe ought necessarily to be where it is placed.

His bare principle of the laws of gravitation accounts for all the apparent inequalities in the course of the celestial globes. The variations of the moon are a necessary consequence of those laws. Moreover, the reason is evidently seen why the nodes of the moon perform their revolutions in nineteen years, and those of the earth in about twenty-six thousand. The several appearances observed in the tides are also a very simple effect of this attraction. The proximity of the moon, when at the full, and when it is new, and its distance in the quadratures or quarters, combined with the action of the sun, exhibit a sensible reason why the ocean swells and sinks.

After having shown by his sublime theory the course and inequalities of the planets, he subjects comets to the same law. The orbit of these fires (unknown for so great a series of years), which was the terror of mankind and the rock against which philosophy split, placed by Aristotle below the moon, and sent back by Descartes above the sphere of Saturn, is at last placed in its proper seat by Sir Isaac Newton.

He proves that comets are solid bodies which move in the sphere of the sun's activity, and that they describe an ellipsis so very eccentric, and so near to parabolas, that certain comets must take up above five hundred years in their revolution.

The learned Dr. Halley is of opinion that the comet seen in 1680 is the same which appeared in Julius Caesar's time. This shows more than any other that comets are hard, opaque bodies; for it descended so near to the sun as to come within a sixth part of the diameter of this planet from it, and consequently might have contracted a degree of heat two thousand times stronger than that of red-hot iron; and would have been soon dispersed in vapour, had it not been a firm, dense body. The guessing the course of comets began then to be very much in vogue. The celebrated Bernoulli concluded by his system that the famous comet of 1680 would appear again the 17th of May, 1719. Not a single astronomer in Europe

went to bed that night. However, they needed not to have broken their rest, for the famous comet never appeared. There is at least more cunning, if not more certainty, in fixing its return to so remote a distance as five hundred and seventy-five years. As to Mr. Whiston, he affirmed very seriously that in the time of the Deluge a comet overflowed the terrestrial globe. And he was so unreasonable as to wonder that people laughed at him for making such an assertion. The ancients were almost in the same way of thinking with Mr. Whiston, and fancied that comets were always the forerunners of some great calamity which was to befall mankind. Sir Isaac Newton, on the contrary, suspected that they are very beneficent, and that vapours exhale from them merely to nourish and vivify the planets, which imbibe in their course the several particles the sun has detached from the comets, an opinion which, at least, is more probable than the former. But this is not all. If this power of gravitation or attraction acts on all the celestial globes, it acts undoubtedly on the several parts of these globes. For in case bodies attract one another in proportion to the quantity of matter contained in them, it can only be in proportion to the quantity of their parts; and if this power is found in the whole, it is undoubtedly in the half, in the quarter, in the eighth part, and so on *in infinitum*.

This is attraction, the great spring by which all Nature is moved. Sir Isaac Newton, after having demonstrated the existence of this principle, plainly foresaw that its very name would offend; and, therefore, this philosopher, in more places than one of his books, gives the reader some caution about it. He bids him beware of confounding this name with what the ancients called occult qualities, but to be satisfied with knowing that there is in all bodies a central force, which acts to the utmost limits of the universe, according to the invariable laws of mechanics.

It is surprising, after the solemn protestations Sir Isaac made, that such eminent men as Mr. Sorin and M. de Fontenelle should have imputed to this great philosopher the verbal and chimerical way of reasoning of the Aristotelians; Mr. Sorin in the Memoirs of the Academy of 1709, and M. de Fontenelle in the very eulogium of Sir Isaac Newton.

Most of the French (the learned and others) have repeated this reproach. These are for ever crying out, "Why did he not employ the word *impulsion*, which is so well understood, rather than that of *attraction*, which is unintelligible?"

Sir Isaac might have answered these critics thus: "First, you have as imperfect an idea of the word impulsion as of that of attraction; and in case

you cannot conceive how one body tends towards the centre of another body, neither can you conceive by what power one body can impel another.

"Secondly, I could not admit of impulsion; for to do this I must have known that a celestial matter was the agent. But so far from knowing that there is any such matter, I have proved it to be merely imaginary.

"Thirdly, I use the word attraction for no other reason but to express an effect which I discovered in Nature—a certain and indisputable effect of an unknown principle—a quality inherent in matter, the cause of which persons of greater abilities than I can pretend to may, if they can, find out."

"What have you, then, taught us?" will these people say further; "and to what purpose are so many calculations to tell us what you yourself do not comprehend?"

"I have taught you," may Sir Isaac rejoin, "that all bodies gravitate towards one another in proportion to their quantity of matter; that these central forces alone keep the planets and comets in their orbits, and cause them to move in the proportion before set down. I demonstrate to you that it is impossible there should be any other cause which keeps the planets in their orbits than that general phenomenon of gravity. For heavy bodies fall on the earth according to the proportion demonstrated of central forces; and the planets finishing their course according to these same proportions, in case there were another power that acted upon all those bodies, it would either increase their velocity or change their direction. Now, not one of those bodies ever has a single degree of motion or velocity, or has any direction but what is demonstrated to be the effect of the central forces. Consequently it is impossible there should be any other principle."

Give me leave once more to introduce Sir Isaac speaking. Shall he not be allowed to say: "My case and that of the ancients is very different. These saw, for instance, water ascend in pumps, and said, 'the water rises because it abhors a vacuum.' But with regard to myself, I am in the case of a man who should have first observed that water ascends in pumps, but should leave others to explain the cause of this effect. The anatomist, who first declared that the motion of the arm is owing to the contraction of the muscles, taught mankind an indisputable truth. But are they less obliged to him because he did not know the reason why the muscles contract? The cause of the elasticity of the air is unknown, but he who first discovered this spring performed a very signal service to natural

philosophy. The spring that I discovered was more hidden and more universal, and for that very reason mankind ought to thank me the more. I have discovered a new property of matter—one of the secrets of the Creator—and have calculated and discovered the effects of it. After this, shall people quarrel with me about the name I give it?"

Vortices may be called an occult quality because their existence was never proved. Attraction, on the contrary, is a real thing because its effects are demonstrated, and the proportions of it are calculated. The cause of this cause is among the *Arcana* of the Almighty.

Precedes huc, et non amplius.
[Thus far shalt thou go, and no farther.]

ON SIR ISAAC NEWTON'S OPTICS

The philosophers of the last age found out a new universe; and a circumstance which made its discovery more difficult was that no one had so much as suspected its existence. The most sage and judicious were of opinion that it was a frantic rashness to dare so much as to imagine that it was possible to guess the laws by which the celestial bodies move and the manner how light acts. Galileo, by his astronomical discoveries, Kepler, by his calculation, Descartes (at least, in his dioptrics), and Sir Isaac Newton, in all his works, severally saw the mechanism of the springs of the world. The geometricians have subjected infinity to the laws of calculation. The circulation of the blood in animals, and of the sap in vegetables, have changed the face of Nature with regard to us. A new kind of existence has been given to bodies in the air-pump. By the assistance of telescopes bodies have been brought nearer to one another. Finally, the several discoveries which Sir Isaac Newton has made on light are equal to the boldest things which the curiosity of man could expect after so many philosophical novelties.

Till Antonio de Dominis the rainbow was considered as an inexplicable miracle. This philosopher guessed that it was a necessary effect of the sun and rain. Descartes gained immortal fame by his mathematical explication of this so natural a phenomenon. He calculated the reflections and refractions of light in drops of rain. And his sagacity on this occasion was at that time looked upon as next to divine.

But what would he have said had it been proved to him that he was mistaken in the nature of light; that he had not the least reason to main-

tain that it is a globular body? That it is false to assert that this matter, spreading itself through the whole, waits only to be projected forward by the sun, in order to be put in action, in like manner as a long staff acts at one end when pushed forward by the other. That light is certainly darted by the sun; in fine, that light is transmitted from the sun to the earth in about seven minutes, though a cannon-ball, which were not to lose any of its velocity, could not go that distance in less than twenty-five years. How great would have been his astonishment had he been told that light does not reflect directly by impinging against the solid parts of bodies, that bodies are not transparent when they have large pores, and that a man should arise who would demonstrate all these paradoxes, and anatomize a single ray of light with more dexterity than the ablest artist dissects a human body. This man is come. Sir Isaac Newton has demonstrated to the eye, by the bare assistance of the prism, that light is a composition of coloured rays, which, being united, form white colour. A single ray is by him divided into seven, which all fall upon a piece of linen, or a sheet of white paper, in their order, one above the other, and at unequal distances. The first is red, the second orange, the third yellow, the fourth green, the fifth blue, the sixth indigo, the seventh a violet-purple. Each of these rays, transmitted afterwards by a hundred other prisms, will never change the colour it bears; in like manner, as gold, when completely purged from its dross, will never change afterwards in the crucible. As a superabundant proof that each of these elementary rays has inherently in itself that which forms its colour to the eye, take a small piece of yellow wood, for instance, and set it in the ray of a red colour; this wood will instantly be tinged red. But set it in the ray of a green colour, it assumes a green colour, and so of all the rest.

From what cause, therefore, do colours arise in Nature? It is nothing but the disposition of bodies to reflect the rays of a certain order and to absorb all the rest.

What, then, is this secret disposition? Sir Isaac Newton demonstrates that it is nothing more than the density of the small constituent particles of which a body is composed. And how is this reflection performed? It was supposed to arise from the rebounding of the rays, in the same manner as a ball on the surface of a solid body. But this is a mistake, for Sir Isaac taught the astonished philosophers that bodies are opaque for no other reason but because their pores are large, that light reflects on our eyes from the very bosom of those pores, that the smaller the pores of a body are the more such a body is transparent. Thus paper, which reflects the

light when dry, transmits it when oiled, because the oil, by filling its pores, makes them much smaller.

It is there that examining the vast porosity of bodies, every particle having its pores, and every particle of those particles having its own, he shows we are not certain that there is a cubic inch of solid matter in the universe, so far are we from conceiving what matter is. Having thus divided, as it were, light into its elements, and carried the sagacity of his discoveries so far as to prove the method of distinguishing compound colours from such as are primitive, he shows that these elementary rays, separated by the prism, are ranged in their order for no other reason but because they are refracted in that very order; and it is this property (unknown till he discovered it) of breaking or splitting in this proportion; it is this unequal refraction of rays, this power of refracting the red less than the orange colour, etc., which he calls the different refrangibility. The most reflexible rays are the most refrangible, and from hence he evinces that the same power is the cause both of the reflection and refraction of light.

But all these wonders are merely but the opening of his discoveries. He found out the secret to see the vibrations or fits of light which come and go incessantly, and which either transmit light or reflect it, according to the density of the parts they meet with. He has presumed to calculate the density of the particles of air necessary between two glasses, the one flat, the other convex on one side, set one upon the other, in order to operate such a transmission or reflection, or to form such and such a colour.

From all these combinations he discovers the proportion in which light acts on bodies and bodies act on light.

He saw light so perfectly that he has determined to what degree of perfection the art of increasing it, and of assisting our eyes by telescopes, can be carried.

Descartes, from a noble confidence that was very excusable, considering how strongly he was fired at the first discoveries he made in an art which he almost first found out; Descartes, I say, hoped to discover in the stars, by the assistance of telescopes, objects as small as those we discern upon the earth.

But Sir Isaac has shown that dioptric telescopes cannot be brought to a greater perfection, because of that refraction, and of that very refrangibility, which at the same time that they bring objects nearer to us, scatter too much the elementary rays. He has calculated in these glasses the

proportion of the scattering of the red and of the blue rays; and proceeding so far as to demonstrate things which were not supposed even to exist, he examines the inequalities which arise from the shape or figure of the glass, and that which arises from the refrangibility. He finds that the object glass of the telescope being convex on one side and flat on the other, in case the flat side be turned towards the object, the error which arises from the construction and position of the glass is above five thousand times less than the error which arises from the refrangibility; and, therefore, that the shape or figure of the glasses is not the cause why telescopes cannot be carried to a greater perfection, but arises wholly from the nature of light.

For this reason he invented a telescope which discovers objects by reflection, and not by refraction. Telescopes of this new kind are very hard to make, and their use is not easy; but, according to the English, a reflective telescope of but five feet has the same effect as another of a hundred feet in length.

ON INFINITES IN GEOMETRY, AND SIR ISAAC NEWTON'S CHRONOLOGY

The labyrinth and abyss of infinity is also a new course Sir Isaac Newton has gone through, and we are obliged to him for the clue, by whose assistance we are enabled to trace its various windings.

Descartes got the start of him also in this astonishing invention. He advanced with mighty steps in his geometry, and was arrived at the very borders of infinity, but went no farther. Dr. Wallis, about the middle of the last century, was the first who reduced a fraction by a perpetual division to an infinite series.

The Lord Brouncker employed this series to square the hyperbola.

Mercator published a demonstration of this quadrature; much about which time Sir Isaac Newton, being then twenty-three years of age, had invented a general method to perform on all geometrical curves what had just before been tried on the hyperbola.

It is to this method of subjecting everywhere infinity to algebraical calculations that the name is given of differential calculations or of fluxions and integral calculation. It is the art of numbering and measuring exactly a thing whose existence cannot be conceived.

And, indeed, would you not imagine that a man laughed at you who should declare that there are lines infinitely great which form an angle infinitely little?

That a right line, which is a right line so long as it is finite, by changing infinitely little its direction, becomes an infinite curve; and that a curve may become infinitely less than another curve?

That there are infinite squares, infinite cubes, and infinites of infinites, all greater than one another, and the last but one of which is nothing in comparison of the last?

All these things, which at first appear to be the utmost excess of frenzy, are in reality an effort of the subtlety and extent of the human mind, and the art of finding truths which till then had been unknown.

This so bold edifice is even founded on simple ideas. The business is to measure the diagonal of a square, to give the area of a curve, to find the square root of a number, which has none in common arithmetic. After all, the imagination ought not to be startled any more at so many orders of infinites than at the so well-known proposition, viz., that curve lines may always be made to pass between a circle and a tangent, or at that other, namely, that matter is divisible *in infinitum*. These two truths have been demonstrated many years, and are no less incomprehensible than the things we have been speaking of.

For many years the invention of this famous calculation was denied to Sir Isaac Newton. In Germany Mr. Leibnitz was considered as the inventor of the differences or moments, called fluxions, and Mr. Bernoulli claimed the integral calculus. However, Sir Isaac is now thought to have first made the discovery, and the other two have the glory of having once made the world doubt whether it was to be ascribed to him or them. Thus some contested with Dr. Harvey the invention of the circulation of the blood, as others disputed with Mr. Perrault that of the circulation of the sap.

Hartsocher and Leuwenhoek disputed with each other the honour of having first seen the *vermiculi* of which mankind are formed. This Hartsocher also contested with Huygens the invention of a new method of calculating the distance of a fixed star. It is not yet known to what philosopher we owe the invention of the cycloid.

Be this as it will, it is by the help of this geometry of infinites that Sir Isaac Newton attained to the most sublime discoveries. I am now to speak of another work, which, though more adapted to the capacity of the human mind, does nevertheless display some marks of that creative genius with which Sir Isaac Newton was informed in all his researches. The work I mean is a chronology of a new kind, for what province soever he undertook he was sure to change the ideas and opinions received by the rest of men.

Accustomed to unravel and disentangle chaos, he was resolved to convey at least some light into that of the fables of antiquity which are blended and confounded with history, and fix an uncertain chronology. It is true that there is no family, city, or nation, but endeavours to remove its original as far backward as possible. Besides, the first historians were the most negligent in setting down the eras: books were infinitely less common than they are at this time, and, consequently, authors being not so obnoxious to censure, they therefore imposed upon the world with greater impunity; and, as it is evident that these have related a great number of fictitious particulars, it is probable enough that they also gave us several false eras.

It appeared in general to Sir Isaac that the world was five hundred years younger than chronologers declare it to be. He grounds his opinion on the ordinary course of nature, and on the observations which astronomers have made.

By the course of nature we here understand the time that every generation of men lives upon the earth. The Egyptians first employed this vague and uncertain method of calculating when they began to write the beginning of their history. These computed three hundred and forty-one generations from Menes to Sethon; and, having no fixed era, they supposed three generations to consist of a hundred years. In this manner they computed eleven thousand three hundred and forty years from Menes's reign to that of Sethon.

The Greeks before they counted by Olympiads followed the method of the Egyptians, and even gave a little more extent to generations, making each to consist of forty years.

Now, here, both the Egyptians and the Greeks made an erroneous computation. It is true, indeed, that, according to the usual course of nature, three generations last about a hundred and twenty years; but three reigns are far from taking up so many. It is very evident that mankind in general live longer than kings are found to reign, so that an author who should write a history in which there were no dates fixed, and should know that nine kings had reigned over a nation; such a historian would commit a great error should he allow three hundred years to these nine monarchs. Every generation takes about thirty-six years; every reign is, one with the other, about twenty. Thirty kings of England have swayed the sceptre from William the Conqueror to George I, the years of whose reigns added together amount to six hundred and forty-eight years; which, being divided equally among the thirty kings, give to every one a reign of twenty-one years and a half very near. Sixty-three kings of France have

sat upon the throne; these have, one with another, reigned about twenty years each. This is the usual course of nature. The ancients, therefore, were mistaken when they supposed the durations in general of reigns to equal that of generations. They, therefore, allowed too great a number of years, and consequently some years must be subtracted from their computation.

Astronomical observations seem to have lent a still greater assistance to our philosopher. He appears to us stronger when he fights upon his own ground.

You know that the earth, besides its annual motion which carries it round the sun from west to east in the space of a year, has also a singular revolution which was quite unknown till within these late years. Its poles have a very slow retrograde motion from east to west, whence it happens that their position every day does not correspond exactly with the same point of the heavens. This difference, which is so insensible in a year, becomes pretty considerable in time; and in threescore and twelve years the difference is found to be of one degree, that is to say, the three hundred and sixtieth part of the circumference of the whole heaven. Thus after seventy-two years the colure of the vernal equinox which passed through a fixed star corresponds with another fixed star. Hence it is that the sun, instead of being in that part of the heavens in which the Ram was situated in the time of Hipparchus, is found to correspond with that part of the heavens in which the Bull was situated; and the Twins are placed where the Bull then stood. All the signs have changed their situation, and yet we still retain the same manner of speaking as the ancients did. In this age we say that the sun is in the Ram in the spring from the same principle of condescension that we say that the sun turns round.

Hipparchus was the first among the Greeks who observed some change in the constellations with regard to the equinoxes, or rather who learnt it from the Egyptians. Philosophers ascribed this motion to the stars; for in those ages people were far from imagining such a revolution in the earth, which was supposed to be immovable in every respect. They therefore created a heaven in which they fixed the several stars, and gave this heaven a particular motion by which it was carried towards the east, whilst that all the stars seemed to perform their diurnal revolution from east to west. To this error they added a second of much greater consequence, by imagining that the pretended heaven of the fixed stars advanced one degree eastward every hundred years. In this manner they were no less mistaken in their astronomical calculation than in their system of natural philosophy. As for instance, an astronomer in that age

would have said that the vernal equinox was in the time of such and such an observation, in such a sign, and in such a star. It has advanced two degrees of each since the time that observation was made to the present. Now two degrees are equivalent to two hundred years; consequently the astronomer who made that observation lived just so many years before me. It is certain that an astronomer who had argued in this manner would have mistook just fifty-four years; hence it is that the ancients, who were doubly deceived, made their great year of the world, that is, the revolution of the whole heavens, to consist of thirty-six thousand years. But the moderns are sensible that this imaginary revolution of the heaven of the stars is nothing else than the revolution of the poles of the earth, which is performed in twenty-five thousand nine hundred years. It may be proper to observe transiently in this place that Sir Isaac, by determining the figure of the earth, has very happily explained the cause of this revolution.

All this being laid down, the only thing remaining to settle chronology is to see through what star the colure of the equinoxes passes, and where it intersects at this time the ecliptic in the spring; and to discover whether some ancient writer does not tell us in what point the ecliptic was intersected in his time, by the same colure of the equinoxes.

Clemens Alexandrinus informs us that Chiron, who went with the Argonauts, observed the constellations at the time of that famous expedition, and fixed the vernal equinox to the middle of the Ram; the autumnal equinox to the middle of Libra; our summer solstice to the middle of Cancer, and our winter solstice to the middle of Capricorn.

A long time after the expedition of the Argonauts, and a year before the Peloponnesian War, Methon observed that the point of the summer solstice passed through the eighth degree of Cancer.

Now every sign of the zodiac contains thirty degrees. In Chiron's time, the solstice was arrived at the middle of the sign, that is to say to the fifteenth degree. A year before the Peloponnesian War it was at the eighth, and therefore it had retarded seven degrees. A degree is equivalent to seventy-two years; consequently, from the beginning of the Peloponnesian War to the expedition of the Argonauts, there is no more than an interval of seven times seventy-two years, which make five hundred and four years, and not seven hundred years, as the Greeks computed. Thus in comparing the position of the heavens at this time with their position in that age, we find that the expedition of the Argonauts ought to be placed about nine hundred years before Christ, and not about fourteen hundred; and consequently that the world is not so old by five hundred years as it was generally supposed to be. By this calculation all the eras are

drawn nearer, and the several events are found to have happened later than is computed. I don't know whether this ingenious system will be favourably received; and whether these notions will prevail so far with the learned as to prompt them to reform the chronology of the world. Perhaps these gentlemen would think it too great a condescension to allow one and the same man the glory of having improved natural philosophy, geometry, and history. This would be a kind of universal monarchy, with which the principle of self-love that is in man will scarce suffer him to indulge his fellow-creature; and, indeed, at the same time that some very great philosophers attacked Sir Isaac Newton's attractive principle, others fell upon his chronological system. Time, that should discover to which of these the victory is due, may perhaps only leave the dispute still more undetermined.

ON THE REGARD THAT OUGHT TO BE SHOWN TO MEN OF LETTERS

Neither the English nor any other people have foundations established in favour of the polite arts like those in France. There are universities in most countries, but it is in France only that we meet with so beneficial an encouragement for astronomy and all parts of the mathematics, for physic, for researches into antiquity, for painting, sculpture, and architecture. Louis XIV has immortalized his name by these several foundations, and this immortality did not cost him two hundred thousand livres a year.

I must confess that one of the things I very much wonder at is that, as the Parliament of Great Britain have promised a reward of £20,000 sterling to any person who may discover the longitude, they should never have once thought to imitate Louis XIV in his munificence with regard to the arts and sciences.

Merit, indeed, meets in England with rewards of another kind, which redound more to the honour of the nation. The English have so great a veneration for exalted talents that a man of merit in their country is always sure of making his fortune. Mr. Addison in France would have been elected a member of one of the academies, and, by the credit of some women, might have obtained a yearly pension of twelve hundred livres, or else might have been imprisoned in the Bastille, upon pretence that certain strokes in his tragedy of *Cato* had been discovered which glanced at the porter of some man in power. Mr. Addison was raised to the post of Secretary of State in England. Sir Isaac Newton was made Warden of

the Royal Mint. Mr. Congreve had a considerable employment. Mr. Prior was Plenipotentiary. Dr. Swift is Dean of St. Patrick in Dublin, and is more revered in Ireland than the Primate himself. The religion which Mr. Pope professes excludes him, indeed, from preferments of every kind, but then it did not prevent his gaining two hundred thousand livres by his excellent translation of Homer. I myself saw a long time in France the author of *Rhadamistus* ready to perish for hunger. And the son of one of the greatest men our country ever gave birth to, and who was beginning to run the noble career which his father had set him, would have been reduced to the extremes of misery had he not been patronized by Monsieur Fagon.

But the circumstance which mostly encourages the arts in England is the great veneration which is paid them. The picture of the Prime Minister hangs over the chimney of his own closet, but I have seen that of Mr. Pope in twenty noblemen's houses. Sir Isaac Newton was revered in his lifetime, and had a due respect paid to him after his death; the greatest men in the nation disputing who should have the honour of holding up his pall. Go into Westminster Abbey, and you will find that what raises the admiration of the spectator is not the mausoleums of the English kings, but the monuments which the gratitude of the nation has erected to perpetuate the memory of those illustrious men who contributed to its glory. We view their statues in that abbey in the same manner as those of Sophocles, Plato, and other immortal personages were viewed in Athens; and I am persuaded that the bare sight of those glorious monuments has fired more than one breast, and been the occasion of their becoming great men.

The English have even been reproached with paying too extravagant honours to mere merit, and censured for interring the celebrated actress Mrs. Oldfield in Westminster Abbey, with almost the same pomp as Sir Isaac Newton. Some pretend that the English had paid her these great funeral honours, purposely to make us more strongly sensible of the barbarity and injustice which they object to in us, for having buried Mademoiselle Le Couvreur ignominiously in the fields.

But be assured from me that the English were prompted by no other principle in burying Mrs. Oldfield in Westminster Abbey than their good sense. They are far from being so ridiculous as to brand with infamy an art which has immortalized a Euripides and a Sophocles; or to exclude from the body of their citizens a set of people whose business is to set off with the utmost grace of speech and action those pieces which the nation is proud of.

Under the reign of Charles I and in the beginning of the civil wars raised by a number of rigid fanatics, who at least were the victims to it, a great many pieces were published against theatrical and other shows, which were attacked with the greater virulence because that monarch and his queen, daughter to Henry IV of France, were passionately fond of them.

One Mr. Prynne, a man of most furiously scrupulous principles, who would have thought himself damned had he worn a cassock instead of a short cloak, and have been glad to see one-half of mankind cut the other to pieces for the glory of God, and the *Propaganda Fide*, took it into his head to write a most wretched satire against some pretty good comedies, which were exhibited very innocently every night before their majesties. He quoted the authority of the Rabbis, and some passages from St. Bonaventure, to prove that the Oedipus of Sophocles was the work of the evil spirit; that Terence was excommunicated *ipso facto*; and added that doubtless Brutus, who was a very severe Jansenist, assassinated Julius Caesar for no other reason but because he, who was Pontifex Maximus, presumed to write a tragedy the subject of which was Oedipus. Lastly, he declared that all who frequented the theatre were excommunicated, as they thereby renounced their baptism. This was casting the highest insult on the king and all the royal family; and as the English loved their prince at that time, they could not bear to hear a writer talk of excommunicating him, though they themselves afterwards cut his head off. Prynne was summoned to appear before the Star Chamber; his wonderful book, from which Father Le Brun stole his, was sentenced to be burnt by the common hangman, and himself to lose his ears. His trial is now extant.

The Italians are far from attempting to cast a blemish on the opera, or to excommunicate Signor Senesino or Signora Cuzzoni. With regard to myself, I could presume to wish that the magistrates would suppress I know not what contemptible pieces written against the stage. For when the English and Italians hear that we brand with the greatest mark of infamy an art in which we excel; that we excommunicate persons who receive salaries from the king; that we condemn as impious a spectacle exhibited in convents and monasteries; that we dishonour sports in which Louis XIV and Louis XV performed as actors; that we give the title of the devil's works to pieces which are received by magistrates of the most severe character, and represented before a virtuous queen; when, I say, foreigners are told of this insolent conduct, this contempt for the royal authority, and this Gothic rusticity which some presume to call Christian

severity, what an idea must they entertain of our nation? And how will it be possible for them to conceive, either that our laws give a sanction to an art which is declared infamous, or that some persons dare to stamp with infamy an art which receives a sanction from the laws, is rewarded by kings, cultivated and encouraged by the greatest men, and admired by whole nations? And that Father Le Brun's impertinent libel against the stage is seen in a bookseller's shop, standing the very next to the immortal labours of Racine, of Corneille, of Molière, etc.

ON THE ROYAL SOCIETY AND OTHER ACADEMIES

The English had an Academy of Sciences many years before us, but then it is not under such prudent regulations as ours, the only reason of which very possibly is because it was founded before the Academy of Paris; for had it been founded after, it would very probably have adopted some of the sage laws of the former and improved upon others.

Two things, and those the most essential to man, are wanting in the Royal Society of London, I mean rewards and laws. A seat in the Academy at Paris is a small but secure fortune to a geometrician or a chemist; but this is so far from being the case at London, that the several members of the Royal Society are at a continual, though indeed small expense. Any man in England who declares himself a lover of the mathematics and natural philosophy, and expresses an inclination to be a member of the Royal Society, is immediately elected into it. But in France it is not enough that a man who aspires to the honour of being a member of the Academy, and of receiving the royal stipend, has a love for the sciences; he must at the same time be deeply skilled in them; and is obliged to dispute the seat with competitors who are so much the more formidable as they are fired by a principle of glory, by interest, by the difficulty itself, and by that inflexibility of mind which is generally found in those who devote themselves to that pertinacious study, the mathematics.

The Academy of Sciences is prudently confined to the study of nature, and, indeed, this is a field spacious enough for fifty or three-score persons to range in. That of London mixes indiscriminately literature with physics; but methinks the founding an academy merely for the polite arts is more judicious, as it prevents confusion, and the joining, in some measure, of heterogeneals, such as a dissertation on the head-dresses of the Roman ladies with a hundred or more new curves.

As there is very little order and regularity in the Royal Society, and not the least encouragement, and that the Academy of Paris is on a quite

different foot, it is no wonder that our transactions are drawn up in a more just and beautiful manner than those of the English. Soldiers who are under a regular discipline, and besides well paid, must necessarily at last perform more glorious achievements than others who are mere volunteers. It must indeed be confessed that the Royal Society boast their Newton, but then he did not owe his knowledge and discoveries to that body; so far from it that the latter were intelligible to very few of his fellow members. A genius like that of Sir Isaac belonged to all the academies in the world, because all had a thousand things to learn of him.

The celebrated Dean Swift formed a design, in the latter end of the late Queen's reign, to found an academy for the English tongue upon the model of that of the French. This project was promoted by the late Earl of Oxford, Lord High Treasurer, and much more by the Lord Bolingbroke, Secretary of State, who had the happy talent of speaking without premeditation in the Parliament House with as much purity as Dean Swift wrote in his closet, and who would have been the ornament and protector of that academy. Those only would have been chosen members of it whose works will last as long as the English tongue, such as Dean Swift, Mr. Prior, whom we saw here invested with a public character, and whose fame in England is equal to that of La Fontaine in France, Mr. Pope, the English Boileau, Mr. Congreve, who may be called their Molière, and several other eminent persons whose names I have forgot; all these would have raised the glory of that body to a great height even in its infancy. But Queen Anne being snatched suddenly from the world, the Whigs were resolved to ruin the protectors of the intended academy, a circumstance that was of the most fatal consequence to polite literature. The members of this academy would have had a very great advantage over those who first formed that of the French, for Swift, Prior, Congreve, Dryden, Pope, Addison, etc., had fixed the English tongue by their writings; whereas Chapelain, Colletet, Cassaigne, Faret, Perrin, Cotin, our first academicians, were a disgrace to their country; and so much ridicule is now attached to their very names, that if an author of some genius in this age had the misfortune to be called Chapelain or Cotin, he would be under a necessity of changing his name.

One circumstance, to which the English Academy should especially have attended, is to have prescribed to themselves occupations of a quite different kind from those with which our academicians amuse themselves. A wit of this country asked me for the memoirs of the French Academy. I answered, they have no memoirs, but have printed threescore or fourscore volumes in quarto of compliments. The gentleman perused one or

two of them, but without being able to understand the style in which they were written; though he understood all our good authors perfectly. "All," says he, "I see in these elegant discourses is, that the member elect having assured the audience that his predecessor was a great man, that Cardinal Richelieu was a very great man, that the Chancellor Seguier was a pretty great man, that Louis XIV was a more than great man, the director answers in the very same strain, and adds, that the member elect may also be a sort of great man, and that himself, in quality of director, must also have some share in this greatness."

The cause why all these academical discourses have unhappily done so little honour to this body is evident enough. *Vitium est temporis potiùs quam hominis* (the fault is owing to the age rather than to particular persons). It grew up insensibly into a custom for every academician to repeat these eulogiums at his reception; it was laid down as a kind of law that the public should be indulged from time to time in the sullen satisfaction of yawning over these productions. If the reason should afterwards be sought why the greatest geniuses who have been incorporated into that body have sometimes made the worst speeches, I answer that it is wholly owing to a strong propension, the gentlemen in question had to shine, and to display a thread-bare, worn-out subject in a new and uncommon light. The necessity of saying something, the perplexity of having nothing to say, and a desire of being witty, are three circumstances which alone are capable of making even the greatest writer ridiculous. These gentlemen, not being able to strike out any new thoughts, hunted after a new play of words, and delivered themselves without thinking at all: in like manner as people who should seem to chew with great eagerness, and make as though they were eating, at the same time that they were just starved.

It is a law in the French Academy to publish all those discourses by which only they are known, but they should rather make a law never to print any of them.

But the Academy of the *Belles Lettres* have a more prudent and more useful object, which is, to present the public with a collection of transactions that abound with curious researches and critiques. These transactions are already esteemed by foreigners; and it were only to be wished that some subjects in them had been more thoroughly examined, and that others had not been treated at all. As, for instance, we should have been very well satisfied had they omitted I know not what dissertation on the prerogative of the right hand over the left; and some others, which,

though not published under so ridiculous a title, are yet written on subjects that are almost as frivolous and silly.

The Academy of Sciences, in such of their researches as are of a more difficult kind and a more sensible use, embrace the knowledge of nature and the improvements of the arts. We may presume that such profound, such uninterrupted pursuits as these, such exact calculations, such refined discoveries, such extensive and exalted views, will, at last, produce something that may prove of advantage to the universe. Hitherto, as we have observed together, the most useful discoveries have been made in the most barbarous times. One would conclude that the business of the most enlightened ages and the most learned bodies is to argue and debate on things which were invented by ignorant people. We know exactly the angle which the sail of a ship is to make with the keel in order to make its sailing better, and yet Columbus discovered America without having the least idea of the property of this angle; however, I am far from inferring from hence that we are to confine ourselves merely to a blind practice, but happy it were would naturalists and geometricians unite, as much as possible, the practice with the theory.

Strange, but so it is, that those things which reflect the greatest honour on the human mind are frequently of the least benefit to it! A man who understands the four fundamental rules of arithmetic, aided by a little good sense, shall amass prodigious wealth in trade, shall become a Sir Peter Delmé, a Sir Richard Hopkins, a Sir Gilbert Heathcote, whilst a poor algebraist spends his whole life in searching for astonishing properties and relations in numbers, which at the same time are of no manner of use, and will not acquaint him with the nature of exchanges. This is very nearly the case with most of the arts: there is a certain point beyond which all researches serve to no other purpose than merely to delight an inquisitive mind. Those ingenious and useless truths may be compared to stars which, by being placed at too great a distance, cannot afford us the least light.

With regard to the French Academy, how great a service would they do to literature, to the language, and the nation, if, instead of publishing a set of compliments annually, they would give us new editions of the valuable works written in the age of Louis XIV, purged from the several errors of diction which are crept into them. There are many of these errors in Corneille and Molière, but those in La Fontaine are very numerous. Such as could not be corrected might at least be pointed out. By this means, as all the Europeans read those works, they would teach them our language

in its utmost purity—which, by that means, would be fixed to a lasting standard; and valuable French books being then printed at the King's expense would prove one of the most glorious monuments the nation could boast. I have been told that Boileau formerly made this proposal, and that it has since been revived by a gentleman eminent for his genius, his fine sense, and just taste for criticism; but this thought has met with the fate of many other useful projects, of being applauded and neglected.

The foregoing consists
of Letters VIII, IX, X, XI, XII, XIII,
XIV, XV, XVI, XVII, XXIII *and* XXIV
of Voltaire's LETTERS ON THE ENGLISH.

Dante Alighieri

1265–1321

Dante was born at Florence, Italy, of an ancient family, in 1265. His early life is obscure, though he was obviously well educated, both in the ancient writers—notably Aristotle—and in the literature of his own day. The event of his youth, however, and in a sense of his life, was his meeting with Beatrice Portinari, a Florentine girl whom he was to know only slightly, but with whom nevertheless he fell in love. She may never have been much aware of him. The story of his passion he told in his *Vita Nuova* (*New Life*), which relates how Beatrice became for him the personification of divine grace and beauty.

Certainly she is that in Dante's later and greatest work, the *Divine Comedy*, a long poem in three parts—*Inferno*, *Purgatorio*, and *Paradiso*—describing the course of man's salvation. It is the Roman poet Virgil, representing philosophy, who guides Dante through Hell and Purgatory in the poem, but it is Beatrice, signifying revelation, who takes him at last to Heaven.

Dante's greatest concern, apart from poetry, was politics. He was much involved in the affairs of his beloved Florence, which in his time was torn by faction and civil discord. The contending parties were on the one hand the Ghibellines, who stood against the centralized authority of the papacy and the Holy Roman Empire, and on the other hand the Guelphs, who upheld that authority. Dante was born into a noble Guelph family, but his later sentiments were partly Ghibelline, too, since he came to feel that Italy would destroy itself unless it were united. This was a middle position impossible to hold among the violent feelings of the day. Caught in the midst of these, Dante was exiled from Florence in 1302 and never afterward saw it again. For the rest of his life, he lived elsewhere in Italy under the

protection of various patrons who honored his increasing fame. He died in 1321 at Ravenna, where his bones still lie.

Any reader who considers the following selection from Dante's treatise on world government (*De Monarchia*), written around 1310, might do well to look at Clausewitz' *What Is War?*[1] The best way, perhaps, to comprehend a man whose interest is in universal peace is to read one whose concern is with the lack of it—who assumes, as Clausewitz does, that war is natural among nations. Clausewitz assumes this for the excellent reason that he finds no authority in the world beyond the several authorities of competing states. Within each of these there is a set of laws, but as all the states are equal with respect to each other, there are no laws governing their relation to one another.

War is the natural result of this condition, Clausewitz is saying, and if we understand that, we are well on the way to understanding Dante. For the central idea of the first book of *De Monarchia* is the same, only it is stated in opposite terms. The idea is that government is the condition of peace, and without government there is no peace. From this it follows that if there is to be peace among nations, there must be an authority greater than that of any nation: there must be, in other words, a government of the world.

No world government existed in Dante's time, any more than it did in Clausewitz' time, or does in ours. Yet one once did exist, Dante tells us, during the reign of the Roman emperor Augustus, who in the time of Jesus Christ extended his authority over the known world. The example is important, for it means that Dante, quite as much as Clausewitz, is talking about what he considers a real possibility. Both writers base their arguments on what they believe to be the facts of history, but their conclusions are exactly

[1] See Vol. 7, pp. 479–497, in this set.

Notes from the artist: ". . . profile of Dante accenting his sharp, lean features. The background is a visualization of the Ptolemaic structure of the universe as elaborated by Dante in the Divine Comedy. *At the top is the empyrean paradise; in the middle are the concentric heavens of planets and fixed stars, the hemispheres, and the earth to hell, conceived as a stageless amphitheater."*

DANTE

opposed. Thus where Clausewitz implies that war and anarchy are natural to men, Dante very clearly says that peace and government are natural.

The answer to this apparent contradiction lies in the "higher nature" to which Dante refers in the first line of his treatise. By this he means the part of man that is divine—that partakes of the nature of the Creator. It is the rule of God in the universe, Dante says, that men emulate, so far as they imperfectly can, when they seek to rule themselves. Through the aspiration of reason, they tend toward the unity and perfect peace of the eternal world.

Whether they will listen to their reason—their higher nature—is admittedly another matter. Men are free to choose, Dante says, and there is another part of their nature that compels them powerfully to selfishness and strife. Hence the search for world government, or universal peace, must be a struggle. Men's intellects must be persuaded of the goodness of this goal. The form of Dante's book is therefore that of an argument designed to overcome the doubts and faulty understanding that keep men from their proper end. That end, finally, is to be with God, and the means to it is through the realization, so far as may be possible on earth, of God's unity and order.

It is important to note that peace is a *means*, rather than an end in itself. It is a means, as Dante says, to the fullest realization of the potentialities of the human mind. It is, therefore, an indispensable condition for achieving the earthly goal toward which the progress of mankind is directed.

On World Government

from *De Monarchia*

THAT MANKIND NEEDS UNITY AND PEACE

1

The knowledge of a single temporal government over mankind is most important and least explored.

All men whose higher nature has endowed them with a love of truth obviously have the greatest interest in working for posterity, so that in return for the patrimony provided for them by their predecessors' labors they may make provision for the patrimony of future generations. Certainly a man who has received public instruction would be far from performing his duty if he showed no concern for the public weal, for he would not be a "tree by the streams of waters, bearing his fruit in due season," but rather an erosive whirlpool always sucking in and never returning what it devours. Therefore, as I have often reminded myself of these things and wish not to be charged with burying my talent, I endeavor not only to grow in public usefulness but also to bear fruit by publishing truths that have not been attempted by others. For what fruit is there in proving once more a theorem in Euclid, or in trying to show man his true happiness, which Aristotle has already shown, or in defending old age as Cicero did? Fruitless and positively tiresome are such superfluous works.

Among the truths that remain hidden, though useful, the knowledge of the temporal government of the world is most useful and most unknown, but since this knowledge is not directly gainful it has been neglected by all. I therefore propose to drag it from its hiding place, in order that my alertness may be useful to the world and may bring me the glory of being the first to win this great prize. It is a difficult task I attempt and beyond

my powers, but I rely not on my own ability; I trust in that giver of light who gives abundantly to all and reproaches none.

2

Since this theory is a practical science, its first principle is the goal of human civilization, which must be one and the same for all particular civilizations.

First, we must see what is meant by the temporal government of the world, both its kind and its aim. By the temporal government of the world or universal empire we mean a single government over all men in time, that is, over and in all things which can be measured by time. On this subject there are three chief questions to be examined: first, we must ask and inquire whether such a government is necessary for the good of the world; secondly, whether the Roman people has a right to assume such an office; and thirdly, whether the authority of this government comes directly from God or through some servant or vicar of God.

Since any truth which is not itself a principle is demonstrated as following from the truth of some principle, it is necessary in any inquiry to make clear from what principle the certainty of the subordinate propositions may be analytically derived. And since this treatise is an inquiry, we must first of all look for the principle on whose validity the derived propositions rest.

Now it is important to remember that there are some things entirely beyond our control, about which we can reason but do nothing, such as mathematics, physics, and theology, and there are others within our control not only for reasoning but for practice. In the latter case, action is not for the sake of thought, but thought for the sake of action, since in such matters the aim is action. Since our present concern is with politics, with the very source and principle of all right politics, and since all political matters are in our control, it is clear that our present concern is not aimed primarily at thought but at action. And furthermore, since in matters of action the final goal is the principle and cause of all, for by it the agent is first moved, it follows that any reasons for actions directed to this goal must be themselves derived from it. For example, the way to cut wood for building a house is different from the way to cut wood for a ship. Whatever, then, is the universal goal of human civilization, if there be such a goal, will serve as a first principle and will make sufficiently clear all the derivative propositions that follow. Now it would be foolish

to admit that one civilization may have one goal, and another, another, and not to admit one goal for all.

3

This goal is proved to be the realization of man's ability to grow in intelligence.

Accordingly, we must now see what the whole of human civilization aims at; with this aim before us more than half our work is done, as the Philosopher says in his *Nicomachean Ethics*.[1] And as evidence for what we seek we ought to note that just as nature makes the thumb for one purpose, the whole hand for another, the arm for still another, and the whole man for a purpose different from all these, so an individual man has one purpose, a family another, a neighborhood another, a city another, a state another, and finally there is another for all of mankind, established by the Eternal God's art, which is nature. This goal it is that we are now seeking as the guiding principle of our inquiry. We should know, in this connection, that God and nature make nothing in vain, and that whatever is produced serves some function. For the intention of any act of creation, if it is really creative, is not merely to produce the existence of something but to produce the proper functioning of that existence. Hence a proper functioning does not exist for the sake of the being which functions, but rather the being exists for the sake of its function. There is therefore some proper function for the whole of mankind as an organized multitude which cannot be achieved by any single man, or family, or neighborhood, or city, or state. What that may be would be plain if we could see what the basic capacity of the whole of humanity is. Now I would say that no capacity which several different species have in common can be the basic power of any one of them. For in that case the basic capacity which characterizes a species would be the same for several species, which is impossible. Accordingly, man's basic power is not mere being, for he shares being with the elements; nor is it to be compounded, for this is found in minerals, too; nor is it to be alive, for so are plants; nor is it to be sensitive, for other animals share this power; but it is to be sensitive to intellectual growth, for this trait is not found in beings either above or below man. For though there are angelic beings that share intellect with man, they do not have intellectual growth, since their very

1. The "Philosopher" for Dante is Aristotle. Aristotle's *Nicomachean Ethics* is in *Great Books of the Western World* [Ed.].

being is to be intellect and nothing else and hence they are intellectual continuously, otherwise they would not be changeless. Therefore, it is clear that man's basic capacity is to have a potentiality or power for being intellectual. And since this power cannot be completely actualized in a single man or in any of the particular communities of men above mentioned, there must be a multitude in mankind through whom this whole power can be actualized; just as there must be a multitude of created beings to manifest adequately the whole power of prime matter, otherwise there would have to be a power distinct from prime matter, which is impossible. With this judgment Averroes agrees in his commentary on *De anima*. This intellectual power of which I am speaking is directed not only toward universals or species, but also by a sort of extension toward particulars. Hence it is commonly said that the speculative intellect becomes practical by extension, and acquires thus the aims of action and production. I distinguish between matters of action which are governed by political prudence, and matters of production which are governed by the arts; but all of them are extensions of theoretical intellect, which is the best function for which the Primal Goodness brought mankind into being. Now we have already thrown light on that saying in the *Politics*–that the intellectually vigorous naturally govern others.

4

The best means toward this end is universal peace.

I have now made clear enough that the proper work of mankind taken as a whole is to exercise continually its entire capacity for intellectual growth, first, in theoretical matters, and, secondarily, as an extension of theory in practice. And since the part is a sample of the whole, and since individual men find that they grow in prudence and wisdom when they can sit quietly, it is evident that mankind, too, is most free and easy to carry on its work when it enjoys the quiet and tranquillity of peace. Man's work is almost divine ("Thou hast made him a little lower than the angels"), and it is clear that of all the things that have been ordained for our happiness, the greatest is universal peace. Hence there rang out to the shepherds from on high the good news, not of riches, nor pleasures, nor honors, nor long life, nor health, nor strength, nor beauty, but peace. For the heavenly host proclaimed "glory to God in the highest and on earth peace to men of good will." Hence, too, "Peace be with you" was the salutation of Him who is the Salvation of men; for it was fitting that the Supreme Savior should give voice to the supreme salutation. His disciples

took care to make this salutation customary, and so did Paul in his salutations, as must be evident to all.

What I have now said makes clear what is that better, that best, way by following which mankind may achieve its proper work, and consequently it is also clear what way we must directly take to attain that final goal set for all our work, which is universal peace. Let this, then, be our principle underlying all our subsequent arguments, as I said, and let it serve as a standard set before us by which to test the truth of whatever we shall try to prove.

5

To achieve this state of universal well-being a single world government is necessary.

There are three chief questions, as I said in the beginning, which must be raised and discussed concerning the temporal government of the world, more commonly called empire, and these three I propose, as I said, to take up in order. And so the first question is whether a single temporal world government is necessary for the world's well-being. There exists no weight of argument or of authority against this necessity and there are very strong and clear arguments for it. The first argument, which enjoys the authority of the Philosopher, is in his *Politics*,[2] where this venerable authority states that whenever several things are united into one thing, one of them must regulate and rule, the others must be regulated and ruled. This seems credible not only on the strength of the glorious name of its author, but also for inductive reasons. Consider, for example, an individual man; we see this truth exhibited in him, for while all his energies are directed toward happiness, he could not attain it did not his intellectual power rule and guide the others. Or consider a household whose aim it is to prepare the members of the family to live well; one alone must regulate and rule, whom we call father of the family, or else there is someone who takes his place. So says our Philosopher: "Every home is ruled by the eldest." It is his duty, as Homer says, to govern all and give laws to others. Hence the proverbial curse: "May you have an equal in your home!" Or consider a neighborhood whose aim is to provide mutual aid in persons and things. Someone must govern the others, either someone appointed by the others or some outstanding member whom the others consent to follow, otherwise the community will not only fail to

2. Aristotle's *Politics* is in *Great Books of the Western World* [Ed.].

furnish the mutual aid for which it exists, but, as sometimes happens when several strive for pre-eminence, the whole neighborhood is destroyed. Likewise a city, whose aim is to live well and self sufficiently, must have a single government, whether the city have a just or corrupt constitution. Otherwise not only does civil life fail to reach its goal, but the city ceases to be what it was. Or take finally a state or kingdom, whose aim is the same as that of a city, save that it takes more responsibility for peace–there must be a single government which both rules and governs; otherwise the end of the state is lost sight of, or the state itself falls to pieces, according to the infallible truth: "Every kingdom directed against itself shall be laid waste." If, therefore, these things are true among individuals and particular communities which have a unified goal, what we proposed above must be true. Since it appears that the whole of mankind is ordained to one end, as we proved above, it should therefore have a single rule and government, and this power should be called the Monarch or Emperor. And thus it is plain that for the well-being of the world there must be a single world rule or empire.

6

Since any particular institution needs unity of direction, mankind as a whole must also need it.

Whatever relation a part bears to its whole the structure of that part must bear to the total structure. But a part is related to the whole as to its end or greatest good. Hence we must conclude that the goodness of the partial structure cannot exceed the goodness of the total structure, rather the contrary. Now since there is a double structure among things–namely, the structure which relates part to part, and the structure which relates parts to a whole that is not itself a part, as in any army soldiers are related to each other and also to their commander–it follows the structure which makes a unity out of parts is better than the other structure, for it *is* what the other aims at. Therefore the relations among parts exist for the sake of the unifying structure, not vice versa. Hence, if the form of this structure is found among the partial associations of men, much more should it be found in the society of men as a totality, on the strength of the preceding syllogism, since the total structure or its form is the greater good. But, as we have seen sufficiently clearly in the preceding chapter, this unifying structure is found in all parts of human society; therefore it is found or should be found in mankind as a whole; and as those societies

that are partial in a state and the state itself, as we saw, should be composed of a structure unified by a governor or government, so there must be a single world ruler or world government.

7

Human government is but a part of that single world administration which has its unity in God.

Furthermore, human society is a totality in relation to its parts, but is itself a part of another totality. For it is the totality of particular states and peoples, as we have seen, but it is obviously a mere part of the whole universe. Therefore, as through it the lower parts of human society are well ordered, so it, too, should fit into the order of the universe as a whole. But its parts are well ordered only on the basis of a single principle (this follows from all we have said), and hence it too must be well ordered on the basis of a single principle, namely, through its governor, God, who is the absolute world government. Hence we conclude that a single world government is necessary for the well-being of the world.

8

Man is by nature in God's likeness and therefore should, like God, be one.

Things are at their best when they go according to the intention of their original mover, who is God. And this is self-evident to all except those who deny that the divine goodness achieves the highest perfection. In the intention of God every creature exists to represent the divine likeness in so far as its nature makes this possible. According to what is said: "Let us make man after our image and likeness." Though we cannot speak of the divine "image" as being in things lower than man, we can speak of anything as being in His "likeness," since the whole universe is nothing but a kind of imprint of the divine goodness. Therefore, mankind exists at its best when it resembles God as much as it can. But mankind resembles God most when it is most unified, for the true ground of unity exists in Him alone, as is written: "Hear, O Israel, the Lord thy God is one." But mankind is then most one when it is unified into a single whole; which is possible only when it submits wholly to a single government, as is self-evident. Therefore mankind in submitting to a single government most resembles God and most nearly exists according to the divine intention,

which is the same as enjoying well-being, as was proved at the beginning of this chapter.

9

The heavens are ruled by a single mover, God, and man is at his best when he follows the pattern of the heavens and the Heavenly Father.

So also a person is a good or perfect child when he follows, as far as nature permits, in the footsteps of a perfect father. But mankind is the son of heaven, which is most perfect in all its works; for "man is generated of man and sun," according to the author of *The Physics*.[3] Hence mankind is best when it follows in the footsteps of heaven as far as its nature permits. And as the whole heaven is governed in all its parts, motions, and movers by a single motion, the *primum mobile*, and by a single mover, God, as is very evident to a philosophizing reason if it syllogizes truly, it follows that mankind is then at its best when in all its movers and movements it is governed by a single mover or government and by a single motion or law. Thus it seems necessary that for the well-being of the world there be world government, that is, a single power, called Empire. This reasoning inspired Boëthius [4] when he said:

> O happy race of men,
> If like heaven your hearts
> Were ruled by love!

10

Human governments are imperfect as long as they are not subordinate to a supreme tribunal.

Wherever there can be contention, there judgment should exist; otherwise things would exist imperfectly, without their own means of adjustment or correction, which is impossible, since in things necessary God or nature is not defective. Between any two governments, neither of which is in any way subordinate to the other, contention can arise either through their own fault or that of their subjects. This is evident. Therefore there should be judication between them. And since neither can know the affairs of the other, not being subordinated (for among equals there is no authority), there must be a third and wider power which can rule both

3. See *Great Books of the Western World* [Ed.].
4. Author of *On the Consolation of Philosophy*, from which the following verse is taken [Ed.].

within its own jurisdiction. This third power is either the world government or it is not. If it is, we have reached our conclusion; if it is not, it must in turn have its equal outside its jurisdiction, and then it will need a third party as judge, and so ad infinitum, which is impossible. So we must arrive at a first and supreme judge for whom all contentions are judiciable either directly or indirectly; and this will be our world governor or emperor. Therefore, world government is necessary for the world. The Philosopher saw this argument when he said, "Things hate to be in disorder, but a plurality of authorities is disorder; therefore, authority is single." [5]

11

The world government is apt to be least greedy and most just.

Moreover, the world is best ordered when justice is its greatest power. Thus Virgil, seeking to praise an age which seemed to be arising in his day, sang in his *Bucolics*:

Iam redit et Virgo, redeunt Saturnia regna.[6]

By "Virgo" he meant justice, sometimes called "the starry." By "Saturnia regna" he meant the best ages, sometimes called "the golden." Justice has greatest power under a unitary government; therefore the best order of the world demands world government or empire. The minor premise will become evident if we recall that justice is by its nature a kind of rightness or straight rule without deviation, and therefore, like whiteness, justice in the abstract is not susceptible of degrees. For certain forms are of this kind, entering into various compounds but each being in itself single and invariable, as the author of the *Book of the Six Principles* rightly says. However, when they are qualified by "more or less," they owe this qualification to the things with which they are mixed and which contain a mixture of qualities more or less incompatible. Hence wherever justice exists with the least mixture of what is incompatible with it, either in *disposition* or in *action*, there justice is most powerful. And then what the Philosopher says can truly be said of her: "She is fairer than the morning or the evening star." For then she resembles Phoebe in the glow and calm of dawn facing her brother. As to its *disposition*, justice is often obscured by volition, for when the will is not entirely freed of greed before justice is

5. This statement comes from Homer's *Iliad*, Book II, l. 204 (*Great Books of the Western World*). It is quoted by Aristotle in his *Metaphysics*, Book XI, Chapter 10 (*Great Books of the Western World*) [Ed.].

6. "At last the Virgin and the Saturnian Kingdoms are returning."

introduced, its justice lacks the brightness of purity, for it is mixed, however slightly, with something foreign to it; hence it is well that those be condemned who try to influence the sentiments of a judge. And as to its *action*, justice suffers from the limitations of human ability; for since justice is a virtue affecting others, how can a person act justly when he lacks the ability of giving to each his due? Whence it follows that the more powerful a just man is, the more adequate can justice be in its action.

And so, on the basis of this proposition, we may argue as follows: justice is most powerful in the world when it resides in the most willing and able being; the only being of this nature is the world governor. Therefore, justice is the most powerful in the world when it resides solely in the world governor. This compound syllogism is in the second figure necessarily negative, thus:

All B is A		All B is A
Only C is A	or	No non-C is A
Only C is B		No non-C is B

The major premise is evident from the foregoing. The minor is justified as follows: first, respecting *volition*, then, respecting *ability*. As evidence for the first we must note that greed is the extreme opposite of justice, as Aristotle says in the Fifth Book of his *Nicomachean Ethics*. Take away greed completely and nothing opposed to justice remains in the will. Hence the opinion of the Philosopher that whatever can be decided by law should not be left to a judge is based on the fear of greed, which readily twists the minds of men. Now where there is nothing left to desire, greed is impossible, for passions cannot exist when their objects are destroyed. But a universal ruler has nothing that he still desires, for his jurisdiction is bounded only by the ocean, which is true of no other ruler whose realm is bounded by those of others, as, for example, the King of Castile's is bounded by the King of Aragon's. Hence it follows that the world ruler is the purest among mortal wills in which justice may reside. Moreover, as greed, however slight, obscures the habits of justice, so charity or joy in righteousness refines and enlightens it. Whoever, therefore, is most disposed to find joy in righteousness can give to justice the greatest pre-eminence. Such is the world ruler, and if he exist, justice is or can be most powerful. That righteous joy does what I have claimed for it can be proved as follows: greed ignores man himself and seeks other things, but charity ignores all other things and seeks God and man, and consequently man's good.

And since of all human goods the greatest is to live in peace, as we said above, and since justice is its chief and most powerful promoter, charity is the chief promoter of justice—the greater charity, the more justice. And that of all men the world ruler should most enjoy righteousness can be made clear thus: if we love a thing, we love it more the closer it is to us; but men are closer to the world ruler than to other rulers; therefore he loves them most or should love them most. The major premise is evident to anyone who considers the nature of being passive and being active; the minor follows from the fact that men are close to other rulers only in part, but to the world ruler totally. Also, men approach other rulers through the ruler of all, not vice versa, and thus all men are the primary and immediate objects of concern for the world ruler, whereas other rulers care for them only through him from whose supreme care their own is derived. Besides, the more universal a cause is, the more genuinely it is a cause, for lower causes operate through the higher, as is explained in the book *De causis*, and the more a cause is a cause, the more it loves its effect, since such a love makes a cause what it is. Therefore, since the world ruler is among mortals the most universal cause of well-being, other rulers being so through him, as I have explained, it follows that he has the greatest love for human welfare.

Secondly, concerning the ability (rather than the will) to do justice, who could doubt such an ability in the world ruler, if he understands the meaning of the term? For since he governs all, he can have no enemies. The minor premise is now evident enough, and the conclusion seems certain—namely, that the world needs for its well-being a universal government.

12

Human freedom consists in being ruled by reason and in living for the goal of mankind. Such freedom is possible only under world government.

Mankind is at its best when it is most free. This will be clear if we grasp the principle of liberty. We must realize that the basic principle of our freedom is freedom to choose, which saying many have on their lips but few in their minds. For they go only so far as to say freedom of choice is freedom of will in judging. This is true, but they do not understand its import. They talk as our logicians do, who for their exercises in logic constantly use certain propositions, such as "A triangle has three angles equal to two right angles." And so I must explain that judgment

lies between apprehension and appetition; for, first a thing is apprehended, then, being apprehended, is judged to be good or bad, and lastly, being judged, is either sought or rejected. Therefore, if the judgment completely dominates the appetite and is in no way prejudiced by appetite, it is free; but if the appetite somehow antecedes the judgment and influences it, the judgment cannot be free, since it does not move itself, but is led captive by another. For this reason, the lower animals cannot have free judgment, since their appetites always get ahead of their judgments. This also explains why intellectual beings whose wills are immutable and those spirits who have departed this life in grace do not lose their freedom of judgment, though their wills are fixed, but retain and exercise it perfectly.

If we grasp this principle, we can again appreciate why this liberty, the principle of all our liberty, is God's greatest gift to human nature (as I said in the "Paradiso"), for in this life it makes us happy as men, and in another it makes us happy as gods. If all this is true, who can deny that mankind lives best when it makes the most use of this principle?

But to live under a world ruler is to be most free. To understand this, we must know that to be free means to exist for one's own sake, not for another's, as the Philosopher puts it in his *De simpliciter ente.*[7] For whatever exists for the sake of another is under a necessity derived from that for which it exists, as a road is necessarily determined by its goal. Now it is only under the reign of a world ruler that mankind exists for itself and not for another, since then only is there a check on perverted forms of government such as democracies, oligarchies, and tyrannies, which carry mankind into slavery, as anyone can see who runs down the list of them all, whereas those only govern who are kings, aristocrats (called "the best"), and champions of the people's liberty. Hence the world ruler, who has the greatest love for men, as I have explained, desires that all men be made good, which is impossible among perverted politicians. Thus the Philosopher says in his *Politics* that "under a perverted form of government a good man is a bad citizen, while under a right form a good man and a good citizen are identical." In this way right forms of government aim at liberty, that is, men live for their own sake. For citizens do not live for their representatives nor peoples for their kings, but, on the contrary, representatives exist for citizens and kings for peoples. As a social order is established not for the sake of the

7. See Aristotle's *Metaphysics,* Book I, Chapter II (*Great Books of the Western World,*) [Ed.].

laws, but the laws for its sake, so they who live according to law are ordered not for the sake of the legislator but rather he for them. This is the way the Philosopher puts it in his books on this subject that have come down to us. Hence it is clear that though in matters of policy representatives and kings are the rulers of others, in matters of aims they are the servants of others, and most of all the world ruler, who should be regarded as the servant of all. Hence we must be well aware that world government is itself governed by a pre-established end in establishing its laws. Therefore mankind lives best when it lives under a single ruler; and it follows that a single world government is necessary for the world's well-being.

13

The universal government is most apt to be reasonable.

Another argument: Whoever is himself best disposed to rule can best dispose others. For in any action what is primarily intended by the agent, either because his nature demands it or because he does it purposely, is to make manifest his own image; hence an agent is delighted when he is thus active, for as all things desire their own being, and as an agent in acting unfolds his own being, a state of delight naturally arises, for a thing desired always brings delight. An agent acts, therefore, only because he already is the kind of thing which what he acts on is supposed to become. On this subject the Philosopher says in *De simpliciter ente*: "Whatever is changed from potentiality into act is changed by something which actually exists in the form to which it is changed; if an agent tried to act otherwise, he would act in vain." And thus we can overcome the error of those who speak well but do ill and who nevertheless believe that they can improve the life and ways of others; they forget that Jacob's hands were more persuasive than his words, even though his words were true and his hands false. Hence the Philosopher says in his *Nicomachean Ethics*: "In matters of passion and action, words are less persuasive than deeds." Hence also Heaven spoke to David when he sinned, saying: "Wherefore dost thou tell of my righteousness?"—as much as to say: "Your speech is in vain when you are not as you speak." From all this we gather that whoever wishes to order others well should himself be well ordered. But it is the world ruler alone who is best constituted for ruling. The proof is as follows: A thing is most easily and perfectly adapted to a given course of action when it contains in itself few obstacles to this action. Thus those who

have never heard of philosophizing truly are more easily and perfectly taught the habit [of it] than those who heard of it long ago and are full of false opinions. On this subject Galen well says: "It takes such persons double time to acquire science." Now since the world ruler can have no occasion for greed, or at least has much less than other mortals, as we explained above, and since this does not apply to other rulers, and since greed is itself the great corrupter of judgment and impediment to justice, it follows that the world ruler is wholly or to the greatest possible degree well constituted for ruling, since he above all others can let judgment and justice hold sway. These are the two chief qualities that legislators and administrators of law should have, as that most holy king testified when he asked God to give him what a king and a king's son should have: "God give thy judgment to the king, and thy justice to the king's son." Therefore, our minor premise is sound, in which we say that the world ruler alone has the best qualifications for ruling. Therefore, the world ruler can best govern others. Hence it follows that for the best state of the world a world government is necessary.

14

The universal government can best guide particular governments by establishing the laws which lead all men in common toward peace.

It is better that what can be done by one should be done by one, not by many. The demonstration of this proposition is: Let *A* be able to do something; let *A* and *B* be several who could also do it. Now if *A* can do what *A* and *B* do, *B* is useless, for his addition makes no difference to what *A* alone did. Such useless additions are superfluous and otiose, displeasing to God and Nature, and whatever is displeasing to God and Nature is evil (which is self-evident); it follows not only that it is better that one rather than many should do this work, but that it is good for one to do it and evil for several to do it.

Another proof: A thing is said to be better the nearer it is to the best. Now the end for which a deed is done is the standard of its goodness. But when it is done by one it is nearer the end. Therefore, it is better so. To prove that when it is done by one, it is nearer the end, let *C* be the end, let *A* be the deed of one, and let *A* and *B* be the deed of several. It is clear that the way from *A* direct to *C* is shorter than via *B*. Now mankind can be ruled by a single supreme ruler or world governor. In this connection it should be clearly understood that not every little regulation for every city could come directly from the world government, for even

municipal regulations are sometimes defective and need amendment, as the Philosopher makes clear in his praise of equity in the *Nicomachean Ethics.* Thus nations, states, and cities have their own internal concerns which require special laws. For law is a rule to guide our lives. The Scythians must rule their lives in one way, living as they do beyond the seventh clime, suffering great inequalities of days and nights and being harried by an almost intolerable, freezing cold, whereas the Garamantes must do otherwise, living below the equinoctial circle, where daylight and dark of night are always balanced, and where the excessive heat makes clothes unendurable. World government, on the other hand, must be understood in the sense that it governs mankind on the basis of what all have in common and that by a common law it leads all toward peace. This common norm or law should be received by local governments in the same way that practical intelligence in action receives its major premises from the speculative intellect. To these it adds its own particular minor premises and then draws particular conclusions for the sake of its action. These basic norms not only can come from a single source, but must do so in order to avoid confusion among universal principles. Moses himself followed this pattern in the law which he composed, for, having chosen the chiefs of the several tribes, he left them the lesser judgments, reserving to himself alone the higher and more general. These common norms were then used by the tribal chiefs according to their special needs. Therefore, it is better for mankind to be governed by one, not by many; and hence by a single governor, the world ruler; and if it is better, it is pleasing to God, since He always wills the better. And when there are only two alternatives—the better is also the best, and is consequently not only pleasing to God, but the choice of "one" rather than "many" is what most pleases Him. Hence it follows that mankind lives best under a single government, and therefore that such a government is necessary for the well-being of the world.

15

Unity is basic to both "being" and "good."

Now I must explain that "being," "unity," and "good" have an order of precedence in the fifth sense of "precedence," namely, priority. For by its nature being is prior to unity and unity prior to the good, because whatever is in the fullest sense a being is most unified, and when most unified it is most good. Hence the less a thing has complete being, the less unity it has, and consequently it is less good. For this reason it is true in all

matters whatsoever that the most unified is the best; so the Philosopher maintains in *De simpliciter ente*. Thus we see that at the root of what it means to be good is being one; and the root of what it means to be evil is being many. For this reason, as is explained in *De simpliciter ente*, Pythagoras in his system of relations places unity on the side of good and plurality on the side of evil. Thus we can see what sin is: it is to scorn unity and hence to proceed toward plurality. The Psalmist saw this very well when he said: "They are multiplied in the fruit of corn and wine and oil." It is therefore certain that whatever is good is good because it is unified. And since concord is essentially a good, it is clear that at its root there must be some kind of unity; what this root is will become evident if we examine the nature and ground of concord. Now concord is a uniform movement of many wills; in this definition we see that the uniform movement is due to the union of wills, and that this union is the root and very being of concord. For example, we would say that a number of clods of earth would all agree in falling toward the center and that they fell "in concord," if they did so voluntarily, and similarly flames would agree in rising to the circumference. So we speak of a number of men as being in concord when in moving together toward a single goal their wills are formally united, that is, the form of unity is in their wills, just as the quality of gravity is formally in the clods, and levity in the flames. For the ability to will is a kind of power, but the form of the will is the idea of an apprehended good. This form, like any other form (such as soul or number) is in itself a unity, but is multiplied in the various things with which it is compounded.

With this in mind we can now proceed to our argument in behalf of our proposition, as follows: All concord depends on a unity in wills; the best state of mankind is a kind of concord, for as a man is in excellent health when he enjoys concord in soul and body, and similarly a family, city, or state, so mankind as a whole. Therefore the well-being of mankind depends on the unity of its wills. But this is possible only if there is a single, dominant will which directs all others toward unity, for the wills of mortals need direction because they are subject to the captivating delights of youth (so teaches the Philosopher at the end of his *Nicomachean Ethics*). And this will cannot be if there be not a single governor of all whose will can be dominant and directive for all others. Now, if all the above arguments are true, and they are, it is necessary for the best state of mankind that there be in the world a single governor, and consequently world government is necessary for the well-being of the world.

16

The incarnation of Christ during the Augustan Empire when there prevailed a maximum of world peace bears witness that these principles are divine, and the miseries which have overtaken man since he departed from that golden age likewise bear witness.

Memorable experience confirms the above rational arguments. I refer to the state of things among mortals at the time when the Son of God took on human form for man's salvation, a state of things which He either awaited or arranged according to His will. For if we recall all the ages and conditions of men since the fall of our first parent, when the whole course of our wanderings began, we shall find that not until the time of Divus Augustus was there a complete and single world government which pacified the world. That in his time mankind enjoyed the blessing of universal peace and tranquillity is the testimony of all historians, of the illustrious poets, and even of the evangelist of Christ's gentleness [St. Luke]; and lastly this happiest of ages was called by Paul the "fullness of time." Truly the time was full and all things temporal so ordered that for every service toward our happiness there was a servant.

But the condition of the world since the day when the nail of greed tore that seamless garment is something we can all read about, if only we did not have to see it, too! O race of men, how many storms and misfortunes must thou endure, and how many shipwrecks, because thou, beast of many heads, strugglest in many directions! Thou art sick at heart and sick in mind, both theoretical and practical! No irrefutable arguments appeal to thy theoretical reason, and no amount of experience to thy practical intelligence, and even thine emotions are not moved by the sweet, divine persuasiveness which sounds to thee from the trumpet of the Holy Spirit: "Behold how good and how pleasant it is for brethren to dwell together in unity. Why have the nations raged, and the people devised vain things? The kings of the earth stood up and the princes met together against the Lord, and against his Christ. Let us break their bonds asunder: and let us cast away their yoke from us." [8]

8. Psalm 2:1–3.

The foregoing consists of Book I of Dante's DE MONARCHIA.

Jean Jacques Rousseau

1712–1778

Rousseau was born at Geneva in 1712, the son of a Protestant watchmaker whose family had left France a century earlier to avoid religious persecution. The boy's mother died shortly after giving birth to him, and he was brought up by his father, who taught him to read but provided no regular schooling. His books for several years were the romances which his mother had left–a library, as Rousseau later said, that inspired in him an "uninterrupted self-consciousness" and what he called his "odd, romantic notions of human life." At the same time, and as a sort of corrective, he read Plutarch, to whom he attributed his "free and republican spirit."

Rousseau's youth was fitful and unsettled, full of false starts and wanderings. He lived with his uncle, and from 1722 to 1724 was in Boissy, France. He then became an apprentice to an engraver, who treated Rousseau so brutally that he finally made his escape. At the age of sixteen, he left Geneva and took to the road, penniless, but happy in the countryside he always loved. At Annecy, in Savoy, he encountered Mme de Warens, who took him under her protection, arranging for his education at a Catholic seminary in Turin. Rousseau became a convert, but reluctantly, and later renounced Catholicism vigorously. For a time he became a teacher of music, though, as he later confessed, he knew little about the subject. Then he was back

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Notes from the artist: ". . . an interpretation of Rousseau based on a picture made during his lifetime. The quote, "Man is born free, and everywhere he is in chains," is from the Social Contract. *The other figures depict Marie Antoinette on her way to the guillotine –a victim of the new social order in part foreseen by Rousseau; and David Hume, an admirer of Rousseau, shaking hands with him."*

L'homme est né libre, et
partout il est dans les fers.
Rousseau

with Mme de Warens, who for the next ten years was to be his mother and protector but also his mistress.

In 1740 Rousseau left Mme Warens. He lived variously in Italy, in Paris, and in the French countryside. He was successively a copyist of music, a tutor, and secretary to the French ambassador at Venice. While in Paris in the 1740's, he cultivated literary circles. His own career as a writer began in 1749 with an essay on the corruption of civilization. It won a prize at the Academy of Dijon. Thereafter he wrote steadily. Within a dozen years he had produced most of his major works, including the *Discourse on the Origin of Inequality* (1755), *Émile, or Education* (1762), and *The Social Contract* (1762).[1] The famous *Confessions* appeared later, in 1766–70.

Religious views expressed in *Émile* outraged the authorities, and the book was burned in both Paris and Geneva. Rousseau escaped from France in 1762, living for a time in Switzerland and then for a short time in England, on the invitation of David Hume. Back in France, Rousseau at last married Thérèse le Vasseur, his humble companion of many years. On his return to Paris in 1770, the now celebrated author lived in a garret, copying music for a living. Foreigners flocked to see the brilliant, enigmatic man, undismayed by the abuse they met. He died at Ermenonville in 1778.

The problem of world peace has become in our time the first problem of humanity; if a solution is not found, it will have been the last. Rousseau's interest had been aroused by the Abbé de Saint-Pierre's *Project for Perpetual Peace*, which had appeared in 1713. Although Rousseau acclaimed the motives and goal of this book, he believed that its method—that of appealing to the virtues of sovereigns and their desire for a fair reputation—had proved ineffective. He himself preferred to appeal to their interests alone and endeavored to demonstrate that the sovereigns of Europe have everything to gain, and little to lose, by binding themselves in a Federation which excludes the possibility of war.

In the following essay, Rousseau argues that any program of peace among nations must satisfy the interests of the participating mon-

[1] For these and other writings by Rousseau see *Great Books of the Western World.*

archs. Henry IV of Navarre almost succeeded in uniting the whole of Europe against the Habsburgs of Austria and Spain. Had he not been assassinated, the peace of Europe might have been preserved, perhaps indefinitely. But what was it, Rousseau asks, that set all these monarchs into prodigious motion in the same direction? "Was it the public interest, which is never the interest of anyone? The Abbé de Saint-Pierre might have supposed so. But the truth is that each of them was working for his own private interest, which Henry had been clever enough to display to all of them in the most attractive light."

Most programs of world peace since Rousseau have assumed the position he takes: the peculiar interests of participating sovereigns must be satisfied. But how can this be done? Peace may be to the advantage of small weak nations, but is it always so for strong aggressors? Rousseau can easily point to the ruins of great empires which have been destroyed from within or without, and which perished by their own aggressions. Large empires and alliances do not thrive on war but rather on peace. If *they* can maintain the peace internally, Rousseau argues, then there is no good reason why Europe–already bound together by many ties of unity–cannot do the same. All that is required is that the sovereigns see their true interest.

The Federation which Rousseau invokes to outlaw war will "guarantee to each of its members the possession and government of all the dominions which he holds at the moment of the treaty." It will provide also that any member nation which attacks another will be "proscribed as a public enemy," and will find the whole Federation up in arms against it. Since no nation can possibly be strong enough to prevail against the united forces of the rest of Europe, no sovereign will be tempted, by any imagined advantage, to break the peace. Freed from the enormous costs of war, the several sovereigns will be content to replenish their treasuries and enrich their peoples.

The importance of the subject prompts us to sift Rousseau's proposals with care. Shall every monarch be guaranteed his hereditary office, no matter how oppressive, autocratic, and unjust his rule may be? Shall the Federation take up arms against republicans who wish to change the form of government? Similarly, will the large powers be content to have no more voice in the Diet of the Federation than the smallest ones have? What is to prevent them from utilizing the

arms of the Federation for their own advantage and against that of the weak nations? Does Rousseau provide against such contingencies?

Rousseau, you will note, does provide that the Diet of the Federation of Europe shall agree upon regulations which are to the interest of all member nations. He does not profess to say what these will be. The majorities which he stipulates for such legislation are interesting. For the initial framing of the charter a bare majority will suffice, while for subsequent provisions, after five years, a three-quarters majority is required. What is the reason for this difference of required majorities? Is it a wise provision?

Two outstanding questions the reader will want to examine are: (1) Would Rousseau's Federation exclude the possibility of war? and (2) Could it be expected to satisfy the basic interests of European sovereigns?

A Lasting Peace through the Federation of Europe

STATEMENT OF SAINT-PIERRE'S PROJECT

Never did the mind of man conceive a scheme nobler, more beautiful, or more useful than that of a lasting peace between all the peoples of Europe. Never did a writer better deserve a respectful hearing than he who suggests means for putting that scheme in practice. What man, if he has a spark of goodness, but must feel his heart glow within him at so fair a prospect? Who would not prefer the illusions of a generous spirit, which overleaps all obstacles, to that dry, repulsive reason whose indifference to the welfare of mankind is ever the chief obstacle to all schemes for its attainment?

I doubt not that many readers will forearm themselves with scepticism, as the best defence against the pleasure of yielding to conviction. I pity the melancholy mood which makes them take obstinacy for wisdom. On the other hand, I trust that every generous spirit will share the thrill of emotion with which I take up the pen on a subject which concerns mankind so closely. I see in my mind's eye all men joined in the bonds of love. I call before my thoughts a gentle and peaceful brotherhood, all living in unbroken harmony, all guided by the same principles, all finding their happiness in the happiness of all. And, as I dwell upon this touching picture, the idea of an imaginary happiness will cheat me for a few moments into the enjoyment of a real one.

In these opening words, I could not refrain from giving way to the feelings which filled my heart. Now let us do our best to reason coolly. Resolved as I am to assert nothing which I cannot prove, I have the right to ask the reader in his turn to deny nothing which he is unable to refute. It is not so much the reasoners I am afraid of as those who, without yielding to my proofs, steadily refuse to bring any arguments against them.

No man can have thought long upon the means of bringing any government to perfection without realizing a host of difficulties and obstacles which flow less from its inherent nature than from its relation to its neighbours. The result of this is that the care which ought to be given to its internal welfare has to be largely spent upon its outward security; and we are compelled to think more of providing for its defence against others than of making it as good as may be in itself. If the social order were really, as is pretended, the work not of passion but of reason, should we have been so slow to see that, in the shaping of it, either too much, or too little, has been done for our happiness? that, each one of us being in the civil state as regards our fellow citizens, but in the state of nature as regards the rest of the world, we have taken all kinds of precautions against private wars only to kindle national wars a thousand times more terrible? and that, in joining a particular group of men, we have really declared ourselves the enemies of the whole race?

If there is any way of reconciling these dangerous contradictions, it is to be found only in such a form of federal government as shall unite nations by bonds similar to those which already unite their individual members, and place the one no less than the other under the authority of the law. Even apart from this, such a form of government seems to carry the day over all others; because it combines the advantages of the small and the large state, because it is powerful enough to hold its neighbours in awe, because it upholds the supremacy of the law, because it is the only force capable of holding the subject, the ruler, the foreigner equally in check.

Such a form of government is to some extent a novelty, and its principles have been fully understood only by the moderns. But it was not unknown among the ancients. The Greeks had their Amphictyons and the Etruscans their Lucumonies; the Latins had their *feriae* [public holidays] and the Gauls their city-leagues; the Achaean League gave lustre to the death-struggles of Greece. But not one of these federations was built up with half the wisdom which has gone to the making of the Germanic Body, of the Helvetic League, or of the States General. And if these bodies are still so scarce and so far from the perfection which we feel they might attain, that is because the realization of the good invariably falls short of the ideal; because, in politics as in morals, the more we enlarge our knowledge, the more we are forced to recognize the extent of our misery.

In addition to these formal confederations, it is possible to frame others, less visible but none the less real, which are silently cemented by community of interests, by conformity of habits and customs, by the acceptance of common principles, by other ties which establish mutual relations between nations politically divided. Thus the powers of Europe constitute a kind of whole, united by identity of religion, of moral standard, of international law; by letters, by commerce, and finally by a species of balance which is the inevitable result of all these ties and, however little any man may strive consciously to maintain it, is not to be destroyed so easily as many men imagine.

This concert of Europe has not always existed; and the special causes which produced it are still working to preserve it. The truth is that, before the conquests of the Romans, the nations of this continent, all sunk in barbarism and each utterly unknown to the others, had nothing in common beyond the character which belonged to them as men: a character which, degraded by the practice of slavery, differed little enough in their eyes from that which constitutes the brute. Accordingly the Greeks, vain and disputatious, divided mankind, it may almost be said, into two distinct races: the one—their own, of course—made to rule; the other—the entire rest of the world—created solely to be slaves. From this principle it followed that a Gaul or a Spaniard was no more to a Greek than a Kaffir or Red Indian; and the barbarians themselves were as deeply divided from each other as the Greeks from all of them.

But when these men, born to rule, had been conquered by their slaves the Romans, when half of the known universe had passed beneath the same yoke, a common bond of laws and government was established, and all found themselves members of the same empire. This bond was still further tightened by the recognized principle, either supremely wise or supremely foolish, of imparting to the conquered all the rights of the conqueror: above all, by the famous decree of Claudius, which placed all the subjects of Rome on the roll of her citizens.

Thus all members of the empire were united in one body politic. They were further united by laws and civil institutions which reinforced the political bond by defining equitably, clearly and precisely, so far as this was possible in so vast an empire, the mutual rights and duties of the ruler and the subject, of one citizen as against another. The Code of Theodosius and the later legislation of Justinian constituted a new bond of justice and reason, which came in to replace the sovereign power at the very moment when it showed unmistakable signs of

slackening. This did more than anything else to stave off the break-up of the empire and to maintain its authority even over the barbarians who ravaged it.

A third and yet stronger bond was furnished by religion; and it cannot be denied that Europe, even now, is indebted more to Christianity than to any other influence for the union, however imperfect, which survives among her members. So true is this that the one nation which has refused to accept Christianity has always remained an alien among the rest. Christianity, so despised in its infancy, ended by serving as a sanctuary to its slanderers. And the Roman Empire, which had persecuted it for centuries with fruitless cruelty, drew from it a power which she could no longer find in her own strength. The missionaries did more for her than any victory; she dispatched bishops to redeem the mistake of her generals and triumphed by the aid of the priest when her soldiers were defeated. It is thus that the Franks, the Goths, the Burgundians, the Lombards, the Avars and many others ended by recognizing the authority of the empire which they had mastered, by admitting, at least in appearance, not only the law of the Gospel, but also that of the Prince at whose command it had been preached to them.

Such was the respect which this august body inspired even in its death-throes that, to the very end, its conquerors felt themselves honoured by the acceptance of its titles. The very generals who had humbled the empire became its ministers and officials; the proudest kings welcomed, nay even canvassed for, the patriciate, the prefecture, the consulate; and, like the lion who fawns upon the man he could easily devour, these terrible conquerors did homage to the imperial throne which they might at any moment have cast down.

Thus the priesthood and the empire wove a bond between various nations which, without any real community of interests, of rights, or of mutual dependence, found a tie in common principles and beliefs, the influence of which still survives even after its foundation is withdrawn. The venerable phantom of the Roman Empire has never ceased to unite the nations which once formed part of it; and as, after the fall of the empire, Rome still asserted her authority under another form,[1] Europe, the home of the temporal and spiritual powers, still retains a sense of fellowship far closer than is to be found elsewhere. The nations of the

1. Respect for the Roman Empire has so completely survived her power that many jurists have questioned whether the emperor of Germany is not the natural sovereign of the world; and Bartholus carried this doctrine so far as to treat anyone who dared to deny it as a heretic. The writings of the canonists are full of the corresponding doctrine of the temporal supremacy of the Roman Church.

other continents are too scattered for mutual intercourse; and they lack any other point of union such as Europe has enjoyed.

There are other, and more special, causes for this difference. Europe is more evenly populated, more uniformly fertile; it is easier to pass from one part of her to another. The interests of her princes are united by ties of blood, by commerce, arts and colonies. Communication is made easy by countless rivers winding from one country to another. An inbred love of change impels her inhabitants to constant travel, which frequently leads them to foreign lands. The invention of printing and the general love of letters has given them a basis of common knowledge and common intellectual pursuits. Finally, the number and smallness of her states, the cravings of luxury and the large diversity of climates which Europe offers for their satisfaction, make them all necessary to each other. All these causes combine to make of Europe not, like Asia and Africa, a purely imaginary assemblage of peoples with nothing in common save the name, but a real community with a religion and a moral code, with customs and even laws of its own, which none of the component nations can renounce without causing a shock to the whole frame.

Now look at the other side of the picture. Observe the perpetual quarrels, the robberies, the usurpations, the revolts, the wars, the murders, which bring daily desolation to this venerable home of philosophy, this brilliant sanctuary of art and science. Consider our fair speeches and our abominable acts, the boundless humanity of our maxims and the boundless cruelty of our deeds; our religion so merciful and our intolerance so ferocious; our policy so mild in our text-books and so harsh in our acts; our rulers so beneficent and our people so wretched; our governments so temperate and our wars so savage: and then tell me how to reconcile these glaring contradictions; tell me if this alleged brotherhood of the nations of Europe is anything more than a bitter irony to denote their mutual hatred.

But, in truth, what else was to be expected? Every community without laws and without rulers, every union formed and maintained by nothing better than chance, must inevitably fall into quarrels and dissensions at the first change that comes about. The historic union of the nations of Europe has entangled their rights and interests in a thousand complications; they touch each other at so many points that no one of them can move without giving a jar to all the rest; their variances are all the more deadly, as their ties are more closely woven; their frequent quarrels are almost savage as civil wars.

Let us admit then that the powers of Europe stand to each other

strictly in a state of war, and that all the separate treaties between them are in the nature rather of a temporary truce than a real peace: whether because such treaties are seldom guaranteed by any except the contracting parties; or because the respective rights of those parties are never thoroughly determined and are therefore bound–they, or the claims which pass for rights in the eyes of powers who recognize no earthly superior–to give rise to fresh wars as soon as a change of circumstances shall have given fresh strength to the claimants.

More than this: the public law of Europe has never been passed or sanctioned by common agreement; it is not based upon any general principles; it varies incessantly from time to time and from place to place; it is therefore a mass of contradictory rules which nothing but the right of the stronger can reduce to order: so that, in the absence of any sure clue to guide her, reason is bound, in every case of doubt, to obey the promptings of self-interest–which, in itself, would make war inevitable, even if all parties desired to be just. With the best intentions in the world, all that can be done is to appeal to arms, or put the question to rest for the moment by a treaty. But the old quarrel soon comes to life again, complicated by others which have arisen in the interval; all is confusion and bewilderment; the truth is obscured so hopelessly that usurpation passes for right and weakness for wrong. In this general welter, all bearings have been so utterly lost that, if we could get back to the solid ground of primitive right, few would be the sovereigns in Europe who would not have to surrender all that they possess.

Another source of war, less obvious but not less real, is that things often change their spirit without any corresponding change of form; that states, hereditary in fact, remain elective in appearance; that we find parliaments or states general in monarchies and hereditary rulers in republics; that a power, in fact dependent on another, often retains the semblance of autonomy; that all the provinces ruled by the same sovereign are not always governed by the same laws; that the laws of succession differ in different dominions of the same sovereign; finally, that the tendency of every government to degenerate is a process which no human power can possibly arrest. Such are the causes, general and special, which unite us only to work our ruin. Such are the reasons which condemn us to write our high-sounding theories of fellowship with hands ever dyed afresh in blood.

The causes of the disease, once known, suffice to indicate the remedy, if indeed there is one to be found. Every one can see that what unites any form of society is community of interests, and what disintegrates

is their conflict; that either tendency may be changed or modified by a thousand accidents; and therefore that, as soon as a society is founded, some coercive power must be provided to co-ordinate the actions of its members and give to their common interests and mutual obligations that firmness and consistency which they could never acquire of themselves.

It would, indeed, be a great mistake to suppose that the reign of violence, described above, could ever be remedied by the mere force of circumstances, or without the aid of human wisdom. The present balance of Europe is just firm enough to remain in perpetual oscillation without losing itself altogether; and, if our troubles cannot increase, still less can we put an end to them, seeing that any sweeping revolution is henceforth an impossibility.

In proof of this conclusion, let us begin by glancing at the present condition of Europe. The lie of the mountains, seas and rivers, which serve as frontiers for the various nations who people it, seems to have fixed for ever their number and their size. We may fairly say that the political order of the continent is, in some sense, the work of nature.

In truth, we must not suppose that this much vaunted balance is the work of any man, or that any man has deliberately done anything to maintain it. It is there; and men who do not feel themselves strong enough to break it conceal the selfishness of their designs under the pretext of preserving it. But, whether we are aware of it or no, the balance continues to support itself without the aid of any special intervention; if it were to break for a moment on one side, it would soon restore itself on another; so that, if the princes who are accused of aiming at universal monarchy were in reality guilty of any such project, they gave more proof of ambition than of genius. How could any man look such a project in the face without instantly perceiving its absurdity, without realizing that there is not a single potentate in Europe so much stronger than the others as ever to have a chance of making himself their master? No conqueror has ever changed the face of the world unless, appearing suddenly with an army of unexpected strength, or with foreign troops hardened to war in other service, he fell upon nations who were either disarmed, or divided, or undisciplined. But where is a European prince to find an army of unexpected strength sufficient to crush all the others, when the most powerful of them has only a fraction of the strength belonging to the whole body and all the rest are watching so carefully to prevent him? Will he have a larger army than all of them put together? It is impossible; or he will only ruin himself the sooner; or his troops will be less good, just because they are more numerous. Will his troops

be better trained? They will be proportionally fewer; not to mention that discipline is now everywhere the same, or will have become so before long. Will he have more money? Its sources are open to all, and no great conquest was ever made by money. Will he fall upon his enemies suddenly? Famine, or fortresses, will bar his way at every step. Will he strive to win his way inch by inch? Then he will give his enemies time to unite their forces to resist him; time, money and men will all be bound to fail him. Will he try to divide the other powers and conquer them one by one? The traditional maxims of Europe make such a policy impossible; the very most stupid of princes would never fall into such a trap as that. In a word, as all the sources of power are equally open to them all, the resistance is in the long run as strong as the attack; and time soon repairs the sudden accidents of fortune, if not for each prince individually, at least for the general balance of the whole.

Now let us take the supposition that two or three potentates league themselves together to conquer all the rest. Those three potentates, take them where you please, will not together have behind them as much as half of Europe. The other half will, quite certainly, make common cause against them. They will therefore have to conquer an enemy stronger than themselves. I may add that their interests are too contradictory and their mutual jealousies too great to allow of such a project ever being formed. I may add further that, even if it were formed, even if it were put in act, even if it had some measure of success, that very success would sow the seeds of discord among our victorious allies. It is beyond the bounds of possibility that the prizes of victory should be so equally divided, that each will be equally satisfied with his share. The least fortunate will soon set himself to resist the further progress of his rivals, who in their turn, for the same reason, will speedily fall out with one another. I doubt whether, since the beginning of the world, there has been a single case in which three, or even two, powers have joined forces for the conquest of others, without quarrelling over their contingents, or over the division of the spoil, and without, in consequence of this disagreement, promptly giving new strength to their common enemy. From all this it appears improbable that, under any supposition, either a king, or a league of kings, is in a position to bring about any serious or permanent change in the established order of Europe.

This does not mean that the Alps, the Rhine, the sea and the Pyrenees are in themselves a barrier which no ambition can surmount; but that

these barriers are supported by others which either block the path of the enemy, or serve to restore the old frontiers directly the first onslaught has spent its force. The real strength of the existing order is, in truth, to be found partly in the play of conflicting policies which, in nine cases out of ten, keep each other mutually in check. But there is another bulwark more formidable yet. This is the Germanic Body, which lies almost in the centre of Europe and holds all the other parts in their place, serving still more perhaps for the protection of its neighbours than for that of its own members: a body formidable to all by its size and by the number and valour of its component peoples; but of service to all by its constitution which, depriving it both of the means and the will to conquer, makes it the rock on which all schemes of conquest are doomed infallibly to break. In spite of all its defects, it is certain that, so long as that constitution endures, the balance of Europe will never be broken; that no potentate need fear to be cast from his throne by any of his rivals; and that the Treaty of Westphalia will perhaps for ever remain the foundation of our international system. Accordingly, the system of public right, which the Germans study so diligently, is even more important than they suppose. It is the public right not only of Germany, but even, in many ways, of Europe as a whole.

But the established order, if indestructible, is for that very reason the more liable to constant storms. Between the powers of Europe there is a constant action and reaction which, without overthrowing them altogether, keeps them in continual agitation. Ineffectual as they are, these shocks perpetually renew themselves, like the waves which for ever trouble the surface of the sea without ever altering its level. The nations are incessantly ravaged, without any appreciable advantage to the sovereigns.

It would be easy for me to draw the same lesson from a study of the special interests of all the courts of Europe; to show that those interests are so cunningly interwoven as to hold their respective forces mutually in check. But current theories of commerce and money have bred a political bigotry which works such rapid changes in the apparent interests of princes that it is impossible to arrive at any firm conclusion as to their real interests, seeing that everything now depends upon the economic systems, for the most part thoroughly crazy, which chance to flit through a minister's brain. For all that, commerce tends more and more to establish a balance between state and state; and by depriving certain powers of the exclusive advantages they once drew from it,

deprives them at the same time of one of the chief weapons they once employed for imposing their will upon the rest.[2]

If I have dwelt upon the equal distribution of forces which springs from the present constitution of Europe, it was in order to draw from it a conclusion of the highest importance to the project for establishing a general league among her peoples. For, if we are to form a solid and lasting federation, we must have put all the members of it in a state of such mutual dependence that no one of them is singly in a position to overbear all the others, and that separate leagues, capable of thwarting the general league, shall meet with obstacles formidable enough to hinder their formation. Failing this, the general league will be nothing but an empty name; and under an appearance of subjection, every member of it will in reality be independent. But, if those obstacles are such as I have described at the present moment—a moment when all the powers are entirely free to form separate leagues and offensive alliances—judge what they would become if there were a general league, fully armed and ready at any moment to forestall those who should conceive the design of destroying or resisting it. That in itself is enough to show that such a federation, so far from ending in mere vain discussions to be set at defiance with impunity, would on the contrary give birth to an effective power, capable of forcing any ambitious ruler to observe the terms of the general league which he has joined with others to set up.

From the above survey three certain conclusions may be drawn: the first that, Turkey excepted, there already exists among the nations of Europe a bond, imperfect indeed but still closer than the loose and general ties which exist between man and man in the state of nature; the second, that the imperfections of this association make the state of those who belong to it worse than it would be if they formed no community at all; the third, that these rudimentary ties, which make such an association injurious, make it at the same time readily capable of improvement, that all its members might easily find their happiness in what actually makes their misery, that from the state of war which now reigns among them they might perfectly well draw an abiding peace.

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2. There has been a great change since I wrote these words (1756); but my principle will always remain true. It is easy enough to foresee, for instance, that England, with all her glory, will be ruined within twenty years, and, moreover, will have lost what remains of her freedom. All the world asserts that agriculture flourishes in that island. I would wager anything that it is dying fast. London grows every day; therefore the kingdom is being depleted. The English have set their minds on being conquerors; therefore they are hastening to be slaves.

Let us now consider the means by which this great work, begun by chance, may be completed by wisdom. Let us ask how the free and voluntary association which now unites the states of Europe may be converted, by taking to itself the strength and firmness of a genuine body politic, into an authentic federation. There is no doubt that such a federation, by giving to the existing bond the completeness which it now lacks, will increase all its advantages and compel all the parts to unite for the benefit of the whole body. But, before this result can be brought about, the federation must embrace all the important powers in its membership; it must have a legislative body, with powers to pass laws and ordinances binding upon all its members; it must have a coercive force capable of compelling every state to obey its common resolves whether in the way of command or of prohibition; finally, it must be strong and firm enough to make it impossible for any member to withdraw at his own pleasure the moment he conceives his private interest to clash with that of the whole body. Those are the sure signs by which the world may satisfy itself of the wisdom, usefulness and solidity of our structure. It only remains now to carry our speculation a stage further: to discover by analysis what are the practical consequences which should flow from it, what the means best fitted to realize it, and whether there is any reasonable hope of putting it in execution.

From time to time there are convoked in Europe certain general assemblies called congresses, to which deputies from every state repair solemnly, to return in the same way; where men assemble to say nothing; where all the affairs of Europe are overhauled in detail; where men lay their heads together to deliberate whether the table they sit at shall be square or round; whether the hall shall have six doors or five; whether one plenipotentiary shall sit with his face or his back to the window, whether another shall come two inches further, or less far, into the room on a visit of ceremony: in fine, on a thousand questions of equal importance which have been discussed without any settlement for the last three centuries and are assuredly very fit to engross the statesmen of our own.

It is possible that the members of one of these assemblies may, once in a way, be blessed with common sense. It is even not impossible that they may have a sincere desire for the general good. For reasons to be assigned shortly, it is further conceivable that, after smoothing away a thousand difficulties, they will receive orders from their sovereigns to sign the constitution of the Federation of Europe, which I suppose to have been summarily drafted in the five following articles.

By the first, the contracting sovereigns shall enter into a perpetual and irrevocable alliance, and shall appoint plenipotentiaries to hold, in a specified place, a permanent diet or congress, at which all questions at issue between the contracting parties shall be settled and terminated by way of arbitration or judicial pronouncement.

By the second shall be specified the number of the sovereigns whose plenipotentiaries shall have a vote in the Diet; those who shall be invited to accede to the treaty; the order, date and method by which the presidency shall pass, at equal intervals, from one to another; finally the quota of their respective contributions and the method of raising them for the defrayal of the common expenses.

By the third, the Federation shall guarantee to each of its members the possession and government of all the dominions which he holds at the moment of the treaty, as well as the manner of succession to them, elective or hereditary, as established by the fundamental laws of each province. Further, with a view to suppressing at a single stroke and at the source those incessant disputes which arise between them, it shall be agreed to take as basis of the respective rights of the contracting parties the possession of the moment, as settled in each case by the last treaty concluded, with a general renunciation on all sides of every anterior claim: exception being made for all disputed successions and other claims to fall due in the future, all which shall be determined by arbitration of the Diet, to the absolute exclusion of all attempts to settle the matter by force or to take arms against each other under any pretext whatsoever.

By the fourth shall be specified the conditions under which any confederate who may break this treaty shall be put to the ban of Europe and proscribed as a public enemy: namely, if he shall have refused to execute the decisions of the grand alliance, if he shall have made preparations for war, if he shall have made a treaty hostile to the ends of the Federation, if he shall have taken up arms to resist it or to attack any one of the confederates.

By the same article, it shall be agreed that all the confederates shall arm and take the offensive, conjointly and at the common expense, against any state put to the ban of Europe, and that they shall not desist until the moment when he shall have laid down his arms, carried out the decisions and orders of the Diet, made amends for his offence, paid all the costs and atoned even for such warlike preparations as he may have made in defiance of the treaty.

Finally, by the fifth article, the plenipotentiaries of the Federation of

Europe shall receive standing powers to frame—provisionally by a bare majority, definitively (after an interval of five years) by a majority of three-quarters—those measures which, on the instruction of their courts, they shall consider expedient with a view to the greatest possible advantage of the commonwealth of Europe and of its members, all and single. In none of the above five articles, however, shall any change ever be made except with the unanimous consent of the confederates.

These five articles, thus summarized and reduced to the most general form, are, I am aware, exposed to countless petty objections, several of which would call for lengthy explanations. But petty objections are easily removed in case of need; and, in an enterprise of this importance, they are beside the point. When the policy of the Congress comes to be considered, a thousand obstacles will present themselves and ten thousand ways of removing them. It is *our* business to ask whether, in the nature of the case, the enterprise is possible or no. We should lose ourselves in volumes of trifles if we had to foresee all and find an answer to all. Confining ourselves, as we do, to incontestable principles, we have no call to satisfy every reader, nor to solve every objection, nor to say how every detail will be settled. It is enough to show that a settlement is possible.

In judging of this scheme, then, what are the questions that have to be considered? Two only; for I will not insult the reader by proving to him the general proposition that the state of peace is a better thing than the state of war.

The first question is whether the Federation suggested would be certain to answer its purpose and give a solid and abiding peace to Europe. The second, whether it is for the interest of the various sovereigns to establish such a Federation and to pay the price I have mentioned to obtain a lasting peace.

When we have thus proved our scheme to be for the advantage both of Europe as a whole and of all the states composing her, what obstacle is left, we ask, that can possibly prevent the execution of a design which, after all, depends solely upon the will of those concerned?

In discussing the first article, for instance, let us apply what has been said above of the general order now established in Europe and of the common resolve which confines each power practically within its traditional limits and does not allow it wholly to crush any of the others. In order to make my argument clear, I give here a list of the nineteen powers here assumed to constitute the commonwealth of Europe, to each of which I give an equal voice, making altogether nineteen votes,

in the deliberations of the Diet: the Emperor of the Romans;[3] the Emperor of Russia; the King of France; the King of Spain; the King of England; the States General,[4] the King of Denmark; Sweden; Poland; the King of Portugal; the Sovereign of Rome;[5] the King of Prussia; the Elector of Bavaria and his associates; the Elector Palatine and his associates; the Swiss and their associates; the ecclesiastical Electors and their associates; the Republic of Venice and her associates; the King of Naples; the King of Sardinia.

Several minor sovereigns–for instance, the Republic of Genoa, the dukes of Parma and Modena, and others–are omitted from the list. They will be associated with one or other of the less powerful states, with whom they will share a vote, after the fashion of the joint vote (*votum curiatum*) of the counts of the empire. It is useless to make the list more precise because, at any moment before the scheme is put in force, things may happen which, without affecting the principle of the measure, may call for alterations of detail.

A glance at the list will be enough to prove conclusively that it is impossible either for any single power to resist the united action of all the others, or for any partial league to be formed capable of defying the Federation as a whole.

How, indeed, could such a league be formed? Between the more powerful of the confederates? We have already proved that such a league could never last; and with the list before us, it is easy enough to see that it could never be reconciled with the traditional policy of any of the great powers, or with the interests inherent in their respective positions. Between a large state and a number of small ones? Then the other large states, with the Federation behind them, will crush such a league in no time; and it is clear that the Grand Alliance, being perpetually armed and concerted for action, will find no difficulty in forestalling and crushing in advance any partial and seditious alliance, likely to trouble the peace and the public order of Europe. Look at the cohesion of the Germanic Body: and that, in spite of its defective discipline and the glaring inequality of its members. Is there a single prince, not even excepting the most powerful, who would dare to expose himself to the ban of the empire by openly defying its laws, unless indeed he had good reason to suppose that the empire would

3. The potentate commonly, but incorrectly, called the Emperor of Germany.
4. The Dutch Netherlands.
5. The Pope.

never have the courage to take action against the culprit in good earnest?

That is why I regard it as proved that the Diet of Europe, once established, will have no rebellion to fear and that no abuses which may creep in are ever likely to defeat the aims with which it was founded. It remains to ask whether those aims are really secured by the proposed Federation.

With a view to answering this question, let us consider the motives by which princes are commonly led to take up arms. These motives are: either to make conquests, or to protect themselves from aggression, or to weaken a too powerful neighbour, or to maintain their rights against attack, or to settle a difference which has defied friendly negotiation, or, lastly, to fulfil some treaty obligation. There is no cause or pretext of war which cannot be brought under one or other of these six heads; and it is manifest that not one of the six is left standing under the new order which I propose.

As for the first, the thought of conquests will have to be given up from the absolute impossibility of making them. The aggressor is sure to find his way barred by forces stronger than his own; he is powerless to gain anything, and he risks the loss of all he has. At present, an ambitious prince, who wishes to extend his dominions in Europe, relies upon two weapons; he begins by securing strong allies, and then seeks to catch his enemy unawares. But, under the new conditions, no special alliance could stand for a moment before the General Alliance, which is stronger and subsists permanently; and as there is no longer any pretext for arming, no prince can do so without being at once detected, stopped and punished by the Federation always under arms.

Again, the very thing which destroys all hope of conquest relieves him at the same time from all fear of being attacked. And, under the guarantee of all Europe, not only are his territories as strongly assured to him as the possessions of any citizen in a well-ordered community, but they are even more so than they were when he was their sole and only defender; in exactly the same proportion as the whole of Europe is stronger than any one of her princes taken singly.

Thirdly, having no more reason to fear his neighbour, neither has he any more reason for desiring to weaken him; and having no hope of success in such an enterprise, he is under no temptation to attempt it.

As for the maintenance of his rights, I begin by remarking that a whole host of pettifogging claims and obscure pretensions will be swept

away at one stroke by the third article of Federation, which settles for ever all the conflicting rights of the allied princes, on the basis of what they actually hold. By the same article, we have a clear principle for settling all claims and pretensions which may be raised in the future: each will be decided in the Diet, as it arises. It may be added that, if my rights are attacked, I am bound to defend them by the weapon used against me. They cannot be attacked by force of arms without bringing the ban of the Diet upon the assailant. It is not by arms then that I shall have to defend them. The same may be said of injuries, wrongs and claims for damage—in short, of all the unforeseen differences which may arise between two sovereigns. The same power which is bound to maintain their rights is bound also to redress their grievances.

As for the last head, the question settles itself. It is clear at a glance that, having no longer any assailant to fear, I have no longer any use for treaties of defence; and that, as no treaty can be so strong or so trustworthy as that guaranteed by the Grand Federation, any other treaty would be useless, illegitimate and consequently null and void.

For all these reasons it is impossible that the Federation, once established, can leave any seed of war between its members; impossible that our object, an abiding peace, should not be absolutely attained by the proposed system, if it were once set on foot.

It now remains to settle the other question: that relating to the interests of the several parties concerned. For everyone knows that the general interest is powerless to silence that of the individual. To prove that peace, as a general principle, is a better thing than war is to say nothing to the man who has private reasons for preferring war to peace; to show him the means for securing a lasting peace is only to encourage him to work against them.

In truth, we shall be told: "You are taking from sovereigns the right of doing themselves justice; that is to say, the precious right of being unjust when they please. You are taking from them the power of making themselves great at the expense of their neighbours. You are forcing them to renounce those antiquated claims whose value depends on their obscurity and which grow with every fresh growth in power; that parade of might and terror with which they love to awe the world; that pride of conquest which is the chief source of their glory. In one word, you are forcing them to be equitable and peaceful. What amends do you propose to make them for all these cruel privations?"

I do not venture to answer, with the Abbé de Saint-Pierre, that the true glory of princes lies in serving the good of the community and the

happiness of their subjects, that their highest interest is to win a good name, and that such a name is awarded by the wise in exact proportion to the good which the ruler has done in the world; that the scheme of founding a lasting peace is the most lofty ever conceived and the most certain, if executed, to cover its author with undying glory; that such a scheme would not only do a greater service than any other to the people but also confer higher honour upon the sovereign; that this is the only ideal not stained with blood, rapine, curses and tears; in a word, that the surest way for a sovereign to raise himself above the common herd of kings is to labour for the good of the community. Let such language, which has covered the author and his projects with ridicule in all the council-chambers of Europe, be left to irresponsible declaimers. But let us never join in the cry against the arguments it embodies; and, whatever may be the truth as to the virtues of princes, let us confine ourselves to their interests.

All the powers of Europe have rights, or claims, as against each other. These rights are, from the nature of the case, incapable of ever being finally adjusted, because there is no common and unvarying standard for judging of their merits and because they are often based upon facts which are either disputed or of doubtful interpretation. Nor are the quarrels which spring from them any more capable of being settled beyond appeal, whether in default of any recognized umpire, or because, when the chance offers, every prince goes back shamelessly upon the cessions which have been forcibly torn from him by a stronger power through treaties, or after an unsuccessful war. It is therefore a mistake to think only of the claims we have on others, and to forget those they have on us, when in reality there is no more justice on one side than the other and both are equally capable of acquiring the means for enforcing their demands. Directly fortune is taken for arbiter, actual possession acquires a value which no wise man will stake against a possible gain in the future, even where chances are equal on both sides; and the rich man who, in the hope of doubling his fortune, ventures to risk it all upon one throw is blamed by the whole world. We have shown, however, that in schemes of self-aggrandizement the chances are never equal and that, even in the present order of things, the aggressor is always bound to find his enemy stronger than himself. The inevitable conclusion is that, the more powerful having no motive for staking his possessions and the weaker no hope of gaining on the throw, both will find their advantage in renouncing what they would like to win, in order to secure what they possess.

Think of the waste of men, of money, of strength in every form; think of the exhaustion in which any state is plunged by the most successful war; compare these ravages with the profit which results: and we shall find that we commonly lose where we suppose ourselves to gain; that the conqueror, always enfeebled by the war, can only console himself with the thought that the conquered is still more enfeebled than himself. And even this advantage is more in appearance than reality; for the strength which has been gained upon our opponent has been lost against the neutrals who, without changing themselves, are nevertheless stronger relatively to us by all the strength that we have lost.

If all kings have not yet thrown off the folly of conquests, it would seem that the wiser of them at any rate are beginning to realize that they sometimes cost more than they are worth. Without going into a thousand distinctions which would only distract us from our purpose, we may say broadly that a prince who, in extending his frontiers, loses as many of his old subjects as he gains new ones in the process only weakens himself by his aggrandizement; because, with a larger territory to defend, he has no more soldiers to defend it. Everyone knows, however, that, as war is waged nowadays, the smallest part of the resultant loss of life is due to losses in the field. Certainly, that is the loss which everyone sees and feels. But all the time there is taking place through the whole kingdom a loss far more serious and more irreparable than that of those who die: a loss due to those who are not born, to the increase of taxes, to the interruption of trade, to the desertion of the fields, to the neglect of their cultivation. This evil, which no one sees at first, makes itself felt cruelly in the end. And then the king is astonished to find himself so weak, as the result of making himself so strong.

There is another thing which makes conquests even less profitable than they used to be. It is that kings have at last learned the secret of doubling or trebling their power not only without enlarging their territory but even, it may be, by contracting it, after the wise example of Hadrian. The secret is that the strength of kings lies only in that of their subjects; and it follows from what I have just said that, given two states supporting an equal number of inhabitants, that which covers the smaller extent of territory is in reality the more powerful. It is then by good laws, by a wise discipline, by large views on economic policy that a sagacious sovereign is sure of increasing his power without incurring any hazard. It is in carrying out works more useful than his neighbours' that he makes conquests—the only true conquests—at their expense; and every subject born to him in excess of theirs is another enemy killed.

It may be objected that I prove too much and that, if the matter were as I put it, everyone being manifestly interested in avoiding war and the public interest combining with that of individuals for the preservation of peace, that peace ought to come of itself and of itself last for ever without any need of federation. Given the present state of things, however, that would be to reason very ill. It is quite true that it would be much better for all men to remain always at peace. But so long as there is no security for this, everyone, having no guarantee that he can avoid war, is anxious to begin it at the moment which suits his own interest and so forestall a neighbour, who would not fail to forestall the attack in his turn at any moment favourable to himself, so that many wars, even offensive wars, are rather in the nature of unjust precautions for the protection of the assailant's own possessions than a device for seizing those of others. However salutary it may be in theory to obey the dictates of public spirit, it is certain that, politically and even morally, those dictates are liable to prove fatal to the man who persists in observing them with all the world when no one thinks of observing them towards him.

I have nothing to say on the question of military parade because, when supported by no solid foundation either of hope or fear, such parade is mere child's play, and kings have no business to keep dolls. I am equally silent as to the glory of conquest because, if there really were men who would break their hearts at the thought of having no one to massacre, our duty would be not to reason with such monsters but to deprive them of all means for putting their murderous frenzy into act. All solid grounds of war being swept away by the third article, no king can have any motive for kindling its horrors against a rival which would not furnish that rival with equally strong grounds for kindling them against him. And it is a great gain to be delivered from a danger in which each finds himself alone against the world.

As for the dependence of all upon the Tribunal of Europe, it is abundantly clear by the same article that the rights of sovereignty, so far from being weakened, will, on the contrary, be strengthened and confirmed. For that article guarantees to each sovereign not only that his dominions shall be protected against foreign invasion, but also that his authority shall be upheld against the rebellion of his subjects. The prince accordingly will be none the less absolute, and his crown will be more fully assured. By submitting to the decision of the Diet in all disputes with his equals, and by surrendering the perilous right of seizing other men's possessions, he is, in fact, doing nothing more than

securing his real rights and renouncing those which are purely fictitious. Besides, there is all the difference in the world between dependence upon a rival and dependence upon a body of which he is himself a member and of which each member in turn becomes the head. In the latter case, the pledges that are given him are really the security for his freedom: it would be forfeited, if lodged with a superior; it is confirmed, when lodged with equals. In support of this, I appeal to the example of the Germanic Body. It is quite true that the constitution of this is such as to trench in many ways upon the sovereignty of its members. It is quite true that their position is consequently less favourable than it would be in the Federation of Europe. But, in spite of those drawbacks, there is not one of them, however jealous he may be of his dignity, who would choose, even if he had the power, to win absolute independence at the cost of severance from the empire.

Observe further that the head of the Germanic Body, being permanent, is bound to usurp ceaselessly upon the rights of the other members. In the Diet of Europe, where the presidency passes from one to another without any regard to disparities of power, no such danger is to be feared.

There is yet another consideration which is likely to weigh even more with men so greedy of money as princes always are. Not only will an unbroken peace give them, as well as their subjects, every means of amassing abundant riches; they will also be spared vast expenses by the reduction of their military budget, of those innumerable fortresses, of those enormous armies, which swallow up their revenue and become daily more and more of a burden to their subjects and themselves. I know that it will not suit all sovereigns to suppress their army bodily and leave themselves with no force in hand to crush an unexpected revolt or repel a sudden invasion. I know also that they will have their contingent to furnish to the Federation with a view both to guarding the frontiers of Europe and to maintaining the federal army whose duty it will be, in case of need, to carry out the decrees of the Diet. But, when all these charges are met and, at the same time, the extraordinary expenses of war suppressed for ever, there will still be a saving of more than half the ordinary military budget; and that saving can be divided between the relief of the subject and the coffers of the prince. The result will be that the people will have to pay much less; that the prince, being much better off, will be in a position to encourage commerce, agriculture and the arts and to create useful foundations which will still further increase his subjects' riches and his own; and, over and above all this, that the state will enjoy a security far greater than it now draws from all its armies and

from all that warlike parade which drains its strength in the very bosom of peace.

It will be said perhaps that the frontier countries of Europe will then be relatively worse off, since they will still have to face the chance of war either with the Turk, or the African Corsairs, or the Tartars.

The answer to this is (1) that those countries are under the same necessity at present, from which it follows that they will not be put to any positive disadvantage, but will only have an advantage the less; and this, in fact, is an inevitable consequence of their geographical position; (2) that, being freed from all anxiety on the side of Europe, they will be much more capable of resisting attacks from other quarters; (3) that the suppression of all fortresses in the inner parts of Europe and of all expenses needed for their maintenance would enable the Federation to build a large number on the eastern frontiers without bringing any fresh charge upon its members; (4) that these fortresses, built, maintained and garrisoned at the common charge, will mean so many fresh guarantees, and so much expense saved to the frontier powers for whose benefit they are built; (5) that the troops of the Federation, posted on the frontiers of Europe, will stand permanently ready to drive back the invader; (6) and finally, that a body so formidable as the commonwealth of Europe will make the foreigner think twice before attacking any of its members: just as the Germanic Body, though infinitely less powerful, is still strong enough to command the respect of its neighbours and offer valuable protection to all the princes who compose it.

It may be further objected that, when the nations of Europe have ceased to war among themselves, the art of war will be gradually forgotten, that her armies will lose their courage and discipline, that there will be no more soldiers or generals, and that Europe will lie at the mercy of the first comer.

My answer is that one of two things will happen. Either the neighbours of Europe will attack her and wage war against her; or they will be afraid of the Federation and leave her in peace.

In the former case, there will be plenty of opportunities for training military genius and talent, for practising and hardening our troops. The armies of the Federation will, in this way, be the school of Europe. Men will go to the frontiers to learn war, while in the heart of Europe there will reign the blessings of peace. The advantages of war and peace will be combined. Does anyone believe that no nation can become warlike without perpetual civil war? And are the French the less brave because Anjou and Touraine are not constantly fighting with each other?

In the latter case, it is true that there can be no more hardening for war. But neither will there be any more need for it. Of what use would it be to train for war, when you have no intention of ever making it? And which is the better course—to cultivate a pernicious art, or to destroy the need of it for ever? If the secret of perpetual health were discovered, would there be any sense in rejecting it, on the ground that doctors must not be deprived of the chance of gaining experience? And in making this parallel we have still to ask which of the two arts is the more beneficent in itself and the more deserving of encouragement.

Let no one threaten us with a sudden invasion. It is perfectly obvious that Europe has no invader to fear, and that the "first comer" will never come. The day of those barbarian irruptions, which seemed to fall from the clouds, is gone for ever. Now that the whole surface of the earth lies bare to our scrutiny, no danger can reach us which we have not foreseen for years. There is no power in the world now capable of threatening all Europe; and if one ever appears, Europe will either have time to make ready or, at the worst, will be much more capable of resisting him when she is united in one corporate body than she is now, when she would have to put a sudden end to all her quarrels and league herself in haste against the common invader.

We have thus seen that all the alleged evils of federation, when duly weighed, come to nothing. I now ask whether anyone in the world would dare to say as much of those which flow from the recognized method of settling disputes between one prince and another—the appeal to the sword: a method inseparable from the state of anarchy and war, which necessarily springs from the absolute independence conceded to all sovereigns under the imperfect conditions now prevailing in Europe. In order to put the reader in a better position to estimate these evils, I will give a short summary of them and leave him to judge of their significance.

(1) The existence of no solid right, except that of the stronger. (2) The perpetual and inevitable shifting of the balance from nation to nation, which makes it impossible for any one of them to keep in its grasp the power it holds at any moment. (3) The absence of complete security for any nation, so long as its neighbours are not subdued or annihilated. (4) The impossibility of annihilating them, in view of the fact that, directly one is conquered, another springs up in its place. (5) The necessity of endless precautions and expenses to keep guard against possible enemies. (6) Weakness, and consequent exposure to attack, during minorities or revolts; for, when the state is divided, who can support one faction against the other? (7) The absence of any guaran-

tee for international agreements. (8) The impossibility of obtaining justice from others without enormous cost and loss, which even so do not always obtain it, while the object in dispute is seldom worth the price. (9) The invariable risk of the prince's possessions, and sometimes of his life, in the quest of his rights. (10) The necessity of taking part against his will in the quarrels of his neighbours and of engaging in war at the moment when he would least have chosen it. (11) The stoppage of trade and revenue at the moment when they are most indispensable. (12) The perpetual dangers threatened by a powerful neighbour, if the prince is weak, and by an armed alliance, if he is strong. (13) Finally, the uselessness of prudence, when everything is left to chance; the perpetual impoverishment of nations; the enfeeblement of the state alike in victory and defeat; and the total inability of the prince ever to establish good government, ever to count upon his own possessions, ever to secure happiness either for himself or for his subjects.

In the same way, let us sum up the advantages which the arbitration of Europe would confer upon the princes who agree to it.

1. Absolute certainty that all their disputes, present and future, will always be settled without war: a certainty incomparably more useful to princes than total immunity from lawsuits to the individual.

2. The abolition, either total or nearly so, of matters of dispute, thanks to the extinction of all existing claims—a boon which, in itself, will make up for all the prince renounces and secure what he possesses.

3. An absolute and indefeasible guarantee not only for the persons of the prince and his family, but also for his dominions and the law of succession recognized by the custom of each province: and this, not only against the ambition of unjust and grasping claimants, but also against the rebellion of his subjects.

4. Absolute security for the execution of all engagements between princes, under the guarantee of the commonwealth of Europe.

5. Perfect freedom of trade for all time whether between state and state, or between any of them and the more distant regions of the earth.

6. The total suppression for all time of the extraordinary military expenses incurred by land and sea in time of war, and a considerable reduction of the corresponding ordinary expenses in time of peace.

7. A notable increase of population and agriculture, of the public wealth and the revenues of the prince.

8. An open door for all useful foundations, calculated to increase the power and glory of the sovereign, the public wealth and the happiness of the subject.

As I have already said, I leave it to the reader to weigh all these

points and to make his own comparison between the state of peace which results from federation and the state of war which follows from the present anarchy of Europe.

If our reasoning has been sound in the exposition of this project, it has been proved: firstly, that the establishment of a lasting peace depends solely upon the consent of the sovereigns concerned and offers no obstacle except what may be expected from their opposition; secondly, that the establishment of such a peace would be profitable to them in all manner of ways, and that, even from their point of view, there is no comparison between its drawbacks and advantages; thirdly, that it is reasonable to expect their decision in this matter will coincide with their plain interest; and lastly, that such a peace, once established on the proposed basis, will be solid and lasting and will completely fulfil the purpose with which it was concluded.

This is not, of course, to say that the sovereigns will adopt this project–who can answer for the reason of another?–but only that they would adopt it, if they took counsel of their true interest. It must be observed that we have not assumed men such as they ought to be, good, generous, disinterested and devoted to the public good from motives of pure humanity; but such as they are, unjust, grasping and setting their own interest above all things. All that I do assume in them is understanding enough to see their own interest, and courage enough to act for their own happiness. If, in spite of all this, the project remains unrealized, that is not because it is utopian; it is because men are crazy, and because to be sane in a world of madmen is in itself a kind of madness.

ROUSSEAU'S CRITICISM OF SAINT-PIERRE'S PROJECT

The scheme of a lasting peace was of all others the most worthy to fascinate a man of high principle. Of all those which engaged the Abbé de Saint-Pierre, it was therefore that over which he brooded the longest and followed up with the greatest obstinacy. It is indeed hard to give any other name to the missionary zeal which never failed him in this enterprise: and that, in spite of the manifest impossibility of success, the ridicule which he brought upon himself day by day and the rebuffs which he had continually to endure. It would seem that his well-balanced spirit, intent solely on the public good, led him to measure his devotion to a cause purely by its utility, never letting himself be daunted by difficulties, never thinking of his own personal interest.

If ever moral truth were demonstrated, I should say it is the utility,

national no less than international, of this project. The advantages which its realization would bring to each prince, to each nation, to the whole of Europe, are immense, manifest, incontestable; and nothing could be more solid or more precise than the arguments which the author employs to prove them. Realize his commonwealth of Europe for a single day, and you may be sure it will last for ever; so fully would experience convince men that their own gain is to be found in the good of all. For all that, the very princes who would defend it with all their might, if it once existed, would resist with all their might any proposal for its creation; they will as infallibly throw obstacles in the way of its establishment as they would in the way of its abolition. Accordingly Saint-Pierre's book on *A Lasting Peace* seems to be ineffectual for founding it and unnecessary for maintaining it. "It is then an empty dream," will be the verdict of the impatient reader. No: it is a work of solid judgment, and it is of the last importance for us to possess it.

Let us begin by examining the criticisms of those who judge of reasons not by reason, but by the event, and who have no objection to bring against the scheme except that it has never been put in practice. Well, such men will doubtless say, if its advantages are so certain, why is it that the sovereigns of Europe have never adopted it? Why do they ignore their own interest, if that interest is demonstrated so clearly? Do we see them reject any other means of increasing their revenue and their power? And, if this means were as efficacious as you pretend, is it conceivable that they should be less eager to try it than any of the schemes they have pursued for all these centuries? that they should prefer a thousand delusive expedients to so evident an advantage?

Yes, without doubt, that is conceivable; unless it be assumed that their wisdom is equal to their ambition, and that the more keenly they desire their own interest, the more clearly do they see it. The truth is that the severest penalty of excessive self-love is that it always defeats itself, that the keener the passion the more certain it is to be cheated of its goal. Let us distinguish them, in politics as in morals, between real and apparent interest. The former would be secured by an abiding peace; that is demonstrated in the *Project*. The latter is to be found in the state of absolute independence which frees sovereigns from the reign of law only to put them under that of chance. They are, in fact, like a madcap pilot who, to show off his idle skill and his power over his sailors, would rather toss to and fro among the rocks in a storm than moor his vessel at anchor in safety.

The whole life of kings, or of those on whom they shuffle off their

duties, is devoted solely to two objects: to extend their rule beyond their frontiers and to make it more absolute within them. Any other purpose they may have is either subservient to one of these aims, or merely a pretext for attaining them. Such pretexts are "the good of the community," "the happiness of their subjects," or "the glory of the nation": phrases for ever banished from the council chamber, and employed so clumsily in proclamations that they are always taken as warnings of coming misery and that the people groans with apprehension when its masters speak to it of their "fatherly solicitude."

From these two fundamental maxims we can easily judge of the spirit in which princes are likely to receive a proposal which runs directly counter to the one and is hardly more favourable to the other. Anyone can see that the establishment of the Diet of Europe will fix the constitution of each state as inexorably as its frontiers; that it is impossible to guarantee the prince against the rebellion of his subjects without at the same time securing the subjects against the tyranny of the prince; and that, without this, the Federation could not possibly endure. And I ask whether there is in the whole world a single sovereign who, finding himself thus bridled for ever in his most cherished designs, would endure without indignation the very thought of seeing himself forced to be just not only with the foreigner, but even with his own subjects?

Again, anyone can understand that war and conquest without and the encroachments of despotism within give each other mutual support; that money and men are habitually taken at pleasure from a people of slaves, to bring others beneath the same yoke; and that conversely war furnishes a pretext for exactions of money and another, no less plausible, for keeping large armies constantly on foot, to hold the people in awe. In a word, anyone can see that aggressive princes wage war at least as much on their subjects as on their enemies, and that the conquering nation is left no better off than the conquered. "I have beaten the Romans," so Hannibal used to write to Carthage, "send me more troops. I have exacted an indemnity from Italy, send me more money." That is the real meaning of the *Te Deums*, the bonfires and rejoicings with which the people hail the triumphs of their masters.

As for disputes between prince and prince, is it reasonable to hope that we can force before a higher tribunal men who boast that they hold their power only by the sword, and who bring in the name of God solely because He "is in heaven"? Will sovereigns ever submit their quarrels to legal arbitration, when all the rigour of the laws has never succeeded in forcing private individuals to admit the principle in theirs? A private

gentleman with a grievance is too proud to carry his case before the Court of the Marshals of France; and you expect a king to carry his claims before the Diet of Europe? Not to mention that the former offends against the laws, so risking his life twice over, while the latter seldom risks anything but the life of his subjects; and that, in taking up arms, he avails himself of a right recognized by all the world–a right for the use of which he claims to be accountable to God alone.

A prince who stakes his cause on the hazards of war knows well enough that he is running risks. But he is less struck with the risks than with the gains on which he reckons, because he is much less afraid of fortune than he is confident in his own wisdom. If he is strong, he counts upon his armies; if weak, upon his allies. Sometimes he finds it useful to purge ill humours, to weaken restive subjects, even to sustain reverses; and the wily statesman knows how to draw profit even from his own defeats. I trust it will be remembered that it is not I who reason in this fashion, but the court sophist, who would rather have a large territory with few subjects, poor and submissive, than that unshaken rule over the hearts of a happy and prosperous people, which is the reward of a prince who observes justice and obeys the laws.

It is on the same principle that he meets in his own mind the argument drawn from the interruption of commerce, from the loss of life, from the financial confusion and the real loss which result from an unprofitable conquest. It is a great miscalculation always to estimate the losses and gains of princes in terms of money; the degree of power they aim at is not to be reckoned by the millions in their coffers. The prince always makes his schemes rotate: he seeks to command in order to enrich himself, and to enrich himself in order to command. He is ready by turns to sacrifice the one aim to the other, with a view to obtaining whichever of the two is most wanting at the moment. But it is only in the hope of winning them both in the long run that he pursues each of them apart. If he is to be master both of men and things, he must have empire and money at the same time.

Let us add finally that, though the advantages resulting to commerce from a general and lasting peace are in themselves certain and indisputable, still, being common to all states, they will be appreciated by none. For such advantages make themselves felt only by contrast, and he who wishes to increase his relative power is bound to seek only such gains as are exclusive.

So it is that, ceaselessly deluded by appearances, princes would have nothing to do with peace on these terms, even if they calculated their

interests for themselves. How will it be, when the calculation is made for them by their ministers, whose interests are always opposed to those of the people and almost always to the prince's? Ministers are in perpetual need of war, as a means of making themselves indispensable to their master, of throwing him into difficulties from which he cannot escape without their aid, of ruining the state, if things come to the worst, as the price of keeping their own office. They are in need of it, as a means of oppressing the people on the plea of national necessity, of finding places for their creatures, of rigging the market and setting up a thousand odious monopolies. They are in need of it, as a means of gratifying their passions and driving their rivals out of favour. They are in need of it, as a means of controlling the prince and withdrawing him from court whenever a dangerous plot is formed against their power. With a lasting peace, all these resources would be gone. And the world still persists in asking why, if such a scheme is practicable, these men have not adopted it. Is it not obvious that there is nothing impracticable about it, except its adoption by these men? What then will they do to oppose it? What they have always done: they will turn it into ridicule.

Again, even given the good will that we shall never find either in princes or their ministers, we are not to assume, with the Abbé de Saint-Pierre, that it would be easy to find the right moment for putting the project into act. For this, it would be essential that all the private interests concerned, taken together, should not be stronger than the general interest, and that everyone should believe himself to see in the good of all the highest good to which he can aspire for himself. But this requires a concurrence of wisdom in so many heads, a fortuitous concourse of so many interests, such as chance can hardly be expected ever to bring about. But, in default of such spontaneous agreement, the one thing left is force; and then the question is no longer to persuade but to compel, not to write books but to raise armies.

Accordingly, though the scheme in itself was wise enough, the means proposed for its execution betray the simplicity of the author. He fairly supposed that nothing was needed but to convoke a congress and lay the articles before it; that they would be signed directly and all be over on the spot. It must be admitted that, in all his projects, this good man saw clearly enough how things would work, when once set going, but that he judged like a child of the means for setting them in motion.

To prove that the project of the Christian Commonwealth is not utopian, I need do no more than name its original author. For no one

will say that Henry IV was a madman, or Sully a dreamer. The Abbé de Saint-Pierre took refuge behind these great names, to revive their policy. But what a difference in the time, the circumstances, the scheme itself, the manner of bringing it forward and, above all, in its author!

To judge of this, let us glance at the state of Europe as it was at the moment which Henry chose for the execution of his project.

The power of Charles V, who reigned over one half of the world and struck awe into the other, had led him to aspire to universal empire, with great chances of success and great talents for making use of them. His son, more rich and less powerful, never ceased to nurse a design which he was incapable of carrying out, and throughout his reign kept Europe in a state of perpetual alarm. In truth, the House of Austria had acquired such an ascendancy over the other powers that no prince was safe upon his throne, unless he stood well with the Habsburgs. Philip III, with even fewer talents, inherited all his father's pretensions. Europe was still held in awe by the power of Spain, which continued to dominate the others rather by long habit of commanding than from any power to make herself obeyed. In truth, the revolt of the low countries, the struggle against England, the long drain of the civil wars in France had exhausted the strength of Spain and the riches of the Indies. The House of Austria, now divided into two branches, had ceased to act with the same unity; and the Emperor, although he strained every nerve to maintain or recover the authority of Charles V, only succeeded in affronting the lesser princes and provoking conspiracies which speedily broke out and came near to costing him his throne. Such were the slow stages which prepared the fall of the House of Austria and the new birth of the liberties of Europe. No one, however, had the courage to be the first to risk throwing off the yoke and exposing himself alone to the dangers of war; the example of Henry himself, who had come so ill out of the enterprise, damped the courage of all the rest. Moreover, if we except the Duke of Savoy, who was too weak and too much under the curb to move a step, there was not among all the sovereigns of the time a single one of ability enough to form and carry through such an enterprise; each one of them waited on time and circumstances for the moment to break his chains. Such, in rough outline, was the state of things at the time when Henry formed the plan of the Christian Commonwealth and prepared to put it in act. The project was vast indeed and, in itself, quite beyond praise. I have no wish to dim its glory. But, prompted as it was by the secret hope of

humbling a formidable enemy, it took from this urgent motive an impulse which could hardly have come from humanity alone.

Let us now see what were the means employed by this great man to pave the way for so lofty an undertaking. In the front rank of these I should be disposed to put that he had clearly recognized all the difficulties of the task; so that, having formed the project in his youth, he brooded over it all his life and reserved its accomplishment for his old age. This proves in the first place that ardent and sustained passion by which alone great obstacles can be overcome; and secondly, that patient and considerate wisdom which smoothes the way in advance by forethought and calculation. For there is a great difference between an enforced undertaking, in which prudence itself counsels to leave something to chance, and one which is to be justified only by success; seeing that, being under no compulsion to engage in it, we ought never to have attempted it unless that success were beyond doubt. Again, the deep secrecy which he maintained all his life, until the very moment of action, was as essential as it was difficult in so vast an enterprise, where the concurrence of so many men was a necessity and which so many men were interested in thwarting. It would seem that, though he had drawn the greater part of Europe to his side and was in league with her chief potentates, there was only one man to whom he had confided the full extent of his design; and, by a boon granted by heaven only to the best of kings, that one man was an honest minister. But, though nothing was allowed to transpire of these high aims, everything was silently moving towards their execution. Twice over did Sully make the journey to London: James I was a party to the plan, and the King of Sweden had fallen in with it. A league was made with the Protestants of Germany; even the princes of Italy had been secured. All were ready to join in the great purpose, though none could say what it was; just as workmen are employed in making the separate parts of a new machine, of whose shape and use they know nothing. What was it then that set all these springs in motion? Was it the craving for a lasting peace, which was foreseen by no one and with which few would have troubled their heads? Was it the public interest, which is never the interest of anyone? The Abbé de Saint-Pierre might have supposed so. But the truth is that each of them was working for his own private interest which Henry had been clever enough to display to all of them in the most attractive light. The King of England was glad to deliver himself from the perpetual conspiracies of his Catholic subjects, all of them fomented by Spain. He found a further advantage in the liberation of the United Provinces, in whose support he was spend-

ing large sums, while every moment he was placed on the brink of a war which he dreaded, or in which he preferred to join once for all with the whole of Europe and then be quit of it for ever. The King of Sweden was anxious to make sure of Pomerania and so win a footing in Germany. The Elector Palatine, at that time a Protestant and head of the Lutheran Confession, had designs on Bohemia and shared all the plans of the King of England. The princes of Germany aimed at checking the encroachments of the House of Austria. The Duke of Savoy was to receive Milan and the crown of Lombardy which he passionately coveted. The Pope himself, weary of the Spanish tyranny, was in the league, bribed by the promise of the kingdom of Naples. The Dutch, better paid than all the rest, gained the assurance of their freedom. In a word, quite apart from the common interest of humbling a haughty power which was striving to tyrannize over all of them, each state had a private interest all the more keenly felt because it was not countered by the fear of exchanging one tyrant for another. It was agreed that the conquests should be distributed among all the Allies to the exclusion of France and England, who were bound to keep nothing for themselves. This was enough to quiet the most suspicious as to the ambitions of Henry. But that wise prince was well aware that in keeping nothing for himself by this treaty, he gained more than all the rest. Without adding a yard to his own patrimony, it was enough to partition that of the only man who excelled him in power, and he became the most powerful himself. And it is perfectly clear that, in taking all the precautions which would assure the success of his enterprise, he in no wise neglected those which were sure to give him the first place in the body he was creating.

More than that: he did not confine himself to forming formidable leagues beyond his frontiers, to making alliances with his own neighbours and the neighbours of his enemy. While engaging all these nations in the abasement of the first power in Europe, he did not forget to put himself in the way of securing the coveted position for himself. He spent fifteen years of peace in preparations worthy of the enterprise he had in mind. He filled his coffers with money, his arsenals with artillery, arms and munitions. He amassed resources of all kinds against unforeseen demands. But he did more than all, we may be very sure, by governing his people wisely, by silently removing all seeds of division, by putting his finances in such order as to meet all possible needs without any vexation of his subjects. So it was that, at peace within and formidable abroad, he saw himself in a position to arm and maintain sixty thousand men and twenty vessels of war, to quit his kingdom without leaving behind him the smallest germ of disorder and to carry on war for six

years without touching his ordinary revenue or laying on a penny of new taxes.

To all these preparations must be added the assurance that the enterprise would be carried out, both by his minister and himself, with the same energy and prudence that had conceived and framed it. And, finally, the knowledge that all the military operations would be directed by a captain of his skill, while the enemy had none left to put against him. From all this it may be judged if any element which could promise success was wanting to his prospects. Without having fathomed his designs, all Europe was watching his preparations with a kind of awe. The great revolution was about to be launched on a slight pretext. A war, destined to be the end of all wars, was about to usher in eternal peace, when a deed, the horror of which is only increased by its mystery, came to quench for ever the last hope of the world. The blow which cut short the days of this good king also plunged Europe back into ceaseless wars, of which she can now never hope to see the end.

Such were the means prepared by Henry IV for founding the Federation which the Abbé de Saint-Pierre proposed to set up by a book.

Let us not say, then, that, if his system has not been adopted, that is because it was not good. Let us rather say that it was too good to be adopted. Evils and abuses, by which so many men profit, come in of themselves. Things of public utility, on the other hand, are seldom brought in but by force, for the simple reason that private interests are almost always ranged against them. Beyond doubt, a lasting peace is, under present circumstances, a project ridiculous enough. But give us back Henry IV and Sully, and it will become once more a reasonable proposal. Or rather, while we admire so fair a project, let us console ourselves for its failure by the thought that it could only have been carried out by violent means from which humanity must needs shrink.

No federation could ever be established except by a revolution. That being so, which of us would dare to say whether the League of Europe is a thing more to be desired or feared? It would perhaps do more harm in a moment than it would guard against for ages.

Translated by C. E. Vaughan.

Immanuel Kant

1724–1804

Born in Königsberg in 1724, the son of a saddler of Scottish ancestry, Immanuel Kant remained in this bleak Baltic city throughout his long life. There he went to school, acquiring a fine command of classical languages, in an atmosphere of gentle but inflexible pietism, which may have added to the austerity of his attitude toward life. At the University of Königsberg, from the age of sixteen to twenty-two, he studied Newton's physics and Wolff's philosophy—an offshoot of Leibniz' system. To make ends meet, he tutored sons of the nobility.

In 1755 he became an unsalaried lecturer at the University and remained in this humble post for fifteen years. He was made Professor of Logic and Metaphysics in 1770. By this time he was already famed for his publications. In one of these he had propounded the nebular theory of the origin of the solar system, maintaining against Newton that the solar system could have arisen from a spiral nebula. He had also advanced original ideas on the proofs of the existence of God. Still more important were his meditations on the writings of David Hume, for these were destined to change the whole course of his thought and to direct the history of philosophy into a new channel.

Kant is best known for his three "Critiques." [1] In the first and greatest of these, *The Critique of Pure Reason* (1781), he undertook to vindicate the rigor and certainty of mathematics and mathematical physics, which had been upset by the skeptical arguments of Hume. In the second, *The Critique of Practical Reason* (1788), he attempted to vindicate religious beliefs and to demonstrate the ra-

[1] For these and other writings by Kant, see *Great Books of the Western World.*

tional certainty and universality of the moral law. The latter theme had also been developed in *Fundamental Principles of the Metaphysic of Morals* (1785). In *The Critique of Judgement*, in turn, he showed how mechanics and purpose could be reconciled, and developed a very original and important theory of beauty.

Kant's life is summed up in his writings, and there is little else to tell. He remained a bachelor and lived mostly in seclusion. Although cold, formal, austere, and often pedantic, he nevertheless reached sublime heights in his respect for universal law and the worth of the individual. One of his lasting insights was that we must not permit ourselves any act which we would condemn in another.

When the Holy Roman Empire gradually fell apart, modern nations arose which recognized no higher authority. The need for some new community or covenant of nations, capable of settling disputes peacefully, was keenly felt. In the sixteenth century, Erasmus addressed himself to the subject and was followed by Hugo Grotius, William Penn, Abbé de Sainte-Pierre, Rousseau, and Bentham. Kant's *Perpetual Peace*, written in 1795, when he was seventy-one years old, shows the impact of his predecessors, especially Rousseau, but adds a great deal that is novel in shrewdness, logical acumen, and broad perspective.

Since the subject of international peace is now becoming more crucial every year, it behooves us to take a good look at some of the provisions which Kant thought necessary to this end. His first preliminary article for perpetual peace condemns all treaties which tacitly reserve, or gloss over, issues that may lead to future war. A sovereign who makes such a treaty intends to honor it only so long as it serves his purpose. Kant might not mind calling such an agreement a "truce," but to call it a "treaty of peace" is rank deception, destroying that mutual trust which is the only foundation of peace.

"Honesty is the best policy" is the deepest strand in Kant's thought.

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*Notes from the artist: "In a sidewalk pattern from the game of 'sky blue,' or hopscotch, Kant leaps on one foot from square to square toward 'Perpetual Peace'–*Zum ewigen Frieden. *Each square is a stage in Kant's philosophical development."*

Immanuel Kant
1. Quantity
unity
plurality
totality
2. Quality
reality
negation
limitation
3. Relation
substance
causality
dependence
interaction
4. Modality
possibility—impossibility
existence—non-existence
necessity—contingency
5
+7
12
Metaphysic of Morals
Critik der reinen Vernunft
Critique of Practical Reason
Zum ewigen Frieden

Though the whole world should go up in smoke, honesty must be maintained. He lays down the following "transcendent formula of public right": ". . . all the actions relative to the right of another whose maxim is not susceptible to publicity are unjust." It follows at once, he says, that revolution is never justified, even if its object is to overthrow a usurping tyrant. Why? Because the insurgent people would not dare to publish their design of revolt in advance. We can better understand this extreme position if we remember that in 1793 Louis XVI was executed, and that by 1795, when Kant published *Perpetual Peace*, French revolutionary armies, successful everywhere, threatened to topple monarchs all over Europe.

Treaties of peace, to anticipate Woodrow Wilson's language, must be "open" and "openly arrived at." There must be no hidden clauses except one. Kant insists that philosophers must be consulted about the provisions of treaties yet concedes that it would be humiliating for the monarch to confess in public that he depends on the wisdom of mere subjects. But would Kant have also insisted on full publicity of the stages of protracted negotiations between nations? That delicate negotiations are crippled by day-to-day reporting has been argued, in our own time, by Walter Lippmann.

Another requirement for perpetual peace is that the participating governments be republican in form. This will provide that the assent of each citizen shall be required for a declaration of war. It is not likely that the people themselves, who suffer all the calamities of war, will give their assent. Here Kant's position seems very strong. It is not as strong as it looks, however, for "republicanism" is not democracy; it thrives best, in fact, under monarchy. It is the people's representatives who decide on war, not the people, nor yet the monarch. Kant distrusted the people. But would they be fooled about the necessity or advantages of war as often as their representatives are?

The quality of Kant's essay is keen and challenging, sometimes warning of dangers, remote then, but real today. If hostile nations are prepared to employ any means, however infernal, so long as the enemy is subdued, all hope of peace may be extinguished, Kant argues. A war might then "cause the destruction of both parties at once, together with the annihilation of every right, [and] would permit the conclusion of a perpetual peace only upon the vast burial ground of the human species."

Perpetual Peace

Whether this satirical inscription on a Dutch innkeeper's sign upon which a churchyard was painted has for its object mankind in general, or in particular the governors of states who are insatiable of war, or whether it points merely towards those philosophers who indulge the sweet dream of a perpetual peace, it is impossible to decide. Be this as it may, the author of this essay publishes it on the following conditions.

The practical politician is accustomed to testify as much disdain towards the theorist as he has complaisance for himself. In his eyes the latter appears a mere pedant whose chimerical ideas can never be prejudicial to a state, which requires principles deduced from experience; a trifler, whom he suffers to play his game without taking measures against him. The application is easy: let the statesman condescend to be rational, and if, perchance, he discovers in this essay ideas opposite to his own, let him not imagine dangers to the state from opinions hazarded without ambition and published with freedom; by this *clausula salvatoria* [closing remark] the author expects to have secured himself from every malignant interpretation.

SECTION I

Containing the Preliminary Articles for a Perpetual Peace among States

I. *No treaty of peace shall be esteemed valid on which is tacitly reserved matter for future war.*

A treaty of this sort would be only a truce, a suspension, not a complete cessation of hostilities. To call such a peace perpetual would be a suspicious pleonasm. By a treaty of peace, every subject (at the time perhaps unthought of by the contracting parties) for renewing war becomes

annihilated, even should it, by the most refined cunning, be dug out from the dusty documents of archives. The reservation (*reservatio mentalis*) of ancient pretensions to be declared hereafter, of which neither party makes mention at the time, both being too much exhausted to carry on the war, together with the bad design of carrying them into effect at the first favorable opportunity, belongs to the casuistry of a Jesuit; estimated in itself, it is beneath the dignity of a sovereign, as the readiness of making deductions of this kind is beneath the dignity of a minister.

But if in consequence of enlightened principles of politics, the glory of the state is placed in its continual aggrandizement, by whatever means, my reasoning will then appear mere scholastic pedantry.

II. *Any state, of whatever extent, shall never pass under the dominion of another state, whether by inheritance, exchange, purchase, or donation.*

A state is not, like the soil upon which it is situate, a patrimony. It consists of a society of men over whom the state alone has a right to command and dispose. It is a trunk which has its own roots. But, like a graft, to incorporate it with another state would be to reduce it from a moral person to the condition of a thing, which contradicts the idea of a social compact, without which one cannot conceive of a right over a people.[1]

Everyone knows to what dangers Europe, the only part of the world where this abuse has existed, has been exposed, even down to our time, by this mercantile precedent, that states may espouse one another, a new kind of contrivance, which obtains, by means of family alliances, and without any expense of forces, excess of power or an immoderate increase of domain.

By a consequence of the same principle, it is forbidden to every state to let troops to another state, against an enemy not common to both; for this is making use of the subjects as things to be disposed of at pleasure.

III. *Standing armies* (miles perpetuus) *shall in time be totally abolished.*

For being ever ready for action, they incessantly menace other states, and excite them to increase without end the number of armed men. This rivalship, a source of inexhaustible expense, renders peace even more

1. An hereditary kingdom is not a state which can be transferred to another state, but whose right of administration may be inherited by another physical person. The state then acquires a chief; but this chief, as chief or master of another kingdom, acquires not the state.

burdensome than a short war, and frequently causes hostilities to be commenced with the mere view of being delivered thereby from so oppressive a load. Add to this that to be paid for killing or to be killed is to serve as an instrument or machine in the hands of another (the state), which is incompatible with the right which nature has given to everyone over his own person.[2]

Very different from this are the military exercises voluntarily undertaken and at stated times by the citizens in order to secure themselves and their country against foreign aggressions.

Treasure, a means of military power more efficacious perhaps than that of armies or alliances, would produce the same effect as standing armies, and would excite other states to war by menacing them with it, were it less difficult to become acquainted with the extent of the treasure.

IV. *National debts shall not be contracted with a view of maintaining the interests of the state abroad.*

Money borrowed, either in the interior of a state or of a foreign nation, would be a resource by no means suspicious if the sums thus obtained were destined to the economy of the country, such as the repairing of highways, new colonies, the establishment of magazines against unfruitful years, etc. But what can we think of a system of credit, the ingenious invention of a commercial people of this century, by means of which debts are accumulated without end, and yet cause no embarrassment in their reimbursements, since the creditors never make their demands all at one time. Considered as a political engine, it is a dangerous means of monied power, a treasure for war, superior to that of all other states collectively, and which cannot be exhausted except by a default in the taxes (an exhaustion eventually certain, but long kept off by the favorable reaction credit has upon commerce and industry). This facility of carrying on war, united with the natural inclination men have for it as soon as they possess the power, is an invincible obstacle to a perpetual peace. The abolition of the funding system must therefore be a preliminary article; the more so as sooner or later a national bankruptcy will take place by which other states would innocently be involved and find themselves openly aggrieved. They are therefore justifiable in joining in a confederacy against a state which adopts such obnoxious measures.

2. This is the meaning of the answer which a prince of Bulgaria returned to an emperor of the East who, wishing to spare the blood of his subjects, proposed to terminate their difference by single combat: "Will a blacksmith," he replied, "who possesses a pair of pincers take the hot iron from the fire with his hands?"

V. *No state shall by force interfere with either the constitution or government of another state.*

What is there that can authorize such a step? Perhaps the offense given to the subjects of another state; but the example of anarchy may, on the contrary, warn them of the danger they run by exposing themselves to it. Moreover, the bad example one free being gives to another is an offense taken (*scandalum acceptum*) and not a lesion of their rights. Very different would it be if a revolution should divide a state into two parts, each of which should pretend to the whole. To lend assistance to one of the parties cannot then be esteemed an interference with the government, it being then in a state of anarchy; but so long as these internal dissentions are not come to that point, the interference of a foreign power would be a violation of the rights of an independent nation struggling with internal evils; it is then an offense given that would render the autonomy of all states uncertain.

VI. *A state shall not, during war, admit of hostilities of a nature that would render reciprocal confidence in a succeeding peace impossible: such as employing assassins* (percussores), *poisoners* (venefici), *violation of capitulations, secret instigation to rebellion* (perduellio), *etc.*

These are dishonorable stratagems. Confidence in the principles of an enemy must remain even during war, otherwise a peace could never be concluded; and hostilities would degenerate into a war of extermination (*bellum internecinum*), since war in fact is but the sad resource employed in a state of nature in defense of rights, force standing there in lieu of juridical tribunals. Neither of the two parties can be accused of injustice, since for that purpose a juridical decision would be necessary. But here the event of a battle (as formerly the judgments of God) determines the justice of either party, since between states there cannot be a war of punishment (*bellum punitivum*), no subordination existing between them. A war *ad internae-cionem,* therefore, which might cause the destruction of both parties at once, together with the annihilation of every right, would permit the conclusion of a perpetual peace only upon the vast burial ground of the human species. This kind of war must therefore be absolutely interdicted, as well as the means that lead thereto; but that the above mentioned means will unavoidably lead thereto may be deduced from the following: that those infernal arts, infamous in themselves when once in use, will not cease with the war, like the use of spies, where one profits by the infamy of another only (an indignity the human species will never be totally purged from), but will remain in use even after a peace, which thereby is rendered completely abortive.

Although the laws pointed out here objectively considered, and such as they ought to be in the intention of those in power, are all prohibitary laws (*leges prohibitivae*), there are some of them of that rigorous kind that demand a prompt and absolute execution; such are No. 1, 5, 6. Others again, like No. 2, 3, 4, without making exception to the rule of right, are less rigorous (*leges latae*) as to the subjective possibility of their observance. These include the permission of delaying their execution, without however losing the end in view. Delay ought not to defer, for instance, the re-establishment of liberty in such states as have been deprived of it, *ad calendas Graecas* [at the Greek calends; *i.e.*, never], to make use of an expression of Augustus; for this would be to annul the law which ordains it; but this delay itself is only permitted to prevent a precipitation which might injure the aim proposed. The prohibition contained in the article 2 has for its object solely the manner of future acquisition, and not the actual possession, which, without being stamped with the title of a right, has nevertheless been esteemed lawful by all other states, according to the opinion in fashion at the time of its putative acquisition.[3]

3. It is not without cause that it has hitherto been uncertain whether, besides the command (*leges praeceptivae*) and the prohibition (*leges prohibitivae*), there are also laws of permission. For laws, in general, include the principle of objective practical necessity; a permission, on the contrary, the principle of a practical casualty of certain actions; a law of permission would compel then to an action to which no one can be obliged; which would imply a contradiction if the object of the law were the same under one and the other relation. Now in the law of permission, which is the question here, the prohibition has relation only to the mode of future acquisition (*i.e.* by succession); but the permission, which annuls this prohibition, regards only the actual possession. In the passage from the state of nature to the civil state, this putative possession, though illegal, may nevertheless be maintained as just, in virtue of a permission of a natural right. But its illegality ought not to be recognized, for from the moment when in the state of nature, a putative possession, and in the civil state, a like acquisition, are acknowledged as unjust, they could no longer exist, because they would then become an infringement of rights.

   I have only wished to fix, by the way, the attention of the teachers of natural right upon the idea of the laws of permission, which presents itself to every systematic mind; principally, because it is of such frequent use in the civil law, though with this difference: the prohibition is there express and absolute, and the permission is not inserted as a respective condition, which it ought to be, but is found among the exceptions. We forbid this or that, it is there said, excepting No. 1, 2, 3, and so forth, without end. The exceptions are not joined to the law from a fixed principle, but by chance, and blindly applied to the various cases that occur; for otherwise the restrictions would be always inserted in the formula of prohibition, which would thereby become permissive law. It is likewise very much to be regretted that the question proposed by Count de Windischgraetz has been so soon relinquished. This profound sage had precisely insisted upon the point now under discussion in his ingenious problem, which still remains to be solved. Indeed we shall have no reason to promise ourselves an immutable and permanent legislation till the possibility of a mathematical formula shall be demonstrated which may serve as a foundation to laws. Without this we shall have general laws, which may be applied to a great number of cases, but no universal laws, applicable to all cases, as the idea of a law seems to require.

SECTION II

Containing the Definitive Articles for a Perpetual Peace among States

With men the state of nature (*status naturalis*) is not a state of peace, but of war; though not of open war, at least, ever ready to break out. A state of peace must therefore be established; for, in order to be sheltered against every act of hostility, it is not sufficient that none is committed; one neighbor must guarantee to another his personal security, which cannot take place except in a state of legislation; without which one may treat another as an enemy, after having in vain demanded this protection.[4]

FIRST DEFINITIVE ARTICLE FOR A PERPETUAL PEACE

The civil constitution of every state ought to be republican.

The only constitution resulting from the idea of the social compact, upon which every good legislation of a nation ought to be founded, is a

4. The common opinion is that one dares act hostilely only against an aggressor; and this is true when both live in a state of civil legislation. For, on entering into it, they reciprocally guarantee to themselves the requisite security by the common obedience which they pay to the sovereign. But the man, or the nation, that lives in a state of nature deprives me of that security and attacks me without being an aggressor by the mere circumstance of living contiguous to me in a state of anarchy and without laws; menaced perpetually by him with hostilities, against which I have no protection, I have a right to compel him either to associate with me under the dominion of common laws or to quit my neighborhood.

Here is a principle then upon which all the subsequent articles are established:

All men who have a mutual influence over one another ought to have a civil constitution. Now every legitimate constitution considered in respect of the persons who are the object of it is

I. Either conformable to the *civil right*, and is limited to a people (*jus civitatis*).

II. Or to the *rights of nations,* and regulates the relations of nations among each other (*jus gentium*).

III. Or to the *cosmopolitical right*, as far as men or states are considered as influencing one another, in quality of constituent parts of the great state of the human race (*jus cosmopoliticum*).

This division is not arbitrary, but necessary in respect of the idea of a perpetual peace. For if two nations under one of these three relations were in a state of nature, and having reciprocal physical influence upon each other, the state of war would be immediately revived, to be freed from which is the present end in view.

republican constitution.[5] It is the only one established upon principles compatible with, first, the liberty of all the members of a society in the quality of men; second, with the submission of all to a common legislation, as subjects; and third, with the right of equality, which all share as members of a state. This then is the only constitution which in respect of right serves for a primitive basis to all civil constitutions; it remains now to be shown whether it also is the only one that can lead to a perpetual peace. By examining the nature of this constitution, it will be found that besides the purity of its origin, which derives from the idea itself of right, it also promises the most happy effect, namely, a perpetual peace, in the following manner.

According to the form of this constitution, the assent of every citizen is necessary to decide the question, Whether war shall be declared or not. But to decree war would be to the citizens to decree against themselves all the calamities of war, such as fighting in person, furnishing from their

5. Legal (and together with it) exterior liberty is not, as it is ordinarily defined, the faculty of doing whatever one wishes to do provided he injures not another. It consists in rendering obedience to those laws alone to which I have been able to give my assent. In the same manner, legal equality in a state is the relation of the citizens to one another according to which one cannot compel another juridically without subjecting himself also to the law by which in his turn he may also be compelled in the same manner. The principle of submission to laws, being already comprised in the idea of a constitution in general, needs not a particular explanation. The inviolability of these innate and imprescriptible rights of man manifests itself still more gloriously when we represent to ourselves man in relation with beings of a superior nature, as citizen of a world of intelligences. For, to begin with my liberty, even the laws of God can be binding upon me only so far as I have been able to concur in their formation, since I attain to the knowledge of the will of God only by the law which my own reason imposes on my liberty in elevating me above the necessity of the laws of nature. As to the principle of equality, however exalted the nature of a being may be, were he even the next in rank after God (as the Great Aeon of the Gnostics), if I do my duty in the post assigned me, as he in his, there is no reason why the duty of obeying should rest on me alone, and in him the right of commanding. What renders the principle of equality inapplicable to our relations with God is that, of all beings, it is He alone who cannot be represented as subject to duty. But as to the right of equality common to all citizens in quality of subjects, in order to decide if a hereditary nobility can be tolerated it will be sufficient to ask whether the pre-eminence of rank granted by the state ought to be anterior to merit or whether merit ought to precede rank. Now it is evident if dignity is attached to birth, merit will be uncertain, and, consequently, it would be the same thing to give command to a favorite without any merit; which would never be decreed by the general will of a people in the social pact, the only foundation of all rights. For if birth gives nobility, it does not at the same time bestow nobleness of the mind and heart. It is quite otherwise with the nobility or dignity attached to magistracies, which merit alone can obtain. In this case rank depends not on the person, but on the post; and this kind of nobility alters not the equality, because on quitting the office one renounces the rank it confers, in order to re-enter into the class of the people.

own means towards the expense of the war; painfully to repair the devastations it occasions; and, to fill up the measure of evils, load upon themselves the weight of a national debt that would embitter even peace itself and which, on account of constant new wars, can never be liquidated. They will certainly beware of plunging into an enterprise so hazardous. Whereas, in a constitution wherein the subjects are not citizens of the state, that is to say, a constitution not republican, a declaration of war is a most easy matter to resolve upon, as it does not require of the chief, proprietor and not member of the state, the least sacrifice of his pleasures, either of the table, the chase, the country, or the court, etc. He may therefore resolve on war as on a party of pleasure, for reasons the most frivolous, and with perfect indifference leave the justification of the same, which decency requires, to the diplomatic corps, who are ever ready to undertake it.

In order not to confound (as is frequently done) a republican constitution with a democracy, the following observations should be made.

The forms of a state may be divided either according to the persons who enjoy the sovereign power or according to the mode of administration exercised by the chief, under whatever title, over a people. The first is called form of sovereignty (*forma imperii*), of which there can be but three: autocracy, where one alone possesses supreme power; aristocracy, when divided between a few; democracy, when exercised by all the members of society.

The second is the form of government (*forma regiminis*); this is the constitutional mode according to which the general will of the people has decided that its power shall be exercised; and in this relation it is either republican or despotic. Republicanism is the political principle according to which the executive power (the government) is separated from the legislative. Despotism is where the legislator executes his own laws; consequently, where the private will of the chief is substituted to the will of the public. Democracy is necessarily despotism, as it establishes an executive power contrary to the general will; all being able to decide against one whose opinion may differ; the will of all is therefore not that of all: which is contradictory and opposite to liberty.

Every form of government that is not representative is, properly, formless; the legislator being as little capable of being united in the same person with the executor of his will as in a syllogism the universal of the major is capable of serving as the particular of the minor. Although an aristocracy and autocracy are defective, inasmuch as they are susceptible of the vice here mentioned, they nevertheless contain the possibility of

representative administration, so far at least as Frederic II insinuated when he declared himself the first servant of the state;[6] whereas a democracy renders the representative system impossible, every one striving to be master. It may therefore be affirmed that the smaller the number of governors, and the more extensive the representation, the nearer the constitution approaches to republicanism, and may even arrive at it by successive reforms.

This then shows why it is more difficult to arrive at this form of government, the only one that perfectly corresponds with the rights of man, in an aristocracy than in a monarchy; and in a democratic state it is even impossible to arrive at it, except by violent revolutions.

The form of government is, however, of far greater importance to a people than the form of sovereignty;[7] though the greater or lesser relation of this latter with the aim proposed is nothing less than trivial. However, to be fully conformable to the principle of right, the form of government must be representative. This is the only one that permits republicanism, without which the government is arbitrary and despotic, whatever the constitution may be. Of all the ancient pretended republics, not one of them knew this system; they consequently all terminated in despotism, though the least insupportable of all, that of one alone.

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6. The lofty epithets of "the Lord's anointed," "the executor of 'the divine will,' " "the representative of God," which have been lavished on sovereigns, have been frequently censured as gross and intoxicating flatteries; but I think without reason. So far from inspiring a monarch with pride, these surnames ought to render him humble if he possesses understanding (which ought to be supposed) and if he reflects that he is charged with an employment superior to the powers of a man, namely, to protect what is the most sacred to God upon earth, the *rights of man*, and that he ought to be in perpetual fear of having injured this beloved pledge of the divinity.
7. Mallet du Pan, in his pompous but senseless language, pretends to have at length attained to a conviction, after long experience, of the truth of this well-known saying of Pope's:

> For forms of government let fools contest:
> The state that's best administer'd is best.

If this means that the state the best administered is the best administered, he has, to make use of an expression of Swift's, "cracked a nut to come at a maggot." But if this saying is to signify that in the state the best administered, the government is the best, as to its constitution, then nothing is more false, for a good administration proves nothing in favor of the government. Who has reigned better than Titus and Marcus Aurelius? And yet one had for his successor a Domitian, and the other a Commodus; which could never have happened in a good constitution, their inaptitude to this post having been soon enough known, and the power of the sovereign being sufficient to exclude them.

SECOND DEFINITIVE ARTICLE FOR A PERPETUAL PEACE

The public right ought to be founded upon a federation of free states.

Nations, as states, like individuals, if they live in a state of nature and without laws, by their vicinity alone commit an act of lesion. One may, in order to secure its own safety, require of another to establish within it a constitution which should guarantee to all their rights. This would be a federation of nations, without the people however forming one and the same state, the idea of a state supposing the relation of a sovereign to the people, of a superior to his inferior. Now several nations united into one state would no longer form but one; which contradicts the supposition, the question here being of the reciprocal rights of nations, inasmuch as they compose a multitude of different states which ought not to be incorporated into one and the same state.

But when we see savages in their anarchy prefer the perpetual combats of licentious liberty to a reasonable liberty, founded upon constitutional order, can we refrain to look down with the most profound contempt on this animal degradation of humanity? Must we not blush at the contempt to which the want of civilization reduces men? And would one not rather be led to think that civilized nations, each of which form a constituted state, would hasten to extricate themselves from an order of things so ignominious? But what, on the contrary, do we behold? Every state placing its majesty (for it is absurd to talk of the majesty of the people) precisely in this independence of every constraint of any external legislation whatever.

The sovereign places his glory in the power of disposing at his pleasure (without much exposing himself) of many millions of men ever ready to sacrifice themselves for an object that does not concern them. The only difference between the savages of America and those of Europe is that the former have eaten up many a hostile tribe, whereas the latter have known how to make a better use of their enemies; they preserve them to augment the number of their subjects, that is to say, of instruments destined to more extensive conquests. When we consider the perverseness of human nature, which shows itself unveiled and unrestrained in the relations of nations with each other, where it is not checked, as in a state of civilization, by the coercive power of the law, one may well be astonished that the word right has not yet been totally abolished from war politics as a pedantic word, and that a state has not yet been found bold enough openly to profess this doctrine. For hitherto Grotius, Pufendorf,

Vattel, and other useless and impotent defenders of the rights of nations have been constantly cited in justification of war; though their code, purely philosophic or diplomatic, has never had the force of law, and cannot obtain it, states not being as yet subjected to any coercive power. There is no instance where their reasonings, supported by such respectable authorities, have induced a state to desist from its pretensions. However this homage which all states render to the principle of right, if even consisting only in words, is a proof of a moral disposition which, though still slumbering, tends nevertheless vigorously to subdue in man that evil principle of which he cannot entirely divest himself. For otherwise states would never pronounce the word right when going to war with each other; it were then ironically, as a Gallic prince interpreted it. "It is," said he, "the prerogative nature has given to the stronger to make himself obeyed by the weaker."

However, the field of battle is the only tribunal before which states plead their cause; but victory, by gaining the suit, does not decide in favor of their cause. Though the treaty of peace puts an end to the present war, it does not abolish a state of war (a state where continually new pretenses for war are found); which one cannot affirm to be unjust, since being their own judges, they have no other means of terminating their differences. The law of nations cannot even force them, as the law of nature obliges individuals to get free from this state of war, since having already a legal constitution, as states, they are secure against every foreign compulsion which might tend to establish among them a more extended constitutional order.

Since, however, from her highest tribunal of moral legislation, reason without exception condemns war as a mean of right, and makes a state of peace an absolute duty; and since this peace cannot be effected or be guaranteed without a compact among nations, they must form an alliance of a peculiar kind, which might be called a pacific alliance (*foedus pacificum*), different from a treaty of peace (*pactum pacis*) inasmuch as it would forever terminate all wars, whereas the latter only finishes one. This alliance does not tend to any dominion over a state, but solely to the certain maintenance of the liberty of each particular state partaking of this association, without being therefore obliged to submit, like men in a state of nature, to the legal constraint of public force. It can be proved that the idea of a federation, which should insensibly extend to all states and thus lead them to a perpetual peace, may be realized. For if fortune should so direct that a people as powerful as enlightened should constitute itself into a republic (a government which in its nature inclines to a perpetual peace), from that time there would be a center for this federa-

tive association; other states might adhere thereto in order to guarantee their liberty according to the principles of public right; and this alliance might insensibly be extended.

That a people should say, "There shall not be war among us: we will form ourselves into a state; that is to say, we will ourselves establish a legislative, executive, and judiciary power to decide our differences" can be conceived.

But if this state should say, "There shall not be war between us and other states, although we do not acknowledge a supreme power that guarantees our reciprocal rights," upon what then can this confidence in one's rights be founded, except it is upon this free federation, this supplement of the social compact, which reason necessarily associates with the idea of public right.

The expression of public right, taken in a sense of right of war, presents properly no idea to the mind; since thereby is understood a power of deciding right, not according to universal laws, which restrain within the same limits all individuals, but according to partial maxims, namely, by force. Except one would wish to insinuate by this expression that it is right that men who admit such principles should destroy each other, and thus find perpetual peace only in the vast grave that swallows them and their iniquities.

At the tribunal of reason there is but one mean of extricating states from this turbulent situation, in which they are constantly menaced with war; namely, to renounce, like individuals, the anarchic liberty of savages, in order to submit themselves to coercive laws, and thus form a society of nations (*civitas gentium*) which would insensibly embrace all the nations of the earth. But as the ideas which they have of public right absolutely prevent the realization of this plan, and make them reject in practice what is true in theory, there can only be substituted, to the positive idea of a universal republic (if all is not to be lost), the negative supplement of a permanent alliance which prevents war, insensibly spreads, and stops the torrent of those unjust and inhuman passions which always threaten to break down this fence.[8]

> *Furor impius intus fremit horridus ore cruento.*
> [Bristling with gore, unholy madness roars within.]
> VIRGIL.

8. It would not ill become a people that has just terminated a war to order, besides their thanksgiving day, a solemn fast in order to ask forgiveness of God for the crime the nation has just committed, and which the human race still goes on to perpetrate, for refusing to live with other nations in legal order; to which, jealous of a proud independence, it prefers the barbarous means of war, without being

THIRD DEFINITIVE ARTICLE FOR A PERPETUAL PEACE

The cosmopolitical right shall be limited to conditions of universal hospitality.

In this article, as well as in the preceding ones, it is a question of right, not of philanthropy. Hospitality there signifies solely the right every stranger has of not being treated as an enemy in the country in which he arrives. One may refuse to receive him if it can be done without endangering his existence; but dares not act hostilely towards him so long as he does not offend anyone. The question is not about the right of being received and admitted into the house of an individual: this benevolent custom demanding particular conventions. One speaks here only of the right all men have of demanding of others to be admitted into their society; a right founded upon that of the common possession of the surface of the earth, whose spherical form obliges them to suffer others to subsist contiguous to them, because they cannot disperse themselves to an indefinite distance, and because originally one has not a greater right to a country than another. The sea and uninhabitable deserts divide the surface of the globe; but the ship and the camel, that vessel of the desert, reestablish the communication and facilitate the right which the human species all possess of profiting in common by its surface. The inhospitality of the inhabitants of the coasts (for instance of the coast of Barbary), their custom of taking the vessels in the neighboring seas, or that of reducing to slavery the unhappy wretches shipwrecked on their shores; the barbarous practice which in their sandy deserts the Bedouin Arabs exercise of pillaging all those who approach their wandering tribes; all these customs then are contrary to the right of nature, which, nevertheless, in ordaining hospitality, was contented with fixing the conditions on which one may endeavor to form connections with the inhabitants of a country. In this manner distant regions may contract amicable relations with each other, sanctioned in the end by public laws, and thus insensibly mankind may approach towards a cosmopolitical constitution.

At how great a distance from this perfection are the civilized nations, and especially the commercial nations of Europe? At what an excess of

able to obtain thereby what it desires, the secure enjoyment of its rights. The thanksgivings which are rendered during the war, the hymns that are chanted by us, like true Israelites, to the God of hosts, are glaringly inconsistent with the moral idea of the Father of men; they announce a culpable indifference for the principles which nations ought to observe in the defense of their rights, and express an infernal joy at having slain a multitude of men or annihilated their happiness.

injustice do we not behold them arrive when they discover strange countries and nations? (Which with them is the same thing as to conquer.) America, the countries inhabited by the Negroes, the Spice Islands, the Cape, etc., were to them countries without proprietors, for the inhabitants they counted as nothing. Under pretext of establishing factories in Hindostan, they carried thither foreign troops and by their means oppressed the natives, excited wars among the different states of that vast country, spread famine, rebellion, perfidy, and the whole deluge of evils that afflict mankind, among them.

The Chinese and Japanese, whom experience has taught to know the Europeans, wisely refuse their entry into the country, though the former permit their approach, which the latter grant to one European nation only, the Dutch; still, however, excluding them like captives from every communication with the inhabitants. The worst, or, to speak with the moralist, the best, of the matter is that all these outrages are to no purpose; that all the commercial companies guilty of them touch upon the instant of their ruin; that the sugar islands, that den of slavery the most refined and cruel, produce no real revenue, and are profitable only indirectly, serving views not very laudable, namely, to form sailors for the navies, consequently to carry on war in Europe; which service they render to powers who boast the most of piety, and who, while they drink iniquity like water, pretend to equal the elect in point of orthodoxy.

The connections, more or less near, which have taken place among the nations of the earth having been carried to that point that a violation of rights committed in one place is felt throughout the whole, the idea of a cosmopolitical right can no longer pass for a fantastic exaggeration of right; but is the last step of perfection necessary to the tacit code of civil and public right, these systems at length conducting towards a public right of men in general, and towards a perpetual peace, but to which one cannot hope continually to advance except by means of the conditions here indicated.

SUPPLEMENT

SUPPLEMENT THE FIRST

Of the Guarantee for a Perpetual Peace

The guarantee of this treaty is nothing less than the great and ingenious artist, nature (*natura daedala rerum*). Her mechanical march evidently

announces the grand aim of producing among men, against their intention, harmony from the very bosom of their discords. Hence it is that we call it destiny, viewing it as a cause absolute in its effects but unknown as to the laws of its operations. But the regular order which we observe in the course of the events of this world makes us call it Providence, inasmuch as we discern in her the profound wisdom of a superior cause which predetermines the course of fate and makes it tend to the final purpose of human existence. It is true, we do not discover this providence in the methodical arrangements of nature, nor can we by reasonings deduce it therefrom; we can only suppose it, which we do, as often as we refer the modes of things to some end. We stand even in need of this supposition to form to ourselves an idea of the possibility of an order of nature analogous to the operations of human art. The idea of a relation of this mechanism to the moral end which reason immediately prescribes, though rash in theory, is a well-founded truth in practice; for instance, by making this physical order of nature serve towards the realization of the duty of a perpetual peace. Since reason cannot apply the relations of causes and effects to any other objects than such as experience has made known to us, it is more modest and conformable to the limits of the human understanding to employ the word *nature*, when theory and not religion is the question, preferably to that of *Providence*, which intimates a pretended knowledge of its mysteries, and a flight as temerarious as that of Icarus towards the sanctuary of its impenetrable designs.

Before we determine the manner in which nature guarantees a perpetual peace, it will be necessary to examine the situation in which she places the beings that figure upon this vast stage, and the measures she has taken to render this peace necessary to them.

These are her preparatory arrangements:

I. She has in every climate provided for the existence of man.

II. She has by means of war dispersed them in order to populate the most inhospitable regions.

III. She has, by the same means, compelled them to contract relations more or less legal.

That in the vast plains which border the icy sea, the moss however grows, which the reindeer digs from beneath the snow in order to make itself subservient to the nourishment or to the conveyance of the Ostyak or the Samoyed; that the saline sandy deserts should contain the camel, which appears created for the very purpose of traversing them, is already wonderful. Still more clearly marked does this end appear in the

care nature has taken to place on the shores of the icy sea, besides the animals covered with furs, seals and whales, whose flesh serves as food and whose fat as firing to the inhabitants. But the maternal providence of nature is most wonderfully manifested by the singular manner in which she furnishes (in a manner not well known) those countries destitute of vegetation with wood, without which the inhabitants could have neither canoes, weapons, or huts, being, besides, so occupied with defending themselves against the wild beasts that they live in peace with each other. But probably it was war alone which carried them into these climates. The first instrument of war was without doubt the horse, being tamed and trained up for combat when the earth began to be peopled with inhabitants. The elephant served in later times to the luxury of states already formed. As also the culture of diverse sorts of corn, originally herbs now unknown; and the increase and improvement of fruit trees, by transplanting and ingrafting them, since primeval Europe produced only wild apple and pear trees; these operations then could only take place after an established constitution secured to every proprietor the enjoyment of his possessions. But before this could take place, it was necessary that men who at first subsisted in a state of anarchic liberty, either by the chase or the fishery, should have passed from the pastoral life to a life of agriculture; that salt and iron should be discovered (probably the two first objects of commerce between different nations) to produce among them pacific relations, and to contract, even with the most distant, some relations of convention and society.

Now as nature has provided an existence for men in every part of the earth, she insists upon their living in every part; and so despotic is this her will that they obey it even against their inclination, and without being forced to it by any moral law. War is the only means she employs to obtain this end. By this means she has separated people whose identity of language proclaims that of their origin. We find the Samoyeds on the coasts of the icy sea speak the Mongol language of the inhabitants of the Altai Mountains, situated two hundred miles from them; between these two we find a Mongol nation of horsemen, and of course warlike; is it not probable that the latter should have driven the former into these inhospitable icy lands, into which they would certainly not have penetrated from inclination? It is the same with the Finlanders, who, in the northern extremity of Europe, are called Laplanders. They have been separated by the Goths and Sarmatians from the Hungarians, whose language is the same with theirs. What can have carried into the north of America the Eskimos, that race of men so entirely different from all other nations

of the New World, descended perhaps from some European adventurers; and into the south the Pescherais as far as Tierra del Fuego, if it was not war, which nature uses to people all the earth?

As to war itself, it requires no particular motive; it appears ingrafted on human nature; it passes even for an act of greatness, to which the love of glory alone, without any other motive, impels. Thus, among the savages of America, as among the Europeans in the times of chivalry, military valor obtained great honors, not only during war, which would be just, but also when in order to signalize itself it undertakes war; so that a kind of dignity is attached to war itself, and that philosophers are found who commend it as a noble prerogative of humanity, forgetting this sentence of a Greek: "War is an evil inasmuch as it produces more wicked men than it takes off."

Enough has been said of the measures nature takes to lead mankind, considering them as they compose a class of animals, to the end she has proposed to herself.

We have now to examine what is most essential relatively to a perpetual peace, that is to say, what nature has done with regard to it; how she favors the moral views of man, and guarantees the execution of the laws reason prescribes to him; so that whatever man should do freely, according to the civil, public, and cosmopolitical right, if he neglects it, he shall be forced to do it, by a constraint of nature, without prejudice to his liberty.

When I say nature wills that this or that arrive, this does not mean that she makes it a duty to us; it is practical reason alone that can prescribe laws to free beings without constraining them; but it means that nature does it herself, whether we will or no.

Fata volentem ducunt, nolentem trahunt.
[Fate leads us when we are willing, drags us when we are not.]

I. If even intestine discords were not to force a people to submit to the constraint of laws, they would be compelled thereto by the external means of war, nature having placed, as has already been seen, by the side of each people another neighboring people which presses upon it, and obliges it to form itself into a state in order to form a power capable of opposing the enterprises of the other. Now as a republican constitution is the only one that is entirely conformable to the rights of man, it is also the most difficult to establish and to maintain; so much so that it has been said it required angels, and not men under the dominion of interested inclinations, to realize a form of government so sublime. But nature employs

these interested inclinations themselves to give to the general will, with the respect due to reason, upon which it is founded, the efficacious practice it stands in need of. The question is only so to organize a state (and this is certainly not beyond the power of mortals) that the action and reaction of these various inclinations either annihilate or moderate their injurious effect, and by rendering it null to reason, force man to be, if not a good moral being, at least a good citizen.

The problem of a constitution is solvable even to a nation of devils (I shall be forgiven what is offensive in the expression) if this people is but endowed with understanding. "A multitude of reasonable beings desire for their preservation universal laws, though every one among them has a secret inclination to exempt himself from the observance of them. A constitution must therefore be given them that so confines their individual passions, one by means of the other, that in their public conduct their effect becomes as inconsiderable as if they had not these hostile dispositions." A problem like this must be solvable. It does not require that one should obtain the desired effect of a moral reform in man. It only demands that one should derive advantage from the mechanism of nature in order so to direct the opposition of personal interests that all the individuals who compose a nation should constrain one another to range themselves beneath the coercive power of a legislation, and thus introduce a pacific state of legislation.

However imperfect the organization of the existing states may be, they nevertheless give us a proof of what has been advanced. They approach in some degree to what the idea of right exacts in their external conduct, though the intrinsic principles of morality do certainly not contribute towards it, nor can they contribute towards it, as it is not for morality to lead to a good constitution, but for this latter to produce the moral reform in man. The example here cited sufficiently shows that the mechanism of nature, according to which the interested propensities ought to defeat each other even in their effects, may serve reason as the means of procuring to the principle of right the sovereignty to which it tends, and to the state the establishment and sure maintenance of an external and even internal peace.

Here nature in an absolute manner wills that right should at length obtain the victory. What one neglects to do she does herself, though by very unpleasant means.

Vous pliez d'un roseau le fragile soutien;
Courbez trop, il rompra. Qui veut trop, ne veut rien

[Bend the tender stem of a reed;
Bend it too much and it breaks.
He who attempts too much attempts nothing.]
Bouterwek.

II. The idea of the law of nations supposes the reciprocal independence of several neighboring and separate states; and although this situation is in itself a state of war, if a federative union prevents not hostilities, reason yet prefers this coexistence of states to their union under one superior power to the rest, which would at length end in a universal monarchy. For the laws always lose in energy what the government gains in extent; and a despotism, which, destroying the minds, stifles the germs of every good, and sooner or later degenerates into anarchy.

However, there is no state the chief of which does not desire to secure to himself a constant state of peace by the conquest of the whole universe if it were possible. But nature opposes this; she employs two means in order to prevent nations from mixing one with another: a diversity of language and religion.[9]

It is true this variety contains the germ of reciprocal hatred, and furnishes even frequently a pretext for war: but in proportion as men come nearer in their principles, in consequence of progress in their civilization, the difference of language and of religions leads to and secures a well-founded peace, not, like that of despotism, upon the grave of liberty and by means of the extinction of all power, but by the equilibrium they maintain with each other in spite of the contest resulting from their diversity.

If nature wisely separates nations, which every state would seek to combine by artifice or force, and even according to the principles of the law of nations, who, on the other hand, through the interested spirit of all nations, produces a union between them, which the idea of the cosmopolitical right alone would not have sufficiently secured from war and violence? It is the spirit of commerce that sooner or later takes hold of every nation, and is incompatible with war: the power of money being that which of all others gives the greatest spring to states, they find themselves obliged to labor at the noble work of peace, though without any

9. Diversity of religion: a very singular expression! It is precisely as if one spoke of a diversity of morals. There may be different kinds of historical faith attached to relative events, not to religion, but to its establishment, and which appertain to the jurisdiction of the learned; there may likewise be different books of religion (the Zendavesta, the Veda, the Koran, etc.), but there is only one religion true for all men and all times. These can therefore be only accidental means, which serve as a vehicle to religion, and change according to times and places.

moral view; and instantly seek to stifle, by mediations, war, in whatever part it may break out, as if for this purpose they had contracted a perpetual alliance; great associations in a war are naturally rare, and less frequently still successful. It is in this manner that nature, by means of the human propensities, guarantees a perpetual peace; and though the assurance which she gives us thereof is not sufficient to predict theoretically, yet it prevents us from regarding it as a chimerical aim, and makes it thereby a duty in us to contribute towards it.

SUPPLEMENT THE SECOND

Secret Article

for a Perpetual Peace

It would be contradictory to enter into the procedures of public right, a secret article as to its object; though it may well contain secrets subjectively as to the quality of the persons who dictate them, these perhaps fearing to expose their dignity if openly they should declare themselves the authors. The only article of that kind is the following: *The maxims of philosophers on the conditions which render a perpetual peace possible shall be consulted by those states armed for war.*

But it appears humiliating for the legislative authority of a state, to whom naturally the greatest wisdom is attributed, to be informed of the rules to be observed in the relations with other states, by the philosophers, its subjects. Nevertheless, it is necessary to consult them. The state, therefore, tacitly invites them to give their opinion; namely, by keeping secret the intention of following them, it permits their freely publishing the general maxims respecting peace and war, for they will not fail to speak if silence is not imposed upon them. Nor does it require to agree on this point a particular convention of states, since the obligation which thereby is imposed is derived from the universal principles of legislative reason.

However, it is not claimed that the state should give the preference to the principles of the philosopher over the decisions of the lawyer, the representative of the sovereign; it is only asked that he may be heard. The lawyer, who for his symbol has chosen, besides the balance of right, the sword of justice, does not always employ this latter solely for the purpose of removing from the former all foreign influence; but if one of the scales leans not to his mind, he adds the sword (*vae victis!*), a temptation to which the lawyer often finds himself exposed because he is not always philosopher enough, even morally so. His vocation leads him to apply positive laws, and not to examine whether they stand in need of

reform. And though his functions are by this very circumstance evidently inferior, nevertheless, as the faculty of right is invested with power, like that of theology and medicine, the lawyer assigns one of the first ranks to his. The faculty of philosophers is by these coalesced powers forced to be content with a much inferior place. Philosophy, they say, is but the servant of theology, and the other faculties say as much. But one takes great care not to examine whether she precedes her mistress, with the flambeau in her hand, or whether she bears her train.

That kings should become philosophers, or philosophers kings, can scarce be expected; nor is it to be wished, since the enjoyment of power inevitably corrupts the judgment of reason, and perverts its liberty. But kings or people-kings, that is to say, the people who govern themselves by laws of equality, should not suffer that the class of philosophers be reduced to disappear, or to maintain silence, but, on the contrary, should permit them to be freely heard. This is what the well administration of a government exacts; which can never be sufficiently enlightened. Besides, the class of philosophers, incapable by its nature to betray truth, or to be instrumental to the interested views of leaders and clubbists, runs not the risk of being suspected of propagandism.

APPENDIX

PART I

On the Opposition Which Exists Between Morality and Politics with Respect to the Subject of a Perpetual Peace

Morality has already in itself a practical object, it being the sum of the absolute laws according to which we ought to act. It is absurd to grant to the idea of duty all its authority, and yet pretend that it cannot be fulfilled, which would annihilate the very idea of duty (*ultra posse*, *nemo obligatur* [no one is obligated beyond the possible]). Politics, inasmuch as it is a practical jurisprudence, cannot therefore be in contradiction to morality, considered as the theory of right (that is to say, there is no opposition between the theory and the practice); unless by morality were meant the sum of the rules of prudence, or the theory of the most proper means to accomplish the views of self-interest; *i.e.*, except every idea of morality were entirely rejected.

Policy says, "Be wise as serpents"; morality adds thereto the restriction: "and harmless (without falsehood) as doves." If the one is incompatible with the other in the same precept, policy is really in opposition to morality; but if these two qualities ought absolutely to be united, the idea of contrariety is absurd, and the question of how politics are to be reconciled with morality can no longer be proposed as problematical. Though this proposition, *honesty is the best policy*, announces a theory too frequently, alas! contradicted by experience; yet no objection will ever overthrow this: *honesty is better than all policy*, and is even an essential condition of it. The tutelary divinity of morality yields not to Jupiter; this god of power is also subject to destiny: *i.e*., reason is not sufficiently enlightened to embrace the entire series of predetermining causes; the knowledge of which would alone enable it to foresee with certainty the happy or unhappy effects which, according to the mechanism of nature, must result from human actions (though we know enough to hope that they will be conformable to our wishes). But what we have to do in order to remain faithful to duty, and to observe the rules of wisdom, which is the end of reason, she furnishes us all with sufficient instruction to discern.

Now the statesman, to whom morality is mere theory, although he acknowledges the duty and the possibility of its execution, nevertheless cruelly aims to ravish from us the consoling hope of its realization; such is the nature of man, he says, that he will never desire what would be necessary to effect a perpetual peace.

It is doubtless not enough in order to accomplish it that each individual should desire to live according to the principles of liberty in a legal constitution, or to make use of scholastic terms; that there be distributive unity of the will of all, it is likewise necessary that there be collective unity of the will of all in behalf of this condition. Not the dispersed individual but the organs by which they co-operate as a body form the civil society into a whole. Not the sum or balance of the volitions of the several monads constitute the general will, but those volitions alone taken by the concert of all. It is necessary then that a cause of union assemble the individual wills of all for there to be a general will. Now, no individual being able to effect this union, since he possesses only one particular will, there will remain no other mean of realizing in practice the idea of a constitutional state than force, upon which the public right is afterwards founded. Though one cannot but expect very striking contrasts between the execution of this idea and the theory, since one can scarcely hope to find in the legislator morality enough to induce him to commit to the gen-

eral will the establishment of a constitution after having formed a nation of a horde of savages. It will then be said he who has the power in his own hands will not suffer the people to prescribe laws for him. A state once arrived at independence will not submit to the decision of other states the manner in which it ought to maintain its rights against them. One part of the world that feels itself superior to another will not neglect to increase its power by subduing its inferior in strength; and thus vanish all the delightful plans of civil, public, and cosmopolitical right in chimerical theories: whereas a practice founded upon principles deduced from a knowledge of human nature, and which blushes not to borrow its maxims from the usages of the world, can alone hope to place the structure of its politics upon a firm basis.

It must be confessed that if there is neither liberty nor moral law deriving from it, if all that happens and may happen is but a simple mechanism of nature, all practical science may be reduced to politics, *i.e.*, to the art of employing this mechanism for the governing of men: the idea of duty will then be only a chimera. But if, on the contrary, to combine this idea with politics appears indispensable, even as a necessary condition of it, the possibility of their combination must be confessed. Now I can very easily represent to myself a moral politician, *i.e.*, a statesman, who might only act according to the principles avowed by morality; whereas I cannot conceive the idea of a political moralist, who adapts morality to the interests of the statesman.

The principle of the moral politician will be that if defects have slipped either into the constitution of a state, or into the relations of states with one another, it is principally the duty of chiefs to make instantly such amendments as are conformable to the natural right founded on reason; were they even to sacrifice their own interests to these changes. This does not imply that they should violently tear the bonds of society, civil and cosmopolitical, even before they have a better form to substitute to the old one; an operation no less rude than disapproved of by morality as well as politics: but we may demand of governors to have constantly in view the duty of bringing about these reforms, and by continual advancements to lead towards the best possible constitution. A state may have a republican government even then, when a despotic power is still suffered to exist, till the nation at length yields to the influence of the authority of law alone, as to any physical power, and becomes capable of being its own lawgiver, as its primitive rights demand. Even when a violent revolution, necessitated by a defective government, has introduced, by unjust means, a better order of things, it would no longer be

permitted to lead the people back towards their ancient constitution, though every one of those who, during the revolution, openly or secretly have shared in it have justly incurred the chastisement due to rebellion. As to the external relations of states, it cannot be pretended that a nation should renounce its constitution (were it even despotic, and consequently most formidable to foreign enemies) so long as it is exposed to the danger of being swallowed up by other states. This reform must then be deferred till a more favorable epoch.[10]

It may be that the despotic moralists violate more than once the political rules in the measures they adopt or propose with too great precipitation; however, experience will soon lead them back to nature. Whereas, political moralists, by questioning the faculty of human nature to obey moral reason, favor state maxims contrary to right, and in reality strive to render all reform impossible, and to perpetuate the violation of right.

So far from possessing this practical science which they boast of, these expert politicians have only the cunning of business; solely occupied in flattering the ruling power, because their personal interest is benefited by it; they sacrifice the nation, and would (if they were able) subvert the whole world. This is what happens to all lawyers by profession who are not occupied in legislation. Without reasoning upon the laws, they are obliged to execute them; the last which appear then are always the best to them, and nothing can induce them to deviate from the mechanical order to which they are accustomed. Nevertheless, the facility which they have acquired of adapting themselves to all circumstances inspires them with the vanity of believing that they can likewise judge of the universal principles of right and of government.

The multiplicity of their connections causes them to acquire the knowledge of a great number of men, and they take this knowledge for that of man, though it is very different, and though, to obtain the latter, it is necessary to contemplate man and his faculties in a more elevated point of view. Proud of their spirit of observation, do they aspire to civil and pub-

10. These are the permissive laws given by reason. The abolition of an unjust right may be delayed, till every thing becomes of itself ripe for a reform, or till maturity has been produced by peaceable means. A constitution, however imperfect, is yet preferable to the state of anarchy that would infallibly result from a precipitate reform. Political wisdom will therefore make it a duty to reform the actual state of things upon the ideas of public right; but it will not *employ* revolutions, which the nature of things brings on to authorize an oppression still more tyrannical; on the contrary, it will profit by them to establish, by solid reforms and upon principles of freedom, a legal constitution, the only one durable.

lic right? They will be able to carry thither only the spirit of chicane; they will apply their mechanical mode of proceeding even there where despotic laws have no existence, and where reason tolerates no other constraint than that of a legal liberty, the sole and only foundation of a constitution which can guarantee right. Upon this the practitioner in the law reflects very little; he fancies himself able to fetch his notions from experience; and, without having need of principles of reason, he applies to the constitutions which have hitherto passed for the best, though they are almost all contrary to right, to obtain the idea of the best possible constitution.

These are some of the maxims of a sophist which he implicitly follows, and to which may be reduced almost all his skill.

I. *Fac et excusa* [First do and then excuse]. Seize every favorable opportunity of usurping a right over thy own state, or a neighboring state. After the action, its justification may be made with greater ease and elegance (especially in the first case, where the supreme power is at the same time the legislator, whose will must be implicitly obeyed). It is far more convenient to commit an act of violence, and afterwards excuse it, than laboriously to consider of convincing arguments, and losing time in listening to objections. This very boldness itself indicates a sort of conviction of the legitimacy of the action, and the God of success (*Bonus Eventus*) is afterwards the best advocate.

II. *Si fecisti nega*. Deny whatever thou hast committed. For instance, if thou hast reduced thy people to despair, and thus to rebellion, do not confess it was through thy fault. Place all to the account of the stubbornness of thy subjects. If thou hast taken possession of a neighboring state, maintain that the fault lies in the nature of man, who, if he is not anticipated, will certainly seize upon the fortunes of another.

III. *Divide et impera* [Divide and govern]. If there exists among a people certain privileged chiefs who have conferred upon thee sovereign power (*primus inter pares*), set them at variance with each other, embroil them with the people. Favor the latter, and promise them more liberty, and all will soon depend on thy will. Or if thy views extend to foreign states, excite discord among them; and, under pretense of always assisting the weaker, thou wilt soon subject them all, one after the other.

No one, it is true, is now the dupe of these maxims; they are too universally known still to impose. Nor are they blushed at, as if their injustice was too glaring. Great powers blush only at the judgment of other great powers, and not at that of the vulgar. Moreover, their being all on a par as to the morality of their maxims, they blush not when they are imputed

to them, but when they employ them without success. Political honor still remains to them which cannot be disputed, namely, the aggrandizement of their power, in whatever manner it may have been effected.[11]

All these windings in which an immoral policy engages to conduct men from a state of war, which is that of nature, to a pacific situation prove, at least, that in their personal affinity, or in their public relation, men cannot reject the idea of right; that they do not venture to found politics upon simple prudential artifices, and consequently do not withdraw themselves from the idea of universal right; that, on the contrary, they pay every possible regard to it, especially in public rights, even at a time they are inventing numberless pretenses and palliatives to escape therefrom in practice; and that, in fact, they by a gross error attribute the origin and maintenance of right to force, assisted by deceit. Let us put an end, if not to injustice itself, at least to the sophisms used to veil it; let us force the perfidious representatives of power to confess that their pleadings are not in favor of right, but of force, which is discovered in their imperious tone, as if their power extended even to a command of truth.

To obtain this, let us unveil the imposture which deceives the mind; let us ascend towards the principle that necessitates a perpetual peace; and let us show that the evil which is an obstacle to its proceeds from this that the political moralist begins where the moral politician would properly end; and thus, by rendering the principles subordinate to the end (which

11. If we still doubt of the stock of perverseness which appears rooted in men who live in a state of society; if even we impute, with some probability, the immoral phenomenons we now and then perceive in them to a want of civilization; this malignity is evidently manifested in the external relations of states. In the interior of a state, it is veiled by the restraint of civil law; the propensity towards reciprocal acts of violence is with the citizen fettered by the superior power of government. This it is which not only casts over the whole of society an appearance of morality but really facilitates the development of moral faculties by placing a barrier to the effervescence of unlawful inclinations, and thus prepares men to respect right on their own account. For everyone imagines that he could well respect the sacred idea of right if he were sure that others would not violate it with regard to him. Now the government, which partly gives this certainty to everyone, opens thereby the path to morality; and though it produces not respect for the very idea of right, it nevertheless conducts to that immediate and disinterested respect which renders duty observed without hopes of a return. It is true that with the good opinion everyone has of himself, he always supposes his neighbor guilty of a malicious disposition. From thence arise the continual condemnations of one another, declaring that in fact none of them are worth much. We shall not here examine from what this general depravation results; the nature of man who is free cannot be accused of it. We shall only say that as the idea of right, to which no one can refuse respect, solemnly sanctions the theory which supposes the possibility of realizing this idea, everyone perceives that he must conform to it, without troubling himself about what others may do.

is called placing the cart before the horse), he hurts his own cause, and himself prevents the agreement of politics with morality.

Let us begin with deciding a general question, from which depends the uniformity which ought to reign in practical philosophy. In order to solve the problem proposed to practical reason, we must begin with examining the material end proposed (such as the advantage and happiness that would result from the action, and which is the object of the will); or shall we, not regarding these perceptible relations, simply attend to the formal principle, namely, to the condition under which liberty may be exercised outwardly? a principle expressed by this law: act in such a manner that thou mayest desire that the maxim according to which thou determinest may become a general law (let the end thou aimest at be whatever it may).

We must undoubtedly begin with the formal principle; since in quality of a principle of right it contains an absolute necessity; whereas the material principle obliges only conditionally, and under the sole supposition that one wishes to attain the end in view; and when this end is itself a duty (as for instance perpetual peace) it must however have been deduced from the formal principle of free actions.

But here the problem of a civil, public, and cosmopolitical right is to the political moralist only a technical problem, whereas it becomes a moral problem to the moral politician. Each will have a very different track to follow for the establishment of perpetual peace, considered by the one as a simple physical good, but by the other as a situation rendered necessary by duty.

The first stands in need of a very extensive acquaintance with nature, so as to render its mechanism useful to his political end; notwithstanding the result of all his prudence will still leave a perpetual peace in uncertainty. To be convinced of this, take a view of the three species of public right. What is the most proper means of maintaining a people in obedience and prosperity; severity, or the charms of distinctions flattering to vanity; the power of one only, or that of several chiefs united; a nobility, or the power of the people? Nothing is more uncertain. History furnishes us with instances of the contrary in all forms of government (excepting that which is truly republican, and which can alone enter the mind of the moral politician). Still greater uncertainty exists in this pretended public right, founded upon ministerial ordinances: an expression void of sense, marking only conventional acts, concluded with a mental restriction of their violation.

Very different is the problem of the moral politician. The solution here, in some measure, offers itself to the mind; everyone owns its evidence. It makes the politician blush at the inutility of his maneuvres. It immediately conducts to the aim, though by an insensible progress, and without forcing it by violent precipitation.

It is there said, "Seek first the reign of pure practical reason and its justice, and your end (the blessing of perpetual peace) will necessarily follow." This is the prerogative of morality, especially in its principles of public right, consequently in its politics a priori. The less it aims in its conduct to the end proposed, that is to say, the physical or moral advantage in view, the more, nevertheless, it leads to it. For it is the general will regulated a priori which determines the right, whether of one people or of nations among each other. Now, provided it is consistently put in practice, this union of the will of all may at the same time, through the mechanism of nature, produce the desired effect, and contribute towards the realization of the idea of right.

It is, for instance, a principle in moral politics that a people shall constitute itself into a state only according to the ideas of a right of liberty and equality; and this principle is not founded upon prudence but duty. Let the political moralists oppose it as much as they please; let them exhaust themselves with arguments on the inefficacy of these principles against the natural affections of the members of society; let them even allege, in order to strengthen their objections, the example of ancient and modern constitutions, all badly organized (as that of democracies without the representative system), all their arguments do not merit any attention; especially since they themselves occasion perhaps this vicious morality, whose existence they suppose, by their fatal theory, which confounds man in one and the same class with other living machines, and which, in order to render him the most wretched of all beings, has only to take from him the consciousness of liberty.

The sentence somewhat free, but true, *fiat justitia*, *pereat mundus*, *i.e.*, let justice reign, should all the rascals of the universe perish: this sentence, which has become a proverb, is an energetic principle of right, and courageously cuts asunder the whole tissue of artifice or of force. But it is necessary that it be well understood. It does not authorize one to enforce his rights with all possible rigour; morality opposes this. It only enjoins the powerful neither to refuse nor to extenuate to anyone his right from aversion or commiseration for others; this is what is required, on the one hand, by an interior constitution founded upon the principles of right, and on the other, by a convention with other states analogous to a cosmo-

political constitution, and tending to regulate their differences legally. This sentence only imports that political maxims ought not to be founded upon the prosperity which may be expected to result from them to the state; that in their establishment attention ought not to be paid to the material aim, the object of the will of each state, and which cannot serve for a first principle to politics, only when it derives its maxims from experience; that state maxims ought to be deduced from the pure idea of duty, whatever may be the physical consequences thereof. And certainly, the universe would not totter if there were fewer wicked men in it. Such is the essential nature of moral evil that even the opposition of the views of its partisans insensibly destroys it, and that, annihilating itself, it by degrees gives place to the principle of moral good.

Objectively, or in the theory, there is no opposition between morality and politics. But it will always exist subjectively, *i.e.,* in consequence of the selfish propensity of man (I would say in the practice if this term did not imply a conduct founded upon the maxims of reason). And, in reality, this struggle is conducive to the exercise of virtue.

Tu ne cede malis, sed contra audentior ito.
[Do not withdraw from evils but go more boldly against them.]

But the most courageous exertion of virtue consists less in this case in defying the evils inseparable from this combat than in detecting and vanquishing within us the bad principle, whose crafty illusion and treacherous sophisms tend incessantly to persuade us that human frailty justifies every crime.

The political moralist may in reality say: If the prince and the people, or the people among themselves, employ fraud or force in order to go to war, they do no injustice to one another, though they are guilty of injustice in refusing all respect to the idea of right, which alone could serve as the basis to a perpetual peace. For the one failing in his duty towards the other, to the full as ill-disposed in his regard, it is in order that they destroy one another; unhappily there still remains enough of this race to occasion this game to continue to the remotest ages, and to furnish to posterity a terrible lesson. Providence, which regulates the course of the world, is sufficiently justified by the maintenance of moral principle, which is never extinct in man; for, on the contrary, the continual advances of the human mind progressively develop reason, and render it more adapted to realize the idea of right, conformable to moral principle, as they render more culpable those who violate it. There is only the existence and even the creation of this depraved race which seems incapable

of being justified by any theodicy, if we admit that the human race can never be meliorated. But we are not permitted to elevate ourselves, in our theoretical judgments, beyond our sphere; and infinite power is too incomprehensible for us to presume to apply to it our ideas of wisdom.

Such are the afflicting consequences resulting from a system in which the principles of right are affirmed to be impracticable. It is necessary then to admit their objective reality; it is upon them that the people of each state must regulate their conduct, and the states their reciprocal relations, however specious the objections may be which policy deduces from experience.

Thus true politics can never take a step without having previously rendered homage to morality; united with this, it is no longer a difficult or complicated art; morality cuts the knot which politics is incapable of untying, whenever they are in opposition to each other. The rights of man ought to be religiously respected should sovereigns in rendering it make the greatest sacrifices. One cannot compromise here between right and utility; politics must bend the knee before morality; but by this means it may also expect insensibly to attain to an eminence, where it will shine with an immortal glory.

PART II

Of the Harmony Which the Transcendent Idea of Right Establishes between Politics and Morality

When I represent to myself, according to the usage of the lawyers, the public right in all its habitudes with the relations of the individuals of a state, and of states among themselves; if I then make an abstraction of all the material of right, there still remains to me a form, which is essential to it, that of publicity. Without it there is no justice, for one cannot conceive of it only as being able to be rendered public: there would be then no longer right, since it is founded only on justice. Each juridical claim ought to be capable of being made public; and as it is very easy to judge in each case if the principles of him who acts would bear publicity, this possibility itself may commodiously serve as a criterion purely intellectual in order to discover by reason alone the injustice of a juridical pretension.

I understand by the material of civil and public right all what experi-

ence alone can make us add to its idea (such is, for instance, the pretended wickedness of human nature, which necessarily requires constraint). Let us make an abstraction of all that we then shall have a transcendent formula of public right; here it is:

"All the actions relative to the right of another whose maxim is not susceptible of publicity are unjust."

This principle is not only moral and essential to the doctrine of virtue; it is likewise juridical and equally respects the right of men. For a maxim which I dare not divulge without defeating my own ends, which absolutely requires secrecy in order to succeed, and which I cannot publicly avow without arming all others against my projects, such a maxim can only owe to the injustice with which it menaces them this infallible and universal opposition, of which reason foresees the absolute necessity.

Besides, this principle is purely negative; it is only subservient to the detection of what is repugnant to the right of others. There is evidence and certitude of axioms, and one may easily make application of them. Some examples drawn from public right go to prove it.

I. In civil right a question occurs, considered as of very difficult solution, and which the transcendent principle of publicity immediately decides; *i.e.,* if a people act consistently with right in shaking off by rebellion the yoke of a tyrant (*non titulo, sed exercitio talis* [tyrant in fact and practice, though not in title]). The rights of the people are violated; but no wrong is done to the tyrant by dethroning him; that is beyond a doubt. It is not less true that the subjects are in the highest degree wrong in pursuing their right in this manner, and that they cannot complain of injustice if, subdued in the struggle, they afterwards suffer in consequence thereof the severest punishments.

If one wishes to decide the question by a dogmatical deduction of rights, one will argue a long time for and against; but our transcendent principle of public right frees us from all these difficulties.

According to this principle, a nation would ask itself prior to the institution of the social contract whether on a given occasion it dare publish the design it might entertain of revolting. It is manifest that if, in founding a constitution, a nation reserved to itself the condition of being able, in a supposed case, to employ force against its chief, it would assume a legitimate power over him; but then the chief would cease to be so; or if it was wished to make this condition a clause of the constitution, this would be impossible, and the nation would fail of its end. The injustice of rebellion then is manifest inasmuch as publicity would render the maxim impracti-

cable which permits it; by consequence it would be necessary to keep it secret. Now, it would not be thus with the chief of the state; he can boldly declare that he will inflict the punishment of death upon every author of revolt, even when the conspirators might imagine that the chief has first violated the fundamental law of the civil constitution; the chief must enjoy an irresistible and inviolable power, since he could not have the right to command each if he had not the power to protect each against the others. For feeling himself invested with this power, he has no longer to fear acting hostilely to his own views in making his maxims public. A consequence not less evident of this principle is that if the nation succeed in its revolt, the chief, re-entering into the class of subjects, dares neither renew the rebellion in order to reascend the throne nor be summoned to render an account of his preceding administration.

II. The right of nations supposes a juridical state; for being a public right, it includes already in its notion the declaration of rights which the general will assigns to each. This juridical state ought to result from an antecedent pact founded not upon the laws of constraint, like the civil pact, but upon a free and permanent association, such as the federation of states which has been treated of above.

In the state of nature, and without a sort of juridical state, which might unite among themselves the divers physical and moral persons, there can exist only individual right. Now, it is equally evident that here exists between politics and morality, which have respect to right, an opposition just as easy to be removed if one apply thereto the principle of publicity of maxims. I suppose, however, that the federation of nations will have for its object only the maintenance of peace, and not of conquests. The following are the problems in which politics are at variance with morality, and their solution.

1. When one state has promised to another succors, the cession of some province, or subsidies, etc., it is demanded whether it can retract its promise, in case the safety of the state be exposed, by pretending to consider it under a double point of view: sometimes as sovereign, free from all responsibility towards the state; sometimes as first public functionary, accountable to its fellow citizens: so that it may retract in this last quality engagements entered into in the first.

But if a state, or its chief, rendered this maxim public, all others would naturally avoid treating therewith, or would associate with one another in order to resist its pretensions; which proves that politics, with all its ad-

dress, would of itself, in practicing sincerity, defeat its object; and consequently the maxim in question must be unjust.

2. If a power is become formidable by its acquisitions, dare it be admitted that it will, because it can, oppress others; and have the powers of the second order a right to attack it conjointly without their having been injured by it? A state which should openly declare this maxim would only augment the evil instead of extinguishing it. For the superior power would anticipate the less, and the association of others is only a feeble reed, incapable of resisting any one who well understands the *divide et impera*. This maxim of politics, rendered notorious, necessarily annihilates of itself its effect, and consequently it is unjust.

3. When a small state is so situate as to intercept, between the parts of a great state, the communication necessary to its preservation, is not the greater authorized to subject the other, or to incorporate it with itself?

It is easy to perceive that it ought well to guard against suffering this maxim to transpire before the execution; for either the small states would form betimes defensive alliances or other great powers would dispute the prey. Publicity then would render this maxim impracticable; a certain mark that it is unjust. It may likewise be unjust in a very high degree. For however small the object of an injustice may be, the injustice itself may be very great.

III. I pass in silence the cosmopolitical right, because it is very easy to form and to appreciate its maxims on account of its analogy to the right of nations.

Here is then a character by which we are able to recognize the non-conformity of a maxim of politics to the morality which has relation to right; *i.e.,* the incompatibility of maxims of public right with publicity. It concerns us now to know the conditions under which these maxims accord with the right of nations. For it cannot be inferred from the notoriety of a maxim that it is just, since one has no need of concealing his plans when he possesses a decided superiority of power.

The first condition necessary to render the public right possible is in general the existence of a juridical order. Now we have seen above that there is no other juridical state compatible with the liberty of states than their federative association for the sole maintenance of peace. The agreement of politics with morality then can take place only by means of a similar association, founded upon intellectual principles of right, and

which is consequently requisite. All politics is founded upon this legal federalism; otherwise it is only a refinement of injustice. The jesuitical casuists have not more of subtilities than has this false policy. It has, first, mental restrictions, ambiguities which it knows how adroitly to slip into public treaties in order to be able afterwards to explain them to its advantage; as, for instance, the distinction between the states *quo de fait et de droit* [in fact and in right]; the *probabilismus* [probability]: merely to forge hostile intentions, and to attribute them to others; to imagine a probable superiority of power, and to make of it a right, for the sake of which peaceable states may be undermined; lastly, the *peccatum philosophicum* (*peccatillum bagatelle*) [philosophical sin (the trivial fault)] in order to be able to regard as a very pardonable fault, and perhaps even as a blessing to mankind, that great states should swallow up the lesser ones.[12]

Morality itself is the specious pretext of all these maxims, whose various branches political duplicity knows how to employ to its own ends. Benevolence is a duty as well as respect for the rights of man; but it is only a conditional duty; this is absolute and necessary. One must be sure of having never wounded this last, in order to be able to give one's self up to the sweet sentiment of benevolence. Politics easily accords with morality, inasmuch as this regulates the manners, in order to be able to abandon the rights of men to their superiors; but as to morality, inasmuch as it establishes the rights of man, instead of prostrating itself before it, as it ought, politics finds it convenient to combat it and dispute with it all reality, confining itself to reduce all duties to benevolence. Now this artifice of gloomy politics would be soon unmasked by the publicity of its maxims, which philosophers would give to open day, if it possessed but the courage to allow them the publication of their principles.

In this view, I propose another transcendent and affirmative principle of public right, whose formula should be:

"All maxims which, in order to have their effect, stand in need of publicity agree with politics and morality combined."

For if they cannot produce their effect only as far as they are notorious, they must accord with the general end of the public, with happiness; consequently they are reconcilable with politics, which is occupied in con-

12. The examples of the application of all these maxims may be seen in Counselor Garve's "Dissertation on the Union of Politics with Morality," 1788. This respectable learned man confesses himself, from the beginning, unable completely to solve this problem. But to approve of this union without thinking one's self able to refute all the objections that are made to it, is it not granting more than ought to be to those who are but too well disposed to abuse such a facility?

ceiving a state of things with which each may be satisfied. And if this end can be attained only by the publicity of maxims which are proposed, *i.e.*, in removing from them all subject of distrust, they must be moreover conformable to the rights of the public: the only point of union at which the particular ends of all can be made to meet. I shall defer till another occasion the development of this principle. I only add that it is transcendent, since its formula includes nothing material, nothing which relates to the doctrine of happiness, and that it must be drawn from experience; it aims only at the form of universality which gives the force of laws to maxims.

If it is a duty, if the hope can even be conceived, of realizing, though by an endless progress, the reign of public right—perpetual peace, which will succeed to the suspensions of hostilities, hitherto named treaties of peace, is not then a chimera, but a problem of which time, probably abridged by the uniformity of the progress of the human mind, promises us the solution.

Karl von Clausewitz

1780–1831

Karl von Clausewitz, army general and theorist of war, was among the Prussian military figures—including General Gerhard von Scharnhorst (1755–1813) and Field Marshal Count Neithardt von Gneisenau (1760–1831)—who during the wars against Napoleon organized a military system for their country that strongly influenced its national character. They were inspired to do this by the Battle of Jena (1806), where Napoleon destroyed the Prussian forces, which, since Frederick the Great (1712–1786), had been thought to be the finest in the world. That disaster showed the superiority of an inspired national army over professional legions of the sort created by Frederick. The lesson taught Prussia—and Europe—the effectiveness of a kind of war that was later to be called total.

Clausewitz himself, who was only thirty-five when Napoleon at last surrendered, missed the chance to achieve first distinction as a field officer. Yet his career began so early that he rose to higher rank than most men of his age. He was born near Magdeburg, Saxony, of parents too poor to educate their children. At twelve he entered the army. By the time he was fourteen, he was a veteran who had received a commission. He was captured by the French at Prenzlau. Subsequently, he returned to Prussia to help Scharnhorst re-establish the army, went afterward with many of his fellow officers to help the Russians resist and defeat Napoleon's invasion of 1812, and was chief of staff to one of the Prussian generals at the Battle of Waterloo (1815).

Meanwhile he had managed to educate himself. His talents as a theorist of military affairs were recognized before he was twenty-five. During interludes of peace he served as an administrator and teacher of military organization. When the long war with France

was finished he became director, in 1818, of the Prussian Allgemeine Kriegsschule (War College), where he carried on the work that Scharnhorst had begun. In 1830 he was transferred to active duty near the Polish border, becoming chief of staff to Gneisenau, with whom he had served in Russia. He died at Breslau the next year of cholera, a disease which in the same year also killed his commander.

Clausewitz' writings were collected and published after his death. Besides lives of Scharnhorst and Gneisenau, they include histories of the Napoleonic campaigns and studies of various military leaders. But the work for which their author has become famous is the treatise *Vom Kriege* (*On War*). The selection that follows is the first chapter of that work.

What is war? It is a kind of duel, Clausewitz says, in which the aim is to disarm your enemy so that you may impose your will upon him. It is not, in other words, a polite exercise of the sort sometimes undertaken by eighteenth-century kings and generals. In theory, war is without limits, save for those "restrictions, hardly worth mentioning, which it imposes on itself under the name of international law and usage."

In practice, however, Clausewitz suggests, war is limited by political considerations. War as he conceives it is really a means to the political objects of competing states, and from these objects it cannot, or should not, be separated. The implication is that in time of war a well-ordered state and its army are the same thing, while even in time of peace the proper national spirit is a militant one.

Such reflections have often been opposed in two different ways. In the first place, with respect to Clausewitz' book as a whole, it can be said—as Homer seems to and as Tolstoy certainly does say—that war is not a philosophical subject. War cannot be reduced to a system of which there can be a science. Even if it is admitted that war can be systematized, it must also be said that it is not civilized. War, as such, is not a legitimate social enterprise. It can be maintained, as Virgil seems to do, that war constitutes a failure of civilization rather than a practice of it. It has been doubted whether any national object exists, apart from survival, which war can justifiably serve. One might hesitate to admit that such a thing as war can be "a real political instrument, a continuation of political intercourse, a carrying out of the same by other means."

Those who oppose Clausewitz' view on these or other grounds cannot deny his fierce realism. "War is an act of force," he says, "and to the application of that force there is no limit." These words were written to refute certain eighteenth-century theorists who considered war a game–"a sort of algebra of action," as Clausewitz scornfully puts it. War in itself has no intrinsic restraints. Clausewitz did not fear an unlimited war, since he supposed that extrinsic political objectives would always exist to limit it. But it is the opinion of some modern writers that war has become unrestrainable. We may wonder whether Clausewitz would maintain that any political objectives whatever could limit a conflict between two opponents armed with nuclear weapons.

What Is War?

1. INTRODUCTION

We propose to consider, first, the several elements of our subject, then its several parts or divisions, and, finally, the whole in its internal connection. Thus we proceed from the simple to the complex. But in this subject more than in any other it is necessary to begin with a glance at the nature of the whole, because here more than elsewhere the part and the whole must always be considered together.

2. DEFINITION

We shall not begin here with a clumsy, pedantic definition of war, but confine ourselves to its essence, the duel. War is nothing but a duel on a larger scale. If we would combine into one conception the countless separate duels of which it consists, we would do well to think of two wrestlers. Each tries by physical force to compel the other to do his will; his immediate object is to overthrow his adversary and thereby make him incapable of any further resistance.

War is thus an act of force to compel our adversary to do our will.

Force, to meet force, arms itself with the inventions of art and science. It is accompanied by insignificant restrictions, hardly worth mentioning, which it imposes on itself under the name of international law and usage, but which do not really weaken its power. Force, that is to say, physical force (for no moral force exists apart from the conception of a state and law), is thus the *means;* to impose our will upon the enemy is the *object.* To achieve this object with certainty we must disarm the enemy, and this disarming is by definition the proper aim of military action. It takes the place of the object and in a certain sense pushes it aside as something not belonging to war itself.

3. THE USE OF FORCE THEORETICALLY WITHOUT LIMITS

Now philanthropic souls might easily imagine that there was an artistic way of disarming or overthrowing our adversary without too much bloodshed and that this was what the art of war should seek to achieve. However agreeable this may sound, it is a false idea which must be demolished. In affairs so dangerous as war, false ideas proceeding from kindness of heart are precisely the worst. As the most extensive use of physical force by no means excludes the co-operation of intelligence, he who uses this force ruthlessly, shrinking from no amount of bloodshed, must gain an advantage if his adversary does not do the same. Thereby he forces his adversary's hand, and thus each pushes the other to extremities to which the only limitation is the strength of resistance on the other side.

This is how the matter must be regarded, and it is a waste—and worse than a waste—of effort to ignore the element of brutality because of the repugnance it excites.

If the wars of civilized nations are far less cruel and destructive than those of the uncivilized, the reason lies in the social condition of the states, both in themselves and in their relations to one another. From this condition, with its attendant circumstances, war arises and is shaped, limited and modified. But these things do not themselves belong to war; they already exist. Never in the philosophy of war itself can we introduce a modifying principle without committing an absurdity.

Conflict between men really consists of two different elements: hostile feeling and hostile intention. We have chosen the latter of these two elements as the distinguishing mark of our definition because it is the more general. We cannot conceive the most savage, almost instinctive, passion of hatred as existing without hostile intention, whereas there are many hostile intentions accompanied by absolutely no hostility, or, at all events, no predominant hostility, of feeling. Among savages intentions inspired by emotion prevail; among civilized peoples those prescribed by intelligence. But this difference lies not in the intrinsic nature of savagery and civilization, but in their accompanying circumstances, institutions, and so forth. It does not necessarily, therefore, exist in every case, but only prevails in the majority of cases. In a word, even the most civilized nations can be passionately inflamed against one another.

From this we see how far from the truth we should be if we ascribed

war among civilized men to a purely rational act of the governments and conceived it as continually freeing itself more and more from all passion, so that at last there was no longer need of the physical existence of armies, but only of the theoretical relations between them–a sort of algebra of action.

Theory was already beginning to move in this direction when the events of the last war [1] taught us better. If war is an act of force, the emotions are also necessarily involved in it. If war does not originate from them, it still more or less reacts upon them, and the degree of this depends not upon the stage of civilization, but upon the importance and duration of the hostile interests.

If, therefore, we find that civilized peoples do not put prisoners to death or sack cities and lay countries waste, this is because intelligence plays a greater part in their conduct of war and has taught them more effective ways of applying force than these crude manifestations of instinct.

The invention of gunpowder and the advances continually being made in the development of firearms in themselves show clearly enough that the demand for the destruction of the enemy, inherent in the theoretical conception of war, has been in no way actually weakened or diverted by the advance of civilization.

So we repeat our statement: War is an act of force, and to the application of that force there is no limit. Each of the adversaries forces the hand of the other, and a reciprocal action results which in theory can have no limit. This is the first reciprocal action that we meet and the first extreme.

(*First reciprocal action*)

4. THE AIM IS TO DISARM THE ENEMY

We have said that the disarming of the enemy is the aim of military action, and we shall now show that, theoretically, at all events, this is necessarily so.

If our opponent is to do our will, we must put him in a position more disadvantageous to him than the sacrifice would be that we demand. The disadvantages of his position should naturally, however, not be transitory, or, at least, should not appear to be so, or our opponent would wait for a more favorable moment and refuse to yield. Every change in his position that will result from the continuance of military activity

1. The war with Napoleon.

must thus, at all events in theory, lead to a position still less advantageous. The worst position in which a belligerent can be placed is that of being completely disarmed. If, therefore, our opponent is to be forced by military action to do our will, we must either actually disarm him or put him in such a condition that he is threatened with the probability of our doing so. From this it follows that the disarming or the overthrow of the enemy—whichever we choose to call it—must always be the aim of military action.

Now war is not the action of a live force upon a dead mass—absolute nonresistance would be no sort of war at all—but always the collision of two live forces with each other, and what we have said of the ultimate aim of military action must be assumed to apply to both sides. Here, then, is again reciprocal action. So long as I have not overthrown my adversary I must fear that he may overthrow me. I am no longer my own master, but he forces my hand as I force his. This is the second reciprocal action, which leads to the second extreme.

(*Second reciprocal action*)

5. UTMOST EXERTION OF FORCES

If we want to overthrow our opponent, we must proportion our effort to his power of resistance. This power is expressed as a product of two inseparable factors: *the extent of the means at his disposal* and *the strength of his will*. The extent of the means at his disposal would be capable of estimation, as it rests (though not entirely) on figures, but the strength of the will is much less so and only approximately to be measured by the strength of the motive behind it. Assuming that in this way we have got a reasonably probable estimate of our opponent's power of resistance, we can proportion our efforts accordingly and increase them so as to secure a preponderance or, if our means do not suffice for this, as much as we can. But our opponent does the same; and thus a fresh competition arises between us which in pure theory once more involves pushing to an extreme. This is the third reciprocal action we meet and a third extreme.

(*Third reciprocal action*)

6. MODIFICATIONS IN PRACTICE

In the abstract realm of pure conceptions the reflective mind nowhere finds rest till it has reached the extreme, because it is with an extreme

that it has to do—a conflict of powers left to themselves and obeying no law but their own. If, therefore, we wanted from the mere theoretical conception of war to deduce an absolute aim which we are to set before ourselves and the means we are to employ, these continuous reciprocal actions would land us in extremes which would be nothing but a play of fancies produced by a scarcely visible train of logical hairsplitting. If, adhering closely to the absolute, we proposed to get round all difficulties with a stroke of the pen and insist with logical strictness that on every occasion we must be prepared for the extreme of resistance and meet it with the extreme of effort, such a stroke of the pen would be a mere paper law with no application to the real world.

Assuming, too, that this extreme of effort were an absolute quantity that could easily be discovered, we must nevertheless admit that the human mind would hardly submit to be ruled by such logical fantasies. In many cases the result would be a futile expenditure of strength which would be bound to find a restriction in other principles of statesmanship. An effort of will would be required disproportionate to the object in view and impossible to call forth. For the will of man never derives its strength from logical hairsplitting.

Everything, however, assumes a different shape if we pass from the abstract world to that of reality. In the former everything had to remain subject to optimism and we had to conceive both one side and the other as not merely striving toward perfection but also attaining it. Will this ever be so in practice? It would if:

1. war were a wholly isolated act, which arose quite suddenly and had no connection with the previous course of events,

2. if it consisted of a single decision or of several simultaneous decisions,

3. if its decision were complete in itself and the ensuing political situation were not already being taken into account and reacting upon it.

7. WAR IS NEVER AN ISOLATED ACT

With reference to the first of these three points we must remember that neither of the two opponents is for the other an abstract person, even as regards that factor in the power of resistance which does not depend on external things, namely, the will. This will is no wholly unknown quantity: what it has been today tells us what it will be tomorrow. War never breaks out quite suddenly, and its spreading is not the work of a moment. Each of the two opponents can thus to a great extent form an

opinion of the other from what he actually is and does, not from what, theoretically, he should be and should do. With his imperfect organization, however, man always remains below the level of the absolute best, and thus these deficiencies, operative on both sides, become a modifying influence.

8. WAR DOES NOT CONSIST OF ONE BLOW WITHOUT DURATION

The second of the three points gives occasion for the following observations:

If the issue in war depended on a single decision or several simultaneous decisions, the preparations for that decision or those several decisions would naturally have to be carried to the last extreme. A lost opportunity could never be recalled; the only standard the real world could give us for the preparations we must make would, at best, be those of our adversary, so far as they are known to us, and everything else would once more be relegated to the realm of abstraction. But if the decision consists of several successive acts, each of these with all its attendant circumstances can provide a measure for those which follow, and thus here, too, the real world takes the place of the abstract, and modifies, accordingly, the trend to the extreme.

Every war, however, would necessarily be confined to a single decision or several simultaneous decisions if the means available for the conflict were all brought into operation together or could be so brought into operation. For an adverse decision necessarily diminishes these means, and if they have all been used up in the first decision, a second really becomes unthinkable. All acts of war which could follow would be essentially part of the first and really only constitute its duration.

But we have seen that in the preparations for war the real world has already taken the place of the mere abstract idea, and an actual standard that of a hypothetical extreme. Each of the two opponents, if for no other reason, will therefore in their reciprocal action stop short of the extreme effort, and their resources will thus not all be called up together.

But the very nature of these resources and of their employment makes it impossible to put them all into operation at one and the same moment. They consist of *the military forces proper, the country* with its superficial extent and its population, and *the allies.*

The country with its superficial extent and its population, as well as be-

ing the source of all military forces proper, is also in itself an integral part of the factors operative in war, if only with that part which provides the theatre of war or has a marked influence upon it.

Now all movable military resources can very well be put into operation simultaneously, but not all the fortresses, rivers, mountains, inhabitants, and so forth—in a word, the whole country, unless it is so small as to be wholly embraced by the first act of war. Furthermore, the co-operation of the allies does not depend upon the will of the belligerents, and from the very nature of political relations, it frequently does not come into effect or become active till later, for the purpose of restoring a balance of forces that has been upset.

That this part of the means of resistance, which cannot be brought into operation all at once, in many cases is a much larger part of the whole than at first sight we should think, and that consequently it is capable of restoring the balance of forces even when the first decision has been made with great violence and that balance has thus been seriously disturbed, will be more fully explained later. At this point it is enough to show that to make all our resources available at one and the same moment is contrary to the nature of war. Now in itself this could furnish no ground for relaxing the intensity of our efforts for the first decision, because an unfavorable issue is always a disadvantage to which no one will purposely expose himself, because even if the first decision is followed by others, the more decisive it has been, the greater will be its influence upon them. But the possibility of a subsequent decision is something in which man's shrinking from excessive effort causes him to seek refuge, and thus for the first decision his resources are not concentrated and strained to the same degree as they would otherwise have been. What either of the two opponents omits from weakness becomes for the other a real, objective ground for relaxing his own efforts, and thus, through this reciprocal action, the trend to the extreme is once more reduced to a limited measure of effort.

9. THE RESULT OF A WAR IS NEVER ABSOLUTE

Lastly, the final decision of a whole war is not always to be regarded as an absolute one. The defeated state often sees in it only a transitory evil, for which a remedy can yet be found in the political circumstances of a later day. How greatly this also must modify the violence of the strain and the intensity of the effort is obvious.

10. THE PROBABILITIES OF REAL LIFE TAKE THE PLACE OF THE EXTREME AND ABSOLUTE DEMANDED BY THEORY

In this way the whole field of war ceases to be subject to the strict law of forces pushed to the extreme. If the extreme is no longer shunned and no longer sought, it is left to the judgment to determine the limits of effort, and this can only be done by deduction according to the *laws of probability* from the data supplied by the phenomena of the real world. If the two adversaries are no longer mere abstractions but individual states and governments, if the course of events is no longer theoretical but one that is determined according to its own laws, then the actual situation supplies the data for ascertaining what is to be expected, the unknown that has to be discovered.

From the character, the institutions, the situation and the circumstances of the adversary, each side will draw its conclusions, in accordance with the laws of probability, as to what the action of the other will be and determine its own accordingly.

11. THE POLITICAL OBJECT NOW COMES FORWARD AGAIN

At this point a subject, which in Section 2 we had dismissed, now once more insists on claiming our consideration: namely, *the political object of the war*. The law of the extreme, the intention of disarming the enemy and overthrowing him, had up to now, so to speak, more or less swallowed it up. As this law loses its force, and this intention falls short of its aim, the political object of the war once more comes to the front. If all we have to consider is a calculation of probabilities starting from definite persons and circumstances, the political object as the original motive must be an essential factor in this process. The smaller the sacrifice we demand from our adversary, the slighter we may expect his efforts to be to refuse it to us. The slighter, however, his effort, the smaller need our own be. Furthermore, the less important our political object, the less will be the value we attach to it and the readier we shall be to abandon it. For this reason also our own efforts will be the slighter.

Thus the political object as the original motive of the war will be the standard alike for the aim to be attained by military action and for the efforts required for this purpose. It cannot be in itself an absolute standard, but, as we are dealing with real things and not with mere ideas, it

will be the standard relative to the two contending states. One and the same political object can in different nations, and even in one and the same nation at different times, produce different reactions. We can therefore allow the political object to serve as a standard only in so far as we bear in mind its influence on the masses which it is to affect. So the character of these masses must be considered. It is easy to see that the result may be quite different, according as the action is strengthened or weakened by the feeling of the masses. In two nations and states such tensions, and such a mass of hostile feelings, may exist that a motive for war, very trifling in itself, still can produce a wholly disproportionate effect—a positive explosion.

This holds good for the efforts which the political object can call forth in the two states, and for the aim it can assign to military action. Sometimes it can itself become this aim, for example, if it is the conquest of a certain province. Sometimes the political object will not itself be suited to provide the aim for military action, and in such cases one must be chosen of such a kind as will serve as an equivalent for it and can take its place in the conclusion of peace. But in this case also due consideration for the character of the states concerned is always presupposed. There are circumstances in which the equivalent must be much more considerable than the political object, if the latter is to be attained by it. The greater the indifference of the masses and the less serious the tensions that on other grounds also exist in the two states and their relations, the more dominant as a standard, and decisive in itself, will the political object be. There are cases in which it is, almost by itself, the deciding factor.

Now if the aim of the military action is an equivalent for the political object, that action will in general diminish as the political object diminishes. The more this object comes to the front, the more will this be so. This explains how, without self-contradiction, there can be wars of all degrees of importance and energy, from a war of extermination down to a mere state of armed observation. But this leads us to a question of another kind, which we have still to analyze and answer.

12. A SUSPENSION OF MILITARY ACTION NOT EXPLAINED BY ANYTHING YET SAID

However insignificant the political claims made on either side, however weak the means employed and however trifling the aim to which military action is directed, can this action ever for a moment be

suspended? This is a question that goes deep into the essence of the matter.

Every action requires for its accomplishment a certain time, which we call its duration. This may be longer or shorter, according as the person acting is more or less quick in his movements.

About this we shall not here trouble ourselves. Everyone does his business in his own fashion; but the slow person does not do it more slowly because he wants to spend more time on it but because by his nature he needs more time, and if he were to make greater haste, he would do it less well. This time, therefore, depends on subjective causes and belongs to the actual duration of the action.

If we now allow to every action in war its duration, we must admit, at all events at first sight, that every expenditure of time in excess of this duration, that is to say, every suspension of military action, seems to be absurd. In this connection we must always remember that the question is not of the progress of one or other of the two opponents, but of the progress of the military action as a whole.

13. THERE IS ONLY ONE CAUSE THAT CAN SUSPEND ACTION, AND THIS SEEMS ALWAYS TO BE POSSIBLE ON ONE SIDE ONLY

If two parties have armed themselves for the conflict, a hostile motive must have caused them to do so. So long then as they remain under arms, so long, that is, as they do not make peace, this motive must be present and can only cease to act with either of the two opponents for one sole reason, namely, *that he wants to wait for a more favorable moment for action.* Now, it is obvious that this reason can only be present on one of the two sides, because by its very nature it becomes the opposite on the other. If it is to the interest of the one commander to act, it must be to the interest of the other to wait.

A complete equilibrium of forces can never produce a suspension of action, for in such a suspension he who has the positive aim—that is, the assailant—would necessarily retain the initiative.

But if we chose to conceive the equilibrium as such that he who has the positive aim, and therefore the stronger motive, has at the same time the smaller forces at his disposition, so that the equation would arise from the product of motives and forces, we should still have to say that if no change in this condition of equilibrium is to be foreseen, both sides must make peace. But if a change is to be foreseen, it will be in favor

of one side only, and for that reason the other will necessarily be moved to action. We see that the idea of an equilibrium cannot explain a suspension of hostilities, but all it amounts to is the waiting for a more favorable moment. Let us assume, therefore, that of two states one has a positive aim, the conquest, for instance, of one of the adversary's provinces to be used as a counter in the settlement of peace. After this conquest his political object is attained, the need for action ceases and he can take rest. If his adversary is prepared to acquiesce in this result, he must make peace; if not, he must act. If it is thought now that in four weeks' time he will be in a better condition to do so, then he has sufficient grounds for postponing his action.

But from that moment the duty of action seems to fall logically upon his opponent, in order that no time be allowed to the vanquished to prepare for action. In all this, it is, of course, assumed that each side has a complete knowledge of the circumstances.

14. THUS A CONTINUITY WOULD BE INTRODUCED INTO MILITARY ACTION FORCING EVERYTHING AGAIN TO A CLIMAX

If this continuity of military action actually existed, everything would again be driven by it to the extreme. For apart from the fact that such ceaseless activity would give a greater bitterness to the feelings and impart to the whole a higher degree of passion and a greater elemental force, there would also arise through the continuity of action a more inevitable sequence of events and a less disturbed causal connection between them. Each action would in consequence become more important and thus more dangerous.

But we know that military action seldom or never has this continuity, and that there are many wars in which action fills by far the smallest part of the time occupied, and inaction all the rest. This cannot possibly be always an anomaly. Suspension of military action must be possible, that is to say, not a contradiction in itself. That this is so, and why, we will now show.

15. HERE, THEREFORE, A PRINCIPLE OF POLARITY IS BROUGHT INTO EVIDENCE

By supposing the interests of the one commander to be always diametrically opposed to those of the other, we have assumed a true *polarity*. We propose later on to devote a special chapter to this principle, but for the present must make one observation upon it.

The principle of polarity only holds good if it is conceived in one and the same thing, in which the positive and its opposite, the negative, exactly destroy one another. In a battle each of the two parties wishes to win; that is true polarity, for the victory of the one destroys that of the other. But if we are speaking of two different things which have a common relation external to themselves, it is not the things but their relations that have the polarity.

16. ATTACK AND DEFENSE ARE THINGS DIFFERENT IN KIND AND OF UNEQUAL FORCE. POLARITY THEREFORE IS NOT APPLICABLE TO THEM

If there were only one form of war, namely, the attack of the enemy, therefore no defense; in other words if the attack were distinguished from the defense merely by the positive motive, which the one has and the other has not, but the methods of the fight were always one and the same, in such a fight every advantage to the one side would be an equal disadvantage to the other and true polarity would exist.

But military activity takes two separate forms, attack and defense, which, as we shall later on explain in detail, are very different and of unequal strength. Polarity lies therefore in that to which they both bear a relation, namely, the decision, but not in attack or defense itself. If one commander wishes to postpone the decision, the other must wish to hasten it, but, of course, only in the same form of conflict. If it is to A's interest not to attack his opponent at once but four weeks hence, it is to B's interest to be attacked by him at once and not four weeks hence. Here is a direct opposition; but it does not follow therefrom that it is to B's interest to attack A at once. That is obviously something quite different.

17. THE EFFECT OF POLARITY IS OFTEN DESTROYED BY THE SUPERIORITY OF THE DEFENSE TO THE ATTACK. THIS EXPLAINS THE SUSPENSION OF MILITARY ACTION

If the form of defense, as we shall hereafter show, is stronger than that of attack, the question arises whether the advantage of a deferred decision is as great for the one side as that of the defense is for the other. When it is not, it cannot by means of its opposite outweigh the latter and so influence the course of military action. We thus see that the impulsive force which lies in the polarity of interests may be lost in the difference between the strength of the attack and that of the defense, and thereby becomes ineffectual.

If, therefore, the side for which the present is favorable is too weak

to be able to dispense with the advantage of the defensive, it must resign itself to facing a less favorable future. For it may still be better to fight a defensive battle in the unfavorable future than an offensive one in the present, or than to make peace. Now as we are convinced that the superiority of the defense (rightly understood) is very great and much greater than may appear at first sight, a very large proportion of the periods of suspended action which occur in war are thereby explained, without our being necessarily involved in a contradiction. The weaker the motives to action are, the more they will be swallowed up and neutralized by this difference between attack and defense. The more frequently, therefore, will military action be brought to a standstill, as, indeed, experience teaches.

18. A SECOND CAUSE LIES IN THE IMPERFECT KNOWLEDGE OF THE SITUATION

But there is still another cause that can stop military action, and that is imperfect knowledge of the situation. No commander has accurate personal knowledge of any position but his own; that of his adversary is only known to him by uncertain reports. He can make a mistake in his judgment of them and in consequence of this mistake believe that the initiative lies with his opponent when it really lies with himself. This want of knowledge could, it is true, just as often occasion untimely action as untimely inaction and would in itself no more contribute to delay than to hasten military action. Still it must always be regarded as one of the natural causes that, without involving an internal contradiction, may bring military action to a standstill. If, however, we reflect how much more we are inclined and induced to estimate the strength of our opponent too high rather than too low, because it lies in human nature to do so, we must also admit that imperfect knowledge of the situation must in general greatly contribute to putting a stop to military action and modifying the principles on which it is conducted.

The possibility of a standstill introduces into military action a new modification by diluting it, so to speak, with the element of time, halting danger in its stride and increasing the means for restoring a lost balance of forces. The greater the tensions out of which the war has sprung and the greater in consequence the energy with which it is waged, the shorter will be these periods of inaction; the weaker the hostile feeling, the longer will they be. For stronger motives increase the power of the will, and this, as we know, is always a factor in the product of our forces.

19. FREQUENT PERIODS OF INACTION REMOVE WAR STILL FURTHER FROM THE REALM OF EXACT THEORY AND MAKE IT STILL MORE A CALCULATION OF PROBABILITIES

But the more slowly military action proceeds and the longer and more frequent the periods of inaction, so much the more readily can a mistake be repaired, the bolder the commander will thus become in his assumptions, and the more readily will he at the same time remain below the extreme demanded by theory and build everything upon probability and conjecture. So the more or less leisurely course of military action allows more or less time for what the nature of the concrete situation in itself already demands, namely, a calculation of probabilities in accordance with the given circumstances.

20. SO ONLY THE ELEMENT OF CHANCE IS NOW LACKING TO MAKE OF WAR A GAMBLE, AND IN THIS ELEMENT IT IS LEAST OF ALL DEFICIENT

We see from the foregoing how much the objective nature of war makes it a calculation of probabilities. It now needs but one single element more to make of it a gamble, and that element it certainly does not lack—the element of *chance*. There is no human activity that stands in such constant and universal contact with chance as does war. Thus together with chance, the accidental and, with it, good luck play a great part in war.

21. THROUGH ITS SUBJECTIVE AS WELL AS THROUGH ITS OBJECTIVE NATURE WAR BECOMES A GAMBLE

If we now glance at the *subjective nature* of war, that is, at those qualities with which it must be carried on, it must strike us as still more like a gamble. The element in which the activity of war moves is danger; but, in danger, which is the most superior of all moral qualities? It is *courage*. Now courage is certainly quite compatible with prudent calculation, but courage and calculation are nevertheless things different in kind and belonging to different parts of the mind. On the other hand, daring, reliance on good fortune, boldness and foolhardiness are only manifestations of courage, and all these efforts of the spirit seek the accidental because it is their proper element.

We thus see that from the very first the absolute, the so-called theoretical, faculty finds nowhere a sure basis in the calculations of the art of war. From the outset there is a play of possibilities and probabilities, of

good and bad luck, which permeates every thread, great or small, of its web and makes war, of all branches of human activity, the most like a game of cards.

22. HOW THIS BEST ACCORDS WITH THE HUMAN MIND IN GENERAL

Although our intellect always feels itself urged toward clarity and certainty, our mind still often feels itself attracted by uncertainty. Instead of threading its way with the intellect along the narrow path of philosophical investigation and logical deduction, in order, almost unconsciously, to arrive in spaces where it finds itself a stranger and where all familiar objects seem to abandon it, it prefers to linger with imagination in the realm of chance and luck. Instead of being confined, as in the first instance, to meager necessity, it revels here in the wealth of possibilities. Enraptured thereby, courage takes to itself wings, and thus daring and danger become the element into which it flings itself as a fearless swimmer flings himself into the stream.

Shall theory leave it here and move on, self-satisfied, to absolute conclusions and rules? In that case it is of no practical use. Theory must also take into account the human element and accord a place to courage and boldness and even to foolhardiness. The art of war has to do with living and with moral forces; from this it follows that it can nowhere attain the absolute and certain; there remains always a margin for the accidental just as much with the greatest things as with the smallest. As on the one side stands this accidental element, so on the other courage and self-confidence must step forward and fill up the gap. The greater the courage and self-confidence, the larger the margin that may be left for the accidental. Courage and self-confidence are thus principles absolutely essential for war. Consequently theory must only lay down such rules as allow free scope for these necessary and noblest of military virtues in all their degrees and variations. Even in daring there is still wisdom and prudence as well, only they are estimated by a different standard of value.

23. YET WAR STILL REMAINS A SERIOUS MEANS FOR A SERIOUS OBJECT. MORE PARTICULAR DEFINITIONS OF IT

Such is war, such the commander who conducts it, and such the theory that rules it. But war is no pastime, no mere passion for daring and winning, no work of a free enthusiasm; it is a serious means to a serious end. All that it displays of that glamour of fortune, all that it

assimilates of the thrills of passion and courage, of imagination and enthusiasm, are only particular properties of this means.

The war of a community—of whole nations and particularly of civilized nations—always arises from a political condition and is called forth by a political motive. It is, therefore, a political act. Now if it were an act complete in itself and undisturbed, an absolute manifestation of violence, as we had to deduce it from its mere conception, it would, from the moment it was called forth by policy, step into the place of policy and, as something quite independent of it, set it aside and follow only its own laws, just as a mine, when it is going off, can no longer be guided into any other direction than that given it by previous adjustments. This is how the thing has hitherto been regarded even in practice, whenever a lack of harmony between policy and the conduct of war has led to theoretical distinctions of this kind. But it is not so, and this idea is radically false. War in the real world, as we have seen, is no such extreme thing releasing its tension in a single discharge; it is the operation of forces which do not in every case develop in exactly the same way and the same proportion but which at one moment rise to a pitch sufficient to overcome the resistance which inertia and friction oppose to them, while at another, they are too weak to produce any effect. War is, therefore, so to speak, a regular pulsation of violence, more or less vehement and consequently more or less quick in relaxing tensions and exhausting forces—in other words, more or less quickly leading to its goal. But it always lasts long enough to exert, in its course, an influence upon that goal, so that its direction can be changed in this way or that—in short, long enough to remain subject to the will of a guiding intelligence. Now if we reflect that war has its origin in a political object, we see that this first motive, which called it into existence, naturally remains the first and highest consideration to be regarded in its conduct. But the political object is not on that account a despotic lawgiver; it must adapt itself to the nature of the means at its disposal and is often thereby completely changed, but it must always be the first thing to be considered. Policy, therefore, will permeate the whole action of war and exercise a continual influence upon it, so far as the nature of the explosive forces in it allow.

24. WAR IS A MERE CONTINUATION OF POLICY BY OTHER MEANS

We see, therefore, that war is not merely a political act but a real political instrument, a continuation of political intercourse, a carrying out of the same by other means. What now still remains peculiar to war

relates merely to the peculiar character of the means it uses. The art of war in general and the commander in each particular case can demand that the tendencies and designs of policy shall be not incompatible with these means, and the claim is certainly no trifling one. But however powerfully it may react on political designs in particular cases, still it must always be regarded as only a modification of them; for the political design is the object, while war is the means, and the means can never be thought of apart from the object.

25. DIVERSITY IN THE NATURE OF WARS

The greater and the more powerful the motives for war, the more they affect the whole existence of the nations involved, and the more violent the tension which precedes war, so much the more closely will war conform to its abstract conception. The more it will be concerned with the destruction of the enemy, the more closely the military aim and the political object coincide, and the more purely military, and the less political, war seems to be. But the weaker the motives and the tensions, the less will the natural tendency of the military element, the tendency to violence, coincide with the directives of policy; the more, therefore, must war be diverted from its natural tendency, the greater is the difference between the political object and the aim of an ideal war, and the more does war seem to become political.

But that the reader may not form false conceptions, we must here remark that by this natural tendency of war we only mean the philosophical, the strictly logical, tendency, and by no means that of the forces actually engaged in conflict, to the point where, for instance, all emotions and passions of the combatants should be reckoned as included. These too, it is true, might in many cases be excited to such a pitch that they could with difficulty be kept confined to the political road; but in most cases such a contradiction will not arise, because the existence of such strong emotions will imply the existence also of a great plan in harmony with them. If the plan is directed only to a trifling object, the emotional excitement of the masses will be so slight that they will always be rather in need of being pushed on than of being held back.

26. ALL WARS MAY BE REGARDED AS POLITICAL ACTS

To return to our main subject: Though it is true that in one kind of war policy seems entirely to disappear, while in another it very definitely

comes to the front, we can nevertheless maintain that the one kind is as political as the other. For if we regard policy as the intelligence of the personified state; we must include among the combinations of circumstances which its calculations have to take into account that in which the nature of all the circumstances postulates a war of the first kind. It is only if we understand the term policy not as a comprehensive knowledge of the situation but the conventional idea of a cautious, crafty, even dishonest cunning, averse to violence, that the latter kind of war could belong to it more than does the former.

27. CONSEQUENCES OF THIS VIEW FOR THE UNDERSTANDING OF MILITARY HISTORY AND FOR THE FOUNDATIONS OF THEORY

We see, therefore, in the first place that in all circumstances we have to think of war not as an independent thing, but as a political instrument. And only by taking this point of view can we avoid falling into contradiction with the whole of military history. This alone opens the great book to intelligent appreciation. In the second place, this same point of view shows us how wars must differ according to the nature of their motives and of the circumstances out of which they arise.

Now the first, the greatest and the most decisive act of the judgment which a statesman and commander performs is that of correctly recognizing in this respect the kind of war he is undertaking, of not taking it for, or wishing to make it, something which by the nature of the circumstances it cannot be. This is, therefore, the first and most comprehensive of all strategic questions. Later on, in the chapter on the plan of a war, we shall examine it more closely.

For the moment we content ourselves with having brought our subject to this point and thereby fixed the main point of view from which war and the theory of war must be regarded.

28. RESULT FOR THEORY

War is, therefore, not only a veritable chameleon, because in each concrete case it changes somewhat its character, but it is also, when regarded as a whole, in relation to the tendencies predominating in it, a strange trinity, composed of the original violence of its essence, the hate and enmity which are to be regarded as a blind, natural impulse, of the play of probabilities and chance, which make it a free activity of the emotions,

and of the subordinate character of a political tool, through which it belongs to the province of pure intelligence.

The first of these three sides is more particularly the concern of the people, the second that of the commander and his army, the third that of the government. The passions which are to blaze up in war must be already present in the peoples concerned; the scope that the play of courage and talent will get in the realm of the probabilities of chance depends on the character of the commander and the army; the political objects, however, are the concern of the government alone.

These three tendencies, which appear as so many lawgivers, lie deep in the nature of the subject and at the same time vary in magnitude. A theory which insisted on leaving one of them out of account, or on fixing an arbitrary relation between them, would immediately fall into such contradiction with reality that through this alone it would forthwith necessarily be regarded as destroyed.

The problem, therefore, is that of keeping the theory poised between these three tendencies as between three centers of attraction.

How this difficult problem can be solved in the most satisfactory way, we propose to investigate in the book dealing with the theory of war. In any case this definition of the conception of war becomes for us the first ray of light that falls upon the foundations of theory, and will for the first time separate its main features and enable us to distinguish them.

The foregoing is Chapter I of von Clausewitz' ON WAR.

Thomas Robert Malthus

1766–1834

Thomas Malthus was born in Surrey, England, in 1766. He was educated at home until he went to Jesus College, Cambridge, where he was elected to a fellowship in 1793. He took orders in 1797 and was appointed curate at Albury, in Surrey.

Soon afterward, Malthus' famous essay on population was published. It grew out of an argument between the young man and his father, a man of liberal opinions who had been a friend of Rousseau. Daniel Malthus believed with Rousseau, William Godwin, Condorcet, and other proponents of the "perfectibility of man" that man was essentially good and capable of creating an ideal society. Young Malthus argued, on the contrary, that even if man were essentially good and capable of creating such a society, it would contain within it the seeds of its own destruction. An "ideal" society would bring about population growth beyond any conceivable means of feeding it. His father persuaded him to publish his ideas and in 1798 appeared *An Essay on the Principle of Population as It Affects the Future Improvement of Society with Remarks on the Speculations of Mr. Godwin, M. Condorcet and Other Writers.*

In 1803 Malthus published an enlarged and considerably altered version of his essay, heavily larded with facts and figures to prove his thesis. Other editions appeared, the sixth and last being published in 1826. In 1805 Malthus, who had married and thus been forced to

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Notes from the artist: "Malthus and illustrations based upon the quotation from An Essay on the Principle of Population. . . . *Above, subsistence: peasants of the fifteenth century harvesting and milling grain; below, the population 'explosion': the infamous Dorothie, who was believed in the thirteenth century to have given birth to thirty-five children!"*

Population, when unchecked, increases in a geometrical ratio. Subsistence only increases in an arithmetical ratio.
Malthus

give up his Cambridge fellowship, was made Professor of Modern History and Political Economy at East India College, Haileybury. There he remained for the rest of his life, teaching and writing books in economic history and theory. Among them were: *Observations of the Effect of the Corn Laws, An Inquiry into the Nature and Progress of Rent,* and *Principles of Political Economy*. He died on December 23, 1834.

The publication of Malthus' first essay on population, from which the following selection is taken, raised a storm in England. Godwin, Coleridge, and Hazlitt, in particular, wrote blistering attacks on his theory. But the Prime Minister, William Pitt, was so affected by Malthus' argument that he dropped a proposed Poor Law Bill that would have allowed relief to be paid to families in proportion to their size, since this would obviously stimulate the growth of population.

The question of the growth of population was not new in Malthus' time, any more than it is in our own. Plato and Aristotle had long before warned of overpopulated states. In the eighteenth century Hume, Adam Smith, and Benjamin Franklin had all written about the dangers of surplus population. Why then did Malthus' book produce such a sensation? Malthus developed the idea and made spectacular applications. Pitt's Poor Law, he said, possessed the "great and radical defect of all systems of the kind, that of tending to increase population without increasing the means for its support." That the young parson went on to recommend that parish support for the destitute be withdrawn altogether was shocking. Were the many thousands who then lived at the expense of the parishes to be left to starve?

Malthus argued that population tends to increase in the geometric ratio of 1, 2, 4, 8, 16, etc., whereas the food supply increases, at best, only in the arithmetic ratio of 1, 2, 3, 4, 5, etc. The attraction between the sexes, he pointed out, is universal. Almost any man will raise a family if he can and so will his children. Thus in new countries such as the United States (of 1798), where the food supply is ample and there is a big frontier, population had doubled itself in twenty-five years. Malthus admitted that this increase was partly due to immigration. Yet he insisted that prosperity itself would bring a glut of population, which no improvement of agriculture could ever accommodate. In later editions of his *Essay,* he amassed population

statistics and attempted to prove his point inductively, but he no longer insisted on his arbitrary ratios.

The inevitable increase of population, Malthus held, can be countered in two ways. It can be eliminated by wars, famine, and disease, or prevented by vice and moral restraint, *i.e.,* late marriages and abstinence. Since Malthus was opposed to "vice," *i.e.,* birth control, and had little faith in self-restraint, his outlook tended to be pessimistic. The main curb on population would continue to be wars, famine, and disease.

If we consider the "population explosion" today, it would seem that Malthus was right. The population of the world is now estimated at over three billion, and it is said to be increasing at a rate of nearly two per cent yearly. In some parts of the world, the increase is even greater. It is approaching the rate which Malthus predicted when he said that population, under ideal conditions, would double every twenty-five years. The overproduction of human beings has thus become a crucial problem. Even Malthus' most ardent opponents admit that something must be done to cope with the teeming new millions.

The opponents of Malthus advance two remedies. First, they contend that the food resources of the earth are far from being exhausted, and that technology is in its infancy. Vast areas of the earth are not cultivated at present, and many plants rich in food values are neglected. Famines have occurred in the midst of plenty—plenty of plants which, like common grass and seaweed, are highly nutritious, requiring only proper processing. And if the resources of the earth should fail, there are an infinite number of meals to be extracted from the air.

The second remedy advocated is birth control. That this method is feasible has been demonstrated in a number of highly civilized nations. For twenty-five years (1841–66), the population of France remained practically the same, though the standard of living was on the upgrade.

Though few agree with Malthus' reluctant remedy of wars, famine, and disease, he certainly set us all to thinking. And the thinking is not always easy. For example, should people in rich countries urge family limitation in poor overcrowded countries, but not in their own? Another question raised by Malthus is whether progress in agriculture and technology can go on indefinitely or whether there is something in the human situation which prevents it. These are questions which we cannot ignore today.

The Principle of Population

from *Population: The First Essay*

CHAPTER I

The great and unlocked for discoveries that have taken place of late years in natural philosophy, the increasing diffusion of general knowledge from the extension of the art of printing, the ardent and unshackled spirit of inquiry that prevails throughout the lettered and even unlettered world, the new and extraordinary lights that have been thrown on political subjects, which dazzle and astonish the understanding, and particularly that tremendous phenomenon in the political horizon, the French revolution, which, like a blazing comet, seems destined either to inspire with fresh life and vigour or to scorch up and destroy the shrinking inhabitants of the earth, have all concurred to lead many able men into the opinion that we were touching on a period big with the most important changes, changes that would in some measure be decisive of the future fate of mankind.

It has been said that the great question is now at issue, whether man shall henceforth start forwards with accelerated velocity towards illimitable and hitherto unconceived improvement, or be condemned to a perpetual oscillation between happiness and misery, and after every effort remain still at an immeasurable distance from the wished-for goal.

Yet, anxiously as every friend of mankind must look forwards to the termination of this painful suspense, and eagerly as the inquiring mind would hail every ray of light that might assist its view into futurity, it is much to be lamented that the writers on each side of this momentous question still keep far aloof from each other. Their mutual arguments do not meet with a candid examination. The question is not brought to rest

on fewer points, and even in theory scarcely seems to be approaching to a decision.

The advocate for the present order of things is apt to treat the sect of speculative philosophers either as a set of artful and designing knaves who preach up ardent benevolence and draw captivating pictures of a happier state of society only the better to enable them to destroy the present establishments and to forward their own deep-laid schemes of ambition, or as wild and mad-headed enthusiasts whose silly speculations and absurd paradoxes are not worthy the attention of any reasonable man.

The advocate for the perfectibility of man, and of society, retorts on the defender of establishments a more than equal contempt. He brands him as the slave of the most miserable and narrow prejudices, or as the defender of the abuses of civil society, only because he profits by them. He paints him either as a character who prostitutes his understanding to his interest, or as one whose powers of mind are not of a size to grasp anything great and noble, who cannot see above five yards before him, and who must therefore be utterly unable to take in the views of the enlightened benefactor of mankind.

In this unamicable contest the cause of truth cannot but suffer. The really good arguments on each side of the question are not allowed to have their proper weight. Each pursues his own theory, little solicitous to correct or improve it by an attention to what is advanced by his opponents.

The friend of the present order of things condemns all political speculations in the gross. He will not even condescend to examine the grounds from which the perfectibility of society is inferred. Much less will he give himself the trouble in a fair and candid manner to attempt an exposition of their fallacy.

The speculative philosopher equally offends against the cause of truth. With eyes fixed on a happier state of society, the blessings of which he paints in the most captivating colours, he allows himself to indulge in the most bitter invectives against every present establishment, without applying his talents to consider the best and safest means of removing abuses and without seeming to be aware of the tremendous obstacles that threaten, even in theory, to oppose the progress of man towards perfection.

It is an acknowledged truth in philosophy that a just theory will always be confirmed by experiment. Yet so much friction and so many minute circumstances occur in practice, which it is next to impossible for the most enlarged and penetrating mind to foresee, that on few subjects can any

theory be pronounced just that has not stood the test of experience. But an untried theory cannot fairly be advanced as probable, much less as just till all the arguments against it have been maturely weighed and clearly and consistently refuted.

I have read some of the speculations on the perfectibility of man and of society with great pleasure. I have been warmed and delighted with the enchanting picture which they hold forth. I ardently wish for such happy improvements. But I see great, and, to my understanding, unconquerable difficulties in the way to them. These difficulties it is my present purpose to state, declaring, at the same time, that so far from exulting in them, as a cause of triumph over the friends of innovation, nothing would give me greater pleasure than to see them completely removed.

The most important argument that I shall adduce is certainly not new. The principles on which it depends have been explained in part by Hume, and more at large by Dr. Adam Smith. It has been advanced and applied to the present subject, though not with its proper weight, or in the most forcible point of view, by Mr. Wallace, and it may probably have been stated by many writers that I have never met with. I should certainly therefore not think of advancing it again, though I mean to place it in a point of view in some degree different from any that I have hitherto seen, if it had ever been fairly and satisfactorily answered.

The cause of this neglect on the part of the advocates for the perfectibility of mankind is not easily accounted for. I cannot doubt the talents of such men as Godwin and Condorcet. I am unwilling to doubt their candour. To my understanding, and probably to that of most others, the difficulty appears insurmountable. Yet these men of acknowledged ability and penetration scarcely deign to notice it, and hold on their course in such speculations, with unabated ardour and undiminished confidence. I have certainly no right to say that they purposely shut their eyes to such arguments. I ought rather to doubt the validity of them, when neglected by such men, however forcibly their truth may strike my own mind. Yet in this respect it must be acknowledged that we are all of us too prone to err. If I saw a glass of wine repeatedly presented to a man, and he took no notice of it, I should be apt to think that he was blind or uncivil. A juster philosophy might teach me rather to think that my eyes deceived me and that the offer was not really what I conceived it to be.

In entering upon the argument I must premise that I put out of the question, at present, all mere conjectures, that is, all suppositions, the probable realization of which cannot be inferred upon any just philosophi-

cal grounds. A writer may tell me that he thinks man will ultimately become an ostrich. I cannot properly contradict him. But before he can expect to bring any reasonable person over to his opinion, he ought to show that the necks of mankind have been gradually elongating, that the lips have grown harder and more prominent, that the legs and feet are daily altering their shape, and that the hair is beginning to change into stubs of feathers. And till the probability of so wonderful a conversion can be shown, it is surely lost time and lost eloquence to expatiate on the happiness of man in such a state; to describe his powers, both of running and flying, to paint him in a condition where all narrow luxuries would be contemned, where he would be employed only in collecting the necessaries of life, and where, consequently, each man's share of labour would be light, and his portion of leisure ample.

I think I may fairly make two postulata.

First, that food is necessary to the existence of man.

Secondly, that the passion between the sexes is necessary and will remain nearly in its present state.

These two laws, ever since we have had any knowledge of mankind, appear to have been fixed laws of our nature, and, as we have not hitherto seen any alteration in them, we have no right to conclude that they will ever cease to be what they now are without an immediate act of power in that Being who first arranged the system of the universe, and for the advantage of his creatures, still executes, according to fixed laws, all its various operations.

I do not know that any writer has supposed that on this earth man will ultimately be able to live without food. But Mr. Godwin has conjectured that the passion between the sexes may in time be extinguished. As, however, he calls this part of his work a deviation into the land of conjecture, I will not dwell longer upon it at present than to say that the best arguments for the perfectibility of man are drawn from a contemplation of the great progress that he has already made from the savage state and the difficulty of saying where he is to stop. But towards the extinction of the passion between the sexes, no progress whatever has hitherto been made. It appears to exist in as much force at present as it did two thousand or four thousand years ago. There are individual exceptions now as there always have been. But, as these exceptions do not appear to increase in number, it would surely be a very unphilosophical mode of arguing to infer merely from the existence of an exception that the exception would, in time, become the rule, and the rule the exception.

Assuming then, my postulata as granted, I say that the power of popu-

lation is indefinitely greater than the power in the earth to produce subsistence for man.

Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will show the immensity of the first power in comparison of the second.

By that law of our nature which makes food necessary to the life of man, the effects of these two unequal powers must be kept equal.

This implies a strong and constantly operating check on population from the difficulty of subsistence. This difficulty must fall somewhere and must necessarily be severely felt by a large portion of mankind.

Through the animal and vegetable kingdoms, nature has scattered the seeds of life abroad with the most profuse and liberal hand. She has been comparatively sparing in the room and the nourishment necessary to rear them. The germs of existence contained in this spot of earth, with ample food, and ample room to expand in, would fill millions of worlds in the course of a few thousand years. Necessity, that imperious all-pervading law of nature, restrains them within the prescribed bounds. The race of plants and the race of animals shrink under this great restrictive law. And the race of man cannot, by any efforts of reason, escape from it. Among plants and animals its effects are waste of seed, sickness, and premature death; among mankind, misery and vice. The former, misery, is an absolutely necessary consequence of it. Vice is a highly probable consequence, and we therefore see it abundantly prevail, but it ought not, perhaps, to be called an absolutely necessary consequence. The ordeal of virtue is to resist all temptation to evil.

This natural inequality of the two powers of population and of production in the earth and that great law of our nature which must constantly keep their effects equal form the great difficulty that to me appears insurmountable in the way to the perfectibility of society. All other arguments are of slight and subordinate consideration in comparison of this. I see no way by which man can escape from the weight of this law, which pervades all animated nature. No fancied equality, no agrarian regulations in their utmost extent, could remove the pressure of it even for a single century. And it appears, therefore, to be decisive against the possible existence of a society all the members of which should live in ease, happiness, and comparative leisure, and feel no anxiety about providing the means of subsistence for themselves and families.

Consequently, if the premises are just, the argument is conclusive against the perfectibility of the mass of mankind.

I have thus sketched the general outline of the argument, but I will examine it more particularly, and I think it will be found that experience, the true source and foundation of all knowledge, invariably confirms its truth.

CHAPTER II

I said that population, when unchecked, increased in a geometrical ratio, and subsistence for man in an arithmetical ratio.

Let us examine whether this position be just.

I think it will be allowed that no state has hitherto existed (at least that we have any account of) where the manners were so pure and simple, and the means of subsistence so abundant, that no check whatever has existed to early marriages among the lower classes, from a fear of not providing well for their families, or among the higher classes, from a fear of lowering their condition in life. Consequently, in no state that we have yet known has the power of population been left to exert itself with perfect freedom.

Whether the law of marriage be instituted or not, the dictate of nature and virtue seems to be an early attachment to one woman. Supposing a liberty of changing in the case of an unfortunate choice, this liberty would not affect population till it arose to a height greatly vicious; and we are now supposing the existence of a society where vice is scarcely known.

In a state therefore of great equality and virtue, where pure and simple manners prevailed, and where the means of subsistence were so abundant that no part of the society could have any fears about providing amply for a family, the power of population being left to exert itself unchecked, the increase of the human species would evidently be much greater than any increase that has been hitherto known.

In the United States of America, where the means of subsistence have been more ample, the manners of the people more pure, and consequently the checks to early marriages fewer than in any of the modern states of Europe, the population has been found to double itself in twenty-five years.

This ratio of increase, though short of the utmost power of population, yet as the result of actual experience, we will take as our rule, and say that population, when unchecked, goes on doubling itself every twenty-five years or increases in a geometrical ratio.

Let us now take any spot of earth, this Island for instance, and see

in what ratio the subsistence it affords can be supposed to increase. We will begin with it under its present state of cultivation.

If I allow that by the best possible policy, by breaking up more land and by great encouragements to agriculture, the produce of this Island may be doubled in the first twenty-five years, I think it will be allowing as much as any person can well demand.

In the next twenty-five years, it is impossible to suppose that the produce could be quadrupled. It would be contrary to all our knowledge of the qualities of land. The very utmost that we can conceive is that the increase in the second twenty-five years might equal the present produce. Let us then take this for our rule, though certainly far beyond the truth, and allow that by great exertion the whole produce of the Island might be increased every twenty-five years by a quantity of subsistence equal to what it at present produces. The most enthusiastic speculator cannot suppose a greater increase than this. In a few centuries it would make every acre of land in the Island like a garden.

Yet this ratio of increase is evidently arithmetical.

It may be fairly said, therefore, that the means of subsistence increase in an arithmetical ratio. Let us now bring the effects of these two ratios together.

The population of the Island is computed to be about seven millions, and we will suppose the present produce equal to the support of such a number. In the first twenty-five years the population would be fourteen millions, and the food being also doubled, the means of subsistence would be equal to this increase. In the next twenty-five years the population would be twenty-eight millions, and the means of subsistence only equal to the support of twenty-one millions. In the next period, the population would be fifty-six millions, and the means of subsistence just sufficient for half that number. And at the conclusion of the first century the population would be one hundred and twelve millions and the means of subsistence only equal to the support of thirty-five millions, which would leave a population of seventy-seven millions totally unprovided for.

A great emigration necessarily implies unhappiness of some kind or other in the country that is deserted. For few persons will leave their families, connections, friends, and native land to seek a settlement in untried foreign climes without some strong subsisting causes of uneasiness where they are, or the hope of some great advantages in the place to which they are going.

But to make the argument more general and less interrupted by the

partial views of emigration, let us take the whole earth, instead of one spot, and suppose that the restraints to population were universally removed. If the subsistence for man that the earth affords was to be increased every twenty-five years by a quantity equal to what the whole world at present produces, this would allow the power of production in the earth to be absolutely unlimited, and its ratio of increase much greater than we can conceive that any possible exertions of mankind could make it.

Taking the population of the world at any number, a thousand millions, for instance, the human species would increase in the ratio of–1, 2, 4, 8, 16, 32, 64, 128, 256, 512, etc., and subsistence as–1, 2, 3, 4, 5, 6, 7, 8, 9, 10, etc. In two centuries and a quarter, the population would be to the means of subsistence as 512 to 10: in three centuries as 4096 to 13, and in two thousand years the difference would be almost incalculable, though the produce in that time would have increased to an immense extent.

No limits whatever are placed to the productions of the earth; they may increase forever and be greater than any assignable quantity; yet still the power of population being a power of a superior order, the increase of the human species can only be kept commensurate to the increase of the means of subsistence by the constant operation of the strong law of necessity acting as a check upon the greater power.

The effects of this check remain now to be considered.

Among plants and animals the view of the subject is simple. They are all impelled by a powerful instinct to the increase of their species, and this instinct is interrupted by no reasoning or doubts about providing for their offspring. Wherever therefore there is liberty, the power of increase is exerted, and the superabundant effects are repressed afterwards by want of room and nourishment, which is common to animals and plants, and among animals, by becoming the prey of others.

The effects of this check on man are more complicated. Impelled to the increase of his species by an equally powerful instinct, reason interrupts his career and asks him whether he may not bring beings into the world, for whom he cannot provide the means of subsistence. In a state of equality, this would be the simple question. In the present state of society, other considerations occur. Will he not lower his rank in life? Will he not subject himself to greater difficulties than he at present feels? Will he not be obliged to labour harder? and if he has a large family, will his utmost exertions enable him to support them? May he not see his offspring in rags and misery, and clamouring for bread that he cannot give them? And may he not be reduced to the grating necessity of forfeiting his in-

dependence, and of being obliged to the sparing hand of charity for support?

These considerations are calculated to prevent, and certainly do prevent, a very great number in all civilized nations from pursuing the dictate of nature in an early attachment to one woman. And this restraint almost necessarily, though not absolutely so, produces vice. Yet in all societies, even those that are most vicious, the tendency to a virtuous attachment is so strong that there is a constant effort towards an increase of population. This constant effort as constantly tends to subject the lower classes of the society to distress and to prevent any great permanent amelioration of their condition.

The way in which these effects are produced seems to be this.

We will suppose the means of subsistence in any country just equal to the easy support of its inhabitants. The constant effort towards population, which is found to act even in the most vicious societies, increases the number of people before the means of subsistence are increased. The food therefore which before supported seven millions must now be divided among seven millions and a half or eight millions. The poor consequently must live much worse, and many of them be reduced to severe distress. The number of labourers also being above the proportion of the work in the market, the price of labour must tend toward a decrease, while the price of provisions would at the same time tend to rise. The labourer therefore must work harder to earn the same as he did before. During this season of distress, the discouragements to marriage and the difficulty of rearing a family are so great that population is at a stand. In the mean time the cheapness of labour, the plenty of labourers, and the necessity of an increased industry amongst them encourage cultivators to employ more labour upon their land, to turn up fresh soil, and to manure and improve more completely what is already in tillage, till ultimately the means of subsistence become in the same proportion to the population as at the period from which we set out. The situation of the labourer being then again tolerably comfortable, the restraints to population are in some degree loosened, and the same retrograde and progressive movements with respect to happiness are repeated.

This sort of oscillation will not be remarked by superficial observers, and it may be difficult even for the most penetrating mind to calculate its periods. Yet that in all old states some such vibration does exist, though from various transverse causes, in a much less marked, and in a much more irregular manner than I have described it, no reflecting man who considers the subject deeply can well doubt.

Many reasons occur why this oscillation has been less obvious, and less decidedly confirmed by experience, than might naturally be expected.

One principal reason is that the histories of mankind that we possess are histories only of the higher classes. We have but few accounts that can be depended upon of the manners and customs of that part of mankind where these retrograde and progressive movements chiefly take place. A satisfactory history of this kind, of one people, and of one period, would require the constant and minute attention of an observing mind during a long life. Some of the objects of inquiry would be, in what proportion to the number of adults was the number of marriages, to what extent vicious customs prevailed in consequence of the restraints upon matrimony, what was the comparative mortality among the children of the most distressed part of the community and those who lived rather more at their ease, what were the variations in the real price of labour, and what were the observable differences in the state of the lower classes of society with respect to ease and happiness, at different times during a certain period.

Such a history would tend greatly to elucidate the manner in which the constant check upon population acts and would probably prove the existence of the retrograde and progressive movements that have been mentioned, though the times of their vibration must necessarily be rendered irregular from the operation of many interrupting causes, such as the introduction or failure of certain manufactures, a greater or less prevalent spirit of agricultural enterprise, years of plenty, or years of scarcity, wars and pestilence, poor-laws, the invention of processes for shortening labour without the proportional extension of the market for the commodity, and, particularly, the difference between the nominal and real price of labour, a circumstance which has perhaps more than any other contributed to conceal this oscillation from common view.

It very rarely happens that the nominal price of labour universally falls, but we well know that it frequently remains the same, while the nominal price of provisions has been gradually increasing. This is, in effect, a real fall in the price of labour, and during this period the condition of the lower orders of the community must gradually grow worse and worse. But the farmers and capitalists are growing rich from the real cheapness of labour. Their increased capitals enable them to employ a greater number of men. Work therefore may be plentiful, and the price of labour would consequently rise. But the want of freedom in the market of labour, which occurs more or less in all communities, either from parish laws or the more general cause of the facility of combination among the rich, and

its difficulty among the poor, operates to prevent the price of labour from rising at the natural period, and keeps it down some time longer; perhaps, till a year of scarcity, when the clamour is too loud, and the necessity too apparent to be resisted.

The true cause of the advance in the price of labour is thus concealed, and the rich affect to grant it as an act of compassion and favour to the poor in consideration of a year of scarcity, and, when plenty returns, indulge themselves in the most unreasonable of all complaints, that the price does not again fall, when a little reflection would show them that it must have risen long before but from an unjust conspiracy of their own.

But though the rich by unfair combinations contribute frequently to prolong a season of distress among the poor, yet no possible form of society could prevent the almost constant action of misery upon a great part of mankind, if in a state of inequality, and upon all, if all were equal.

The theory on which the truth of this position depends appears to me so extremely clear that I feel at a loss to conjecture what part of it can be denied.

That population cannot increase without the means of subsistence is a proposition so evident that it needs no illustration.

That population does invariably increase where there are the means of subsistence, the history of every people that have ever existed will abundantly prove.

And that the superior power of population cannot be checked without producing misery or vice, the ample portion of these two bitter ingredients in the cup of human life and the continuance of the physical causes that seem to have produced them bear too convincing a testimony.

But in order more fully to ascertain the validity of these three propositions, let us examine the different states in which mankind have been known to exist. Even a cursory review will, I think, be sufficient to convince us that these propositions are incontrovertible truths.

CHAPTER III

In the rudest state of mankind, in which hunting is the principal occupation, and the only mode of acquiring food, the means of subsistence being scattered over a large extent of territory, the comparative population must necessarily be thin. It is said that the passion between the sexes is less ardent among the North American Indians than among any other race of men. Yet notwithstanding this apathy, the efforts towards population, even in this people, seems to be always greater than the means

to support it. This appears from the comparatively rapid population that takes place whenever any of the tribes happen to settle in some fertile spot and to draw nourishment from more frutiful sources than that of hunting, and it has been frequently remarked that when an Indian family has taken up its abode near any European settlement and adopted a more easy and civilized mode of life, that one woman has reared five or six or more children, though in the savage state it rarely happens that above one or two in a family grow up to maturity. The same observation has been made with regard to the Hottentots near the Cape. These facts prove the superior power of population to the means of subsistence in nations of hunters, and that this power always shows itself the moment it is left to act with freedom.

It remains to inquire whether this power can be checked, and its effects kept equal to the means of subsistence, without vice or misery.

The North American Indians, considered as a people, cannot justly be called free and equal. In all the accounts we have of them, and, indeed, of most other savage nations, the women are represented as much more completely in a state of slavery to the men than the poor are to the rich in civilized countries. One half the nation appears to act as Helots to the other half, and the misery that checks population falls chiefly, as it always must do, upon that part whose condition is lowest in the scale of society. The infancy of man in the simplest state requires considerable attention, but this necessary attention the woman cannot give, condemned as they are to the inconveniences and hardships of frequent change of place and to the constant and unremitting drudgery of preparing every thing for the reception of their tyrannic lords. These exertions, sometimes during pregnancy or with children at their backs, must occasion frequent miscarriages, and prevent any but the most robust infants from growing to maturity. Add to these hardships of the women, the constant war that prevails among savages, and the necessity which they frequently labour under of exposing their aged and helpless parents, and of thus violating the first feelings of nature, and the picture will not appear very free from the blot of misery. In estimating the happiness of a savage nation, we must not fix our eyes only on the warrior in the prime of life: he is one of a hundred: he is the gentleman, the man of fortune, the chances have been in his favour; and many efforts have failed ere this fortunate being was produced, whose guardian genius should preserve him through the numberless dangers with which he would be surrounded from infancy to manhood. The true points of comparison between two nations seem to be the ranks in each which appear nearest to answer to each other. And in

this view, I should compare the warriors in the prime of life with the gentlemen, and the women, children, and aged, with the lower classes of the community in civilized states.

May we not then fairly infer from this short review, or rather, from the accounts that may be referred to of nations of hunters, that their population is thin from the scarcity of food, that it would immediately increase if food was in greater plenty, and that, putting vice out of the question among savages, misery is the check that represses the superior power of population and keeps its effects equal to the means of subsistence. Actual observation and experience tell us that this check, with a few local and temporary exceptions, is constantly acting now upon all savage nations, and the theory indicates that it probably acted with nearly equal strength a thousand years ago, and it may not be much greater a thousand years hence.

Of the manners and habits that prevail among nations of shepherds, the next state of mankind, we are even more ignorant than of the savage state. But that these nations could not escape the general lot of misery arising from the want of subsistence, Europe, and all the fairest countries in the world, bear ample testimony. Want was the goad that drove the Scythian shepherds from their native haunts, like so many famished wolves in search of prey. Set in motion by this all powerful cause, clouds of Barbarians seemed to collect from all points of the northern hemisphere. Gathering fresh darkness and terror as they rolled on, the congregated bodies at length obscured the sun of Italy and sank the whole world in universal night. These tremendous effects, so long and so deeply felt throughout the fairest portions of the earth, may be traced to the simple cause of the superior power of population, to the means of subsistence.

It is well known that a country in pasture cannot support so many inhabitants as a country in tillage, but what renders nations of shepherds so formidable is the power which they possess of moving all together and the necessity they frequently feel of exerting this power in search of fresh pasture for their herds. A tribe that was rich in cattle had an immediate plenty of food. Even the parent stock might be devoured in a case of absolute necessity. The women lived in greater ease than among nations of hunters. The men bold in their united strength and confiding in their power of procuring pasture for their cattle by change of place, felt, probably, but few fears about providing for a family. These combined causes soon produced their natural and invariable effect on extended population. A more frequent and rapid change of place became then necessary. A wider and more extensive territory was successively occupied. A broader

desolation extended all around them. Want pinched the less fortunate members of the society, and, at length, the impossibility of supporting such a number together became too evident to be resisted. Young scions were then pushed out from the parent-stock and instructed to explore fresh regions and to gain happier seats for themselves by their swords. "The world was all before them where to chuse." Restless from present distress, flushed with the hope of fairer prospects, and animated with the spirit of hardy enterprise, these daring adventurers were likely to become formidable adversaries to all who opposed them. The peaceful inhabitants of the countries on which they rushed could not long withstand the energy of men acting under such powerful motives of exertion. And when they fell in with any tribes like their own, the contest was a struggle for existence, and they fought with a desperate courage, inspired by the reflection that death was the punishment of defeat and life the prize of victory.

In these savage contests many tribes must have been utterly exterminated. Some, probably, perished by hardship and famine. Others, whose leading star had given them a happier direction, became great and powerful tribes, and, in their turns, sent off fresh adventurers in search of still more fertile seats. The prodigious waste of human life occasioned by this perpetual struggle for room and food was more than supplied by the mighty power of population, acting, in some degree, unshackled from the constant habit of emigration. The tribes that migrated towards the South, though they won these more fruitful regions by continual battles, rapidly increased in number and power from the increased means of subsistence. Till at length, the whole territory, from the confines of China to the shores of the Baltic, was peopled by a various race of Barbarians, brave, robust, and enterprising, inured to hardship, and delighting in war. Some tribes maintained their independence. Others ranged themselves under the standard of some barbaric chieftain who led them to victory after victory, and, what was of more importance, to regions abounding in corn, wine, and oil, the long wished-for consummation, and great reward of their labours. An Alaric, an Attila, or a Genghis Khan, and the chiefs around them, might fight for glory, for the fame of extensive conquests, but the true cause that set in motion the great tide of northern emigration, and that continued to propel it till it rolled at different periods against China, Persia, Italy, and even Egypt, was a scarcity of food, a population extended beyond the means of supporting it.

The absolute population at any one period, in proportion to the extent of territory, could never be great, on account of the unproductive na-

ture of some of the regions occupied; but there appears to have been a most rapid succession of human beings, and as fast as some were mowed down by the scythe of war or of famine, others rose in increased numbers to supply their place. Among these bold and improvident Barbarians, population was probably but little checked, as in modern states, from a fear of future difficulties. A prevailing hope of bettering their condition by change of place, a constant expectation of plunder, a power, even if distressed, of selling their children as slaves, added to the natural carelessness of the barbaric character, all conspired to raise a population which remained to be repressed afterwards by famine or war.

Where there is any inequality of conditions, and among nations of shepherds this soon takes place, the distress arising from a scarcity of provisions must fall hardest upon the least fortunate members of the society. This distress also must frequently have been felt by the women, exposed to casual plunder in the absence of their husbands, and subject to continual disappointments in their expected return.

But without knowing enough of the minute and intimate history of these people to point out precisely on what part the distress for want of food chiefly fell, and to what extent it was generally felt, I think we may fairly say, from all the accounts that we have of nations of shepherds, that population invariably increased among them whenever, by emigration or any other cause, the means of subsistence were increased, and that a further population was checked and the actual population kept equal to the means of subsistence by misery and vice.

For, independently of any vicious customs that might have prevailed amongst them with regard to women, which always operate as checks to population, it must be acknowledged I think, that the commission of war is vice, and the effect of it misery, and none can doubt the misery of want of food.

CHAPTER IV

In examining the next state of mankind with relation to the question before us, the state of mixed pasture and tillage, in which with some variation in the proportions the most civilized nations must always remain, we shall be assisted in our review by what we daily see around us, by actual experience, by facts that come within the scope of every man's observation.

Notwithstanding the exaggerations of some old historians, there can remain no doubt in the mind of any thinking man that the population of

the principal countries of Europe, France, England, Germany, Russia, Poland, Sweden, and Denmark is much greater than ever it was in former times. The obvious reason of these exaggerations is the formidable aspect that even a thinly peopled nation must have, when collected together and moving all at once in search of fresh seats. If to this tremendous appearance be added a succession at certain intervals of similar emigrations, we shall not be much surprised that the fears of the timid nations of the South represented the North as a region absolutely swarming with human beings. A nearer and juster view of the subject at present enables us to see that the inference was as absurd as if a man in this country, who was continually meeting on the road drove of cattle from Wales and the North, was immediately to conclude that these countries were the most productive of all the parts of the kingdom.

The reason that the greater part of Europe is more populous now than it was in former times is that the industry of the inhabitants has made these countries produce a greater quantity of human subsistence. For I conceive that it may be laid down as a position not to be controverted that, taking a sufficient extent of territory to include within it exportation and importation, and allowing some variation for the prevalence of luxury, or of frugal habits, that population constantly bears a regular proportion to the food that the earth is made to produce. In the controversy concerning the populousness of ancient and modern nations, could it be clearly ascertained that the average produce of the countries in question, taken altogether, is greater now than it was in the times of Julius Caesar, the dispute would be at once determined.

When we are assured that China is the most fertile country in the world, that almost all the land is in tillage, and that a great part of it bears two crops every year, and further, that the people live very frugally, we may infer with certainty that the population must be immense, without busying ourselves in inquiries into the manners and habits of the lower classes and the encouragements to early marriages. But these inquiries are of the utmost importance, and a minute history of the customs of the lower Chinese would be of the greatest use in ascertaining in what manner the checks to a further population operate; what are the vices, and what are the distresses that prevent an increase of numbers beyond the ability of the country to support.

Hume, in his essay on the populousness of ancient and modern nations, when he intermingles, as he says, an inquiry concerning causes with that concerning facts, does not seem to see with his usual penetration how very little some of the causes he alludes to could enable him to form any

judgment of the actual population of ancient nations. If any inference can be drawn from them, perhaps it should be directly the reverse of what Hume draws, though I certainly ought to speak with great diffidence in dissenting from a man who of all others on such subjects was the least likely to be deceived by first appearances. If I find that at a certain period in ancient history the encouragements to have a family were great, that early marriages were consequently very prevalent, and that few persons remained single, I should infer with certainty that population was rapidly increasing, but by no means that it was then actually very great; rather, indeed, the contrary, that it was then thin and that there was room and food for a much greater number. On the other hand, if I find that at this period the difficulties attending a family were very great, that, consequently, few early marriages took place, and that a great number of both sexes remained single, I infer with certainty that population was at a stand, and, probably, because the actual population was very great in proportion to the fertility of the land and that there was scarcely room and food for more. The number of footmen, housemaids, and other persons remaining unmarried in modern states Hume allows to be rather an argument against their population. I should rather draw a contrary inference and consider it an argument of their fullness, though this inference is not certain, because there are many thinly inhabited states that are yet stationary in their population. To speak, therefore, correctly, perhaps it may be said that the number of unmarried persons in proportion to the whole number existing at different periods in the same or different states will enable us to judge whether population at these periods was increasing, stationary, or decreasing, but will form no criterion by which we can determine the actual population.

There is, however, a circumstance taken notice of in most of the accounts we have of China that it seems difficult to reconcile with this reasoning. It is said that early marriages very generally prevail through all the ranks of the Chinese. Yet Dr. Adam Smith supposes that population in China is stationary. These two circumstances appear to be irreconcilable. It certainly seems very little probable that the population of China is fast increasing. Every acre of land has been so long in cultivation that we can hardly conceive there is any great yearly addition to the average produce. The fact, perhaps, of the universality of early marriages may not be sufficiently ascertained. If it be supposed true, the only way of accounting for the difficulty, with our present knowledge of the subject, appears to be that the redundant population, necessarily occasioned by the prevalence of early marriages, must be repressed by occasional fam-

ines, and by the custom of exposing children, which, in times of distress, is probably more frequent than is ever acknowledged to Europeans. Relative to this barbarous practice, it is difficult to avoid remarking that there cannot be a stronger proof of the distresses that have been felt by mankind for want of food than the existence of a custom that thus violates the most natural principle of the human heart. It appears to have been very general among ancient nations, and certainly tended rather to increase population.

In examining the principal states of modern Europe, we shall find that though they have increased very considerably in population since they were nations of shepherds, yet that at present their progress is but slow, and instead of doubling their numbers every twenty-five years they require three or four hundred years or more for that purpose. Some, indeed, may be absolutely stationary, and others even retrograde. The cause of this slow progress in population cannot be traced to a decay of the passion between the sexes. We have sufficient reason to think that this natural propensity exists still in undiminished vigour. Why then do not its effects appear in a rapid increase of the human species? An intimate view of the state of society in any one country in Europe, which may serve equally for all, will enable us to answer this question, and to say that a foresight of the difficulties attending the rearing of a family acts as a preventive check, and the actual distresses of some of the lower classes, by which, they are disabled from giving the proper food and attention to their children, acts as a positive check to the natural increase of population.

England, as one of the most flourishing states of Europe, may be fairly taken for an example, and the observations made will apply with but little variation to any other country where the population increases slowly.

The preventive check appears to operate in some degree through all the ranks of society in England. There are some men, even in the highest rank, who are prevented from marrying by the idea of the expenses that they must retrench, and the fancied pleasures that they must deprive themselves of, on the supposition of having a family. These considerations are certainly trivial, but a preventive foresight of this kind has objects of much greater weight for its contemplation as we go lower.

A man of liberal education, but with an income only just sufficient to enable him to associate in the rank of gentlemen, must feel absolutely certain that if he marries and has a family he shall be obliged, if he mixes at all in society, to rank himself with moderate farmers and the lower class of tradesmen. The woman that a man of education would naturally make the object of his choice would be one brought up in the same tastes and

sentiments with himself and used to the familiar intercourse of a society totally different from that to which she must be reduced by marriage. Can a man consent to place the object of his affection in a situation so discordant, probably, to her tastes and inclinations? Two or three steps of descent in society, particularly at this round of the ladder, where education ends and ignorance begins, will not be considered by the generality of people as a fancied and chimerical, but a real and essential evil. If society be held desirable, it surely must be free, equal, and reciprocal society, where benefits are conferred as well as received, and not such as the dependent finds with his patron or the poor with the rich.

These considerations undoubtedly prevent a great number in this rank of life from following the bent of their inclinations in an early attachment. Others, guided either by a stronger passion, or a weaker judgment, break through these restraints, and it would be hard indeed, if the gratification of so delightful a passion as virtuous love, did not, sometimes, more than counterbalance all its attendant evils. But I fear it must be owned that the more general consequences of such marriages are rather calculated to justify than to repress the forebodings of the prudent.

The sons of tradesmen and farmers are exhorted not to marry, and generally find it necessary to pursue this advice till they are settled in some business or farm that may enable them to support a family. These events may not, perhaps, occur till they are far advanced in life. The scarcity of farms is a very general complaint in England. And the competition in every kind of business is so great that it is not possible that all should be successful.

The labourer who earns eighteen pence a day and lives with some degree of comfort as a single man will hesitate a little before he divides that pittance among four or five, which seems to be but just sufficient for one. Harder fare and harder labour he would submit to for the sake of living with the woman that he loves, but he must feel conscious, if he thinks at all, that should he have a large family, and any ill luck whatever, no degree of frugality, no possible exertion of his manual strength could preserve him from the heart-rending sensation of seeing his children starve, or of forfeiting his independence, and being obliged to the parish for their support. The love of independence is a sentiment that surely none would wish to be erased from the breast of man, though the parish law of England, it must be confessed, is a system of all others the most calculated gradually to weaken this sentiment, and in the end may eradicate it completely.

The servants who live in gentlemen's families have restraints that are

yet stronger to break through in venturing upon marriage. They possess the necessaries, and even the comforts of life, almost in as great plenty as their masters. Their work is easy and their food luxurious compared with the class of labourers. And their sense of dependence is weakened by the conscious power of changing their masters if they feel themselves offended. Thus comfortably situated at present, what are their prospects in marrying? Without knowledge or capital, either for business or farming, and unused and therefore unable to earn a subsistence by daily labour, their only refuge seems to be a miserable ale-house, which certainly offers no very enchanting prospect of a happy ending to their lives. By much the greater part, therefore, deterred by this uninviting view of their future situation, content themselves with remaining single where they are.

If this sketch of the state of society in England be near the truth, and I do not conceive that it is exaggerated, it will be allowed that the preventive check to population in this country operates, though with varied force, through all the classes of the community. The same observation will hold true with regard to all old states. The effects, indeed, of these restraints upon marriage are but too conspicuous in the consequent vices that are produced in almost every part of the world, vices that are continually involving both sexes in inextricable unhappiness.

CHAPTER V

The positive check to population, by which I mean the check that represses an increase which is already begun, is confined chiefly, though not perhaps solely, to the lowest orders of society. This check is not so obvious to common view as the other I have mentioned, and to prove distinctly the force and extent of its operation would require, perhaps, more data than we are in possession of. But I believe it has been very generally remarked by those who have attended to bills of mortality that of the number of children who die annually, much too great a proportion belongs to those who may be supposed unable to give their offspring proper food and attention, exposed as they are occasionally to severe distress and confined, perhaps, to unwholesome habitations and hard labour. This mortality among the children of the poor has been constantly taken notice of in all towns. It certainly does not prevail in an equal degree in the country, but the subject has not hitherto received sufficient attention to enable any one to say that there are not more deaths in proportion among the children of the poor, even in the coun-

try, than among those of the middling and higher classes. Indeed, it seems difficult to suppose that a labourer's wife who has six children, and who is sometimes in absolute want of bread, should be able always to give them the food and attention necessary to support life. The sons and daughters of peasants will not be found such rosy cherubs in real life as they are described to be in romances. It cannot fail to be remarked by those who live much in the country that the sons of labourers are very apt to be stunted in their growth, and are a long while arriving at maturity. Boys that you would guess to be fourteen or fifteen are, upon inquiry, frequently found to be eighteen or nineteen. And the lads who drive plough, which much certainly be a healthy exercise, are very rarely seen with any appearance of calves to their legs, a circumstance which can only be attributed to a want either of proper or of sufficient nourishment.

To remedy the frequent distresses of the common people, the poor-laws of England have been instituted; but it is to be feared that though they may have alleviated a little the intensity of individual misfortune, they have spread the general evil over a much larger surface. It is a subject often started in conversation and mentioned always as a matter of great surprise that notwithstanding the immense sum that is annually collected for the poor in England, there is still so much distress among them. Some think that the money must be embezzled, others that the church-wardens and overseers consume the greater part of it in dinners. All agree that somehow or other it must be very ill managed. In short, the fact that nearly three millions are collected annually for the poor and yet that their distresses are not removed is the subject of continual astonishment. But a man who sees a little below the surface of things would be very much more astonished if the fact were otherwise than it is observed to be, or even if a collection universally of eighteen shillings in the pound instead of four were materially to alter it. I will state a case which I hope will elucidate my meaning.

Suppose that by a subscription of the rich the eighteen pence a day which men earn now was made up five shillings; it might be imagined, perhaps, that they would then be able to live comfortably and have a piece of meat every day for their dinners. But this would be a very false conclusion. The transfer of three shillings and sixpence a day to every labourer would not increase the quantity of meat in the country. There is not at present enough for all to have a decent share. What would then be the consequence? The competition among the buyers in the market of meat would rapidly raise the price from six pence or seven pence, to

two or three shillings in the pound, and the commodity would not be divided among many more than it is at present. When an article is scarce, and cannot be distributed to all, he that can show the most valid patent, that is, he that offers most money, becomes the possessor. If we can suppose the competition among the buyers of meat to continue long enough for a greater number of cattle to be reared annually, this could only be done at the expense of the corn, which would be a very disadvantageous exchange, for it is well known that the country could not then support the same population, and when subsistence is scarce in proportion to the number of people, it is of little consequence whether the lowest members of the society possess eighteen pence or five shillings. They must at all events be reduced to live upon the hardest fare and in the smallest quantity.

It will be said, perhaps, that the increased number of purchasers in every article would give a spur to productive industry and that the whole produce of the island would be increased. This might in some degree be the case. But the spur that these fancied riches would give to population would more than counterbalance it, and the increased produce would be to be divided among a more than proportionably increased number of people. All this time I am supposing that the same quantity of work would be done as before. But this would not really take place. The receipt of five shillings a day, instead of eighteen pence, would make every man fancy himself comparatively rich and able to indulge himself in many hours or days of leisure. This would give a strong and immediate check to productive industry, and in a short time, not only the nation would be poorer, but the lower classes themselves would be much more distressed than when they received only eighteen pence a day.

A collection from the rich of eighteen shillings in the pound, even if distributed in the most judicious manner, would have a little the same effect as that resulting from the supposition I have just made, and no possible contributions of sacrifices of the rich, particularly in money, could for any time prevent the recurrence of distress among the lower members of society whoever they were. Great changes might, indeed, be made. The rich might become poor, and some of the poor rich, but a part of the society must necessarily feel a difficulty of living, and this difficulty will naturally fall on the least fortunate members.

It may at first appear strange, but I believe it is true, that I cannot by means of money raise a poor man and enable him to live much better than he did before, without proportionably depressing others in the same

class. If I retrench the quantity of food consumed in my house, and give him what I have cut off, I then benefit him, without depressing any but myself and family, who, perhaps, may be well able to bear it. If I turn up a piece of uncultivated land and give him the produce, I then benefit both him and all the members of the society, because what he before consumed is thrown into the common stock, and probably some of the new produce with it. But if I only give him money, supposing the produce of the country to remain the same, I give him a title to a larger share of that produce than formerly, which share he cannot receive without diminishing the shares of others. It is evident that this effect, in individual instances, must be so small as to be totally imperceptible; but still it must exist, as many other effects do, which like some of the insects that people the air, elude our grosser perceptions.

Supposing the quantity of food in any country to remain the same for many years together, it is evident that this food must be divided according to the value of each man's patent,[1] or the sum of money that he can afford to spend in this commodity so universally in request. It is a demonstrative truth, therefore, that the patents of one set of men could not be increased in value without diminishing the value of the patents of some other set of men. If the rich were to subscribe and give five shillings a day to five hundred thousand men without retrenching their own tables, no doubt can exist, that as these men would naturally live more at their ease and consume a greater quantity of provisions, there would be less food remaining to divide among the rest, and consequently each man's patent would be diminished in value or the same number of pieces of silver would purchase a smaller quantity of subsistence.

An increase of population without a proportional increase of food will evidently have the same effect in lowering the value of each man's patent. The food must necessarily be distributed in smaller quantities, and consequently a day's labour will purchase a smaller quantity of provisions. An increase in the price of provisions would arise either from an increase of population faster than the means of subsistence, or from a different distribution of the money of the society. The food of a country that has been long occupied, if it be increasing, increases slowly and regularly and cannot be made to answer any sudden demands, but variations in the distribution of the money of a society are not unfrequently occurring, and are undoubtedly among the causes that occasion

1. Mr. Godwin calls the wealth that a man receives from his ancestors a mouldy patent. It may, I think, very properly be termed a patent, but I hardly see the propriety of calling it a mouldy one, as it is an article in such constant use.

the continual variations which we observe in the price of provisions.

The poor-laws of England tend to depress the general condition of the poor in these two ways. Their first obvious tendency is to increase population without increasing the food for its support. A poor man may marry with little or no prospect of being able to support a family in independence. They may be said therefore in some measure to create the poor which they maintain, and as the provisions of the country must, in consequence of the increased population, be distributed to every man in smaller proportions, it is evident that the labour of those who are not supported by parish assistance will purchase a smaller quantity of provisions than before and consequently more of them must be driven to ask for support.

Secondly, the quantity of provisions consumed in workhouses upon a part of the society that cannot in general be considered as the most valuable part diminishes the shares that would otherwise belong to more industrious and more worthy members, and thus in the same manner forces more to become dependent. If the poor in the workhouses were to live better than they now do, this new distribution of the money of the society would tend more conspicuously to depress the condition of those out of the workhouses by occasioning a rise in the price of provisions.

Fortunately for England, a spirit of independence still remains among the peasantry. The poor-laws are strongly calculated to eradicate this spirit. They have succeeded in part, but had they succeeded as completely as might have been expected their pernicious tendency would not have been so long concealed.

Hard as it may appear in individual instances, dependent poverty ought to be held disgraceful. Such a stimulus seems to be absolutely necessary to promote the happiness of the great mass of mankind, and every general attempt to weaken this stimulus, however benevolent its apparent intention, will always defeat its own purpose. If men are induced to marry from a prospect of parish provision, with little or no chance of maintaining their families in independence, they are not only unjustly tempted to bring unhappiness and dependence upon themselves and children, but they are tempted, without knowing it, to injure all in the same class with themselves. A labourer who marries without being able to support a family may in some respects be considered as an enemy to all his fellow-labourers.

I feel no doubt whatever that the parish laws of England have contributed to raise the price of provisions and to lower the real price of labour. They have therefore contributed to impoverish that class of peo-

ple whose only possession is their labour. It is also difficult to suppose that they have not powerfully contributed to generate that carelessness and want of frugality observable among the poor, so contrary to the disposition frequently to be remarked among petty tradesmen and small farmers. The labouring poor, to use a vulgar expression, seem always to live from hand to mouth. Their present wants employ their whole attention, and they seldom think of the future. Even when they have an opportunity of saving they seldom exercise it, but all that is beyond their present necessities goes, generally speaking, to the ale-house. The poor-laws of England may therefore be said to diminish both the power and the will to save among the common people, and thus to weaken one of the strongest incentives to sobriety and industry, and consequently to happiness.

It is a general complaint among master manufacturers that high wages ruin all their workmen, but it is difficult to conceive that these men would not save a part of their high wages for the future support of their families, instead of spending it in drunkenness and dissipation, if they did not rely on parish assistance for support in case of accidents. And that the poor employed in manufactures consider this assistance as a reason why they may spend all the wages they earn and enjoy themselves while they can appears to be evident from the number of families that, upon the failure of any great manufactory, immediately fall upon the parish, when perhaps the wages earned in this manufactory while it flourished were sufficiently above the price of common country labour to have allowed them to save enough for their support till they could find some other channel for their industry.

A man who might not be deterred from going to the ale-house from the consideration that on his death, or sickness, he should leave his wife and family upon the parish might yet hesitate in thus dissipating his earnings if he were assured that, in either of these cases, his family must starve or be left to the support of casual bounty. In China, where the real as well as nominal price of labour is very low, sons are yet obliged by law to support their aged and helpless parents. Whether such a law would be advisable in this country I will not pretend to determine. But it seems at any rate highly improper, by positive institutions, which render dependent poverty so general, to weaken that disgrace, which for the best and most humane reasons ought to attach to it.

The mass of happiness among the common people cannot but be diminished, when one of the strongest checks to idleness and dissipation is thus removed, and when men are thus allured to marry with little or no pros-

pect of being able to maintain a family in independence. Every obstacle in the way of marriage must undoubtedly be considered as a species of unhappiness. But as from the laws of our nature some check to population must exist, it is better that it should be checked from a foresight of the difficulties attending a family and the fear of dependent poverty than that it should be encouraged, only to be repressed afterwards by want and sickness.

It should be remembered always that there is an essential difference between food and those wrought commodities, the raw materials of which are in great plenty. A demand for these last will not fail to create them in as great a quantity as they are wanted. The demand for food has by no means the same creative power. In a country where all the fertile spots have been seized, high offers are necessary to encourage the farmer to lay his dressing on land from which he cannot expect a profitable return for some years. And before the prospect of advantage is sufficiently great to encourage this sort of agricultural enterprise, and while the new produce is rising, great distresses may be suffered from the want of it. The demand for an increased quantity of subsistence is, with few exceptions, constant everywhere, yet we see how slowly it is answered in all those countries that have been long occupied.

The poor-laws of England were undoubtedly instituted for the most benevolent purpose, but there is great reason to think that they have not succeeded in their intention. They certainly mitigate some cases of very severe distress which might otherwise occur, yet the state of the poor who are supported by parishes, considered in all its circumstances, is very far from being free from misery. But one of the principal objections to them is that for this assistance which some of the poor receive, in itself almost a doubtful blessing, the whole class of the common people of England is subjected to a set of grating, inconvenient, and tyrannical laws, totally inconsistent with the genuine spirit of the constitution. The whole business of settlements, even in its present amended state, is utterly contradictory to all ideas of freedom. The parish persecution of men whose families are likely to become chargeable, and of poor women who are near lying-in, is a most disgraceful and disgusting tyranny. And the obstructions continually occasioned in the market of labour by these laws have a constant tendency to add to the difficulties of those who are struggling to support themselves without assistance.

These evils attendant on the poor-laws are in some degree irremediable. If assistance be to be distributed to a certain class of people, a power

must be given somewhere of discriminating the proper objects and of managing the concerns of the institutions that are necessary, but any great interference with the affairs of other people is a species of tyranny, and in the common course of things the exercise of this power may be expected to become grating to those who are driven to ask for support. The tyranny of justices, churchwardens, and overseers is a common complaint among the poor, but the fault does not lie so much in these persons, who probably before they were in power were not worse than other people, but in the nature of all such institutions.

The evil is perhaps gone too far to be remedied, but I feel little doubt in my own mind that if the poor-laws had never existed, though there might have been a few more instances of very severe distress, yet that the aggregate mass of happiness among the common people would have been much greater than it is at present.

Mr. Pitt's Poor-bill has the appearance of being framed with benevolent intentions, and the clamour raised against it was in many respects ill directed, and unreasonable. But it must be confessed that it possesses in a high degree the great and radical defect of all systems of the kind, that of tending to increase population without increasing the means for its support, and thus to depress the condition of those that are not supported by parishes, and, consequently, to create more poor.

To remove the wants of the lower classes of society is indeed an arduous task. The truth is that the pressure of distress on this part of a community is an evil so deeply seated that no human ingenuity can reach it. Were I to propose a palliative, and palliatives are all that the nature of the case will admit, it should be, in the first place, the total abolition of all the present parish laws. This would at any rate give liberty and freedom of action to the peasantry of England, which they can hardly be said to possess at present. They would then be able to settle without interruption wherever there was a prospect of a greater plenty of work and a higher price for labour. The market of labour would then be free, and those obstacles removed which, as things are now, often for a considerable time prevent the price from rising according to the demand.

Secondly, premiums might be given for turning up fresh land, and all possible encouragements held out to agriculture above manufactures, and to tillage above grazing. Every endeavour should be used to weaken and destroy all those institutions relating to corporations, apprenticeships, etc., which cause the labours of agriculture to be worse paid than the labours of trade and manufactures. For a country can never produce its proper quantity of food while these distinctions remain in favour of artisans.

Such encouragements to agriculture would tend to furnish the market with an increasing quantity of healthy work, and at the same time, by augmenting the produce of the country, would raise the comparative price of labour and ameliorate the condition of the labourer. Being now in better circumstances, and seeing no prospect of parish assistance, he would be more able, as well as more inclined, to enter into associations for providing against the sickness of himself or family.

Lastly, for cases of extreme distress, county workhouses might be established, supported by rates upon the whole kingdom, and free for persons of all counties, and indeed of all nations. The fare should be hard, and those that were able obliged to work. It would be desirable that they should not be considered as comfortable asylums in all difficulties, but merely as places where severe distress might find some alleviation. A part of these houses might be separated, or others built for a most beneficial purpose, which has not been unfrequently taken notice of, that of providing a place where any person, whether native or foreigner, might do a day's work at all times and receive the market price for it. Many cases would undoubtedly be left for the exertion of individual benevolence.

A plan of this kind, the preliminary of which should be an abolition of all the present parish laws, seems to be the best calculated to increase the mass of happiness among the common people of England. To prevent the recurrence of misery, is, alas! beyond the power of man. In the vain endeavour to attain what in the nature of things is impossible, we now sacrifice not only possible but certain benefits. We tell the common people that if they will submit to a code of tyrannical regulations, they shall never be in want. They do submit to these regulations. They perform their part of the contract, but we do not, nay cannot, perform ours, and thus the poor sacrifice the valuable blessing of liberty and receive nothing that can be called an equivalent in return.

Notwithstanding then the institution of the poor-laws in England, I think it will be allowed that considering the state of the lower classes altogether, both in the towns and in the country, the distresses which they suffer from the want of proper and sufficient food, from hard labour and unwholesome habitations, must operate as a constant check to incipient population.

To these two great checks to population in all long-occupied countries, which I have called the preventive and the positive checks, may be added vicious customs with respect to women, great cities, unwholesome manufactures, luxury, pestilence, and war.

All these checks may be fairly resolved into misery and vice. And that

these are the true causes of the slow increase of population in all the states of modern Europe will appear sufficiently evident from the comparatively rapid increase that has invariably taken place whenever these causes have been in any considerable degree removed.

The foregoing consists
of Chapters I–V
of Malthus' POPULATION: THE FIRST ESSAY

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8

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Sir Francis Bacon [1]

1561–1626

Francis Bacon was one of the first great enthusiasts of science. Sciencse, in his view, not only could but should benefit the life of man. He explained and extolled scientific method. He pointed the way to the control of nature. He tried to convince his fellow men that they could understand how the world worked, and thereby live "like kings." Men have always wanted to live like kings, and they listened to Bacon.

The Sphinx is a fable. It is not always wise to say much about a fable. It should be read and pondered. There is much to think about in the following selection. Bacon himself draws many conclusions from his own fable. It could be left at that.

But it is worth remarking that Bacon says that "of the Sphinx's riddles there are in all two kinds: one concerning the nature of things, another concerning the nature of man." When these words were written–the early seventeenth century–both kinds of riddles may have seemed equally soluble. But is there not evidence that the one kind is much more difficult than the other?

As to "the nature of things," we cannot help recognizing that much progress has been made in the 350 years since Bacon wrote. His wildest dreams have been realized, and more. Men live now as no king could have imagined living then.

But as to "the nature of man," how much does the modern age know which Bacon did not know? Or has it even forgotten some things that seemed clear and obvious to him? That is another question.

[1] For a biography of Sir Francis Bacon, see Vol. 5, pp. 90–92, in this set. For other works by Bacon in this set, see Vol. 5, pp. 94–98; Vol. 7, pp. 3–27; Vol. 10, pp. 346–360. See also *Great Books of the Western World.*

The Sphinx

Sphinx, says the story, was a monster combining many shapes in one. She had the face and voice of a virgin, the wings of a bird, the claws of a griffin. She dwelt on the ridge of a mountain near Thebes and infested the roads, lying in ambush for travellers, whom she would suddenly attack and lay hold of; and when she had mastered them, she propounded to them certain dark and perplexing riddles, which she was thought to have obtained from the Muses. And if the wretched captives could not at once solve and interpret the same, as they stood hesitating and confused she cruelly tore them to pieces. Time bringing no abatement of the calamity, the Thebans offered to any man who should expound the Sphinx's riddles (for this was the only way to subdue her) the sovereignty of Thebes as his reward. The greatness of the prize induced Oedipus, a man of wisdom and penetration, but lame from wounds in his feet, to accept the condition and make the trial: who presenting himself full of confidence and alacrity before the Sphinx, and being asked what kind of animal it was which was born four-footed, afterwards became two-footed, then three-footed, and at last four-footed again, answered readily that it was man; who at his birth and during his infancy sprawls on all fours, hardly attempting to creep; in a little while walks upright on two feet; in later years leans on a walking-stick and so goes as it were on three; and at last in extreme age and decrepitude, his sinews all failing, sinks into a quadruped again, and keeps his bed. This was the right answer and gave him the victory; whereupon he slew the Sphinx; whose body was put on the back of an ass and carried about in triumph; while himself was made according to compact king of Thebes.

The fable is an elegant and a wise one, invented apparently in allusion to Science; especially in its application to practical life. Science, being the wonder of the ignorant and unskilful, may be not absurdly called a monster. In figure and aspect it is represented as many-shaped, in allusion to the immense variety of matter with which it deals. It is said to

have the face and voice of a woman, in respect of its beauty and facility of utterance. Wings are added because the sciences and the discoveries of science spread and fly abroad in an instant; the communication of knowledge being like that of one candle with another, which lights up at once. Claws, sharp and hooked, are ascribed to it with great elegance, because the axioms and arguments of science penetrate and hold fast the mind, so that it has no means of evasion or escape; a point which the sacred philosopher also noted: *The words of the wise are as goads, and as nails driven deep in.* Again, all knowledge may be regarded as having its station on the heights of mountains; for it is deservedly esteemed a thing sublime and lofty, which looks down upon ignorance as from an eminence, and has moreover a spacious prospect on every side, such as we find on hill-tops. It is described as infesting the roads, because at every turn in the journey or pilgrimage of human life, matter and occasion for study assails and encounters us. Again Sphinx proposes to men a variety of hard questions and riddles which she received from the Muses. In these, while they remain with the Muses, there is probably no cruelty; for so long as the object of meditation and inquiry is merely to know, the understanding is not oppressed or straitened by it, but is free to wander and expatiate, and finds in the very uncertainty of conclusion and variety of choice a certain pleasure and delight; but when they pass from the Muses to Sphinx, that is from contemplation to practice, whereby there is necessity for present action, choice, and decision, then they begin to be painful and cruel; and unless they be solved and disposed of they strangely torment and worry the mind, pulling it first this way and then that, and fairly tearing it to pieces. Moreover the riddles of the Sphinx have always a twofold condition attached to them; distraction and laceration of mind, if you fail to solve them; if you succeed, a kingdom. For he who understands his subject is master of his end; and every workman is king over his work.

Now of the Sphinx's riddles there are in all two kinds: one concerning the nature of things, another concerning the nature of man; and in like manner there are two kinds of kingdom offered as the reward of solving them: one over nature, and the other over man. For the command over things natural—over bodies, medicines, mechanical powers, and infinite other of the kind—is the one proper and ultimate end of true natural philosophy; however the philosophy of the school, content with what it finds, and swelling with talk, may neglect or spurn the search after realities and works. But the riddle proposed to Oedipus, by the solution of which he became king of Thebes, related to the nature of man; for whoever has a

thorough insight into the nature of man may shape his fortune almost as he will, and is born for empire; as was well declared concerning the arts of the Romans–

> Be thine the art,
> O Rome, with government to rule the nations,
> And to know whom to spare and whom to abate,
> And settle the condition of the world.

And therefore it fell out happily that Augustus Caesar, whether on purpose or by chance, used a Sphinx for his seal. For he certainly excelled in the art of politics if ever man did; and succeeded in the course of his life in solving most happily a great many new riddles concerning the nature of man, which if he had not dexterously and readily answered he would many times have been in imminent danger of destruction. The fable adds very prettily that when the Sphinx was subdued, her body was laid on the back of an ass: for there is nothing so subtle and abstruse, but when it is once thoroughly understood and published to the world, even a dull wit can carry it. Nor is that other point to be passed over, that the Sphinx was subdued by a lame man with club feet; for men generally proceed too fast and in too great a hurry to the solution of the Sphinx's riddles; whence it follows that the Sphinx has the better of them, and instead of obtaining the sovereignty by works and effects, they only distract and worry their minds with disputations.

The foregoing essay is
from Francis Bacon's WISDOM OF THE ANCIENTS.

John Tyndall

1820–1893

John Tyndall was born in Ireland in 1820, and though in his childhood he attended the village school, he was largely self-educated. He became interested in surveying, started out by carrying the chain for a surveying group, and in a few years was in charge of it. He made maps and worked out complicated calculations, in the process practicing his mathematics, for which he had a flair. He then took a job as a railroad builder. After three years of this he went to England, where he found a position as a teacher of science at a provincial college. He had saved four hundred pounds, and now, at the age of twenty-eight, he set out for Marburg University, in Germany. There he exerted himself to the utmost. After a year, he was made assistant to Bunsen, the great chemist, and at the end of the second year, he received his doctorate.

In 1853, after returning to England, Tyndall was appointed professor of physics at the Royal Institution, on the recommendation of Faraday. He held the position for the rest of his life.

Tyndall's most important investigations were probably in the theory of heat. His book, *Heat Considered as a Mode of Motion* (1863), had great influence. It was the first popular exposition of the mechanical theory of heat. He also did work in many other areas of science, particularly in meteorology. Among other experiments was one in which he explained why the sky is blue. But it is likely that he was more distinguished for his exposition of the work of other men than for original researches of his own. His "Belfast Address" (1874), in which he surveyed the entire course of nineteenth-century scientific discovery, was a model of clarity and comprehensibility. He died on December 4, 1893.

Tyndall was extremely close to Faraday, both as colleague and friend. Faraday continued to do active work at the Royal Institution for several years after Tyndall arrived there. Even after his retirement, Faraday would often visit the laboratory and attend the Friday Evening Discourses—a weekly program of popular lectures on science which Faraday had started years before. Faraday died in August, 1867, and four months later, Tyndall gave a memorial discourse on "Faraday as Scientist and Man." This was published in 1868 under the title *Faraday as a Discoverer,* and the following selection consists of its first three chapters.

"It is not my intention," Tyndall says, "to lay before you a *life* of Faraday in the ordinary acceptation of the term. The duty I have to perform is to give you some notion of what he has done in the world." The subject as stated was an immense one. Not only did Faraday rise from the humblest beginnings. Not only was his main research undertaken in an area—electromagnetism—which has proved to be fruitful beyond the wildest expectations. And not only was he so extraordinarily gifted that he produced important and original results in almost every field he entered. But "taking him for all in all," Tyndall concludes, "I think it will be conceded that Michael Faraday was the greatest experimental philosopher the world has ever seen." Hence, Faraday as the subject of even a limited biography would seem to present almost insuperable obstacles.

Tyndall was, however, highly gifted himself, and in exactly the respects that were most necessary for the completion of his task. It goes without saying that he understood Faraday's work. He also had a facility for explaining it, which is evident in the selection that follows. Above all, he knew and loved Faraday. There seems to be no doubt that his knowledge and love were important elements in the success of the book.

Tyndall's *Faraday as a Discoverer* bears comparison in many respects with Eve Curie's *Madame Curie*.[1] Both biographers were presented with similar problems, for few experimentalists can rank with Faraday with as much justice as Marie Curie. And both biographers seem to have made the same decision as to how to proceed. Both

[1] See Vol. 8, pp. 32–42, in this set.

added nothing to the facts; both claimed that nothing except the facts was necessary to make a fascinating story. And both drew analogies from the world of nature itself, in an attempt to explicate their subjects.

"Nature, not education, rendered Faraday strong and refined," Tyndall writes. "A favorite experiment of his own was representative of himself. He loved to show that water in crystallizing excluded all foreign ingredients, however intimately they might be mixed with it. Out of acids, alkalis, or saline solutions, the crystal came sweet and pure. By some such natural process in the formation of this man, beauty and nobleness coalesced, to the exclusion of everything vulgar and low."

Michael Faraday

from *Faraday as a Discoverer*

It has been thought desirable to give you and the world some image of Michael Faraday as a scientific investigator and discoverer. The attempt to respond to this desire has been to me a labour of difficulty, if also a labour of love. For however well acquainted I may be with the researches and discoveries of that great master, however numerous the illustrations which occur to me of the loftiness of Faraday's character and the beauty of his life—still to grasp him and his researches as a whole; to seize upon the ideas which guided him, and connected them; to gain entrance into that strong and active brain, and read from it the riddle of the world—this is a work not easy of performance, and all but impossible amid the distraction of duties of another kind. That I should at one period or another speak to you regarding Faraday and his work is natural, if not inevitable; but I did not expect to be called upon to speak so soon. Still the bare suggestion that this is the fit and proper time for speech sent me immediately to my task; from it I have returned with such results as I could gather, and also with the wish that those results were more worthy than they are of the greatness of my theme.

It is not my intention to lay before you a *life* of Faraday in the ordinary acceptation of the term. The duty I have to perform is to give you some notion of what he has done in the world, dwelling incidentally on the spirit in which his work was executed, and introducing such personal traits as may be necessary to the completion of your picture of the *philosopher,* though by no means adequate to give you a complete idea of the *man.*

The newspapers have already informed you that Michael Faraday was born at Newington Butts, on September 22, 1791, and that he died at Hampton Court, on August 25, 1867. Believing, as I do, in the general truth of the doctrine of hereditary transmission—sharing the opinion of

Mr. Carlyle, that "a really able man never proceeded from entirely stupid parents"–I once used the privilege of my intimacy with Mr. Faraday to ask him whether his parents showed any signs of unusual ability. He could remember none. His father, I believe, was a great sufferer during the latter years of his life, and this might have masked whatever intellectual power he possessed. When thirteen years old, that is to say in 1804, Faraday was apprenticed to a bookseller and bookbinder in Blandford Street, Manchester Square; here he spent eight years of his life, after which he worked as a journeyman elsewhere.

You have also heard the account of Faraday's first contact with the Royal Institution; that he was introduced by one of the members to Sir Humphry Davy's last lectures, that he took notes of those lectures, wrote them fairly out, and sent them to Davy, entreating him at the same time to enable him to quit trade, which he detested, and to pursue science, which he loved. Davy was helpful to the young man, and this should never be forgotten; he at once wrote to Faraday, and afterwards, when an opportunity occurred, made him his assistant.[1] Mr. Gassiot has lately favoured me with the following reminiscence of this time:

Clapham Common, Surrey
November 28, 1867

My Dear Tyndall–Sir H. Davy was accustomed to call on the late Mr. Pepys, in the Poultry, on his way to the London Institution, of which Pepys was one of the original managers. The latter told me that on one occasion Sir H. Davy, showing him a letter, said: "Pepys, what am I to do, here is a letter from a young man named Faraday; he has been attending my lectures, and wants me to give him employment at the Royal Institution. What can I do?" "Do?" replied Pepys, "put him to wash bottles; if he is good for anything he will do it directly, if he refuses he is good for nothing." "No, no," replied Davy, "we must try him with something better than that." The result was that Davy engaged him to assist in the Laboratory at *weekly* wages.

1. Here is Davy's recommendation of Faraday, presented to the managers of the Royal Institution, at a meeting on the 18th of March, 1813, Charles Hatchett, Esq., in the chair:

"Sir Humphry Davy has the honour to inform the managers that he has found a person who is desirous to occupy the situation in the Institution lately filled by William Payne. His name is Michael Faraday. He is a youth of twenty-two years of age. As far as Sir H. Davy has been able to observe or ascertain, he appears well fitted for the situation. His habits seem good; his disposition active and cheerful, and his manner intelligent. He is willing to engage himself on the same terms as given to Mr. Payne at the time of quitting the Institution.

"*Resolved*–That Michael Faraday be engaged to fill the situation lately occupied by Mr. Payne, on the same terms."

Davy held the joint office of Professor of Chemistry and Director of the Laboratory; he ultimately gave up the former to the late Professor Brande, but he insisted that Faraday should be appointed Director of the Laboratory, and, as Faraday told me, this enabled him on subsequent occasions to hold a definite position in the Institution, in which he was always supported by Davy. I believe he held that office to the last.

Believe me, my dear Tyndall, yours truly,

J. P. Gassiot

From a letter written by Faraday himself soon after his appointment as Davy's assistant, I extract the following account of his introduction to the Royal Institution:

London, Sept. 13, 1813

As for myself, I am absent (from home) nearly day and night, except occasional calls, and it is likely shall shortly be absent entirely, but this (having nothing more to say, and at the request of my mother) I will explain to you. I was formerly a bookseller and binder, but am now turned philosopher,[2] which happened thus: Whilst an apprentice, I, for amusement, learnt a little chemistry and other parts of philosophy, and felt an eager desire to proceed in that way further. After being a journeyman for six months, under a disagreeable master, I gave up my business, and through the interest of a Sir H. Davy, filled the situation of chemical assistant to the Royal Institution of Great Britain, in which office I now remain; and where I am constantly employed in observing the works of nature, and tracing the manner in which she directs the order and arrangement of the world. I have lately had proposals made to me by Sir Humphry Davy to accompany him in his travels through Europe and Asia, as philosophical assistant. If I go at all I expect it will be in October next–about the end; and my absence from home will perhaps be as long as three years. But as yet all is uncertain.

This account is supplemented by the following letter, written by Faraday to his friend De la Rive,[3] on the occasion of the death of Mrs. Marcet. The letter is dated September 2, 1858:

My Dear Friend–Your subject interested me deeply every way; for Mrs. Marcet was a good friend to me, as she must have been to many of the human race. I entered the shop of a bookseller and bookbinder at the age of thirteen, in the year 1804, remained there eight years, and during the chief part of my time bound books. Now it was in those books, in the hours after work, that I found the beginning of my philosophy. There

2. Faraday loved this word and employed it to the last; he had an intense dislike to the modern term *physicist*.
3. To whom I am indebted for a copy of the original letter.

were two that especially helped me, the *Encyclopædia Britannica,* from which I gained my first notions of electricity, and Mrs. Marcet's *Conversation on Chemistry,* which gave me my foundation in that science.

Do not suppose that I was a very deep thinker, or was marked as a precocious person. I was a very lively imaginative person, and could believe in the *Arabian Nights* as easily as in the *Encyclopædia.* But facts were important to me, and saved me. I could trust a fact, and always cross-examined an assertion. So when I questioned Mrs. Marcet's book by such little experiments as I could find means to perform, and found it true to the facts as I could understand them, I felt that I had got hold of an anchor in chemical knowledge, and clung fast to it. Thence my deep veneration for Mrs. Marcet–first as one who had conferred great personal good and pleasure on me; and then as one able to convey the truth and principle of those boundless fields of knowledge which concern natural things to the young, untaught, and inquiring mind.

You may imagine my delight when I came to know Mrs. Marcet personally; how often I cast my thoughts backward, delighting to connect the past and the present; how often, when sending a paper to her as a thank offering, I thought of my first instructress, and such like thoughts will remain with me.

I have some such thoughts even as regards *your own father;* who was, I may say, the first who personally at Geneva, and afterwards by correspondence, encouraged, and by that sustained me.

Twelve or thirteen years ago Mr. Faraday and myself quitted the Institution one evening together, to pay a visit to our friend Grove in Baker Street. He took my arm at the door, and, pressing it to his side in his warm genial way, said, "Come, Tyndall, I will now show you something that will interest you." We walked northwards, passed the house of Mr. Babbage, which drew forth a reference to the famous evening parties once assembled there. We reached Blandford Street, and after a little looking about he paused before a stationer's shop, and then went in. On entering the shop, his usual animation seemed doubled; he looked rapidly at everything it contained. To the left on entering was a door, through which he looked down into a little room, with a window in front facing Blandford Street. Drawing me towards him, he said eagerly, "Look there, Tyndall, that was my working place. I bound books in that little nook." A respectable-looking woman stood behind the counter: his conversation with me was too low to be heard by her, and he now turned to the counter to buy some cards as an excuse for our being there. He asked the woman her name–her predecessor's name–his predecessor's name. "That won't do," he said, with good-humoured impatience; "who was *his*

predecessor?" "Mr. Riebau," she replied, and immediately added, as if suddenly recollecting herself, "He, sir, was the master of Sir Charles Faraday." "Nonsense!" he responded, "there is no such person." Great was her delight when I told her the name of her visitor; but she assured me that as soon as she saw him running about the shop, she felt—though she did not know why—that it must be "Sir Charles Faraday."

Faraday did, as you know, accompany Davy to Rome; he was re-engaged by the managers of the Royal Institution on May 15, 1815. Here he made rapid progress in chemistry, and after a time was entrusted with easy analyses by Davy. In those days the Royal Institution published *The Quarterly Journal of Science,* the precursor of our own *Proceedings.* Faraday's first contribution to science appeared in that journal in 1816. It was an analysis of some caustic lime from Tuscany, which had been sent to Davy by the Duchess of Montrose. Between this period and 1818 various notes and short papers were published by Faraday. In 1818 he experimented upon "sounding flames." Professor Auguste De la Rive had investigated those sounding flames, and had applied to them an explanation which completely accounted for a class of sounds discovered by himself, but did not account for those known to his predecessors. By a few simple and conclusive experiments, Faraday proved the explanation insufficient. It is an epoch in the life of a young man when he finds himself correcting a person of eminence, and in Faraday's case, where its effect was to develop a modest self-trust, such an event could not fail to act profitably.

From time to time between 1818 and 1820 Faraday published scientific notes and notices of minor weight. At this time he was acquiring, not producing; working hard for his master and storing and strengthening his own mind. He assisted Mr. Brande in his lectures, and so quietly, skilfully, and modestly was his work done, that Mr. Brande's vocation at the time was pronounced "lecturing on velvet." In 1820 Faraday published a chemical paper "on two new compounds of chlorine and carbon, and on a new compound of iodine, carbon, and hydrogen." This paper was read before the Royal Society on December 21, 1820, and it was the first of his that was honoured with a place in the *Philosophical Transactions.*

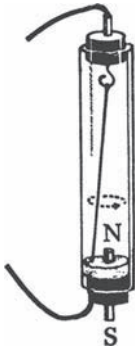
On June 12, 1821, he married, and obtained leave to bring his young wife into his rooms at the Royal Institution. There for forty-six years they lived together, occupying the suite of apartments which had been previously in the successive occupancy of Young, Davy, and Brande. At the time of her marriage Mrs. Faraday was twenty-one years of age, he being nearly thirty. Regarding this marriage I will at present limit myself to

quoting an entry written in Faraday's own hand in his book of diplomas, which caught my eye while in his company some years ago. It ran thus:

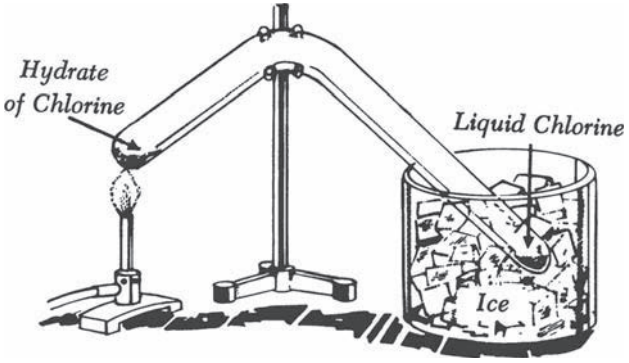
> *25th January, 1847*
>
> Amongst these records and events, I here insert the date of one which, as a source of honour and happiness, far exceeds all the rest. We were *married* on June 12, 1821.
>
> *M. Faraday*

Then follows the copy of the minutes, dated May 21, 1821, which gave him additional rooms, and thus enabled him to bring his wife to the Royal Institution. A feature of Faraday's character which I have often noticed makes itself apparent in this entry. In his relations to his wife he added *chivalry* to affection.

Oersted, in 1820, discovered the action of a voltaic current on a magnetic needle; and immediately afterwards the splendid intellect of Ampère succeeded in showing that every magnetic phenomenon then known might be reduced to the mutual action of electric currents. The subject occupied all men's thought; and in this country Dr. Wollaston sought to convert the deflection of the needle by the current into a permanent *rotation* of the needle round the current. He also hoped to produce the reciprocal effect of causing a current to rotate round a magnet. In the early part of 1821, Wollaston attempted to realize this idea in the presence of Sir Humphry Davy in the laboratory of the Royal Institution. This was well calculated to attract Faraday's attention to the subject. He read much about it; and in the months of July, August, and September he wrote a *History of the Progress of Electromagnetism,* which he published in Thomson's *Annals of Philosophy*. Soon afterwards he took up the subject of "magnetic rotations," and on the morning of Christmas Day, 1821, he called his wife to witness, for the first time, the revolution of a mag-



Faraday's electromagnetic rotation apparatus, designed in January, 1822. It was made of a piece of glass tubing, with stoppers at each end. The lower stopper carried a magnet and a pool of mercury. A loose piece of platinum wire, hung by a loop from the top connection, revolved rapidly around the magnet pole when the outside current was connected to the wire terminals of the apparatus.



Faraday's apparatus for liquefying the gas chlorine produced the gas by heating the hydrate. Both chlorine and water vapour were formed, thus giving pressure within the tube. At the right the tube was cooled with ice. The combination of pressure with cooling changed the chlorine to a liquid.

netic needle round an electric current. Incidental to the "historic sketch," he repeated almost all the experiments there referred to; and these, added to his own subsequent work, made him practical master of all that was then known regarding the voltaic current. In 1821, he also touched upon a subject which subsequently received his closer attention–the vaporization of mercury at common temperatures; and immediately afterwards conducted, in company with Mr. Stodart, experiments on the alloys of steel. He was accustomed in after years to present to his friends razors formed from one of the alloys then discovered.

During Faraday's hours of liberty from other duties, he took up subjects of inquiry for himself; and in the spring of 1823, thus self-prompted, he began the examination of a substance which had long been regarded as the chemical element chlorine, in a solid form, but which Sir Humphry Davy, in 1810, had proved to be a hydrate of chlorine, that is, a compound of chlorine and water. Faraday first analyzed this hydrate, and wrote out an account of its composition. This account was looked over by Davy, who suggested the heating of the hydrate under pressure in a sealed glass tube. This was done. The hydrate fused at a blood heat, the tube became filled with a yellow atmosphere, and was afterwards found to contain two liquid substances. Dr. Paris happened to enter the laboratory while Faraday was at work. Seeing the oily liquid in his tube, he rallied the young chemist for his carelessness in employing soiled vessels. On filing off the end of the tube, its contents exploded and the oily matter vanished. Early next morning, Dr. Paris received the following note:

Dear Sir–The *oil* you noticed yesterday turns out to be liquid chlorine.

Yours faithfully,
M. Faraday

The gas had been liquefied by its own pressure. Faraday then tried compression with a syringe, and succeeded thus in liquefying the gas.

To the published account of this experiment Davy added the following note: "In desiring Mr. Faraday to expose the hydrate of chlorine in a closed glass tube, it occurred to me that one of three things would happen: that decomposition of water would occur; . . . or that the chlorine would separate in a fluid state." Davy, moreover, immediately applied the method of self-compressing atmosphere to the liquefaction of muriatic gas. Faraday continued the experiments, and succeeded in reducing a number of gases till then deemed permanent to the liquid condition. In 1844 he returned to the subject, and considerably expanded its limits. These important investigations established the fact that gases are but the vapours of liquids possessing a very low boiling point, and gave a sure basis to our views of molecular aggregation. The account of the first investigation was read before the Royal Society on April 10, 1823, and was published, in Faraday's name, in the *Philosophical Transactions.* The second memoir was sent to the Royal Society on December 19, 1844. I may add that while he was conducting his first experiments on the liquefaction of gases, thirteen pieces of glass were on one occasion driven by an explosion into Faraday's eye.

Some small notices and papers, including the observation that glass readily changes colour in sunlight, follow here. In 1825 and 1826 Faraday published papers in the *Philosophical Transactions* on "new compounds of carbon and hydrogen," and on "sulphonaphthalic acid." In the former of these papers he announced the discovery of benzol,[4] which, in the hands of modern chemists, has become the foundation of our splendid aniline dyes. But he swerved incessantly from chemistry into physics; and in 1826 we find him engaged in investigating the limits of vaporization, and showing, by exceedingly strong and apparently conclusive arguments, that even in the case of mercury such a limit exists; much more he conceived it to be certain that our atmosphere does not contain the vapour of the fixed constituents of the earth's crust. This question, I may say, is likely to remain an open one. Dr. Rankine, for example, has lately

4. *Benzol.* A colourless liquid obtained by the distillation of coal tar; now known chemically as benzene, C_6H_6.

drawn attention to the odour of certain metals; whence comes this odour, if it be not from the vapour of the metal?

In 1825 Faraday became a member of a committee, to which Sir John Herschel and Mr. Dollond also belonged, appointed by the Royal Society to examine, and if possible improve, the manufacture of glass for optical purposes. Their experiments continued till 1829, when the account of them constituted the subject of a "Bakerian Lecture." This lectureship, founded in 1774 by Henry Baker, Esq., of the Strand, London, provides that every year a lecture shall be given before the Royal Society, the sum of four pounds being paid to the lecturer. The Bakerian Lecture, however, has long since passed from the region of pay to that of honour, papers of mark only being chosen for it by the council of the Society. Faraday's first Bakerian Lecture, "On the Manufacture of Glass for Optical Purposes," was delivered at the close of 1829. It is a most elaborate and conscientious description of processes, precautions, and results; the details were so exact and so minute, and the paper consequently so long, that three successive sittings of the Royal Society were taken up by the delivery of the lecture. This glass did not turn out to be of important practical use,[5] but it happened afterwards to be the foundation of two of Faraday's greatest discoveries.

The experiments here referred to were commenced at the Falcon Glass Works, on the premises of Messrs. Green and Pellatt, but Faraday could not conveniently attend to them there. In 1827, therefore, a furnace was erected in the yard of the Royal Institution; and it was at this time, and with a view of assisting him at the furnace, that Faraday engaged Sergeant Anderson, of the Royal Artillery, the respectable, truthful, and altogether trustworthy man whose appearance here is so fresh in our memories. Anderson continued to be the reverential helper of Faraday and the faithful servant of this Institution for nearly forty years.[6]

5. I make the following extract from a letter from Sir John Herschel, written to me from Collingwood, on the 3rd of November, 1867:

> I will take this opportunity to mention that I believe myself to have originated the suggestion of the employment of borate of lead for *optical* purposes. It was somewhere in the year 1822, as well as I can recollect, that I mentioned it to Sir James (then Mr.) South; and, in consequence, the trial was made in his laboratory in Blackman Street, by precipitating and working a large quantity of borate of lead, and fusing it under a muffle in a porcelain evaporating dish. A very limpid (though slightly yellow) glass resulted, the refractive index 1.866! (which you will find set down in my table of refractive indices in my article "Light," *Encyclopædia Metropolitana*). It was, however, too soft for optical use as an object glass. This Faraday overcame, at least to a considerable degree, by the introduction of silica.

6. Regarding Anderson, Faraday writes thus in 1845: "I cannot resist the occasion

In 1831 Faraday published a paper, "On a Peculiar Class of Optical Deceptions," to which I believe the beautiful optical toy called the chromatrope owes its origin. In the same year he published a paper on vibrating surfaces, in which he solved an acoustical problem which, though of extreme simplicity *when solved,* appears to have baffled many eminent men. The problem was to account for the fact that light bodies, such as the seed of lycopodium, collected at the vibrating parts of sounding plates, while sand ran to the nodal lines. Faraday showed that the light bodies were entangled in the little whirlwinds formed in the air over the places of vibration, and through which the heavier sand was readily projected. Faraday's resources as an experimentalist were so wonderful, and his delight in experiment was so great, that he sometimes almost ran into excess in this direction. I have heard him say that this paper on vibrating surfaces was too heavily laden with experiments.

The work thus referred to, though sufficient of itself to secure no mean scientific reputation, forms but the vestibule of Faraday's achievements. He had been engaged within these walls for eighteen years. During part of the time he had drunk in knowledge from Davy, and during the remainder he continually exercised his capacity for independent inquiry. In 1831 we have him at the climax of his intellectual strength, forty years of age, stored with knowledge and full of original power. Through reading, lecturing, and experimenting, he had become thoroughly familiar with electrical science; he saw where light was needed and expansion possible. The phenomena of ordinary electric induction belonged, as it were, to the alphabet of his knowledge; he knew that under ordinary circumstances the presence of an electrified body was sufficient to excite, by induction, an unelectrified body. He knew that the wire which carried an electric current was an electrified body, and still that all attempts had failed to make it excite in other wires a state similar to its own.

What was the reason of this failure? Faraday never could work from the experiments of others, however clearly described. He knew well that from every experiment issues a kind of radiation, luminous in different degrees in different minds, and he hardly trusted himself to reason upon

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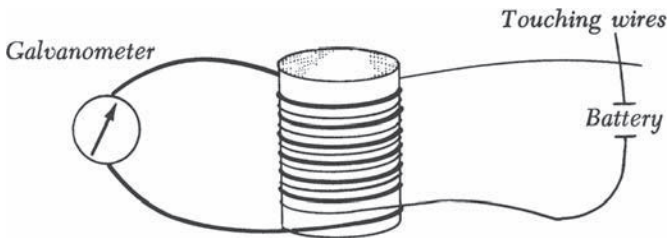
that is thus offered to me of mentioning the name of Mr. Anderson, who came to me as an assistant in the glass experiments, and has remained ever since in the laboratory of the Royal Institution. He assisted me in all the researches into which I have entered since that time; and to his care, steadiness, exactitude, and faithfulness in the performance of all that has been committed to his charge, I am much indebted.–M. F." [See *Experimental Researches, Great Books of the Western World* (Ed.).]

an experiment that he had not seen. In the autumn of 1831 he began to repeat the experiments with electric currents, which, up to that time, had produced no positive result. And here, for the sake of younger inquirers, if not for the sake of us all, it is worth while to dwell for a moment on a power which Faraday possessed in an extraordinary degree. He united vast strength with perfect flexibility. His momentum was that of a river, which combines weight and directness with the ability to yield to the flexures of its bed. The intentness of his vision in any direction did not apparently diminish his power of perception in other directions; and when he attacked a subject, expecting results, he had the faculty of keeping his mind alert, so that results different from those which he expected should not escape him through preoccupation.

He began his experiments on the induction of electric currents by composing a helix of two insulated wires which were wound side by side round the same wooden cylinder. One of these wires he connected with a voltaic battery of ten cells, and the other with a sensitive galvanometer. When connection with the battery was made, and while the current flowed, no effect whatever was observed at the galvanometer. But he never accepted an experimental result until he had applied to it the utmost power at his command. He raised his battery from 10 cells to 120 cells, but without avail. The current flowed calmly through the battery wire without producing, during its flow, any sensible result upon the galvanometer.

"During its flow," and this was the time when an effect was expected– but here Faraday's power of lateral vision, separating, as it were, from the line of expectation, came into play. He noticed that a feeble move-



Two completely independent coils of insulated wire were wound side by side on a wooden cylinder. One coil was connected to a voltaic battery, the current flowing when the battery wires were touched together. The other coil was connected to a sensitive galvanometer. At the moment that the battery wires were touched, the galvanometer moved, though the circuits were separate.

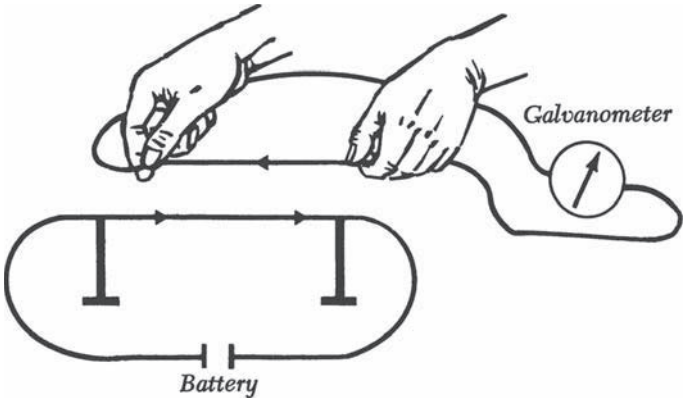
ment of the needle always occurred at the moment when he made contact with the battery; that the needle would afterwards return to its former position and remain quietly there unaffected by the *flowing* current. At the moment, however, when the circuit was interrupted the needle again moved, and in a direction opposed to that observed on the completion of the circuit.

This result, and others of a similar kind, led him to the conclusion that the battery current through the one wire did in reality induce a similar current through the other; but that it continued for an instant only, and partook more of the nature of the electric wave from a common Leyden jar than of the current from a voltaic battery. The momentary currents thus generated were called *induced* currents, while the current which generated them was called the *inducing* current. It was immediately proved that the current generated at making the circuit was always opposed in direction to its generator, while that developed on the rupture of the circuit coincided in direction with the inducing current. It appeared as if the current on its first rush through the primary wire sought a purchase in the secondary one, and, by a kind of kick, impelled backward through the latter an electric wave, which subsided as soon as the primary current was fully established.

Faraday, for a time, believed that the secondary wire, though quiescent when the primary current had been once established, was not in its natural condition, its return to that condition being declared by the current observed at breaking the circuit. He called this hypothetical state of the wire the *electrotonic state;* he afterwards abandoned this hypothesis, but seemed to return to it in later life. The term electrotonic is also preserved by Professor Du Bois Reymond to express a certain electric condition of the nerves, and Professor Clerk Maxwell has ably defined and illustrated the hypothesis in the tenth volume of the *Transactions of the Cambridge Philosophical Society.*

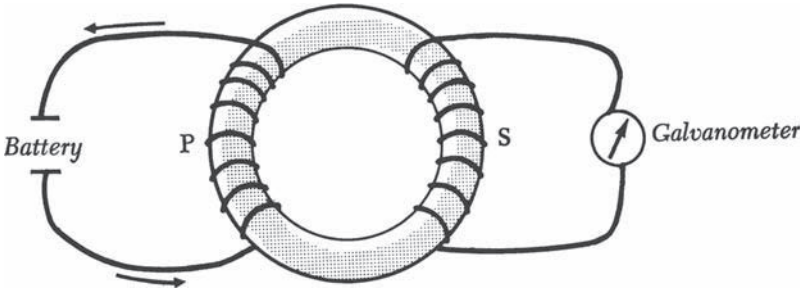
The mere approach of a wire forming a closed curve to a second wire through which a voltaic current flowed was then shown by Faraday to be sufficient to arouse in the neutral wire an induced current, opposed in direction to the inducing current; the withdrawal of the wire also generated a current having the same direction as the inducing current; those currents existed only during the time of approach or withdrawal, and when neither the primary nor the secondary wire was in motion, no matter how close their proximity might be, no induced current was generated.

Faraday has been called a purely inductive philosopher. A great deal



An induced current was produced when a wire forming a closed circuit through a galvanometer was brought near a wire carrying a voltaic current. The direction of the induced current was opposed to that of the inducing current.

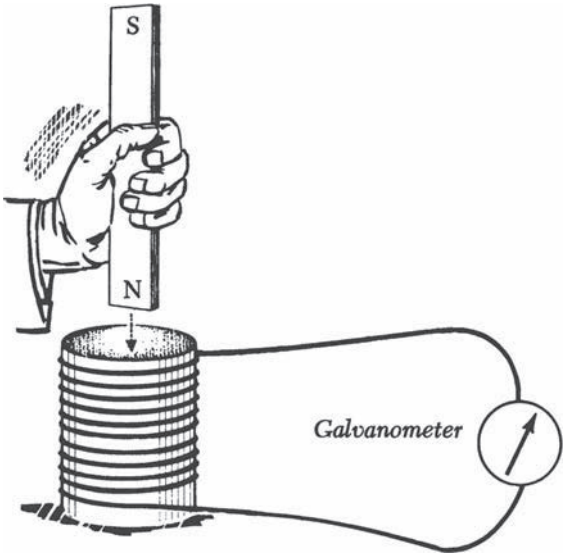
of nonsense is, I fear, uttered in this land of England about induction and deduction. Some profess to befriend the one, some the other, while the real vocation of an investigator, like Faraday, consists in the incessant marriage of both. He was at this time full of the theory of Ampère, and it cannot be doubted that numbers of his experiments were executed merely to test his deductions from that theory. Starting from the discovery of Oersted, the illustrious French philosopher had shown that all the phenomena of magnetism then known might be reduced to the mutual attractions and repulsions of electric currents. Magnetism had been produced from electricity, and Faraday, who all his life long entertained a strong belief in such reciprocal actions, now attempted to effect the evolution of electricity from magnetism. Round a welded iron ring he placed two distinct coils of covered wire, causing the coils to occupy opposite halves of the ring. Connecting the ends of one of the coils with a galvanometer, he found that the moment the ring was magnetized, by sending a current through *the other coil,* the galvanometer needle whirled round four or five times in succession. The action, as before, was that of a pulse, which vanished immediately. On interrupting the circuit, a whirl of the needle in the opposite direction occurred. It was only during the time of magnetization or demagnetization that these effects were produced. The induced currents declared a *change* of condition only, and they vanished the moment the act of magnetization or demagnetization was complete.



Two coils, P *and* S, *were wound on an iron ring. The primary coil,* P, *was connected to a battery; the secondary coil,* S, *to a galvanometer. When a current was started in* P, *a current was induced in* S *in a direction opposite to that in* P. *With the current flowing in* P, *there was no current in* S. *When the current in* P *was interrupted, there was a reverse current in* S.

The effects obtained with the welded ring were also obtained with straight bars of iron. Whether the bars were magnetized by the electric current, or were excited by the contact of permanent steel magnets, induced currents were always generated during the rise, and during the subsidence of the magnetism. The use of iron was then abandoned, and the same effects were obtained by merely thrusting a permanent steel magnet into a coil of wire. A rush of electricity through the coil accompanied the insertion of the magnet; an equal rush in the opposite direction accompanied its withdrawal. The precision with which Faraday describes these results, and the completeness with which he defines the boundaries of his facts, are wonderful. The magnet, for example, must not be passed quite through the coil, but only half through; for if passed wholly through, the needle is stopped as by a blow, and then he shows how this blow results from a reversal of the electric wave in the helix. He next operated with the powerful permanent magnet of the Royal Society, and obtained with it, in an exalted degree, all the foregoing phenomena.

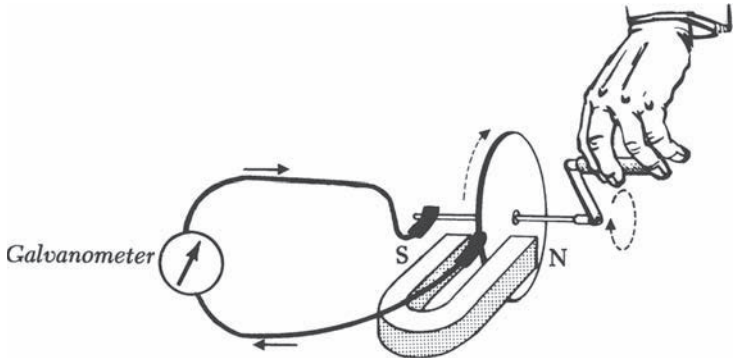
And now he turned the light of these discoveries upon the darkest physical phenomenon of that day. Arago had discovered, in 1824, that a disk of nonmagnetic metal had the power of bringing a vibrating magnetic needle suspended over it rapidly to rest; and that on causing the disk to rotate the magnetic needle rotated along with it. When both were quiescent, there was not the slightest measurable attraction or repulsion exerted between the needle and the disk; still, when in motion the disk was competent to drag after it not only a light needle, but a heavy magnet. The question had been probed and investigated with admirable skill



An induced current was produced by the mere motion of a permanent steel magnet in a coil of wire. A rush of electricity through the coil occurred when the magnet was inserted. An equal rush in the opposite direction occurred when the magnet was withdrawn.

by both Arago and Ampère, and Poisson had published a theoretic memoir on the subject; but no cause could be assigned for so extraordinary an action. It had also been examined in this country by two celebrated men, Mr. Babbage and Sir John Herschel; but it still remained a mystery. Faraday always recommended the suspension of judgment in cases of doubt. "I have always admired," he said, "the prudence and philosophical reserve shown by M. Arago in resisting the temptation to give a theory of the effect he had discovered, so long as he could not devise one which was perfect in its application, and in refusing to assent to the imperfect theories of others." Now, however, the time for theory had come. Faraday saw mentally the rotating disk, under the operation of the magnet, flooded with his induced currents, and from the known laws of interaction between currents and magnets he hoped to deduce the motion observed by Arago. That hope he realized, showing by actual experiment that, when his disk rotated, currents passed through it, their position and direction being such as must, in accordance with the established laws of electromagnetic action, produce the observed rotation.

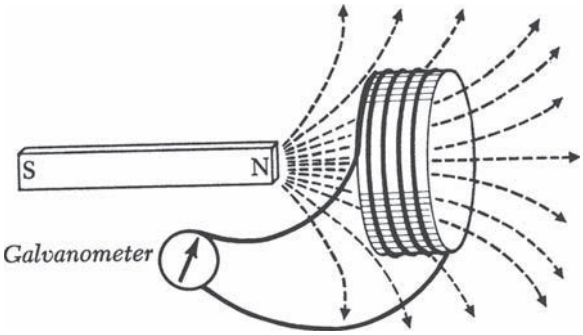
Introducing the edge of his disk between the poles of the large horse-shoe magnet of the Royal Society, and connecting the axis and the edge



Faraday's electrical generator to produce a steady current by rotating a copper disk between the poles of a magnet.

of the disk, each by a wire with a galvanometer, he obtained, when the disk was turned round, a constant flow of electricity. The direction of the current was determined by the direction of the motion, the current being reversed when the rotation was reversed. He now states the law which rules the production of currents in both disks and wires, and in so doing used, for the first time, a phrase which has since become famous. When iron filings are scattered over a magnet, the particles of iron arrange themselves in certain determinate lines called magnetic curves. In 1831, Faraday for the first time called these curves "lines of magnetic force"; and he showed that to produce induced currents neither approach to nor withdrawal from a magnetic source, or center, or pole, was essential, but that it was only necessary to cut appropriately the lines of magnetic force. Faraday's first paper on magnetoelectric induction, which I have here endeavoured to condense, was read before the Royal Society on the 24th of November, 1831.

On January 12, 1832, he communicated to the Royal Society a second paper on terrestrial magnetoelectric induction, which was chosen as the Bakerian Lecture for the year. He placed a bar of iron in a coil of wire, and lifting the bar into the direction of the dipping needle, he excited by this action a current in the coil. On reversing the bar, a current in the opposite direction rushed through the wire. The same effect was produced when, on holding the helix in the line of dip, a bar of iron was thrust into it. Here, however, the earth acted on the coil through the intermediation of the bar of iron. He abandoned the bar and simply set a copper plate spinning in a horizontal plane; he knew that the earth's lines of magnetic force then crossed the plate at an angle of about 70°.

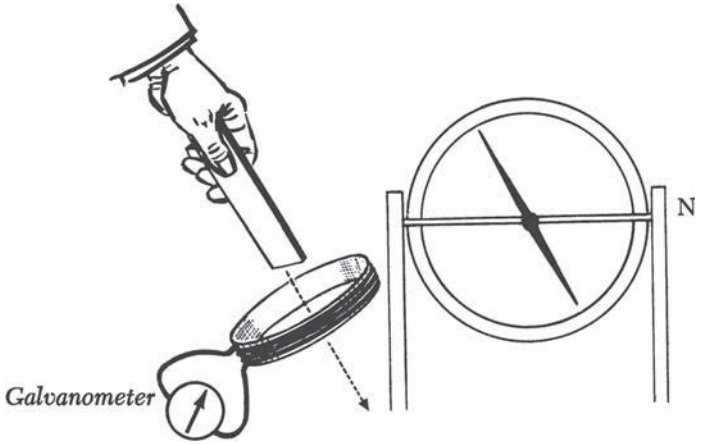


Lines of magnetic force pass out of the north pole of a magnet, and in at the south pole. To produce induced currents in a coil it was only necessary to cut appropriately the lines of magnetic force. For the arrangement shown, the coil may be spun around on its vertical axis or drawn back and forth across the end of the magnet.

When the plate spun round, the lines of force were intersected and induced currents generated, which produced their proper effect when carried from the plate to the galvanometer. "When the plate was in the magnetic meridian, or in any other plane coinciding with the magnetic dip, then its rotation produced no effect upon the galvanometer."

At the suggestion of a mind fruitful in suggestions of a profound and philosophic character–I mean that of Sir John Herschel–Mr. Barlow, of Woolwich, had experimented with a rotating iron shell. Mr. Christie had also performed an elaborate series of experiments on a rotating iron disk. Both of them had found that when in rotation the body exercised a peculiar action upon the magnetic needle, deflecting it in a manner which was not observed during quiescence; but neither of them was aware at the time of the agent which produced this extraordinary deflection. They ascribed it to some change in the magnetism of the iron shell and disk.

But Faraday at once saw that his induced currents must come into play here, and he immediately obtained them from an iron disk. With a hollow brass ball, moreover, he produced the effects obtained by Mr. Barlow. Iron was in no way necessary; the only condition of success was that the rotating body should be of a character to admit of the formation of currents in its substance; it must, in other words, be a conductor of electricity. The higher the conducting power the more copious were the currents. He now passes from his little brass globe to the globe of the earth. He plays like a magician with the earth's magnetism. He sees the invisible lines along which its magnetic action is exerted, and sweeping his wand across these lines evokes this new power. Placing a simple loop



A dipping needle, shown in the background, is so balanced that it points slantingly downward toward the earth's north magnetic pole. [At Washington, D.C., the inclination, or dip, is 70 degrees.] Faraday found that, when an iron bar was thrust into a coil in the direction of the dip, a momentary current was induced.

of wire round a magnetic needle he bends its upper portion to the west; the north pole of the needle immediately swerves to the east; he bends his loop to the east, and the north pole moves to the west. Suspending a common bar magnet in a vertical position, he causes it to spin round its own axis. Its pole being connected with one end of a galvanometer wire, and its equator with the other end, electricity rushes round the galvanometer from the rotating magnet. He remarks upon the "singular independence" of the magnetism and the body of the magnet which carries it. The steel behaves as if it were isolated from its own magnetism.

And then his thoughts suddenly widen, and he asks himself whether the rotating earth does not generate induced currents as it turns round its axis from west to east. In his experiment with the twirling magnet the galvanometer wire remained at rest; one portion of the circuit was in motion *relatively* to *another portion.* But in the case of the twirling planet the galvanometer wire would necessarily be carried along with the earth; there would be no relative motion. What must be the consequence? Take the case of a telegraph wire with its two terminal plates dipped into the earth, and suppose the wire to lie in the magnetic meridian. The ground underneath the wire is influenced like the wire itself by the earth's rotation; if a current from south to north be generated in the wire, a similar current from south to north would be generated in the

earth under the wire; these currents would run against the same terminal plate, and thus neutralize each other.

This inference appears inevitable, but his profound vision perceived its possible invalidity. He saw that it was at least possible that the difference of conducting power between the earth and the wire might give one an advantage over the other, and that thus a residual or differential current might be obtained. He combined wires of different materials, and caused them to act in opposition to each other, but found the combination ineffectual. The more copious flow in the better conductor was exactly counterbalanced by the resistance of the worse. Still, though experiment was thus emphatic, he would clear his mind of all discomfort by operating on the earth itself. He went to the round lake near Kensington Palace, and stretched 480 feet of copper wire, north and south, over the lake, causing plates soldered to the wire at its ends to dip into the water. The copper wire was severed at the middle, and the severed ends connected with a galvanometer. No effect whatever was observed. But though quiescent water gave no effect, moving water might. He therefore worked at London Bridge for three days during the ebb and flow of the tide, but without any satisfactory result. Still he urges, "Theoretically it seems a necessary consequence, that where water is flowing there electric currents should be formed. If a line be imagined passing from Dover to Calais through the sea, and returning through the land, beneath the water to Dover, it traces out a circuit of conducting matter one part of which, when the water moves up or down the channel, is cutting the magnetic curves of the earth, whilst the other is relatively at rest. . . .

"There is every reason to believe that currents do run in the general direction of the circuit described, either one way or the other, according as the passage of the water is up or down the channel." This was written before the submarine cable was thought of, and he once informed me that actual observation upon that cable had been found to be in accordance with his theoretic deduction.[7]

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7. I am indebted to a friend for the following exquisite morsel: "A short time after the publication of Faraday's first researches in magnetoelectricity, he attended the meeting of the British Association at Oxford, in 1832. On this occasion he was requested by some of the authorities to repeat the celebrated experiment of eliciting a spark from a magnet, employing for this purpose the large magnet in the Ashmolean Museum. To this he consented, and a large party assembled to witness the experiments, which, I need not say, were perfectly successful. While he was repeating them a dignitary of the university entered the room, and addressing himself to Professor Daniell, who was standing near Faraday, inquired what was going on. The Professor explained to him as popularly as possible this striking result of Faraday's great discovery. The Dean listened with attention and looked earnestly at the brilliant spark, but a moment after he assumed a serious counte-

Three years subsequent to the publication of these researches—that is to say, on January 29, 1835—Faraday read before the Royal Society a paper "on the influence by induction of an electric current upon itself." A shock and spark of a peculiar character had been observed by a young man named William Jenkin, who must have been a youth of some scientific promise, but who, as Faraday once informed me, was dissuaded by his own father from having anything to do with science. The investigation of the fact noticed by Mr. Jenkin led Faraday to the discovery of the *extra current,* or the current *induced in the primary wire itself* at the moments of making and breaking contact, the phenomena which he described and illustrated in the beautiful and exhaustive paper referred to.

Seven and thirty years have passed since the discovery of magneto-electricity; but if we except the *extra current,* until quite recently nothing of moment was added to the subject. Faraday entertained the opinion that the discoverer of a great law of principle had a right to the "spoils"—this was his term—arising from its illustration; and guided by the principle he had discovered, his wonderful mind, aided by his wonderful ten fingers, overran in a single autumn this vast domain, and hardly left behind him the shred of a fact to be gathered by his successors.

And here the question may arise in some minds: What is the use of it all? The answer is, that if man's intellectual nature thirsts for knowledge, then knowledge is useful because it satisfies this thirst. If you demand practical ends, you must, I think, expand your definition of the term practical, and make it include all that elevates and enlightens the intellect, as well as all that ministers to the bodily health and comfort of men. Still, if needed, an answer of another kind might be given to the question "What is its use?" As far as electricity has been applied for medical purposes, it has been almost exclusively Faraday's electricity. You have noticed those lines of wire which cross the streets of London. It is Faraday's currents that speed from place to place through these wires. Approaching the point of Dungeness, the mariner sees an unusually brilliant light, and from the noble *phares* of La Hève the same light flashes across the sea. These are Faraday's sparks exalted by suitable machinery to sunlike splendor. At the present moment the Board of Trade and the

nance and shook his head; 'I am sorry for it,' said he, as he walked away. In the middle of the room he stopped for a moment and repeated, 'I am sorry for it,' then, walking towards the door, when the handle was in his hand he turned round and said, '*Indeed* I am sorry for it; it is putting new arms into the hands of the incendiary.' This occurred a short time after the papers had been filled with the doings of the hayrick burners. An erroneous statement of what fell from the Dean's mouth was printed at the time in one of the Oxford papers. He is there wrongly stated to have said, 'It is putting new arms into the hands of the infidel.' "

Brethren of the Trinity House, as well as the Commissioners of Northern Lights, are contemplating the introduction of the magnetoelectric light at numerous points upon our coasts; and future generations will be able to refer to those guiding stars in answer to the question, what has been the practical use of the labours of Faraday? But I would again emphatically say, that his work needs no such justification, and that if he had allowed his vision to be disturbed by considerations regarding the practical use of his discoveries, those discoveries would never have been made by him. "I have rather," he writes in 1831, "been desirous of discovering new facts and new relations dependent on magnetoelectric induction, than of exalting the force of those already obtained, being assured that the latter would find their full development hereafter."

In 1817, when lecturing before a private society in London on the element chlorine, Faraday thus expressed himself with reference to this question of utility: "Before leaving this subject, I will point out the history of this substance, as an answer to those who are in the habit of saying to every new fact, 'What is its use?' Dr. Franklin says to such, 'What is the use of an infant?' The answer of the experimentalist is, 'Endeavour to make it useful.' When Scheele discovered this substance, it appeared to have no use; it was in its infancy and useless state, but having grown up to maturity, witness its powers, and see what endeavours to make it useful have done."

The foregoing consists of Chapters I-III of Tyndall's FARADAY AS A DISCOVERER.

Eve Curie

1904–2007

Eve Curie was born in Paris in 1904, the daughter of Pierre and Marie Curie. She began early to study music, and though she received the degree of bachelor of science and philosophy from Sévigné College, she became a concert pianist. She made her debut at Paris in 1925 and subsequently played in many cities, chiefly in France. After her mother's death she began collecting and classifying all the papers, manuscripts, and documents left by Mme Curie; she went to Poland to obtain material on her mother's youth; and she interrogated all those friends and acquaintances of the scientist who could be reached. Her biography, titled *Madame Curie,* was published in 1937. It was described as one of the great biographies of our time and was translated into many languages.

Eve Curie gave vigorous support to the activities of the Free French in World War II. She visited, as a correspondent, some of the most active battlefronts and wrote a book about her experiences called *Journey Among Warriors* (1943). She later became one of the publishers of the newspaper *Paris Presse*. With her husband, Henri Labouisse, she resided in Washington, D.C.

The Curie family would have delighted Galton, the author of *Hereditary Genius*. Pierre and Marie Curie received the Nobel Prize in physics for 1903, in association with Henri Becquerel, for the discovery of radiation. Mme Curie herself won the Nobel Prize in Chemistry for 1911, for the discovery of radium. Her daughter Irène, in association with the latter's husband, Frédéric Joliot-Curie, won the Nobel Prize in chemistry for 1935, for their production of artificially induced radiation. And Eve Curie attained the first rank

among biographers upon the publication of *Madame Curie*. If genius is hereditary in any family, it would appear to have been so in this one.

Mme Curie not only received two Nobel Prizes; she also received innumerable other prizes and medals and was made a corresponding honorary member of almost every scientific society on earth. The curie, a unit of measurement for radium emanation, was named after her, as was the element curium.

Despite this public acclaim (there were, however, also violent attacks on her), Mme Curie remained a simple, kind, almost timid woman. "Marie Curie is, of all celebrated beings," said her lifelong friend Albert Einstein, "the only one whom fame has not corrupted."

The problem which thus faced her biographer was, though it might seem simple, in fact extremely complex and difficult. On the one hand, there was the temptation to do no more than recount the troubles and obstacles of Mme Curie's youth, to tell how each of these was in turn overcome, to applaud the great discoveries, to describe the personal anguish, to narrate the series of triumphs, and to close with a rousing paean of praise. But the risk in that case was to create a cold and quite unbelievable character.

On the other hand, Eve Curie might have been tempted to tell no more than a "human interest" story; she might have emphasized the naïveté of her subject. But the risk in this case was to fall into pathos and sentimentality.

The young biographer of Mme Curie avoided both dangers. Eve Curie's picture of her mother is as warm, as human, as paradoxical as the woman herself; but that woman is also a great scientist. In a short introduction to the book Eve Curie tells us how she managed to do this. "It would have been a crime," she writes, "to add the slightest ornament to this story, so like a myth. I have not related a single anecdote of which I am not sure. I have not deformed a single essential phrase or so much as invented the color of a dress. The facts are as stated; the quoted words were actually pronounced."

In other words, she wrote about her mother's life in much the same way that her mother wrote about her discoveries. Mme Curie did not add anything, either; she too was objective in the best sense, she too was patient and willing to allow the truth to speak for itself. Both of these remarkable women lend considerable credence to the proposition that truth is not only stranger than fiction but also much more interesting.

It hardly needs saying that the chapter reprinted below, *The Discovery of Radium,* has the virtues of the whole book. Here is the story of Mme Curie in miniature. In particular, the reader is urged to note especially the three notebook entries quoted at the end of the chapter. Therein, the author seems to be saying, lies the essence of Marie Curie, who could be equally happy about the discovery of radium and about the fact that her daughter has fifteen teeth.

The Discovery of Radium

hile a young wife kept house, washed her baby daughter and put pans on the fire, in a wretched laboratory at the School of Physics a woman physicist was making the most important discovery of modern science.

At the end of 1897 the balance sheet of Marie's activity showed two university degrees, a fellowship and a monograph on the magnetization of tempered steel. No sooner had she recovered from childbirth than she was back again at the laboratory.

The next stage in the logical development of her career was the doctor's degree. Several weeks of indecision came in here. She had to choose a subject of research which would furnish fertile and original material. Like a writer who hesitates and asks himself questions before settling the subject of his next novel, Marie, reviewing the most recent work in physics with Pierre, was in search of a subject for a thesis.

At this critical moment Pierre's advice had an importance which cannot be neglected. With respect to her husband, the young woman regarded herself as an apprentice: he was an older physicist, much more experienced than she. He was even, to put it exactly, her chief, her "boss."

But without a doubt Marie's character, her intimate nature, had a great part in this all-important choice. From childhood the Polish girl had carried the curiosity and daring of an explorer within her. This was the instinct that had driven her to leave Warsaw for Paris and the Sorbonne, and had made her prefer a solitary room in the Latin Quarter to the Dluskis' downy nest. In her walks in the woods she always chose the wild trail or the unfrequented road.

At this moment she was like a traveler musing on a long voyage. Bent over the globe and pointing out, in some far country, a strange name that excites his imagination, the traveler suddenly decides to go there and nowhere else: so Marie, going through the reports of the latest experi-

mental studies, was attracted by the publication of the French scientist Henri Becquerel of the preceding year. She and Pierre already knew this work; she read it over again and studied it with her usual care.

After Roentgen's discovery of X rays, Henri Poincaré conceived the idea of determining whether rays like the X ray were emitted by "fluorescent" bodies under the action of light. Attracted by the same problem, Henri Becquerel examined the salts of a "rare metal," uranium. Instead of finding the phenomenon he had expected, he observed another, altogether different and incomprehensible: he found that uranium salts *spontaneously* emitted, without exposure to light, some rays of unknown nature. A compound of uranium, placed on a photographic plate surrounded by black paper, made an impression on the plate through the paper. And, like the X ray, these astonishing "uranic" salts discharged an electroscope by rendering the surrounding air a conductor.

Henri Becquerel made sure that these surprising properties were not caused by a preliminary exposure to the sun and that they persisted when the uranium compound had been maintained in darkness for several months. For the first time, a physicist had observed the phenomenon to which Marie Curie was later to give the name of *radioactivity*. But the nature of the radiation and its origin remained an enigma.

Becquerel's discovery fascinated the Curies. They asked themselves whence came the energy—tiny, to be sure—which uranium compounds constantly disengaged in the form of radiation. And what was the nature of this radiation? Here was an engrossing subject of research, a doctor's thesis! The subject tempted Marie most because it was a virgin field: Becquerel's work was very recent and so far as she knew nobody in the laboratories of Europe had yet attempted to make a fundamental study of uranium rays. As a point of departure, and as the only bibliography, there existed some communications presented by Henri Becquerel at the Academy of Science during the year 1896. It was a leap into great adventure, into an unknown realm.

There remained the question of where she was to make her experiments—and here the difficulties began. Pierre made several approaches to the director of the School of Physics with practically no results: Marie was given the free use of a little glassed-in studio on the ground floor of the school. It was a kind of storeroom, sweating with damp, where unused machines and lumber were put away. Its technical equipment was rudimentary and its comfort nil.

Deprived of an adequate electrical installation and of everything that forms material for the beginning of scientific research, she kept her

patience, sought and found a means of making her apparatus work in this hole.

It was not easy. Instruments of precision have sneaking enemies: humidity, changes of temperature. Incidentally the climate of this little workroom, fatal to the sensitive electrometer, was not much better for Marie's health. But this had no importance. When she was cold, the young woman took her revenge by noting the degrees of temperature in centigrade in her notebook. On February 6, 1898, we find, among the formulas and figures: "Temperature here 6°25." Six degrees . . . ![1] Marie, to show her disapproval, added ten little exclamation points.

The candidate for the doctor's degree set her first task to be the measurement of the "power of ionization" of uranium rays—that is to say, their power to render the air a conductor of electricity and so to discharge an electroscope. The excellent method she used, which was to be the key to the success of her experiments, had been invented for the study of other phenomena by two physicists well known to her: Pierre and Jacques Curie. Her technical installation consisted of an "ionization chamber," a Curie electrometer and a piezoelectric quartz.

At the end of several weeks the first result appeared: Marie acquired the certainty that the intensity of this surprising radiation was proportional to the quantity of uranium contained in the samples under examination, and that this radiation, which could be measured with precision, was not affected either by the chemical state of combination of the uranium or by external factors such as lighting or temperature.

These observations were perhaps not very sensational to the uninitiated, but they were of passionate interest to the scientist. It often happens in physics that an inexplicable phenomenon can be subjected, after some investigation, to laws already known, and by this very fact loses its interest for the research worker. Thus, in a badly constructed detective story, if we are told in the third chapter that the woman of sinister appearance who might have committed the crime is in reality only an honest little housewife who leads a life without secrets, we feel discouraged and cease to read.

Nothing of the kind happened here. The more Marie penetrated into intimacy with uranium rays, the more they seemed without precedent, essentially unknown. They were like nothing else. Nothing affected them. In spite of their very feeble power, they had an extraordinary individuality.

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1. About 44° Fahrenheit.

Turning this mystery over and over in her head, and pointing toward the truth, Marie felt and could soon affirm that the incomprehensible radiation was an *atomic* property. She questioned: Even though the phenomenon had only been observed with uranium, nothing proved that uranium was the only chemical element capable of emitting such radiation. Why should not other bodies possess the same power? Perhaps it was only by chance that this radiation had been observed in uranium first, and had remained attached to uranium in the minds of physicists. Now it must be sought for elsewhere. . . .

No sooner said than done. Abandoning the study of uranium, Marie undertook to examine *all known chemical bodies,* either in the pure state or in compounds. And the result was not long in appearing: compounds of another element, thorium, also emitted spontaneous rays like those of uranium and of similar intensity. The physicist had been right: the surprising phenomenon was by no means the property of uranium alone, and it became necessary to give it a distinct name. Mme Curie suggested the name of *radioactivity*. Chemical substances like uranium and thorium, endowed with this particular "radiance," were called *radio elements.*

Radioactivity so fascinated the young scientist that she never tired of examining the most diverse forms of matter, always by the same method. Curiosity, a marvelous feminine curiosity, the first virtue of a scientist, was developed in Marie to the highest degree. Instead of limiting her observation to simple compounds, salts and oxides, she had the desire to assemble samples of minerals from the collection at the School of Physics, and of making them undergo almost at hazard, for her own amusement, a kind of customs inspection which is an electrometer test. Pierre approved, and chose with her the veined fragments, hard or crumbly, oddly shaped, which she wanted to examine.

Marie's idea was simple—simple as the stroke of genius. At the crossroads where Marie now stood, hundreds of research workers might have remained, nonplussed, for months or even years. After examining all known chemical substances, and discovering—as Marie had done—the radiation of thorium, they would have continued to ask themselves in vain whence came this mysterious radioactivity. Marie, too, questioned and wondered. But her surprise was translated into fruitful acts. She had used up all evident possibilities. Now she turned toward the unplumbed and the unknown.

She knew in advance what she would learn from an examination of the minerals, or rather she thought she knew. The specimens which contained neither uranium nor thorium would be revealed as totally "in-

active." The others, containing uranium or thorium, would be radioactive.

Experiment confirmed this prevision. Rejecting the inactive minerals, Marie applied herself to the others and measured their radioactivity. Then came a dramatic revelation: the radioactivity was a *great deal stronger* than could have been normally foreseen by the quantity of uranium or thorium contained in the products examined!

"It must be an error in experiment," the young woman thought; for doubt is the scientist's first response to an unexpected phenomenon.

She started her measurements over again, unmoved, using the same products. She started over again ten times, twenty times. And she was forced to yield to the evidence: the quantities of uranium and of thorium found in these minerals were by no means sufficient to justify the exceptional intensity of the radiation she observed.

Where did this excessive and abnormal radiation come from? Only one explanation was possible: the minerals must contain, in small quantity, a *much more powerfully radioactive substance* than uranium and thorium.

But what substance? In her preceding experiments, Marie had already examined *all known chemical elements.*

The scientist replied to the question with the sure logic and the magnificent audaciousness of a great mind: The minerals certainly contained a radioactive substance, which was at the same time a chemical element unknown until this day: *a new element.*

A new element! It was a fascinating and alluring hypothesis–but still a hypothesis. For the moment this powerfully radioactive substance existed only in the imagination of Marie and of Pierre. But it did exist there. It existed strongly enough to make the young woman go to see Bronya one day and tell her in a restrained, ardent voice:

"You know, Bronya, the radiation that I couldn't explain comes from a new chemical element. The element is there and I've got to find it. We are sure! The physicists we have spoken to believe we have made an error in experiment and advise us to be careful. But I am convinced that I am not mistaken."

These were unique moments in her unique life. The layman forms a theatrical–and wholly false–idea of the research worker and of his discoveries. "The moment of discovery" does not always exist: the scientist's work is too tenuous, too divided, for the certainty of success to crackle out suddenly in the midst of his laborious toil like a stroke of lightning, dazzling him by its fire. Marie, standing in front of her apparatus, perhaps never experienced the sudden intoxication of triumph.

This intoxication was spread over several days of decisive labor, made feverish by a magnificent hope. But it must have been an exultant moment when, convinced by the rigorous reasoning of her brain that she was on the trail of new matter, she confided the secret to her elder sister, her ally always. . . . Without exchanging one affectionate word, the two sisters must have lived again, in a dizzying breath of memory, their years of waiting, their mutual sacrifices, their bleak lives as students, full of hope and faith.

It was barely four years before that Marie had written:

> Life is not easy for any of us. But what of that? We must have perseverance and above all confidence in ourselves. We must believe that we are gifted for something, and that this thing, at whatever cost, must be attained.

That "something" was to throw science upon a path hitherto unsuspected.

In a first communication to the Academy, presented by Prof. Lippmann and published in the *Proceedings* on April 12, 1898, Marie Sklodovska Curie announced the probable presence in pitchblende ores of a new element endowed with powerful radioactivity. This was the first stage of the discovery of radium.

By the force of her own intuition the physicist had shown to herself that the wonderful substance must exist. She decreed its existence. But its incognito still had to be broken. Now she would have to verify hypothesis by experiment, isolate this material and see it. She must be able to announce with certainty: "It is there."

Pierre Curie had followed the rapid progress of his wife's experiments with passionate interest. Without directly taking part in Marie's work, he had frequently helped her by his remarks and advice. In view of the stupefying character of her results, he did not hesitate to abandon his study of crystals for the time being in order to join his efforts to hers in the search for the new substance.

Thus, when the immensity of a pressing task suggested and exacted collaboration, a great physicist was at Marie's side–a physicist who was the companion of her life. Three years earlier, love had joined this exceptional man and woman together–love, and perhaps some mysterious foreknowledge, some sublime instinct for the work in common.

The available force was now doubled. Two brains, four hands, now sought the unknown element in the damp little workroom in the Rue

Lhomond. From this moment onward it is impossible to distinguish each one's part in the work of the Curies. We know that Marie, having chosen to study the radiation of uranium as the subject of her thesis, discovered that other substances were also radioactive. We know that after the examination of minerals she was able to announce the existence of a new chemical element, powerfully radioactive, and that it was the capital importance of this result which decided Pierre Curie to interrupt his very different research in order to try to isolate this element with his wife. At that time—May or June 1898—a collaboration began which was to last for eight years, until it was destroyed by a fatal accident.

We cannot and must not attempt to find out what should be credited to Marie and what to Pierre during these eight years. It would be exactly what the husband and wife did not want. The personal genius of Pierre Curie is known to us by the original work he had accomplished before this collaboration. His wife's genius appears to us in the first intuition of discovery, the brilliant start; and it was to reappear to us again, solitary, when Marie Curie the widow unflinchingly carried the weight of a new science and conducted it, through research, step by step, to its harmonious expansion. We therefore have formal proof that in the fusion of their two efforts, in this superior alliance of man and woman, the exchange was equal.

Let this certainty suffice for our curiosity and admiration. Let us not attempt to separate these creatures full of love, whose handwriting alternates and combines in the working notebooks covered with formulas, these creatures who were to sign nearly all their scientific publications together. They were to write "We found" and "We observed"; and when they were constrained by fact to distinguish between their parts, they were to employ this moving locution:

> Certain minerals containing uranium and thorium (pitchblende, chalcolite, uranite) are very active from the point of view of the emission of Becquerel rays. In a preceding communication, *one of us* showed that their activity was even greater than that of uranium and thorium, and stated the opinion that this effect was due to some other very active substance contained in small quantity in these minerals.
>
> (Pierre and Marie Curie: *Proceedings of the Academy of Science,* July 18, 1898.)

Marie and Pierre looked for this "very active" substance in an ore of uranium called pitchblende, which in the crude state had shown itself to be four times more radioactive than the pure oxide of uranium that could be extracted from it. But the composition of this ore had been known for

a long time with considerable precision. The new element must therefore be present in very small quantity or it would not have escaped the notice of scientists and their chemical analysis.

According to their calculations–"pessimistic" calculations, like those of true physicists, who always take the less attractive of two probabilities–the collaborators thought the ore should contain the new element to a maximum quantity of one per cent. They decided that this was very little. They would have been in consternation if they had known that the radioactive element they were hunting down did not count for more than a millionth part of pitchblende ore.

They began their prospecting patiently, using a method of chemical research invented by themselves, based on radioactivity: they separated all the elements in pitchblende by ordinary chemical analysis and then measured the radioactivity of each of the bodies thus obtained. By successive eliminations they saw the "abnormal" radioactivity take refuge in certain parts of the ore. As they went on, the field of investigation was narrowed. It was exactly the technique used by the police when they search the houses of a neighborhood, one by one, to isolate and arrest a malefactor.

But there was more than one malefactor here: the radioactivity was concentrated principally in two different chemical fractions of the pitchblende. For M. and Mme Curie it indicated the existence of two new elements instead of one. By July, 1898, they were able to announce the discovery of one of these substances with certainty.

"You will have to name it," Pierre said to his young wife, in the same tone as if it were a question of choosing a name for little Irène.

The one-time Mlle Sklodovska reflected in silence for a moment. Then, her heart turning toward her own country which had been erased from the map of the world, she wondered vaguely if the scientific event would be published in Russia, Germany and Austria–the oppressor countries–and answered timidly: "Could we call it 'polonium'?"

In the *Proceedings of the Academy* for July, 1898, we read:

> We believe the substance we have extracted from pitchblende contains a metal not yet observed, related to bismuth by its analytical properties. If the existence of this new metal is confirmed we propose to call it *polonium,* from the name of the original country of one of us.

The choice of this name proves that in becoming a Frenchwoman and a physicist Marie had not disowned her former enthusiasms. Another thing proves it for us: even before the note "On a New Radioactive

Substance Contained in Pitchblende" had appeared in the *Proceedings of the Academy,* Marie had sent the manuscript to her native country, to that Joseph Boguski who directed the little laboratory at the Museum of Industry and Agriculture where she had made her first experiments. The communication was published in Warsaw in a monthly photographic review called *Swiatlo* almost as soon as in Paris.

Life was unchanged in the little flat in the Rue de la Glacière. Marie and Pierre worked even more than usual; that was all. When the heat of summer came, the young wife found time to buy some baskets of fruit in the markets and, as usual, she cooked and put away preserves for the winter, according to the recipes used in the Curie family. Then she locked the shutters on her windows, which gave on burned leaves; she registered their two bicycles at the Orleans station, and, like thousands of other young women in Paris, went off on holiday with her husband and her child.

This year the couple had rented a peasant's house at Auroux, in Auvergne. Happy to breathe good air after the noxious atmosphere of the Rue Lhomond, the Curies made excursions to Mende, Puy, Clermont, Mont-Dore. They climbed hills, visited grottoes, bathed in rivers. Every day, alone in the country, they spoke of what they called their "new metals," polonium and "the other"—the one that remained to be found. In September they would go back to the damp workroom and the dull minerals; with freshened ardor they would take up their search again. . . .

One grief interfered with Marie's intoxication for work: the Dluskis were on the point of leaving Paris. They had decided to settle in Austrian Poland and to build a sanatorium for tubercular sufferers at Zakopane in the Carpathian Mountains. The day of separation arrived: Marie and Bronya exchanged brokenhearted farewells; Marie was losing her friend and protector, and for the first time she had the feeling of exile.

Marie to Bronya, December 2, 1898;

> You can't imagine what a hole you have made in my life. With you two, I have lost everything I clung to in Paris except my husband and child. It seems to me that Paris no longer exists, aside from our lodging and the school where we work.
>
> Ask Mme Dluska if the green plant you left behind should be watered, and how many times a day. Does it need a great deal of heat and sun?
>
> We are well, in spite of the bad weather, the rain and the mud. Irène

> is getting to be a big girl. She is very difficult about her food, and aside from milk tapioca she will eat hardly anything regularly, not even eggs. Write me what would be a suitable menu for persons of her age. . . .

In spite of their prosaic character—or perhaps because of it—some notes written by Mme Curie in that memorable year 1898 seem to us worth quoting. Some are to be found in the margins of a book called *Family Cooking,* with respect to a recipe for gooseberry jelly:

> I took eight pounds of fruit and the same weight in crystallized sugar. After an ebullition of ten minutes, I passed the mixture through a rather fine sieve. I obtained fourteen pots of very good jelly, not transparent, which "took" perfectly.

In a school notebook covered with gray linen, in which the young mother had written little Irène's weight day by day, her diet and the appearance of her first teeth, we read under the date of July 20, 1898, some days after the publication of the discovery of polonium:

> Irène says "thanks" with her hand. She can walk very well now on all fours. She says "Gogli, gogli, go." She stays in the garden all day at Sceaux on a carpet. She can roll, pick herself up, and sit down.

On August 15, at Auroux:

> Irène has cut her seventh tooth, on the lower left. She can stand for half a minute alone. For the past three days we have bathed her in the river. She cries, but today (fourth bath) she stopped crying and played with her hands in the water.
>
> She plays with the cat and chases him with war cries. She is not afraid of strangers any more. She sings a great deal. She gets up on the table when she is in her chair.

Three months later, on October 17, Marie noted with pride:

> Irène can walk very well, and no longer goes on all fours.

On January 5, 1899:

> Irène has fifteen teeth!

Between these two notes—that of October 17, 1898, in which Irène no longer goes on all fours, and that of January 5 in which Irène has fifteen teeth—and a few months after the note on the gooseberry preserve, we find another note worthy of remark.

It was drawn up by Marie and Pierre Curie and a collaborator called G. Bémont. Intended for the Academy of Science, and published in the

Proceedings of the session of December 26, 1898, it announced the existence of a second new chemical element in pitchblende.

Some lines of this communication read as follows:

> *The various reasons we have just enumerated lead us to believe that the new radioactive substance contains a new element to which we propose to give the name of RADIUM.*
>
> *The new radioactive substance certainly contains a very strong proportion of barium; in spite of that its radioactivity is considerable. The radioactivity of radium therefore must be enormous.*

The foregoing consists of Chapter XII of Eve Curie's MADAME CURIE.

Charles Robert Darwin

1809–1882

Charles Darwin was born, as he tells us in this autobiography, on February 12, 1809, at Shrewsbury, England. On the same day, in a log cabin in the backwoods of the pioneer state of Kentucky, was born Abraham Lincoln. Darwin was the grandson of the poet-naturalist Erasmus Darwin; his mother was the daughter of the great pottery maker Josiah Wedgwood; his cousin was Francis Galton. The family was distinguished in many walks of life, but especially in science; four of Darwin's sons became prominent scientists, and three of them were knighted. He was not knighted himself. Evolution was too scandalous a doctrine for its leading spokesman to be so honored. Of course, he was the recipient of greater and more lasting honor than any English monarch could confer.

Do we not believe him when he says that it was "truly surprising" to him that he "should have influenced to a considerable extent the belief of scientific men on some important points"? That is, we believe in the sincerity of his surprise; no one can doubt the importance of the revolution in thought he brought about. "My name ought to last for a few years," he says. Again the simplicity of the remark seems the best proof of its sincerity. The "few years" have stretched to nearly a century, and it appears probable that the name of Darwin will be known as long as science endures.

Most of the facts of his life are told us by himself. His diffidence may mask the truth that, despite the prior work of Wallace, the *Origin of Species* was as remarkable for its originality as for its eloquence. He charitably omits more than passing references to the attacks that he, as its author, had to suffer for the remainder of his life. And we might not know from Darwin's account of them that

his other publications would have been sufficient in themselves to make him the leading naturalist of his time.

Darwin died on April 19, 1882, and was buried in Westminster Abbey. His death occurred less than a year after the last paragraphs of his autobiography were written.

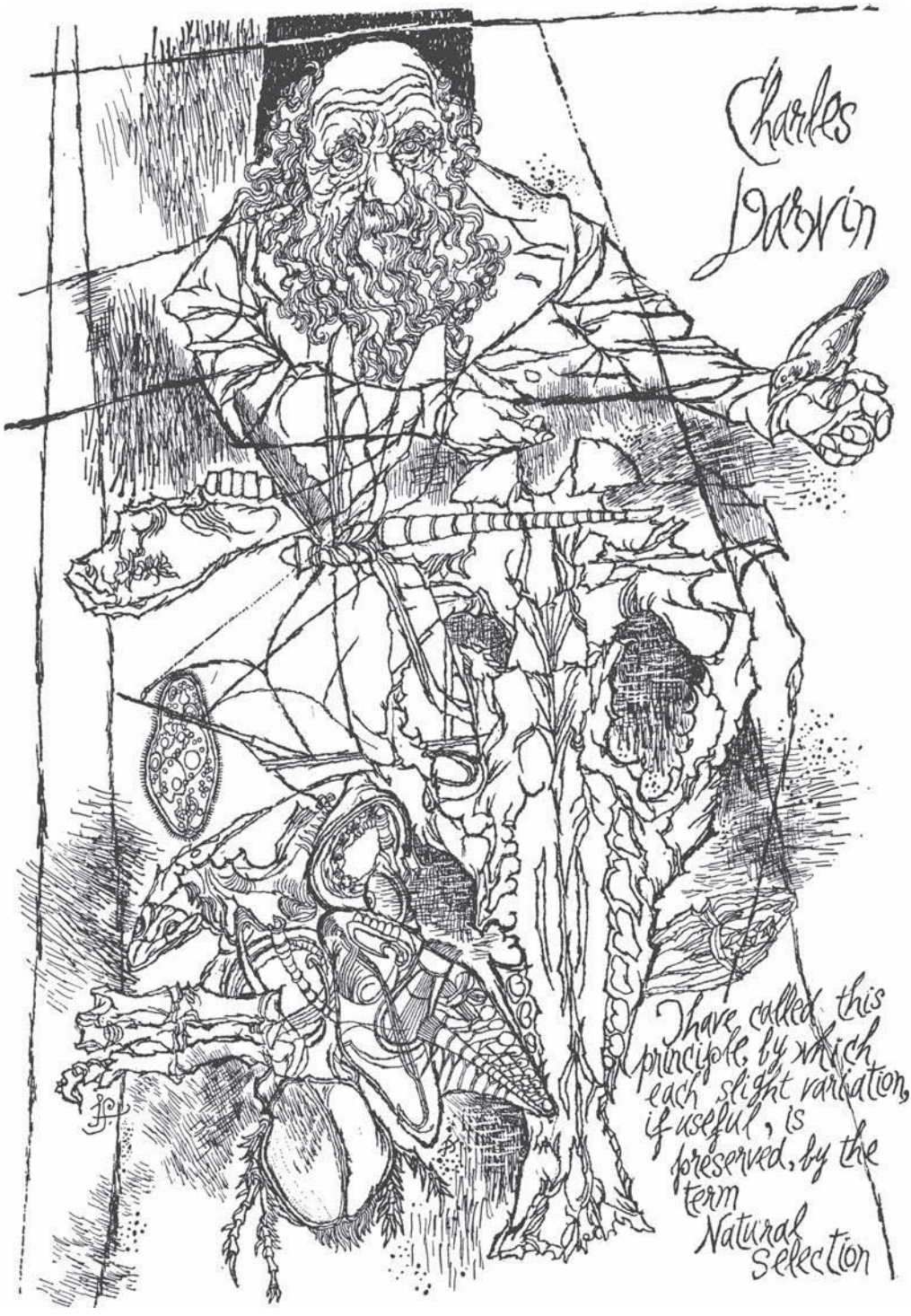
Darwin's *Autobiography* is not a formal work. He wrote it, he says, for amusement, and because it "might possibly interest" his descendants. He took "no pains about (the) style of writing." Yet the little book is fascinating. We cannot put it down. Why is this?

Perhaps it is because the very simplicity and ingenuousness of the account lend credence to it. It has been said that the hardest person to tell the truth about is oneself. Darwin remarks that "no man can . . . correctly" describe the state of his own mind. Yet there are some things that a man knows about himself that no one else knows. These things are here.

Three items, among many, are of particular interest. They are minutiae, perhaps, in the life of this great man, but significant ones. First, there is the fact that, in his old age, he had "wholly lost, to (his) great regret, all pleasure from poetry of any kind." His mind, he felt, had "become a kind of machine for grinding general laws out of large collections of facts."

Darwin himself was concerned and puzzled by this. "Why this should have caused the atrophy of that part of the brain alone, on which the higher tastes depend," he writes, "I cannot conceive." He suggests that the loss might be due to weakness of intellect. Leaving aside this explanation, which seems unapt in his case, it is indeed something to ponder. In other words, are science and art really so deeply opposed? Do they depend for their existence and appreciation on two quite different kinds of minds?

Notes from the artist: "Surrounding the seated figure of Darwin are some of the objects he studied while preparing his theory of evolution: primitive vertebrate, amphibian, finches, skull of Toxodon, *jaw of* Mylodon, *foot of* Macrauchenia, *beetle, mollusk, flatworms. Also included is the 'Beagle,' the ship on which he voyaged for nearly five years while making his investigations. The quotation is from the* Origin of Species*."*


Charles Darwin
I have called this principle, by which each slight variation, if useful, is preserved, by the term Natural Selection

Second, what he tells us about his methods of work is instructive. When writing a book, he made outline after outline, each longer and more detailed than those that preceded it. This is a good way to compose any expository work. Almost anyone can get guidance from the paragraphs in which he describes his habits of writing.

Finally, there is his reply to the critics who claimed that he had no "power of reasoning." "I do not think that this can be true," he says, "for the *Origin of Species* is one long argument from the beginning to the end . . . No one could have written it without having some power of reasoning." The wonderful charm of the man shines through that last sentence. The reader who does not smile at it would not smile at anything.

Autobiography

A German editor having written to me for an account of the development of my mind and character with some sketch of my autobiography, I have thought that the attempt would amuse me, and might possibly interest my children or their children. I know that it would have interested me greatly to have read even so short and dull a sketch of the mind of my grandfather, written by himself, and what he thought and did, and how he worked. I have attempted to write the following account of myself, as if I were a dead man in another world looking back at my own life. Nor have I found this difficult, for life is nearly over with me. I have taken no pains about my style of writing.

I was born at Shrewsbury on February 12, 1809, and my earliest recollection goes back only to when I was a few months over four years old, when we went to near Abergele for sea-bathing, and I recollect some events and places there with some little distinctness.

My mother died in July, 1817, when I was a little over eight years old, and it is odd that I can remember hardly anything about her except her death-bed, her black velvet gown, and her curiously constructed worktable. In the spring of this same year I was sent to a day-school in Shrewsbury, where I stayed a year. I have been told that I was much slower in learning than my younger sister Catherine, and I believe that I was in many ways a naughty boy.

By the time I went to this day-school [1] my taste for natural history, and more especially for collecting, was well developed. I tried to make out

1. Kept by Rev. G. Case, minister of the Unitarian Chapel in the High Street. Mrs. Darwin was a Unitarian and attended Mr. Case's chapel, and my father as a little boy went there with his elder sisters. But both he and his brother were christened and intended to belong to the Church of England; and after his early boyhood he seems usually to have gone to church and not to Mr. Case's. It appears (*St. James' Gazette,* Dec. 15, 1883) that a mural tablet has been erected to his memory in the chapel, which is now known as the "Free Christian Church."–Sir Francis Darwin.

the names of plants,[2] and collected all sorts of things, shells, seals, franks, coins, and minerals. The passion for collecting, which leads a man to be a systematic naturalist, a virtuoso, or a miser, was very strong in me, and was clearly innate, as none of my sisters or brother ever had this taste.

One little event during this year has fixed itself very firmly in my mind, and I hope that it has done so from my conscience having been afterwards sorely troubled by it; it is curious as showing that apparently I was interested at this early age in the variability of plants! I told another little boy (I believe it was Leighton, who afterwards became a well-known lichenologist and botanist) that I could produce variously coloured polyanthuses and primroses by watering them with certain coloured fluids, which was of course a monstrous fable, and had never been tried by me. I may here also confess that as a little boy I was much given to inventing deliberate falsehoods, and this was always done for the sake of causing excitement. For instance, I once gathered much valuable fruit from my father's trees and hid it in the shrubbery, and then ran in breathless haste to spread the news that I had discovered a hoard of stolen fruit.

I must have been a very simple little fellow when I first went to the school. A boy of the name of Garnett took me into a cake-shop one day, and bought some cakes for which he did not pay, as the shopman trusted him. When we came out I asked him why he did not pay for them, and he instantly answered, "Why, do you not know that my uncle left a great sum of money to the town on condition that every tradesman should give whatever was wanted without payment to any one who wore his old hat and moved [it] in a particular manner?" and he then showed me how it was moved. He then went into another shop where he was trusted, and asked for some small article, moving his hat in the proper manner, and of course obtained it without payment. When we came out he said, "Now if you like to go by yourself into that cake-shop (how well I remember its exact position) I will lend you my hat, and you can get whatever you like if you move the hat on your head properly." I gladly accepted the generous offer, and went in and asked for some cakes, moved the old hat and was walking out of the shop, when the shopman made a rush at me, so I dropped the cakes and ran for dear life, and was astonished by being greeted with shouts of laughter by my false friend Garnett.

2. Rev. W. A. Leighton, who was a schoolfellow of my father's at Mr. Case's school, remembers his bringing a flower to school and saying that his mother had taught him by looking at the inside of the blossom the name of the plant could be discovered. Mr. Leighton goes on, "This greatly roused my attention and curiosity, and I inquired of him repeatedly how this could be done"—but his lesson was naturally enough not transmissible.—F. D.

I can say in my own favour that I was as a boy humane, but I owed this entirely to the instruction and example of my sisters. I doubt indeed whether humanity is a natural or innate quality. I was very fond of collecting eggs, but I never took more than a single egg out of a bird's nest, except on one single occasion, when I took all, not for their value, but from a sort of bravado.

I had a strong taste for angling, and would sit for any number of hours on the bank of a river or pond watching the float; when at Maer [3] I was told that I could kill the worms with salt and water, and from that day I never spitted a living worm, though at the expense probably of some loss of success.

Once as a very little boy while at the day-school, or before that time, I acted cruelly, for I beat a puppy, I believe, simply from enjoying the sense of power; but the beating could not have been severe, for the puppy did not howl, of which I feel sure, as the spot was near the house. This act lay heavily on my conscience, as is shown by my remembering the exact spot where the crime was committed. It probably lay all the heavier from my love of dogs being then, and for a long time afterwards, a passion. Dogs seemed to know this, for I was an adept in robbing their love from their masters.

I remember clearly only one other incident during this year while at Mr. Case's daily school, namely, the burial of a dragoon soldier; and it is surprising how clearly I can still see the horse with the man's empty boots and carbine suspended to the saddle, and the firing over the grave. This scene deeply stirred whatever poetic fancy there was in me.

In the summer of 1818 I went to Dr. Butler's great school in Shrewsbury, and remained there for seven years till midsummer 1825, when I was sixteen years old. I boarded at this school, so that I had the great advantage of living the life of a true schoolboy; but as the distance was hardly more than a mile to my home, I very often ran there in the longer intervals between the callings over and before locking up at night. This, I think, was in many ways advantageous to me by keeping up home affections and interests. I remember in the early part of my school-life that I often had to run very quickly to be in time, and from being a fleet runner was generally successful; but when in doubt I prayed earnestly to God to help me, and I well remember that I attributed my success to the prayers and not to my quick running, and marvelled how generally I was aided.

I have heard my father and elder sister say that I had, as a very young

3. The house of his uncle, Josiah Wedgwood.

boy, a strong taste for long solitary walks; but what I thought about I know not. I often became quite absorbed, and once, while returning to school on the summit of the old fortifications round Shrewsbury, which had been converted into a public foot-path with no parapet on one side, I walked off and fell to the ground, but the height was only seven or eight feet. Nevertheless the number of thoughts which passed through my mind during this very short, but sudden and wholly unexpected, fall was astonishing, and seems hardly compatible with what physiologists have, I believe, proved about each thought requiring quite an appreciable amount of time.

Nothing could have been worse for the development of my mind than Dr. Butler's school, as it was strictly classical, nothing else being taught, except a little ancient geography and history. The school as a means of education to me was simply a blank. During my whole life I have been singularly incapable of mastering any language. Especial attention was paid to verse-making, and this I could never do well. I had many friends, and got together a good collection of old verses, which by patching together, sometimes aided by other boys, I could work into any subject. Much attention was paid to learning by heart the lessons of the previous day; this I could effect with great facility, learning forty or fifty lines of Virgil or Homer, while I was in morning chapel; but this exercise was utterly useless, for every verse was forgotten in forty-eight hours. I was not idle, and, with the exception of versification, generally worked conscientiously at my classics, not using cribs. The sole pleasure I ever received from such studies was from some of the odes of Horace, which I admired greatly.

When I left the school I was for my age neither high nor low in it; and I believe that I was considered by all my masters and by my father as a very ordinary boy, rather below the common standard in intellect. To my deep mortification my father once said to me, "You care for nothing but shooting, dogs, and rat-catching, and you will be a disgrace to yourself and all your family." But my father, who was the kindest man I ever knew and whose memory I love with all my heart, must have been angry and somewhat unjust when he used such words.

Looking back as well as I can at my character during my school-life, the only qualities which at this period promised well for the future were, that I had strong and diversified tastes, much zeal for whatever interested me, and a keen pleasure in understanding any complex subject or thing. I was taught Euclid by a private tutor, and I distinctly remember the intense satisfaction which the clear geometrical proofs gave me. I re-

member, with equal distinctness, the delight which my uncle gave me (the father of Francis Galton) by explaining the principle of the vernier of a barometer. With respect to diversified tastes, independently of science, I was fond of reading various books, and I used to sit for hours reading the historical plays of Shakespeare, generally in an old window in the thick walls of the school. I read also other poetry, such as Thomson's *Seasons,* and the recently published poems by Byron and Scott. I mention this because later in life I wholly lost, to my great regret, all pleasure from poetry of any kind, including Shakespeare. In connection with pleasure from poetry, I may add that in 1822 a vivid delight in scenery was first awakened in my mind, during a riding tour on the borders of Wales, and this has lasted longer than any other aesthetic pleasure.

Early in my school-days a boy had a copy of the *Wonders of the World,* which I often read, and disputed with other boys about the veracity of some of the statements; and I believe that this book first gave me a wish to travel in remote countries, which was ultimately fulfilled by the voyage of the *Beagle*. In the latter part of my school-life I became passionately fond of shooting; I do not believe that any one could have shown more zeal for the most holy cause than I did for shooting birds. How well I remember killing my first snipe, and my excitement was so great that I had much difficulty in reloading my gun from the trembling of my hands. This taste long continued, and I became a very good shot. When at Cambridge I used to practise throwing up my gun to my shoulder before a looking-glass to see that I threw it up straight. Another and better plan was to get a friend to wave about a lighted candle, and then to fire at it with a cap on the nipple, and if the aim was accurate the little puff of air would blow out the candle. The explosion of the cap caused a sharp crack, and I was told that the tutor of the college remarked, "What an extraordinary thing it is, Mr. Darwin seems to spend hours in cracking a horsewhip in his room, for I often hear the crack when I pass under his windows."

I had many friends among the schoolboys, whom I loved dearly, and I think that my disposition was then very affectionate.

With respect to science, I continued collecting minerals with much zeal, but quite unscientifically—all that I cared about was a new-*named* mineral, and I hardly attempted to classify them. I must have observed insects with some little care, for when ten years old (1819) I went for three weeks to Plas Edwards on the sea-coast in Wales, I was very much interested and surprised at seeing a large black and scarlet Hemipterous

insect, many moths (Zygaena), and a Cicindela, which are not found in Shropshire. I almost made up my mind to begin collecting all the insects which I could find dead, for on consulting my sister I concluded that it was not right to kill insects for the sake of making a collection. From reading White's *Selborne,* I took much pleasure in watching the habits of birds, and even made notes on the subject. In my simplicity I remember wondering why every gentleman did not become an ornithologist.

Towards the close of my school-life, my brother worked hard at chemistry, and made a fair laboratory with proper apparatus in the tool-house in the garden, and I was allowed to aid him as a servant in most of his experiments. He made all the gases and many compounds, and I read with great care several books on chemistry, such as Henry and Parkes's *Chemical Catechism.* The subject interested me greatly, and we often used to go on working till rather late at night. This was the best part of my education at school, for it showed me practically the meaning of experimental science. The fact that we worked at chemistry somehow got known at school, and as it was an unprecedented fact, I was nicknamed "Gas." I was also once publicly rebuked by the head master, Dr. Butler, for thus wasting my time on such useless subjects; and he called me very unjustly a *poco curante* [little concerned], and as I did not understand what he meant, it seemed to me a fearful reproach.

As I was doing no good at school, my father wisely took me away at a rather earlier age than usual, and sent me (October, 1825) to Edinburgh University with my brother, where I stayed for two years or sessions. My brother was completing his medical studies, though I do not believe he ever really intended to practise, and I was sent there to commence them. But soon after this period I became convinced from various small circumstances that my father would leave me property enough to subsist on with some comfort, though I never imagined that I should be so rich a man as I am; but my belief was sufficient to check any strenuous efforts to learn medicine.

The instruction at Edinburgh was altogether by lectures, and these were intolerably dull, with the exception of those on chemistry by Hope; but to my mind there are no advantages and many disadvantages in lectures compared with reading. Dr. Duncan's lectures on *materia medica* at 8 o'clock on a winter's morning are something fearful to remember. Dr. Munro made his lectures on human anatomy as dull as he was himself, and the subject disgusted me. It has proved one of the greatest evils in my life that I was not urged to practise dissection, for I should soon have got over my disgust; and the practice would have been invaluable

for all my future work. This has been an irremediable evil, as well as my incapacity to draw. I also attended regularly the clinical wards in the hospital. Some of the cases distressed me a good deal, and I still have vivid pictures before me of some of them; but I was not so foolish as to allow this to lessen my attendance. I cannot understand why this part of my medical course did not interest me in a greater degree; for during the summer before coming to Edinburgh I began attending some of the poor people, chiefly children and women in Shrewsbury: I wrote down as full an account as I could of the case with all the symptoms, and read them aloud to my father, who suggested further inquiries and advised me what medicines to give, which I made up myself. At one time I had at least a dozen patients, and I felt a keen interest in the work. My father, who was by far the best judge of character whom I ever knew, declared that I should make a successful physician, meaning by this one who would get many patients. He maintained that the chief element of success was exciting confidence; but what he saw in me which convinced him that I should create confidence I know not. I also attended on two occasions the operating theatre in the hospital at Edinburgh, and saw two very bad operations, one on a child, but I rushed away before they were completed. Nor did I ever attend again, for hardly any inducement would have been strong enough to make me do so, this being long before the blessed days of chloroform. The two cases fairly haunted me for many a long year.

My brother stayed only one year at the University, so that during the second year I was left to my own resources; and this was an advantage, for I became well acquainted with several young men fond of natural science. One of these was Ainsworth, who afterwards published his travels in Assyria; he was a Wernerian geologist, and knew a little about many subjects. Dr. Coldstream was a very different young man, prim, formal, highly religious, and most kindhearted; he afterwards published some good zoological articles. A third young man was Hardie, who would, I think, have made a good botanist, but died early in India. Lastly, Dr. Grant, my senior by several years, but how I became acquainted with him I cannot remember; he published some first-rate zoological papers, but after coming to London as professor in University College, he did nothing more in science, a fact which has always been inexplicable to me. I knew him well; he was dry and formal in manner, with much enthusiasm beneath this outer crust. He one day, when we were walking together, burst forth in high admiration of Lamarck and his views on evolution. I listened in silent astonishment, and as far as I can judge without

any effect on my mind. I had previously read the *Zoonomia* of my grandfather, in which similar views are maintained, but without producing any effect on me. Nevertheless it is probable that the hearing rather early in life such views maintained and praised may have favoured my upholding them under a different form in my *Origin of Species*. At this time I admired greatly the *Zoonomia*; but on reading it a second time after an interval of ten or fifteen years, I was much disappointed, the proportion of speculation being so large to the facts given.

Drs. Grant and Coldstream attended much to marine zoology, and I often accompanied the former to collect animals in the tidal pools, which I dissected as well as I could. I also became friends with some of the Newhaven fishermen, and sometimes accompanied them when they trawled for oysters, and thus got many specimens. But from not having had any regular practice in dissection, and from possessing only a wretched microscope, my attempts were very poor. Nevertheless I made one interesting little discovery, and read, about the beginning of the year 1826, a short paper on the subject before the Plinian Society. This was that the so-called ova of Flustra had the power of independent movement by means of cilia, and were in fact larvae. In another short paper I showed that the little globular bodies which had been supposed to be the young state of *Fucus loreus* were the egg-cases of the wormlike *Pontobdella muricata*.

The Plinian Society was encouraged and, I believe, founded by Professor Jameson: it consisted of students and met in an underground room in the University for the sake of reading papers on natural science and discussing them. I used regularly to attend, and the meeting had a good effect on me in stimulating my zeal and giving me new congenial acquaintances. One evening a poor young man got up, and after stammering for a prodigious length of time, blushing crimson, he at last slowly got out the words, "Mr. President, I have forgotten what I was going to say." The poor fellow looked quite overwhelmed, and all the members were so surprised that no one could think of a word to say to cover his confusion. The papers which were read to our little society were not printed, so that I had not the satisfaction of seeing my paper in print; but I believe Dr. Grant noticed my small discovery in his excellent memoir on Flustra.

I was also a member of the Royal Medical Society, and attended pretty regularly; but as the subjects were exclusively medical, I did not much care about them. Much rubbish was talked there, but there were some

good speakers, of whom the best was the present Sir J. Kay-Shuttleworth. Dr. Grant took me occasionally to the meetings of the Wernerian Society, where various papers on natural history were read, discussed, and afterwards published in the *Transactions*. I heard Audubon deliver there some interesting discourses on the habits of North American birds, sneering somewhat unjustly at Waterton. By the way, a Negro lived in Edinburgh who had travelled with Waterton, and gained his livelihood by stuffing birds, which he did excellently; he gave me lessons for payment, and I used often to sit with him, for he was a very pleasant and intelligent man.

Mr. Leonard Horner also took me once to a meeting of the Royal Society of Edinburgh, where I saw Sir Walter Scott in the chair as president, and he apologized to the meeting as not feeling fitted for such a position. I looked at him and at the whole scene with some awe and reverence, and I think it was owing to this visit during my youth, and to my having attended the Royal Medical Society, that I felt the honour of being elected a few years ago an honorary member of both these societies more than any other similar honour. If I had been told at that time that I should one day have been thus honoured, I declare that I should have thought it as ridiculous and improbable as if I had been told that I should be elected king of England.

During my second year at Edinburgh I attended Jameson's lectures on geology and zoology, but they were incredibly dull. The sole effect they produced on me was the determination never as long as I lived to read a book on geology, or in any way to study the science. Yet I feel sure that I was prepared for a philosophical treatment of the subject; for an old Mr. Cotton in Shropshire, who knew a good deal about rocks, had pointed out to me two or three years previously a well-known large erratic boulder in the town of Shrewsbury, called the "bell-stone"; he told me that there was no rock of the same kind nearer than Cumberland or Scotland, and he solemnly assured me that the world would come to an end before any one would be able to explain how this stone came where it now lay. This produced a deep impression on me, and I meditated over this wonderful stone. So I felt the keenest delight when I first read of the action of icebergs in transporting boulders, and I gloried in the progress of geology. Equally striking is the fact that I, though now only sixty-seven years old, heard the professor, in a field lecture at Salisbury Craigs, discoursing on a trap-dike, with amygdaloidal margins and the strata indurated on each side, with volcanic rocks all around us, say that it was a fissure filled with sediment from above, adding with a sneer that

there were men who maintained that it had been injected from beneath in a molten condition. When I think of this lecture, I do not wonder that I determined never to attend to geology.

From attending Jameson's lectures, I became acquainted with the curator of the museum, Mr. Macgillivray, who afterwards published a large and excellent book on the birds of Scotland. I had much interesting natural-history talk with him, and he was very kind to me. He gave me some rare shells, for I at that time collected marine mollusca, but with no great zeal.

My summer vacations during these two years were wholly given up to amusements, though I always had some book in hand, which I read with interest. During the summer of 1826 I took a long walking tour with two friends with knapsacks on our backs through North Wales. We walked thirty miles most days, including one day the ascent of Snowdon. I also went with my sister on a riding tour in North Wales, a servant with saddle-bags carrying our clothes. The autumns were devoted to shooting chiefly at Mr. Owens', at Woodhouse, and at my Uncle Jos's,[4] at Maer. My zeal was so great that I used to place my shooting-boots open by my bedside when I went to bed, so as not to lose half a minute in putting them on in the morning; and on one occasion I reached a distant part of the Maer estate, on the 20th of August for black-game shooting, before I could see: I then toiled on with the gamekeeper the whole day through thick heath and young Scotch firs.

I kept an exact record of every bird which I shot throughout the whole season. One day when shooting at Woodhouse with Captain Owen, the eldest son, and Major Hill, his cousin, afterwards Lord Berwick, both of whom I liked very much, I thought myself shamefully used, for every time after I had fired and thought that I had killed a bird, one of the two acted as if loading his gun, and cried out, "You must not count that bird, for I fired at the same time," and the gamekeeper, perceiving the joke, backed them up. After some hours they told me the joke, but it was no joke to me, for I had shot a large number of birds, but did not know how many, and could not add them to my list, which I used to do by making a knot in a piece of string tied to a button-hole. This my wicked friends had perceived.

How I did enjoy shooting! but I think that I must have been half-consciously ashamed of my zeal, for I tried to persuade myself that shooting was almost an intellectual employment: it required so much skill to judge where to find most game and to hunt the dogs well.

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4. Josiah Wedgwood, the son of the founder of the Etruria Works.

One of my autumnal visits to Maer in 1827 was memorable from meeting there Sir J. Mackintosh, who was the best converser I ever listened to. I heard afterwards with a glow of pride that he had said, "There is something in that young man that interests me." This must have been chiefly due to his perceiving that I listened with much interest to everything which he said, for I was as ignorant as a pig about his subjects of history, politics, and moral philosophy. To hear of praise from an eminent person, though no doubt apt or certain to excite vanity, is, I think, good for a young man, as it helps to keep him in the right course.

My visits to Maer during these two or three succeeding years were quite delightful, independently of the autumnal shooting. Life there was perfectly free; the country was very pleasant for walking or riding; and in the evening there was much very agreeable conversation, not so personal as it generally is in large family parties, together with music. In the summer the whole family used often to sit on the steps of the old portico, with the flower-garden in front, and with the steep wooded bank opposite the house reflected in the lake, with here and there a fish rising or a water-bird paddling about. Nothing has left a more vivid picture on my mind than these evenings at Maer. I was also attached to and greatly revered my Uncle Jos; he was silent and reserved, so as to be a rather awful man; but he sometimes talked openly with me. He was the very type of an upright man, with the clearest judgment. I do not believe that any power on earth could have made him swerve an inch from what he considered the right course. I used to apply to him in my mind the well-known ode of Horace, now forgotten by me, in which the words *nec vultus tyranni* [nor the frown of the tyrant], etc.,[5] come in.

Cambridge 1828–1831. After having spent two sessions in Edinburgh, my father perceived, or he heard from my sisters, that I did not like the thought of being a physician, so he proposed that I should become a clergyman. He was very properly vehement against my turning into an idle sporting man, which then seemed my probable destination. I asked for some time to consider, as from what little I had heard or thought on the subject I had scruples about declaring my belief in all the dogmas of

5. Justum et tenacem propositi virum
Non civium ardor prava jubentium
Non vultus instantis tyranni
Mente quatit solida.

[A just man and steadfast in his purpose is not shaken in his strong resolve by the wicked ardour of the mob's command or the menacing tyrant's frown.–Horace, *Odes.*]

the Church of England; though otherwise I liked the thought of being a country clergyman. Accordingly I read with care Pearson on the *Creed,* and a few other books on divinity; and as I did not then in the least doubt the strict and literal truth of every word in the Bible, I soon persuaded myself that our Creed must be fully accepted.

Considering how fiercely I have been attacked by the orthodox, it seems ludicrous that I once intended to be a clergyman. Nor was this intention and my father's wish ever formally given up, but died a natural death when, on leaving Cambridge, I joined the *Beagle* as naturalist. If the phrenologists are to be trusted, I was well fitted in one respect to be a clergyman. A few years ago the secretaries of a German psychological society asked me earnestly by letter for a photograph of myself; and some time afterwards I received the proceedings of one of the meetings, in which it seemed that the shape of my head had been the subject of a public discussion, and one of the speakers declared that I had the bump of reverence developed enough for ten priests.

As it was decided that I should be a clergyman, it was necessary that I should go to one of the English universities and take a degree; but as I had never opened a classical book since leaving school, I found to my dismay that in the two intervening years I had actually forgotten, incredible as it may appear, almost everything which I had learned, even to some few of the Greek letters. I did not therefore proceed to Cambridge at the usual time in October, but worked with a private tutor in Shrewsbury, and went to Cambridge after the Christmas vacation, early in 1828. I soon recovered my school standard of knowledge, and could translate easy Greek books, such as Homer and the Greek Testament, with moderate facility.

During the three years which I spent at Cambridge my time was wasted, as far as the academical studies were concerned, as completely as at Edinburgh and at school. I attempted mathematics, and even went during the summer of 1828 with a private tutor (a very dull man) to Barmouth, but I got on very slowly. The work was repugnant to me, chiefly from my not being able to see any meaning in the early steps in algebra. This impatience was very foolish, and in after years I have deeply regretted that I did not proceed far enough at least to understand something of the great leading principles of mathematics, for men thus endowed seem to have an extra sense. But I do not believe that I should ever have succeeded beyond a very low grade. With respect to classics I did nothing except attend a few compulsory college lectures, and the attendance was almost nominal. In my second year I had to work for a

month or two to pass the little-go,[6] which I did easily. Again, in my last year I worked with some earnestness for my final degree of B.A., and brushed up my classics, together with a little algebra and Euclid, which latter gave me much pleasure, as it did at school. In order to pass the B.A. examination, it was also necessary to get up Paley's *Evidences of Christianity,* and his *Moral Philosophy*. This was done in a thorough manner, and I am convinced that I could have written out the whole of the *Evidences* with perfect correctness, but not of course in the clear language of Paley. The logic of this book and, as I may add, of his *Natural Theology* gave me as much delight as did Euclid. The careful study of these works, without attempting to learn any part by rote, was the only part of the academical course which, as I then felt and as I still believe, was of the least use to me in the education of my mind. I did not at that time trouble myself about Paley's premises; and taking these on trust, I was charmed and convinced by the long line of argumentation. By answering well the examination questions in Paley, by doing Euclid well, and by not failing miserably in classics, I gained a good place among the hoi polloi or crowd of men who do not go in for honours. Oddly enough, I cannot remember how high I stood, and my memory fluctuates between the fifth, tenth, or twelfth name on the list.[7]

Public lectures on several branches were given in the University, attendance being quite voluntary; but I was so sickened with lectures at Edinburgh that I did not even attend Sedgwick's eloquent and interesting lectures. Had I done so I should probably have become a geologist earlier than I did. I attended, however, Henslow's lectures on botany, and liked them much for their extreme clearness, and the admirable illustrations; but I did not study botany. Henslow used to take his pupils, including several of the older members of the University, on field excursions, on foot or in coaches, to distant places, or in a barge down the river, and lectured on the rarer plants and animals which were observed. These excursions were delightful.

Although, as we shall presently see, there were some redeeming features in my life at Cambridge, my time was sadly wasted there, and worse than wasted. From my passion for shooting and for hunting, and, when this failed, for riding across country, I got into a sporting set, including some dissipated low-minded young men. We used often to dine together in the evening, though these dinners often included men of a higher

6. The popular name, then in use, for the first examination for the B.A. degree.
7. Tenth in the list of January, 1831.

stamp, and we sometimes drank too much, with jolly singing and playing at cards afterwards. I know that I ought to feel ashamed of days and evenings thus spent, but as some of my friends were very pleasant, and we were all in the highest spirits, I cannot help looking back to these times with much pleasure.

But I am glad to think that I had many other friends of a widely different nature. I was very intimate with Whitley,[8] who was afterwards senior wrangler, and we used continually to take long walks together. He inoculated me with a taste for pictures and good engravings, of which I bought some. I frequently went to the Fitzwilliam Gallery, and my taste must have been fairly good, for I certainly admired the best pictures, which I discussed with the old curator. I read also with much interest Sir Joshua Reynolds' book. This taste, though not natural to me, lasted for several years, and many of the pictures in the National Gallery in London gave me much pleasure, that of Sebastiano del Piombo exciting in me a sense of sublimity.

I also got into a musical set, I believe by means of my warm-hearted friend Herbert,[9] who took a high wrangler's degree. From associating with these men, and hearing them play, I acquired a strong taste for music, and used very often to time my walks so as to hear on weekdays the anthem in King's College Chapel. This gave me intense pleasure, so that my backbone would sometimes shiver. I am sure that there was no affectation or mere imitation in this taste, for I used generally to go by myself to King's College, and I sometimes hired the chorister boys to sing in my rooms. Nevertheless I am so utterly destitute of an ear that I cannot perceive a discord, or keep time and hum a tune correctly; and it is a mystery how I could possibly have derived pleasure from music.

My musical friends soon perceived my state, and sometimes amused themselves by making me pass an examination which consisted in ascertaining how many tunes I could recognize when they were played rather more quickly or slowly than usual. "God Save the King," when thus played, was a sore puzzle. There was another man with almost as bad an ear as I had, and strange to say he played a little on the flute. Once I had the triumph of beating him in one of our musical examinations.

But no pursuit at Cambridge was followed with nearly so much earnestness or gave me so much pleasure as collecting beetles. It was the

8. Rev. C. Whitley, Hon. Canon of Durham, formerly Reader in Natural Philosophy in Durham University.
9. The late John Maurice Herbert, County Court Judge of Cardiff and the Monmouth Circuit.

mere passion for collecting, for I did not dissect them, and rarely compared their external characters with published descriptions, but got them named anyhow. I will give a proof of my zeal: one day, on tearing off some old bark, I saw two rare beetles, and seized one in each hand; then I saw a third and new kind, which I could not bear to lose, so that I popped the one which I held in my right hand into my mouth. Alas! it ejected some intensely acrid fluid, which burnt my tongue so that I was forced to spit the beetle out, which was lost, as was the third one.

I was very successful in collecting, and invented two new methods: I employed a labourer to scrape, during the winter, moss off old trees and place it in a large bag, and likewise to collect the rubbish at the bottom of the barges in which reeds are brought from the fens, and thus I got some very rare species. No poet ever felt more delighted at seeing his first poem published than I did at seeing, in Stephens' *Illustrations of British Insects,* the magic words, "captured by C. Darwin, Esq." I was introduced to entomology by my second cousin, W. Darwin Fox, a clever and most pleasant man, who was then at Christ's College, and with whom I became extremely intimate. Afterwards I became well acquainted, and went out collecting, with Albert Way of Trinity, who in after years became a well-known archaeologist; also with H. Thompson of the same college, afterwards a leading agriculturist, chairman of a great railway, and member of Parliament. It seems therefore that a taste for collecting beetles is some indication of future success in life!

I am surprised what an indelible impression many of the beetles which I caught at Cambridge have left on my mind. I can remember the exact appearance of certain posts, old trees and banks where I made a good capture. The pretty *Panagaeus crux-major* was a treasure in those days, and here at Down I saw a beetle running across a walk, and on picking it up instantly perceived that it differed slightly from *P. crux-major,* and it turned out to be *P. quadripunctatus,* which is only a variety or closely allied species, differing from it very slightly in outline. I had never seen in those old days Licinus alive, which to an uneducated eye hardly differs from many of the black Carabidous beetles; but my sons found here a specimen, and I instantly recognized that it was new to me; yet I had not looked at a British beetle for the last twenty years.

I have not as yet mentioned a circumstance which influenced my whole career more than any other. This was my friendship with Professor Henslow. Before coming up to Cambridge, I had heard of him from my brother as a man who knew every branch of science, and I was accordingly pre-

pared to reverence him. He kept open house once every week, when all undergraduates, and some older members of the university, who were attached to science used to meet in the evening. I soon got, through Fox, an invitation, and went there regularly. Before long I became well acquainted with Henslow, and during the latter half of my time at Cambridge took long walks with him on most days, so that I was called by some of the dons "the man who walks with Henslow"; and in the evening I was very often asked to join his family dinner. His knowledge was great in botany, entomology, chemistry, mineralogy, and geology. His strongest taste was to draw conclusions from long-continued minute observations. His judgment was excellent, and his whole mind well balanced; but I do not suppose that any one would say that he possessed much original genius. He was deeply religious, and so orthodox that he told me one day he should be grieved if a single word of the Thirty-nine Articles were altered. His moral qualities were in every way admirable. He was free from every tinge of vanity or other petty feeling; and I never saw a man who thought so little about himself or of his own concerns. His temper was imperturbably good, with the most winning and courteous manners; yet, as I have seen, he could be roused by any bad action to the warmest indignation and prompt action.

I once saw in his company in the streets of Cambridge almost as horrid a scene as could have been witnessed during the French Revolution. Two body-snatchers had been arrested, and while being taken to prison had been torn from the constable by a crowd of the roughest men, who dragged them by their legs along the muddy and stony road. They were covered from head to foot with mud, and their faces were bleeding either from having been kicked or from the stones; they looked like corpses, but the crowd was so dense that I got only a few momentary glimpses of the wretched creatures. Never in my life have I seen such wrath painted on a man's face as was shown by Henslow at this horrid scene. He tried repeatedly to penetrate the mob; but it was simply impossible. He then rushed away to the mayor, telling me not to follow him but to get more policemen. I forget the issue, except that the two men were got into the prison without being killed.

Henslow's benevolence was unbounded, as he proved by his many excellent schemes for his poor parishioners when in after years he held the living of Hitcham. My intimacy with such a man ought to have been, and I hope was, an inestimable benefit. I cannot resist mentioning a trifling incident which showed his kind consideration. While examining some pollen-grains on a damp surface, I saw the tubes exserted, and instantly

rushed off to communicate my surprising discovery to him. Now I do not suppose any other professor of botany could have helped laughing at my coming in such a hurry to make such a communication. But he agreed how interesting the phenomenon was, and explained its meaning, but made me clearly understand how well it was known; so I left him not in the least mortified, but well pleased at having discovered for myself so remarkable a fact, but determined not to be in such a hurry again to communicate my discoveries.

Dr. Whewell was one of the older and distinguished men who sometimes visited Henslow, and on several occasions I walked home with him at night. Next to Sir J. Mackintosh he was the best converser on grave subjects to whom I ever listened. Leonard Jenyns,[10] who afterwards published some good essays in natural history,[11] often stayed with Henslow, who was his brother-in-law. I visited him at his parsonage on the borders of the Fens [Swaffham Bulbeck] and had many a good walk and talk with him about natural history. I became also acquainted with several other men older than me, who did not care much about science, but were friends of Henslow. One was a Scotchman, brother of Sir Alexander Ramsay, and tutor of Jesus College; he was a delightful man, but did not live for many years. Another was Dr. Dawes, afterwards Dean of Hereford, and famous for his success in the education of the poor. These men and others of the same standing, together with Henslow, used sometimes to take distant excursions into the country, which I was allowed to join, and they were most agreeable.

Looking back, I infer that there must have been something in me a little superior to the common run of youths, otherwise the above-mentioned men, so much older than me and higher in academical position, would never have allowed me to associate with them. Certainly I was not aware of any such superiority, and I remember one of my sporting friends, Turner, who saw me at work with my beetles, saying that I should some day be a fellow of the Royal Society, and the notion seemed to me preposterous.

During my last year at Cambridge, I read with care and profound interest Humboldt's *Personal Narrative*. This work, and Sir J. Herschel's *Introduction to the Study of Natural Philosophy,* stirred up in me a burning zeal to add even the most humble contribution to the noble structure of natural science. No one or a dozen other books influenced me nearly so

10. The well-known Soame Jenyns was cousin to Mr. Jenyns' father.

11. Mr. Jenyns (now Blomefield) described the fish for the zoology of the *Beagle*; and is author of a long series of papers, chiefly zoological.

much as these two. I copied out from Humboldt long passages about Tenerife, and read them aloud on one of the above-mentioned excursions to (I think) Henslow, Ramsay, and Dawes, for on a previous occasion I had talked about the glories of Tenerife, and some of the party declared they would endeavour to go there; but I think that they were only half in earnest. I was, however, quite in earnest, and got an introduction to a merchant in London to inquire about ships; but the scheme was, of course, knocked on the head by the voyage of the *Beagle*.

My summer vacations were given up to collecting beetles, to some reading, and short tours. In the autumn my whole time was devoted to shooting, chiefly at Woodhouse and Maer, and sometimes with young Eyton of Eyton. Upon the whole the three years which I spent at Cambridge were the most joyful in my happy life; for I was then in excellent health, and almost always in high spirits.

As I had at first come up to Cambridge at Christmas, I was forced to keep two terms after passing my final examination, at the commencement of 1831; and Henslow then persuaded me to begin the study of geology. Therefore on my return to Shropshire I examined sections, and coloured a map of parts round Shrewsbury. Professor Sedgwick intended to visit North Wales in the beginning of August to pursue his famous geological investigations among the older rocks, and Henslow asked him to allow me to accompany him.[12] Accordingly he came and slept at my father's house.

A short conversation with him during this evening produced a strong impression on my mind. While examining an old gravel-pit near Shrewsbury, a labourer told me that he had found in it a large worn tropical volute shell, such as may be seen on the chimney-pieces of cottages; and as he would not sell the shell, I was convinced that he had really found it in the pit. I told Sedgwick of the fact, and he at once said (no doubt truly) that it must have been thrown away by some one into the pit; but then added, if really embedded there it would be the greatest misfortune to geology, as it would overthrow all that we know about the superficial deposits of the Midland counties. These gravel-beds belong in fact to the Glacial period, and in after years I found in them broken arctic shells.

12. In connection with this tour my father used to tell a story about Sedgwick: They had started from their inn one morning, and had walked a mile or two, when Sedgwick suddenly stopped, and vowed that he would return, being certain "that damned scoundrel" (the waiter) had not given the chambermaid the sixpence entrusted to him for the purpose. He was ultimately persuaded to give up the project, seeing that there was no reason for suspecting the waiter of especial perfidy.–F. D.

But I was then utterly astonished at Sedgwick not being delighted at so wonderful a fact as a tropical shell being found near the surface in the middle of England. Nothing before had ever made me thoroughly realize, though I had read various scientific books, that science consists in grouping facts so that general laws or conclusions may be drawn from them.

Next morning we started for Llangollen, Conway, Bangor, and Capel Curig. This tour was of decided use in teaching me a little how to make out the geology of a country. Sedgwick often sent me on a line parallel to his, telling me to bring back specimen of the rocks and to mark the stratification on a map. I have little doubt that he did this for my good, as I was too ignorant to have aided him. On this tour I had a striking instance of how easy it is to overlook phenomena, however conspicuous, before they have been observed by any one. We spent many hours in Cwm Idwal, examining all the rocks with extreme care, as Sedgwick was anxious to find fossils in them; but neither of us saw a trace of the wonderful glacial phenomena all around us: we did not notice the plainly scored rocks, the perched boulders, the lateral and terminal moraines. Yet these phenomena are so conspicuous that, as I declared in a paper published many years afterwards in the *Philosophical Magazine,* a house burnt down by fire did not tell its story more plainly than did this valley. If it had still been filled by a glacier, the phenomena would have been less distinct than they now are.

At Capel Curig I left Sedgwick and went in a straight line by compass and map across the mountains to Barmouth, never following any track unless it coincided with my course. I thus came on some strange wild places, and enjoyed much this manner of travelling. I visited Barmouth to see some Cambridge friends who were reading there, and thence returned to Shrewsbury and to Maer for shooting; for at that time I should have thought myself mad to give up the first days of partridge-shooting for geology or any other science.

VOYAGE OF THE "BEAGLE"
FROM DECEMBER 27, 1831, TO OCTOBER 2, 1836

On returning home from my short geological tour in North Wales, I found a letter from Henslow, informing me that Captain Fitz-Roy was willing to give up part of his own cabin to any young man who would volunteer to go with him without pay as naturalist to the voyage of the *Beagle*. I have given, as I believe, in my MS. Journal an account of all the circumstances which then occurred; I will here only say that I was

instantly eager to accept the offer, but my father strongly objected, adding the words, fortunate for me, "If you can find any man of common sense who advises you to go I will give my consent." So I wrote that evening and refused the offer. On the next morning I went to Maer to be ready for September 1, and, while out shooting, my uncle [13] sent for me, offering to drive me over to Shrewsbury and talk with my father, as my uncle thought it would be wise in me to accept the offer. My father always maintained that he was one of the most sensible men in the world, and he at once consented in the kindest manner. I had been rather extravagant at Cambridge, and to console my father, said, "that I should be deuced clever to spend more than my allowance while on board the *Beagle*"; but he answered with a smile, "But they tell me you are very clever."

Next day I started for Cambridge to see Henslow, and thence to London to see Fitz-Roy, and all was soon arranged. Afterwards, on becoming very intimate with Fitz-Roy, I heard that I had run a very narrow risk of being rejected, on account of the shape of my nose! He was an ardent disciple of Lavater, and was convinced that he could judge of a man's character by the outline of his features; and he doubted whether any one with my nose could possess sufficient energy and determination for the voyage. But I think he was afterwards well satisfied that my nose had spoken falsely.

Fitz-Roy's character was a singular one, with very many noble features: he was devoted to his duty, generous to a fault, bold, determined, and indomitably energetic, and an ardent friend to all under his sway. He would undertake any sort of trouble to assist those whom he thought deserved assistance. He was a handsome man, strikingly like a gentleman, with highly courteous manners, which resembled those of his maternal uncle, the famous Lord Castlereagh, as I was told by the minister at Rio. Nevertheless he must have inherited much in his appearance from Charles II, for Dr. Wallich gave me a collection of photographs which he had made, and I was struck with the resemblance of one to Fitz-Roy; and on looking at the name, I found it Ch. E. Sobieski Stuart, Count d'Albanie, a descendant of the same monarch.

Fitz-Roy's temper was a most unfortunate one. It was usually worst in the early morning, and with his eagle eye he could generally detect something amiss about the ship, and was then unsparing in his blame. He was very kind to me, but was a man very difficult to live with on the intimate terms which necessarily followed from our messing by ourselves in the same cabin. We had several quarrels; for instance, early in the voyage

13. Josiah Wedgwood.

at Bahia, in Brazil, he defended and praised slavery, which I abominated, and told me that he had just visited a great slave-owner, who had called up many of his slaves and asked them whether they were happy, and whether they wished to be free, and all answered "No." I then asked him, perhaps with a sneer, whether he thought that the answer of slaves in the presence of their master was worth anything. This made him excessively angry, and he said that as I doubted his word we could not live any longer together. I thought that I should have been compelled to leave the ship; but as soon as the news spread, which it did quickly, as the captain sent for the first lieutenant to assuage his anger by abusing me, I was deeply gratified by receiving an invitation from all the gun-room officers to mess with them. But after a few hours Fitz-Roy showed his actual magnanimity by sending an officer to me with an apology and a request that I would continue to live with him.

His character was in several respects one of the most noble which I have ever known.

The voyage of the *Beagle* has been by far the most important event in my life, and has determined my whole career; yet it depended on so small a circumstance as my uncle offering to drive me thirty miles to Shrewsbury, which few uncles would have done, and on such a trifle as the shape of my nose. I have always felt that I owe to the voyage the first real training or education of my mind; I was led to attend closely to several branches of natural history, and thus my powers of observation were improved, though they were always fairly developed.

The investigation of the geology of all the places visited was far more important, as reasoning here comes into play. On first examining a new district nothing can appear more hopeless than the chaos of rocks; but by recording the stratification and nature of the rocks and fossils at many points, always reasoning and predicting what will be found elsewhere, light soon begins to dawn on the district, and the structure of the whole becomes more or less intelligible. I had brought with me the first volume of Lyell's *Principles of Geology,* which I studied attentively; and the book was of the highest service to me in many ways. The very first place which I examined, namely St. Jago in the Cape de Verde Islands, showed me clearly the wonderful superiority of Lyell's manner of treating geology, compared with that of any other author whose works I had with me or ever afterwards read.

Another of my occupations was collecting animals of all classes, briefly describing and roughly dissecting many of the marine ones; but from not being able to draw, and from not having sufficient anatomical knowledge, a great pile of MS. which I made during the voyage has proved almost

useless. I thus lost much time, with the exception of that spent in acquiring some knowledge of the crustaceans, as this was of service when in after years I undertook a monograph of the Cirripedia.

During some part of the day I wrote my Journal, and took much pains in describing carefully and vividly all that I had seen; and this was good practice. My Journal served also, in part, as letters to my home, and portions were sent to England whenever there was an opportunity.

The above various special studies were, however, of no importance compared with the habit of energetic industry and of concentrated attention to whatever I was engaged in, which I then acquired. Everything about which I thought or read was made to bear directly on what I had seen or was likely to see; and this habit of mind was continued during the five years of the voyage. I feel sure that it was this training which has enabled me to do whatever I have done in science.

Looking backwards, I can now perceive how my love for science gradually preponderated over every other taste. During the first two years my old passion for shooting survived in nearly full force, and I shot myself all the birds and animals for my collection; but gradually I gave up my gun more and more, and finally altogether, to my servant, as shooting interfered with my work, more especially with making out the geological structure of a country. I discovered, though unconsciously and insensibly, that the pleasure of observing and reasoning was a much higher one than that of skill and sport. That my mind became developed through my pursuits during the voyage is rendered probable by a remark made by my father, who was the most acute observer whom I ever saw, of a sceptical disposition, and far from being a believer in phrenology; for on first seeing me after the voyage, he turned round to my sisters, and exclaimed, "Why, the shape of his head is quite altered."

To return to the voyage. On September 11 (1831), I paid a flying visit with Fitz-Roy to the *Beagle* at Plymouth. Thence to Shrewsbury to wish my father and sisters a long farewell. On October 24 I took up my residence at Plymouth, and remained there until December 27, when the *Beagle* finally left the shores of England for her circumnavigation of the world. We made two earlier attempts to sail, but were driven back each time by heavy gales. These two months at Plymouth were the most miserable which I ever spent, though I exerted myself in various ways. I was out of spirits at the thought of leaving all my family and friends for so long a time, and the weather seemed to me inexpressibly gloomy. I was also troubled with palpitation and pain about the heart, and like many a young ignorant man, especially one with a smattering of medical knowledge, was convinced that I had heart disease. I did not consult any doc-

tor, as I fully expected to hear the verdict that I was not fit for the voyage, and I was resolved to go at all hazards.

I need not here refer to the events of the voyage—where we went and what we did—as I have given a sufficiently full account in my published Journal. The glories of the vegetation of the Tropics rise before my mind at the present time more vividly than anything else, though the sense of sublimity, which the great deserts of Patagonia and the forest-clad mountains of Tierra del Fuego excited in me, has left an indelible impression on my mind. The sight of a naked savage in his native land is an event which can never be forgotten. Many of my excursions on horse-back through wild countries, or in the boats, some of which lasted several weeks, were deeply interesting; their discomfort and some degree of danger were at that time hardly a drawback, and none at all afterwards. I also reflect with high satisfaction on some of my scientific work, such as solving the problem of coral islands, and making out the geological structure of certain islands, for instance, St. Helena. Nor must I pass over the discovery of the singular relations of the animals and plants inhabiting the several islands of the Galapagos Archipelago, and of all of them to the inhabitants of South America.

As far as I can judge of myself, I worked to the utmost during the voyage from the mere pleasure of investigation, and from my strong desire to add a few facts to the great mass of facts in natural science. But I was also ambitious to take a fair place among scientific men—whether more ambitious or less so than most of my fellow-workers, I can form no opinion.

The geology of St. Jago is very striking, yet simple: a stream of lava formerly flowed over the bed of the sea, formed of triturated recent shells and corals, which it has baked into a hard white rock. Since then the whole island has been upheaved. But the line of white rock revealed to me a new and important fact, namely, that there had been afterwards subsidence round the craters, which had since been in action, and had poured forth lava. It then first dawned on me that I might perhaps write a book on the geology of the various countries visited, and this made me thrill with delight. That was a memorable hour to me, and how distinctly I can call to mind the low cliff of lava beneath which I rested, with the sun glaring hot, a few strange desert plants growing near, and with living corals in the tidal pools at my feet. Later in the voyage, Fitz-Roy asked me to read some of my Journal, and declared it would be worth publishing; so here was a second book in prospect!

Towards the close of our voyage I received a letter while at Ascension, in which my sisters told me that Sedgwick had called on my father, and

said that I should take a place among the leading scientific men. I could not at the time understand how he could have learnt anything of my proceedings, but I heard (I believe afterwards) that Henslow had read some of the letters which I wrote to him before the Philosophical Society of Cambridge,[14] and had printed them for private distribution. My collection of fossil bones, which had been sent to Henslow, also excited considerable attention among palaeontologists. After reading this letter, I clambered over the mountains of Ascension with a bounding step, and made the volcanic rocks resound under my geological hammer. All this shows how ambitious I was; but I think that I can say with truth that in after years, though I cared in the highest degree for the approbation of such men as Lyell and Hooker, who were my friends, I did not care much about the general public. I do not mean to say that a favourable review or a large sale of my books did not please me greatly, but the pleasure was a fleeting one, and I am sure that I have never turned one inch out of my course to gain fame.

FROM MY RETURN TO ENGLAND (OCTOBER 2, 1836) TO MY MARRIAGE (JANUARY 29, 1839)

These two years and three months were the most active ones which I ever spent, though I was occasionally unwell, and so lost some time. After going backwards and forwards several times between Shrewsbury, Maer, Cambridge, and London, I settled in lodgings at Cambridge [15] on December 13, where all my collections were under the care of Henslow. I stayed here three months, and got my minerals and rocks examined by the aid of Professor Miller.

I began preparing my *Journal of Travels,* which was not hard work, as my MS. Journal had been written with care, and my chief labour was making an abstract of my more interesting scientific results. I sent also, at the request of Lyell, a short account of my observations on the elevation of the coast of Chile to the Geological Society.

On March 7, 1837, I took lodgings in Great Marlborough Street in London, and remained there for nearly two years, until I was married. During these two years I finished my Journal, read several papers before the Geological Society, began preparing the MS. for my *Geological Observations,* and arranged for the publication of the *Zoology of the Voyage of the Beagle*. In July I opened my first note-book for facts in relation to the

14. Read at the meeting held November 16, 1835, and printed in a pamphlet of 31 pages for distribution among the members of the society.

15. In Fitzwilliam Street.

Origin of Species, about which I had long reflected, and never ceased working for the next twenty years.

During these two years I also went a little into society, and acted as one of the honorary secretaries of the Geological Society. I saw a great deal of Lyell. One of his chief characteristics was his sympathy with the work of others, and I was as much astonished as delighted at the interest which he showed when, on my return to England, I explained to him my views on coral reefs. This encouraged me greatly, and his advice and example had much influence on me. During this time I saw also a good deal of Robert Brown; I used often to call and sit with him during his breakfast on Sunday mornings, and he poured forth a rich treasure of curious observations and acute remarks, but they almost always related to minute points, and he never with me discussed large or general questions in science.

During these two years I took several short excursions as a relaxation, and one longer one to the Parallel Roads of Glen Roy, an account of which was published in the *Philosophical Transactions.* This paper was a great failure, and I am ashamed of it. Having been deeply impressed with what I had seen of the elevation of the land of South America, I attributed the parallel lines to the action of the sea; but I had to give up this view when Agassiz propounded his glacier-lake theory. Because no other explanation was possible under our then state of knowledge, I argued in favour of sea action; and my error has been a good lesson to me never to trust in science to the principle of exclusion.

As I was not able to work all day at science, I read a good deal during these two years on various subjects, including some metaphysical books; but I was not well fitted for such studies. About this time I took much delight in Wordsworth's and Coleridge's poetry; and can boast that I read the *Excursion* twice through. Formerly Milton's *Paradise Lost* had been my chief favourite, and in my excursions during the voyage of the *Beagle,* when I could take only a single volume, I always chose Milton.

FROM MY MARRIAGE, JANUARY 29, 1839, AND RESIDENCE IN UPPER GOWER STREET, TO OUR LEAVING LONDON AND SETTLING AT DOWN, SEPTEMBER 14, 1842

[*After speaking of his happy married life, and of his children, he continues:*]

During the three years and eight months while we resided in London, I did less scientific work, though I worked as hard as I possibly could,

than during any other equal length of time in my life. This was owing to frequently recurring unwellness, and to one long and serious illness. The greater part of my time, when I could do anything, was devoted to my work on *Coral Reefs,* which I had begun before my marriage, and of which the last proof-sheet was corrected on May 6, 1842. This book, though a small one, cost me twenty months of hard work, as I had to read every work on the islands of the Pacific and to consult many charts. It was thought highly of by scientific men, and the theory therein given is, I think, now well established.

No other work of mine was begun in so deductive a spirit as this, for the whole theory was thought out on the west coast of South America before I had seen a true coral reef. I had therefore only to verify and extend my views by a careful examination of living reefs. But it should be observed that I had during the two previous years been incessantly attending to the effects on the shores of South America of the intermittent elevation of the land, together with denudation and the deposition of sediment. This necessarily led me to reflect much on the effects of subsidence, and it was easy to replace in imagination the continued deposition of sediment by the upward growth of corals. To do this was to form my theory of the formation of barrier-reefs and atolls.

Besides my work on coral reefs, during my residence in London, I read before the Geological Society papers on the Erratic Boulders of South America, on Earthquakes, and on the Formation by the Agency of Earthworms of Mould. I also continued to superintend the publication of the *Zoology of the Voyage of the Beagle*. Nor did I ever intermit collecting facts bearing on the *Origin of Species;* and I could sometimes do this when I could do nothing else from illness.

In the summer of 1842 I was stronger than I had been for some time, and took a little tour by myself in North Wales, for the sake of observing the effects of the old glaciers which formerly filled all the larger valleys. I published a short account of what I saw in the *Philosophical Magazine*. This excursion interested me greatly, and it was the last time I was ever strong enough to climb mountains or to take long walks such as are necessary for geological work.

During the early part of our life in London, I was strong enough to go into general society, and saw a good deal of several scientific men, and other more or less distinguished men. I will give my impressions with respect to some of them, though I have little to say worth saying.

I saw more of Lyell than of any other man, both before and after my marriage. His mind was characterized, as it appeared to me, by clearness, caution, sound judgment, and a good deal of originality. When I made

any remark to him on geology, he never rested until he saw the whole case clearly, and often made me see it more clearly than I had done before. He would advance all possible objections to my suggestion, and even after these were exhausted would long remain dubious. A second characteristic was his hearty sympathy with the work of other scientific men.[16]

On my return from the voyage of the *Beagle,* I explained to him my views on coral reefs, which differed from his, and I was greatly surprised and encouraged by the vivid interest which he showed. His delight in science was ardent, and he felt the keenest interest in the future progress of mankind. He was very kind hearted, and thoroughly liberal in his religious beliefs, or rather disbeliefs, but he was a strong theist. His candour was highly remarkable. He exhibited this by becoming a convert to the Descent theory, though he had gained much fame by opposing Lamarck's views, and this after he had grown old. He reminded me that I had many years before said to him, when discussing the opposition of the old school of geologists to his new views, "What a good thing it would be if every scientific man was to die when sixty years old, as afterwards he would be sure to oppose all new doctrines." But he hoped that now he might be allowed to live.

The science of geology is enormously indebted to Lyell–more so, as I believe, than to any other man who ever lived. When [I was] starting on the voyage of the *Beagle,* the sagacious Henslow, who, like all other geologists, believed at that time in successive cataclysms, advised me to get and study the first volume of the *Principles,* which had then just been published, but on no account to accept the views therein advocated. How differently would any one now speak of the *Principles!* I am proud to remember that the first place, namely, St. Jago, in the Cape de Verde Archipelago, in which I geologized convinced me of the infinite superiority of Lyell's views over those advocated in any other work known to me.

The powerful effects of Lyell's works could formerly be plainly seen in the different progress of the science in France and England. The present total oblivion of Elie de Beaumont's wild hypotheses, such as his *Craters of Elevation* and *Lines of Elevation* (which latter hypothesis I heard Sedgwick at the Geological Society lauding to the skies), may be largely attributed to Lyell.

I saw a good deal of Robert Brown, "facile Princeps Botanicorum," as

16. The slight repetition here observable is accounted for by the notes on Lyell, etc., having been added in April, 1881, a few years after the rest of the *Recollections* were written.

he was called by Humboldt. He seemed to me to be chiefly remarkable for the minuteness of his observations, and their perfect accuracy. His knowledge was extraordinarily great, and much died with him, owing to his excessive fear of ever making a mistake. He poured out his knowledge to me in the most unreserved manner, yet was strangely jealous on some points. I called on him two or three times before the voyage of the *Beagle,* and on one occasion he asked me to look through a microscope and describe what I saw. This I did, and believe now that it was the marvellous currents of protoplasm in some vegetable cell. I then asked him what I had seen but he answered me, "That is my little secret."

He was capable of the most generous actions. When old, much out of health, and quite unfit for any exertion, he daily visited (as Hooker told me) an old man-servant, who lived at a distance (and whom he supported), and read aloud to him. This is enough to make up for any degree of scientific penuriousness or jealousy.

I may here mention a few other eminent men whom I have occasionally seen, but I have little to say about them worth saying. I felt a high reverence for Sir J. Herschel, and was delighted to dine with him at his charming house at the Cape of Good Hope, and afterwards at his London house. I saw him, also, on a few other occasions. He never talked much, but every word which he uttered was worth listening to.

I once met at breakfast at Sir R. Murchison's house the illustrious Humboldt, who honoured me by expressing a wish to see me. I was a little disappointed with the great man, but my anticipations probably were too high. I can remember nothing distinctly about our interview, except that Humboldt was very cheerful and talked much.

[Speaking of H. Spencer] reminds me of Buckle, whom I once met at Hensleigh Wedgwood's. I was very glad to learn from him his system of collecting facts. He told me that he bought all the books which he read, and made a full index, to each, of the facts which he thought might prove serviceable to him, and that he could always remember in what book he had read anything, for his memory was wonderful. I asked him how at first he could judge what facts would be serviceable, and he answered that he did not know, but that a sort of instinct guided him. From this habit of making indexes, he was enabled to give the astonishing number of references on all sorts of subjects, which may be found in his *History of Civilisation.* This book I thought most interesting, and read it twice, but I doubt whether his generalizations are worth anything. Buckle was a great talker, and I listened to him saying hardly a word, nor indeed could I have done so for he left no gaps. When Mrs. Farrer began to sing, I jumped up

and said that I must listen to her; after I had moved away he turned around to a friend and said (as was overheard by my brother), "Well, Mr. Darwin's books are much better than his conversation."

Of other great literary men, I once met Sydney Smith at Dean Milman's house. There was something inexplicably amusing in every word which he uttered. Perhaps this was partly due to the expectation of being amused. He was talking about Lady Cork, who was then extremely old. This was the lady who, as he said, was once so much affected by one of his charity sermons that she *borrowed* a guinea from a friend to put in the plate. He now said, "It is generally believed that my dear old friend Lady Cork has been overlooked," and he said this in such a manner that no one could for a moment doubt that he meant that his dear old friend had been overlooked by the devil. How he managed to express this I know not.

I likewise once met Macaulay at Lord Stanhope's (the historian's) house, and as there was only one other man at dinner, I had a grand opportunity of hearing him converse, and he was very agreeable. He did not talk at all too much; nor indeed could such a man talk too much as long as he allowed others to turn the stream of his conversation, and this he did allow.

Lord Stanhope once gave me a curious little proof of the accuracy and fullness of Macaulay's memory: many historians used often to meet at Lord Stanhope's house, and in discussing various subjects they would sometimes differ from Macaulay, and formerly they often referred to some book to see who was right; but latterly, as Lord Stanhope noticed, no historian ever took this trouble, and whatever Macaulay said was final.

On another occasion I met at Lord Stanhope's house one of his parties of historians and other literary men, and among them were Motley and Grote. After luncheon I walked about Chevening Park for nearly an hour with Grote, and was much interested by his conversation and pleased by the simplicity and absence of all pretension in his manners.

Long ago I dined occasionally with the old Earl, the father of the historian; he was a strange man, but what little I knew of him I liked much. He was frank, genial, and pleasant. He had strongly marked features, with a brown complexion, and his clothes, when I saw him, were all brown. He seemed to believe in everything which was to others utterly incredible. He said one day to me, "Why don't you give up your fiddle-faddle of geology and zoology, and turn to the occult sciences?" The historian, then Lord Mahon, seemed shocked at such a speech to me, and his charming wife much amused.

The last man whom I will mention is Carlyle, seen by me several times at my brother's house, and two or three times at my own house. His talk was very racy and interesting, just like his writings, but he sometimes went on too long on the same subject. I remember a funny dinner at my brother's, where, among a few others, were Babbage and Lyell, both of whom liked to talk. Carlyle, however, silenced every one by haranguing during the whole dinner on the advantages of silence. After dinner Babbage, in his grimmest manner, thanked Carlyle for his very interesting lecture on silence.

Carlyle sneered at almost every one: One day in my house he called Grote's *History* "a fetid quagmire, with nothing spiritual about it." I always thought, until his *Reminiscences* appeared, that his sneers were partly jokes, but this now seems rather doubtful. His expression was that of a depressed, almost despondent yet benevolent, man; and it is notorious how heartily he laughed. I believe that his benevolence was real, though stained by not a little jealousy. No one can doubt about his extraordinary power of drawing pictures of things and men–far more vivid, as it appears to me, than any drawn by Macaulay. Whether his pictures of men were true ones is another question.

He has been all-powerful in impressing some grand moral truths on the minds of men. On the other hand, his views about slavery were revolting. In his eyes might was right. His mind seemed to me a very narrow one; even if all branches of science, which he despised, are excluded. It is astonishing to me that Kingsley should have spoken of him as a man well fitted to advance science. He laughed to scorn the idea that a mathematician, such as Whewell, could judge, as I maintained he could, of Goethe's views on light. He thought it a most ridiculous thing that any one should care whether a glacier moved a little quicker or a little slower, or moved at all. As far as I could judge, I never met a man with a mind so ill adapted for scientific research.

While living in London, I attended as regularly as I could the meetings of several scientific societies, and acted as secretary to the Geological Society. But such attendance, and ordinary society, suited my health so badly that we resolved to live in the country, which we both preferred and have never repented of.

RESIDENCE AT DOWN FROM SEPTEMBER 14, 1842, TO THE PRESENT TIME, 1876

After several fruitless searches in Surrey and elsewhere, we found this house and purchased it. I was pleased with the diversified appearance of

vegetation proper to a chalk district, and so unlike what I had been accustomed to in the Midland counties; and still more pleased with the extreme quietness and rusticity of the place. It is not, however, quite so retired a place as a writer in a German periodical makes it, who says that my house can be approached only by a mule track! Our fixing ourselves here has answered admirably in one way which we did not anticipate, namely, by being very convenient for frequent visits from our children.

Few persons can have lived a more retired life than we have done. Besides short visits to the houses of relations, and occasionally to the seaside or elsewhere, we have gone nowhere. During the first part of our residence we went a little into society, and received a few friends here; but my health almost always suffered from the excitement, violent shivering and vomiting attacks being thus brought on. I have therefore been compelled for many years to give up all dinner-parties; and this has been somewhat of a deprivation to me, as such parties always put me into high spirits. From the same cause I have been able to invite here very few scientific acquaintances.

My chief enjoyment and sole employment throughout life has been scientific work; and the excitement from such work makes me for the time forget, or drives away, my daily discomfort. I have therefore nothing to record during the rest of my life, except the publication of my several books. Perhaps a few details how they arose may be worth giving.

My several Publications. In the early part of 1844, my observations on the volcanic islands visited during the voyage of the *Beagle* were published. In 1845, I took much pains in correcting a new edition of my *Journal of Researches,* which was originally published in 1839 as part of FitzRoy's work. The success of this, my first literary child, always tickles my vanity more than that of any of my other books. Even to this day it sells steadily in England and the United States, and has been translated for the second time into German, and into French and other languages. This success of a book of travels, especially of a scientific one, so many years after its first publication is surprising. Ten thousand copies have been sold in England of the second edition. In 1846 my *Geological Observations on South America* were published. I record in a little diary, which I have always kept, that my three geological books (*Coral Reefs* included) consumed four and a half years' steady work; "and now it is ten years since my return to England. How much time have I lost by illness?" I have nothing to say about these three books except that to my surprise new editions have lately been called for.

In October, 1846, I began to work on *Cirripedia*. When on the coast of Chile, I found a most curious form, which burrowed into the shells of

Concholepas, and which differed so much from all other Cirripedes that I had to form a new suborder for its sole reception. Lately an allied burrowing genus has been found on the shores of Portugal. To understand the structure of my new Cirripede I had to examine and dissect many of the common forms; and this gradually led me on to take up the whole group. I worked steadily on this subject for the next eight years, and ultimately published two thick volumes, describing all the known living species, and two thin quartos on the extinct species. I do not doubt that Sir E. Lytton Bulwer had me in his mind when he introduced in one of his novels a Professor Long, who had written two huge volumes on limpets.

Although I was employed during eight years on this work, yet I record in my diary that about two years out of this time was lost by illness. On this account I went in 1848 for some months to Malvern for hydropathic treatment, which did me much good, so that on my return home I was able to resume work. So much was I out of health that when my dear father died on November 13, 1848, I was unable to attend his funeral or to act as one of his executors.

My work on the Cirripedia possesses, I think, considerable value, as besides describing several new and remarkable forms, I made out the homologies of the various parts–I discovered the cementing apparatus, though I blundered dreadfully about the cement glands–and lastly I proved the existence in certain genera of minute males complemental to and parasitic on the hermaphrodites. This latter discovery has at last been fully confirmed; though at one time a German writer was pleased to attribute the whole account to my fertile imagination. The Cirripedes form a highly varying and difficult group of species to class; and my work was of considerable use to me when I had to discuss in the *Origin of Species* the principles of a natural classification. Nevertheless, I doubt whether the work was worth the consumption of so much time.

From September, 1854, I devoted my whole time to arranging my huge pile of notes, to observing, and to experimenting in relation to the transmutation of species. During the voyage of the *Beagle* I had been deeply impressed by discovering in the Pampean formation great fossil animals covered with armour like that on the existing armadillos; secondly, by the manner in which closely allied animals replace one another in proceeding southwards over the continent; and thirdly, by the South American character of most of the productions of the Galapagos Archipelago, and more especially by the manner in which they differ slightly on each island of the group, none of the islands appearing to be very ancient in a geological sense.

It was evident that such facts as these, as well as many others, could only be explained on the supposition that species gradually become modified; and the subject haunted me. But it was equally evident that neither the action of the surrounding conditions nor the will of the organisms (especially in the case of plants) could account for the numerable cases in which organisms of every kind are beautifully adapted to their habits of life–for instance, a woodpecker or a tree-frog to climb trees, or a seed for dispersal by hooks or plumes. I had always been much struck by such adaptations, and until these could be explained it seemed to me almost useless to endeavour to prove by indirect evidence that species have been modified.

After my return to England it appeared to me that by following the example of Lyell in geology, and by collecting all facts which bore in any way on the variation of animals and plants under domestication and nature, some light might perhaps be thrown on the whole subject. My first note-book was opened in July, 1837. I worked on true Baconian principles, and without any theory collected facts on a wholesale scale, more especially with respect to domesticated productions, by printed inquiries, by conversation with skilful breeders and gardeners, and by extensive reading. When I see the list of books of all kinds which I read and abstracted, including whole series of Journals and Transactions, I am surprised at my industry. I soon perceived that selection was the keystone of man's success in making useful races of animals and plants. But how selection could be applied to organisms living in a state of nature remained for some time a mystery to me.

In October, 1838, that is, fifteen months after I had begun my systematic inquiry, I happened to read for amusement Malthus on *Population,* and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of new species. Here then I had at last got a theory by which to work; but I was so anxious to avoid prejudice that I determined not for some time to write even the briefest sketch of it. In June, 1842, I first allowed myself the satisfaction of writing a very brief abstract of my theory in pencil in 35 pages; and this was enlarged during the summer of 1844 into one of 230 pages, which I had fairly copied out and still possess.

But at that time I overlooked one problem of great importance; and it is astonishing to me, except on the principle of Columbus and his egg, how I could have overlooked it and its solution. This problem is the tend-

ency in organic beings descended from the same stock to diverge in character as they become modified. That they have diverged greatly is obvious from the manner in which species of all kinds can be classed under genera, genera under families, families under suborders and so forth; and I can remember the very spot in the road, while in my carriage, when to my joy the solution occurred to me; and this was long after I had come to Down. The solution, as I believe, is that the modified offspring of all dominant and increasing forms tend to become adapted to many and highly diversified places in the economy of nature.

Early in 1856 Lyell advised me to write out my views pretty fully, and I began at once to do so on a scale three or four times as extensive as that which was afterwards followed in my *Origin of Species;* yet it was only an abstract of the materials which I had collected, and I got through about half the work on this scale. But my plans were overthrown, for early in the summer of 1858 Mr. Wallace, who was then in the Malay Archipelago, sent me an essay, "On the Tendency of Varieties to depart indefinitely from the Original Type"; and this essay contained exactly the same theory as mine. Mr. Wallace expressed the wish that if I thought well of his essay I should send it to Lyell for perusal.

The circumstances under which I consented at the request of Lyell and Hooker to allow of an abstract from my MS., together with a letter to Asa Gray, dated September 5, 1857, to be published at the same time with Wallace's essay are given in the *Journal of the Proceedings of the Linnean Society,* 1858, p. 45. I was at first very unwilling to consent, as I thought Mr. Wallace might consider my doing so unjustifiable, for I did not then know how generous and noble was his disposition. The extract from my MS. and the letter to Asa Gray had neither been intended for publication, and were badly written. Mr. Wallace's essay, on the other hand, was admirably expressed and quite clear. Nevertheless, our joint productions excited very little attention, and the only published notice of them which I can remember was by Professor Haughton of Dublin, whose verdict was that all that was new in them was false, and what was true was old. This shows how necessary it is that any new view should be explained at considerable length in order to arouse public attention.

In September, 1858, I set to work by the strong advice of Lyell and Hooker to prepare a volume on the transmutation of species, but was often interrupted by ill health, and short visits to Dr. Lane's delightful hydropathic establishment at Moor Park. I abstracted the MS. begun on a much larger scale in 1856, and completed the volume on the same reduced scale. It cost me thirteen months and ten days' hard labour. It was

published under the title of the *Origin of Species,* in November, 1859. Though considerably added to and corrected in the later editions, it has remained substantially the same book.

It is no doubt the chief work of my life. It was from the first highly successful. The first small edition of 1,250 copies was sold on the day of publication, and a second edition of 3,000 copies soon afterwards. Sixteen thousand copies have now (1876) been sold in England; and considering how stiff a book it is, this is a large sale. It has been translated into almost every European tongue, even into such languages as Spanish, Bohemian, Polish, and Russian. It has also, according to Miss Bird, been translated into Japanese,[17] and is there much studied. Even an essay in Hebrew has appeared on it, showing that the theory is contained in the Old Testament! The reviews were very numerous; for some time I collected all that appeared on the *Origin* and on my related books, and these amount (excluding newspaper reviews) to 265; but after a time I gave up the attempt in despair. Many separate essays and books on the subject have appeared; and in Germany a catalogue or bibliography on "Darwinismus" has appeared every year or two.

The success of the *Origin* may, I think, be attributed in large part to my having long before written two condensed sketches, and to my having finally abstracted a much larger manuscript, which was itself an abstract. By this means I was enabled to select the more striking facts and conclusions. I had, also, during many years followed a golden rule, namely, that whenever a published fact, a new observation or thought came across me, which was opposed to my general results, to make a memorandum of it without fail and at once; for I had found by experience that such facts and thoughts were far more apt to escape from the memory than favourable ones. Owing to this habit, very few objections were raised against my views which I had not at least noticed and attempted to answer.

It has sometimes been said that the success of the *Origin* proved "that the subject was in the air," or "that men's minds were prepared for it." I do not think that this is strictly true, for I occasionally sounded not a few naturalists, and never happened to come across a single one who seemed to doubt about the permanence of species. Even Lyell and Hooker, though they would listen with interest to me, never seemed to agree. I tried once or twice to explain to able men what I meant by Natural Selection, but signally failed. What I believe was strictly true is that innumerable well-observed facts were stored in the minds of naturalists

17. Miss Bird is mistaken, as I learn from Professor Mitsukuri.–F. D.

ready to take their proper places as soon as any theory which would receive them was sufficiently explained. Another element in the success of the book was its moderate size; and this I owe to the appearance of Mr. Wallace's essay; had I published on the scale in which I began to write in 1856, the book would have been four or five times as large as the *Origin,* and very few would have had the patience to read it.

I gained much by my delay in publishing from about 1839, when the theory was clearly conceived, to 1859; and I lost nothing by it, for I cared very little whether men attributed most originality to me or Wallace; and his essay no doubt aided in the reception of the theory. I was forestalled in only one important point, which my vanity has always made me regret, namely, the explanation by means of the Glacial period of the presence of the same species of plants and of some few animals on distant mountain summits and in the Arctic Regions. This view pleased me so much that I wrote it out *in extenso,* and I believe that it was read by Hooker some years before E. Forbes published his celebrated memoir on the subject. In the very few points in which we differed, I still think that I was in the right. I have never, of course, alluded in print to my having independently worked out this view.

Hardly any point gave me so much satisfaction when I was at work on the *Origin* as the explanation of the wide difference in many classes between the embryo and the adult animal, and of the close resemblance of the embryos within the same class. No notice of this point was taken, as far as I remember, in the early reviews of the *Origin,* and I recollect expressing my surprise on this head in a letter to Asa Gray. Within late years several reviewers have given the whole credit to Fritz Müller and Häckel, who undoubtedly have worked it out much more fully, and in some respects more correctly than I did. I had materials for a whole chapter on the subject, and I ought to have made the discussion longer; for it is clear that I failed to impress my readers; and he who succeeds in doing so deserves, in my opinion, all the credit.

This leads me to remark that I have almost always been treated honestly by my reviewers, passing over those without scientific knowledge as not worthy of notice. My views have often been grossly misrepresented, bitterly opposed and ridiculed, but this has been generally done, as I believe, in good faith. On the whole I do not doubt that my works have been over and over again greatly overpraised. I rejoice that I have avoided controversies, and this I owe to Lyell, who many years ago, in reference to my geological works, strongly advised me never to get entangled in a controversy, as it rarely did any good and caused a miserable loss of time and temper.

Whenever I have found out that I have blundered, or that my work has been imperfect, and when I have been contemptuously criticized, and even when I have been overpraised, so that I have felt mortified, it has been my greatest comfort to say hundreds of times to myself that "I have worked as hard and as well as I could, and no man can do more than this." I remember when in Good Success Bay, in Tierra del Fuego, thinking (and, I believe, that I wrote home to the effect) that I could not employ my life better than in adding a little to natural science. This I have done to the best of my abilities, and critics may say what they like, but they cannot destroy this conviction.

During the last two months of 1859 I was fully occupied in preparing a second edition of the *Origin,* and by an enormous correspondence. On January 1, 1860, I began arranging my notes for my work on the *Variation of Animals and Plants under Domestication;* but it was not published until the beginning of 1868, the delay having been caused partly by frequent illnesses, one of which lasted seven months, and partly by being tempted to publish on other subjects which at the time interested me more.

On May 15, 1862, my little book on the *Fertilisation of Orchids,* which cost me ten months' work, was published; most of the facts had been slowly accumulated during several previous years. During the summer of 1839, and, I believe, during the previous summer, I was led to attend to the cross-fertilisation of flowers by the aid of insects, from having come to the conclusion in my speculations on the origin of species that crossing played an important part in keeping specific forms constant. I attended to the subject more or less during every subsequent summer; and my interest in it was greatly enhanced by having procured and read in November, 1841, through the advice of Robert Brown, a copy of C. K. Sprengel's wonderful book *Das entdeckte Geheimnis der Natur* [The Newly Revealed Mystery of Nature]. For some years before 1862 I had specially attended to the fertilisation of our British orchids; and it seemed to me the best plan to prepare as complete a treatise on this group of plants as well as I could, rather than to utilize the great mass of matter which I had slowly collected with respect to other plants.

My resolve proved a wise one, for since the appearance of my book, a surprising number of papers and separate works on the fertilisation of all kinds of flowers have appeared; and these are far better done than I could possibly have effected. The merits of poor old Sprengel, so long overlooked, are now fully recognized many years after his death.

During the same year I published in the *Journal of the Linnean Society*

a paper "On the Two Forms, or Dimorphic Condition of Primula," and during the next five years, five other papers on dimorphic and trimorphic plants. I do not think anything in my scientific life has given me so much satisfaction as making out the meaning of the structure of these plants. I had noticed in 1838 or 1839 the dimorphism of *Linum flavum,* and had at first thought it was merely a case of unmeaning variability. But on examining the common species of Primula I found that the two forms were much too regular and constant to be thus viewed. I therefore became almost convinced that the common cowslip and primrose were on the high road to become dioecious; that the short pistil in the one form and the short stamens in the other form were tending towards abortion. The plants were therefore subjected under this point of view to trial; but as soon as the flowers with short pistils fertilised with pollen from the short stamens were found to yield more seeds than any other of the four possible unions, the abortion theory was knocked on the head. After some additional experiment, it became evident that the two forms, though both were perfect hermaphrodites, bore almost the same relation to one another as do the two sexes of an ordinary animal. With Lythrum we have the still more wonderful case of three forms standing in a similar relation to one another. I afterwards found that the offspring from the union of two plants belonging to the same forms presented a close and curious analogy with hybrids from the union of two distinct species.

In the autumn of 1864 I finished a long paper on *Climbing Plants,* and sent it to the Linnean Society. The writing of this paper cost me four months; but I was so unwell when I received the proof-sheets that I was forced to leave them very badly and often obscurely expressed. The paper was little noticed, but when in 1875 it was corrected and published as a separate book it sold well. I was led to take up this subject by reading a short paper by Asa Gray, published in 1858. He sent me seeds, and on raising some plants I was so much fascinated and perplexed by the revolving movements of the tendrils and stems, which movements are really very simple, though appearing at first sight very complex, that I procured various other kinds of climbing plants, and studied the whole subject. I was all the more attracted to it, from not being at all satisfied with the explanation which Henslow gave us in his lectures about twining plants, namely, that they had a natural tendency to grow up in a spire. This explanation proved quite erroneous. Some of the adaptations displayed by climbing plants are as beautiful as those of orchids for ensuring cross-fertilisation.

My *Variation of Animals and Plants under Domestication* was begun, as already stated, in the beginning of 1860, but was not published until

the beginning of 1868. It was a big book, and cost me four years and two months' hard labour. It gives all my observations and an immense number of facts, collected from various sources, about our domestic productions. In the second volume the causes and laws of variation, inheritance, etc., are discussed as far as our present state of knowledge permits. Towards the end of the work I give my well-abused hypothesis of pangenesis. An unverified hypothesis is of little or no value; but if any one should hereafter be led to make observations by which some such hypothesis could be established, I shall have done good service, as an astonishing number of isolated facts can be thus connected together and rendered intelligible. In 1875 a second and largely corrected edition, which cost me a good deal of labour, was brought out.

My *Descent of Man* was published in February, 1871. As soon as I had become, in the year 1837 or 1838, convinced that species are mutable productions, I could not avoid the belief that man must come under the same law. Accordingly I collected notes on the subject for my own satisfaction, and not for a long time with any intention of publishing. Although in the *Origin of Species* the derivation of any particular species is never discussed, yet I thought it best, in order that no honourable man should accuse me of concealing my views, to add that by the work "light would be thrown on the origin of man and his history." It would have been useless and injurious to the success of the book to have paraded, without giving any evidence, my conviction with respect to his origin.

But when I found that many naturalists fully accepted the doctrine of the evolution of species, it seemed to me advisable to work up such notes as I possessed, and to publish a special treatise on the origin of man. I was the more glad to do so, as it gave me an opportunity of fully discussing sexual selection—a subject which had always greatly interested me. This subject, and that of the variation of our domestic productions, together with the causes and laws of variation, inheritance, and the intercrossing of plants, are the sole subjects which I have been able to write about in full, so as to use all the materials which I have collected. The *Descent of Man* took me three years to write, but then as usual some of this time was lost by ill health, and some was consumed by preparing new editions and other minor works. A second and largely corrected edition of the *Descent* appeared in 1874.

My book on the *Expression of the Emotions in Men and Animals* was published in the autumn of 1872. I had intended to give only a chapter on the subject in the *Descent of Man,* but as soon as I began to put my notes together, I saw that it would require a separate treatise.

My first child was born on December 27, 1839, and I at once commenced to make notes on the first dawn of the various expressions which he exhibited, for I felt convinced, even at this early period, that the most complex and fine shades of expression must all have had a gradual and natural origin. During the summer of the following year, 1840, I read Sir C. Bell's admirable work on expression, and this greatly increased the interest which I felt in the subject, though I could not at all agree with his belief that various muscles had been specially created for the sake of expression. From this time forward I occasionally attended to the subject, both with respect to man and our domesticated animals. My book sold largely, 5,267 copies having been disposed of on the day of publication.

In the summer of 1860 I was idling and resting near Hartfield, where two species of Drosera abound; and I noticed that numerous insects had been entrapped by the leaves. I carried home some plants, and on giving them insects saw the movements of the tentacles, and this made me think it probable that the insects were caught for some special purpose. Fortunately a crucial test occurred to me, that of placing a large number of leaves in various nitrogenous and non-nitrogenous fluids of equal density; and as soon as I found that the former alone excited energetic movements, it was obvious that here was a fine new field for investigation.

During subsequent years, whenever I had leisure, I pursued my experiments, and my book on *Insectivorous Plants* was published in July, 1875—that is, sixteen years after my first observations. The delay in this case, as with all my other books, has been a great advantage to me; for a man after a long interval can criticize his own work, almost as well as if it were that of another person. The fact that a plant should secrete, when properly excited, a fluid containing an acid and ferment, closely analogous to the digestive fluid of an animal, was certainly a remarkable discovery.

During this autumn of 1876 I shall publish on the *Effects of Cross and Self-Fertilisation in the Vegetable Kingdom*. This book will form a complement to that on the *Fertilisation of Orchids,* in which I showed how perfect were the means for cross-fertilisation, and here I shall show how important are the results. I was led to make, during eleven years, the numerous experiments recorded in this volume, by a mere accidental observation; and indeed it required the accident to be repeated before my attention was thoroughly aroused to the remarkable fact that seedlings of self-fertilised parentage are inferior, even in the first generation, in height and vigour to seedlings of cross-fertilised parentage. I hope also to republish a revised edition of my book on orchids, and hereafter my

papers on dimorphic and trimorphic plants, together with some additional observations on allied points which I never have had time to arrange. My strength will then probably be exhausted, and I shall be ready to exclaim *"Nunc dimittis."*

Written May 1, 1881. The Effects of Cross and Self-Fertilisation was published in the autumn of 1876; and the results there arrived at explain, as I believe, the endless and wonderful contrivances for the transportal of pollen from one plant to another of the same species. I now believe, however, chiefly from the observations of Hermann Müller, that I ought to have insisted more strongly than I did on the many adaptations for self-fertilisation; though I was well aware of many such adaptations. A much enlarged edition of my *Fertilisation of Orchids* was published in 1877.

In this same year *The Different Forms of Flowers,* etc., appeared, and in 1880 a second edition. This book consists chiefly of the several papers on heterostyled flowers originally published by the Linnean Society, corrected, with much new matter added, together with observations on some other cases in which the same plant bears two kinds of flowers. As before remarked, no little discovery of mine ever gave me so much pleasure as the making out the meaning of heterostyled flowers. The results of crossing such flowers in an illegitimate manner I believe to be very important, as bearing on the sterility of hybrids; although these results have been noticed by only a few persons.

In 1879, I had a translation of Dr. Ernst Krause's *Life of Erasmus Darwin* published, and I added a sketch of his character and habits from material in my possession. Many persons have been much interested by this little life, and I am surprised that only 800 or 900 copies were sold.

In 1880 I published, with [my son] Frank's assistance, our *Power of Movement in Plants.* This was a tough piece of work. The book bears somewhat the same relation to my little book on *Climbing Plants* which *Cross-Fertilisation* did to the *Fertilisation of Orchids;* for in accordance with the principle of evolution it was impossible to account for climbing plants having been developed in so many widely different groups unless all kinds of plants possess some slight power of movement of an analogous kind. This I proved to be the case; and I was further led to a rather wide generalization, viz., that the great and important classes of movements, excited by light, the attraction of gravity, etc., are all modified forms of the fundamental movement of circumnutation. It has always pleased me to exalt plants in the scale of organized beings; and I therefore felt an especial pleasure in showing how many and what admirably well-adapted movements the tip of a root possesses.

I have now (May 1, 1881) sent to the printers the MS. of a little book on *The Formation of Vegetable Mould through the Action of Worms*. This is a subject of but small importance; and I know not whether it will interest any readers,[18] but it has interested me. It is the completion of a short paper read before the Geological Society more than forty years ago, and has revived old geological thoughts.

I have now mentioned all the books which I have published, and these have been the milestones in my life, so that little remains to be said. I am not conscious of any change in my mind during the last thirty years, excepting in one point presently to be mentioned; nor, indeed, could any change have been expected unless one of general deterioration. But my father lived to his eighty-third year with his mind as lively as ever it was, and all his faculties undimmed; and I hope that I may die before my mind fails to a sensible extent. I think that I have become a little more skilful in guessing right explanations and in devising experimental tests; but this may probably be the result of mere practice, and of a larger store of knowledge. I have as much difficulty as ever in expressing myself clearly and concisely; and this difficulty has caused me a very great loss of time; but it has had the compensating advantage of forcing me to think long and intently about every sentence, and thus I have been led to see errors in reasoning and in my own observations or those of others.

There seems to be a sort of fatality in my mind leading me to put at first my statement or proposition in a wrong or awkward form. Formerly I used to think about my sentences before writing them down; but for several years I have found that it saves time to scribble in a vile hand whole pages as quickly as I possibly can, contracting half the words; and then correct deliberately. Sentences thus scribbled down are often better ones than I could have written deliberately.

Having said thus much about my manner of writing, I will add that with my large books I spend a good deal of time over the general arrangement of the matter. I first make the rudest outline in two or three pages, and then a larger one in several pages, a few words or one word standing for a whole discussion or series of facts. Each one of these headings is again enlarged and often transferred before I begin to write *in extenso*. As in several of my books facts observed by others have been very extensively used, and as I have always had several quite distinct subjects in hand at the same time, I may mention that I keep from thirty to forty large portfolios, in cabinets with labelled shelves, into which I

18. Between November, 1881, and February, 1884, 8,500 copies have been sold.

can at once put a detached reference or memorandum. I have bought many books, and at their ends I make an index of all the facts that concern my work; or, if the book is not my own, write out a separate abstract, and of such abstracts I have a large drawer full. Before beginning on any subject I look to all the short indexes and make a general and classified index, and by taking the one or more proper portfolios I have all the information collected during my life ready for use.

I have said that in one respect my mind has changed during the last twenty or thirty years. Up to the age of thirty, or beyond it, poetry of many kinds, such as the works of Milton, Gray, Byron, Wordsworth, Coleridge, and Shelley, gave me great pleasure, and even as a schoolboy I took intense delight in Shakespeare, especially in the historical plays. I have also said that formerly pictures gave me considerable, and music very great, delight. But now for many years I cannot endure to read a line of poetry: I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also almost lost my taste for pictures or music. Music generally sets me thinking too energetically on what I have been at work on, instead of giving me pleasure. I retain some taste for fine scenery, but it does not cause me the exquisite delight which it formerly did. On the other hand, novels which are works of the imagination, though not of a very high order, have been for years a wonderful relief and pleasure to me, and I often bless all novelists. A surprising number have been read aloud to me, and I like all if moderately good, and if they do not end unhappily—against which a law ought to be passed. A novel, according to my taste, does not come into the first class unless it contains some person whom one can thoroughly love, and if a pretty woman all the better.

This curious and lamentable loss of the higher aesthetic tastes is all the odder, as books on history, biographies, and travels (independently of any scientific facts which they may contain), and essays on all sorts of subjects interest me as much as ever they did. My mind seems to have become a kind of machine for grinding general laws out of large collections of facts, but why this should have caused the atrophy of that part of the brain alone on which the higher tastes depend I cannot conceive. A man with a mind more highly organized or better constituted than mine would not, I suppose, have thus suffered; and if I had to live my life again, I would have made a rule to read some poetry and listen to some music at least once every week; for perhaps the parts of my brain now atrophied would thus have been kept active through use. The loss of these tastes is a loss of happiness, and may possibly be injurious to the

intellect, and more probably to the moral character, by enfeebling the emotional part of our nature.

My books have sold largely in England, have been translated into many languages, and passed through several editions in foreign countries. I have heard it said that the success of a work abroad is the best test of its enduring value. I doubt whether this is at all trustworthy; but judged by this standard my name ought to last for a few years. Therefore it may be worth-while to try to analyse the mental qualities and the conditions on which my success has depended; though I am aware that no man can do this correctly.

I have no great quickness of apprehension or wit which is so remarkable in some clever men, for instance, Huxley. I am therefore a poor critic: a paper or book, when first read, generally excites my admiration, and it is only after considerable reflection that I perceive the weak points. My power to follow a long and purely abstract train of thought is very limited; and therefore I could never have succeeded with metaphysics or mathematics. My memory is extensive, yet hazy: it suffices to make me cautious by vaguely telling me that I have observed or read something opposed to the conclusion which I am drawing, or on the other hand in favour of it; and after a time I can generally recollect where to search for my authority. So poor in one sense is my memory that I have never been able to remember for more than a few days a single date or a line of poetry.

Some of my critics have said, "Oh, he is a good observer, but he has no power of reasoning!" I do not think that this can be true, for the *Origin of Species* is one long argument from the beginning to the end, and it has convinced not a few able men. No one could have written it without having some power of reasoning. I have a fair share of invention, and of common sense or judgment, such as every fairly successful lawyer or doctor must have, but not, I believe, in any higher degree.

On the favourable side of the balance, I think that I am superior to the common run of men in noticing things which easily escape attention, and in observing them carefully. My industry has been nearly as great as it could have been in the observation and collection of facts. What is far more important, my love of natural science has been steady and ardent.

This pure love has, however, been much aided by the ambition to be esteemed by my fellow naturalists. From my early youth I have had the strongest desire to understand or explain whatever I observed–that is, to group all facts under some general laws. These causes combined have given me the patience to reflect or ponder for any number of years over

any unexplained problem. As far as I can judge, I am not apt to follow blindly the lead of other men. I have steadily endeavoured to keep my mind free so as to give up any hypothesis, however much beloved (and I cannot resist forming one on every subject), as soon as facts are shown to be opposed to it. Indeed, I have had no choice but to act in this manner, for with the exception of the coral reefs, I cannot remember a single first-formed hypothesis which had not after a time to be given up or greatly modified. This has naturally led me to distrust greatly deductive reasoning in the mixed sciences. On the other hand, I am not very sceptical—a frame of mind which I believe to be injurious to the process of science. A good deal of scepticism in a scientific man is advisable to avoid much loss of time, but I have met with not a few men who, I feel sure, have often thus been deterred from experiment or observations which would have proved directly or indirectly serviceable.

In illustration, I will give the oddest case which I have known. A gentleman (who, as I afterwards heard, is a good local botanist) wrote to me from the eastern counties that the seed or beans of the common field-bean had this year everywhere grown on the wrong side of the pod. I wrote back asking for further information, as I did not understand what was meant; but I did not receive any answer for a very long time. I then saw in two newspapers, one published in Kent and the other in Yorkshire, paragraphs stating that it was a most remarkable fact that "the beans this year had all grown on the wrong side." So I thought there must be some foundation for so general a statement. Accordingly, I went to my gardener, an old Kentish man, and asked him whether he had heard anything about it, and he answered, "Oh, no, Sir, it must be a mistake, for the beans grow on the wrong side only on leap year, and this is not leap year." I then asked him how they grew in common years and how on leap years, but soon found that he knew absolutely nothing of how they grew at any time, but he stuck to his belief.

After a time I heard from my first informant, who, with many apologies, said that he should not have written to me had he not heard the statement from several intelligent farmers; but that he had since spoken again to every one of them, and not one knew in the least what he had himself meant. So that here a belief—if indeed a statement with no definite idea attached to it can be called a belief—had spread over almost the whole of England without any vestige of evidence.

I have known in the course of my life only three intentionally falsified statements, and one of these may have been a hoax (and there have been several scientific hoaxes), which, however, took in an American agricul-

tural journal. It related to the formation in Holland of a new breed of oxen by the crossing of distinct species of *Bos* (some of which I happen to know are sterile together), and the author had the impudence to state that he had corresponded with me, and that I had been deeply impressed with the importance of his result. The article was sent to me by the editor of an English agricultural journal, asking for my opinion before republishing it.

A second case was an account of several varieties raised by the author from several species of Primula, which had spontaneously yielded a full complement of seed, although the parent plants had been carefully protected from the access of insects. This account was published before I had discovered the meaning of heterostylism, and the whole statement must have been fraudulent, or there was neglect in excluding insects so gross as to be scarcely credible.

The third case was more curious: Mr. Huth published in his book on *Consanguineous Marriage* some long extracts from a Belgian author who stated that he had interbred rabbits in the closest manner for very many generations without the least injurious effects. The account was published in a most respectable journal, that of the Royal Society of Belgium; but I could not avoid feeling doubts–I hardly know why, except that there were no accidents of any kind, and my experience in breeding animals made me think this very improbable.

So with much hesitation I wrote to Professor Van Beneden, asking him whether the author was a trustworthy man. I soon heard in answer that the society had been greatly shocked by discovering that the whole account was a fraud.[19] The writer had been publicly challenged in the journal to say where he had resided and kept his large stock of rabbits while carrying on his experiments, which must have consumed several years, and no answer could be extracted from him.

My habits are methodical, and this has been of not a little use for my particular line of work. Lastly, I have had ample leisure from not having to earn my own bread. Even ill health, though it has annihilated several years of my life, has saved me from the distractions of society and amusement.

Therefore my success as a man of science, whatever this may have amounted to, has been determined, as far as I can judge, by complex and

19. The falseness of the published statements on which Mr. Huth relied has been pointed out by himself in a slip inserted in all the copies of his book which then remained unsold.

diversified mental qualities and conditions. Of these, the most important have been–the love of science–unbounded patience in long reflecting over any subject–industry in observing and collecting facts–and a fair share of invention as well as of common sense. With such moderate abilities as I possess, it is truly surprising that I should have influenced to a considerable extent the belief of scientific men on some important points.

Jean Henri Fabre

1823–1915

J. Henri Fabre was born at St. Léons, in southern France, in 1823, the son of humble parents who could afford to give him only an elementary education. He studied at the normal school at Vaucluse, supporting himself, and became a teacher. He took a position in Corsica but had to leave it when he contracted malaria. In 1852 he began to teach at Avignon, where he remained for 20 years. During this period his salary never exceeded $320 a year. His ideas on pedagogy were in advance of his time; when he finally admitted girls to his science classes he was denounced and dismissed from his post. He was ejected, with his wife and five children, from his home, and was saved only by a loan from John Stuart Mill, with whom he had made a number of botanical excursions.

Fabre now retired from teaching and supported himself by writing books of popular science. He paid back the loan and, after nine years, in 1879, bought the first piece of land he had ever owned. Its two and one-half sandy, scrubby acres, and his joy in their acquisition, are described in the first of the selections that follow. Here, at Sérignan, he gathered together the notes of a quarter of a century and began to produce his great work, the *Souvenirs entomologiques,* whose ten volumes were not completed till 1907. His laboratory, fitted with the most primitive equipment, gave evidence of his extraordinary industry. Not only were there the ten volumes, comprising 2,500 pages and 850,000 words, but in the floor of the laboratory a path had been worn in the tiles by Fabre as he circled his table in his heavy peasant shoes.

Upon the completion of his *Souvenirs,* Fabre, who had worked in almost total obscurity, was suddenly discovered by the leading literary figures of the time. He was showered with homage, and a jubilee in his honor was held at Sérignan in 1910, when he was 86.

He was nearly blind, and he was hardly able to recognize the President of France who had journeyed from Paris to pay his respects. Fabre died at Sérignan, saddened by the war that had overwhelmed his beloved country, on October 11, 1915.

Here, surely—and the list is far from complete—is a company both numerous and select, whose conversation will not fail to charm my solitude, if I succeed in drawing it out." Thus Fabre describes the insect population of his little farm at Sérignan, his "abandoned, barren, sun-scorched bit of land, favored by thistles and by wasps and bees." It has been doubted whether any man ever appreciated such a worthless piece of land more. For Fabre, it was certainly not worthless. It was, in his words, "a laboratory in the open fields." And it was in a laboratory, whether open or enclosed, that he was happiest. Despite the suffering of his life, Fabre gives the impression of being one of the happiest men who ever lived. He who loves insects is fortunate, for there are so many of them.

To Fabre, of course, insects were not what they are to most people. Each was almost an individual; certainly each species was distinct. It is said that he overemphasized the importance of instinct in insect life. He thought wasps and bees were more limited in their freedom to adapt to circumstances than certain modern entomologists believe. But he came to his conclusions as a result of observation so patient and painstaking that it almost seems incredible.

The Sacred Beetle, the second selection reprinted here, is, as its title suggests, about one kind of insect rather than many. The scarab, or dung-beetle (the nearest American relative is the june-bug), was one of Fabre's favorite insects. He spent nearly half a century studying this thieving, lazy, but also unbelievably industrious little animal. He seemed never to grow tired of dung-beetles, nor did he, evidently, ever become unaware of how funny the fact might appear to some people. "What excitement over a single patch of cowdung!" he writes, knowing full well that the reader will smile not only at the beetle's enthusiasm, but at the author's, too. To Fabre the beetle's world was part of that "most wonderful of festivals, life's springtime awakening." Life, any kind of life, no matter how humble, was to Fabre a festival. Others might think this silly or sad, but he could only watch and wonder.

Fabre's scientific purity must be defended. He appears, from one

point of view, to interject too much human morality into his history of the dung-beetle. "These dung-rollers rob one another with a calm effrontery which, to my knowledge, is without a parallel," he writes. The beetle's "breach of trust rouses (his) indignation," and he observes that, in general, "the insect cares for nothing but itself." But it is also apparent that his moralizing is done with tongue in cheek. In fact, he seems to accept the dung-beetle for what it is and makes no judgments for or against. He loves the insect in that sense—he does not want to change it.

Fabre is a naturalist. What he observes, he studies in the round, as a whole. "To know thoroughly the history of the destroyer of our vines," he writes, "might perhaps be more important than to know how this or that nerve-fibre of a Cirriped ends." His is a laboratory of "living entomology," and his data are histories, not isolated facts. He does not seek for causes; it is enough for him that he discover what happens, not how it happens. That can come later, he seems to imply, when patient men like him have done their work.

A Laboratory of the Open Fields [1]

To travel the world, by land and sea, from pole to pole; to cross-question life, under every clime, in the infinite variety of its manifestations: that surely would be glorious luck for him that has eyes to see; and it formed the radiant dreams of my young years, at the time when *Robinson Crusoe* was my delight. These rosy illusions, rich in voyages, were soon succeeded by dull, stay-at-home reality. The jungles of India, the virgin forests of Brazil, the towering crests of the Andes, beloved by the condor, were reduced, as a field for exploration, to a patch of pebbles enclosed within four walls.

I go the circuit of my enclosure over and over again, a hundred times, by short stages; I stop here and I stop there; patiently, I put questions and, at long intervals, I receive some scrap of a reply. The smallest insect village has become familiar to me: I know each fruit-branch where the praying mantis perches; each bush where the pale Italian cricket strums amid the calmness of the summer nights; each downy plant scraped by the Anthidium, that maker of cotton bags; each cluster of lilac worked by the Megachile, the leaf-cutter.

This is what I wished for, *hoc erat in votis*: a bit of land, oh, not so very large, but fenced in, to avoid the drawbacks of a public way; an abandoned, barren, sun-scorched bit of land, favoured by thistles and by wasps and bees. Here, without fear of being troubled by the passersby, I could consult the Ammophila and the Sphex and engage in that difficult conversation whose questions and answers have experiment for their

1. Among the insects named by Fabre, the Cicadella is a froghopper; the Scarab, Lamellicorns, Oryctes and Cetoniae are beetles; the Sphex, Ammophila, Cerceris, Stizus, Pompilus, Pelopaeus, Polistes, Eumenes, Scoliae and Bembeces are wasps; the Ephippiger is a green grasshopper and the Halicti, Megachiles, Chalcicodomae, Osmiae, Anthophorae, Anthidium, Eucerae, Macrocerae, Dasypodae and Andrenae are all wild bees.

language; here, without distant expeditions that take up my time, without tiring rambles that strain my nerves, I could contrive my plans of attack, lay my ambushes and watch their effects at every hour of the day. *Hoc erat in votis.* Yes, this was my wish, my dream, always cherished, always vanishing into the mists of the future.

And it is no easy matter to acquire a laboratory in the open fields, when harassed by a terrible anxiety about one's daily bread. For forty years have I fought, with steadfast courage, against the paltry plagues of life; and the long-wished-for laboratory has come at last. What it has cost me in perseverance and relentless work I will not try to say. It has come; and, with it—a more serious condition—perhaps a little leisure. I say perhaps, for my leg is still hampered with a few links of the convict's chain.

The wish is realized. It is a little late, O my pretty insects! I greatly fear that the peach is offered to me when I am beginning to have no teeth wherewith to eat it. Yes, it is a little late: the wide horizons of the outset have shrunk into a low and stifling canopy, more and more straitened day by day. Regretting nothing in the past, save those whom I have lost; regretting nothing, not even my first youth; hoping nothing either, I have reached the point at which, worn out by the experience of things, we ask ourselves if life be worth the living.

Amid the ruins that surround me, one strip of wall remains standing, immovable upon its solid base: my passion for scientific truth. Is that enough, O my busy insects, to enable me to add yet a few seemly pages to your history? Will my strength not cheat my good intentions? Why, indeed, did I forsake you so long? Friends have reproached me for it. Ah, tell them, tell those friends, who are yours as well as mine, tell them that it was not forgetfulness on my part, not weariness, nor neglect: I thought of you; I was convinced that the Cerceris cave had more fair secrets to reveal to us, that the chase of the Sphex held fresh surprises in store. But time failed me; I was alone, deserted, struggling against misfortune. Before philosophizing, one had to live. Tell them that; and they will pardon me.

Others again have reproached me with my style, which has not the solemnity, nay, better, the dryness of the schools. They fear lest a page that is read without fatigue should not always be the expression of the truth. Were I to take their word for it, we are profound only on condition of being obscure. Come here, one and all of you—you, the sting-bearers, and you, the wing-cased armour-clads—take up my defence and bear witness in my favour. Tell of the intimate terms on which I live

with you, of the patience with which I observe you, of the care with which I record your actions. Your evidence is unanimous: yes, my pages, though they bristle not with hollow formulas nor learned smatterings, are the exact narrative of facts observed, neither more nor less; and whoso cares to question you in his turn will obtain the same replies.

And then, my dear insects, if you cannot convince those good people, because you do not carry the weight of tedium, I, in my turn, will say to them:

"You rip up the animal and I study it alive; you turn it into an object of horror and pity, whereas I cause it to be loved; you labour in a torture-chamber and dissecting-room, I make my observations under the blue sky to the song of the cicadas, you subject cell and protoplasm to chemical tests, I study instinct in its loftiest manifestations; you pry into death, I pry into life. And why should I not complete my thought: the boars have muddied the clear stream; natural history, youth's glorious study, has, by dint of cellular improvements, become a hateful and repulsive thing. Well, if I write for men of learning, for philosophers, who, one day, will try to some extent to unravel the tough problem of instinct, I write also, I write above all things for the young. I want to make them love the natural history which you make them hate; and that is why, while keeping strictly to the domain of truth, I avoid your scientific prose, which too often, alas seems borrowed from some Iroquois idiom!"

But this is not my business for the moment: I want to speak of the bit of land long cherished in my plans to form a laboratory of living entomology, the bit of land which I have at last obtained in the solitude of a little village. It is a *harmas,* the name given, in this district, to an untilled, pebbly expanse abandoned to the vegetation of the thyme. It is too poor to repay the work of the plough; but the sheep passes there in spring, when it has chanced to rain and a little grass shoots up.

My harmas, however, because of its modicum of red earth swamped by a huge mass of stones, has received a rough first attempt at cultivation: I am told that vines once grew here. And, in fact, when we dig the ground before planting a few trees, we turn up, here and there, remains of the precious stock, half-carbonized by time. The three-pronged fork, therefore, the only implement of husbandry that can penetrate such a soil as this, has entered here; and I am sorry, for the primitive vegetation has disappeared. No more thyme, no more lavender, no more clumps of kermes-oak, the dwarf oak that forms forests across which we step by lengthening our stride a little. As these plants, especially the first two, might be of use to me by offering the bees and wasps a spoil to forage, I am

compelled to reinstate them in the ground whence they were driven by the fork.

What abounds without my mediation is the invaders of any soil that is first dug up and then left for a long time to its own resources. We have, in the first rank, the couch-grass, that execrable weed which three years of stubborn warfare have not succeeded in exterminating. Next, in respect of number, come the centauries, grim-looking one and all, bristling with prickles or starry halberds. They are the yellow-flowered centaury, the mountain centaury, the star-thistle and the rough centaury: the first predominates. Here and there, amid their inextricable confusion, stands, like a chandelier with spreading, orange flowers for lights, the fierce Spanish oyster-plant, whose spikes are strong as nails. Above it, towers the Illyrian cotton-thistle, whose straight and solitary stalk soars to a height of three to six feet and ends in large pink tufts. Its armour hardly yields before that of the oyster-plant. Nor must we forget the lesser thistle-tribe, with first of all, the prickly or "cruel" thistle, which is so well armed that the plant-collector knows not where to grasp it; next, the spear-thistle, with its ample foliage, ending each of its veins with a spear-head; lastly, the black knap-weed, which gathers itself into a spiky knot. In among these, in long lines armed with hooks, the shoots of the blue dewberry creep along the ground. To visit the prickly thicket when the wasp goes foraging, you must wear boots that come to mid-leg or else resign yourself to a smarting in the calves. As long as the ground retains a few remnants of the vernal rains, this rude vegetation does not lack a certain charm, when the pyramids of the oyster-plant and the slender branches of the cotton-thistle rise above the wide carpet formed by the yellow-flowered centaury saffron heads; but let the droughts of summer come and we see but a desolate waste, which the flame of a match would set ablaze from one end to the other. Such is, or rather was, when I took possession of it, the Eden of bliss where I mean to live henceforth alone with the insect. Forty years of desperate struggle have won it for me.

Eden, I said; and, from the point of view that interests me, the expression is not out of place. This cursed ground, which no one would have had at a gift to sow with a pinch of turnip-seed, is an earthly paradise for the bees and wasps. Its mighty growth of thistles and centauries draws them all to me from everywhere around. Never, in my insect-hunting memories, have I seen so large a population at a single spot; all the trades have made it their rallying-point. Here come hunters of every kind of game, builders in clay, weavers of cotton goods, collectors of pieces cut from a leaf or the petals of a flower, architects in pasteboard, plasterers

mixing mortar, carpenters boring wood, miners digging underground galleries, workers handling goldbeater's skin and many more.

Who is this one? An Anthidium. She scrapes the cobwebby stalk of the yellow-flowered centaury and gathers a ball of wadding which she carries off proudly in the tips of her mandibles. She will turn it, under ground, into cotton-felt satchels to hold the store of honey and the egg. And these others, so eager for plunder? They are Megachiles, carrying under their bellies their black, white or blood-red reaping-brushes. They will leave the thistles to visit the neighbouring shrubs and there cut from the leaves oval pieces which will be made into a fit receptacle to contain the harvest. And these, clad in black velvet? They are Chalcicodomae, who work with cement and gravel. We could easily find their masonry on the stones in the harmas. And these, noisily buzzing with a sudden flight? They are the Anthophorae, who live in the old walls and the sunny banks of the neighbourhood.

Now come the Osmiae. One stacks her cells in the spiral staircase of an empty snail-shell; another, attacking the pith of a dry bit of bramble, obtains for her grubs a cylindrical lodging and divides it into floors by means of partition-walls; a third employs the natural channel of a cut reed; a fourth is a rent-free tenant of the vacant galleries of some mason-bee. Here are the Macrocerae and the Eucerae, whose males are proudly horned; the Dasypodae, who carry an ample brush of bristles on their hind-legs for a reaping implement; the Andrenae, so manifold in species; the slender-bellied Halicti. I omit a host of others. If I tried to continue this record of the guests of my thistles, it would muster almost the whole of the honey-yielding tribe. A learned entomologist of Bordeaux, Professor Pérez, to whom I submit the naming of my prizes, once asked me if I had any special means of hunting, to send him so many rarities and even novelties. I am not at all an experienced and, still less, a zealous hunter, for the insect interests me much more when engaged in its work than when stuck on a pin in a cabinet. The whole secret of my hunting is reduced to my dense nursery of thistles and centauries.

By a most fortunate chance, with this populous family of honey-gatherers was allied the whole hunting tribe. The builders' men had distributed here and there in the harmas great mounds of sand and heaps of stones, with a view to running up some surrounding walls. The work dragged on slowly; and the materials found occupants from the first year. The mason-bees had chosen the interstices between the stones as a dormitory where to pass the night, in serried groups. The powerful eyed lizard, who, when close-pressed, attacks both man and dog, wide-mouthed,

had selected a cave wherein to lie in wait for the passing scarab; the black-eared chat, garbed like a Dominican, white-frocked with black wings, sat on the top stone, singing his short rustic lay: his nest, with its sky-blue eggs, must be somewhere in the heap. The little Dominican disappeared with the loads of stones. I regret him: he would have been a charming neighbour. The eyed lizard I do not regret at all.

The sand sheltered a different colony. Here, the Bembeces were sweeping the threshold of their burrows, flinging a curve of dust behind them; the Languedocian Sphex was dragging her Ephippigera by the antennae; a Stizus was storing her preserves of Cicadellae. To my sorrow, the masons ended by evicting the sporting tribe; but, should I ever wish to recall it, I have but to renew the mounds of sand: they will soon all be there.

Hunters that have not disappeared, their homes being different, are the Ammophilae, whom I see fluttering, one in spring, the others in autumn, along the garden-walks and over the lawns, in search of a caterpillar; the Pompili, who travel alertly, beating their wings and rummaging in every corner in quest of a spider. The largest of them waylays the Narbonne Lycosa, whose burrow is not infrequent in the harmas. This burrow is a vertical well, with a curb of fescue-grass intertwined with silk. You can see the eyes of the mighty spider gleam at the bottom of the den like little diamonds, an object of terror to most. What a prey and what dangerous hunting for the Pompilus! And here, on a hot summer afternoon, is the Amazon-ant, who leaves her barrack-rooms in long battalions and marches far afield to hunt for slaves. We will follow her in her raids when we find time. Here again, around a heap of grasses turned to mould, are Scoliae an inch and a half long, who fly gracefully and dive into the heap, attracted by a rich prey, the grubs of Lamellicorns, Oryctes and Cetoniae.

What subjects for study! And there are more to come. The house was as utterly deserted as the ground. When man was gone and peace assured, the animal hastily seized on everything. The warbler took up his abode in the lilac-shrubs; the greenfinch settled in the thick shelter of the cypresses; the sparrow carted rags and straw under every slate; the serin-finch, whose downy nest is no bigger than half an apricot, came and chirped in the plane-tree-tops; the Scops made a habit of uttering his monotonous, piping note here, of an evening; the bird of Pallas Athene, the owl, came hurrying along to hoot and hiss.

In front of the house is a large pond, fed by the aqueduct that supplies the village-pumps with water. Here, from half a mile and more around, come the frogs and toads in the lovers' season. The natterjack,

sometimes as large as a plate, with a narrow stripe of yellow down his back, makes his appointments here to take his bath; when the evening twilight falls, we see hopping along the edge the midwife toad, the male, who carries a cluster of eggs, the size of peppercorns, wrapped round his hindlegs: the genial paterfamilias has brought his precious packet from afar, to leave it in the water and afterwards retire under some flat stone, whence he will emit a sound like a tinkling bell. Lastly, when not croaking amid the foliage, the tree-frogs indulge in the most graceful dives. And so, in May, as soon as it is dark, the pond becomes a deafening orchestra: it is impossible to talk at table, impossible to sleep. We had to remedy this by means perhaps a little too rigorous. What could we do? He who tries to sleep and cannot needs becomes ruthless.

Bolder still, the wasp has taken possession of the dwelling-house. On my door-sill, in a soil of rubbish, nestles the white-banded Sphex: when I go indoors, I must be careful not to damage her burrows, not to tread upon the miner absorbed in her work. It is quite a quarter of a century since I last saw the saucy cricket-hunter. When I made her acquaintance, I used to visit her at a few miles' distance: each time, it meant an expedition under the blazing August sun. To-day, I find her at my door; we are intimate neighbours. The embrasure of the closed window provides an apartment of a mild temperature for the Pelopaeus. The earth-built nest is fixed against the freestone wall. To enter her home, the spider-huntress uses a little hole left open by accident in the shutters. On the mouldings of the Venetian blinds, a few stray mason-bees build their group of cells; inside the outer shutters, left ajar, a Eumenes constructs her little earthen dome, surmounted by a short, bell-mouthed neck. The common wasp and the Polistes are my dinner-guests: they visit my table to see if the grapes served are as ripe as they look.

Here, surely—and the list is far from complete—is a company both numerous and select, whose conversation will not fail to charm my solitude, if I succeed in drawing it out. My dear beasts of former days, my old friends, and others, more recent acquaintances, all are here, hunting, foraging, building in close proximity. Besides, should we wish to vary the scene of observation, the mountain is but a few hundred steps away, with its tangle of arbutus, rock-roses and arborescent heather; with its sandy spaces dear to the Bembeces; with its marly slopes exploited by different wasps and bees. And that is why, foreseeing these riches, I have abandoned the town for the village and come to Sérignan to weed my turnips and water my lettuces.

Laboratories are being founded, at great expense, on our Atlantic and Mediterranean coasts, where people cut up small sea-animals, of but

meagre interest to us; they spend a fortune on powerful microscopes, delicate dissecting-instruments, engines of capture, boats, fishing-crews, aquariums, to find out how the yolk of an Annelid's egg is constructed, a question whereof I have never yet been able to grasp the full importance; and they scorn the little land-animal, which lives in constant touch with us, which provides universal psychology with documents of inestimable value, which too often threatens the public wealth by destroying our crops. When shall we have an entomological laboratory for the study not of the dead insect, steeped in alcohol, but of the living insect; a laboratory having for its object the instinct, the habits, the manner of living, the work, the struggles, the propagation of that little world, with which agriculture and philosophy have most seriously to reckon?

To know thoroughly the history of the destroyer of our vines might perhaps be more important than to know how this or that nerve-fibre of a Cirriped ends; to establish by experiment the line of demarcation between intellect and instinct; to prove, by comparing facts in the zoological progression, whether human reason be an irreducible faculty or not: all this ought surely to take precedence of the number of joints in a crustacean's antenna. These enormous questions would need an army of workers; and we have not one. The fashion is all for the mollusc and the zoophytes. The depths of the sea are explored with many dragnets; the soil which we tread is consistently disregarded. While waiting for the fashion to change, I open my harmas laboratory of living entomology; and this laboratory shall not cost the ratepayers one farthing.

The foregoing consists of two paragraphs
from Fabre's THE GLOW-WORM
and Chapter I from Fabre's THE LIFE OF THE FLY.

The Sacred Beetle

It happened like this. There were five or six of us: myself, the oldest, officially their master but even more their friend and comrade; they, lads with warm hearts and joyous imaginations, overflowing with that youthful vitality which makes us so enthusiastic and so eager for knowledge. We started off one morning down a path fringed with dwarf elder and hawthorn, whose clustering blossoms were already a paradise for the rose chafer ecstatically drinking in their bitter perfumes. We talked as we went. We were going to see whether the sacred beetle had yet made his appearance on the sandy plateau of Les Angles, whether he was rolling that pellet of dung in which ancient Egypt beheld an image of the world; we were going to find out whether the stream at the foot of the hill was not hiding under its mantle of duckweed young newts with gills like tiny branches of coral; whether that pretty little fish of our rivulets, the stickleback, had donned his wedding scarf of purple and blue; whether the newly arrived swallow was skimming the meadows on pointed wing, chasing the craneflies, who scatter their eggs as they dance through the air; if the eyed lizard was sunning his blue-speckled body on the threshold of a burrow dug in the sandstone; if the laughing gull, travelling from the sea in the wake of the legions of fish that ascend the Rhône to milt in its waters, was hovering in his hundreds over the river, ever and anon uttering his cry so like a maniac's laughter; if . . . but that will do. To be brief, let us say that, like good simple folk who find pleasure in all living things, we were off to spend a morning at the most wonderful of festivals, life's springtime awakening.

Our expectations were fulfilled. The stickleback was dressed in his best: his scales would have paled the lustre of silver; his throat was flashing with the brightest vermilion. On the approach of the great black horse-leech, the spines on his back and sides started up, as though worked

by a spring. In the face of this resolute attitude, the bandit turns tail and slips ignominiously down among the water-weeds. The placid mollusc tribe—Planorbes, Limnaei and other water-snails—were sucking in the air on the surface of the water. The Hydrophilus [a predaceous water-beetle] and her hideous larva, those pirates of the ponds, darted amongst them, wringing a neck or two as they passed. The stupid crowd did not seem even to notice it. But let us leave the plain and its waters and clamber up the bluff to the plateau above us. Up there, sheep are grazing and horses being exercised for the approaching races, while all are distributing manna to the enraptured dung-beetles.

What excitement over a single patch of cow-dung! Never did adventurers hurrying from the four corners of the earth display such eagerness in working a Californian claim. Before the sun becomes too hot, they are there in their hundreds, large and small, of every sort, shape and size, hastening to carve themselves a slice of the common cake. There are some that labour in the open air and scrape the surface; there are others that dig themselves galleries in the thick of the heap, in search of choice veins; some work the lower stratum and bury their spoil without delay in the ground just below; others again, the smallest, keep on one side and crumble a morsel that has slipped their way during the mighty excavations of their more powerful fellows. Some, newcomers and doubtless the hungriest, consume their meal on the spot; but the greater number dream of accumulating stocks that will allow them to spend long days in affluence, down in some safe retreat. A nice, fresh patch of dung is not found just when you want it, in the barren plains overgrown with thyme; a windfall of this sort is as manna from the sky; only fortune's favourites receive so fair a portion. Wherefore the riches of to-day are prudently hoarded for the morrow. The stercoraceous scent has carried the glad tidings half a mile around; and all have hastened up to get a store of provisions. A few laggards are still arriving, on the wing or on foot.

Who is this that comes trotting towards the heap, fearing lest he reach it too late? His long legs move with awkward jerks, as though driven by some mechanism within his belly; his little red antennae unfurl their fan, a sign of anxious greed. He is coming, he has come, not without sending a few banqueters sprawling. It is the sacred beetle, clad all in black, the biggest and most famous of our dung-beetles. Behold him at table, beside his fellow-guests, each of whom is giving the last touches to his ball with the flat of his broad forelegs or else enriching it with yet one

more layer before retiring to enjoy the fruit of his labours in peace. Let us follow the construction of the famous ball in all its phases.

The clypeus, or shield, that is, the edge of the broad, flat head, is notched with six angular teeth arranged in a semicircle. This constitutes the tool for digging and cutting up, the rake that lifts and casts aside the unnutritious vegetable fibres, goes for something better, scrapes and collects it. A choice is thus made, for these connoisseurs differentiate between one thing and another, making a rough selection when the beetle is occupied with his own provender, but an extremely scrupulous one when it is a case of constructing the maternal ball, which has a central cavity in which the egg will hatch. Then every scrap of fibre is conscientiously rejected and only the stercoral quintessence is gathered as the material for building the inner layer of the cell. The young larva, on issuing from the egg, thus finds in the very walls of its lodging a food of special delicacy which strengthens its digestion and enables it afterwards to attack the coarse outer layers.

Where his own needs are concerned, the beetle is less particular and contents himself with a very general sorting. The notched shield then does its scooping and digging, its casting aside and scraping together more or less at random. The forelegs play a mighty part in the work. They are flat, bow-shaped, supplied with powerful nervures and armed on the outside with five strong teeth. If a vigorous effort be needed to remove an obstacle or to force a way through the thickest part of the heap, the dung-beetle makes use of his elbows, that is to say, he flings his toothed legs to right and left and clears a semicircular space with an energetic sweep. Room once made, a different kind of work is found for these same limbs: they collect armfuls of the stuff raked together by the shield and push it under the insect's belly, between the four hinder legs. These are formed for the turner's trade. They are long and slender, especially the last pair, slightly bowed and finished with a very sharp claw. They are at once recognized as compasses, capable of embracing a globular body in their curved branches and of verifying and correcting its shape. Their function is, in fact, to fashion the ball.

Armful by armful, the material is heaped up under the belly, between the four legs, which, by a slight pressure, impart their own curve to it and give it a preliminary outline. Then, every now and again, the rough-hewn pill is set spinning between the four branches of the double pair of spherical compasses; it turns under the dung-beetle's belly until it is rolled into a perfect ball. Should the surface layer lack plasticity and threaten to

peel off, should some too stringy part refuse to yield to the action of the lathe, the forelegs touch up the faulty places; their broad paddles pat the ball to give consistency to the new layer and to work the recalcitrant bits into the mass.

Under a hot sun, when time presses, one stands amazed at the turner's feverish activity. And so the work proceeds apace: what a moment ago was a tiny pellet is now a ball the size of a walnut; soon it will be the size of an apple. I have seen some gluttons manufacture a ball the size of a man's fist. This indeed means food in the larder for days to come!

The beetle has his provisions. The next thing is to withdraw from the fray and transport the victuals to a suitable place. Here the scarab's most striking characteristics begin to show themselves. Straightway he begins his journey; he clasps his sphere with his two long hind-legs, whose terminal claws, planted in the mass, serve as pivots; he obtains a purchase with the middle pair of legs; and, with his toothed forearms, pressing in turn upon the ground, to do duty as levers, he proceeds with his load, he himself moving backwards, body bent, head down and hind-quarters in the air. The rear legs, the principal factor in the mechanism, are in continual movement backwards and forwards, shifting the claws to change the axis of rotation, to keep the load balanced and to push it along by alternate thrusts to right and left. In this way, the ball finds itself touching the ground by turns with every point of its surface, a process which perfects its shape and gives an even consistency to its outer layer by means of pressure uniformly distributed.

And now to work with a will! The thing moves, it begins to roll; we shall get there, though not without difficulty. Here is a first awkward place: the Beetle is wending his way athwart a slope and the heavy mass tends to follow the incline; the insect, however, for reasons best known to itself, prefers to cut across this natural road, a bold project which may be brought to naught by a false step or by a grain of sand which disturbs the balance of the load. The false step is made: down goes the ball to the bottom of the valley; and the insect, toppled over by the shock, is lying on its back, kicking. It is soon up again and hastens to harness itself once more to its load. The machine works better than ever. But look out, you dunderhead! Follow the dip of the valley: that will save labour and mishaps; the road is good and level; your ball will roll quite easily. Not a bit of it! The beetle prepares once again to mount the slope that has already been his undoing. Perhaps it suits him to return to the heights. Against that I have nothing to say: the scarab's judgment is better than mine as to the advisability of keeping to lofty regions; he can see farther than I can in these matters. But at least take this path, which will lead you up

by a gentle incline! Certainly not! Let him find himself near some very steep slope, impossible to climb, and that is the very path which the obstinate fellow will choose. Now begins a Sisyphean labour. The ball, that enormous burden, is painfully hoisted, step by step, with infinite precautions, to a certain height, always backwards. We wonder by what miracle of statics a mass of this size can be kept upon the slope. Oh! An ill-advised movement frustrates all this toil: the ball rolls down, dragging the beetle with it. Once more the heights are scaled and another fall is the sequel. The attempt is renewed, with greater skill this time at the difficult points; a wretched grass-root, the cause of the previous falls, is carefully got over. We are almost there; but steady now, steady! It is a dangerous ascent and the merest trifle may yet ruin everything. For see, a leg slips on a smooth bit of gravel! Down come ball and beetle, all mixed up together. And the insect begins over again, with indefatigable obstinacy. Ten times, twenty times, he will attempt the hopeless ascent, until his persistence vanquishes all obstacles, or until, wisely recognizing the futility of his efforts, he adopts the level road.

The scarab does not always push his precious ball alone: sometimes he takes a partner; or, to be accurate, the partner takes him. This is the way in which things usually happen: once his ball is ready, a dung-beetle issues from the crowd and leaves the work-yard, pushing his prize backwards. A neighbour, a newcomer, whose own task is hardly begun, abruptly drops his work and runs to the moving ball, to lend a hand to the lucky owner, who seems to accept the proffered aid kindly. Henceforth the two work in partnership. Each does his best to push the pellet to a place of safety. Was a compact really concluded in the work-yard, a tacit agreement to share the cake between them? While one was kneading and moulding the ball, was the other tapping rich veins whence to extract choice materials and add them to the common store? I have never observed any such collaboration; I have always seen each dung-beetle occupied solely with his own affairs in the works. The last-comer, therefore, has no acquired rights.

Can it then be a partnership between the two sexes, a couple intending to set up house? I thought so for a time.

The evidence of the scalpel compelled me to abandon my belief in this domestic idyll. There is no outward difference between the two sexes in the Scarabaei. I therefore dissected the pair of dung-beetles engaged in trundling one and the same ball; and they very often proved to be of the same sex.

Neither community of family nor community of labour! Then what is the motive for this apparent partnership? It is purely and simply an

attempt at robbery. The zealous fellow-worker, on the false plea of lending a helping hand, cherishes a plan to purloin the ball at the first opportunity. To make one's own ball at the heap means hard work and patience; to steal one ready-made, or at least to foist one's self as a guest, is a much easier matter. Should the owner's vigilance slacken, you can run away with his property; should you be too closely watched, you can sit down to table uninvited, pleading services rendered. It is "Heads I win, tails you lose" in these tactics, so that pillage is practised as one of the most lucrative of trades. Some go to work craftily, in the way which I have described: they come to the aid of a comrade who has not the least need of them and hide the most barefaced greed under the cloak of charitable assistance. Others, bolder perhaps, more confident in their strength, go straight to their goal and commit robbery with violence.

Scenes are constantly happening such as this: a scarab goes off, peacefully, by himself, rolling his ball, his lawful property, acquired by conscientious work. Another comes flying up, I know not whence, drops down heavily, folds his dingy wings under their cases and, with the back of his toothed forearms, knocks over the owner, who is powerless to ward off the attack in his awkward position, harnessed as he is to his property. While the victim struggles to his feet, the other perches himself atop the ball, the best position from which to repel an assailant. With his forearms crossed over his breast, ready to hit back, he awaits events. The dispossessed one moves round the ball, seeking a favourable spot at which to make the assault; the usurper spins round on the roof of the citadel, facing his opponent all the time. If the latter raise himself in order to scale the wall, the robber gives him a blow that stretches him on his back. Safe at the top of his fortress, the besieged beetle could foil his adversary's attempts indefinitely if the latter did not change his tactics. He turns sapper so as to reduce the citadel with the garrison. The ball, shaken from below, totters and begins rolling, carrying with it the thieving dung-beetle, who makes violent efforts to maintain his position on the top. This he succeeds in doing—though not invariably—thanks to hurried gymnastic feats which land him higher on the ball and make up for the ground which he loses by its rotation. Should a false movement bring him to earth, the chances become equal and the struggle turns into a wrestling-match. Robber and robbed grapple with each other, breast to breast. Their legs lock and unlock, their joints intertwine, their horny armour clashes and grates with the rasping sound of metal under the file. Then the one who succeeds in throwing his opponent and releasing himself scrambles to the top of the ball and there takes up his position. The siege

is renewed, now by the robber, now by the robbed, as the chances of the hand-to-hand conflict may decree. The former, a brawny desperado, no novice at the game, often has the best of the fight. Then, after two or three unsuccessful attempts, the defeated beetle wearies and returns philosophically to the heap, to make himself a new pellet. As for the other, with all fear of a surprise attack at an end, he harnesses himself to the conquered ball and pushes it whither he pleases. I have sometimes seen a third thief appear upon the scene and rob the robber. Nor can I honestly say that I was sorry.

I ask myself in vain what Proudhon introduced into scarabaean morality the daring paradox that "property means plunder," or what diplomatist taught the dung-beetle the savage maxim that "might is right." I have no data that would enable me to trace the origin of these spoliations, which have become a custom, of this abuse of strength to capture a lump of ordure. All that I can say is that theft is a general practice among the scarabs. These dung-rollers rob one another with a calm effrontery which, to my knowledge, is without a parallel. I leave it to future observers to elucidate this curious problem in animal psychology and I go back to the two partners rolling their ball in concert.

But first let me dispel a current error in the text-books. I find in M. Émile Blanchard's magnificent work, *Métamorphoses, mœurs et instincts des insectes* [Metamorphoses, the habits and instincts of the insects], the following passage:

> Sometimes our insect is stopped by an insurmountable obstacle; the ball has fallen into a hole. At such moments the Ateuchus gives evidence of a really astonishing grasp of the situation as well as of a system of ready communication between individuals of the same species which is even more remarkable. Recognizing the impossibility of coaxing the ball out of the hole, the Ateuchus seems to abandon it and flies away. If you are sufficiently endowed with that great and noble virtue called patience, stay by the forsaken ball: after a while, the Ateuchus will return to the same spot and will not return alone; he will be accompanied by two, three, four or five companions, who will all alight at the place indicated and will combine their efforts to raise the load. The Ateuchus has been to fetch reinforcements; and this explains why it is such a common sight, in the dry fields, to see several Ateuchi joining in the removal of a single ball.

Finally, I read in Illiger's *Entomological Magazine*:

> A *Gymnopleurus pilularius* [a smaller dung-beetle], while constructing the ball of dung destined to contain her eggs, let it roll into a hole,

> whence she strove for a long time to extract it unaided. Finding that she was wasting her time in vain efforts, she ran to a neighbouring heap of manure to fetch three individuals of her own species, who, uniting their strength to hers, succeeded in withdrawing the ball from the cavity into which it had fallen and then returned to their manure to continue their work.

I crave a thousand pardons of my illustrious master, M. Blanchard, but things certainly do not happen as he says. To begin with, the two accounts are so much alike that they must have had a common origin. Illiger, on the strength of observations not continuous enough to deserve blind confidence, put forward the case of his Gymnopleurus; and the same story was repeated about the Scarabaei because it is, in fact, quite usual to see two of these insects occupied together either in rolling a ball or in getting it out of a troublesome place. But this cooperation in no way proves that the dung-beetle who found himself in difficulties went to requisition the aid of his mates. I have had no small measure of the patience recommended by M. Blanchard; I have lived laborious days in close intimacy, if I may say so, with the sacred beetle; I have done everything that I could think of in order to enter into his ways and habits as thoroughly as possible and to study them from life; and I have never seen anything that suggested either nearly or remotely the idea of companions summoned to lend assistance. As I shall presently relate, I have subjected the dung-beetle to far more serious trials than that of getting his ball into a hole; I have confronted him with much graver difficulties than that of mounting a slope, which is sheer sport to the obstinate Sisyphus, who seems to delight in the rough gymnastics involved in climbing steep places, as if the ball thereby grew firmer and accordingly increased in value; I have created artificial situations in which the insect had the uttermost need of help; and never did my eyes detect any evidence of friendly services being rendered by comrade to comrade. I have seen beetles robbed and beetles robbing and nothing more. If a number of them were gathered around the same pill, it meant that a battle was taking place. My humble opinion, therefore, is that the incident of a number of Scarabaei collected around the same ball with thieving intentions has given rise to these stories of comrades called in to lend a hand. Imperfect observations are responsible for this transformation of the bold highwayman into a helpful companion who has left his work to do another a friendly turn.

It is no light matter to attribute to an insect a really astonishing grasp of a situation, combined with an even more amazing power of communi-

cation between individuals of the same species. Such an admission involves more than one imagines. That is why I insist on my point. What! Are we to believe that a beetle in distress will conceive the idea of going in quest of help? We are to imagine him flying off and scouring the country to find fellow-workers on some patch of dung; when he has found them, we are to suppose that he addresses them, in some sort of pantomime, by gestures with his antennae more particularly, in some such words as these:

"I say, you fellows, my load's upset in a hole over there; come and help me get it out. I'll do as much for you one day!"

And we are to believe that his comrades understand! And, more incredible still, that they straightway leave their work, the pellet which they have just begun, the beloved pill exposed to the cupidity of others and certain to be filched in their absence, and go to the help of the suppliant! I am profoundly incredulous of such unselfishness; and my incredulity is confirmed by what I have witnessed for years and years, not in glass-cases but in the very places where the scarab works. Apart from its maternal solicitude, in which respect it is nearly always admirable, the insect cares for nothing but itself, unless it lives in societies, like the hive-bees, the ants and the rest.

But let me end this digression, which is excused by the importance of the subject. I was saying that a sacred beetle, in possession of a ball which he is pushing backwards, is often joined by another, who comes hurrying up to lend an assistance which is anything but disinterested, his intention being to rob his companion if the opportunity present itself. Let us call the two workers partners, though that is not the proper name for them, seeing that the one forces himself upon the other, who probably accepts outside help only for fear of a worse evil. The meeting, by the way, is absolutely peaceful. The owner of the ball does not cease work for an instant on the arrival of the newcomer; and his uninvited assistant seems animated by the best intentions and sets to work on the spot. The way in which the two partners harness themselves differs. The proprietor occupies the chief position, the place of honour: he pushes at the rear, with his hind-legs in the air and his head down. His subordinate is in front, in the reverse posture, head up, toothed arms on the ball, long hind-legs on the ground. Between the two, the ball rolls along, one driving it before him, the other pulling it towards him.

The efforts of the couple are not always very harmonious, the more so as the assistant has his back to the road to be traversed, while the owner's view is impeded by the load. The result is that they are constantly

having accidents, absurd tumbles, taken cheerfully and in good part: each picks himself up quickly and resumes the same position as before. On level ground, this system of traction does not correspond with the dynamic force expended, through lack of precision in the combined movements: the scarab at the back would do as well and better if left to himself. And so the helper, having given a proof of his good-will at the risk of throwing the machinery out of gear, now decides to keep still, without letting go of the precious ball, of course. He already looks upon that as his: a ball touched is a ball gained. He won't be so silly as not to stick to it: the other might give him the slip!

So he gathers his legs flat under his belly, encrusting himself, so to speak, on the ball and becoming one with it. Henceforth, the whole concern—the ball and the beetle clinging to its surface—is rolled along by the efforts of the lawful owner. The intruder sits tight and lies low, heedless whether the load pass over his body, whether he be at the top, bottom or side of the rolling ball. A queer sort of assistant, who gets a free ride so as to make sure of his share of the victuals!

But a steep ascent heaves in sight and gives him a fine part to play. He takes the lead now, holding up the heavy mass with his toothed arms, while his mate seeks a purchase in order to hoist the load a little higher. In this way, by a combination of well-directed efforts, the beetle above gripping, the one below pushing, I have seen a couple mount hills which would have been too much for a single porter, however persevering. But in times of difficulty not all show the same zeal: there are some who, on awkward slopes where their assistance is most needed, seem blissfully unaware of the trouble. While the unhappy Sisyphus exhausts himself in attempts to get over the bad part, the other quietly leaves him to it: imbedded in the ball, he rolls down with it if it comes to grief and is hoisted up with it when they start afresh.

I have often tried the following experiment on the two partners in order to judge their inventive faculties when placed in a serious predicament. Suppose them to be on level ground, number two seated motionless on the ball, number one busy pushing. Without disturbing the latter, I nail the ball to the ground with a long, strong pin. It stops suddenly. The beetle, unaware of my perfidy, doubtless believes that some natural obstacle, a rut, a tuft of couch-grass, a pebble, bars the way. He redoubles his efforts, struggles his hardest; nothing happens.

"What can the matter be? Let's go and see."

The beetle walks two or three times round his pellet. Discovering noth-

ing to account for its immobility, he returns to the rear and starts pushing again. The ball remains stationary.

"Let's look up above."

The beetle goes up to find nothing but his motionless colleague, for I had taken care to drive in the pin so deep that the head disappeared in the ball. He explores the whole upper surface and comes down again. Fresh thrusts are vigorously applied in front and at the sides, with the same absence of success. There is not a doubt about it: never before was dung-beetle confronted with such a problem in inertia.

Now is the time, the very time, to claim assistance, which is all the easier as his mate is there, close at hand, squatting on the summit of the ball. Will the scarab rouse him? Will he talk to him like this:

"What are you doing there, lazybones? Come and look at the thing: it's broken down!"

Nothing proves that he does anything of the kind, for I see him steadily shaking the unshakable, inspecting his stationary machine on every side, while all this time his companion sits resting. At long last, however, the latter becomes aware that something unusual is happening; he is apprised of it by his mate's restless tramping and by the immobility of the ball. He comes down, therefore, and in his turn examines the machine. Double harness does no better than single harness. This is beginning to look serious. The little fans of the beetles' antennae open and shut, open again, betraying by their agitation acute anxiety. Then a stroke of genius ends the perplexity:

"Who knows what's underneath?"

They now start exploring below the ball; and a little digging soon reveals the presence of the pin. They recognize at once that the trouble is there.

If I had had a voice in their deliberations, I should have said:

"We must make a hole in the ball and pull out that skewer which is holding it down."

This most elementary of all proceedings and one so easy to such expert diggers was not adopted, was not even tried. The dung-beetle was shrewder than man. The two colleagues, one on this side, one on that, slip under the ball, which begins to slide up the pin, getting higher and higher in proportion as the living wedges make their way underneath. The clever operation is made possible by the softness of the material, which gives easily and makes a channel under the head of the immovable stake. Soon the pellet is suspended at a height equal to the thickness of

the scarabs' bodies. The rest is not such plain sailing. The dung-beetles, who at first were lying flat, rise gradually to their feet, still pushing with their backs. The work becomes harder and harder as the legs, in straightening out, lose their strength; but none the less they do it. Then comes a time when they can no longer push with their backs, the limit of their height having been reached. A last resource remains, but one much less favourable to the development of motive power. This is for the insect to adopt one or other of its postures when harnessed to the ball, head down or up, and to push with its hind- or forelegs, as the case may be. Finally the ball drops to the ground, unless we have used too long a pin. The gash made by our stake is repaired more or less and the carting of the precious pellet is at once resumed.

But, should the pin really be too long, then the ball, which remains firmly fixed, ends by being suspended at a height above that of the insect's full stature. In that case, after vain evolutions around the unconquerable greased pole, the dung-beetles throw up the sponge, unless we are sufficiently kind hearted to finish the work ourselves and restore their treasure to them. Or again we can help them by raising the floor with a small flat stone, a pedestal from the top of which it is possible for the beetle to continue his labours. Its use does not appear to be immediately understood, for neither of the two is in any hurry to take advantage of it. Nevertheless, by accident or design, one or other at last finds himself on the stone. Oh, joy! As he passed, he felt the ball touch his back. At that contact, courage returns; and his efforts begin once more. Standing on his helpful platform, the scarab stretches his joints, rounds his shoulders, as one might say, and shoves the pellet upwards. When his shoulders no longer avail, he works with his legs, now upright, now head downwards. There is a fresh pause, accompanied by fresh signs of uneasiness, when the limit of extension is reached. Thereupon, without disturbing the creature, we place a second little stone on the top of the first. With the aid of this new step, which provides a fulcrum for its levers, the insect pursues its task. Thus adding story upon story as required, I have seen the scarab, hoisted to the summit of a tottering pile three or four fingers'-breadth in height, persevere in his work until the ball was completely detached.

Had he some vague consciousness of the service performed by the gradual raising of the pedestal? I venture to doubt it, though he cleverly took advantage of my platform of little stones. As a matter of fact, if the very elementary idea of using a higher support in order to reach something placed above one's grasp were not beyond the beetle's comprehension,

how is it that, when there are two of them, neither thinks of lending the other his back so as to raise him by that much and make it possible for him to go on working? If one helped the other in this way, they could reach twice as high. They are very far, however, from any such co-operation. Each pushes the ball, with all his might, I admit, but he pushes as if he were alone and seems to have no notion of the happy result that would follow a combined effort. In this instance, when the ball is nailed to the ground by a pin, they do exactly what they do in corresponding circumstances, as, for example, when the load is brought to a standstill by some obstacle, caught in a loop of couch-grass or transfixed by some spiky bit of stalk that has run into the soft, rolling mass. I produced artificially a stoppage which is not really very different from those occurring naturally when the ball is being rolled amid the thousand and one irregularities of the ground; and the beetle behaves, in my experimental tests, as he would have behaved in any other circumstances in which I had no part. He uses his back as a wedge and a lever and pushes with his feet, without introducing anything new into his methods, even when he has a companion and can avail himself of his assistance.

When he is all alone in face of the difficulty, when he has no assistant, his dynamic operations remain absolutely the same; and his efforts to move his transfixed ball end in success, provided that we give him the indispensable support of a platform, built up little by little. If we deny him this succour, then, no longer encouraged by the contact of his beloved ball, he loses heart and sooner or later flies away, doubtless with many regrets, and disappears. Where to? I do not know. What I do know is that he does not return with a gang of fellow-labourers whom he has begged to help him. What would he do with them, he who cannot make use of even one comrade?

But perhaps my experiment, which leaves the ball suspended at an inaccessible height and the insect with its means of action exhausted, is a little too far removed from ordinary conditions. Let us try instead a miniature pit, deep enough and steep enough to prevent the dung-beetle, when placed at the bottom, from rolling his load up the side. These are exactly the conditions stated by Messrs. Blanchard and Illiger. Well, what happens? When dogged but utterly fruitless efforts have convinced him of his helplessness, the beetle takes wing and disappears. Relying upon what these learned writers said, I have waited long hours for the insect to return reinforced by a few friends. I have always waited in vain. Many a time also I have found the pellet several days later just where I left it, stuck at the top of a pin or in a hole, proving that nothing fresh

had happened in my absence. A ball abandoned from necessity is a ball abandoned for good, with no attempt at salvage with the aid of others. A dexterous use of wedge and lever to set the ball rolling again is therefore, when all is said, the greatest intellectual effort which I have observed in the sacred beetle. To make up for what the experiment refutes, namely an appeal for help among fellow-workers, I gladly chronicle this feat of mechanical prowess for the dung-beetles' greater glory.

Directing their steps at random, over sandy plains thick with thyme, over cart-ruts and steep places, the two beetle brethren roll the ball along for some time, thus giving its substance a certain consistency which may be to their liking. While still on the road, they select a favourable spot. The rightful owner, the beetle who throughout has kept the place of honour, behind the ball, the one in short who has done almost all the carting by himself, sets to work to dig the dining-room. Beside him is the ball, with number two clinging to it, shamming dead. Number one attacks the sand with his sharp-edged forehead and his toothed legs; he flings armfuls of it behind him; and the work of excavating proceeds apace. Soon the beetle has disappeared from view in the half-dug cavern. Whenever he returns to the upper air with a load, he invariably glances at his ball to see if all is well. From time to time, he brings it nearer the threshold of the burrow; he feels it and seems to acquire new vigour from the contact. The other, lying demure and motionless on the ball, continues to inspire confidence. Meanwhile the underground hall grows larger and deeper; and the digger's field of operations is now too vast for any but very occasional appearances. Now is the time. The crafty sleeper awakens and hurriedly decamps with the ball, which he pushes behind him with the speed of a pickpocket anxious not to be caught in the act. This breach of trust rouses my indignation, but the historian triumphs for the moment over the moralist and I leave him alone: I shall have time enough to intervene on the side of law and order if things threaten to turn out badly.

The thief is already some yards away. His victim comes out of the burrow, looks around and finds nothing. Doubtless an old hand himself, he knows what this means. Scent and sight soon put him on the track. He makes haste and catches up the robber; but the artful dodger, when he feels his pursuer close on his heels, promptly changes his posture, gets on his hind-legs and clasps the ball with his toothed arms, as he does when acting as an assistant.

You rogue, you! I see through your tricks: you mean to plead as an excuse that the pellet rolled down the slope and that you are only trying to stop it and bring it back home. I, however, an impartial witness, declare

that the ball was quite steady at the entrance to the burrow and did not roll of its own accord. Besides, the ground is level. I declare that I saw you set the thing in motion and make off with unmistakable intentions. It was an attempt at larceny, or I've never seen one!

My evidence is not admitted. The owner cheerfully accepts the other's excuses; and the two bring the ball back to the burrow as though nothing had happened.

If the thief, however, has time to get far enough away, or if he manages to cover his trail by adroitly doubling back, the injury is irreparable. To collect provisions under a blazing sun, to cart them a long distance, to dig a comfortable banqueting-hall in the sand and then—just when everything is ready and your appetite, whetted by exercise, lends an added charm to the approaching feast—suddenly to find yourself cheated by a crafty partner is, it must be admitted, a reverse of fortune that would dishearten most of us. The dung-beetle does not allow himself to be cast down by this piece of ill-luck; he rubs his cheeks, spreads his antennae, sniffs the air and flies to the nearest heap to begin all over again.

The foregoing is taken
from Fabre's THE SACRED BEETLE AND OTHERS.

Loren Eiseley

1907–1977

Loren Eiseley was born in Lincoln, Nebraska, in 1907. He studied at the University of Nebraska and received his Ph.D. in anthropology from the University of Pennsylvania. He taught at the University of Kansas, at Oberlin College, and at the University of Pennsylvania, where, from 1947, he was head of the department of anthropology, and, from 1959, provost of the university.

He has lectured at many universities and has written articles for most of the leading scientific journals as well as for a number of magazines. He has ranged over much of the western United States in search of remains of early postglacial man. *The Immense Journey*, his first book, appeared in 1957. It is a collection of papers on various subjects, all of them linked together by their common concern with time. *Darwin's Century*, an account of the impact of the idea of evolution, was published in 1958, and his remarkable lecture, *The Mind as Nature*, in 1962.

The following selection is a chapter from *The Immense Journey*. The title refers to the journey through time from the beginning. Not the beginning of man—that occurred only a moment ago, Eiseley says. It is his concern to remind men that there is more to the world than themselves, both in space and time.

Man "is rooted in his particular century," Eiseley writes. "Out of it—forward or backward—he cannot run." Later in the book he writes: "There is something wrong with our world view. It is still Ptolemaic, though the sun is no longer believed to revolve around the earth." He seems to be suggesting that there is in our thinking, despite all that we have learned about the past, a kind of

temporal parochialism. The sun is no longer thought to revolve about the earth, but man, Eiseley is saying, still conceives of himself as somehow at the center of the universe. And if this is true, his argument runs, how much more difficult it must be for us to give up the illusion that the human epoch is the be-all and end-all of time.

We are fixed, in other words, even more irremovably in the Now than in the Here. Only by an effort of the imagination can we break out of our temporal strait jackets. But there is a great reluctance, Eiseley suggests, to do so. If we are to succeed, we must use words in new ways.

Eiseley's words in the following selection have a strange quality. He uses many surprising metaphors, and most of them have a special character. If it is read carefully, his text is seen to use terms standing for more or less violent spatial movements in order to force us to feel temporal movements. At the beginning, for example, he sets the scene: it is, typically, in no definite place, for its purpose is to make us see change in time. He descends into the Slit, and it is at once obvious that this spatial descent is a movement backward in time. "The Slit was a little sinister . . . for over me the sky seemed already as far off as some future century I would never see." The word "far" in that sentence has two meanings, in space and time, and so does the word "see."

One can find other examples of Eiseley's attempt to bring us, by the use of unexpected metaphors, to an understanding of the vastness, and indeterminacy, of time. He points to that place of "converging roads where . . . cat and man and weasel must leap into a single shape." The word "leap" in that sentence is one of these metaphors. He conceives of himself as "already caught a few feet above (the skull) in the strata," and thus caught, as it were, in a long-past epoch. "Living creatures flow," he says, again using a surprising word to produce his effect, "with little more consistency than clouds from age to age." He remembers "lifting, as I always did, a figurative lantern to some ambiguous crossroads sign within my brain." There are crossroads, he is saying, in time as well as space. And when he emerges from the crack in the earth, which is also a crack in time, he is cautious, lest he might have strayed into an era different from the one he knew. "I looked all about carefully," he says, "in a sudden anxiety that it might not be a grazing horse that I would see." For the moment, at least, it was conceivable that it

might have been a mammoth—or some strange animal that does not yet walk the earth.

It is clear that Eiseley's language is special, and also that it is different from that of most of the other scientists in this volume. Strictly speaking, he is not here recounting observations of nature or telling us the results of experiments on it. Indeed, he is perhaps not telling us anything that we do not already know. Rather, he is telling us what we do know, but what, he seems to be insisting, we nevertheless refuse to accept. *The Immense Journey* is not in itself a scientific work; it is a work, by a distinguished scientist, that is a result of the scientific world view. As such, it is a representative of an important body of modern writing. And it is of course, in itself, extremely fine.

On Time

from *The Immense Journey*

Some lands are flat and grass covered, and smile so evenly up at the sun that they seem forever youthful, untouched by man or time. Some are torn, ravaged and convulsed like the features of profane old age. Rocks are wrenched up and exposed to view; black pits receive the sun but give back no light.

It was to such a land I rode, but I rode to it across a sunlit, timeless prairie over which nothing passed but antelope or a wandering bird. On the verge where that prairie halted before a great wall of naked sandstone and clay, I came upon the Slit. A narrow crack worn by some descending torrent had begun secretly, far back in the prairie grass, and worked itself deeper and deeper into the fine sandstone that led by devious channels into the broken waste beyond. I rode back along the crack to a spot where I could descend into it, dismounted, and left my horse to graze.

The crack was only about body width and, as I worked my way downward, the light turned dark and green from the overhanging grass. Above me the sky became a narrow slit of distant blue, and the sandstone was cool to my hands on either side. The Slit was a little sinister—like an open grave, assuming the dead were enabled to take one last look—for over me the sky seemed already as far off as some future century I would never see.

I ignored the sky, then, and began to concentrate on the sandstone walls that had led me into this place. It was tight and tricky work, but that cut was a perfect cross section through perhaps ten million years of time. I hoped to find at least a bone, but I was not quite prepared for the sight I finally came upon. Staring straight out at me, as I slid farther and deeper into the green twilight, was a skull embedded in the solid sandstone. I had come at just the proper moment when it was fully to be seen, the

white bone gleaming there in a kind of ashen splendor, water worn, and about to be ground away in the next long torrent.

It was not, of course, human. I was deep, deep below the time of man in a remote age near the beginning of the reign of mammals. I squatted on my heels in the narrow ravine, and we stared a little blankly at each other, the skull and I. There were marks of generalized primitiveness in that low, pinched brain case and grinning jaw that marked it as lying far back along those converging roads where, as I shall have occasion to establish elsewhere, cat and man and weasel must leap into a single shape.

It was the face of a creature who had spent his days following his nose, who was led by instinct rather than memory, and whose power of choice was very small. Though he was not a man, nor a direct human ancestor, there was yet about him, even in the bone, some trace of that low, snuffling world out of which our forebears had so recently emerged. The skull lay tilted in such a manner that it stared, sightless, up at me as though I, too, were already caught a few feet above him in the strata and, in my turn, were staring upward at that strip of sky which the ages were carrying farther away from me beneath the tumbling debris of falling mountains. The creature had never lived to see a man, and I, what was it I was never going to see?

I restrained a panicky impulse to hurry upward after that receding sky that was outlined above the Slit. Probably, I thought, as I patiently began the task of chiseling into the stone around the skull, I would never again excavate a fossil under conditions which led to so vivid an impression that I was already one myself. The truth is that we are all potential fossils still carrying within our bodies the crudities of former existences, the marks of a world in which living creatures flow with little more consistency than clouds from age to age.

As I tapped and chiseled there in the foundations of the world, I had ample time to consider the cunning manipulability of the human fingers. Experimentally I crooked one of the long slender bones. It might have been silica, I thought, or aluminum, or iron—the cells would have made it possible. But no, it is calcium, carbonate of lime. Why? Only because of its history. Elements more numerous than calcium in the earth's crust could have been used to build the skeleton. Our history is the reason—we came from the water. It was there the cells took the lime habit, and they kept it after we came ashore.

It is not a bad symbol of that long wandering, I thought again—the human hand that has been fin and scaly reptile foot and furry paw. If a

stone should fall (I cocked an eye at the leaning shelf above my head and waited, fatalistically) let the bones lie here with their message, for those who might decipher it, if they come down late among us from the stars.

Above me the great crack seemed to lengthen.

Perhaps there is no meaning in it at all, the thought went on inside me, save that of journey itself, so far as men can see. It has altered with the chances of life, and the chances brought us here; but it was a good journey—long, perhaps—but a good journey under a pleasant sun. Do not look for the purpose. Think of the way we came and be a little proud. Think of this hand—the utter pain of its first venture on the pebbly shore.

Or consider its later wanderings.

I ceased my tappings around the sand-filled sockets of the skull and wedged myself into a crevice for a smoke. As I tamped a load of tobacco into my pipe, I thought of a town across the valley that I used sometimes to visit, a town whose little inhabitants never welcomed me. No sign points to it and I rarely go there any more. Few people know about it and fewer still know that in a sense we, or rather some of the creatures to whom we are related, were driven out of it once, long ago. I used to park my car on a hill and sit silently observant, listening to the talk ringing out from neighbor to neighbor, seeing the inhabitants drowsing in their doorways, taking it all in with nostalgia—the sage smell on the wind, the sunlight without time, the village without destiny. We can look, but we can never go back. It is prairie-dog town.

"Whirl is king," said Aristophanes, and never since life began was Whirl more truly king than eighty million years ago in the dawn of the Age of Mammals. It would come as a shock to those who believe firmly that the scroll of the future is fixed and the roads determined in advance, to observe the teetering balance of earth's history through the age of the Paleocene. The passing of the reptiles had left a hundred uninhabited life zones and a scrambling variety of newly radiating forms. Unheard-of species of giant ground birds threatened for a moment to dominate the earthly scene. Two separate orders of life contended at slightly different intervals for the pleasant grasslands—for the seeds and the sleepy burrows in the sun.

Sometimes, sitting there in the mountain sunshine above prairie-dog town, I could imagine the attraction of that open world after the fern forest damp or the croaking gloom of carboniferous swamps. There by a tree root I could almost make him out, that shabby little Paleocene rat,

eternal tramp and world wanderer, father of all mankind. He ruffed his coat in the sun and hopped forward for a seed. It was to be a long time before he would be seen on the grass again, but he was trying to make up his mind. For good or ill there was to be one more chance, but that chance was fifty million years away.

Here in the Paleocene occurred the first great radiation of the placental mammals, and among them were the earliest primates–the zoological order to which man himself belongs. Today, with a few unimportant exceptions, the primates are all arboreal in habit except man. For this reason we have tended to visualize all of our remote relatives as tree dwellers. Recent discoveries, however, have begun to alter this one-sided picture. Before the rise of the true rodents, the highly successful order to which present-day prairie dogs and chipmunks belong, the environment which they occupy had remained peculiarly open to exploitation. Into this zone crowded a varied assemblage of our early relatives.

"In habitat," comments one scholar, "many of these early primates may be thought of as the rats of the Paleocene. With the later appearance of true rodents, the primate habitat was markedly restricted." The bone hunters, in other words, have succeeded in demonstrating that numerous primates reveal a remarkable development of rodentlike characteristics in the teeth and skull during this early period of mammalian evolution. The movement is progressive and distributed in several different groups. One form, although that of a true primate, shows similarities to the modern kangaroo rat, which is, of course, a rodent. There is little doubt that it was a burrower.

It is this evidence of a lost chapter in the history of our kind that I used to remember on the sunny slope above prairie-dog town, and that enables me to say in a somewhat figurative fashion that we were driven out of it once ages ago. We are not, except very remotely as mammals, related to prairie dogs. Nevertheless, through several million years of Paleocene time, the primate order, instead of being confined to trees, was experimenting to some extent with the same grassland burrowing life that the rodents later perfected. The success of these burrowers crowded the primates out of this environment and forced them back into the domain of the branches. As a result, many primates, by that time highly specialized for a ground life, became extinct.

In the restricted world of the trees, a "refuge area," as the zoologist would say, the others lingered on in diminished numbers. Our ancient relatives, it appeared, were beaten in their attempt to expand upon the

ground; they were dying out in the temperate zone, and their significance as a widespread and diversified group was fading. The shabby pseudo rat I had seen ruffling his coat to dry after the night damps of the reptile age, had ascended again into the green twilight of the rain forest. The chatterers with the ever growing teeth were his masters. The sunlight and the grass belonged to them.

It is conceivable that except for the invasion of the rodents, the primate line might even have abandoned the trees. We might be there on the grass, you and I, barking in the high-plains sunlight. It is true we came back in fifty million years with the cunning hands and the eyes that the tree world gave us, but was it victory? Once more in memory I saw the high blue evening fall sleepily upon that village, and once more swung the car to leave, lifting, as I always did, a figurative lantern to some ambiguous crossroads sign within my brain. The pointing arms were nameless and nameless were the distances to which they pointed. One took one's choice.

I ceased my daydreaming then, squeezed myself out of the crevice, shook out my pipe, and started chipping once more, the taps sounding along the inward-leaning walls of the Slit like the echo of many footsteps ascending and descending. I had come a long way down since morning; I had projected myself across a dimension I was not fitted to traverse in the flesh. In the end I collected my tools and climbed painfully up through the colossal debris of ages. When I put my hands on the surface of the crack I looked all about carefully in a sudden anxiety that it might not be a grazing horse that I would see.

He had not visibly changed, however, and I mounted in some slight trepidation and rode off, having a memory for a camp–if I had gotten a foot in the right era–which should lie somewhere over to the west. I did not, however, escape totally from that brief imprisonment.

Perhaps the Slit, with its exposed bones and its far-off vanishing sky, has come to stand symbolically in my mind for a dimension denied to man, the dimension of time. Like the wistaria on the garden wall he is rooted in his particular century. Out of it–forward or backward–he cannot run. As he stands on his circumscribed pinpoint of time, his sight for the past is growing longer, and even the shadowy outlines of the galactic future are growing clearer, though his own fate he cannot yet see. Along the dimension of time, man, like the rooted vine in space, may never pass in person. Considering the innumerable devices by which the mindless root has evaded the limitations of its own stability, however, it may well be

that man himself is slowly achieving powers over a new dimension–a dimension capable of presenting him with a wisdom he has barely begun to discern.

Through how many dimensions and how many media will life have to pass? Down how many roads among the stars must man propel himself in search of the final secret? The journey is difficult, immense, at times impossible, yet that will not deter some of us from attempting it. We cannot know all that has happened in the past, or the reason for all of these events, any more than we can with surety discern what lies ahead. We have joined the caravan, you might say, at a certain point; we will travel as far as we can, but we cannot in one lifetime see all that we would like to see or learn all that we hunger to know.

The reader who would pursue such a journey with me is warned that the essays in this book have not been brought together as a guide but are offered rather as a somewhat unconventional record of the prowlings of one mind which has sought to explore, to understand, and to enjoy the miracles of this world, both in and out of science. It is, without doubt, an inconsistent record in many ways, compounded of fear and hope, for it has grown out of the seasonal jottings of a man preoccupied with time. It involves, I see now as I come to put it together, the four ancient elements of the Greeks: mud and the fire within it we call life, vast waters, and something–space, air, the intangible substance of hope which at the last proves unanalyzable by science, yet out of which the human dream is made.

Forward and backward I have gone, and for me it has been an immense journey. Those who accompany me need not look for science in the usual sense, though I have done all in my power to avoid errors in fact. I have given the record of what one man thought as he pursued research and pressed his hands against the confining walls of scientific method in his time. It is not, I must confess at the outset, an account of discovery so much as a confession of ignorance and of the final illumination that sometimes comes to a man when he is no longer careful of his pride. In the last three chapters of the book I have tried to put down such miracles as can be evoked from common earth. But men see differently. I can at best report only from my own wilderness. The important thing is that each man possess such a wilderness and that he consider what marvels are to be observed there.

Finally, I do not pretend to have set down, in Baconian terms, a true, or even a consistent model of the universe. I can only say that here is a bit of my personal universe, the universe traversed in a long and uncom-

pleted journey. If my record, like those of the sixteenth-century voyagers, is confused by strange beasts or monstrous thoughts or sights of abortive men, these are no more than my eyes saw or my mind conceived. On the world island we are all castaways, so that what is seen by one may often be dark or obscure to another.

The foregoing is the first essay in Eiseley's THE IMMENSE JOURNEY.

Rachel L. Carson

1907–1964

Rachel Carson was born at Springdale, Pennsylvania, in 1907. She studied at Pennsylvania College for Women (Chatham College) and received an M.A. from Johns Hopkins University, in Baltimore, Maryland, in 1932. She was an assistant in zoology at the University of Maryland (1931–36), and an assistant in zoology at Johns Hopkins during the summers of the same years. She undertook research at the Marine Biological Laboratory at Woods Hole, Massachusetts. From 1952 she was an associate of the Woods Hole Oceanographic Institution.

In 1936 she joined what is now called the U.S. Fish and Wildlife Service, a branch of the Department of the Interior. In 1949 she became the service's editor-in-chief.

The Sea around Us, from which the following selection is taken, was published in 1951. The book won many prizes, including the National Book Award. A prize-winning documentary movie was made from it. Miss Carson is also the author of *Under the Sea Wind* (1941), *The Edge of the Sea* (1955), and *Silent Spring* (1962). The last is a brilliantly written polemic against the indiscriminate use of insecticides which have the effect of producing irreversible changes in the ecological balance. It has been the cause of much discussion and controversy. She died at Silver Spring, Maryland, on April 14, 1964.

It has been claimed that the scientist and the poet have much in common and should be friends. They seldom are; and it is even more rare, as is the case with Miss Carson, to find them combined in one single person. Miss Carson has published poems and scientific papers. *The Sea around Us* partakes of both forms of communication between human beings.

Poetry may, perhaps should, contradict itself; the theory is, at least, that science should not. By her use of metaphor and of exaggeration, or of hyperbole, Miss Carson proclaims her poetic inclinations. She speaks of that "half the earth that is covered by miles-deep, lightless water, that has been dark since the world began." Earlier in the volume, however, she had recounted how the world—by this she means the earth—existed for hundreds of millions of years before there was any ocean at all. Nevertheless, "dark since the world began" is an effective phrase, and it gives the reader exactly the impression desired: that is, of an environment that is unchangingly, "eternally" dark.

Again, Miss Carson refers to the "endless night" of this same portion of the deep, or "sunless," sea. She speaks of the "abysmal depths" of the sea, and of the "abyssal creatures" that live there. Such words are forcefully connotative; they remind the reader of those descriptions which are common among poets, and which emphasize the beauty, terror, and mystery of the sea.

The Sea around Us is a superior work of scientific popularization, and the chapter from it reprinted below is noteworthy for the amount of knowledge it disseminates, as well as for the charming and, indeed, awe-inspiring way in which it does so. But it should be pointed out that much research has been done, much investigation undertaken, in the deep sea since 1951. The puzzling question of the "phantom bottom" has been answered: it *is* plankton, after all. The true bottom of the deep ocean has in many places now been mapped. Nevertheless, it is still correct, as Miss Carson says, that "this region has withheld its secrets more obstinately than any other." It is claimed that more is known about the depths of space than about the ocean depths of our own planet.

Why this should be so is not entirely clear. The sea is, of course, dangerous to land animals, and to man. But so are the high mountains, and they have been explored for a century. And so is space. The darkness of the deep sea—the "endless night" to which Miss Carson refers, and which she makes so vivid—may be at the heart of the problem. Men are even more animals of the light than of the land. Is there not something intrinsically frightening about dark water? So at least the dreams of human beings would seem to indicate. If so, then Miss Carson's poetic language may be just right for talking about the deep sea. Poetry has been from time immemorial man's way of dealing with the terrors of the dark unknown.

The Sunless Sea

Where great whales come sailing by,
Sail and sail, with unshut eye.
Matthew Arnold.

Between the sunlit surface waters of the open sea and the hidden hills and valleys of the ocean floor lies the least known region of the sea. These deep, dark waters, with all their mysteries and their unsolved problems, cover a very considerable part of the earth. The whole world ocean extends over about three-fourths of the surface of the globe. If we subtract the shallow areas of the continental shelves and the scattered banks and shoals, where at least the pale ghost of sunlight moves over the underlying bottom, there still remains about half the earth that is covered by miles-deep, lightless water, that has been dark since the world began.

This region has withheld its secrets more obstinately than any other. Man, with all his ingenuity, has been able to venture only to its threshold. Carrying tanks of compressed air, he can swim down to depths of about 300 feet. He can descend about 500 feet wearing a diving helmet and a rubberized suit. Only a few men in all the history of the world have had the experience of descending, alive, beyond the range of visible light. The first to do so were William Beebe and Otis Barton; in the bathysphere, they reached a depth of 3,028 feet in the open ocean off Bermuda, in the year 1934. Barton alone, in the summer of 1949, descended to a depth of 4,500 feet off California, in a steel sphere of somewhat different design; and in 1953 French divers penetrated depths greater than a mile, existing for several hours in a zone of cold and darkness where the presence of living man had never before been known.

Although only a fortunate few can ever visit the deep sea, the precise instruments of the oceanographer, recording light penetration, pressure, salinity, and temperature, have given us the materials with which to reconstruct in imagination these eerie, forbidding regions. Unlike the sur-

face waters, which are sensitive to every gust of wind, which know day and night, respond to the pull of sun and moon, and change as the seasons change, the deep waters are a place where change comes slowly, if at all. Down beyond the reach of the sun's rays, there is no alternation of light and darkness. There is rather an endless night, as old as the sea itself. For most of its creatures, groping their way endlessly through its black waters, it must be a place of hunger, where food is scarce and hard to find, a shelterless place where there is no sanctuary from ever present enemies, where one can only move on and on, from birth to death, through the darkness, confined as in a prison to his own particular layer of the sea.

They used to say that nothing could live in the deep sea. It was a belief that must have been easy to accept, for without proof to the contrary, how could anyone conceive of life in such a place?

A century ago the British biologist Edward Forbes wrote: "As we descend deeper and deeper into this region, the inhabitants become more and more modified, and fewer and fewer, indicating our approach to an abyss where life is either extinguished, or exhibits but a few sparks to mark its lingering presence." Yet Forbes urged further exploration of "this vast deep-sea region" to settle forever the question of the existence of life at great depths.

Even then, the evidence was accumulating. Sir John Ross, during his exploration of the arctic seas in 1818, had brought up from a depth of 1,000 fathoms mud in which there were worms, "thus proving there was animal life in the bed of the ocean notwithstanding the darkness, stillness, silence, and immense pressure produced by more than a mile of superincumbent water."

Then from the surveying ship *Bulldog*, examining a proposed northern route for a cable from Faeroe to Labrador in 1860, came another report. The *Bulldog's* sounding line, which at one place had been allowed to lie for some time on the bottom at a depth of 1,260 fathoms, came up with 13 starfish clinging to it. Through these starfish, the ship's naturalist wrote, "the deep has sent forth the long coveted message." But not all the zoologists of the day were prepared to accept the message. Some doubters asserted that the starfish had "convulsively embraced" the line somewhere on the way back to the surface.

In the same year, 1860, a cable in the Mediterranean was raised for repairs from a depth of 1,200 fathoms. It was found to be heavily encrusted with corals and other sessile animals that had attached themselves at an early stage of development and grown to maturity over

a period of months or years. There was not the slightest chance that they had become entangled in the cable as it was being raised to the surface.

Then the *Challenger*, the first ship ever equipped for oceanographic exploration, set out from England in the year 1872 and traced a course around the globe. From bottoms lying under miles of water, from silent deeps carpeted with red clay ooze, and from all the lightless intermediate depths, net-haul after net-haul of strange and fantastic creatures came up and were spilled out on the decks. Poring over the weird beings thus brought up for the first time into the light of day, beings no man had ever seen before, the *Challenger* scientists realized that life existed even on the deepest floor of the abyss.

The recent discovery that a living cloud of some unknown creatures is spread over much of the ocean at a depth of several hundred fathoms below the surface is the most exciting thing that has been learned about the ocean for many years.

When, during the first quarter of the twentieth century, echo sounding was developed to allow ships while under way to record the depth of the bottom, probably no one suspected that it would also provide a means of learning something about deep-sea life. But operators of the new instruments soon discovered that the sound waves, directed downward from the ship like a beam of light, were reflected back from any solid object they met. Answering echoes were returned from intermediate depths, presumably from schools of fish, whales, or submarines; then a second echo was received from the bottom.

These facts were so well established by the late 1930's that fishermen had begun to talk about using their fathometers to search for schools of herring. Then the war brought the whole subject under strict security regulations, and little more was heard about it. In 1946, however, the United States Navy issued a significant bulletin. It was reported that several scientists, working with sonic equipment in deep water off the California coast, had discovered a widespread "layer" of some sort, which gave back an answering echo to the sound waves. This reflecting layer, seemingly suspended between the surface and the floor of the Pacific, was found over an area 300 miles wide. It lay from 1,000 to 1,500 feet below the surface. The discovery was made by three scientists, C. F. Eyring, R. J. Christensen, and R. W. Raitt, aboard the U.S.S. *Jasper* in 1942, and for a time this mysterious phenomenon, of wholly unknown nature, was called the ECR layer. Then in 1945 Martin W. Johnson, marine biologist of the Scripps Institution of Oceanography, made a further discovery which gave the first clue to the nature of the layer. Working aboard the vessel *E. W. Scripps*, Johnson found that whatever sent back the echoes

moved upward and downward in rhythmic fashion, being found near the surface at night, in deep water during the day. This discovery disposed of speculations that the reflections came from something inanimate, perhaps a mere physical discontinuity in the water, and showed that the layer is composed of living creatures capable of controlled movement.

From this time on, discoveries about the sea's "phantom bottom" came rapidly. With widespread use of echo-sounding instruments, it has become clear that the phenomenon is not something peculiar to the coast of California alone. It occurs almost universally in deep ocean basins—drifting by day at a depth of several hundred fathoms, at night rising to the surface, and again, before sunrise, sinking into the depths.

On the passage of the U.S.S. *Henderson* from San Diego to the Antarctic in 1947, the reflecting layer was detected during the greater part of each day, at depths varying from 150 to 450 fathoms, and on a later run from San Diego to Yokosuka, Japan, the *Henderson's* fathometer again recorded the layer every day, suggesting that it exists almost continuously across the Pacific.

During July and August 1947, the U.S.S. *Nereus* made a continuous fathogram from Pearl Harbor to the Arctic and found the scattering layer over all deep waters along this course. It did not develop, however, in the shallow Bering and Chuckchee seas. Sometimes in the morning, the *Nereus'* fathogram showed two layers, responding in different ways to the growing illumination of the water; both descended into deep water, but there was an interval of twenty miles between the two descents.

Despite attempts to sample it or photograph it, no one is sure what the layer is, although the discovery may be made any day. There are three principal theories, each of which has its group of supporters. According to these theories, the sea's phantom bottom may consist of small planktonic shrimps, of fishes, or of squids.

As for the plankton theory, one of the most convincing arguments is the well-known fact that many plankton creatures make regular vertical migrations of hundreds of feet, rising toward the surface at night, sinking down below the zone of light penetration very early in the morning. This is, of course, exactly the behavior of the scattering layer. Whatever composes it is apparently strongly repelled by sunlight. The creatures of the layer seem almost to be held prisoner at the end—or beyond the end—of the sun's rays throughout the hours of daylight, waiting only for the welcome return of darkness to hurry upward into the surface waters. But what is the power that repels; and what the attraction that draws them surfaceward once the inhibiting force is removed? Is it comparative safety from enemies that makes them seek darkness? Is it more

abundant food near the surface that lures them back under cover of night?

Those who say that fish are the reflectors of the sound waves usually account for the vertical migrations of the layer as suggesting that the fish are feeding on planktonic shrimp and are following their food. They believe that the air bladder of a fish is, of all structures concerned, most likely from its construction to return a strong echo. There is one outstanding difficulty in the way of accepting this theory: we have no other evidence that concentrations of fish are universally present in the oceans. In fact, almost everything else we know suggests that the really dense populations of fish live over the continental shelves or in certain very definite determined zones of the open ocean where food is particularly abundant. If the reflecting layer is eventually proved to be composed of fish, the prevailing views of fish distribution will have to be radically revised.

The most startling theory (and the one that seems to have the fewest supporters) is that the layer consists of concentrations of squid, "hovering below the illuminated zone of the sea and awaiting the arrival of darkness in which to resume their raids into the plankton-rich surface waters." Proponents of this theory argue that squid are abundant enough, and of wide enough distribution, to give the echoes that have been picked up almost everywhere from the equator to the two poles. Squid are known to be the sole food of the sperm whale, found in the open oceans in all temperate and tropical waters. They also form the exclusive diet of the bottlenosed whale and are eaten extensively by most other toothed whales, by seals, and by many sea birds. All these facts argue that they must be prodigiously abundant.

It is true that men who have worked close to the sea surface at night have received vivid impressions of the abundance and activity of squids in the surface waters in darkness. Long ago Johan Hjort wrote:

> One night we were hauling long lines on the Faeroe slope, working with an electric lamp hanging over the side in order to see the line, when like lightning flashes one squid after another shot towards the light. . . . In October, 1902, we were one night steaming outside the slopes of the coast banks of Norway, and for many miles we could see the squids moving in the surface waters like luminous bubbles, resembling large milky white electric lamps being constantly lit and extinguished.

Thor Heyerdahl reports that at night his raft was literally bombarded by squids; and Richard Fleming says that in his oceanographic work off

the coast of Panamá it was common to see immense schools of squid gathering at the surface at night and leaping upward toward the lights that were used by the men to operate their instruments. But equally spectacular surface displays of shrimp have been seen, and most people find it difficult to believe in the ocean-wide abundance of squid.

Deep-water photography holds much promise for the solution of the mystery of the phantom bottom. There are technical difficulties, such as the problem of holding a camera still as it swings at the end of a long cable, twisting and turning, suspended from a ship which itself moves with the sea. Some of the pictures so taken look as though the photographer has pointed his camera at a starry sky and swung it in an arc as he exposed the film. Yet the Norwegian biologist Gunnar Rollefson had an encouraging experience in correlating photography with echograms. On the research ship *Johan Hjort* off the Lofoten Islands, he persistently got reflection of sound from schools of fish in 20 to 30 fathoms. A specially constructed camera was lowered to the depth indicated by the echogram. When developed, the film showed moving shapes of fish at a distance, and a large and clearly recognizable cod appeared in the beam of light and hovered in front of the lens.

Direct sampling of the layer is the logical means of discovering its identity, but the problem is to develop large nets that can be operated rapidly enough to capture swift-moving animals. Scientists at Woods Hole, Massachusetts, have towed ordinary plankton nets in the layer and have found that euphausiid shrimps, glassworms, and other deep-water plankton are concentrated there; but there is still a possibility that the layer itself may actually be made up of larger forms feeding on the shrimps—too large or swift to be taken in the presently used nets. New nets may give the answer. Television is another possibility.

Shadowy and indefinite though they be, these recent indications of an abundant life at mid-depths agree with the reports of the only observers who have actually visited comparable depths and brought back eyewitness accounts of what they saw. William Beebe's impressions from the bathysphere were of a life far more abundant and varied than he had been prepared to find, although, over a period of six years, he had made many hundreds of net hauls in the same area. More than a quarter of a mile down, he reported aggregations of living things "as thick as I have ever seen them." At half a mile—the deepest descent of the bathysphere—Dr. Beebe recalled that "there was no instant when a mist of plankton . . . was not swirling in the path of the beam."

The existence of an abundant deep-sea fauna was discovered, prob-

ably millions of years ago, by certain whales and also, it now appears, by seals. The ancestors of all whales, we know by fossil remains, were land mammals. They must have been predatory beasts, if we are to judge by their powerful jaws and teeth. Perhaps in their foragings about the deltas of great rivers or around the edges of shallow seas, they discovered the abundance of fish and other marine life and over the centuries formed the habit of following them farther and farther into the sea. Little by little their bodies took on a form more suitable for aquatic life; their hind limbs were reduced to rudiments, which may be discovered in a modern whale by dissection, and the forelimbs were modified into organs for steering and balancing.

Eventually the whales, as though to divide the sea's food resources among them, became separated into three groups: the plankton-eaters, the fish-eaters, and the squid-eaters. The plankton-eating whales can exist only where there are dense masses of small shrimp or copepods to supply their enormous food requirements. This limits them, except for scattered areas, to arctic and antarctic waters and the high temperate latitudes. Fish-eating whales may find food over a somewhat wider range of ocean, but they are restricted to places where there are enormous populations of schooling fish. The blue water of the tropics and of the open ocean basins offers little to either of these groups. But that immense, square-headed, formidably toothed whale known as the cachalot or sperm whale discovered long ago what men have known for only a short time—that hundreds of fathoms below the almost untenanted surface waters of these regions there is an abundant animal life. The sperm whale has taken these deep waters for his hunting grounds; his quarry is the deep-water population of squids including the giant squid Architeuthis, which lives pelagically at depths of 1,500 feet or more. The head of the sperm whale is often marked with long stripes, which consist of a great number of circular scars made by the suckers of the squid. From this evidence we can imagine the battles that go on, in the darkness of the deep water, between these two huge creatures—the sperm whale with its 70-ton bulk, the squid with a body as long as 30 feet, and writhing, grasping arms extending the total length of the animal to perhaps 50 feet.

The greatest depth at which the giant squid lives is not definitely known, but there is one instructive piece of evidence about the depth to which sperm whales descend, presumably in search of the squids. In April, 1932, the cable repair ship *All America* was investigating an apparent break in the submarine cable between Balboa in the Canal Zone

and Esmeraldas, Ecuador. The cable was brought to the surface off the coast of Colombia. Entangled in it was a dead 45-foot male sperm whale. The submarine cable was twisted around the lower jaw and was wrapped around one flipper, the body, and the caudal flukes. The cable was raised from a depth of 540 fathoms, or 3,240 feet.

Some of the seals also appear to have discovered the hidden food reserves of the deep ocean. It has long been something of a mystery where, and on what, the northern fur seals of the eastern Pacific feed during the winter, which they spend off the coast of North America from California to Alaska. There is no evidence that they are feeding to any great extent on sardines, mackerel, or other commercially important fishes. Presumably four million seals could not compete with commercial fishermen for the same species without the fact being known. But there is some evidence on the diet of the fur seals, and it is highly significant. Their stomachs have yielded the bones of a species of fish that has never been seen alive. Indeed, not even its remains have been found anywhere except in the stomachs of seals. Ichthyologists say that this "seal fish" belongs to a group that typically inhabits very deep water, off the edge of the continental shelf.

How either whales or seals endure the tremendous pressure changes involved in dives of several hundred fathoms is not definitely known. They are warm-blooded mammals like ourselves. Caisson disease, which is caused by the rapid accumulation of nitrogen bubbles in the blood with sudden release of pressure, kills human divers if they are brought up rapidly from depths of 200 feet or so. Yet, according to the testimony of whalers, a baleen whale, when harpooned, can dive straight down to a depth of half a mile, as measured by the amount of line carried out. From these depths, where it has sustained a pressure of half a ton on every inch of body, it returns almost immediately to the surface. The most plausible explanation is that, unlike the diver, who has air pumped to him while he is under water, the whale has in its body only the limited supply it carries down, and does not have enough nitrogen in its blood to do serious harm. The plain truth is, however, that we really do not know, since it is obviously impossible to confine a living whale and experiment on it, and almost as difficult to dissect a dead one satisfactorily.

At first thought it seems a paradox that creatures of such great fragility as the glass sponge and the jellyfish can live under the conditions of immense pressure that prevail in deep water. For creatures at home in the deep sea, however, the saving fact is that the pressure inside their tissues is the same as that without, and as long as this balance is preserved,

they are no more inconvenienced by a pressure of a ton or so than we are by ordinary atmospheric pressure. And most abyssal creatures, it must be remembered, live out their whole lives in a comparatively restricted zone, and are never required to adjust themselves to extreme changes of pressure.

But of course there are exceptions, and the real miracle of sea life in relation to great pressure is not the animal that lives its whole life on the bottom, bearing a pressure of perhaps five or six tons, but those that regularly move up and down through hundreds or thousands of feet of vertical change. The small shrimps and other planktonic creatures that descend into deep water during the day are examples. Fish that possess air bladders, on the other hand, are vitally affected by abrupt changes of pressure, as anyone knows who has seen a trawler's net raised from a hundred fathoms. Apart from the accident of being captured in a net and hauled up through waters of rapidly diminishing pressures, fish may sometimes wander out of the zone to which they are adjusted and find themselves unable to return. Perhaps in their pursuit of food they roam upward to the ceiling of the zone that is theirs, and beyond whose invisible boundary they may not stray without meeting alien and inhospitable conditions. Moving from layer to layer of drifting plankton as they feed, they may pass beyond the boundary. In the lessened pressure of these upper waters the gas enclosed within the air bladder expands. The fish becomes lighter and more buoyant. Perhaps he tries to fight his way down again, opposing the upward lift with all the power of his muscles. If he does not succeed, he "falls" to the surface, injured and dying, for the abrupt release of pressure from without causes distension and rupture of the tissues.

The compression of the sea under its own weight is relatively slight, and there is no basis for the old and picturesque belief that, at the deeper levels, the water resists the downward passage of objects from the surface. According to this belief, sinking ships, the bodies of drowned men, and presumably the bodies of the larger sea animals not consumed by hungry scavengers, never reach the bottom, but come to rest at some level determined by the relation of their own weight to the compression of the water, there to drift forever. The fact is that anything will continue to sink as long as its specific gravity is greater than that of the surrounding water, and all large bodies descend, in a matter of a few days, to the ocean floor. As mute testimony to this fact, we bring up from the deepest ocean basins the teeth of sharks and the hard ear bones of whales.

Nevertheless the weight of sea water—the pressing down of miles of water upon all the underlying layers—does have a certain effect upon the water itself. If this downward compression could suddenly be relaxed by some miraculous suspension of natural laws, the sea level would rise about 93 feet all over the world. This would shift the Atlantic coastline of the United States westward a hundred miles or more and alter other familiar geographic outlines all over the world.

Immense pressure, then, is one of the governing conditions of life in the deep sea; darkness is another. The unrelieved darkness of the deep waters has produced weird and incredible modifications of the abyssal fauna. It is a blackness so divorced from the world of the sunlight that probably only the few men who have seen it with their own eyes can visualize it. We know that light fades out rapidly with descent below the surface. The red rays are gone at the end of the first 200 or 300 feet, and with them all the orange and yellow warmth of the sun. Then the greens fade out, and at 1,000 feet only a deep, dark, brilliant blue is left. In very clear waters the violet rays of the spectrum may penetrate another thousand feet. Beyond this is only the blackness of the deep sea.

In a curious way, the colors of marine animals tend to be related to the zone in which they live. Fishes of the surface waters, like the mackerel and herring, often are blue or green; so are the floats of the Portuguese men-of-war and the azure-tinted wings of the swimming snails. Down below the diatom meadows and the drifting sargassum weed, where the water becomes ever more deeply, brilliantly blue, many creatures are crystal clear. Their glassy, ghostly forms blend with their surroundings and make it easier for them to elude the ever-present, ever-hungry enemy. Such are the transparent hordes of the arrowworms or glass-worms, the comb jellies, and the larvae of many fishes.

At a thousand feet, and on down to the very end of the sun's rays, silvery fishes are common, and many others are red, drab brown, or black. Pteropods are a dark violet. Arrowworms, whose relatives in the upper layers are colorless, are here a deep red. Jellyfish medusae, which above would be transparent, at a depth of 1,000 feet are a deep brown.

At depths greater than 1,500 feet, all the fishes are black, deep violet, or brown, but the prawns wear amazing hues of red, scarlet, and purple. Why, no one can say. Since all the red rays are strained out of the water far above this depth, the scarlet raiment of these creatures can only look black to their neighbors.

The deep sea has its stars, and perhaps here and there an eerie and transient equivalent of moonlight, for the mysterious phenomenon of

luminescence is displayed by perhaps half of all the fishes that live in dimly lit or darkened waters, and by many of the lower forms as well. Many fishes carry luminous torches that can be turned on or off at will, presumably helping them find or pursue their prey. Others have rows of lights over their bodies, in patterns that vary from species to species and may be a sort of recognition mark or badge by which the bearer can be known as friend or enemy. The deep-sea squid ejects a spurt of fluid that becomes a luminous cloud, the counterpart of the "ink" of his shallow-water relative.

Down beyond the reach of even the longest and strongest of the sun's rays, the eyes of fishes become enlarged, as though to make the most of any chance illumination of whatever sort, or they may become telescopic, large of lens, and protruding. In deep-sea fishes, hunting always in dark waters, the eyes tend to lose the "cones" or color-perceiving cells of the retina, and to increase the "rods," which perceive dim light. Exactly the same modification is seen on land among the strictly nocturnal prowlers which, like abyssal fish, never see the sunlight.

In their world of darkness, it would seem likely that some of the animals might have become blind, as has happened to some cave fauna. So, indeed, many of them have, compensating for the lack of eyes with marvelously developed feelers and long, slender fins and processes with which they grope their way, like so many blind men with canes, their whole knowledge of friends, enemies, or food coming to them through the sense of touch.

The last traces of plant life are left behind in the thin upper layer of water, for no plant can live below about 600 feet even in very clear water, and few find enough sunlight for their food-manufacturing activities below 200 feet. Since no animal can make its own food, the creatures of the deeper waters live a strange, almost parasitic existence of utter dependence on the upper layers. These hungry carnivores prey fiercely and relentlessly upon each other, yet the whole community is ultimately dependent upon the slow rain of descending food particles from above. The components of this never-ending rain are the dead and dying plants and animals from the surface, or from one of the intermediate layers. For each of the horizontal zones or communities of the sea that lie, in tier after tier, between the surface and the sea bottom, the food supply is different and in general poorer than for the layer above. There is a hint of the fierce and uncompromising competition for food in the saber-toothed jaws of some of the small, dragonlike fishes of the deeper waters, in the immense mouths and in the elastic and distensible

bodies that make it possible for a fish to swallow another several times its size, enjoying swift repletion after a long fast.

Pressure, darkness, and—we should have added only a few years ago—silence, are the conditions of life in the deep sea. But we know now that the conception of the sea as a silent place is wholly false. Wide experience with hydrophones and other listening devices for the detection of submarines has proved that, around the shore lines of much of the world, there is the extraordinary uproar produced by fishes, shrimps, porpoises and probably other forms not yet identified. There has been little investigation as yet of sound in the deep, offshore areas, but when the crew of the *Atlantis* lowered a hydrophone into deep water off Bermuda, they recorded strange mewing sounds, shrieks, and ghostly moans, the sources of which have not been traced. But fish of shallower zones have been captured and confined in aquaria, where their voices have been recorded for comparison with sounds heard at sea, and in many cases satisfactory identification can be made.

During the Second World War the hydrophone network set up by the United States Navy to protect the entrance to Chesapeake Bay was temporarily made useless when, in the spring of 1942, the speakers at the surface began to give forth, every evening, a sound described as being like "a pneumatic drill tearing up pavement." The extraneous noises that came over the hydrophones completely masked the sounds of the passage of ships. Eventually it was discovered that the sounds were the voices of fish known as croakers, which in the spring move into Chesapeake Bay from their offshore wintering grounds. As soon as the noise had been identified and analyzed, it was possible to screen it out with an electric filter, so that once more only the sounds of ships came through the speakers.

Later in the same year, a chorus of croakers was discovered off the pier of the Scripps Institution at La Jolla. Every year from May until late September the evening chorus begins about sunset, and "increases gradually to a steady uproar of harsh froggy croaks, with a background of soft drumming. This continues unabated for two to three hours and finally tapers off to individual outbursts at rare intervals." Several species of croakers isolated in aquaria gave sounds similar to the "froggy croaks," but the authors of the soft background drumming—presumably another species of croaker—have not yet been discovered.

One of the most extraordinarily widespread sounds of the undersea is the crackling, sizzling sound, like dry twigs burning or fat frying, heard near beds of the snapping shrimp. This is a small, round shrimp, about

half an inch in diameter, with one very large claw which it uses to stun its prey. The shrimp are forever clicking the two joints of this claw together, and it is the thousands of clicks that collectively produce the noise known as shrimp crackle. No one had any idea the little snapping shrimps were so abundant or so widely distributed until their signals began to be picked up on hydrophones. They have been heard over a broad band that extends around the world, between latitudes 35° N. and 35° S. (for example, from Cape Hatteras to Buenos Aires) in ocean waters less than 30 fathoms deep.

Mammals as well as fishes and crustaceans contribute to the undersea chorus. Biologists listening through a hydrophone in an estuary of the St. Lawrence River heard "high-pitched resonant whistles and squeals, varied with the ticking and clucking sounds slightly reminiscent of a string orchestra tuning up, as well as mewing and occasional chirps." This remarkable medley of sounds was heard only while schools of the white porpoise were seen passing up or down the river, and so was assumed to be produced by them.

The mysteriousness, the eeriness, the ancient unchangingness of the great depths have led many people to suppose that some very old forms of life—some "living fossils"—may be lurking undiscovered in the deep ocean. Some such hope may have been in the minds of the *Challenger* scientists. The forms they brought up in their nets were weird enough, and most of them had never before been seen by man. But basically they were modern types. There was nothing like the trilobites of Cambrian time or the sea scorpions of the Silurian, nothing reminiscent of the great marine reptiles that invaded the sea in the Mesozoic. Instead, there were modern fishes, squids, and shrimps, strangely and grotesquely modified, to be sure, for life in the difficult deep-sea world, but clearly types that have developed in rather recent geologic time.

Far from being the original home of life, the deep sea has probably been inhabited for a relatively short time. While life was developing and flourishing in the surface waters, along the shores, and perhaps in the rivers and swamps, two immense regions of the earth still forbade invasion by living things. These were the continents and the abyss. As we have seen, the immense difficulties of surviving on land were first overcome by colonists from the sea about 300 million years ago. The abyss, with its unending darkness, its crushing pressures, its glacial cold, presented even more formidable difficulties. Probably the successful invasion of this region—at least by higher forms of life—occurred somewhat later.

Yet in recent years there have been one or two significant happenings

that have kept alive the hope that the deep sea may, after all, conceal strange links with the past. In December, 1938, off the southeast tip of Africa, an amazing fish was caught alive in a trawl–a fish that was supposed to have been dead for at least 60 million years! This is to say, the last known fossil remains of its kind date from the Cretaceous, and no living example had been recognized in historic time until this lucky nethaul.

The fishermen who brought it up in their trawl from a depth of only 40 fathoms realized that this five-foot, bright blue fish, with its large head and strangely shaped scales, fins, and tail, was different from anything that they ever caught before, and on their return to port they took it to the nearest museum, where it was christened Latimeria. It was identified as a coelacanth, or one of an incredibly ancient group of fishes that first appeared in the seas some 300 million years ago. Rocks representing the next 200 million and more years of earth history yielded fossil coelacanths; then, in the Cretaceous, the record of these fishes came to an end. After 60 million years of mysterious oblivion, one of the group, Latimeria, then appeared before the eyes of the South African fishermen, apparently little changed in structure from its ancient ancestors. But where had these fishes been in the meantime?

The story of the coelacanths did not end in 1938. Believing there must be other such fish in the sea, an ichthyologist in South Africa, Professor J. L. B. Smith, began a patient search that lasted 14 years before it was successful. Then, in December, 1952, a second coelacanth was captured near the island of Anjouan, off the northwestern tip of Madagascar. It differed enough from Latimeria to be placed in a separate genus, but like the first coelacanth known in modern times, it can tell us much of a shadowy chapter in the evolution of living things.

Occasionally a very primitive type of shark, known from its puckered gills as a "frillshark," is taken in waters between a quarter of a mile and half a mile down. Most of these have been caught in Norwegian and Japanese waters–there are only about 50 preserved in the museums of Europe and America–but recently one was captured off Santa Barbara, California. The frillshark has many anatomical features similar to those of the ancient sharks that lived 25 to 30 million years ago. It has too many gills and too few dorsal fins for a modern shark, and its teeth, like those of fossil sharks, are three-pronged and briarlike. Some ichthyologists regard it as a relic derived from very ancient shark ancestors that have died out in the upper waters but, through this single species, are still carrying on their struggle for earthly survival, in the quiet of the deep sea.

Possibly there are other such anachronisms lurking down in these regions of which we know so little, but they are likely to be few and scattered. The terms of existence in these deep waters are far too uncompromising to support life unless that life is plastic, molding itself constantly to the harsh conditions, seizing every advantage that makes possible the survival of living protoplasm in a world only a little less hostile than the black reaches of interplanetary space.

The foregoing consists of Chapter 4
from Rachel Carson's THE SEA AROUND US.

J. B. S. Haldane

1892–1964

John Burdon Sanderson Haldane was born on November 5, 1892, studied at Eton and at New College, Oxford, and was elected a fellow of New College in 1919. He became reader in biochemistry at Cambridge in 1922 and was appointed professor of genetics at London University in 1933. From 1937 to 1957 he was professor of biometry at London, after which he lived and worked in India until his death on December 1, 1964.

He published papers on subjects in biology, botany, statistical theory, physiology, and chemistry, as well as a number of popular books. He conducted numerous experiments on the effects of various chemical and physical agents on the human body. In the course of such experiments, he often used himself as subject, subjecting his own body to extreme stresses and strains. He had a wide knowledge of mathematics, as the following selection indicates, and he made contributions to physics, particularly to aspects of the theory of relativity. He was by profession a geneticist. In short, he was remarkably versatile as well as prolific.

Also a Marxist, he was from 1940 to 1949 the chairman of the editorial board of the *London Daily Worker*. It has been claimed that his political views sometimes influenced his scientific ones. If this is so, it is not evident in the famous little essay reprinted here.

The main point of the essay is probably perfectly clear. It is that we are ruled, in our physical existence, by mathematics, and in a way that we may never have suspected. "For every type of animal there is a most convenient size, and a large change in size inevitably carries with it a change of form." We are prisoners of gravity; we

could not much alter ourselves without first altering the mathematical laws of nature. Since the latter alteration seems impossible, at least on this planet, it is likely that we will have to be content with our six feet and 180 pounds for a good many eons to come.

Haldane does not content himself with pointing out what is, if you think about it, an obvious fact. He explains that "just as there is a best size for every animal, so the same is true for every human institution." He points out that the Greeks "held that a small city was the largest possible democratic state." However, he goes on to say that "the English invention of representative government made a democratic nation possible." Is there an apparent contradiction here?

"The higher animals are not larger than the lower because they are more complicated," says Haldane. "They are more complicated because they are larger." The surface of something increases as the square of a dimension, the volume as the cube of it. The least "numerate" person will recognize what a dramatic difference this is, when the dimension in question increases markedly. The difference, indeed, might be called tyrannical. Not only are we ruled by mathematics—we are the slaves of mathematics. "Comparative anatomy is largely the story of the struggle to increase surface in proportion to volume."

Haldane's little essay, a classic, forces us to think about such seemingly obvious matters as size and weight—but in fresh ways. Every paragraph is packed with unexpected ideas. The whole discussion is a perfect example of how a good scientist who is also a good writer can lead the layman to see the world of nature from a novel angle.

On Being the Right Size

The most obvious differences between different animals are differences of size, but for some reason the zoologists have paid singularly little attention to them. In a large textbook of zoology before me I find no indication that the eagle is larger than the sparrow, or the hippopotamus bigger than the hare, though some grudging admissions are made in the case of the mouse and the whale. But yet it is easy to show that a hare could not be as large as a hippopotamus, or a whale as small as a herring. For every type of animal there is a most convenient size, and a large change in size inevitably carries with it a change of form.

Let us take the most obvious of possible cases, and consider a giant man sixty feet high–about the height of Giant Pope and Giant Pagan in the illustrated *Pilgrim's Progress* of my childhood. These monsters were not only ten times as high as Christian, but ten times as wide and ten times as thick, so that their total weight was a thousand times his, or about eightly to ninety tons. Unfortunately the cross sections of their bones were only a hundred times those of Christian, so that every square inch of giant bone had to support ten times the weight borne by a square inch of human bone. As the human thigh-bone breaks under about ten times the human weight, Pope and Pagan would have broken their thighs every time they took a step. This was doubtless why they were sitting down in the picture I remember. But it lessens one's respect for Christian and Jack the Giant-Killer.

To turn to zoology, suppose that a gazelle, a graceful little creature with long thin legs, is to become large, it will break its bones unless it does one of two things. It may make its legs short and thick, like the rhinoceros, so that every pound of weight has still about the same area of bone to support it. Or it can compress its body and stretch out its legs obliquely to gain stability, like the giraffe. I mention these two beasts because they happen to belong to the same order as the gazelle, and both are quite successful mechanically, being remarkably fast runners.

Gravity, a mere nuisance to Christian, was a terror to Pope, Pagan, and Despair. To the mouse and any smaller animal it presents practically no dangers. You can drop a mouse down a thousand-yard mine-shaft; and, on arriving at the bottom, it gets a slight shock and walks away. A rat would probably be killed, though it can fall safely from the eleventh story of a building; a man is killed, a horse splashes. For the resistance presented to movement by the air is proportional to the surface of the moving object. Divide an animal's length, breadth, and height each by ten; its weight is reduced to a thousandth, but its surface only to a hundredth. So the resistance to falling in the case of the small animal is relatively ten times greater than the driving force.

An insect, therefore, is not afraid of gravity; it can fall without danger, and can cling to the ceiling with remarkably little trouble. It can go in for elegant and fantastic forms of support like that of the daddy-long-legs. But there is a force which is as formidable to an insect as gravitation to a mammal. This is surface tension. A man coming out of a bath carries with him a film of water of about one-fiftieth of an inch in thickness. This weighs roughly a pound. A wet mouse has to carry about its own weight of water. A wet fly has to lift many times its own weight and, as every one knows, a fly once wetted by water or any other liquid is in a very serious position indeed. An insect going for a drink is in as great danger as a man leaning out over a precipice in search of food. If it once falls into the grip of the surface tension of the water—that is to say, gets wet—it is likely to remain so until it drowns. A few insects, such as water-beetles, contrive to be unwettable: the majority keep well away from their drink by means of a long proboscis.

Of course tall land animals have other difficulties. They have to pump their blood to greater heights than a man and, therefore, require a larger blood pressure and tougher blood-vessels. A great many men die from burst arteries, especially in the brain, and this danger is presumably still greater for an elephant or a giraffe. But animals of all kinds find difficulties in size for the following reason. A typical small animal, say a microscopic worm or rotifer, has a smooth skin through which all the oxygen it requires can soak in, a straight gut with sufficient surface to absorb its food, and a simple kidney. Increase its dimensions tenfold in every direction, and its weight is increased a thousand times, so that if it is to use its muscles as efficiently as its miniature counterpart, it will need a thousand times as much food and oxygen per day and will excrete a thousand times as much of waste products.

Now if its shape is unaltered its surface will be increased only a hun-

dredfold, and ten times as much oxygen must enter per minute through each square millimetre of skin, ten times as much food through each square millimetre of intestine. When a limit is reached to their absorptive powers their surface has to be increased by some special device. For example, a part of the skin may be drawn out into tufts to make gills or pushed in to make lungs, thus increasing the oxygen-absorbing surface in proportion to the animal's bulk. A man, for example, has a hundred square yards of lung. Similarly, the gut, instead of being smooth and straight, becomes coiled and develops a velvety surface, and other organs increase in complication. The higher animals are not larger than the lower because they are more complicated. They are more complicated because they are larger. Just the same is true of plants. The simplest plants, such as the green algae growing in stagnant water or on the bark of trees, are mere round cells. The higher plants increase their surface by putting out leaves and roots. Comparative anatomy is largely the story of the struggle to increase surface in proportion to volume.

Some of the methods of increasing the surface are useful up to a point, but not capable of a very wide adaptation. For example, while vertebrates carry the oxygen from the gills or lungs all over the body in the blood, insects take air directly to every part of their body by tiny blind tubes called tracheae which open to the surface at many different points. Now, although by their breathing movements they can renew the air in the outer part of the tracheal system, the oxygen has to penetrate the finer branches by means of diffusion. Gases can diffuse easily through very small distances, not many times larger than the average length travelled by a gas molecule between collisions with other molecules. But when such vast journeys—from the point of view of a molecule—as a quarter of an inch have to be made, the process becomes slow. So the portions of an insect's body more than a quarter of an inch from the air would always be short of oxygen. In consequence hardly any insects are much more than half an inch thick. Land crabs are built on the same general plan as insects, but are much clumsier. Yet like ourselves they carry oxygen around in their blood, and are therefore able to grow far larger than any insects. If the insects had hit on a plan for driving air through their tissues instead of letting it soak in, they might well have become as large as lobsters, though other considerations would have prevented them from becoming as large as man.

Exactly the same difficulties attach to flying. It is an elementary principle of aeronautics that the minimum speed needed to keep an aeroplane of a given shape in the air varies as the square root of its length. If its

linear dimensions are increased four times, it must fly twice as fast. Now the power needed for the minimum speed increases more rapidly than the weight of the machine. So the larger aeroplane, which weighs sixty-four times as much as the smaller, needs one hundred and twenty-eight times its horsepower to keep up. Applying the same principles to the birds, we find that the limit to their size is soon reached. An angel whose muscles developed no more power weight for weight than those of an eagle or a pigeon would require a breast projecting for about four feet to house the muscles engaged in working its wings, while to economize in weight, its legs would have to be reduced to mere stilts. Actually a large bird such as an eagle or kite does not keep in the air mainly by moving its wings. It is generally to be seen soaring, that is to say balanced on a rising column of air. And even soaring becomes more and more difficult with increasing size. Were this not the case eagles might be as large as tigers and as formidable to man as hostile aeroplanes.

But it is time that we passed to some of the advantages of size. One of the most obvious is that it enables one to keep warm. All warm-blooded animals at rest lose the same amount of heat from a unit area of skin, for which purpose they need a food-supply proportional to their surface and not to their weight. Five thousand mice weigh as much as a man. Their combined surface and food or oxygen consumption are about seventeen times a man's. In fact a mouse eats about one quarter its own weight of food every day, which is mainly used in keeping it warm. For the same reason small animals cannot live in cold countries. In the arctic regions there are no reptiles or amphibians, and no small mammals. The smallest mammal in Spitsbergen is the fox. The small birds fly away in the winter, while the insects die, though their eggs can survive six months or more of frost. The most successful mammals are bears, seals, and walruses.

Similarly, the eye is a rather inefficient organ until it reaches a large size. The back of the human eye on which an image of the outside world is thrown, and which corresponds to the film of a camera, is composed of a mosaic of "rods and cones" whose diameter is little more than a length of an average light-wave. Each eye has about half a million, and for two objects to be distinguishable their images must fall on separate rods or cones. It is obvious that with fewer but larger rods and cones we should see less distinctly. If they were twice as broad, two points would have to be twice as far apart before we could distinguish them at a given distance. But if their size were diminished and their number increased we should see no better. For it is impossible to form a definite image

smaller than a wave-length of light. Hence a mouse's eye is not a small-scale model of a human eye. Its rods and cones are not much smaller than ours, and therefore there are far fewer of them. A mouse could not distinguish one human face from another six feet away. In order that they should be of any use at all the eyes of small animals have to be much larger in proportion to their bodies than our own. Large animals on the other hand only require relatively small eyes, and those of the whale and elephant are little larger than our own.

For rather more recondite reasons the same general principle holds true of the brain. If we compare the brain-weights of a set of very similar animals such as the cat, cheetah, leopard, and tiger, we find that as we quadruple the body-weight the brain-weight is only doubled. The larger animal with proportionately larger bones can economize on brain, eyes, and certain other organs.

Such are a very few of the considerations which show that for every type of animal there is an optimum size. Yet although Galileo demonstrated the contrary more than three hundred years ago, people still believe that if a flea were as large as a man it could jump a thousand feet into the air. As a matter of fact the height to which an animal can jump is more nearly independent of its size than proportional to it. A flea can jump about two feet, a man about five. To jump a given height, if we neglect the resistance of the air, requires an expenditure of energy proportional to the jumper's weight. But if the jumping muscles form a constant fraction of the animal's body, the energy developed per ounce of muscle is independent of the size, provided it can be developed quickly enough in the small animal. As a matter of fact an insect's muscles, although they can contract more quickly than our own, appear to be less efficient; as otherwise a flea or grasshopper could rise six feet into the air.

And just as there is a best size for every animal, so the same is true for every human institution. In the Greek type of democracy all the citizens could listen to a series of orators and vote directly on questions of legislation. Hence their philosophers held that a small city was the largest possible democratic state. The English invention of representative government made a democratic nation possible, and the possibility was first realized in the United States, and later elsewhere. With the development of broadcasting it has once more become possible for every citizen to listen to the political views of representative orators, and the future may perhaps see the return of the national state to the Greek form of democracy. Even the referendum has been made possible only by the institution of daily newspapers.

To the biologist the problem of socialism appears largely as a problem of size. The extreme socialists desire to run every nation as a single business concern. I do not suppose that Henry Ford would find much difficulty in running Andorra or Luxembourg on a socialistic basis. He has already more men on his pay-roll than their population. It is conceivable that a syndicate of Fords, if we could find them, would make Belgium Ltd. or Denmark Inc. pay their way. But while nationalization of certain industries is an obvious possibility in the largest of states, I find it no easier to picture a completely socialized British Empire or United States than an elephant turning somersaults or a hippopotamus jumping a hedge.

Thomas Henry Huxley

1825–1895

T. H. Huxley was born at Ealing, England, on May 4, 1825. He was the son of a schoolmaster, but he received no formal education. "I had . . . neither help nor sympathy in any intellectual direction till I reached manhood," he later wrote. He wanted to become an engineer; he studied the subject, and found that he preferred the "mechanical engineering of living machines"—*i.e.,* biology. At seventeen he was much struck by the works of Carlyle, and from him learned "to make things clear and get rid of cant and shows of all sorts." At the same age he commenced regular medical studies at Charing Cross Hospital, in London, graduating in 1845.

He became a surgeon and entered the Navy. He was assigned to H. M. S. "Rattlesnake," about to start for surveying work in Torres Strait. In the course of the long voyage he made a study of the tropical seas. He united the Medusae and certain polyps to form a class that he called Hydrozoa, and he noted that all members of the class consisted of two membranes enclosing a central cavity. He then suggested that the two membranes correspond to two layers which appear in the embryos of higher animals. This "prophetic generalization" of the ectoderm and endoderm was later used in support of the theory of evolution. After his return in 1850 to England, he was elected a fellow of the Royal Society (1851); the following year he received the Royal Medal. Thus at the age of twenty-six, with no assistance from anybody, he had placed himself in the first rank of English scientists.

Huxley at this stage of his life accepted the idea of evolution within a type but not from a lower type to a higher one. *The Origin of Species* changed his mind. He found in Darwin's theory what he had failed to find in Lamarck and Lyell, namely, an intelligible and

persuasive hypothesis: natural selection. By 1892 he could write: "The doctrine of evolution is no speculation, but a generalization of certain facts." In the meantime he had written many answers to the attacks on Darwin and himself for their advocacy of evolution. Among them were *Man's Place in Nature and Other Anthropological Essays* (1863), from which the first of the following selections is taken. *On a Piece of Chalk* (1868) was inspired by similar aims.

Huxley served on ten Royal commissions in twenty-two years, was secretary and then president of the Royal Society, was a member of the London School Board, and in 1892 became a Privy Councillor. He died, after a long and painful illness, on June 29, 1895.

On the Relations of Man to the Lower Animals opens with the proposition that "the question of questions for mankind—the problem which underlies all others, and is more deeply interesting than any other—is the ascertainment of the place which man occupies in nature and of his relations to the universe of things." This is a sweeping assertion and it is perhaps wise to understand from the beginning what it means.

Does man have a place in nature? Or is his place, essentially, out of, or above, nature? If he does have a place, is it unique, distinct from the place that all other things have? And does man, even if he has a definite place in nature, have one out of nature, too? These are some of the important questions raised by Huxley's assertion.

To Huxley, nature is a continuum and it includes everything that exists. If man has existence, he must have a place in nature. Huxley here ignores any other mode of existence that man might have. As to the place man occupies, however, Huxley is impartial. He imagines himself and his reader to be visiting scientists from another planet. They come upon a new mammal, man, and wish to decide where it belongs in their classification of terrestrial animals. "Being happily free," he writes, "from all real, or imaginary, personal

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Notes from the artist: "A young Huxley, with an orangutan perched on the back of his chair. In the background, superimposed on the body of a primitive lungfish, the head of Bishop Wilberforce—who challenged Huxley's defense of the theory of evolution—glares at the young scientist. The quotation is from Science and Culture.*"*

T. H. Huxley
'Irrationally held truths may be more harmful than reasoned errors.'

interest in the results of the inquiry thus set afoot, we should proceed to weigh the arguments on one side and on the other, with as much judicial calmness as if the question related to a new opossum."

The visiting scientists would have to conclude, Huxley says, that man belongs to the order of Primates. What is the evidence that this is so? Huxley displays it to us, carefully, calmly, and at length. It is not primarily to be found, he says, in the physiology of the brain, or in man's special functions and productions. Rather, it consists in a comparison of structure, of morphology—in the structure of the hands and feet and pelvis, in the relative proportions of the limbs, and, perhaps most important of all, in the structure and number of the teeth. All of these elements of man's physiognomy show, upon impartial and objective consideration, that man is less different from the higher apes than the higher apes are from the monkeys and lower primates. Since it is admitted that the apes and monkeys belong together and form one order of living things, then man belongs to it, too.

Huxley is not denying that man's place is at the top of nature. Nothing he says belittles or ignores the immense differences of another kind between man and all the other animals. But these differences, he says, are not the result, primarily, of structure and morphology. They are the result of language. Man's larger brain may make language possible, but it does not guarantee it. Once man invents language, he makes strides forward that no other animal can match.

On a Piece of Chalk is simpler and broader in its approach to a problem in the study of nature. We discover that the chalk which covers much of England and Europe must be the product of living animals in a long since dried-up sea. That sea must have lain over Europe for thousands—we would say millions—of years. The chalk is "vastly older," Huxley says, "than Adam himself." The question whether any natural thing could be "vastly older" than Adam was a serious question in Huxley's day. For if nothing were, then it was difficult to see how the earth could be "the theatre of a series of changes as vast in their amount as they were slow in their progress." But if the earth were really very old, then there was time for these vast changes to have occurred, and there was no need to have recourse to the hypothesis of a "grand catastrophe." [1]

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1. For a discussion of "catastrophism," see the introductory note to the selection from Lyell's *The Principles of Geology,* in Vol. 8, pp. 315–318, in this set.

Huxley ends his lecture in a way that is reminiscent of the end of Faraday's *Chemical History of a Candle*. Huxley suggests that a piece of chalk could be put "into the hot but obscure flame of burning hydrogen," in which case "it would presently shine like the sun." This would symbolize, he implies, what he has been trying to do in the lecture; but the symbol has a wider meaning than that. The chalk "has become luminous," he writes, "and its clear rays, penetrating the abyss of the remote past, have brought within our ken some stages of the evolution of the earth." Huxley's final intention is to show how science shines its light on nature itself. Nature, submitted to the flame of thought, becomes luminous, and is brought within our ken.

On the Relations of Man to the Lower Animals

The question of questions for mankind—the problem which underlies all others, and is more deeply interesting than any other—is the ascertainment of the place which man occupies in nature and of his relations to the universe of things. Whence our race has come; what are the limits of our power over nature, and of nature's power over us; to what goal we are tending; are the problems which present themselves anew and with undiminished interest to every man born into the world. Most of us, shrinking from the difficulties and dangers which beset the seeker after original answers to these riddles, are contented to ignore them altogether, or to smother the investigating spirit under the feather-bed of respected and respectable tradition. But, in every age, one or two restless spirits, blessed with that constructive genius, which can only build on a secure foundation, or cursed with the spirit of mere scepticism, are unable to follow in the well-worn and comfortable track of their forefathers and contemporaries, and unmindful of thorns and stumbling-blocks, strike out into paths of their own. The sceptics end in the infidelity which asserts the problem to be insoluble, or in the atheism which denies the existence of any orderly progress and governance of things: the men of genius propound solutions which grow into systems of theology or of philosophy, or veiled in musical language which suggests more than it asserts, take the shape of the poetry of an epoch.

Each such answer to the great question, invariably asserted by the followers of its propounder, if not by himself, to be complete and final, remains in high authority and esteem, it may be for one century, or it may be for twenty: but, as invariably, time proves each reply to have been a mere approximation to the truth—tolerable chiefly on account of the ignorance of those by whom it was accepted, and wholly intolerable when tested by the larger knowledge of their successors.

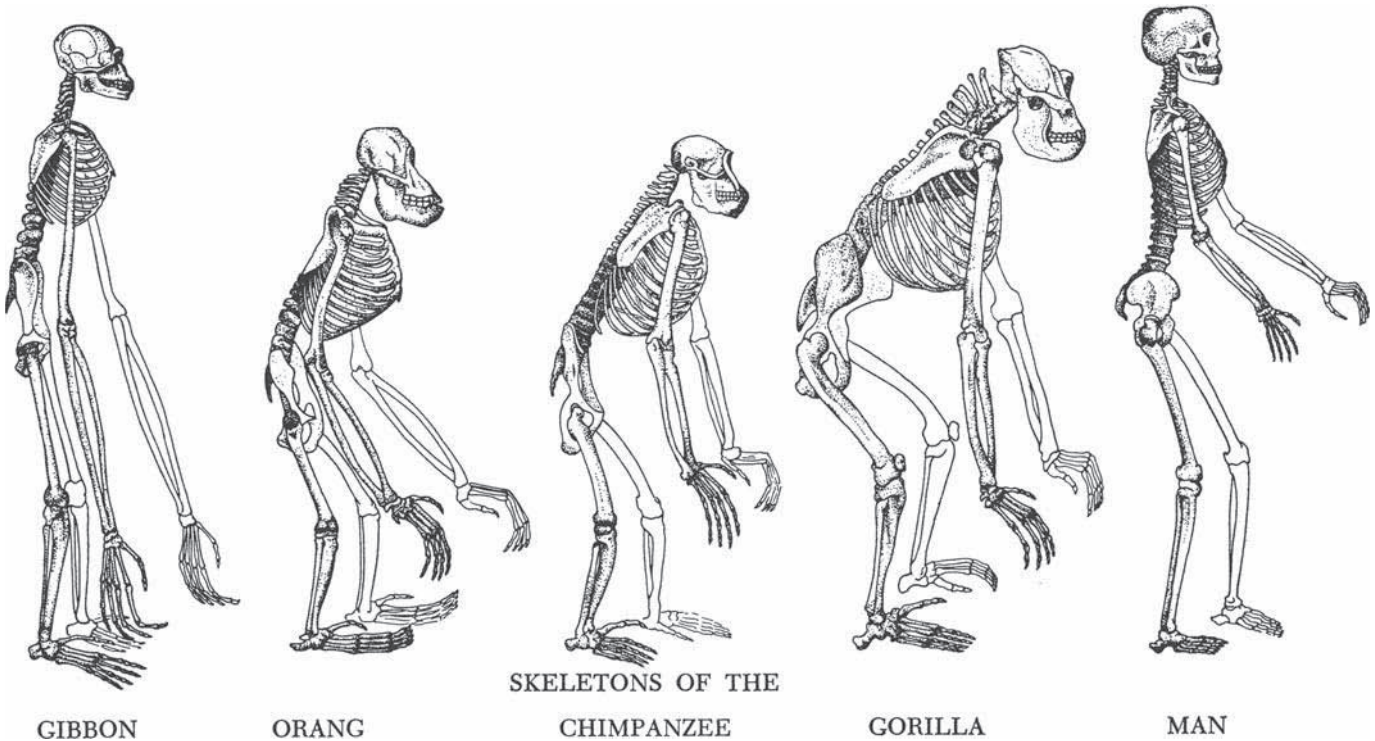

Fig. 1. *Skeletons photographically reduced from diagrams of the natural size (except that of the gibbon, which was twice as large as nature), after drawings by Waterhouse Hawkins from specimens in the Museum of the Royal College of Surgeons.*

In a well-worn metaphor, a parallel is drawn between the life of man and the metamorphosis of the caterpillar into the butterfly; but the comparison may be more just as well as more novel, if for its former term we take the mental progress of the race. History shows that the human mind, fed by constant accessions of knowledge, periodically grows too large for its theoretical coverings, and bursts them asunder to appear in new habiliments, as the feeding and growing grub, at intervals, casts its too narrow skin and assumes another, itself but temporary. Truly the imago state of man seems to be terribly distant, but every moult is a step gained, and of such there have been many.

Since the revival of learning, whereby the Western races of Europe were enabled to enter upon that progress towards true knowledge, which was commenced by the philosophers of Greece, but was almost arrested in subsequent long ages of intellectual stagnation, or, at most, gyration, the human larva has been feeding vigorously, and moulting in proportion. A skin of some dimension was cast in the 16th century, and another towards the end of the 18th, while, within the last fifty years, the extraordinary growth of every department of physical science has spread among us mental food of so nutritious and stimulating a character that a new ecdysis seems imminent. But this is a process not unusually accompanied by many throes and some sickness and debility, or, it may be, by graver disturbances; so that every good citizen must feel bound to facilitate the process, and even if he have nothing but a scalpel to work withal, to ease the cracking integument to the best of his ability.

In this duty lies my excuse for the publication of these essays. For it will be admitted that some knowledge of man's position in the animate world is an indispensable preliminary to the proper understanding of his relations to the universe; and this again resolves itself, in the long run, into an inquiry into the nature and the closeness of the ties which connect him with those singular creatures whose history has been sketched in the preceding pages.

The importance of such an inquiry is indeed intuitively manifest. Brought face to face with these blurred copies of himself, the least thoughtful of men is conscious of a certain shock, due perhaps, not so much to disgust at the aspect of what looks like an insulting caricature, as to the awakening of a sudden and profound mistrust of time-honoured theories and strongly-rooted prejudices regarding his own position in nature, and his relations to the underworld of life; while that which remains a dim suspicion for the unthinking, becomes a vast argument, fraught with the deepest consequences, for all who are acquainted

with the recent progress of the anatomical and physiological sciences.

I now propose briefly to unfold that argument, and to set forth, in a form intelligible to those who possess no special acquaintance with anatomical science, the chief facts upon which all conclusions respecting the nature and the extent of the bonds which connect man with the brute world must be based: I shall then indicate the one immediate conclusion which, in my judgment, is justified by those facts, and I shall finally discuss the bearing of that conclusion upon the hypotheses which have been entertained respecting the origin of man.

The facts to which I would first direct the reader's attention, though ignored by many of the professed instructors of the public mind, are easy of demonstration and are universally agreed to by men of science; while their significance is so great, that whoso has duly pondered over them will, I think, find little to startle him in the other revelations of biology. I refer to those facts which have been made known by the study of development.

It is a truth of very wide, if not of universal, application, that every living creature commences its existence under a form different from, and simpler than, that which it eventually attains.

The oak is a more complex thing than the little rudimentary plant contained in the acorn; the caterpillar is more complex than the egg; the butterfly than the caterpillar; and each of these beings, in passing from its rudimentary to its perfect condition, runs through a series of changes, the sum of which is called its development. In the higher animals these changes are extremely complicated; but, within the last half century, the labours of such men as Von Baer, Rathke, Reichert, Bischoff, and Remak, have almost completely unravelled them, so that the successive stages of development which are exhibited by a dog, for example, are now as well known to the embryologist as are the steps of the metamorphosis of the silkworm moth to the schoolboy. It will be useful to consider with attention the nature and the order of the stages of canine development, as an example of the process in the higher animals generally.

The dog, like all animals, save the very lowest (and further inquiries may not improbably remove the apparent exception), commences its existence as an egg: as a body which is, in every sense, as much an egg as that of a hen, but is devoid of that accumulation of nutritive matter which confers upon the bird's egg its exceptional size and domestic utility; and wants the shell, which would not only be useless to an ani-

mal incubated within the body of its parent, but would cut it off from access to the source of that nutriment which the young creature requires, but which the minute egg of the mammal does not contain within itself.

The dog's egg is, in fact, a little spheroidal bag (Fig. 2), formed of a delicate transparent membrane called the *vitelline membrane*, and about $\frac{1}{130}$ to $\frac{1}{120}$ of an inch in diameter. It contains a mass of viscid nutritive matter—the *yolk*—within which is enclosed a second much more delicate spheroidal bag, called the *germinal vesicle* (*a*). In this, lastly, lies a more solid rounded body, termed the *germinal spot* (*b*).

The egg, or *ovum* is originally formed within a gland, from which, in due season, it becomes detached, and passes into the living chamber fitted for its protection and maintenance during the protracted process

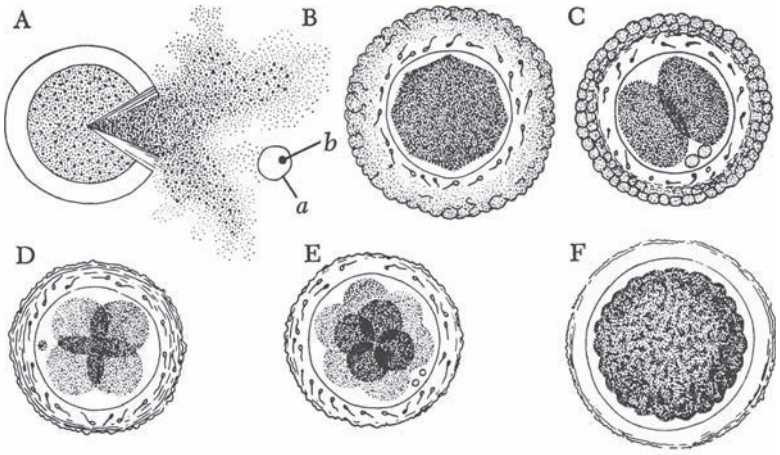

Fig. 2. A. *Egg of the dog, with the vitelline membrane burst, so as to give exit to the yolk, the germinal vesicle* (a), *and its included spot* (b). B, C, D, E, F. *Successive changes of the yolk indicated in the text. After Bischoff.*

of gestation. Here, when subjected to the required conditions, this minute and apparently insignificant particle of living matter becomes animated by a new and mysterious activity. The germinal vesicle and spot cease to be discernible (their precise fate being one of the yet unsolved problems of embryology), but the yolk becomes circumferentially indented, as if an invisible knife had been drawn round it, and thus appears divided into two hemispheres (Fig. 2, C).

By the repetition of this process in various planes, these hemispheres

become subdivided, so that four segments are produced (D); and these, in like manner, divide and subdivide again, until the whole yolk is converted into a mass of granules, each of which consists of a minute spheroid of yolk-substance, enclosing a central particle, the so-called *nucleus* (F). Nature, by this process, has attained much the same result as that which a human artificer arrives at by his operations in a brick-field. She takes the rough plastic material of the yolk and breaks it up into well-shaped tolerably even-sized masses—handy for building up into any part of the living edifice.

Next, the mass of organic bricks, or *cells* as they are technically called, thus formed, acquires an orderly arrangement, becoming converted into a hollow spheroid with double walls. Then, upon one side of this spheroid, appears a thickening, and, by and by, in the centre of the area of thickening, a straight shallow groove (Fig. 3, A) marks the central line of the edifice which is to be raised, or, in other words, indicates the position of the middle line of the body of the future dog. The substance bounding the groove on each side next rises up into a fold, the rudiment of the side wall of that long cavity, which will eventually lodge the spinal marrow and the brain; and in the floor of this chamber appears a solid cellular cord, the so-called *notochord*. One end of the enclosed cavity dilates to form the head (Fig. 3, B), the other remains narrow, and eventually becomes the tail; the side walls of the body are fashioned out of the downward continuation of the walls of the groove; and from them, by and by, grow out little buds which, by degrees, assume the shape of limbs. Watching the fashioning process stage by stage, one is forcibly reminded of the modeller in clay. Every part, every organ, is at first, as it were pinched up rudely, and sketched out in the rough; then shaped more accurately; and only, at last, receives the touches which stamp its final character.

Thus, at length, the young puppy assumes such a form as is shown in Fig. 3, C. In this condition it has a disproportionately large head, as dissimilar to that of a dog as the bud-like limbs are unlike his legs.

The remains of the yolk, which have not yet been applied to the nutrition and growth of the young animal, are contained in a sac attached to the rudimentary intestine, and termed the yolk-sac, or *umbilical vesicle*. Two membranous bags, intended to subserve respectively the protection and nutrition of the young creature, have been developed from the skin and from the under and hinder surface of the body; the former, the so-called *amnion*, is a sac filled with fluid, which invests the whole body of the embryo, and plays the part of a sort of water-bed for it; the

other, termed the *allantois*, grows out, loaded with blood-vessels, from the ventral region, and eventually applying itself to the walls of the cavity, in which the developing organism is contained, enables these vessels to become the channel by which the stream of nutriment, required to supply the wants of the offspring, is furnished to it by the parent.

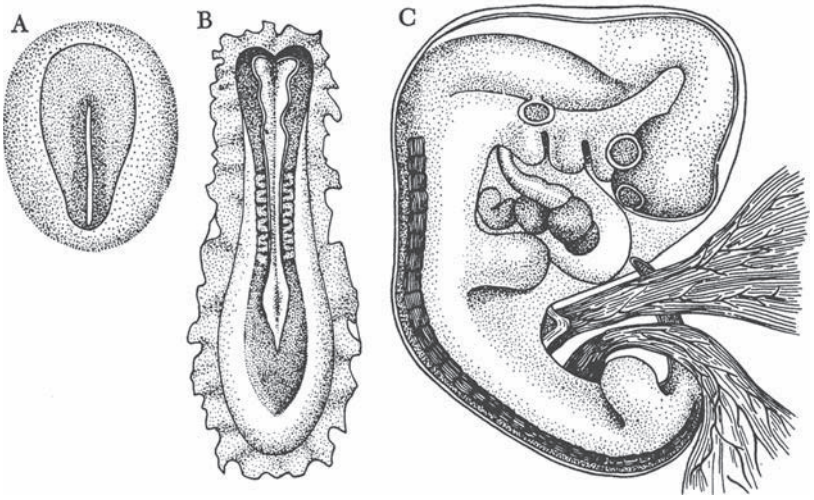

Fig. 3. A. *Earliest rudiment of the dog.*
B. *Rudiment further advanced, showing the foundations of the head, tail, and vertebral column.*
C. *The very young puppy, with attached ends of the yolk-sac and allantois, and invested in the amnion.*

The structure which is developed by the interlacement of the vessels of the offspring with those of the parent, and by means of which the former is enabled to receive nourishment and to get rid of effete matters, is termed the *placenta*.

It would be tedious, and it is unnecessary for my present purpose, to trace the process of development further; suffice it to say, that, by a long and gradual series of changes, the rudiment here depicted and described, becomes a puppy, is born, and then, by still slower and less perceptible steps, passes into the adult dog.

There is not much apparent resemblance between a barn-door fowl and the dog who protects the farm-yard. Nevertheless the student of development finds, not only that the chick commences its existence as an egg, primarily identical, in all essential respects, with that of the dog, but that the yolk of this egg undergoes division—that the primitive groove arises, and that the contiguous parts of the germ are fashioned, by

precisely similar methods, into a young chick, which, at one stage of its existence, is so like the nascent dog, that ordinary inspection would hardly distinguish the two.

The history of the development of any other vertebrate animal, lizard, snake, frog, or fish, tells the same story. There is always, to begin with, an egg having the same essential structure as that of the dog–the yolk of that egg always undergoes division, or *segmentation* as it is often called: the ultimate products of that segmentation constitute the building materials for the body of the young animal; and this is built up round a primitive groove, in the floor of which a notochord is developed. Furthermore, there is a period in which the young of all these animals resemble one another, not merely in outward form, but in all essentials of structure, so closely, that the differences between them are inconsiderable, while, in their subsequent course they diverge more and more widely from one another. And it is a general law that, the more closely any animals resemble one another in adult structure, the longer and the more intimately do their embryos resemble one another: so that, for example, the embryos of a snake and of a lizard remain like one another longer than do those of a snake and of a bird; and the embryo of a dog and of a cat remain like one another for a far longer period than do those of a dog and a bird; or of a dog and an opossum; or even than those of a dog and a monkey.

Thus the study of development affords a clear test of closeness of structural affinity, and one turns with impatience to inquire what results are yielded by the study of the development of Man. Is he something apart? Does he originate in a totally different way from dog, bird, frog, and fish, thus justifying those who assert him to have no place in nature and no real affinity with the lower world of animal life? Or does he originate in a similar germ, pass through the same slow and gradually progressive modifications, depend on the same contrivances for protection and nutrition, and finally enter the world by the help of the same mechanism? The reply is not doubtful for a moment, and has not been doubtful any time these thirty years. Without question, the mode of origin and the early stages of the development of man are identical with those of the animals immediately below him in the scale–without a doubt, in these respects, he is far nearer the apes, than the apes are to the dog.

The human ovum is about $\frac{1}{125}$ of an inch in diameter, and might be described in the same terms as that of the dog, so that I need only refer to the figure illustrative (4, A) of its structure. It leaves the organ

in which it is formed in a similar fashion and enters the organic chamber prepared for its reception in the same way, the conditions of its development being in all respects the same. It has not yet been possible (and only by some rare chance can it ever be possible) to study the human ovum in so early a developmental stage as that of yolk division,

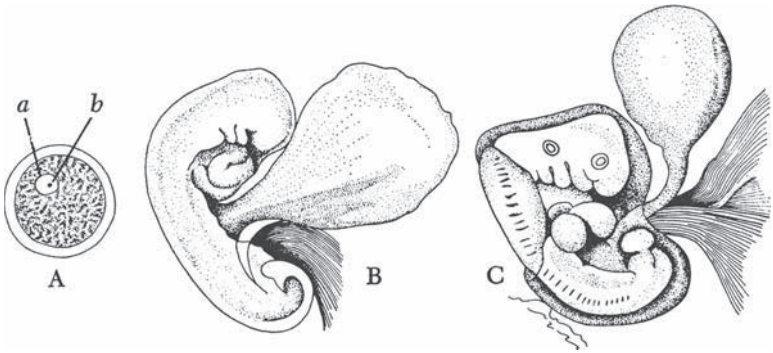

Fig. 4. A. *Human ovum* (*after Kölliker*).
a. *germinal vesicle,* b. *germinal spot.*
B. *A very early condition of man,*
with yolk-sac, allantois and amnion (*original*).
C. *A more advanced stage* (*after Kölliker*), *compare* Fig. 3, C.

but there is every reason to conclude that the changes it undergoes are identical with those exhibited by the ova of other vertebrated animals; for the formative materials of which the rudimentary human body is composed, in the earliest conditions in which it has been observed, are the same as those of other animals. Some of these earliest stages are figured above and, as will be seen, they are strictly comparable to the very early states of the dog, the marvellous correspondence between the two which is kept up, even for some time, as development advances, becoming apparent by the simple comparison of the figures with those on page 166.

Indeed, it is very long before the body of the young human being can be readily discriminated from that of the young puppy; but, at a tolerably early period, the two become distinguishable by the different form of their adjuncts, the yolk-sac and the allantois. The former, in the dog, becomes long and spindle-shaped, while in man it remains spherical: the latter, in the dog, attains an extremely large size, and the vascular processes which are developed from it and eventually give rise to the formation of the placenta (taking root, as it were, in the parental organism, so as to draw nourishment therefrom, as the root of a tree extracts it from the soil) are arranged in an encircling zone, while in man,

the allantois remains comparatively small, and its vascular rootlets are eventually restricted to one disk-like spot. Hence, while the placenta of the dog is like a girdle, that of man has the cake-like form, indicated by the name of the organ.

But, exactly in those respects in which the developing man differs from the dog, he resembles the ape, which, like man, has a spheroidal yolksac and a discoidal, sometimes partially lobed, placenta. So that it is only quite in the later stages of development that the young human being presents marked differences from the young ape, while the latter departs as much from the dog in its development, as the man does.

Startling as the last assertion may appear to be, it is demonstrably true, and it alone appears to me sufficient to place beyond all doubt the structural unity of man with the rest of the animal world, and more particularly and closely with the apes.

Thus, identical in the physical processes by which he originates–identical in the early stages of his formation–identical in the mode of his nutrition before and after birth, with the animals which lie immediately below him in the scale–man, if his adult and perfect structure be compared with theirs, exhibits, as might be expected, a marvellous likeness of organization. He resembles them as they resemble one another–he differs from them as they differ from one another. And, though these differences and resemblances cannot be weighed and measured, their value may be readily estimated; the scale or standard of judgment, touching that value being afforded and expressed by the system of classification of animals now current among zoologists.

A careful study of the resemblances and differences presented by animals has, in fact, led naturalists to arrange them into groups, or assemblages, all the members of each group presenting a certain amount of definable resemblance, and the number of points of similarity being smaller as the group is larger and vice versa. Thus, all creatures which agree only in presenting the few distinctive marks of animality form the kingdom Animalia. The numerous animals which agree only in possessing the special characters of vertebrates form one sub-kingdom of this kingdom. Then the sub-kingdom Vertebrata is subdivided into the five classes, fishes, amphibians, reptiles, birds, and mammals, and these into smaller groups called orders; these into families and genera; while the last are finally broken up into the smallest assemblages, which are distinguished by the possession of constant, not-sexual, characters. These ultimate groups are species.

Every year tends to bring about a greater uniformity of opinion through-

out the zoological world as to the limits and characters of these groups, great and small. At present, for example, no one has the least doubt regarding the characters of the classes Mammalia, Aves, or Reptilia; nor does the question arise whether any thoroughly well-known animal should be placed in one class or the other. Again, there is a very general agreement respecting the characters and limits of the orders of mammals, and as to the animals which are structurally necessitated to take a place in one or another order.

No one doubts, for example, that the sloth and the ant-eater, the kangaroo and the opossum, the tiger and the badger, the tapir and the rhinoceros, are respectively members of the same orders. These successive pairs of animals may, and some do, differ from one another immensely, in such matters as the proportions and structure of their limbs; the number of their dorsal and lumbar vertebrae; the adaptation of their frames to climbing, leaping, or running; the number and form of their teeth: and the characters of their skulls and of the contained brain. But, with all these differences, they are so closely connected in all the more important and fundamental characters of their organization, and so distinctly separated by these same characters from other animals, that zoologists find it necessary to group them together as members of one order. And if any new animal were discovered, and were found to present no greater difference from the kangaroo or from the opossum, for example, than these animals do from one another, the zoologist would not only be logically compelled to rank it in the same order with these, but he would not think of doing otherwise.

Bearing this obvious course of zoological reasoning in mind, let us endeavour for a moment to disconnect our thinking selves from the mask of humanity; let us imagine ourselves scientific Saturnians, if you will, fairly acquainted with such animals as now inhabit the earth, and employed in discussing the relations they bear to a new and singular "erect and featherless biped," which some enterprising traveller, overcoming the difficulties of space and gravitation, has brought from that distant planet for our inspection, well preserved, maybe, in a cask of rum. We should all, at once, agree upon placing him among the mammalian vertebrates; and his lower jaw, his molars, and his brain, would leave no room for doubting the systematic position of the new genus among those mammals, whose young are nourished during gestation by means of a placenta, or what are called the "placental mammals."

Further, the most superficial study would at once convince us that, among the orders of placental mammals, neither the whales, nor the

hoofed creatures, nor the sloths and ant-eaters, nor the carnivorous cats, dogs, and bears, still less the rodent rats and rabbits, or the insectivorous moles and hedgehogs, or the bats, could claim our *Homo*, as one of themselves.

There would remain then, but one order for comparison, that of the apes (using that word in its broadest sense), and the question for discussion would narrow itself to this—is man so different from any of these apes that he must form an order by himself? Or does he differ less from them than they differ from one another, and hence must take his place in the same order with them?

Being happily free from all real, or imaginary, personal interest in the results of the inquiry thus set afoot, we should proceed to weigh the arguments on one side and on the other, with as much judicial calmness as if the question related to a new opossum. We should endeavour to ascertain, without seeking either to magnify or diminish them, all the characters by which our new mammal differed from the apes; and if we found that these were of less structural value than those which distinguish certain members of the ape order from others universally admitted to be of the same order, we should undoubtedly place the newly discovered tellurian genus with them.

I now proceed to detail the facts which seem to me to leave us no choice but to adopt the last-mentioned course.

It is quite certain that the ape which most nearly approaches man, in the totality of its organization, is either the chimpanzee or the gorilla; and as it makes no practical difference, for the purposes of my present argument, which is selected for comparison, on the one hand, with man, and on the other hand, with the rest of the Primates,[1] I shall select the latter (so far as its organization is known)—as a brute now so celebrated in prose and verse, that all must have heard of him, and have formed some conception of his appearance. I shall take up as many of the most important points of difference between man and this remarkable creature, as the space at my disposal will allow me to discuss, and the necessities of the argument demand; and I shall inquire into the value and magnitude of these differences, when placed side by side with those which separate the gorilla from other animals of the same order.

In the general proportions of the body and limbs there is a remarkable

1. We are not at present thoroughly acquainted with the brain of the gorilla, and therefore, in discussing cerebral characters, I shall take that of the chimpanzee as my highest term among the apes.

difference between the gorilla and man, which at once strikes the eye. The gorilla's brain-case is smaller, its trunk larger, its lower limbs shorter, its upper limbs longer in proportion than those of man.

I find that the vertebral column of a full-grown gorilla, in the Museum of the Royal College of Surgeons, measures 27 inches along its anterior curvature, from the upper edge of the atlas, or first vertebra of the neck, to the lower extremity of the sacrum; that the arm, without the hand, is 31½ inches long; that the leg, without the foot, is 26½ inches long; that the hand is 9¾ inches long; the foot 11¼ inches long.

In other words, taking the length of the spinal column as 100, the arm equals 115, the leg 96, the hand 36, and the foot 41.

In the skeleton of a male Bosjesman, in the same collection, the proportions, by the same measurement, to the spinal column, taken as 100, are—the arm 78, the leg 110, the hand 26, and the foot 32. In a woman of the same race the arm is 83, and the leg 120, the hand and foot remaining the same. In a European skeleton I find the arm to be 80, the leg 117, the hand 26, the foot 35.

Thus the leg is not so different as it looks at first sight, in its proportion to the spine in the gorilla and in the man—being very slightly shorter than the spine in the former, and between $\frac{1}{10}$ and $\frac{1}{5}$ longer than the spine in the latter. The foot is longer and the hand much longer in the gorilla; but the great difference is caused by the arms, which are very much longer than the spine in the gorilla, very much shorter than the spine in the man.

The question now arises how are the other apes related to the gorilla in these respects—taking the length of the spine, measured in the same way, at 100? In an adult chimpanzee, the arm is only 96, the leg 90, the hand 43, the foot 39—so that the hand and the leg depart more from the human proportion and the arm less, while the foot is about the same as in the gorilla.

In the orang, the arms are very much longer than in the gorilla (122), while the legs are shorter (88); the foot is longer than the hand (52 and 48), and both are much longer in proportion to the spine.

In the other man-like apes again, the gibbons, these proportions are still further altered; the length of the arms being to that of the spinal column as 19 to 11; while the legs are also a third longer than the spinal column, so as to be longer than in man, instead of shorter. The hand is half as long as the spinal column, and the foot, shorter than the hand, is about $\frac{5}{11}$ths of the length of the spinal column.

Thus *Hylobates* is as much longer in the arms than the gorilla, as the

gorilla is longer in the arms than man; while, on the other hand, it is as much longer in the legs than the man, as the man is longer in the legs than the gorilla, so that it contains within itself the extremest deviations from the average length of both pairs of limbs.[2]

The mandrill presents a middle condition, the arms and legs being nearly equal in length, and both being shorter than the spinal column; while hand and foot have nearly the same proportions to one another and to the spine, as in man.

In the spider monkey (*Ateles*) the leg is longer than the spine, and the arm than the leg; and, finally, in that remarkable lemurine form, the indri (*Lichanotus*), the leg is about as long as the spinal column, while the arm is not more than $^{11}/_{18}$ of its length; the hand having rather less and the foot rather more, than one-third the length of the spinal column.

These examples might be greatly multiplied, but they suffice to show that, in whatever proportion of its limbs the gorilla differs from man, the other apes depart still more widely from the gorilla and that, consequently, such differences of proportion can have no ordinal value.

We may next consider the differences presented by the trunk, consisting of the vertebral column, or backbone, and the ribs and pelvis, or bony hip-basin, which are connected with it, in man and in the gorilla respectively.

In man, in consequence partly of the disposition of the articular surfaces of the vertebrae, and largely of the elastic tension of some of the fibrous bands, or ligaments, which connect these vertebrae together, the spinal column, as a whole, has an elegant S-like curvature, being convex forwards in the neck, concave in the back, convex in the loins, or lumbar region, and concave again in the sacral region; an arrangement which gives much elasticity to the whole backbone, and diminishes the jar communicated to the spine, and through it to the head, by locomotion in the erect position.

Furthermore, under ordinary circumstances, man has seven vertebrae in his neck, which are called *cervical;* twelve succeed these, bearing ribs and forming the upper part of the back, whence they are termed *dorsal;* five lie in the loins, bearing no distinct, or free, ribs, and are called *lumbar;* five, united together into a great bone, excavated in front, solidly wedged in between the hip bones, to form the back of the pelvis, and known by the name of the *sacrum*, succeed these; and finally,

2. See the figures of the skeletons of four anthropoid apes and of man, drawn to scale, p. 161.

three or four little more or less movable bones, so small as to be insignificant, constitute the *coccyx* or rudimentary tail.

In the gorilla, the vertebral column is similarly divided into cervical, dorsal, lumbar, sacral, and coccygeal vertebrae, and the total number of cervical and dorsal vertebrae, taken together, is the same as in man; but the development of a pair of ribs to the first lumbar vertebra, which is an exceptional occurrence in man, is the rule in the gorilla; and hence, as lumbar are distinguished from dorsal vertebrae only by the presence or absence of free ribs, the seventeen "dorso-lumbar" vertebrae of the gorilla are divided into thirteen dorsal and four lumbar, while in man they are twelve dorsal and five lumbar.

Not only, however, does man occasionally possess thirteen pair of ribs,[3] but the gorilla sometimes has fourteen pairs, while an orangutan skeleton in the Museum of the Royal College of Surgeons has twelve dorsal and five lumbar vertebrae, as in man. Cuvier notes the same number in a *Hylobates*. On the other hand, among the lower apes, many possess twelve dorsal and six or seven lumbar vertebrae; the douroucouli has fourteen dorsal and eight lumbar, and a lemur (*Stenops tardigradus*) has fifteen dorsal and nine lumbar vertebrae.

The vertebral column of the gorilla, as a whole, differs from that of man in the less marked character of its curves, especially in the slighter convexity of the lumbar region. Nevertheless, the curves are present, and are quite obvious in young skeletons of the gorilla and chimpanzee which have been prepared without removal of the ligaments. In young orangs similarly preserved on the other hand, the spinal column is either straight, or even concave forwards, throughout the lumbar region.

Whether we take these characters then, or such minor ones as those which are derivable from the proportional length of the spines of the cervical vertebrae, and the like, there is no doubt whatsoever as to the marked difference between man and the gorilla; but there is as little, that equally marked differences, of the very same order, obtain between the gorilla and the lower apes.

The pelvis, or bony girdle of the hips, of man is a strikingly human part of his organization; the expanded haunch bones affording support for

3. "More than once," says Peter Camper, "have I met with more than six lumbar vertebrae in man. . . . Once I found thirteen ribs and four lumbar vertebrae." Fallopius noted thirteen pair of ribs and only four lumbar vertebrae; and Eustachius once found eleven dorsal vertebrae and six lumbar vertebrae.—*Oeuvres de Pierre Camper*, T. 1, p. 42. As Tyson states, his "Pygmie" had thirteen pair of ribs and five lumbar vertebrae. The question of the curves of the spinal column in the apes requires further investigation.

his viscera during his habitually erect posture, and giving space for the attachment of the great muscles which enable him to assume and to preserve that attitude. In these respects the pelvis of the gorilla differs very considerably from his (Fig. 5). But go no lower than the gibbon, and see how vastly more he differs from the gorilla than the latter does from man, even in this structure. Look at the flat, narrow haunch-bones–the long and narrow passage–the coarse, outwardly curved, ischiatic prominences on which the gibbon habitually rests, and which are coated by the so-called "callosities," dense patches of skin, wholly absent in the gorilla, in the chimpanzee, and in the orang, as in man!

In the lower monkeys and in the lemurs the difference becomes more striking still, the pelvis acquiring an altogether quadrupedal character.

But now let us turn to a nobler and more characteristic organ–that by which the human frame seems to be, and indeed is, so strongly distinguished from all others–I mean the skull. The differences between a gorilla's skull and a man's are truly immense (Fig. 6). In the former, the face, formed largely by the massive jaw-bones, predominates over the brain-case, or cranium proper: in the latter, the proportions of the two are reversed. In the man, the occipital foramen, through which passes the great nervous cord connecting the brain with the nerves of the body, is placed just behind the centre of the base of the skull, which thus becomes evenly balanced in the erect posture; in the gorilla, it lies in the posterior third of that base. In the man, the surface of the skull is comparatively smooth, and the supraciliary ridges or brow prominences usually project but little–while, in the gorilla, vast crests are developed upon the skull, and the brow ridges overhang the cavernous orbits, like great penthouses.

Sections of the skulls, however, show that some of the apparent defects of the gorilla's cranium arise, in fact, not so much from deficiency of brain-case as from excessive development of the parts of the face. The cranial cavity is not ill-shaped, and the forehead is not truly flattened or very retreating, its really well-formed curve being simply disguised by the mass of bone which is built up against it (Fig. 6).

But the roofs of the orbits rise more obliquely into the cranial cavity, thus diminishing the space for the lower part of the anterior lobes of the brain, and the absolute capacity of the cranium is far less than that of man. So far as I am aware, no human cranium belonging to an adult man has yet been observed with a less cubical capacity than 62 cubic inches, the smallest cranium observed in any race of men by Morton, measuring 63 cubic inches; while, on the other hand, the most capa-

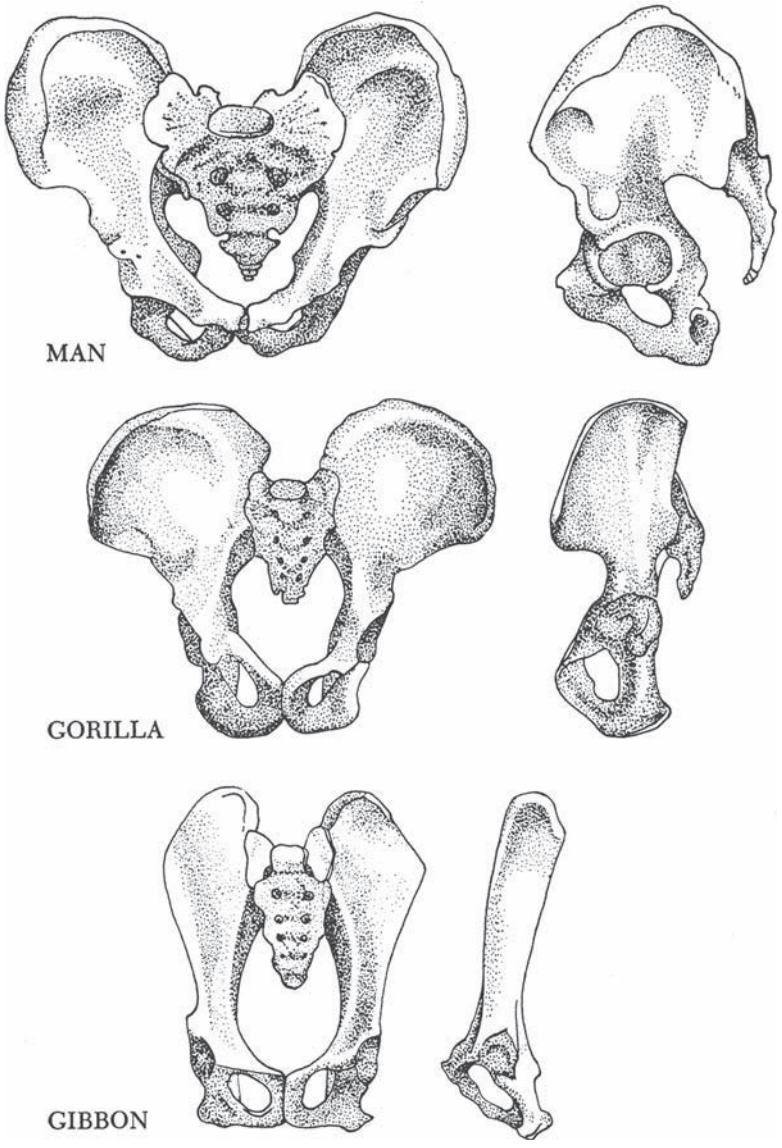

Fig. 5. *Front and side views of the bony pelvis of man, the gorilla and gibbon: after drawings by Waterhouse Hawkins.*

cious gorilla skull yet measured has a content of not more than 34½ cubic inches. Let us assume, for simplicity's sake, that the lowest man's skull has twice the capacity of that of the highest gorilla.[4]

No doubt, this is a very striking difference, but it loses much of its apparent systematic value, when viewed by the light of certain other equally indubitable facts respecting cranial capacities.

The first of these is that the difference in the volume of the cranial cavity of different races of mankind is far greater, absolutely, than that between the lowest man and the highest ape, while, relatively, it is about the same. For the largest human skull measured by Morton contained 114 cubic inches, that is to say, had very nearly double the capacity of the smallest; while its absolute preponderance, of 52 cubic inches—is far greater than that by which the lowest adult male human cranium surpasses the largest of the gorillas (62 – 34½ = 27½). Secondly, the adult crania of gorillas which have as yet been measured differ among themselves by nearly one-third, the maximum capacity being 34.5 cubic inches, the minimum 24 cubic inches; and, thirdly, after making all due allowance for difference of size, the cranial capacities of some of the lower apes fall nearly as much, relatively, below those of the higher apes as the latter fall below man.

Thus, even in the important matter of cranial capacity, men differ more widely from one another than they do from the apes; while the lowest apes differ as much, in proportion, from the highest, as the latter

4. It has been affirmed that Hindu crania sometimes contain as little as 27 ounces of water, which would give a capacity of about 46 cubic inches. The minimum capacity which I have assumed above, however, is based upon the valuable tables published by Professor R. Wagner in his *Vorstudien zu einer wissenschaftlichen Morphologie und Physiologie des menschlichen Gehrins*. As the result of the careful weighing of more than 900 human brains, Professor Wagner states that one-half weighed between 1,200 and 1,400 grammes, and that about two-ninths, consisting for the most part of male brains, exceed 1,400 grammes. The lighest brain of an adult male, with sound mental faculties, recorded by Wagner, weighed 1,020 grammes. As a gramme equals 15.4 grains, and a cubic inch of water contains 252.4 grains, this is equivalent to 62 cubic inches of water; so that as brain is heavier than water, we are perfectly safe against erring on the side of diminution in taking this as the smallest capacity of any adult male human brain. The only adult male brain, weighing as little as 970 grammes, is that of an idiot; but the brain of an adult woman, against the soundness of whose faculties nothing appears, weighed as little as 907 grammes (55.3 cubic inches of water); and Reid gives an adult female brain of still smaller capacity. The heaviest brain (1,872 grammes, or about 115 cubic inches) was, however, that of a woman; next to it comes the brain of Cuvier (1,861 grammes), then Byron (1,807 grammes), and then an insane person (1,783 grammes). The lightest adult brain recorded (720 grammes) was that of an idiotic female. The brains of five children, four years old, weighed between 1,275 and 992 grammes. So that it may be safely said that an average European child of four years old has a brain twice as large as that of an adult gorilla.

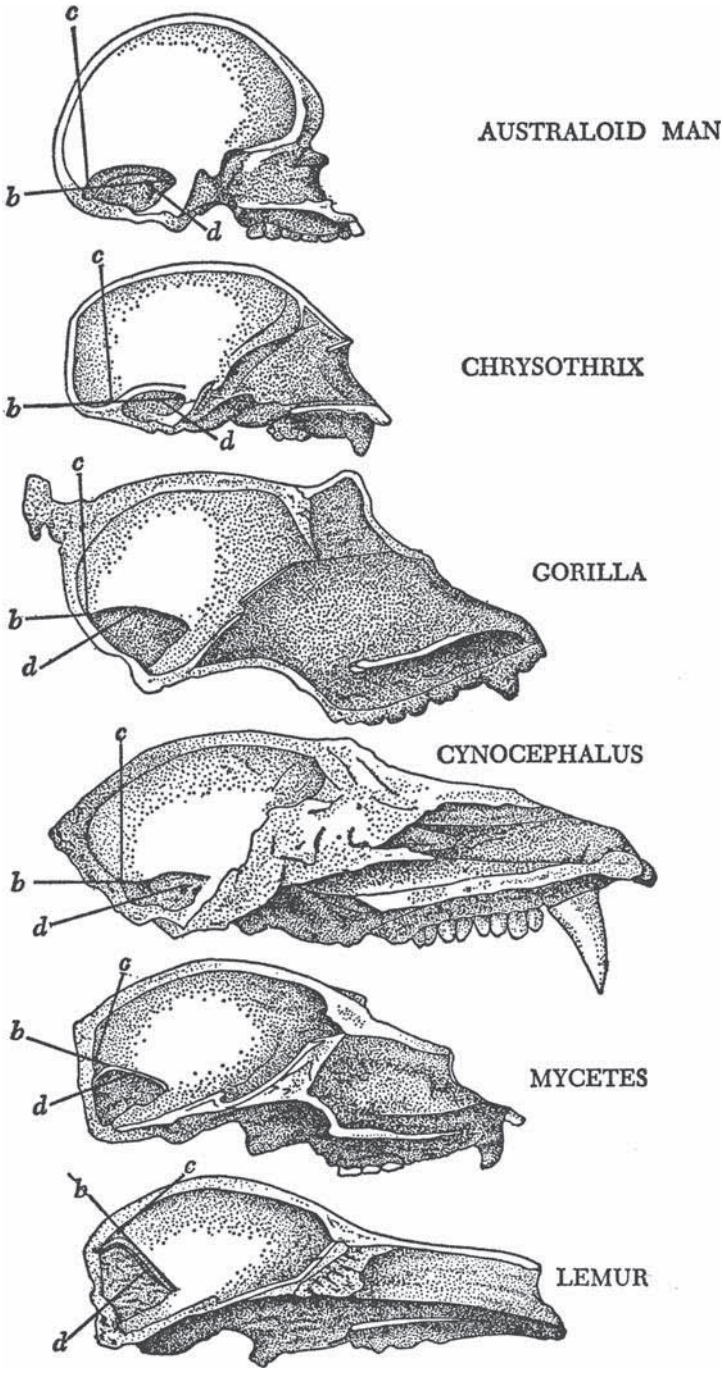
AUSTRALOID MAN
CHRYSOTHRIX
GORILLA
CYNOCEPHALUS
MYCETES
LEMUR
b
c
d

Fig. 6

does from man. The last proposition is still better illustrated by the study of the modifications which other parts of the cranium undergo in the simian series.

It is the large proportional size of the facial bones and the great projection of the jaws which confer upon the gorilla's skull its small facial angle and brutal character.

But if we consider the proportional size of the facial bones to the skull proper only, the little *Chrysothrix* (Fig. 6) differs very widely from the gorilla, and, in the same way, as man does; while the baboons (*Cynocephalus*, Fig. 6) exaggerate the gross proportions of the muzzle of the great anthropoid, so that its visage looks mild and human by comparison with theirs. The difference between the gorilla and the baboon is even greater than it appears at first sight; for the great facial mass of the former is largely due to a downward development of the jaws; an essentially human character, superadded upon that almost purely forward, essentially brutal, development of the same parts which characterises the baboon, and yet more remarkably distinguishes the lemur.

Similarly, the occipital foramen of *Mycetes* (Fig. 6), and still more of the lemurs, is situated completely in the posterior face of the skull, or as much further back than that of the gorilla, as that of the gorilla is further back than that of man; while, as if to render patent the futility of the attempt to base any broad classificatory distinction on such a character, the same group of Platyrhine, or American monkeys, to which the *Mycetes* belongs, contains the *Chrysothrix*, whose occipital foramen is situated far more forward than in any other ape, and nearly approaches the position it holds in man.

Again, the orang's skull is as devoid of excessively developed supraciliary prominences as a man's, though some varieties exhibit great crests elsewhere; and in some of the cebine apes and in the *Chrysothrix*, the cranium is as smooth and rounded as that of man himself.

Fig. 6. *Sections of the skulls of man and various apes, drawn so as to give the cerebral cavity the same length in each case, thereby displaying the varying proportions of the facial bones. The line* b *indicates the plane of the tentorium, which separates the cerebrum from the cerebellum;* d, *the axis of the occipital outlet of the skull. The extent of cerebral cavity behind* c, *which is a perpendicular erected on* b *at the point where the tentorium is attached posteriorly, indicates the degree to which the cerebrum overlaps the cerebellum—the space occupied by which is roughly indicated by the dark shading. In comparing these diagrams, it must be recollected, that figures on so small a scale as these simply exemplify the statements in the text, the proof of which is to be found in the objects themselves.*

What is true of these leading characteristics of the skull, holds good, as may be imagined, of all minor features; so that for every constant difference between the gorilla's skull and the man's, a similar constant difference of the same order (that is to say, consisting in excess or defect of the same quality) may be found between the gorilla's skull and that of some other ape. So that, for the skull, no less than for the skeleton in general, the proposition holds good that the differences between man and the gorilla are of smaller value than those between the gorilla and some other apes.

In connection with the skull, I may speak of the teeth—organs which have a peculiar classificatory value, and whose resemblances and differences of number, form, and succession, taken as a whole, are usually regarded as more trustworthy indicators of affinity than any others.

Man is provided with two sets of teeth—milk-teeth and permanent teeth. The former consist of four incisors, or cutting teeth; two canines, or eye-teeth; and four molars or grinders, in each jaw, making twenty in all. The latter (Fig. 7) comprise four incisors, two canines, four small grinders, called premolars or false molars, and six large grinders, or true molars in each jaw—making thirty-two in all. The internal incisors are larger than the external pair, in the upper jaw, smaller than the external pair, in the lower jaw. The crowns of the upper molars exhibit four cusps, or blunt-pointed elevations, and a ridge crosses the crown obliquely, from the inner, anterior cusp to the outer, posterior cusp (Fig. 7, m^2). The anterior lower molars have five cusps, three external and two internal. The premolars have two cusps, one internal and one external, of which the outer is the higher.

In all these respects the dentition of the gorilla may be described in the same terms as that of man; but in other matters it exhibits many and important differences (Fig. 7).

Thus the teeth of man constitute a regular and even series—without any break and without any marked projection of one tooth above the level of the rest; a peculiarity which, as Cuvier long ago showed, is shared by no other mammal save one—as different a creature from man as can well be imagined—namely, the long extinct *Anoplotherium*. The teeth of the gorilla, on the contrary, exhibit a break, or interval, termed the *diastema*, in both jaws: in front of the eye-tooth, or between it and the outer incisor, in the upper jaw; behind the eye-tooth, or between it and the front false molar, in the lower jaw. Into this break in the series, in each jaw, fits the canine of the opposite jaw; the size of the eye-tooth in the gorilla being so great that it projects, like a tusk, far beyond the

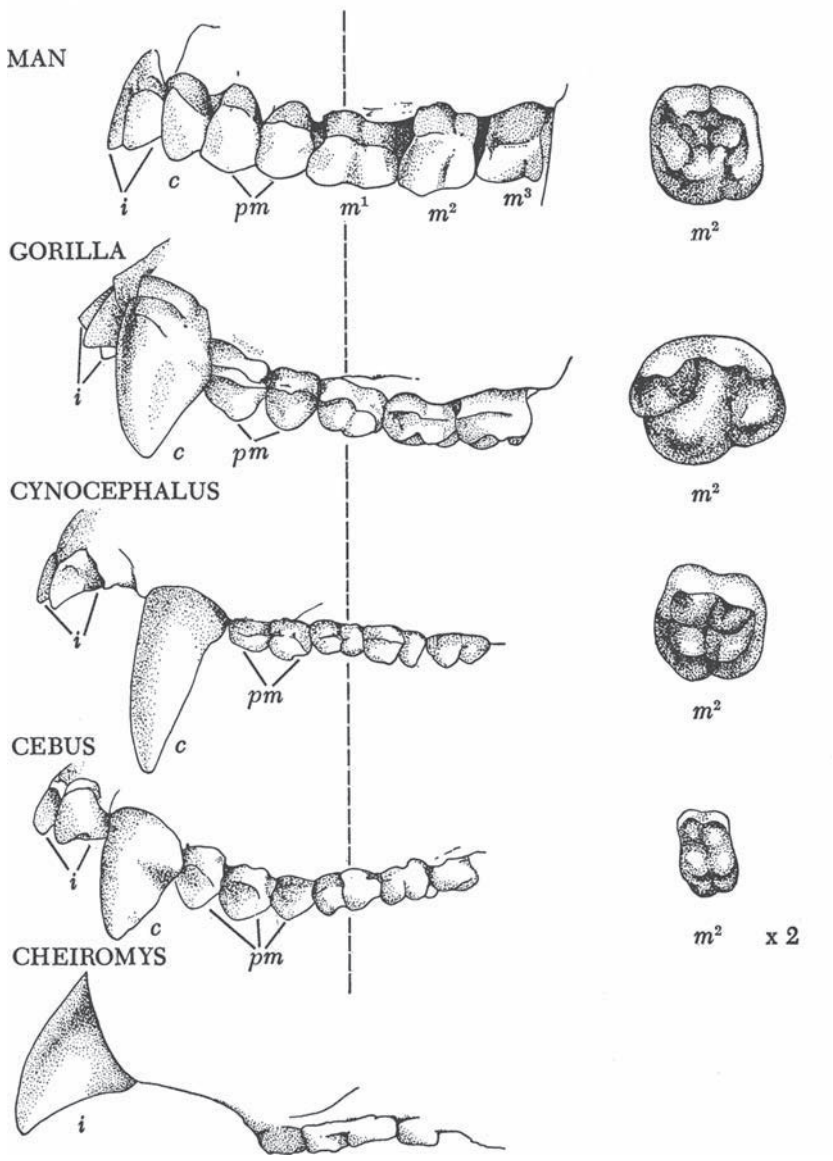

Fig. 7. *Lateral views, of the same length, of the upper jaws of various Primates:* i, *incisors;* c, *canines;* pm, *pre-molars;* m, *molars. A line is drawn through the first molar of man,* gorilla, Cynocephalus, *and* Cebus, *and the grinding surface of the second molar is shown in each, its anterior and internal angle being just above the* m *of* m^2.

general level of the other teeth. The roots of the false molar teeth of the gorilla, again, are more complex than in man, and the proportional size of the molars is different. The gorilla has the crown of the hindmost grinder of the lower jaw more complex, and the order of eruption of the permanent teeth is different; the permanent canines making their appearance before the second and third molars in man, and after them in the gorilla.

Thus, while the teeth of the gorilla closely resemble those of man in number, kind, and in the general pattern of their crowns, they exhibit marked differences from those of man in secondary respects, such as relative size, number of fangs, and order of appearance.

But, if the teeth of the gorilla be compared with those of an ape, no further removed from it than a *Cynocephalus*, or baboon, it will be found that differences and resemblances of the same order are easily observable; but that many of the points in which the gorilla resembles man are those in which it differs from the baboon; while various respects in which it differs from man are exaggerated in the *Cynocephalus*. The number and the nature of the teeth remain the same in the baboon as in the gorilla and in man. But the pattern of the baboon's upper molars is quite different from that described above (Fig. 7), the canines are proportionally longer and more knife-like; the anterior premolar in the lower jaw is specially modified; the posterior molar of the lower jaw is still larger and more complex than in the gorilla.

Passing from the old-world apes to those of the new world, we meet with a change of much greater importance than any of these. In such a genus as *Cebus*, for example (Fig. 7), it will be found that while in some secondary points, such as the projection of the canines and the diastema, the resemblance to the great ape is preserved; in other and most important respects, the dentition is extremely different. Instead of 20 teeth in the milk set, there are 24: instead of 32 teeth in the permanent set, there are 36, the false molars being increased from eight to twelve. And in form, the crowns of the molars are very unlike those of the gorilla, and differ far more widely from the human pattern.

The marmosets, on the other hand, exhibit the same number of teeth as man and the gorilla; but, notwithstanding this, their dentition is very different, for they have four more false molars, like the other American monkeys—but as they have four fewer true molars, the total remains the same. And passing from the American apes to the lemurs, the dentition becomes still more completely and essentially different from that of the gorilla. The incisors begin to vary both in number and in form. The molars acquire, more and more, a many-pointed, insectivorous character, and in

one genus, the aye-aye (*Cheiromys*), the canines disappear, and the teeth completely simulate those of a rodent (Fig. 7).

Hence it is obvious that, greatly as the dentition of the highest ape differs from that of man, it differs far more widely from that of the lower and lowest apes.

Whatever part of the animal fabric—whatever series of muscles, whatever viscera might be selected for comparison—the result would be the same—the lower apes and the gorilla would differ more than the gorilla and the man. I cannot attempt in this place to follow out all these comparisons in detail, and indeed it is unnecessary I should do so. But certain real, or supposed, structural distinctions between man and the apes remain, upon which so much stress has been laid, that they require careful consideration, in order that the true value may be assigned to those which are real, and the emptiness of those which are fictitious may be exposed. I refer to the characters of the hand, the foot, and the brain.

Man has been defined as the only animal possessed of two hands terminating his fore limbs, and of two feet ending his hind limbs, while it has been said that all the apes possess four hands; and he has been affirmed to differ fundamentally from all the apes in the characters of his brain, which alone, it has been strangely asserted and reasserted, exhibits the structures known to anatomists as the posterior lobe, the posterior cornu of the lateral ventricle, and the hippocampus minor.

That the former proposition should have gained general acceptance is not surprising—indeed, at first sight, appearances are much in its favour: but, as for the second, one can only admire the surpassing courage of its enunciator, seeing that it is an innovation which is not only opposed to generally and justly accepted doctrines, but which is directly negatived by the testimony of all original inquirers, who have specially investigated the matter: and that it neither has been, nor can be, supported by a single anatomical preparation. It would, in fact, be unworthy of serious refutation, except for the general and natural belief that deliberate and reiterated assertions must have some foundation.

Before we can discuss the first point with advantage we must consider with some attention, and compare together, the structure of the human hand and that of the human foot, so that we may have distinct and clear ideas of what constitutes a hand and what a foot.

The external form of the human hand is familiar enough to every one. It consists of a stout wrist followed by a broad palm, formed of flesh, and

tendons, and skin, binding together four bones, and dividing into four long and flexible digits, or fingers, each of which bears on the back of its last joint a broad and flattened nail. The longest cleft between any two digits is rather less than half as long as the hand. From the outer side of the base of the palm a stout digit goes off, having only two joints instead of three; so short, that it only reaches to a little beyond the middle of the first joint of the finger next it; and further remarkable by its great mobility, in consequence of which it can be directed outwards, almost at a right angle to the rest. This digit is called the *pollex*, or thumb; and, like the others, it bears a flat nail upon the back of its terminal joint. In consequence of the proportions and mobility of the thumb, it is what is termed "opposable"; in other words, its extremity can, with the greatest ease, be brought into contact with the extremities of any of the fingers; a property upon which the possibility of our carrying into effect the conceptions of the mind so largely depends.

The external form of the foot differs widely from that of the hand; and yet, when closely compared, the two present some singular resemblances. Thus the ankle corresponds in a manner with the wrist; the sole with the palm; the toes with the fingers; the great toe with the thumb. But the toes, or digits of the foot, are far shorter in proportion than the digits of the hand, and are less moveable, the want of mobility being most striking in the great toe–which, again, is very much larger in proportion to the other toes than the thumb to the fingers. In considering this point, however, it must not be forgotten that the civilized great toe, confined and cramped from childhood upwards, is seen to a great disadvantage, and that in uncivilized and barefooted people it retains a great amount of mobility, and even some sort of opposability. The Chinese boatmen are said to be able to pull an oar; the artisans of Bengal to weave, and the Carajas to steal fish-hooks by its help; though, after all, it must be recollected that the structure of its joints and the arrangement of its bones, necessarily render its prehensile action far less perfect than that of the thumb.

But to gain a precise conception of the resemblances and differences of the hand and foot, and of the distinctive characters of each, we must look below the skin, and compare the bony framework and its motor apparatus in each (Fig. 8).

The skeleton of the hand exhibits, in the region which we term the wrist, and which is technically called the *carpus*–two rows of closely fitted polygonal bones, four in each row, which are tolerably equal in size. The bones of the first row with the bones of the forearm, form the

wrist joint, and are arranged side by side, no one greatly exceeding or overlapping the rest.

Three of the bones of the second row of the carpus bear the four long bones which support the palm of the hand. The fifth bone of the same character is articulated in a much more free and moveable manner than the others, with its carpal bone, and forms the base of the thumb.

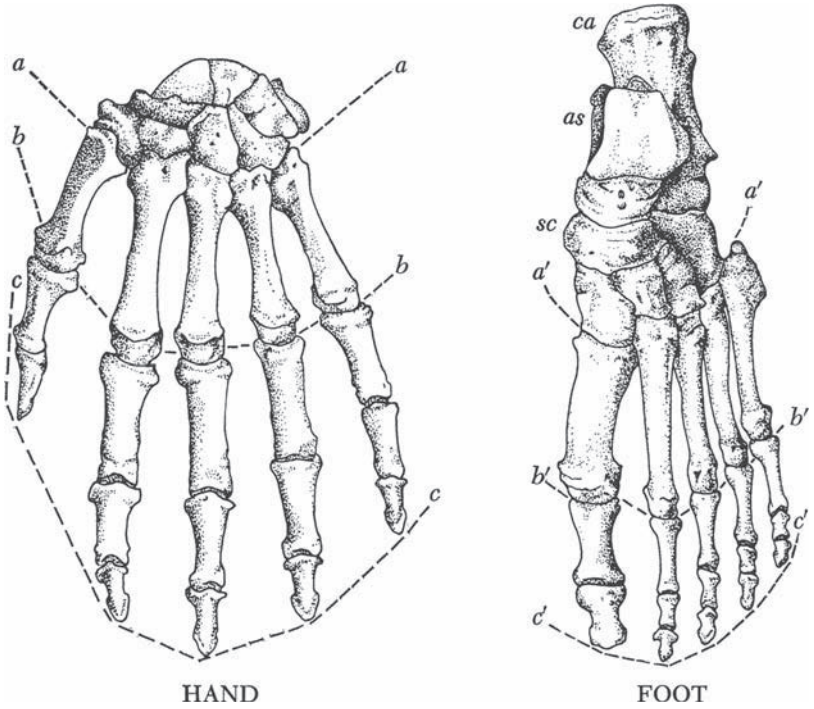

Fig. 8. *The skeleton of the hand and foot of man reduced from Dr. Carter's drawings in Gray's* Anatomy. *The hand is drawn to a larger scale than the foot. The line* a a *in the hand indicates the boundary between the carpus and the metacarpus;* b b *that between the latter and the proximal phalanges;* c c *marks the ends of the distal phalanges. The line* a′ a′ *in the foot indicates the boundary between the tarsus and metatarsus*; b′ b′ *marks that between the metatarsus and the proximal phalanges; and* c′ c′ *bounds the ends of the distal phalanges;* ca, *the calcaneum;* as, *the astragalus;* sc, *the scaphoid bone in the tarsus.*

These are called *metacarpal* bones, and they carry the *phalanges*, or bones of the digits, of which there are two in the thumb, and three in each of the fingers.

The skeleton of the foot is very like that of the hand in some respects. Thus there are three phalanges in each of the lesser toes, and only two in the great toe, which answers to the thumb. There is a long bone,

termed *metatarsal*, answering to the metacarpal, for each digit; and the *tarsus* which corresponds with the carpus, presents four short polygonal bones in a row, which correspond very closely with the four carpal bones of the second row of the hand. In other respects the foot differs very widely from the hand. Thus the great toe is the longest digit but one; and its metatarsal is far less moveably articulated with the tarsus than the metacarpal of the thumb with the carpus. But a far more important distinction lies in the fact that, instead of four more tarsal bones there are only three; and, that these three are not arranged side by side, or in one row. One of them, the *os calcis* or heel bone (*ca*), lies externally, and sends back the large projecting heel; another, the *astragalus* (*as*), rests on this by one face, and by another, forms, with the bones of the leg, the ankle joint; while a third face, directed forwards, is separated from the three inner tarsal bones of the row next the metatarsus by a bone called the *scaphoid* (*sc*).

Thus there is a fundamental difference in the structure of the foot and the hand, observable when the carpus and the tarsus are contrasted: and there are differences of degree noticeable when the proportions and the mobility of the metacarpals and metatarsals, with their respective digits, are compared together.

The same two classes of differences become obvious when the muscles of the hand are compared with those of the foot.

Three principal sets of muscles, called "flexors," bend the fingers and thumb, as in clenching the fist, and three sets—the extensors—extend them, as in straightening the fingers. These muscles are all "long muscles"; that is to say, the fleshy part of each, lying in and being fixed to the bones of the arm, is, at the other end, continued into tendons, or rounded cords, which pass into the hand, and are ultimately fixed to the bones which are to be moved. Thus, when the fingers are bent, the fleshy parts of the flexors of the fingers, placed in the arm, contract, in virtue of their peculiar endowment as muscles; and pulling the tendinous cords, connecting with their ends, cause them to pull down the bones of the fingers towards the palm.

Not only are the principal flexors of the fingers and of the thumb long muscles, but they remain quite distinct from one another throughout their whole length.

In the foot, there are also three principal flexor muscles of the digits or toes, and three principal extensors; but one extensor and one flexor are short muscles; that is to say, their fleshy parts are not situated in the leg (which corresponds with the arm), but in the back and in the sole of

the foot–regions which correspond with the back and the palm of the hand.

Again, the tendons of the long flexor of the toes, and of the long flexor of the great toe, when they reach the sole of the foot, do not remain distinct from one another, as the flexors in the palm of the hand do, but they become united and commingled in a very curious manner–while their united tendons receive an accessory muscle connected with the heel-bone.

But perhaps the most absolutely distinctive character about the muscles of the foot is the existence of what is termed the *peronaeus longus*, a long muscle fixed to the outer bone of the leg, and sending its tendon to the outer ankle, behind and below which it passes, and then crosses the foot obliquely to be attached to the base of the great toe. No muscle in the hand exactly corresponds with this, which is eminently a foot muscle.

To resume–the foot of man is distinguished from his hand by the following absolute anatomical differences:

1. By the arrangement of the tarsal bones.
2. By having a short flexor and a short extensor muscle of the digits.
3. By possessing the muscle termed *peronaeus longus*.

And if we desire to ascertain whether the terminal division of a limb, in other Primates, is to be called a foot or a hand, it is by the presence or absence of these characters that we must be guided, and not by the mere proportions and greater or lesser mobility of the great toe, which may vary indefinitely without any fundamental alteration in the structure of the foot.

Keeping these considerations in mind, let us now turn to the limbs of the gorilla. The terminal division of the fore limb presents no difficulty–bone for bone and muscle for muscle, are found to be arranged essentially as in man, or with such minor differences as are found as varieties in man. The gorilla's hand is clumsier, heavier, and has a thumb somewhat shorter in proportion than that of man; but no one has ever doubted it being a true hand.

At first sight, the termination of the hind limb of the gorilla looks very hand-like, and as it is still more so in many of the lower apes, it is not wonderful that the appellation "Quadrumana," or four-handed creatures, adopted from the older anatomists [5] by Blumenbach, and unfortunately

5. In speaking of the foot of his "Pygmie," Tyson remarks, p. 13:

"But this part in the formation and in its function too, being liker a Hand than a Foot: for the distinguishing this sort of animals from others, I have thought whether

rendered current by Cuvier, should have gained such wide acceptance as a name for the simian group. But the most cursory anatomical investigation at once proves that the resemblance of the so-called "hind hand" to a true hand, is only skin deep, and that, in all essential respects, the hind limb of the gorilla is as truly terminated by a foot as that of man. The tarsal bones, in all important circumstances of number, disposition, and form, resemble those of man (Fig. 9). The metatarsals and digits, on the other hand, are proportionally longer and more slender, while the great toe is not only proportionally shorter and weaker, but its metatarsal bone is united by a more moveable joint with the tarsus. At the same time, the foot is set more obliquely upon the leg than in man.

As to the muscles, there is a short flexor, a short extensor, and a *peronaeus longus*, while the tendons of the long flexors of the great toe and of the other toes are united together and with an accessory fleshy bundle.

The hind limb of the gorilla, therefore, ends in a true foot, with a very moveable great toe. It is a prehensile foot, indeed, but is in no sense a hand; it is a foot which differs from that of man not in any fundamental character, but in mere proportions, in the degree of mobility, and in the secondary arrangement of its parts.

It must not be supposed, however, because I speak of these differences as not fundamental, that I wish to underrate their value. They are important enough in their way, the structure of the foot being in strict correlation with that of the rest of the organism in each case. Nor can it be doubted that the greater division of physiological labour in man, so that the function of support is thrown wholly on the leg and foot, is an advance in organization of very great moment to him; but, after all, regarded anatomically, the resemblances between the foot of man and the foot of the gorilla are far more striking and important than the differences.

I have dwelt upon this point at length, because it is one regarding which much delusion prevails; but I might have passed it over without detriment to my argument, which only requires me to show that, be the

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it might not be reckoned and called rather Quadru-manus than Quadrupes, *i.e.* a four-handed rather than a four-footed animal."

As this passage was published in 1699, M. I. G. St. Hilaire is clearly in error in ascribing the invention of the term "quadrumanous" to Buffon, though "bimanous" may belong to him. Tyson uses "Quadrumanus" in several places, as at p. 91: "Our *Pygmie* is no Man, nor yet the *common Ape*, but a sort of *Animal* between both; and though a *Biped*, yet of the *Quadrumanus*-kind: though some *Men* too have been observed to use their *Feet* like *Hands* as I have seen several."

differences between the hand and foot of man and those of the gorilla what they may–the differences between those of the gorilla and those of the lower apes are much greater.

It is not necessary to descend lower in the scale than the orang for conclusive evidence on this head.

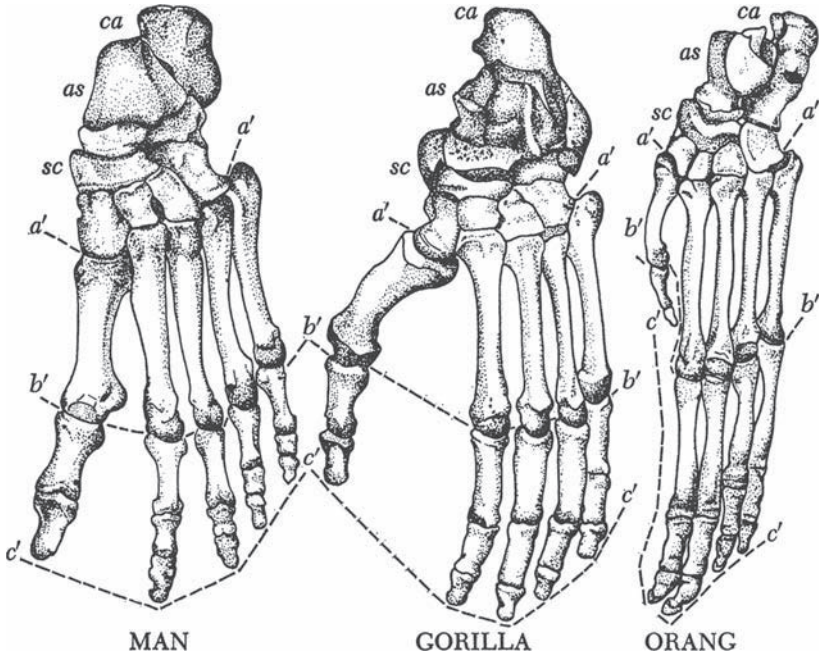

Fig. 9. *Foot of man, gorilla, and orangutan of the same absolute length, to show the differences in proportion of each. Letters as in* Fig. 8. *After drawings by Waterhouse Hawkins.*

The thumb of the orang differs more from that of the gorilla than the thumb of the gorilla differs from that of man, not only by its shortness, but by the absence of any special long flexor muscle. The carpus of the orang, like that of most lower apes, contains nine bones, while in the gorilla, as in man and the chimpanzee, there are only eight.

The orang's foot (Fig. 9) is still more aberrant; its very long toes and short tarsus, short great toe, short and raised heel, great obliquity of articulation with the leg, and absence of a long flexor tendon to the great toe, separating it far more widely from the foot of the gorilla than the latter is separated from that of man.

But, in some of the lower apes, the hand and foot diverge still more from those of the gorilla, than they do in the orang. The thumb ceases to be opposable in the American monkeys; is reduced to a mere rudiment covered by the skin in the spider monkey; and is directed forwards and armed with a curved claw like the other digits, in the marmosets—so that, in all these cases, there can be no doubt but that the hand is more different from that of the gorilla than the gorilla's hand is from man's.

And as to the foot, the great toe of the marmoset is still more insignificant in proportion than that of the orang—while in the lemurs it is very large, and as completely thumb-like and opposable as in the gorilla—but in these animals the second toe is often irregularly modified, and in some species the two principal bones of the tarsus, the *astragalus* and the *os calcis*, are so immensely elongated as to render the foot, so far, totally unlike that of any other mammal.

So with regard to the muscles. The short flexor of the toes of the gorilla differs from that of man by the circumstance that one slip of the muscle is attached, not to the heel-bone, but to the tendons of the long flexors. The lower apes depart from the gorilla by an exaggeration of the same character, two, three, or more, slips becoming fixed to the long flexor tendons—or by a multiplication of the slips. Again, the gorilla differs slightly from man in the mode of interlacing of the long flexor tendons: and the lower apes differ from the gorilla in exhibiting yet other, sometimes very complex, arrangements of the same parts, and occasionally in the absence of the accessory fleshy bundle.

Throughout all these modifications it must be recollected that the foot loses no one of its essential characters. Every monkey and lemur exhibits the characteristic arrangement of tarsal bones, possesses a short flexor and short extensor muscle, and a *peronaeus longus*. Varied as the proportions and appearance of the organ may be, the terminal division of the hind limb remains, in plan and principle of construction, a foot, and never, in those respects, can be confounded with a hand.

Hardly any part of the bodily frame, then, could be found better calculated to illustrate the truth that the structural differences between man and the highest ape are of less value than those between the highest and the lower apes, than the hand or the foot; and yet, perhaps, there is one organ the study of which enforces the same conclusion in a still more striking manner—and that is the brain.

But before entering upon the precise question of the amount of difference between the ape's brain and that of man, it is necessary that we should clearly understand what constitutes a great, and what a small,

difference in cerebral structure; and we shall be best enabled to do this by a brief study of the chief modifications which the brain exhibits in the series of vertebrate animals.

The brain of a fish is very small, compared with the spinal cord into which it is continued, and with the nerves which come off from it: of the segments of which it is composed–the olfactory lobes, the cerebral hemispheres, and the succeeding divisions–no one predominates so much over the rest as to obscure or cover them; and the so-called optic lobes are, frequently, the largest masses of all. In reptiles, the mass of the brain, relatively to the spinal cord, increases and the cerebral hemispheres begin to predominate over the other parts; while in birds this predominance is still more marked. The brain of the lowest mammals, such as the duck-billed platypus and the opossums and kangaroos, exhibits a still more definite advance in the same direction. The cerebral hemispheres have now so much increased in size as, more or less, to hide the representatives of the optic lobes, which remain comparatively small, so that the brain of a marsupial is extremely different from that of a bird, reptile, or fish. A step higher in the scale, among the placental mammals, the structure of the brain acquires a vast modification–not that it appears much altered externally, in a rat or in a rabbit, from what it is in a marsupial–nor that the proportions of its parts are much changed, but an apparently new structure is found between the cerebral hemispheres, connecting them together, as what is called the "great commissure" or "corpus callosum." The subject requires careful re-investigation, but if the currently received statements are correct, the appearance of the "corpus callosum" in the placental mammals is the greatest and most sudden modification exhibited by the brain in the whole series of vertebrated animals–it is the greatest leap anywhere made by Nature in her brain work. For the two halves of the brain being once thus knit together, the progress of cerebral complexity is traceable through a complete series of steps from the lowest rodent, or insectivore, to man; and that complexity consists, chiefly, in the disproportionate development of the cerebral hemispheres and of the cerebellum, but especially of the former, in respect to the other parts of the brain.

In the lower placental mammals, the cerebral hemispheres leave the proper upper and posterior face of the cerebellum completely visible, when the brain is viewed from above; but, in the higher forms, the hinder part of each hemisphere, separated only by the tentorium (p. 193) from the anterior face of the cerebellum, inclines backwards and downwards, and grows out, as the so-called "posterior lobe," so as at length to overlap

and hide the cerebellum. In all mammals, each cerebral hemisphere contains a cavity which is termed the "ventricle"; and as this ventricle is prolonged, on the one hand forwards, and on the other downwards, into the substance of the hemisphere, it is said to have two horns or "cornua," an "anterior cornu," and a "descending cornu." When the posterior lobe is well developed, a third prolongation of the ventricular cavity extends into it, and is called the "posterior cornu."

In the lower and smaller forms of placental mammals the surface of the cerebral hemispheres is either smooth or evenly rounded, or exhibits a very few grooves, which are technically termed "sulci," separating ridges or "convolutions" of the substance of the brain; and the smaller species of all orders tend to a similar smoothness of brain. But, in the higher orders, and especially the larger members of these orders, the grooves, or sulci, become extremely numerous, and the intermediate convolutions proportionately more complicated in their meanderings, until, in the elephant, the porpoise, the higher apes, and man, the cerebral surface appears a perfect labyrinth of tortuous foldings.

Where a posterior lobe exists and presents its customary cavity–the posterior cornu–it commonly happens that a particular sulcus appears upon the inner and under surface of the lobe, parallel with and beneath the floor of the cornu–which is, as it were, arched over the roof of the sulcus. It is as if the groove had been formed by indenting the floor of the posterior horn from without with a blunt instrument, so that the floor should rise as a convex eminence. Now this eminence is what has been termed the "hippocampus minor," the "hippocampus major" being a larger eminence in the floor of the descending cornu. What may be the functional importance of either of these structures we know not.

As if to demonstrate, by a striking example, the impossibility of erecting any cerebral barrier between man and the apes, nature has provided us, in the latter animals, with an almost complete series of gradations from brains little higher than that of a rodent, to brains little lower than that of man. And it is a remarkable circumstance, that though, so far as our present knowledge extends, there *is* one true structural break in the series of forms of simian brains, this hiatus does not lie between man and the man-like apes, but between the lower and the lowest simians; or, in other words, between the old and new world apes and monkeys, and the lemurs. Every lemur which has yet been examined, in fact, has its cerebellum partially visible from above, and its posterior lobe, with the contained posterior cornu and hippocampus minor, more or less rudi-

mentary. Every marmoset, American monkey, old world monkey, baboon, or man-like ape, on the contrary, has its cerebellum entirely hidden, posteriorly, by the cerebral lobes, and possesses a large posterior cornu, with a well-developed hippocampus minor.

In many of these creatures, such as the saimiri (*Chrysothrix*), the cerebral lobes overlap and extend much further behind the cerebellum, in proportion, than they do in man (Fig. 6)—and it is quite certain that, in all, the cerebellum is completely covered behind, by well-developed posterior lobes. The fact can be verified by every one who possesses the skull of any old or new world monkey. For, inasmuch as the brain in all mammals completely fills the cranial cavity, it is obvious that a cast of the interior of the skull will reproduce the general form of the brain, at any rate with such minute and, for the present purpose, utterly unimportant differences as may result from the absence of the enveloping membranes of the brain in the dry skull. But if such a cast be made in plaster, and compared with a similar cast of the interior of a human skull, it will be obvious that the cast of the cerebral chamber, representing the cerebrum of the ape, as completely covers over and overlaps the cast of the cerebellar chamber, representing the cerebellum, as it does in the man (Fig. 10). A careless observer, forgetting that a soft structure like the brain loses its proper shape the moment it is taken out of the skull, may indeed mistake the uncovered condition of the cerebellum of an extracted and distorted brain for the natural relations of the parts; but his error must become patent even to himself if he try to replace the brain within the cranial chamber. To suppose that the cerebellum of an ape is naturally uncovered behind is a miscomprehension comparable only to that of one who should imagine that a man's lungs always occupy but a small portion of the thoracic cavity, because they do so when the chest is opened, and their elasticity is no longer neutralized by the pressure of the air.

And the error is the less excusable, as it must become apparent to every one who examines a section of the skull of any ape above a lemur, without taking the trouble to make a cast of it. For there is a very marked groove in every such skull, as in the human skull—which indicates the line of attachment of what is termed the *tentorium*—a sort of parchment-like shelf, or partition, which, in the recent state, is interposed between the cerebrum and cerebellum, and prevents the former from pressing upon the latter. (See Fig. 6.)

This groove, therefore, indicates the line of separation between that part of the cranial cavity which contains the cerebrum, and that which

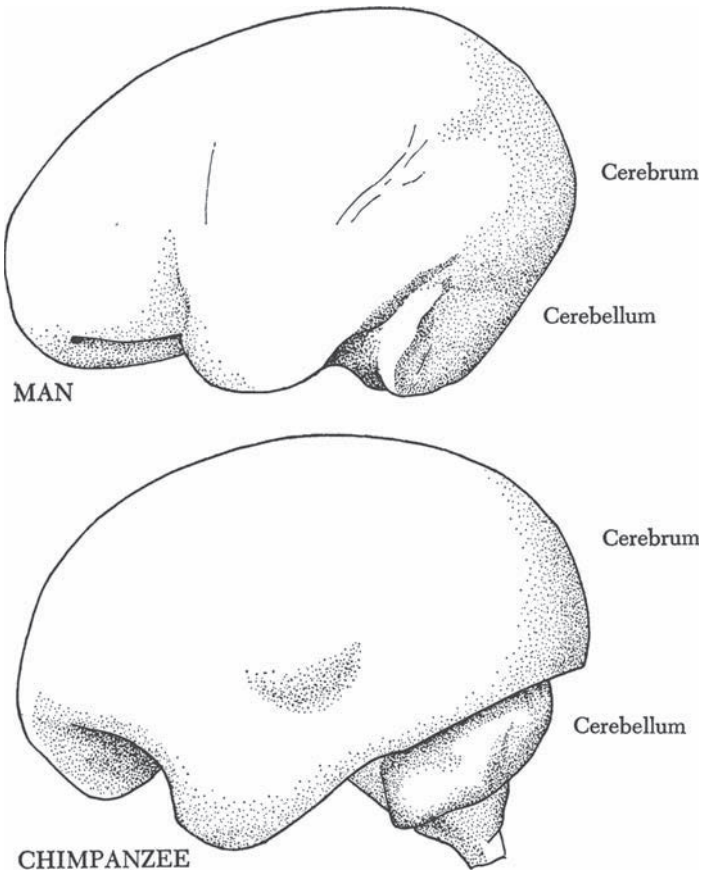

Fig. 10. *Drawings of the internal casts of a man's and of a chimpanzee's skull, of the same absolute length, and placed in corresponding positions. The former drawing is taken from a cast in the Museum of the Royal College of Surgeons, the latter from the photograph of the cast of a chimpanzee's skull, which illustrates the paper by Mr. Marshall "On the Brain of the Chimpanzee" in the* Natural History Review *for July, 1861. The sharper definition of the lower edge of the cast of the cerebral chamber in the chimpanzee arises from the circumstance that the tentorium remained in that skull and not in the man's. The cast more accurately represents the brain in the chimpanzee than in the man; and the great backward projection of the posterior lobes of the cerebrum of the former, beyond the cerebellum, is conspicuous.*

contains the cerebellum; and as the brain exactly fills the cavity of the skull, it is obvious that the relations of these two parts of the cranial cavity at once informs us of the relations of their contents. Now in man, in all the old world, and in all the new world simiae, with one exception, when the face is directed forwards, this line of attachment of the ten-

torium, or impression for the lateral sinus, as it is technically called, is nearly horizontal, and the cerebral chamber invariably overlaps or projects behind the cerebellar chamber. In the Howler monkey or *Mycetes* (see Fig. 6), the line passes obliquely upwards and backwards, and the cerebral overlap is almost nil; while in the lemurs, as in the lower mammals, the line is much more inclined in the same direction, and the cerebellar chamber projects considerably beyond the cerebral.

When the gravest errors respecting points so easily settled as this question respecting the posterior lobes, can be authoritatively propounded, it is no wonder that matters of observation, of no very complex character, but still requiring a certain amount of care, should have fared worse. Any one who cannot see the posterior lobe in an ape's brain is not likely to give a very valuable opinion respecting the posterior cornu or the hippocampus minor. If a man cannot see a church, it is preposterous to take his opinion about its altar-piece or painted window—so that I do not feel bound to enter upon any discussion of these points, but content myself with assuring the reader that the posterior cornu and the hippocampus minor, have now been seen—usually, at least as well developed as in man, and often better—not only in the chimpanzee, the orang, and the gibbon, but in all the genera of the old world baboons and monkeys, and in most of the new world forms, including the marmosets.

In fact, all the abundant and trustworthy evidence (consisting of the results of careful investigations directed to the determination of these very questions, by skilled anatomists) which we now possess, leads to the conviction that, so far from the posterior lobe, the posterior cornu, and the hippocampus minor, being structures peculiar to and characteristic of man, as they have been over and over again asserted to be, even after the publication of the clearest demonstration of the reverse, it is precisely these structures which are the most marked cerebral characters common to man with the apes. They are among the most distinctly simian peculiarities which the human organism exhibits.

As to the convolutions, the brains of the apes exhibit every stage of progress, from the almost smooth brain of the marmoset, to the orang and the chimpanzee, which fall but little below man. And it is most remarkable that, as soon as all the principal sulci appear, the pattern according to which they are arranged is identical with that of the corresponding sulci of man. The surface of the brain of a monkey exhibits a sort of skeleton map of man's, and in the man-like apes the details become more and more filled in, until it is only in minor characters, such

as the greater excavation of the anterior lobes, the constant presence of fissures usually absent in man, and the different disposition and proportions of some convolutions, that the chimpanzee's or the orang's brain can be structurally distinguished from man's.

So far as cerebral structure goes, therefore, it is clear that man differs less from the chimpanzee or the orang, than these do even from the monkeys, and that the difference between the brains of the chimpanzee and of man is almost insignificant, when compared with that between the chimpanzee brain and that of a lemur [cf. Fig. 11, p. 198].

It must not be overlooked, however, that there is a very striking difference in absolute mass and weight between the lowest human brain and that of the highest ape—a difference which is all the more remarkable when we recollect that a full-grown gorilla is probably pretty nearly twice as heavy as a Bosjesman, or as many a European woman. It may be doubted whether a healthy human adult brain ever weighed less than thirty-one or two ounces, or that the heaviest gorilla brain has exceeded twenty ounces.

This is a very noteworthy circumstance, and doubtless will one day help to furnish an explanation of the great gulf which intervenes between the lowest man and the highest ape in intellectual power;[6] but it has little

6. I say *help* to furnish: for I by no means believe that it was any original difference of cerebral quality, or quantity, which caused that divergence between the human and the pithecoid stirpes, which has ended in the present enormous gulf between them. It is no doubt perfectly true, in a certain sense, that all difference of function is a result of difference of structure; or, in other words, of difference in the combination of the primary molecular forces of living substance; and, starting from this undeniable axiom, objectors occasionally, and with much seeming plausibility, argue that the vast intellectual chasm between the ape and man implies a corresponding structural chasm in the organs of the intellectual functions; so that, it is said, the non-discovery of such vast differences proves, not that they are absent, but that science is incompetent to detect them. A very little consideration, however, will, I think, show the fallacy of this reasoning. Its validity hangs upon the assumption that intellectual power depends altogether on the brain—whereas the brain is only one condition out of many on which intellectual manifestations depend; the others being, chiefly, the organs of the senses and the motor apparatuses, especially those which are concerned in prehension and in the production of articulate speech.

   A man born dumb, notwithstanding his great cerebral mass and his inheritance of strong intellectual instincts, would be capable of few higher intellectual manifestations than an orang or a chimpanzee, if he were confined to the society of dumb associates. And yet there might not be the slightest discernible difference between his brain and that of a highly intelligent and cultivated person. The dumbness might be the result of a defective structure of the mouth, or of the tongue, or a mere defective innervation of these parts; or it might result from congenital deafness, caused by some minute defect of the internal ear, which only a careful anatomist could discover.

   The argument that because there is an immense difference between a man's intelligence and an ape's, therefore, there must be an equally immense difference between their brains, appears to me to be about as well based as the reasoning by

systematic value, for the simple reason that, as may be concluded from what has been already said respecting cranial capacity, the difference in weight of brain between the highest and the lowest men is far greater, both relatively and absolutely, than that between the lowest man and the highest ape. The latter, as has been seen, is represented by, say twelve, ounces of cerebral substance absolutely, or by 32:20 relatively; but as the largest recorded human brain weighed between 65 and 66 ounces, the former difference is represented by more than 33 ounces absolutely, or by 65:32 relatively. Regarded systematically, the cerebral differences of man and apes, are not of more than generic value; his family distinction resting chiefly on his dentition, his pelvis, and his lower limbs.

Thus, whatever system of organs be studied, the comparison of their modifications in the ape series leads to one and the same result—that the structural differences which separate man from the gorilla and the chimpanzee are not so great as those which separate the gorilla from the lower apes.

But in enunciating this important truth I must guard myself against a form of misunderstanding, which is very prevalent. I find, in fact, that those who endeavour to teach what nature so clearly shows us in this matter, are liable to have their opinions misrepresented and their phraseology garbled, until they seem to say that the structural differences between man and even the highest apes are small and insignificant. Let me take this opportunity then of distinctly asserting, on the contrary, that they are great and significant; that every bone of a gorilla bears marks by which it might be distinguished from the corresponding bone of a man; and that, in the present creation, at any rate, no intermediate link bridges over the gap between *Homo* and *Troglodytes*.

It would be no less wrong than absurd to deny the existence of this chasm; but it is at least equally wrong and absurd to exaggerate its magnitude, and, resting on the admitted fact of its existence, to refuse to

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which one should endeavour to prove that, because there is a "great gulf" between a watch that keeps accurate time and another that will not go at all, there is therefore a great structural hiatus between the two watches. A hair in the balance-wheel, a little rust on a pinion, a bend in a tooth of the escapement, a something so slight that only the practised eye of the watchmaker can discover it, may be the source of all the difference.

And believing, as I do, with Cuvier, that the possession of articulate speech is the grand distinctive character of man (whether it be absolutely peculiar to him or not), I find it very easy to comprehend, that some equally inconspicuous structural difference may have been the primary cause of the immeasurable and practically infinite divergence of the human from the simian stirps.

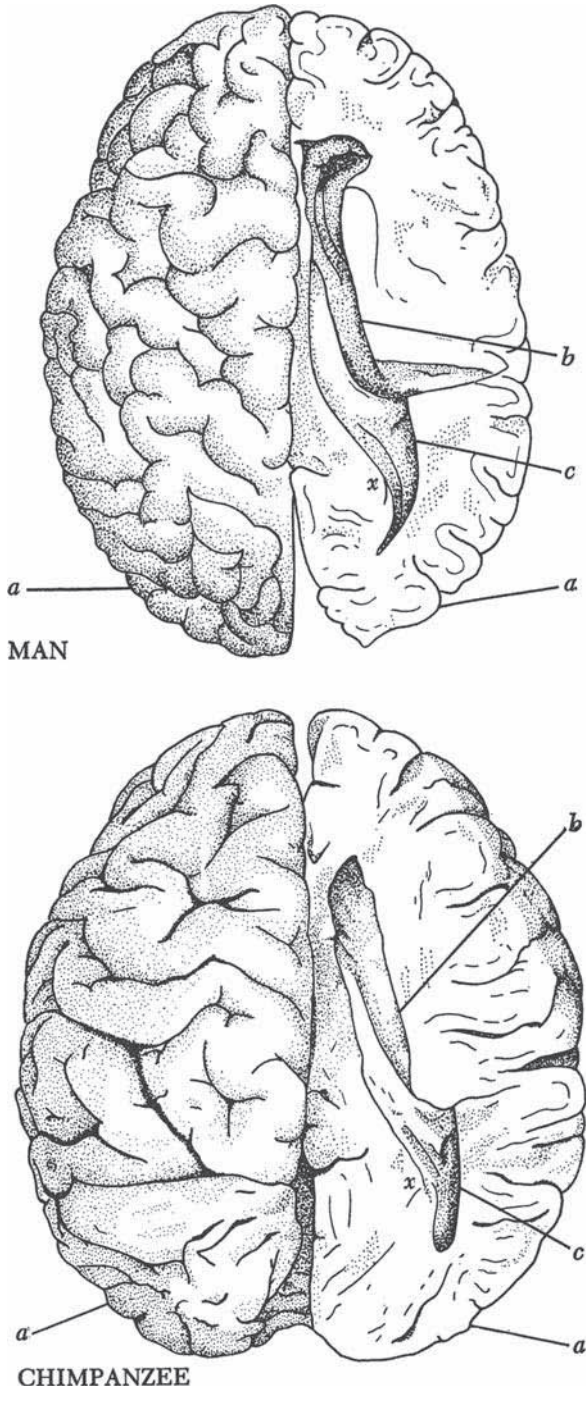

Fig. 11. *Drawings of the cerebral hemispheres of a man and of a chimpanzee of the same length, in order to show the relative proportions of the parts: the former taken from a specimen, which Mr. Flower, Conservator of the Museum*

inquire whether it is wide or narrow. Remember, if you will, that there is no existing link between man and the gorilla, but do not forget that there is a no less sharp line of demarcation, a no less complete absence of any transitional form, between the gorilla and the orang, or the orang and the gibbon. I say, not less sharp, though it is somewhat narrower. The structural differences between man and the man-like apes certainly justify our regarding him as constituting a family apart from them; though, inasmuch as he differs less from them than they do from other families of the same order, there can be no justification for placing him in a distinct order.

And thus the sagacious foresight of the great lawgiver of systematic zoology, Linnaeus, becomes justified, and a century of anatomical research brings us back to his conclusion, that man is a member of the same order (for which the Linnaean term Primates ought to be retained) as the apes and lemurs. This order is now divisible into seven families, of about equal systematic value: the first, the Anthropini, contains man alone; the second, the Catarhini, embraces the old world apes; the third, the Platyrhini, all new world apes, except the marmosets; the fourth, the Arctopithecini, contains the marmosets; the fifth, the Lemurini, the lemurs—from which *Cheiromys* should probably be excluded to form a sixth distinct family, the Cheiromyini; while the seventh, the Galeopithecini, contains only the flying lemur *Galeopithecus*—a strange form which almost touches on the bats, as the *Cheiromys* puts on a rodent clothing, and the lemurs simulate insectivora.

Perhaps no order of mammals presents us with so extraordinary a series of gradations as this—leading us insensibly from the crown and summit of the animal creation down to creatures, from which there is but a step, as it seems, to the lowest, smallest, and least intelligent of the placental Mammalia. It is as if nature herself had foreseen the arrogance of man, and with Roman severity had provided that his intellect, by its very triumphs, should call into prominence the slaves, admonishing the conqueror that he is but dust.

These are the chief facts, this the immediate conclusion from them to which I adverted in the commencement of this essay. The facts, I believe, cannot be disputed; and if so, the conclusion appears to me to be inevitable.

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of the Royal College of Surgeons, was good enough to dissect for me; the latter, from the photograph of a similarly dissected chimpanzee's brain, given in Mr. Marshall's paper above referred to [p. 194]. a, *posterior lobe;* b, *lateral ventricle;* c, *posterior cornu;* x, *the hippocampus minor*.

But if man be separated by no greater structural barrier from the brutes than they are from one another—then it seems to follow that if any process of physical causation can be discovered by which the genera and families of ordinary animals have been produced, that process of causation is amply sufficient to account for the origin of man. In other words, if it could be shown that the marmosets, for example, have arisen by gradual modification of the ordinary Platyrhini, or that both marmosets and Platyrhini are modified ramifications of a primitive stock—then, there would be no rational ground for doubting that man might have originated, in the one case, by the gradual modification of a man-like ape; or, in the other case, as a ramification of the same primitive stock as those apes.

At the present moment, but one such process of physical causation has any evidence in its favour; or, in other words, there is but one hypothesis regarding the origin of species of animals in general which has any scientific existence—that propounded by Mr. Darwin. For Lamarck, sagacious as many of his views were, mingled them with so much that was crude and even absurd, as to neutralize the benefit which his originality might have effected, had he been a more sober and cautious thinker; and though I have heard of the announcement of a formula touching "the ordained continuous becoming of organic forms," it is obvious that it is the first duty of a hypothesis to be intelligible, and that a quaquaversal proposition of this kind, which may be read backwards, or forwards, or sideways, with exactly the same amount of signification, does not really exist, though it may seem to do so.

At the present moment, therefore, the question of the relation of man to the lower animals resolves itself, in the end, into the larger question of the tenability, or untenability, of Mr. Darwin's views. But here we enter upon difficult ground, and it behoves us to define our exact position with the greatest care.

It cannot be doubted, I think, that Mr. Darwin has satisfactorily proved that what he terms selection, or selective modification, must occur, and does occur, in nature; and he has also proved to superfluity that such selection is competent to produce forms as distinct, structurally, as some genera even are. If the animated world presented us with none but structural differences, I should have no hesitation in saying that Mr. Darwin had demonstrated the existence of a true physical cause, amply competent to account for the origin of living species, and of man among the rest.

But, in addition to their structural distinctions, the species of animals and plants, or at least a great number of them, exhibit physiological characters—what are known as distinct species, structurally, being for the

most part either altogether incompetent to breed one with another; or if they breed, the resulting mule, or hybrid, is unable to perpetuate its race with another hybrid of the same kind.

A true physical cause is, however, admitted to be such only on one condition—that it shall account for all the phenomena which come within the range of its operation. If it is inconsistent with any one phenomenon, it must be rejected; if it fails to explain any one phenomenon, it is so far weak, so far to be suspected; though it may have a perfect right to claim provisional acceptance.

Now, Mr. Darwin's hypothesis is not, so far as I am aware, inconsistent with any known biological fact; on the contrary, if admitted, the facts of development, of comparative anatomy, of geographical distribution, and of palaeontology, become connected together, and exhibit a meaning such as they never possessed before; and I, for one, am fully convinced, that if not precisely true, that hypothesis is as near an approximation to the truth as, for example, the Copernican hypothesis was to the true theory of the planetary motions.

But, for all this, our acceptance of the Darwinian hypothesis must be provisional so long as one link in the chain of evidence is wanting; and so long as all the animals and plants certainly produced by selective breeding from a common stock are fertile, and their progeny are fertile with one another, that link will be wanting. For, so long, selective breeding will not be proved to be competent to do all that is required of it to produce natural species.

I have put this conclusion as strongly as possible before the reader, because the last position in which I wish to find myself is that of an advocate for Mr. Darwin's, or any other views; if by an advocate is meant one whose business it is to smooth over real difficulties, and to persuade where he cannot convince.

In justice to Mr. Darwin, however, it must be admitted that the conditions of fertility and sterility are very ill understood, and that every day's advance in knowledge leads us to regard the hiatus in his evidence as of less and less importance, when set against the multitude of facts which harmonize with, or receive an explanation from, his doctrines.

I adopt Mr. Darwin's hypothesis, therefore, subject to the production of proof that physiological species may be produced by selective breeding; just as a physical philosopher may accept the undulatory theory of light, subject to the proof of the existence of the hypothetical ether; or as the chemist adopts the atomic theory, subject to the proof of the existence of atoms; and for exactly the same reasons, namely, that it has an immense amount of prima facie probability: that it is the only means at

present within reach of reducing the chaos of observed facts to order; and lastly, that it is the most powerful instrument of investigation which has been presented to naturalists since the invention of the natural system of classification, and the commencement of the systematic study of embryology.

But even leaving Mr. Darwin's views aside, the whole analogy of natural operations furnishes so complete and crushing an argument against the intervention of any but what are termed secondary causes, in the production of all the phenomena of the universe; that, in view of the intimate relations between man and the rest of the living world, and between the forces exerted by the latter and all other forces, I can see no excuse for doubting that all are co-ordinated terms of nature's great progression, from the formless to the formed—from the inorganic to the organic—from blind force to conscious intellect and will.

Science has fulfilled her function when she has ascertained and enunciated truth; and were these pages addressed to men of science only, I should now close this essay, knowing that my colleagues have learned to respect nothing but evidence, and to believe that their highest duty lies in submitting to it, however it may jar against their inclinations.

But desiring, as I do, to reach the wider circle of the intelligent public, it would be unworthy cowardice were I to ignore the repugnance with which the majority of my readers are likely to meet the conclusions to which the most careful and conscientious study I have been able to give to this matter, has led me.

On all sides I shall hear the cry: "We are men and women, not a mere better sort of apes, a little longer in the leg, more compact in the foot, and bigger in brain than your brutal chimpanzees and gorillas. The power of knowledge—the conscience of good and evil—the pitiful tenderness of human affections, raise us out of all real fellowship with the brutes, however closely they may seem to approximate us."

To this I can only reply that the exclamation would be most just and would have my own entire sympathy, if it were only relevant. But, it is not I who seek to base man's dignity upon his great toe, or insinuate that we are lost if an ape has a hippocampus minor. On the contrary, I have done my best to sweep away this vanity. I have endeavoured to show that no absolute structural line of demarcation, wider than that between the animals which immediately succeed us in the scale, can be drawn between the animal world and ourselves; and I may add the expression of my belief that the attempt to draw a psychical distinction is equally futile, and that even the highest faculties of feeling and of intellect begin

to germinate in lower forms of life.[7] At the same time, no one is more strongly convinced than I am of the vastness of the gulf between civilized man and the brutes; or is more certain that whether *from* them or not, he is assuredly not *of* them. No one is less disposed to think lightly of the present dignity, or despairingly of the future hopes, of the only consciously intelligent denizen of this world.

We are indeed told by those who assume authority in these matters, that the two sets of opinions are incompatible, and that the belief in the unity of origin of man and brutes involves the brutalization and degradation of the former. But is this really so? Could not a sensible child confute by obvious arguments, the shallow rhetoricians who would force this conclusion upon us? Is it, indeed, true that the poet, or the philosopher, or the artist whose genius is the glory of his age, is degraded from his high estate by the undoubted historical probability, not to say certainty, that he is the direct descendant of some naked and bestial savage, whose intelligence was just sufficient to make him a little more cunning than the fox, and by so much more dangerous than the tiger? Or is he bound to howl and grovel on all fours because of the wholly unquestionable fact, that he was once an egg, which no ordinary power of discrimination could distinguish from that of a dog? Or is the philanthropist, or the saint, to give up his endeavours to lead a noble life, because the simplest study of man's nature reveals, at its foundations, all the selfish passions, and fierce appetites of the merest quadruped? Is mother love vile because a hen shows it, or fidelity base because dogs possess it?

The common sense of the mass of mankind will answer these questions without a moment's hesitation. Healthy humanity, finding itself hard pressed to escape from real sin and degradation, will leave the brooding over speculative pollution to the cynics and the "righteous over-

7. It is so rare a pleasure for me to find Professor Owen's opinions in entire accordance with my own, that I cannot forbear from quoting a paragraph which appeared in his essay "On the Characters, &c., of the Class Mammalia," in the *Journal of the Proceedings of the Linnean Society of London* for 1857, but is unaccountably omitted in the "Reade Lecture" delivered before the University of Cambridge two years later, which is otherwise nearly a reprint of the paper in question. Prof. Owen writes:

"Not being able to appreciate or conceive of the distinction between the psychical phenomena of a Chimpanzee and of a Boschisman or of an Aztec, with arrested brain growth, as being of a nature so essential as to preclude a comparison between them, or as being other than a difference of degree, I cannot shut my eyes to the significance of that all-pervading similitude of structure–every tooth, every bone, strictly homologous–which makes the determination of the difference between *Homo* and *Pithecus* the anatomist's difficulty."

Surely it is a little singular, that the "anatomist," who finds it "difficult" to determine "the difference" between *Homo* and *Pithecus*, should yet range them on anatomical grounds, in distinct sub-classes.

much" who, disagreeing in everything else, unite in blind insensibility to the nobleness of the visible world, and in inability to appreciate the grandeur of the place man occupies therein.

Nay more, thoughtful men, once escaped from the blinding influences of traditional prejudice, will find in the lowly stock whence man has sprung, the best evidence of the splendour of his capacities; and will discern in his long progress through the past, a reasonable ground of faith in his attainment of a nobler future.

They will remember that in comparing civilized man with the animal world, one is as the Alpine traveller, who sees the mountains soaring into the sky and can hardly discern where the deep shadowed crags and roseate peaks end, and where the clouds of heaven begin. Surely the awe-struck voyager may be excused if, at first, he refuses to believe the geologist, who tells him that these glorious masses are, after all, the hardened mud of primeval seas, or the cooled slag of subterranean furnaces—of one substance with the dullest clay, but raised by inward forces to that place of proud and seemingly inaccessible glory.

But the geologist is right; and due reflection on his teachings, instead of diminishing our reverence and our wonder, adds all the force of intellectual sublimity to the mere aesthetic intuition of the uninstructed beholder.

And after passion and prejudice have died away, the same result will attend the teachings of the naturalist respecting that great Alps and Andes of the living world—man. Our reverence for the nobility of manhood will not be lessened by the knowledge that man is, in substance and in structure, one with the brutes; for, he alone possesses the marvellous endowment of intelligible and rational speech, whereby, in the secular period of his existence, he has slowly accumulated and organized the experience which is almost wholly lost with the cessation of every individual life in other animals; so that, now, he stands raised upon it as on a mountain top, far above the level of his humble fellows, and transfigured from his grosser nature by reflecting, here and there, a ray from the infinite source of truth.

The foregoing is from a collection
of Huxley's essays entitled
MAN'S PLACE IN NATURE AND OTHER ANTHROPOLOGICAL ESSAYS.

On a Piece of Chalk

If a well were to be sunk at our feet in the midst of the city of Norwich, the diggers would very soon find themselves at work in that white substance, almost too soft to be called rock, with which we are all familiar as "chalk."

Not only here, but over the whole country of Norfolk, the well-sinker might carry his shaft down many hundred feet without coming to the end of the chalk; and on the sea-coast, where the waves have pared away the face of the land which breasts them, the scarped faces of the high cliffs are often wholly formed of the same material. Northward the chalk may be followed as far as Yorkshire; on the south coast it appears abruptly in the picturesque western bays of Dorset, and breaks into the Needles of the Isle of Wight; while on the shores of Kent it supplies that long line of white cliffs to which England owes her name of Albion. Were the thin soil which covers it all washed away, a curved band of white chalk, here broader and there narrower, might be followed diagonally across England from Lulworth in Dorset to Flamborough Head in Yorkshire—a distance of over 280 miles as the crow flies. From this band to the North Sea on the east, and the Channel on the south, the chalk is largely hidden by other deposits; but except in the Weald of Kent and Sussex it enters into the very foundation of all the southeastern counties.

Attaining, as it does in some places, a thickness of more than a thousand feet, the English chalk must be admitted to be a mass of considerable magnitude. Nevertheless it covers but an insignificant portion of the whole area occupied by the chalk formation of the globe, which has precisely the same general characters as ours, and is found in detached patches, some less and others more extensive than the English. Chalk occurs in northwest Ireland; it stretches over a large part of France, the chalk which underlies Paris being, in fact, a continuation of that of the London basin; runs through Denmark and Central Europe, and extends

southward to North Africa; while eastward it appears in the Crimea and in Syria, and may be traced as far as the shores of the Sea of Aral, in Central Asia. If all the points at which true chalk occurs were circumscribed, they would lie within an irregular oval about 3,000 miles in long diameter—the area of which would be as great as that of Europe, and would many times exceed that of the largest existing inland sea, the Mediterranean.

Thus the chalk is no unimportant element in the masonry of the earth's crust, and it impresses a peculiar stamp, varying with the conditions to which it is exposed, on the scenery of the districts in which it occurs. The undulating downs and rounded coombs, covered with sweet-grassed turf, of our inland chalk country, have a peacefully domestic and mutton-suggesting prettiness, but can hardly be called either grand or beautiful. But on our southern coasts the wall-sided cliffs, many hundred feet high, with vast needles and pinnacles standing out in the sea, sharp and solitary enough to serve as perches for the wary cormorant, confer a wonderful beauty and grandeur upon the chalk headlands. And in the East chalk has its share in the formation of some of the most venerable of mountain ranges, such as the Lebanon.

What is this wide-spread component of the surface of the earth? and whence did it come?

You may think this no very hopeful inquiry. You may not unnaturally suppose that the attempt to solve such problems as these can lead to no result save that of entangling the inquirer in vague speculations, incapable of refutation and of verification. If such were really the case, I should have selected some other subject than "a piece of chalk" for my discourse. But in truth, after much deliberation, I have been unable to think of any topic which would so well enable me to lead you to see how solid is the foundation upon which some of the most startling conclusions of physical science rest.

A great chapter of the history of the world is written in the chalk. Few passages in the history of man can be supported by such an overwhelming mass of direct and indirect evidence as that which testifies to the truth of the fragment of the history of the globe which I hope to enable you to read with your own eyes to-night. Let me add that few chapters of human history have a more profound significance for ourselves. I weigh my words well when I assert that the man who should know the true history of the bit of chalk which every carpenter carries about in his breeches-pocket, though ignorant of all other history, is likely, if he will think his knowledge out to its ultimate results, to have a truer and there-

fore a better conception of this wonderful universe, and of man's relation to it, than the most learned student who is deep read in the records of humanity and ignorant of those of nature.

The language of the chalk is not hard to learn, not nearly so hard as Latin, if you only want to get at the broad features of the story it has to tell; and I propose that we now set to work to spell that story out together.

We all know that if we "burn" chalk the result is quicklime. Chalk, in fact, is a compound of carbonic acid gas and lime, and when you make it very hot the carbonic acid flies away and the lime is left. By this method of procedure we see the lime, but we do not see the carbonic acid. If, on the other hand, you were to powder a little chalk and drop it into a good deal of strong vinegar, there would be a great bubbling and fizzing, and, finally, a clear liquid, in which no sign of chalk would appear. Here you see the carbonic acid in the bubbles; the lime, dissolved in the vinegar, vanishes from sight. There are a great many other ways of showing that chalk is essentially nothing but carbonic acid and quicklime. Chemists enunciate the result of all the experiments which prove this by stating that chalk is almost wholly composed of "carbonate of lime."

It is desirable for us to start from the knowledge of this fact, though it may not seem to help us very far towards what we seek. For carbonate of lime is a widely-spread substance and is met with under very various conditions. All sorts of limestones are composed of more or less pure carbonate of lime. The crust which is often deposited by waters which have drained through limestone rocks, in the form of what are called stalagmites and stalactites, is carbonate of lime. Or to take a more familiar example, the fur on the inside of a tea-kettle is carbonate of lime; and for anything chemistry tells us to the contrary, the chalk might be a kind of gigantic fur upon the bottom of the earth-kettle, which is kept pretty hot below.

Let us try another method of making the chalk tell us its own history. To the unassisted eye chalk looks simply like a very loose and open kind of stone. But it is possible to grind a slice of chalk down so thin that you can see through it—until it is thin enough, in fact, to be examined with any magnifying power that may be thought desirable. A thin slice of the fur of a kettle might be made in the same way. If it were examined microscopically, it would show itself to be a more or less distinctly laminated mineral substance, and nothing more. But the slice of chalk presents a totally different appearance when placed under the micro-

scope. The general mass of it is made up of very minute granules; but imbedded in this matrix are innumerable bodies, some smaller and some larger, but on a rough average not more than a hundredth of an inch in diameter, having a well-defined shape and structure. A cubic inch of some specimens of chalk may contain hundreds of thousands of these bodies, compacted together with incalculable millions of the granules.

The examination of a transparent slice gives a good notion of the manner in which the components of the chalk are arranged, and of their relative proportions. But by rubbing up some chalk with a brush in water and then pouring off the milky fluid, so as to obtain sediments of different degrees of fineness, the granules and the minute rounded bodies may be pretty well separated from one another, and submitted to microscopic examination, either as opaque or as transparent objects. By combining the views obtained in these various methods, each of the rounded bodies may be proved to be a beautifully-constructed calcareous fabric, made up of a number of chambers communicating freely with one another. The chambered bodies are of various forms. One of the commonest is something like a badly-grown raspberry, being formed of a number of nearly globular chambers of different sizes congregated together. It is called Globigerina, and some specimens of chalk consist of little else than Globigerinae and granules. Let us fix our attention upon the Globigerina. It is the spoor of the game we are tracking. If we can learn what it is and what are the conditions of its existence, we shall see our way to the origin and past history of the chalk.

A suggestion which may naturally enough present itself is that these curious bodies are the result of some process of aggregation which has taken place in the carbonate of lime; that, just as in winter the rime on our windows simulates the most delicate and elegantly arborescent foliage–proving that the mere mineral, water, may under certain conditions assume the outward form of organic bodies–so this mineral substance, carbonate of lime, hidden away in the bowels of the earth, has taken the shape of these chambered bodies. I am not raising a merely fanciful and unreal objection. Very learned men, in former days, have even entertained the notion that all the formed things found in rocks are of this nature; and if no such conception is at present held to be admissible, it is because long and varied experience has now shown that mineral matter never does assume the form and structure we find in fossils. If anyone were to try to persuade you that an oyster-shell (which is also chiefly composed of carbonate of lime) had crystallized out of sea-water, I suppose you would laugh at the absurdity. Your laughter would

be justified by the fact that all experience tends to show that oyster-shells are formed by the agency of oysters, and in no other way. And if there were no better reasons, should be justified, on like grounds, in believing that *Globigerina* is not the product of anything but vital activity.

Happily, however, better evidence in proof of the organic nature of the Globigerinae than that of analogy is forthcoming. It so happens that calcareous skeletons, exactly similar to the Globigerinae of the chalk, are being formed at the present moment by minute living creatures, which flourish in multitudes literally more numerous than the sands of the sea-shore, over a large extent of that part of the earth's surface which is covered by the ocean.

The history of the discovery of these living Globigerinae, and of the part which they play in rock-building, is singular enough. It is a discovery which, like others of no less scientific importance, has arisen incidentally, out of work devoted to very different and exceedingly practical interests. When men first took to the sea, they speedily learned to look out for shoals and rocks; and the more the burden of their ships increased, the more imperatively necessary it became for sailors to ascertain with precision the depth of the waters they traversed. Out of this necessity grew the use of the lead and sounding-line, and, ultimately, marine surveying, which is the recording of the form of coasts and of the depth of the sea, as ascertained by the sounding-lead, upon charts. At the same time it became desirable to ascertain and to indicate the nature of the sea-bottom, since this circumstance greatly affects its goodness as holding-ground for anchors. Some ingenious tar, whose name deserves a better fate than the oblivion into which it has fallen, attained this object by "arming" the bottom of the lead with a lump of grease, to which more or less of the sand or mud or broken shells, as the case might be, adhered, and was brought to the surface. But however well adapted such an apparatus might be for rough nautical purposes, scientific accuracy could not be expected from the armed lead; and to remedy its defects (especially when applied to sounding in great depths) Lieut. Brooke, of the American Navy, some years ago invented a most ingenious machine, by which a considerable portion of the superficial layer of the sea-bottom can be scooped out and brought up from any depth to which the lead descends. In 1853, Lieut. Brooke obtained mud from the bottom of the North Atlantic, between Newfoundland and the Azores, at a depth of more than 10,000 feet, or two miles, by the help of this sounding apparatus. The specimens were sent for examination to Ehrenberg of Berlin, and to Bailey of West Point, and those able microscopists found

that this deep-sea mud was almost entirely composed of the skeletons of living organisms—the greater proportion of these being just like the Globigerinae already known to occur in the chalk.

Thus far the work had been carried on simply in the interests of science, but Lieut. Brooke's method of sounding acquired a high commercial value when the enterprise of laying down the telegraph cable between this country and the United States was undertaken; for it became a matter of immense importance to know, not only the depth of the sea over the whole line along which the cable was to be laid, but the exact nature of the bottom, so as to guard against chances of cutting or fraying the strands of that costly rope. The Admiralty consequently ordered Captain Dayman, an old friend and shipmate of mine, to ascertain the depth over the whole line of the cable and to bring back specimens of the bottom. In former days such a command as this might have sounded very much like one of the impossible things which the young prince in the fairy tales is ordered to do before he can obtain the hand of the princess. However, in the months of June and July, 1857, my friend performed the task assigned to him, with great expedition and precision, without, so far as I know, having met with any reward of that kind. The specimens of Atlantic mud which he procured were sent to me to be examined and reported upon.

The result of all these operations is that we know the contours and nature of the surface soil covered by the North Atlantic for a distance of 1,700 miles from east to west, as well as we know that of any part of the dry land. It is a prodigious plain—one of the widest and most even plains in the world. If the sea were drained off, you might drive a wagon all the way from Valentia, on the west coast of Ireland, to Trinity Bay, in Newfoundland. And, except upon one sharp incline about 200 miles from Valentia, I am not quite sure that it would even be necessary to put the skid on, so gentle are the ascents and descents upon that long route. From Valentia the road would lie downhill for about 200 miles to the point at which the bottom is now covered by 1,700 fathoms of sea-water. Then would come the central plain, more than a thousand miles wide, the inequalities of the surface of which would be hardly perceptible, though the depth of water upon it now varies from 10,000 to 15,000 feet, and there are places in which Mont Blanc might be sunk without showing its peak above water. Beyond this the ascent on the American side commences, and gradually leads, for about 300 miles, to the Newfoundland shore.

Almost the whole of the bottom of this central plain (which extends

for many hundred miles in a north and south direction) is covered by a fine mud, which, when brought to the surface, dries into a grayish-white friable substance. You can write with this on a blackboard, if you are so inclined; and to the eye it is quite like very soft grayish chalk. Examined chemically, it proves to be composed almost wholly of carbonate of lime; and if you make a section of it, in the same way as that of the piece of chalk was made, and view it with the microscope, it presents innumerable Globigerinae embedded in a granular matrix. Thus this deep-sea mud is substantially chalk. I say, substantially, because there are a good many minor differences; but as these have no bearing on the question immediately before us—which is the nature of the Globigerinae of the chalk—it is unnecessary to speak of them.

Globigerinae of every size, from the smallest to the largest, are associated together in the Atlantic mud, and the chambers of many are filled by a soft animal matter. This soft substance is, in fact, the remains of the creature to which the Globigerina shell, or rather skeleton, owes its existence—and which is an animal of the simplest imaginable description. It is, in fact, a mere particle of living jelly, without defined parts of any kind—without a mouth, nerves, muscles, or distinct organs, and only manifesting its vitality to ordinary observation by thrusting out and retracting from all parts of its surface long filamentous processes, which serve for arms and legs. Yet this amorphous particle, devoid of everything which, in the higher animals we call organs, is capable of feeding, growing, and multiplying, of separating from the ocean the small proportion of carbonate of lime which is dissolved in sea-water, and of building up that substance into a skeleton for itself, according to a pattern which can be imitated by no other known agency.

The notion that animals can live and flourish in the sea, at the vast depths from which apparently living Globigerinae have been brought up, does not agree very well with our usual conceptions respecting the conditions of animal life; and it is not so absolutely impossible as it might at first sight appear to be that the Globigerinae of the Atlantic sea-bottom do not live and die where they are found.

As I have mentioned, the soundings from the great Atlantic plain are almost entirely made up of Globigerinae, with the granules which have been mentioned, and some few other calcareous shells; but a small percentage of the chalky mud—perhaps at most some five per cent of it—is of a different nature, and consists of shells and skeletons composed of silex, or pure flint. These silicious bodies belong partly to those lowly vegetable organisms which are called Diatomaceae, and partly to those

minute and extremely simple animals termed Radiolariae. It is quite certain that these creatures do not live at the bottom of the ocean, but at its surface—where they may be obtained in prodigious numbers by the use of a properly constructed net. Hence it follows that these silicious organisms, though they are not heavier than the lightest dust, must have fallen, in some cases, through fifteen thousand feet of water, before they reached their final resting-place on the ocean floor. And considering how large a surface these bodies expose in proportion to their weight, it is probable that they occupy a great length of time in making their burial journey from the surface of the Atlantic to the bottom.

But if the Radiolariae and diatoms are thus rained upon the bottom of the sea, from the superficial layer of its waters in which they pass their lives, it is obviously possible that the Globigerinae may be similarly derived; and if they were so, it would be much more easy to understand how they obtain their supply of food than it is at present. Nevertheless the positive and negative evidence all points the other way. The skeletons of the full-grown, deep-sea Globigerinae are so remarkably solid and heavy in proportion to their surface as to seem little fitted for floating; and as a matter of fact they are not to be found along with the diatoms and Radiolariae in the uppermost stratum of the open ocean. It has been observed, again, that the abundance of Globigerinae, in proportion to other organisms of like kind, increases with the depth of the sea, and that deep-water Globigerinae are larger than those which live in shallower parts of the sea; and such facts negative the supposition that these organisms have been swept by currents from the shallows into the deeps of the Atlantic. It therefore seems to be hardly doubtful that these wonderful creatures live and die at the depths in which they are found.

However, the important points for us are that the living Globigerinae are exclusively marine animals, the skeletons of which abound at the bottom of deep seas, and that there is not a shadow of reason for believing that the habits of the Globigerinae of the chalk differed from those of the existing species. But if this be true, there is no escaping the conclusion that the chalk itself is the dried mud of an ancient deep sea.

In working over the soundings collected by Captain Dayman, I was surprised to find that many of what I have called the "granules" of that mud were not, as one might have been tempted to think at first, the mere powder and waste of Globigerinae, but that they had a definite form and size. I termed these bodies "coccoliths," and doubted their organic nature. Dr. Wallich verified my observation, and added the interesting

discovery that not unfrequently bodies similar to these coccoliths were aggregated together into spheroids, which he termed "coccospheres." So far as we knew, these bodies, the nature of which is extremely puzzling and problematical, were peculiar to the Atlantic soundings. But a few years ago Mr. Sorby, in making a careful examination of the chalk by means of thin sections and otherwise, observed, as Ehrenberg had done before him, that much of its granular basis possesses a definite form. Comparing these formed particles with those in the Atlantic soundings, he found the two to be identical, and thus proved that the chalk, like the soundings, contains these mysterious coccoliths and coccospheres. Here was a further and a most interesting confirmation, from internal evidence, of the essential identity of the chalk with modern deep-sea mud. Globigerinae, coccoliths, and coccospheres are found as the chief constituents of both and testify to the general similarity of the conditions under which both have been formed.

The evidence furnished by the hewing, facing, and superposition of the stones of the Pyramids that these structures were built by men has no greater weight than the evidence that the chalk was built by Globigerinae; and the belief that those ancient pyramid-builders were terrestrial and air-breathing creatures like ourselves is not better based than the conviction that the chalk-makers lived in the sea. But as our belief in the building of the Pyramids by men is not only grounded on the internal evidence afforded by these structures, but gathers strength from multitudinous collateral proofs and is clinched by the total absence of any reason for a contrary belief, so the evidence drawn from the Globigerinae that the chalk is an ancient sea-bottom is fortified by innumerable independent lines of evidence; and our belief in the truth of the conclusion to which all positive testimony tends receives the like negative justification from the fact that no other hypothesis has a shadow of foundation.

It may be worth while briefly to consider a few of these collateral proofs that the chalk was deposited at the bottom of the sea. The great mass of the chalk is composed, as we have seen, of the skeletons of Globigerinae and other simple organisms, imbedded in granular matter. Here and there, however, this hardened mud of the ancient sea reveals the remains of higher animals which have lived and died and left their hard parts in the mud, just as the oysters die and leave their shells behind them in the mud of the present seas.

There are certain groups of animals at the present day which are never found in fresh waters, being unable to live anywhere but in the

sea. Such are the corals; those corallines which are called Polyzoa; those creatures which fabricate the lamp-shells, and are called Brachiopoda; the pearly Nautilus, and all animals allied to it; and all the forms of sea-urchins and star-fishes. Not only are all these creatures confined to salt water at the present day, but, so far as our records of the past go, the conditions of their existence have been the same; hence their occurrence in any deposit is as strong evidence as can be obtained that that deposit was formed in the sea. Now, the remains of animals of all the kinds which have been enumerated occur in the chalk, in greater or less abundance, while not one of those forms of shell-fish which are characteristic of fresh water has yet been observed in it.

When we consider that the remains of more than three thousand distinct species of aquatic animals have been discovered among the fossils of the chalk, that the great majority of them are of such forms as are now met with only in the sea, and that there is no reason to believe that any one of them inhabited fresh water, the collateral evidence that the chalk represents an ancient sea-bottom acquires as great force as the proof derived from the nature of the chalk itself. I think you will now allow that I did not overstate my case when I asserted that we have as strong grounds for believing that all the vast area of dry land at present occupied by the chalk was once at the bottom of the sea as we have for any matter of history whatever; while there is no justification for any other belief.

No less certain is it that the time during which the countries we now call southeast England, France, Germany, Poland, Russia, Egypt, Arabia, Syria were more or less completely covered by a deep sea was of considerable duration. We have already seen that the chalk is in places more than a thousand feet thick. I think you will agree with me that it must have taken some time for the skeletons of animalculae of a hundredth of an inch in diameter to heap up such a mass as that. I have said that throughout the thickness of the chalk the remains of other animals are scattered. These remains are often in the most exquisite state of preservation. The valves of the shell-fishes are commonly adherent; the long spines of some of the sea-urchins, which would be detached by the smallest jar, often remain in their places. In a word, it is certain that these animals have lived and died when the place which they now occupy was the surface of as much of the chalk as had then been deposited, and that each has been covered up by the layer of Globigerina mud, upon which the creatures imbedded a little higher up have in like manner lived and died. But some of these remains prove the existence

of reptiles of vast size in the chalk sea. These lived their time, and had their ancestors and descendants, which assuredly implies time, reptiles being of slow growth.

There is more curious evidence, again, that the process of covering up, or in other words the deposit of Globigerina skeletons, did not go on very fast. It is demonstrable that an animal of the cretaceous sea might die, that its skeleton might lie uncovered upon the sea-bottom long enough to lose all its outward coverings and appendages by putrefaction; and that, after this had happened, another animal might attach itself to the dead and naked skeleton, might grow to maturity, and might itself die before the calcareous mud had buried the whole.

Cases of this kind are admirably described by Sir Charles Lyell. He speaks of the frequency with which geologists find in the chalk a fossilized sea-urchin, to which is attached the lower valve of a Crania. This is a kind of shell-fish, with a shell composed of two pieces, of which, as in the oyster, one is fixed and the other free. "The upper valve is almost invariably wanting, though occasionally found in a perfect state of preservation in the white chalk at some distance. In this case we see clearly that the sea-urchin first lived from youth to age, then died and lost its spines, which were carried away. Then the young *Crania* adhered to the bared shell, grew and perished in its turn; after which the upper valve was separated from the lower before the *Echinus* became enveloped in chalky mud."

A specimen in the Museum of Practical Geology, in London, still further prolongs the period which must have elapsed between the death of the sea-urchin and its burial by the Globigerinae. For the outward face of the valve of a Crania, which is attached to a sea-urchin (Micraster), is itself over-run by an incrusting coralline, which spreads thence over more or less of the surface of the sea-urchin. It follows that, after the upper valve of the Crania fell off, the surface of the attached valve must have remained exposed long enough to allow of the growth of the whole coralline, since corallines do not live imbedded in mud.

The progress of knowledge may one day enable us to deduce from such facts as these the maximum rate at which the chalk can have accumulated, and thus to arrive at the minimum duration of the chalk period. Suppose that the valve of the Crania upon which a coralline has fixed itself, in the way just described, is so attached to the sea-urchin that no part of it is more than an inch above the face upon which the sea-urchin rests. Then, as the coralline could not have fixed itself if the Crania had been covered up with chalk mud, and could not

have lived had itself been so covered, it follows that an inch of chalk mud could not have accumulated within the time between the death and decay of the soft parts of the sea-urchin and the growth of the coralline to the full size which it has attained. If the decay of the soft parts of the sea-urchin, the attachment, growth to maturity, and decay of the Crania, and the subsequent attachment and growth of the coralline took a year (which is a low estimate enough), the accumulation of the inch of chalk must have taken more than a year; and the deposit of a thousand feet of chalk must consequently have taken more than twelve thousand years. The foundation of all this calculation is of course a knowledge of the length of time the Crania and the coralline needed to attain their full size; and on this head precise knowledge is at present wanting. But there are circumstances which tend to show that nothing like an inch of chalk has accumulated during the life of a Crania; and on any probable estimate of the length of that life the chalk period must have had a much longer duration than that thus roughly assigned to it.

Thus not only is it certain that the chalk is the mud of an ancient sea-bottom, but it is no less certain that the chalk sea existed during an extremely long period, though we may not be prepared to give a precise estimate of the length of that period in years. The relative duration is clear, though the absolute duration may not be definable. The attempt to affix any precise date to the period at which the chalk sea began or ended its existence is baffled by difficulties of the same kind. But the relative age of the cretaceous epoch may be determined with as great ease and certainty as the long duration of that epoch.

You will have heard of the interesting discoveries, recently made in various parts of Western Europe, of flint implements obviously worked into shape by human hands, under circumstances which show conclusively that man is a very ancient denizen of these regions. It has been proved that the old populations of Europe whose existence has been revealed to us in this way, consisted of savages, such as the Esquimaux are now; that in the country which is now France they hunted the reindeer, and were familiar with the ways of the mammoth and the bison. The physical geography of France was in those days different from what it is now—the river Somme, for instance, having cut its bed a hundred feet deeper between that time and this; and it is probable that the climate was more like that of Canada or Siberia than that of Western Europe.

The existence of these people is forgotten even in the traditions of the oldest historical nations. The name and fame of them had utterly

vanished until a few years back; and the amount of physical change which has been effected since their day renders it more than probable that, venerable as are some of the historical nations, the workers of the chipped flints of Hoxne or of Amiens are to them as they are to us in point of antiquity. But if we assign to these hoar relics of long vanished generations of men the greatest age that can possibly be claimed for them, they are not older than the drift or boulder-clay, which in comparison with the chalk is but a very juvenile deposit. You need go no further than your own seaboard for evidence of this fact. At one of the most charming spots on the coast of Norfolk, Cromer, you will see the boulder-clay forming a vast mass, which lies upon the chalk and must consequently have come into existence after it. Huge boulders of chalk are in fact included in the clay, and have evidently been brought to the position they now occupy by the same agency as that which has planted blocks of syenite from Norway side by side with them.

The chalk, then, is certainly older than the boulder-clay. If you ask how much, I will again take you no further than the same spot upon your own coasts for evidence. I have spoken of the boulder-clay and drift as resting upon the chalk. That is not strictly true. Interposed between the chalk and the drift is a comparatively insignificant layer, containing vegetable matter. But that layer tells a wonderful history. It is full of stumps of trees standing as they grew. Fir-trees are there with their cones, and hazel-bushes with their nuts; there stand the stools of oak- and yew-trees, beeches and alders. Hence this stratum is appropriately called the "forest-bed."

It is obvious that the chalk must have been upheaved and converted into dry land before the timber trees could grow upon it. As the boles of some of these trees are from two to three feet in diameter, it is no less clear that the dry land thus formed remained in the same conditions for long ages. And not only do the remains of stately oaks and well-grown firs testify to the duration of this condition of things, but additional evidence to the same effect is afforded by the abundant remains of elephants, rhinoceroses, hippopotamuses, and other great wild beasts, which it has yielded to the zealous search of such men as the Rev. Mr. Gunn. When you look at such a collection as he has formed, and bethink you that these elephantine bones did veritably carry their owners about, and these great grinders crunch, in the dark woods of which the forest-bed is now the only trace, it is impossible not to feel that they are as good evidence of the lapse of time as the annual rings of the tree stumps.

Thus there is a writing upon the wall of cliffs at Cromer, and whoso runs may read it. It tells us, with an authority which cannot be impeached, that the ancient sea-bed of the chalk sea was raised up, and remained dry land until it was covered with forest stocked with the great game, the spoils of which have rejoiced your geologists. How long it remained in that condition cannot be said; but "the whirligig of time brought its revenges" in those days as in these. That dry land, with the bones and teeth of generations of long-lived elephants, hidden away among the gnarled roots and dried leaves of its ancient trees, sank gradually to the bottom of the icy sea, which covered it with huge masses of drift and boulder-clay. Sea-beasts, such as the walrus, now restricted to the extreme north, paddled about where birds had twittered among the topmost twigs of the fir-trees. How long this state of things endured we know not, but at length it came to an end. The upheaved glacial mud hardened into the soil of modern Norfolk. Forests grew once more, the wolf and the beaver replaced the reindeer and the elephant; and at length what we call the history of England dawned.

Thus you have, within the limits of your own country, proof that the chalk can justly claim a very much greater antiquity than even the oldest physical traces of mankind. But we may go further and demonstrate, by evidence of the same authority as that which testifies to the existence of the father of men, that the chalk is vastly older than Adam himself. The *Book of Genesis* informs us that Adam, immediately upon his creation and before the appearance of Eve, was placed in the Garden of Eden. The problem of the geographical position of Eden has greatly vexed the spirits of the learned in such matters; but there is one point respecting which, so far as I know, no commentator has ever raised a doubt. This is that, of the four rivers which are said to run out of it, Euphrates and Hiddekel are identical with the rivers now known by the names of Euphrates and Tigris. But the whole country in which these mighty rivers take their origin, and through which they run, is composed of rocks which are either of the same age as the chalk or of later date. So that the chalk must not only have been formed, but after its formation the time required for the deposit of these later rocks and for their upheaval into dry land must have elapsed, before the smallest brook which feeds the swift stream of "the great river, the river of Babylon," began to flow.

Thus evidence which cannot be rebutted and which need not be strengthened, though if time permitted I might indefinitely increase its quantity, compels you to believe that the earth, from the time of the chalk to the present day, has been the theatre of a series of changes as

vast in their amount as they were slow in their progress. The area on which we stand has been first sea and then land, for at least four alternations, and has remained in each of these conditions for a period of great length. Nor have these wonderful metamorphoses of sea into land and of land into sea been confined to one corner of England. During the chalk period, or "cretaceous epoch," not one of the present great physical features of the globe was in existence. Our great mountain ranges, Pyrenees, Alps, Himalayas, Andes, have all been upheaved since the chalk was deposited and the cretaceous sea flowed over the sites of Sinai and Ararat. All this is certain, because rocks of cretaceous or still later date have shared in the elevatory movements which gave rise to these mountain chains, and may be found perched up, in some cases, many thousand feet high upon their flanks. And evidence of equal cogency demonstrates that, though in Norfolk the forest-bed rests directly upon the chalk, yet it does so, not because the period at which the forest grew immediately followed that at which the chalk was formed, but because an immense lapse of time, represented elsewhere by thousands of feet of rock, is not indicated at Cromer.

I must ask you to believe that there is no less conclusive proof that a still more prolonged succession of similar changes occurred before the chalk was deposited. Nor have we any reason to think that the first term in the series of these changes is known. The oldest sea-beds preserved to us are sands and mud and pebbles, the wear and tear of rocks which were formed in still older oceans.

But great as is the magnitude of these physical changes of the world, they have been accompanied by a no less striking series of modifications in its living inhabitants. All the great classes of animals, beasts of the field, fowls of the air, creeping things, and things which dwell in the waters, flourished upon the globe long ages before the chalk was deposited. Very few, however, if any, of these ancient forms of animal life were identical with those which now live. Certainly not one of the higher animals was of the same species as any of those now in existence. The beasts of the field, in the days before the chalk, were not our beasts of the field, nor the fowls of the air such as those which the eye of man has seen flying, unless his antiquity dates infinitely further back than we at present surmise. If we could be carried back into those times, we should be as one suddenly set down in Australia before it was colonized. We should see mammals, birds, reptiles, fishes, insects, snails, and the like, clearly recognizable as such, and yet not one of them would be just the same as those with which we are familiar, and many would be extremely different.

From that time to the present the population of the world has undergone slow and gradual but incessant changes. There has been no grand catastrophe—no destroyer has swept away the forms of life of one period and replaced them by a totally new creation: but one species has vanished, and another has taken its place; creatures of one type of structure have diminished, those of another have increased, as time has passed on. And thus, while the differences between the living creatures of the time before the chalk, and those of the present day, appear startling if placed side by side, we are led from one to the other by the most gradual progress, if we follow the course of Nature through the whole series of those relics of her operations which she has left behind. And it is by the population of the chalk sea that the ancient and the modern inhabitants of the world are most completely connected. The groups which are dying out flourish side by side with the groups which are now the dominant forms of life. Thus the chalk contains remains of those strange flying and swimming reptiles, the pterodactyl, the Ichthyosaurus, and the Plesiosaurus, which are found in no later deposits but abounded in preceding ages. The chambered shells called ammonites and belemnites, which are so characteristic of the period preceding the cretaceous, in like manner die with it.

But amongst these fading remainders of a previous state of things are some very modern forms of life, looking like Yankee pedlars among a tribe of Red Indians. Crocodiles of modern type appear; bony fishes, many of them very similar to existing species, almost supplant the forms of fish which predominate in more ancient seas; and many kinds of living shell-fish first became known to us in the chalk. The vegetation acquires a modern aspect. A few living animals are not even distinguishable, as species, from those which existed at that remote epoch. The Globigerina of the present day, for example, is not different specifically from that of the chalk; and the same may be said of many other Foraminiferae. I think it probable that critical and unprejudiced examination will show that more than one species of much higher animals have had a similar longevity; but the only example which I can at present give confidently is the snake's-head lamp-shell (*Terebratulina caput serpentis*), which lives in our English seas, and abounded (as *Terebratulina striata* of authors) in the chalk. The longest line of human ancestry must hide its diminished head before the pedigree of this insignificant shell-fish. We Englishmen are proud to have an ancestor who was present at the Battle of Hastings. The ancestors of *Terebratulina caput serpentis* may have been present at a battle of Ichthyosauriae in that part of the

sea which, when the chalk was forming, flowed over the site of Hastings. While all around has changed, this *Terebratulina* has peacefully propagated its species from generation to generation, and stands to this day as a living testimony to the continuity of the present with the past history of the globe.

Up to this moment I have stated, so far as I know, nothing but well-authenticated facts and the immediate conclusions which they force upon the mind. But the mind is so constituted that it does not willingly rest in facts and immediate causes, but seeks always after a knowledge of the remoter links in the chain of causation. Taking the many changes of any given spot of the earth's surface, from sea to land and from land to sea, as an established fact, we cannot refrain from asking ourselves how these changes have occurred. And when we have explained them—as they must be explained—by the alternate slow movements of elevation and depression which have affected the crust of the earth, we go still further back and ask, Why these movements?

I am not certain that any one can give you a satisfactory answer to that question. Assuredly I cannot. All that can be said, for certain, is that such movements are part of the ordinary course of nature, inasmuch as they are going on at the present time. Direct proof may be given that some parts of the land of the northern hemisphere are at this moment insensibly rising and others insensibly sinking; and there is indirect but perfectly satisfactory proof that an enormous area now covered by the Pacific has been deepened thousands of feet since the present inhabitants of that sea came into existence. Thus there is not a shadow of a reason for believing that the physical changes of the globe in past times have been effected by other than natural causes. Is there any more reason for believing that the concomitant modifications in the forms of the living inhabitants of the globe have been brought about in other ways?

Before attempting to answer this question let us try to form a distinct mental picture of what has happened in some special case. The crocodiles are animals which, as a group, have a very vast antiquity. They abounded ages before the chalk was deposited; they throng the rivers in warm climates at the present day. There is a difference in the form of the joints of the backbone, and in some minor particulars, between the crocodile of the present epoch and those which lived before the chalk; but in the cretaceous epoch, as I have already mentioned, the crocodiles had assumed the modern type of structure. Notwithstanding this the crocodiles of the chalk are not identically the same as those which lived in the times called "older tertiary," which succeeded the cretaceous

epoch; and the crocodiles of the older tertiaries are not identical with those of the newer tertiaries, nor are these identical with existing forms. (I leave open the question whether particular species may have lived on from epoch to epoch.) Thus each epoch has had its peculiar crocodiles, though all, since the chalk, have belonged to the modern type, and differ simply in their proportions and in such structural particulars as are discernible only to trained eyes.

How is the existence of this long succession of different species of crocodiles to be accounted for? Only two suppositions seem to be open to us—either each species of crocodile has been specially created, or it has arisen out of some pre-existing form by the operation of natural causes. Choose your hypothesis; I have chosen mine. I can find no warranty for believing in the distinct creation of a score of successive species of crocodiles in the course of countless ages of time. Science gives no countenance to such a wild fancy; nor can even the perverse ingenuity of a commentator pretend to discover this sense in the simple words in which the writer of *Genesis* records the proceedings of the fifth and sixth days of the Creation. On the other hand I see no good reason for doubting the necessary alternative that all these varied species have been evolved from pre-existing crocodilian forms by the operation of causes as completely a part of the common order of nature as those which have effected the changes of the inorganic world. Few will venture to affirm that the reasoning which applies to crocodiles loses its force among other animals or among plants. If one series of species has come into existence by the operation of natural causes, it seems folly to deny that all may have arisen in the same way.

A small beginning has led us to a great ending. If I were to put the bit of chalk with which we started, into the hot but obscure flame of burning hydrogen, it would presently shine like the sun. It seems to me that this physical metamorphosis is no false image of what has been the result of our subjecting it to a jet of fervent though nowise brilliant thought tonight. It has become luminous; and its clear rays, penetrating the abyss of the remote past, have brought within our ken some stages of the evolution of the earth; and in the shifting, "without haste but without rest," of the land and sea, as in the endless variation of the forms assumed by living beings, we have observed nothing but the natural product of the forces originally possessed by the substance of the universe.

Sir Francis Galton

1822–1911

Francis Galton was born near Birmingham, England, in 1822. He was educated at London and Cambridge; for a time he thought he would be a doctor, but soon decided to devote himself to science. He traveled to Africa and Spain and added to the geographical and anthropological knowledge of those areas. He was made a member of the Royal Society in 1856; the following year he settled in London and began his life's work on eugenics (a word he invented). He did research also on the weather, inventing the word anticyclone and doing work that led to the modern weather map. He discovered that fingerprints are unique to the person and pointed out their usefulness in the solution of crimes. He developed the composite photograph. In his work on eugenics and human heredity he invented many methods that are now commonplace. Among them were the questionnaire, various apparatus for measuring sensations, and a method of correlating statistical information that is still used.

He was the first "anthropometrist"–that is, man-measurer. He did not only measure man. He tried to measure things that no one thought could be measured, and succeeded in many cases. Thus a remarkably large number of branches of modern science stem from him.

Hereditary Genius, from which the following selection is taken, was published in 1869. It is his most famous book. Second to it, among many publications, is *Inquiries into Human Faculty and Its Development*, which appeared in 1883. He was knighted in 1909, and he died on January 17, 1911. In 1904, he had founded a eugenics laboratory in London and endowed it with forty thousand pounds.

Since the support for the thesis of *Hereditary Genius* is that eminent men tend to be related by blood, it should be noted

that Galton was the grandson of the poet-naturalist Erasmus Darwin, and thus the cousin of Charles Darwin. Descendants of the two men are among the leading scientists of our day.

I propose to show," says Galton, "that a man's natural abilities are derived by inheritance, under exactly the same limitations as are the form and physical features of the whole organic world." And he concludes: "I feel convinced that no man can achieve a very high reputation without being gifted with very high abilities; and I trust that reason has been given for the belief, that few who possess these very high abilities can fail in achieving eminence." These statements, and others like them in Galton's work, helped to generate several hotly argued modern controversies.

The first statement raises the question whether abilities are inherited or acquired; whether, that is, it is nature or nurture that determines the intelligence and talents that human beings have. Galton is clearly on the side of nature in this dispute; it is not, therefore, surprising that he has been accused of underestimating the role of environment in individual development. It is equally clear that both sides can be supported by plausible, if not finally convincing, arguments, and the reader might undertake, as an interesting exercise, the refutation of Galton's position as expressed in the following selection. But he should at the same time recognize that Galton's arguments are succinct and carefully marshalled. In particular, he should realize that Galton is admitting that circumstances can bring out in ordinary men talents and attributes that would otherwise not be visible. But it is impossible, Galton is also saying, to make a silk purse out of a sow's ear. The very greatest men of all, he insists, do not, and apparently cannot, spring from absolutely ordinary backgrounds.

Another question raised by Galton is whether genius often goes unnoted by the world. He admits that it may sometimes happen

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Notes from the artist: "A profile portrait of Galton, with a background figure suggesting his theory of eugenics. The female figure with the child is from a plate by Julius Casserius, an Italian anatomist of the sixteenth century."

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Francis Galton

that the extremely talented human being fails to achieve eminence. But the poet Gray's famous dictum—that

> Full many a flower is born to blush unseen,
> And waste its sweetness on the desert air—

that would seem to be pretty emphatically denied by Galton. Again, as in the nature-nurture argument, it would be difficult to prove the proposition either way. Galton cannot prove that the highly talented *never* fail to achieve distinction; on the other hand, it is almost impossible to give convincing examples of persons possessing great talents who failed to achieve it.

Though it may be impossible to make a final decision between the two positions, there may be more wisdom in taking Galton's than its opposite. The idea that genius can exist without recognition is so prone to an obvious kind of abuse—one may, for example, apply it to oneself—that it seems suspect. In the long run it may be more prudent to assume that the world is, after all, the best judge, and if a man does not attain its applause—though this may come after his death—then he never was worthy of it.

Other issues are touched upon by Galton's book. For example, he suggests that the honors examination in mathematics at Cambridge is a pretty fair gauge of abilities of all kinds, not only the mathematical. This assertion, which is also made by some modern framers of tests and examinations, has been hotly disputed—especially by the nonmathematical. But aside from the many controversial positions expressed in the selection, the reader will probably feel that not the least fascinating portions of it deal simply with the achievements of extraordinary human beings.

The Classification of Human Ability

from *Hereditary Genius*

I propose to show in this book that a man's natural abilities are derived by inheritance, under exactly the same limitations as are the form and physical features of the whole organic world. Consequently, as it is easy, notwithstanding those limitations, to obtain by careful selection a permanent breed of dogs or horses gifted with peculiar powers of running, or of doing anything else, so it would be quite practicable to produce a highly gifted race of men by judicious marriages during several consecutive generations. I shall show that social agencies of an ordinary character, whose influences are little suspected, are at this moment working towards the degradation of human nature, and that others are working towards its improvement. I conclude that each generation has enormous power over the natural gifts of those that follow, and maintain that it is a duty we owe to humanity to investigate the range of that power, and to exercise it in a way that, without being unwise towards ourselves, shall be most advantageous to future inhabitants of the earth.

I am aware that my views, which were first published four years ago in *Macmillan's Magazine* (in June and August 1865), are in contradiction to general opinion; but the arguments I then used have been since accepted, to my great gratification, by many of the highest authorities on heredity. In reproducing them, as I now do, in a much more elaborate form, and on a greatly enlarged basis of induction, I feel assured that, inasmuch as what I then wrote was sufficient to earn the acceptance of Mr. Darwin ("Domestication of Plants and Animals," ii, 7), the increased amount of evidence submitted in the present volume is not likely to be gainsaid.

The general plan of my argument is to show that high reputation is a pretty accurate test of high ability; next to discuss the relationships of a large body of fairly eminent men—namely, the judges of England from 1660 to 1868, the statesmen of the time of George III, and the premiers during the last 100 years—and to obtain from these a general survey of the laws of heredity in respect to genius. Then I shall examine, in order, the kindred of the most illustrious commanders, men of literature and of science, poets, painters, and musicians, of whom history speaks. I shall also discuss the kindred of a certain selection of divines and of modern scholars. Then will follow a short chapter, by way of comparison, on the hereditary transmission of physical gifts, as deduced from the relationships of certain classes of oarsmen and wrestlers. Lastly, I shall collate my results, and draw conclusions.

It will be observed that I deal with more than one grade of ability. Those upon whom the greater part of my volume is occupied, and on whose kinships my argument is most securely based, have been generally reputed as endowed by nature with extraordinary genius. There are so few of these men that, although they are scattered throughout the whole historical period of human existence, their number does not amount to more than 400, and yet a considerable proportion of them will be found to be interrelated.

Another grade of ability with which I deal is that which includes numerous highly eminent, and all the illustrious names of modern English history, whose immediate descendants are living among us, whose histories are popularly known, and whose relationships may readily be traced by the help of biographical dictionaries, peerages, and similar books of reference.

A third and lower grade is that of the English judges, massed together as a whole, for the purpose of the prefatory statistical inquiry of which I have already spoken. No one doubts that many of the ablest intellects of our race are to be found among the judges; nevertheless the *average* ability of a judge cannot be rated as equal to that of the lower of the two grades I have described.

I trust the reader will make allowance for a large and somewhat important class of omissions I have felt myself compelled to make when treating of the eminent men of modern days. I am prevented by a sense of decorum from quoting names of their relations in contemporary life who are not recognized as public characters, although their abilities may be highly appreciated in private life. Still less consistent with decorum would it have been to introduce the names of female relatives that stand

in the same category. My case is so overpoweringly strong that I am perfectly able to prove my point without having recourse to this class of evidence. Nevertheless, the reader should bear in mind that it exists; and I beg he will do me the justice of allowing that I have not overlooked the whole of the evidence that does not appear in my pages. I am deeply conscious of the imperfection of my work, but my sins are those of omission, not of commission. Such errors as I may and must have made, which give a fictitious support to my arguments, are, I am confident, out of all proportion fewer than such omissions of facts as would have helped to establish them.

I have taken little notice in this book of modern men of eminence who are not English, or at least well known to Englishmen. I feared, if I included large classes of foreigners, that I should make glaring errors. It requires a very great deal of labour to hunt out relationships, even with the facilities afforded to a countryman having access to persons acquainted with the various families; much more would it have been difficult to hunt out the kindred of foreigners. I should have especially liked to investigate the biographies of Italians and Jews, both of whom appear to be rich in families of high intellectual breeds. Germany and America are also full of interest. It is a little less so with respect to France, where the Revolution and the guillotine made sad havoc among the progeny of her abler races.

There is one advantage to a candid critic in my having left so large a field untouched; it enables me to propose a test that any well-informed reader may easily adopt who doubts the fairness of my examples. He may most reasonably suspect that I have been unconsciously influenced by my theories to select men whose kindred were most favourable to their support. If so, I beg he will test my impartiality as follows: Let him take a dozen names of his own selection, as the most eminent in whatever profession and in whatever country he knows most about, and let him trace out for himself their relations. It is necessary, as I find by experience, to take some pains to be sure that none, even of the immediate relatives, on either the male or female side, have been overlooked. If he does what I propose, I am confident he will be astonished at the completeness with which the results will confirm my theory. I venture to speak with assurance, because it has often occurred to me to propose this very test to incredulous friends, and invariably, so far as my memory serves me, as large a proportion of the men who were named were discovered to have eminent relations, as the nature of my views on heredity would have led me to expect.

CLASSIFICATION OF MEN ACCORDING TO THEIR REPUTATION

The arguments by which I endeavour to prove that genius is hereditary consist in showing how large is the number of instances in which men who are more or less illustrious have eminent kinsfolk. It is necessary to have clear ideas on the two following matters before my arguments can be rightly appreciated. The first is the degree of selection implied by the words "eminent" and "illustrious." Does "eminent" mean the foremost in a hundred, in a thousand, or in what other number of men? The second is the degree to which reputation may be accepted as a test of ability.

It is essential that I, who write, should have a minimum qualification distinctly before my eyes whenever I employ the phrases "eminent" and the like, and that the reader should understand as clearly as myself the value I attach to those qualifications. An explanation of these words will be the subject of the present chapter. A subsequent chapter will be given to the discussion of how far "eminence" may be accepted as a criterion of natural gifts. It is almost needless for me to insist that the subjects of these two chapters are entirely distinct.

I look upon social and professional life as a continuous examination. All are candidates for the good opinions of others, and for success in their several professions, and they achieve success in proportion as the general estimate is large of their aggregate merits. In ordinary scholastic examinations marks are allotted in stated proportions to various specified subjects—so many for Latin, so many for Greek, so many for English history, and the rest. The world, in the same way, but almost unconsciously, allots marks to men. It gives them for originality of conception, for enterprise, for activity and energy, for administrative skill, for various acquirements, for power of literary expression, for oratory, and much besides of general value, as well as for more specially professional merits. It does not allot these marks according to a proportion that can easily be stated in words, but there is a rough common-sense that governs its practice with a fair approximation to constancy. Those who have gained most of these tacit marks are ranked, by the common judgment of the leaders of opinion, as the foremost men of their day.

The metaphor of an examination may be stretched much further. As there are alternative groups in any one of which a candidate may obtain honours, so it is with reputations—they may be made in law, literature,

science, art, and in a host of other pursuits. Again, as the mere attainment of a general fair level will obtain no honours in an examination, no more will it do so in the struggle for eminence. A man must show conspicuous power in at least one subject in order to achieve a high reputation.

Let us see how the world classifies people, after examining each of them, in her patient, persistent manner, during the years of their manhood. How many men of "eminence" are there, and what proportion do they bear to the whole community?

I will begin by analysing a very painstaking biographical handbook, lately published by Routledge and Co., called "Men of the Time." Its intention, which is very fairly and honestly carried out, is to include none but those whom the world honours for their ability. The catalogue of names is 2,500, and a full half of it consists of American and Continental celebrities. It is well I should give in a foot-note [1] an analysis of its contents, in order to show the exhaustive character of its range. The numbers I have prefixed to each class are not strictly accurate, for I measured them off rather than counted them, but they are quite close enough. The same name often appears under more than one head.

On looking over the book, I am surprised to find how large a proportion of the "Men of the Time" are past middle age. It appears that in the cases of high (but by no means in that of the highest) merit, a man must outlive the age of fifty to be sure of being widely appreciated. It takes time for an able man, born in the humbler ranks of life, to emerge from them and to take his natural position. It would not, therefore, be just to compare the numbers of Englishmen in the book with that of the whole adult male population of the British Isles; but it is necessary to confine our examination to those of the celebrities who are past fifty years of age, and to compare their number with that of the whole male population who are also above fifty years. I estimate, from examining a large part

1. Contents of the *"Dictionary of Men of the Time,"* Ed. 1865:

62 actors, singers, dancers, etc.; 7 agriculturists; 71 antiquaries, archaeologists, numismatists, etc.; 20 architects; 120 artists (painters and designers); 950 authors; 400 divines; 43 engineers and mechanicians; 10 engravers; 140 lawyers, judges, barristers, and legists; 94 medical practitioners, physicians, surgeons, and physiologists; 39 merchants, capitalists, manufacturers, and traders; 168 military officers; 12 miscellaneous; 7 moral and metaphysical philosophers, logicians; 32 musicians and composers; 67 naturalists, botanists, zoologists, etc.; 36 naval officers; 40 philologists and ethnologists; 60 poets (but also included in authors); 60 political and social economists and philanthropists; 154 men of science, astronomers, chemists, geologists, mathematicians, etc.; 29 sculptors; 64 sovereigns, members of royal families, etc.; 376 statesmen, diplomatists, colonial governors, etc.; 76 travellers and geographers.

of the book, that there are about 850 of these men, and that 500 of them are decidedly well known to persons familiar with literary and scientific society. Now, there are about two millions of adult males in the British Isles above fifty years of age; consequently, the total number of the "Men of the Time" are as 425 to a million, and the more select part of them as 250 to a million.

The qualifications for belonging to what I call the more select part are, in my mind, that a man should have distinguished himself pretty frequently either by purely original work, or as a leader of opinion. I wholly exclude notoriety obtained by a single act. This is a fairly well-defined line, because there is not room for many men to be eminent. Each interest or idea has its mouthpiece, and a man who has attained and can maintain his position as the representative of a party or an idea naturally becomes much more conspicuous than his coadjutors who are nearly equal but inferior in ability. This is eminently the case in positions where eminence may be won by official acts. The balance may be turned by a grain that decides whether A, B, or C shall be promoted to a vacant post. The man who obtains it has opportunities of distinction denied to the others. I do not, however, take much note of official rank. People who have left very great names behind them have mostly done so through non-professional labours. I certainly should not include mere officials, except of the highest ranks, and in open professions, among my select list of eminent men.

Another estimate of the proportion of eminent men to the whole population was made on a different basis, and gave much the same result. I took the obituary of the year 1868, published in the *Times* on January 1, 1869, and found in it about fifty names of men of the more select class. This was in one sense a broader, and in another a more rigorous selection than that which I have just described. It was broader, because I included the names of many whose abilities were high, but who died too young to have earned the wide reputation they deserved; and it was more rigorous, because I excluded old men who had earned distinction in years gone by, but had not shown themselves capable in later times to come again to the front. On the first ground, it was necessary to lower the limit of the age of the population with whom they should be compared. Forty-five years of age seemed to me a fair limit, including, as it was supposed to do, a year or two of broken health preceding decease. Now, 210,000 males die annually in the British Isles above the age of forty-five; therefore, the ratio of the more select portion of the "Men of the Time" on these data is as 50 to 210,000, or as 238 to a million.

Thirdly, I consulted obituaries of many years back, when the population of these islands was much smaller, and they appeared to me to lead to similar conclusions, viz. that 250 to a million is an ample estimate.

There would be no difficulty in making a further selection out of these, to any degree of rigour. We could select the 200, the 100, or the fifty best out of the 250, without much uncertainty. But I do not see my way to work downwards. If I were asked to choose the thousand per million best men, I should feel we had descended to a level where there existed no sure data for guidance, where accident and opportunity had undue influence, and where it was impossible to distinguish general eminence from local reputation, or from mere notoriety.

These considerations define the sense in which I propose to employ the word "eminent." When I speak of an eminent man, I mean one who has achieved a position that is attained by only 250 persons in each million of men, or by one person in each 4,000. 4,000 is a very large number–difficult for persons to realize who are not accustomed to deal with great assemblages. On the most brilliant of starlight nights there are never so many as 4,000 stars visible to the naked eye at the same time; yet we feel it to be an extraordinary distinction to a star to be accounted as the brightest in the sky. This, be it remembered, is my narrowest area of selection. I propose to introduce no name whatever into my lists of kinsmen (unless it be marked off from the rest by brackets) that is less distinguished.

The mass of those with whom I deal are far more rigidly selected–many are as one in a million, and not a few as one of many millions. I use the term "illustrious" when speaking of these. They are men whom the whole intelligent part of the nation mourns when they die; who have, or deserve to have, a public funeral; and who rank in future ages as historical characters.

Permit me to add a word upon the meaning of a million, being a number so enormous as to be difficult to conceive. It is well to have a standard by which to realize it. Mine will be understood by many Londoners; it is as follows: One summer day I passed the afternoon in Bushey Park to see the magnificent spectacle of its avenue of horse-chestnut trees, a mile long, in full flower. As the hours passed by, it occurred to me to try to count the number of spikes of flowers facing the drive on one side of the long avenue–I mean all the spikes that were visible in full sunshine on one side of the road. Accordingly, I fixed upon a tree of average bulk and flower, and drew imaginary lines–first halving the tree, then quartering, and so on, until I arrived at a subdivision that was not

too large to allow of my counting the spikes of flowers it included. I did this with three different trees, and arrived at pretty much the same result: as well as I recollect, the three estimates were as nine, ten, and eleven. Then I counted the trees in the avenue, and, multiplying all together, I found the spikes to be just about 100,000 in number. Ever since then, whenever a million is mentioned, I recall the long perspective of the avenue of Bushey Park, with its stately chestnuts clothed from top to bottom with spikes of flowers, bright in the sunshine, and I imagine a similarly continuous floral band, of ten miles in length.

In illustration of the value of the extreme rigour implied by a selection of one in a million, I will take the following instance. The Oxford and Cambridge boat race excites almost a national enthusiasm, and the men who represent their universities as competing crews have good reason to be proud of being the selected champions of such large bodies. The crew of each boat consists of eight men, selected out of about 800 students; namely, the available undergraduates of about two successive years. In other words, the selection that is popularly felt to be so strict, is only as one in a hundred. Now, suppose there had been so vast a number of universities that it would have been possible to bring together 800 men, each of whom had pulled in a university crew, and that from this body the eight best were selected to form a special crew of comparatively rare merit: the selection of each of these would be as 1 to 10,000 ordinary men. Let this process be repeated, and then, and not till then, do you arrive at a superlative crew, representing selections of one in a million. This is a perfectly fair deduction, because the youths at the universities are a haphazard collection of men, so far as regards their thews and sinews. No one is sent to a university on account of his powerful muscle. Or, to put the same facts into another form: it would require a period of no less than 100 years before either university could furnish eight men, each of whom would have sufficient boating eminence to rank as one of the medium crew. Ten thousand years must elapse before eight men could be furnished, each of whom would have the rank of the superlative crew.

It is, however, quite another matter with respect to brain power, for, as I shall have occasion to show, the universities attract to themselves a large proportion of the eminent scholastic talent of all England. There are nearly a quarter of a million males in Great Britain who arrive each year at the proper age for going to the university: therefore, if Cambridge, for example, received only one in every five of the ablest scholastic intellects, she would be able, in every period of twenty

years, to boast of the fresh arrival of an undergraduate, the rank of whose scholastic eminence was that of one in a million.

CLASSIFICATION OF MEN ACCORDING TO THEIR NATURAL GIFTS

I have no patience with the hypothesis occasionally expressed, and often implied, especially in tales written to teach children to be good, that babies are born pretty much alike, and that the sole agencies in creating differences between boy and boy, and man and man, are steady application and moral effort. It is in the most unqualified manner that I object to pretentions of natural equality. The experiences of the nursery, the school, the university, and of professional careers, are a chain of proofs to the contrary. I acknowledge freely the great power of education and social influences in developing the active powers of the mind, just as I acknowledge the effect of use in developing the muscles of a blacksmith's arm, and no further. Let the blacksmith labour as he will, he will find there are certain feats beyond his power that are well within the strength of a man of herculean make, even although the latter may have led a sedentary life. Some years ago, the Highlanders held a grand gathering in Holland Park, where they challenged all England to compete with them in their games of strength. The challenge was accepted, and the well-trained men of the hills were beaten in the foot-race by a youth who was stated to be a pure Cockney, the clerk of a London banker.

Everybody who has trained himself to physical exercises discovers the extent of his muscular powers to a nicety. When he begins to walk, to row, to use the dumb-bells, or to run, he finds to his great delight that his thews strengthen, and his endurance of fatigue increases day after day. So long as he is a novice, he perhaps flatters himself there is hardly an assignable limit to the education of his muscles; but the daily gain is soon discovered to diminish, and at last it vanishes altogether. His maximum performance becomes a rigidly determinate quantity. He learns to an inch, how high or how far he can jump, when he has attained the highest state of training. He learns to half a pound, the force he can exert on the dynamometer, by compressing it. He can strike a blow against the machine used to measure impact, and drive its index to a certain graduation, but no further. So it is in running, in rowing, in walking, and in every other form of physical exertion. There is a definite limit to the muscular powers of every man, which he cannot by any education or exertion overpass.

This is precisely analogous to the experience that every student has had of the working of his mental powers. The eager boy, when he first goes to school and confronts intellectual difficulties, is astonished at his progress. He glories in his newly-developed mental grip and growing capacity for application, and, it may be, fondly believes it to be within his reach to become one of the heroes who have left their mark upon the history of the world. The years go by; he competes in the examinations of school and college, over and over again with his fellows, and soon finds his place among them. He knows he can beat such and such of his competitors; that there are some with whom he runs on equal terms, and others whose intellectual feats he cannot even approach. Probably his vanity still continues to tempt him, by whispering in a new strain. It tells him that classics, mathematics, and other subjects taught in universities, are mere scholastic specialties, and no test of the more valuable intellectual powers. It reminds him of numerous instances of persons who had been unsuccessful in the competitions of youth, but who had shown powers in after-life that made them the foremost men of their age. Accordingly, with newly furbished hopes, and with all the ambition of twenty-two years of age, he leaves his university and enters a larger field of competition. The same kind of experience awaits him here that he has already gone through. Opportunities occur—they occur to every man—and he finds himself incapable of grasping them. He tries, and is tried in many things. In a few years more, unless he is incurably blinded by self-conceit, he learns precisely of what performances he is capable, and what other enterprises lie beyond his compass. When he reaches mature life, he is confident only within certain limits, and knows, or ought to know, himself just as he is probably judged of by the world, with all his unmistakeable weakness and all his undeniable strength. He is no longer tormented into hopeless efforts by the fallacious promptings of overweening vanity, but he limits his undertakings to matters below the level of his reach, and finds true moral repose in an honest conviction that he is engaged in as much good work as his nature has rendered him capable of performing.

There can hardly be a surer evidence of the enormous difference between the intellectual capacity of men, than the prodigious differences in the numbers of marks obtained by those who gain mathematical honours at Cambridge. I therefore crave permission to speak at some length upon this subject, although the details are dry and of little general interest. There are between 400 and 450 students who take their degrees

in each year, and of these, about 100 succeed in gaining honours in mathematics, and are ranged by the examiners in strict order of merit. About the first forty of those who take mathematical honours are distinguished by the title of wranglers, and it is a decidedly creditable thing to be even a low wrangler; it will secure a fellowship in a small college. It must be carefully borne in mind that the distinction of being the first in this list of honours, or what is called the senior wrangler of the year, means a vast deal more than being the foremost mathematician of 400 or 450 men taken at haphazard. No doubt the large bulk of Cambridge men are taken almost at haphazard. A boy is intended by his parents for some profession; if that profession be either the church or the bar, it used to be almost requisite, and it is still important, that he should be sent to Cambridge or Oxford. These youths may justly be considered as having been taken at haphazard. But there are many others who have fairly won their way to the universities, and are therefore selected from an enormous area. Fully one-half of the wranglers have been boys of note at their respective schools, and, conversely, almost all boys of note at schools find their way to the universities. Hence it is that among their comparatively small number of students, the universities include the highest youthful scholastic ability of all England. The senior wrangler, in each successive year, is the chief of these as regards mathematics, and this, the highest distinction, is, or was, continually won by youths who had no mathematical training of importance before they went to Cambridge. All their instruction had been received during the three years of their residence at the university. Now, I do not say anything here about the merits or demerits of Cambridge mathematical studies having been directed along a too narrow groove, or about the presumed disadvantages of ranging candidates in strict order of merit, instead of grouping them, as at Oxford, in classes, where their names appear alphabetically arranged. All I am concerned with here are the results; and these are most appropriate to my argument. The youths start on their three years' race as fairly as possible. They are then stimulated to run by the most powerful inducements, namely, those of competition, of honour, and of future wealth (for a good fellowship *is* wealth); and at the end of the three years they are examined most rigorously according to a system that they all understand and are equally well prepared for. The examination lasts five and a half hours a day for eight days. All the answers are carefully marked by the examiners, who add up the marks at the end and range the candidates in strict order of merit. The fairness

and thoroughness of Cambridge examinations have never had a breath of suspicion cast upon them.

Unfortunately for my purposes, the marks are not published. They are not even assigned on a uniform system, since each examiner is permitted to employ his own scale of marks; but whatever scale he uses, the results as to proportional merit are the same. I am indebted to a Cambridge examiner for a copy of his marks in respect to two examinations, in which the scales of marks were so alike as to make it easy, by a slight proportional adjustment, to compare the two together. This was, to a certain degree, a confidential communication, so that it would be improper for me to publish anything that would identify the years to which these marks refer. I simply give them as groups of

Scale of Merit among the Men
Who Obtain Mathematical Honours at Cambridge

(The results of two years are thrown into a single table.
The total number of marks obtainable in each year was 17,000.)

Number of marks obtained by candidates.	Number of candidates in the two years, taken together, who obtained those marks.[2]
Under 500	24
500 to 1,000	74
1,000 to 1,500	38
1,500 to 2,000	21
2,000 to 2,500	11
2,500 to 3,000	8
3,000 to 3,500	11
3,500 to 4,000	5
4,000 to 4,500	2
4,500 to 5,000	1
5,000 to 5,500	3
5,500 to 6,000	1
6,000 to 6,500	0
6,500 to 7,000	0
7,000 to 7,500	0
7,500 to 8,000	1
	200

2. I have included in this table only the first 100 men in each year. The omitted residue is too small to be important. I have omitted it lest, if the precise numbers of honour men were stated, those numbers would have served to identify the years. For reasons already given, I desire to afford no data to serve that purpose.

figures, sufficient to show the enormous differences of merit. The lowest man in the list of honours gains less than 300 marks; the lowest wrangler gains about 1,500 marks; and the senior wrangler, in one of the lists now before me, gained more than 7,500 marks. Consequently, the lowest wrangler has more than five times the merit of the lowest junior optime, and less than one-fifth the merit of the senior wrangler.

The precise number of marks obtained by the senior wrangler in the more remarkable of these two years was 7,634; by the second wrangler in the same year, 4,123; and by the lowest man in the list of honours, only 237. Consequently, the senior wrangler obtained nearly twice as many marks as the second wrangler, and more than thirty-two times as many as the lowest man. I have received from another examiner the marks of a year in which the senior wrangler was conspicuously eminent. He obtained 9,422 marks, while the second in the same year—whose merits were by no means inferior to those of second wranglers in general—obtained only 5,642. The man at the bottom of the same honour list had only 309 marks, or one-thirtieth the number of the senior wrangler. I have some particulars of a fourth very remarkable year, in which the senior wrangler obtained no less than ten times as many marks as the second wrangler, in the "problem paper." Now, I have discussed with practised examiners the question of how far the numbers of marks may be considered as proportionate to the mathematical power of the candidate, and am assured they are strictly proportionate as regards the lower places, but do not afford full justice to the highest. In other words, the senior wranglers above mentioned had *more* than thirty, or thirty-two times the ability of the lowest men on the lists of honours. They would be able to grapple with problems more than thirty-two times as difficult; or when dealing with subjects of the same difficulty, but intelligible to all, would comprehend them more rapidly in perhaps the square root of that proportion. It is reasonable to expect that marks would do some injustice to the very best men, because a very large part of the time of the examination is taken up by the mechanical labour of writing. Whenever the thought of the candidate outruns his pen, he gains no advantage from his excess of promptitude in conception. I should, however, mention that some of the ablest men have shown their superiority by comparatively little writing. They find their way at once to the root of the difficulty in the problems that are set, and, with a few clean, apposite, powerful strokes, succeed in proving they can overthrow it, and then they go on to another question. Every word they write tells. Thus, the late

Mr. H. Leslie Ellis, who was a brilliant senior wrangler in 1840, and whose name is familiar to many generations of Cambridge men as a prodigy of universal genius, did not even remain during the full period in the examination room: his health was weak, and he had to husband his strength.

The mathematical powers of the last man on the list of honours, which are so low when compared with those of a senior wrangler, are mediocre, or even above mediocrity, when compared with the gifts of Englishmen generally. Though the examination places 100 honour men above him, it puts no less than 300 "poll men" below him. Even if we go so far as to allow that 200 out of the 300 refuse to work hard enough to get honours, there will remain 100 who, even if they worked hard, could not get them. Every tutor knows how difficult it is to drive abstract conceptions, even of the simplest kind, into the brains of most people–how feeble and hesitating is their mental grasp–how easily their brains are mazed–how incapable they are of precision and soundness of knowledge. It often occurs to persons familiar with some scientific subject to hear men and women of mediocre gifts relate to one another what they have picked up about it from some lecture–say at the Royal Institution, where they have sat for an hour listening with delighted attention to an admirably lucid account, illustrated by experiments of the most perfect and beautiful character, in all of which they expressed themselves intensely gratified and highly instructed. It is positively painful to hear what they say. Their recollections seem to be a mere chaos of mist and misapprehension, to which some sort of shape and organization has been given by the action of their own pure fancy, altogether alien to what the lecturer intended to convey. The average mental grasp even of what is called a well-educated audience, will be found to be ludicrously small when rigorously tested.

In stating the differences between man and man, let it not be supposed for a moment that mathematicians are necessarily one-sided in their natural gifts. There are numerous instances of the reverse, of whom the following will be found, as instances of hereditary genius, in the appendix to my chapter on Science. I would especially name Leibnitz, as being universally gifted; but Ampère, Arago, Condorcet, and D'Alembert, were all of them very far more than mere mathematicians. Nay, since the range of examination at Cambridge is so extended as to include other subjects besides mathematics, the differences of ability between the highest and lowest of the successful candidates is yet more glaring than what I have already described. We still find, on the one hand,

mediocre men, whose whole energies are absorbed in getting their 237 marks for mathematics; and, on the other hand, some few senior wranglers who are at the same time high classical scholars and much more besides. Cambridge has afforded such instances. Its lists of classical honours are comparatively of recent date, but other evidence is obtainable from earlier times of their occurrence. Thus, Dr. George Butler, the Head Master of Harrow for very many years, including the period when Byron was a schoolboy (father of the present Head Master, and of other sons, two of whom are also head masters of great public schools), must have obtained that classical office on account of his eminent classical ability; but Dr. Butler was also senior wrangler in 1794, the year when Lord Chancellor Lyndhurst was second. Both Dr. Kaye, the late bishop of Lincoln, and Sir E. Alderson, the late judge, were the senior wranglers and the first classical prizemen of their respective years. Since 1824, when the classical tripos was first established, the late Mr. Goulburn (son of the Right Hon. H. Goulburn, Chancellor of the Exchequer) was second wrangler in 1835, and senior classic of the same year. But in more recent times, the necessary labour of preparation, in order to acquire the highest mathematical places, has become so enormous that there has been a wider differentiation of studies. There is no longer *time* for a man to acquire the necessary knowledge to succeed to the first place in more than one subject. There are, therefore, no instances of a man being absolutely first in both examinations, but a few can be found of high eminence in both classics and mathematics, as a reference to the lists published in the "Cambridge Calendar" will show. The best of these more recent degrees appears to be that of Dr. Barry, late principal of Cheltenham, and now principal of King's College, London (the son of the eminent architect, Sir Charles Barry, and brother of Mr. Edward Barry, who succeeded his father as architect). He was fourth wrangler and seventh classic of his year.

In whatever way we may test ability, we arrive at equally enormous intellectual differences. Lord Macaulay . . . had one of the most tenacious of memories. He was able to recall many pages of hundreds of volumes by various authors, which he had acquired by simply reading them over. An average man could not certainly carry in his memory one thirty-second—ay, or one hundredth—part as much as Lord Macaulay. The father of Seneca had one of the greatest memories on record in ancient times. . . . Porson, the Greek scholar, was remarkable for this gift, and, I may add, the "Porson memory" was hereditary in that family. In statesmanship, generalship, literature, science, poetry, art, just the

same enormous differences are found between man and man; and numerous instances recorded in this book, will show in how small degree, eminence, either in these or any other class of intellectual powers, can be considered as due to purely special powers. They are rather to be considered in those instances as the result of concentrated efforts, made by men who are widely gifted. People lay too much stress on apparent specialities, thinking over rashly that, because a man is devoted to some particular pursuit, he could not possibly have succeeded in anything else. They might just as well say that, because a youth had fallen desperately in love with a brunette, he could not possibly have fallen in love with a blonde. He may or may not have more natural liking for the former type of beauty than the latter, but it is as probable as not that the affair was mainly or wholly due to a general amorousness of disposition. It is just the same with special pursuits. A gifted man is often capricious and fickle before he selects his occupation, but when it has been chosen, he devotes himself to it with a truly passionate ardour. After a man of genius has selected his hobby, and so adapted himself to it as to seem unfitted for any other occupation in life, and to be possessed of but one special aptitude, I often notice, with admiration, how well he bears himself when circumstances suddenly thrust him into a strange position. He will display an insight into new conditions, and a power of dealing with them, with which even his most intimate friends were unprepared to accredit him. Many a presumptuous fool has mistaken indifference and neglect for incapacity; and in trying to throw a man of genius on ground where he was unprepared for attack, has himself received a most severe and unexpected fall. I am sure that no one who has had the privilege of mixing in the society of the abler men of any great capital, or who is acquainted with the biographies of the heroes of history, can doubt the existence of grand human animals, of natures pre-eminently noble, of individuals born to be kings of men. I have been conscious of no slight misgiving that I was committing a kind of sacrilege whenever, in the preparation of materials for this book, I had occasion to take the measurement of modern intellects vastly superior to my own, or to criticise the genius of the most magnificent historical specimens of our race. It was a process that constantly recalled to me a once familiar sentiment in bygone days of African travel, when I used to take altitudes of the huge cliffs that domineered above me as I travelled along their bases, or to map the mountainous landmarks of unvisited tribes, that loomed in faint grandeur beyond my actual horizon.

I have not cared to occupy myself much with people whose gifts are

below the average, but they would be an interesting study. The number of idiots and imbeciles among the twenty million inhabitants of England and Wales is approximately estimated at 50,000, or as 1 in 400. Dr. Seguin, a great French authority on these matters, states that more than thirty per cent of idiots and imbeciles, put under suitable instruction, have been taught to conform to social and moral law, and rendered capable of order, of good feeling, and of working like *the third* of an average man. He says that more than forty per cent have become capable of the ordinary transactions of life, under friendly control; of understanding moral and social abstractions, and of working like *two-thirds* of a man. And, lastly, that from twenty-five to thirty per cent come nearer and nearer to the standard of manhood, till some of them will defy the scrutiny of good judges, when compared with ordinary young men and women. In the order next above idiots and imbeciles are a large number of milder cases scattered among private families and kept out of sight, the existence of whom is, however, well known to relatives and friends; they are too silly to take a part in general society, but are easily amused with some trivial, harmless occupation. Then comes a class of whom the Lord Dundreary of the famous play may be considered a representative; and so, proceeding through successive grades, we gradually ascend to mediocrity. I know two good instances of hereditary silliness short of imbecility, and have reason to believe I could easily obtain a large number of similar facts.

To conclude, the range of mental power between–I will not say the highest Caucasian and the lowest savage–but between the greatest and least of English intellects, is enormous. There is a continuity of natural ability reaching from one knows not what height, and descending to one can hardly say what depth. I propose in this chapter to range men according to their natural abilities, putting them into classes separated by equal degrees of merit, and to show the relative number of individuals included in the several classes. Perhaps some person might be inclined to make an offhand guess that the number of men included in the several classes would be pretty equal. If he thinks so, I can assure him he is most egregiously mistaken.

The method I shall employ for discovering all this is an application of the very curious theoretical law of "deviation from an average." First, I will explain the law, and then I will show that the production of natural intellectual gifts comes justly within its scope.

The law is an exceedingly general one. M. Quetelet, the Astronomer-Royal of Belgium, and the greatest authority on vital and social statistics,

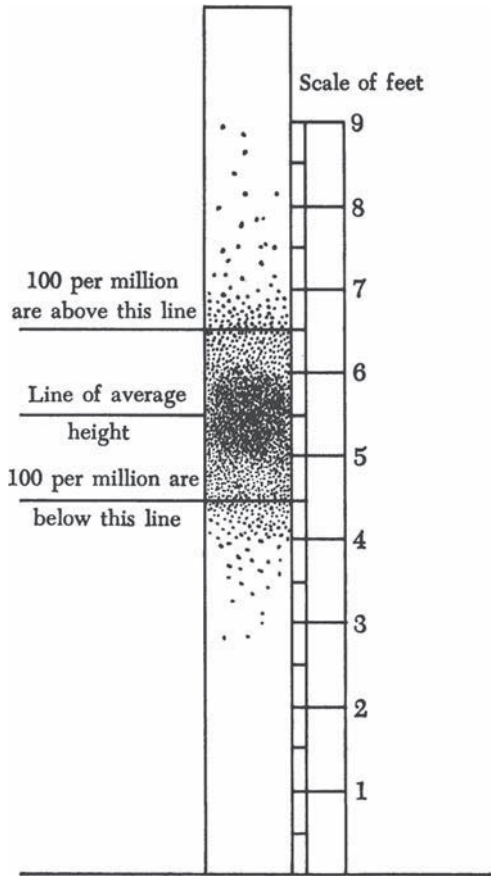
has largely used it in his inquiries. He has also constructed numerical tables, by which the necessary calculations can be easily made, whenever it is desired to have recourse to the law. Those who wish to learn more than I have space to relate should consult his work, which is a very readable octavo volume, and deserves to be far better known to statisticians than it appears to be. Its title is *Letters on Probabilities*, translated by Downes. (Layton and Co., London, 1849.)

So much has been published in recent years about statistical deductions, that I am sure the reader will be prepared to assent freely to the following hypothetical case: Suppose a large island inhabited by a single race, who intermarried freely, and who had lived for many generations under constant conditions; then the average height of the male adults of that population would undoubtedly be the same year after year. Also—still arguing from the experience of modern statistics, which are found to give constant results in far less carefully-guarded examples—we should undoubtedly find, year after year, the same proportion maintained between the number of men of different heights. I mean, if the average stature was found to be sixty-six inches, and if it was also found in any one year that 100 per million exceeded seventy-eight inches, the same proportion of 100 per million would be closely maintained in all other years. An equal constancy of proportion would be maintained between any other limits of height we pleased to specify, as between seventy-one and seventy-two inches; between seventy-two and seventy-three inches; and so on. Statistical experiences are so invariably confirmatory of what I have stated would probably be the case, as to make it unnecessary to describe analogous instances. Now, at this point, the law of deviation from an average steps in. It shows that the number per million whose heights range between seventy-one and seventy-two inches (or between any other limits we please to name) can be *predicted* from the previous datum of the average, and of any one other fact, such as that of 100 per million exceeding seventy-eight inches.

The appended diagram will make this more intelligible. Suppose a million of the men to stand in turns, with their backs against a vertical board of sufficient height, and their heights to be dotted off upon it. The board would then present the appearance shown in the diagram. The line of average height is that which divides the dots into two equal parts, and stands, in the case we have assumed, at the height of sixty-six inches. The dots will be found to be ranged so symmetrically on either side of the line of average, that the lower half of the diagram will be almost a precise reflection of the upper. Next, let a hundred dots be

counted from above downwards, and let a line be drawn below them. According to the conditions, this line will stand at the height of seventy-eight inches. Using the data afforded by these two lines, it is possible, by the help of the law of deviation from an average, to reproduce, with extraordinary closeness, the entire system of dots on the board.

M. Quetelet gives tables in which the uppermost line, instead of cutting off 100 in a million, cuts off only one in a million. He divides the intervals between that line and the line of average, into eighty equal divisions, and gives the number of dots that fall within each of those divisions. It is easy, by the help of his tables, to calculate what would occur under any other system of classification we pleased to adopt.



This law of deviation from an average is perfectly general in its application. Thus, if the marks had been made by bullets fired at a horizontal line stretched in front of the target, they would have been distributed according to the same law. Wherever there is a large number of similar events, each due to the resultant influences of the same variable conditions, two effects will follow. First, the average value of those events will be constant; and, secondly, the deviations of the several events from the average, will be governed by this law (which is, in principle, the same as that which governs runs of luck at a gaming-table).

The nature of the conditions affecting the several events must, I say, be the same. It clearly would not be proper to combine the heights of men belonging to two dissimilar races, in the expectation that the compound results would be governed by the same constants. A union of two dis-

similar systems of dots would produce the same kind of confusion as if half the bullets fired at a target had been directed to one mark, and the other half to another mark. Nay, an examination of the dots would show to a person, ignorant of what had occurred, that such had been the case, and it would be possible, by aid of the law, to disentangle two or any moderate number of superimposed series of marks. The law may, therefore, be used as a most trustworthy criterion, whether or no the events of which an average has been taken, are due to the same or to dissimilar classes of conditions.

I selected the hypothetical case of a race of men living on an island and freely intermarrying, to ensure the conditions under which they were all supposed to live, being uniform in character. It will now be my aim to show there is sufficient uniformity in the inhabitants of the British Isles to bring them fairly within the grasp of this law.

For this purpose, I first call attention to an example given in Quetelet's book. It is of the measurements of the circumferences of the chests of a large number of Scotch soldiers. The Scotch are by no means a strictly uniform race, nor are they exposed to identical conditions. They are a mixture of Celts, Danes, Anglo-Saxons, and others, in various proportions, the Highlanders being almost purely Celts. On the other hand,

Measures of the chest in inches.	Number of men per 1,000 by experience.	Number of men per 1,000 by calculation.	Measures of the chest in inches.	Number of men per 1,000 by experience.	Number of men per 1,000 by calculation.
33	5	7	41	1,628	1,675
34	31	29	42	1,148	1,096
35	141	110	43	645	560
36	322	323	44	160	221
37	732	732	45	87	69
38	1,305	1,333	46	38	16
39	1,867	1,838	47	7	3
40	1,882	1,987	48	2	1

these races, though diverse in origin, are not very dissimilar in character. Consequently, it will be found that their deviations from the average follow theoretical computations with remarkable accuracy. The instance is as [shown]. M. Quetelet obtained his facts from the thirteenth volume of the *Edinburgh Medical Journal*, where the measurements are given in respect to 5,738 soldiers, the results being grouped in order of

magnitude, proceeding by differences of one inch. Professor Quetelet compares these results with those that his tables give, and here is the result. The marvellous accordance between fact and theory must strike the most unpractised eye. I should say that, for the sake of convenience, both the measurements and calculations have been reduced to per thousandths.

I will now take a case where there is a greater dissimilarity in the elements of which the average has been taken. It is the height of 100,000 French conscripts. There is fully as much variety in the French as in the English, for it is not very many generations since France was divided into completely independent kingdoms. Among its peculiar races are those of Normandy, Brittany, Alsatia, Provence, Bearne, Auvergne—each with their special characteristics; yet the following table shows a most striking agreement between the results of experience compared with those derived by calculation, from a purely theoretical hypothesis:

Height of men in inches.	Number of men.	
	Measured.	Calculated.
Under 61.8	28,620	26,345
61.8 to 62.9	11,580	13,182
62.9 to 63.9	13,990	14,502
63.9 to 65.0	14,410	13,982
65.0 to 66.1	11,410	11,803
66.1 to 67.1	8,780	8,725
67.1 to 68.2	5,530	5,527
68.2 to 69.3	3,190	3,187
Above 69.3	2,490	2,645

The greatest differences are in the lowest ranks. They include the men who were rejected from being too short for the army. M. Quetelet boldly ascribes these differences to the effect of fraudulent returns. It certainly seems that men have been improperly taken out of the second rank and put into the first, in order to exempt them from service. Be this as it may, the coincidence of fact with theory is, in this instance also, quite close enough to serve my purpose.

I argue from the results obtained from Frenchmen and from Scotchmen, that, if we had measurements of the adult males in the British Isles, we should find those measurements to range in close accordance

with the law of deviation from an average, although our population is as much mingled as I described that of Scotland to have been, and although Ireland is mainly peopled with Celts. Now, if this be the case with stature, then it will be true as regards every other physical feature–as circumference of head, size of brain, weight of grey matter, number of brain fibres, etc.; and thence, by a step on which no physiologist will hesitate, as regards mental capacity.

This is what I am driving at–that analogy clearly shows there must be a fairly constant average mental capacity in the inhabitants of the British Isles, and that the deviations from that average–upwards towards genius, and downwards towards stupidity–must follow the law that governs deviations from all true averages.

I have, however, done somewhat more than rely on analogy, by discussing the results of those examinations in which the candidates had been derived from the same classes. Most persons have noticed the lists of successful competitors for various public appointments that are published from time to time in the newspapers, with the marks gained by each candidate attached to his name. These lists contain far too few names to fall into such beautiful accordance with theory, as was the case with the Scotch soldiers. There are rarely more than 100 names in any one of these examinations, while the chests of no less than 5,700 Scotchmen were measured. I cannot justly combine the marks of several independent examinations into one fagot, for I understand that different examiners are apt to have different figures of merit; so each examination was analysed separately. The following is a calculation I made on the examination last before me; it will do as well as any other. It was for admission into the Royal Military College at Sandhurst, December, 1868. The marks obtained were clustered most thickly about 3,000, so I take that number as representing the average ability of the candidates. From this datum, and from the fact that no candidate obtained more than 6,500 marks, I computed the column B in the following table, by the help of Quetelet's numbers. It will be seen that column B accords with column A quite as closely as the small number of persons examined could have led us to expect.

The symmetry of the descending branch has been rudely spoilt by the conditions stated at the foot of column A. There is, therefore, little room for doubt, if everybody in England had to work up some subject and then to pass before examiners who employed similar figures of merit, that their marks would be found to range, according to the law of

deviation from an average, just as rigorously as the heights of French conscripts, or the circumferences of the chests of Scotch soldiers.

Number of marks obtained by the Candidates.	Number of Candidates who obtained those marks.	
	A. According to fact.	B. According to theory.
6,500 and above 5,800 to 6,500 5,100 to 5,800 4,400 to 5,100 3,700 to 4,400 3,000 to 3,700 2,300 to 3,000 1,600 to 2,300	0 1 3 6 11 22 22 8 } 73	0 1 5 8 13 16 16 13 } 72
1,100 to 1,600 400 to 1,100 Below 400	Either did not venture to compete, or were plucked.	8 5 1

The number of grades into which we may divide ability is purely a matter of option. We may consult our convenience by sorting Englishmen into a few large classes, or into many small ones. I will select a system of classification that shall be easily comparable with the numbers of eminent men, as determined in the previous chapter. We have seen that 250 men per million become eminent; accordingly, I have so contrived the classes in the following table [p. 250] that the two highest, F and G, together with X (which includes all cases beyond G, and which are unclassed), shall amount to about that number—namely to 248 per million.

It will, I trust, be clearly understood that the numbers of men in the several classes in my table depend on no uncertain hypothesis. They are determined by the assured law of deviations from an average. It is an absolute fact that if we pick out of each million the one man who is naturally the ablest, and also the one man who is the most stupid, and divide the remaining 999,998 men into fourteen classes, the average ability in each being separated from that of its neighbours by *equal grades*, then the numbers in each of those classes will, on the average

Grades of natural ability, separated by equal intervals.		Numbers of men comprised in the several grades of natural ability, whether in respect to their general powers, or to special aptitudes.							
		Proper-tionate, viz. one in	In each million of the same age.	In total male population of the United Kingdom, say 15 millions, of the undermentioned ages:–					
Below average.	Above average.			20–30	30–40	40–50	50–60	60–70	70–80
a	A	4	256,791	651,000	495,000	391,000	268,000	171,000	77,000
b	B	6	161,279	469,000	312,000	246,000	168,000	107,000	48,000
c	C	16	63,563	161,000	123,000	97,000	66,000	42,000	19,000
d	D	64	15,696	39,800	30,300	23,900	16,400	10,400	4,700
e	E	413	2,423	6,100	4,700	3,700	2,520	1,600	729
f	F	4,300	233	590	450	355	243	155	70
g	G	79,000	14	35	27	21	15	9	4
x all grades below g	X all grades above G	1,000,000	1	3	2	2	2	–	–
On either side of average			500,000	1,268,000	964,000	761,000	521,000	332,000	149,000
Total, both sides			1,000,000	2,536,000	1,928,000	1,522,000	1,042,000	664,000	298,000

of many millions, be as is stated in the table. The table may be applied to special, just as truly as to general ability. It would be true for every examination that brought out natural gifts, whether held in painting, in music, or in statesmanship. The proportions between the different classes would be identical in all these cases, although the classes would be made up of different individuals, according as the examination differed in its purport.

It will be seen that more than half of each million is contained in the two mediocre classes a and A; the four mediocre classes a, b, A, B, contain more than four-fifths, and the six mediocre classes more than nineteen-twentieths of the entire population. Thus, the rarity of commanding ability, and the vast abundance of mediocrity, is no accident, but follows of necessity, from the very nature of these things.

The meaning of the word "mediocrity" admits of little doubt. It defines the standard of intellectual power found in most provincial gatherings, because the attractions of a more stirring life in the metropolis and elsewhere, are apt to draw away the abler classes of men, and the silly and the imbecile do not take a part in the gatherings. Hence, the residuum that forms the bulk of the general society of small provincial places, is commonly very pure in its mediocrity.

The class C possesses abilities a trifle higher than those commonly possessed by the foreman of an ordinary jury. D includes the mass of men who obtain the ordinary prizes of life. E is a stage higher. Then we reach F, the lowest of those yet superior classes of intellect, with which this volume is chiefly concerned.

On descending the scale, we find by the time we have reached f, that we are already among the idiots and imbeciles. We have seen . . . that there are 400 idiots and imbeciles to every million of persons living in this country; but that 30 per cent of their number appear to be light cases, to whom the name of idiot is inappropriate. There will remain 280 true idiots and imbeciles, to every million of our population. This ratio coincides very closely with the requirements of class f. No doubt a certain proportion of them are idiotic owing to some fortuitous cause, which may

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[*Left*] *The proportions of men living at different ages are calculated from the proportions that are true for England and Wales.* (*Census 1861, Appendix, p. 107.*)

Example. *The class F contains 1 in every 4,300 men. In other words, there are 233 of that class in each million of men. The same is true of class f. In the whole United Kingdom there are 590 men of class F (and the same number of f) between the ages of 20 and 30; 450 between the ages of 30 and 40*; *and so on.*

interfere with the working of a naturally good brain, much as a bit of dirt may cause a first-rate chronometer to keep worse time than an ordinary watch. But I presume, from the usual smallness of head and absence of disease among these persons, that the proportion of accidental idiots cannot be very large.

Hence we arrive at the undeniable, but unexpected conclusion, that eminently gifted men are raised as much above mediocrity as idiots are depressed below it; a fact that is calculated to considerably enlarge our ideas of the enormous differences of intellectual gifts between man and man.

I presume the class F of dogs, and others of the more intelligent sort of animals, is nearly commensurate with the f of the human race, in respect to memory and powers of reason. Certainly the class G of such animals is far superior to the g of humankind.

COMPARISON OF THE TWO CLASSIFICATIONS

Is reputation a fair test of natural ability? It is the only one I can employ—am I justified in using it? How much of a man's success is due to his opportunities, how much to his natural power of intellect?

This is a very old question, on which a great many commonplaces have been uttered that need not be repeated here. I will confine myself to a few considerations, such as seem to me amply adequate to prove what is wanted for my argument.

Let it clearly be borne in mind, what I mean by reputation and ability. By reputation, I mean the opinion of contemporaries, revised by posterity—the favourable result of a critical analysis of each man's character, by many biographers. I do not mean high social or official position, nor such as is implied by being the mere lion of a London season; but I speak of the reputation of a leader of opinion, of an originator, of a man to whom the world deliberately acknowledges itself largely indebted.

By natural ability, I mean those qualities of intellect and disposition, which urge and qualify a man to perform acts that lead to reputation. I do not mean capacity without zeal, nor zeal without capacity, nor even a combination of both of them, without an adequate power of doing a great deal of very laborious work. But I mean a nature which, when left to itself, will, urged by an inherent stimulus, climb the path that leads to eminence, and has strength to reach the summit—one which, if hindered or thwarted, will fret and strive until the hindrance is overcome, and it is again free to follow its labour-loving instinct. It is almost

a contradiction in terms, to doubt that such men will generally become eminent. On the other hand, there is plenty of evidence in this volume to show that few have won high reputations without possessing these peculiar gifts. It follows that the men who achieve eminence, and those who are naturally capable, are, to a large extent, identical.

The particular meaning in which I employ the word ability, does not restrict my argument from a wider application; for, if I succeed in showing–as I undoubtedly shall do–that the concrete triple event, of ability combined with zeal and with capacity for hard labour, is inherited, much more will there be justification for believing that any one of its three elements, whether it be ability, or zeal, or capacity for labour, is similarly a gift of inheritance.

I believe, and shall do my best to show, that, if the "eminent" men of any period had been changelings when babies, a very fair proportion of those who survived and retained their health up to fifty years of age, would, notwithstanding their altered circumstances have equally risen to eminence. Thus–to take a strong case–it is incredible that any combination of circumstances, could have repressed Lord Brougham to the level of undistinguished mediocrity.

The arguments on which I rely are as follow. I will limit their application for the present to men of the pen and to artists. First, it is a fact that numbers of men rise, before they are middle-aged, from the humbler ranks of life to that worldly position, in which it is of no importance to their future career how their youth has been passed. They have overcome their hindrances, and thus start fair with others more fortunately reared, in the subsequent race of life. A boy who is to be carefully educated is sent to a good school, where he confessedly acquires little useful information, but where he is taught the art of learning. The man of whom I have been speaking has contrived to acquire the same art in a school of adversity. Both stand on equal terms, when they have reached mature life. They compete for the same prizes, measure their strength by efforts in the same direction, and their relative successes are thenceforward due to their relative natural gifts. There are many such men in the "eminent" class, as biographies abundantly show. Now, if the hindrances to success were very great, we should expect all who surmounted them to be prodigies of genius. The hindrances would form a system of natural selection, by repressing all whose gifts were below a certain very high level. But what is the case? We find very many who have risen from the ranks, who are by no means prodigies of genius; many who have no claim to "eminence," who have risen easily in spite of

all obstacles. The hindrances undoubtedly form a system of natural selection that represses mediocre men, and even men of pretty fair powers—in short, the classes below D; but many of D succeed, a great many of E, and I believe a very large majority of those above.

If a man is gifted with vast intellectual ability, eagerness to work, and power of working, I cannot comprehend how such a man should be repressed. The world is always tormented with difficulties waiting to be solved—struggling with ideas and feelings, to which it can give no adequate expression. If, then, there exists a man capable of solving those difficulties, or of giving a voice to those pent-up feelings, he is sure to be welcomed with universal acclamation. We may almost say that he has only to put his pen to paper, and the thing is done. I am here speaking of the very first-class men—prodigies—one in a million, or one in ten millions, of whom numbers will be found described in this volume, as specimens of hereditary genius.

Another argument to prove that the hindrances of English social life are not effectual in repressing high ability is that the number of eminent men in England is as great as in other countries where fewer hindrances exist. Culture is far more widely spread in America, than with us, and the education of their middle and lower classes far more advanced; but, for all that, America most certainly does not beat us in first-class works of literature, philosophy, or art. The higher kind of books, even of the most modern date, read in America, are principally the work of Englishmen. The Americans have an immense amount of the newspaper-article-writer, or of the member-of-congress stamp of ability; but the number of their really eminent authors is more limited even than with us. I argue that, if the hindrances to the rise of genius, were removed from English society as completely as they have been removed from that of America, we should not become materially richer in highly eminent men.

People seem to have the idea that the way to eminence is one of great self-denial, from which there are hourly temptations to diverge: in which a man can be kept in his boyhood, only by a schoolmaster's severity or a parent's incessant watchfulness, and in after-life by the attractions of fortunate friendships and other favourable circumstances. This is true enough of the great majority of men, but it is simply not true of the generality of those who have gained great reputations. Such men, biographies show to be haunted and driven by an incessant instinctive craving for intellectual work. If forcibly withdrawn from the path that leads towards eminence, they will find their way back to it, as surely as a lover to his mistress. They do not work for the sake of eminence, but to satisfy

a natural craving for brain-work, just as athletes cannot endure repose on account of their muscular irritability, which insists upon exercise. It is very unlikely that any conjunction of circumstances, should supply a stimulus to brain work, commensurate with what these men carry in their own constitutions. The action of external stimuli must be uncertain and intermittent, owing to their very nature; the disposition abides. It keeps a man ever employed—now wrestling with his difficulties, now brooding over his immature ideas—and renders him a quick and eager listener to innumerable, almost inaudible teachings, that others less keenly on the watch, are sure to miss.

These considerations lead to my third argument. I have shown that social hindrances cannot impede men of high ability, from becoming eminent. I shall now maintain that social advantages are incompetent to give that status to a man of moderate ability. It would be easy to point out several men of fair capacity, who have been pushed forward by all kinds of help, who are ambitious, and exert themselves to the utmost, but who completely fail in attaining eminence. If great peers, they may be lord-lieutenants of counties; if they belong to great county families, they may become influential members of parliament and local notabilities. When they die, they leave a blank for a while in a large circle, but there is no Westminster Abbey and no public mourning for them—perhaps barely a biographical notice in the columns of the daily papers.

It is difficult to specify two large classes of men, with equal social advantages, in one of which they have high hereditary gifts, while in the other they have not. I must not compare the sons of eminent men with those of noneminent, because much which I should ascribe to breed, others might ascribe to parental encouragement and example. Therefore, I will compare the sons of eminent men with the adopted sons of popes and other dignitaries of the Roman Catholic Church. The practice of nepotism among ecclesiastics is universal. It consists in their giving those social helps to a nephew, or other more distant relative, that ordinary people give to their children. Now, I shall show abundantly in the course of this book, that the nephew of an eminent man has far less chance of becoming eminent than a son, and that a more remote kinsman has far less chance than a nephew. We may therefore make a very fair comparison, for the purposes of my argument, between the success of the sons of eminent men and that of the nephews or more distant relatives, who stand in the place of sons to the high unmarried ecclesiastics of the Romish Church. If social help is really of the highest importance, the nephews of the popes will attain eminence as frequently,

or nearly so, as the sons of other eminent men; otherwise, they will not.

Are, then, the nephews, etc., of the popes, on the whole, as highly distinguished as are the sons of other equally eminent men? I answer, decidedly not. There have been a few popes who were offshoots of illustrious races, such as that of the Medici, but in the enormous majority of cases the pope is the ablest member of his family. I do not profess to have worked up the kinships of the Italians with any especial care, but I have seen amply enough of them, to justify me in saying that the individuals whose advancement has been due to nepotism, are curiously undistinguished. The very common combination of an able son and an eminent parent, is not matched, in the case of high Romish ecclesiastics, by an eminent nephew and an eminent uncle. The social helps are the same, but hereditary gifts are wanting in the latter case.

To recapitulate: I have endeavoured to show in respect to literary and artistic eminence–

1. That men who are gifted with high abilities–even men of class E–easily rise through all the obstacles caused by inferiority of social rank.

2. Countries where there are fewer hindrances than in England to a poor man rising in life produce a much larger proportion of persons of culture, but not of what I call eminent men.

3. Men who are largely aided by social advantages, are unable to achieve eminence, unless they are endowed with high natural gifts.

It may be well to add a few supplementary remarks on the small effects of a good education on a mind of the highest order. A youth of abilities G and X, is almost independent of ordinary school education. He does not want a master continually at his elbow to explain difficulties and select suitable lessons. On the contrary, he is receptive at every pore. He learns from passing hints, with a quickness and thoroughness that others cannot comprehend. He is omnivorous of intellectual work, devouring a vast deal more than he can utilize, but extracting a small percentage of nutriment that makes, in the aggregate, an enormous supply. The best care that a master can take of such a boy is to leave him alone, just directing a little here and there, and checking desultory tendencies.

It is a mere accident if a man is placed in his youth in the profession for which he has the most special vocation. It will consequently be remarked in my short biographical notices that the most illustrious men have frequently broken loose from the life prescribed by their parents, and followed, careless of cost, the paramount dictation of their own natures: in short, they educate themselves. D'Alembert is a striking in-

stance of this kind of self-reliance. He was a foundling (afterwards shown to be well bred as respects ability), and put out to nurse as a pauper baby, to the wife of a poor glazier. The child's indomitable tendency to the higher studies, could not be repressed by his foster-mother's ridicule and dissuasion, nor by the taunts of his schoolfellows, nor by the discouragements of his schoolmaster, who was incapable of appreciating him, nor even by the reiterated deep disappointment of finding that his ideas, which he knew to be original, were not novel, but long previously discovered by others. Of course, we should expect a boy of this kind to undergo ten or more years of apparently hopeless strife, but we should equally expect him to succeed at last; and D'Alembert did succeed in attaining the first rank of celebrity, by the time he was twenty-four. The reader has only to turn over the pages of my book to find abundant instances of this emergence from obscurity, in spite of the utmost discouragement in early youth.

A prodigal nature commonly so prolongs the period when a man's receptive faculties are at their keenest that a faulty education in youth is readily repaired in after-life. The education of Watt, the great mechanician, was of a merely elementary character. During his youth and manhood he was engrossed with mechanical specialities. It was not till he became advanced in years, that he had leisure to educate himself, and yet by the time he was an old man, he had become singularly well-read and widely and accurately informed. The scholar who, in the eyes of his contemporaries and immediate successors, made one of the greatest reputations, as such, that any man has ever made, was Julius Caesar Scaliger. His youth was, I believe, entirely unlettered. He was in the army until he was twenty-nine, and then he led a vagrant professional life, trying everything and sticking to nothing. At length he fixed himself upon Greek. His first publications were at the age of forty-seven, and between that time and the period of a somewhat early death, he earned his remarkable reputation, only exceeded by that of his son. Boyhood and youth—the period between fifteen and twenty-two years of age, which afford to the vast majority of men, the only period for the acquirement of intellectual facts and habits—are just seven years—neither more nor less important than other years—in the lives of men of the highest order. People are too apt to complain of their imperfect education, insinuating that they would have done great things if they had been more fortunately circumstanced in youth. But if their power of learning is materially diminished by the time they have discovered their want of knowledge, it is very probable that their abilities are not of a

very high description, and that, however well they might have been educated, they would have succeeded but little better.

Even if a man be long unconscious of his powers, an opportunity is sure to occur—they occur over and over again to every man—that will discover them. He will then soon make up for past arrears, and outstrip competitors with very many years' start, in the race of life. There is an obvious analogy between the man of brains and the man of muscle, in the unmistakable way in which they may discover and assert their claims to superiority over less gifted, but far better educated, competitors. An average sailor climbs rigging, and an average Alpine guide scrambles along cliffs, with a facility that seems like magic to a man who has been reared away from ships and mountains. But if he have extraordinary gifts, a very little trial will reveal them, and he will rapidly make up for his arrears of education. A born gymnast would soon, in his turn, astonish the sailors by his feats. Before the voyage was half over, he would outrun them like an escaped monkey. I have witnessed an instance of this myself. Every summer, it happens that some young English tourist who had never previously planted his foot on crag or ice, succeeds in Alpine work to a marvellous degree.

Thus far, I have spoken only of literary men and artists, who, however, form the bulk of the 250 per million, that attain to eminence. The reasoning that is true for them, requires large qualifications when applied to statesmen and commanders. Unquestionably, the most illustrious statesmen and commanders belong, to say the least, to the classes F and G of ability; but it does not at all follow that an English cabinet minister, if he be a great territorial lord, should belong to those classes, or even to the two or three below them. Social advantages have enormous power in bringing a man into so prominent a position as a statesman, that it is impossible to refuse him the title of "eminent," though it may be more than probable that if he had been changed in his cradle, and reared in obscurity he would have lived and died without emerging from humble life. Again, we have seen that a union of three separate qualities—intellect, zeal, and power of work—are necessary to raise men from the ranks. Only two of these qualities, in a remarkable degree, namely intellect and power of work, are required by a man who is pushed into public life; because when he is once there, the interest is so absorbing, and the competition so keen, as to supply the necessary stimulus to an ordinary mind. Therefore, many men who have succeeded as statesmen, would have been nobodies had they been born in a lower rank of life: they would have needed zeal to rise. Talleyrand would have passed his life

in the same way as other grand seigneurs if he had not been ejected from his birthright by a family council on account of his deformity, and thrown into a vortex of the French Revolution. The furious excitement of the game overcame his inveterate indolence, and he developed into the foremost man of the period, after Napoleon and Mirabeau. As for sovereigns, they belong to a peculiar category. The qualities most suitable to the ruler of a great nation, are not such as lead to eminence in private life. Devotion to particular studies, obstinate perseverance, geniality and frankness in social relations, are important qualities to make a man rise in the world, but they are unsuitable to a sovereign. He has to view many interests and opinions with an equal eye, to know how to yield his favourite ideas to popular pressure, to be reserved in his friendships and able to stand alone. On the other hand, a sovereign does not greatly need the intellectual powers that are essential to the rise of a common man, because the best brains of the country are at his service. Consequently, I do not busy myself in this volume with the families of merely able sovereigns, only with those few whose military and administrative capacity is acknowledged to have been of the very highest order.

As regards commanders, the qualities that raise a man to a peerage may be of a peculiar kind, such as would not have raised him to eminence in ordinary times. Strategy is as much a speciality as chess-playing, and large practice is required to develop it. It is difficult to see how strategical gifts, combined with a hardy constitution, dashing courage, and a restless disposition, can achieve eminence in times of peace. These qualities are more likely to attract a man to the hunting-field, if he have enough money; or if not, to make him an unsuccessful speculator. It consequently happens that generals of high, but not the very highest order, such as Napoleon's marshals and Cromwell's generals, are rarely found to have eminent kinsfolk. Very different is the case with the most illustrious commanders. They are far more than strategists and men of restless dispositions; they would have distinguished themselves under any circumstances. Their kinships are most remarkable, as will be seen in my chapter on commanders, which includes the names of Alexander, Scipio, Hannibal, Caesar, Marlborough, Cromwell, the Princes of Nassau, Wellington, and Napoleon.

Precisely the same remarks are applicable to demagogues. Those who rise to the surface and play a prominent part in the transactions of a troubled period, must have courage and force of character, but they need not have high intellectual powers. Nay, it is more appropriate that the intellects of such men should be narrow and one-sided, and their dis-

positions moody and embittered. These are not qualities that lead to eminence in ordinary times. Consequently, the families of such men are mostly unknown to fame. But the kinships of popular leaders of the highest order, as of the two Gracchi, of the two Arteveldes, and of Mirabeau, are illustrious.

I may mention a class of cases that strikes me forcibly as a proof that a sufficient power of command to lead to eminence in troublous times is much less unusual than is commonly supposed, and that it lies neglected in the course of ordinary life. In beleaguered towns, as, for example, during the great Indian mutiny, a certain type of character very frequently made its appearance. People rose into notice who had never previously distinguished themselves, and subsided into their former way of life after the occasion for exertion was over; while during the continuance of danger and misery, they were the heroes of their situation. They were cool in danger, sensible in council, cheerful under prolonged suffering, humane to the wounded and sick, encouragers of the faint-hearted. Such people were formed to shine only under exceptional circumstances. They had the advantage of possessing too tough a fibre to be crushed by anxiety and physical misery, and perhaps in consequence of that very toughness, they required a stimulus of the sharpest kind, to goad them to all the exertions of which they were capable.

The result of what I have said is to show that in statesmen and commanders mere "eminence" is by no means a satisfactory criterion of such natural gifts as would make a man distinguished under whatever circumstances he had been reared. On the other hand, statesmen of a high order, and commanders of the very highest, who overthrow all opponents, must be prodigiously gifted. The reader himself must judge the cases quoted in proof of hereditary gifts, by their several merits. I have endeavoured to speak of none but the most illustrious names. It would have led to false conclusions, had I taken a larger number, and thus descended to a lower level of merit.

In conclusion, I see no reason to be dissatisfied with the conditions of accepting high reputation as a very fair test of high ability. The nature of the test would not have been altered, if an attempt had been made to readjust each man's reputation according to his merits, because this is what every biographer does. If I had possessed the critical power of a Ste. Beuve, I should have merely thrown into literature another of those numerous expressions of opinion, by the aggregate of which all reputations are built.

To conclude: I feel convinced that no man can achieve a very high reputation without being gifted with very high abilities; and I trust that reason has been given for the belief that few who possess these very high abilities can fail in achieving eminence.

The foregoing consists of the Introductory Chapter and Chapters I and II from Galton's HEREDITARY GENIUS.

Claude Bernard

1813–1878

Claude Bernard's early ambitions were as nearly irrelevant to his later career as can be imagined. He was born near Villefranche, France, in 1813. He was first educated by the Jesuits and then proceeded to the college at Lyons, which he soon left to become a druggist's assistant. But his main effort was devoted to the composition of a musical farce, *The Rose of the Rhône*, which was produced and created a local stir. Encouraged, he attempted a prose drama in five acts, called *Arthur of Britain*. Armed with this work, he went, at the age of twenty-one, to Paris, carrying also an introduction to a famous literary critic. The latter convinced Bernard that he should study medicine instead of write plays!

Bernard became an interne at the Hôtel-Dieu, worked under the physiologist Magendie, became his deputy, and in 1855 succeeded him as professor of physiology. He was also named the first professor of physiology at the Sorbonne. There was, however, no laboratory in which he could work in the Sorbonne. Bernard acquainted Napoleon III of this deficiency in what must have been eloquent fashion, for the Emperor not only procured for the physiologist a laboratory at the Sorbonne but also built one for him in the Jardin des Plantes, and established a professorship which Bernard accepted in 1868. He was in the same year admitted to the Institut de

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Notes from the artist: ". . . a linear study of Bernard enclosed by the left and right portions of a reflex arc, while above his head floats a facsimile of a drawing of the human nervous system by Andreas Vesalius, sixteenth-century Belgian, generally considered the founder of modern anatomy."

CLAUDE
BERNARD

France. He died in Paris on February 10, 1878, and received a public funeral. He was the first scientist ever to be accorded this honor by France.

Bernard's most important work consisted of three great discoveries. The first involved the pancreas gland, which he proved to be of fundamental importance in digestion. The second involved the liver. He showed that this organ not only produces bile but also, by an "internal secretion," forms a starchlike substance named by him glycogen, the end product of which is dextrose—sugar. The third series of investigations resulted in the discovery of the so-called vasomotor nerves, which control the blood vessels.

Seventeen volumes of Bernard's lectures were published during his life and after his death. In 1865 he produced the *Introduction to Experimental Medicine*, from which the following selection is taken.

A long commentary would be necessary to present this splendid work to the reader," wrote Louis Pasteur of Bernard's *Introduction to Experimental Medicine;* "It is a monument raised to honor the method which has constituted Physical and Chemical Science since Galileo and Newton, and which M. Bernard is trying to introduce into physiology and pathology. Nothing so complete, so profound, so luminous has ever been written on the true principles of the difficult art of experimentation . . . This book will exert an immense influence on medical science, its teaching, its progress, its language even."

Concerning the method to which Pasteur refers, Bernard is perfectly clear. It consists in admitting that "the nature or very essence of phenomena, whether vital or mineral, will always remain unknown," that "we can learn only relations, and phenomena are merely the results of relations," and that "experience soon teaches us that we cannot get beyond the *how*" of things, "*i.e.,* beyond the immediate cause or the necessary conditions of phenomena." The introduction of this method into physiology involves the assertion that "a living organism is nothing but a wonderful machine endowed with the most marvellous properties and set going by means of the most complex and delicate mechanism." "Living machines are . . . created and constructed in such a way that, in perfecting themselves, they become freer and freer in the general cosmic environment. But the most absolute determinism still obtains, none the

less, in the inner environment which is separated more and more from the outer cosmic environment, by reason of the same organic development." And "determinism," according to Bernard, is "the foundation of all scientific progress and criticism."

Pasteur not only recognized the basic purpose of the book; the reader will also discover that his praise of it is merited. Even the selection included below can be said to be "complete," "profound" and "luminous." And Pasteur's predictions as to its effects were also accurate. The work has indeed had a profound influence on medical science. Bernard did much to create biochemistry: the science, that is, which treats—and with what wonderful results we know—the living organism as though it were a machine. It has been claimed that the theory of vitalism [1] had to be laid aside before man could understand life, and Bernard's work did much to bring about the demise of the old theory. And it is natural that the teaching of medicine should have reflected the progress produced in it by the ideas of Bernard and others.

Pasteur was even correct in his prediction that Bernard's book would exert an influence on the language of medicine. The terms "internal environment" and "external environment" became basic to the science. They reflected the important conception that is close to the heart of Bernard's idea of living things: that it is impossible, in his words, "to imagine a body wholly isolated in nature; it would no longer be real, because there would be no relation to manifest its existence."

Bernard was not only a great theorist; he was also a skillful experimenter. In another work, he expounds the principles that should underlie all experimentation. "Put off your imagination as you take off your overcoat when you enter the laboratory," he writes, "but put it on again, as you do the overcoat, when you leave the laboratory. Before the experiment and between whiles let your imagination wrap you around; put it right away from yourself during the experiment itself, lest it hinder your observing power." This is excellent advice—both parts of it. By the use of his metaphor of the overcoat, Bernard has neatly expressed the necessary interplay between experiment and hypothesis, between deduction and induction, between observation and thought. The student of any science can learn much from the physiologist Claude Bernard.

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[1] For a discussion of vitalism, see the introductory note to Wöhler's "On the Artificial Production of Urea," Vol. 8, pp. 310–311.

Experimental Considerations Common to Living Things and Inorganic Bodies

The spontaneity enjoyed by beings endowed with life has been one of the principal objections urged against the use of experimentation in biological studies. Every living being indeed appears to us provided with a kind of inner force, which presides over manifestations of life more and more independent of general cosmic influence in proportion as the being rises higher in the scale of organization. In the higher animals and in man, for instance, this vital force seems to result in withdrawing the living being from general physico-chemical influences and thus making the experimental approach very difficult.

Inorganic bodies offer no parallel; whatever their nature, they are all devoid of spontaneity. As the manifestation of their properties is therefore absolutely bound up in the physico-chemical conditions surrounding them and forming their environment, it follows that the experimenter can reach them and alter them at will.

On the other hand, all the phenomena of a living body are in such reciprocal harmony one with another that it seems impossible to separate any part without at once disturbing the whole organism. Especially in higher animals, their more acute sensitiveness brings with it still more notable reactions and disturbances.

Many physicians and speculative physiologists, with certain anatomists and naturalists, employ these various arguments to attack experimentation on living beings. They assume a vital force in opposition to physico-chemical forces, dominating all the phenomena of life, subjecting them to entirely separate laws, and making the organism an organized whole which the experimenter may not touch without destroying the quality of life itself. They even go so far as to say that inorganic bodies

and living bodies differ radically from this point of view, so that experimentation is applicable to the former and not to the latter. Cuvier, who shares this opinion and thinks that physiology should be a science of observation and of deductive anatomy, expresses himself thus: "All parts of a living body are interrelated; they can act only in so far as they act all together; trying to separate one from the whole means transferring it to the realm of dead substances; it means entirely changing its essence."

If the above objections were well founded, we should either have to recognize that determinism is impossible in the phenomena of life, and this would be simply denying biological science; or else we should have to acknowledge that vital force must be studied by special methods, and that the science of life must rest on different principles from the science of inorganic bodies. These ideas, which were current in other times, are now gradually disappearing; but it is essential to extirpate their very last spawn, because the so-called vitalistic ideas still remaining in certain minds are really an obstacle to the progress of experimental science.

I propose, therefore, to prove that the science of vital phenomena must have the same foundations as the science of the phenomena of inorganic bodies, and that there is no difference in this respect between the principles of biological science and those of physico-chemical science. Indeed, as we have already said, the goal which the experimental method sets itself is everywhere the same; it consists in connecting natural phenomena with their necessary conditions or with their immediate causes. In biology, since these conditions are known, physiologists can guide the manifestation of vital phenomena as physicists guide the natural phenomena, the laws of which they have discovered; but in doing so, experimenters do not act on life.

Yet there is absolute determinism in all the sciences, because every phenomenon being necessarily linked with physico-chemical conditions, men of science can alter them to master the phenomenon, *i.e.*, to prevent or to promote its appearing. As to this, there is absolutely no question in the case of inorganic bodies. I mean to prove that it is the same with living bodies, and that for them also determinism exists.

The manifestation of properties of inorganic bodies is connected with surrounding conditions of temperature and moisture by means of which the experimenter can directly govern mineral phenomena. Living bodies at first sight do not seem capable of being thus influenced by neighbouring physico-chemical conditions; but that is merely a delusion depending

on the animal having and maintaining within himself the conditions of warmth and moisture necessary to the appearance of vital phenomena. The result is that an inert body, obedient to cosmic conditions, is linked with all their variations, while a living body on the contrary remains independent and free in its manifestations; it seems animated by an inner force that rules all its acts and liberates it from the influence of surrounding physico-chemical variations and disturbances. This quite different aspect of the manifestations of living bodies as compared with the behaviour of inorganic bodies has led the physiologists, called vitalists, to attribute to the former a vital force ceaselessly at war with physico-chemical forces and neutralizing their destructive action on the living organism. According to this view, the manifestations of life are determined by spontaneous action of this special vital force, instead of being, like the manifestations of inorganic bodies, the necessary results of conditions or of the physico-chemical influences of a surrounding environment. But if we consider it, we shall soon see that the spontaneity of living bodies is simply an appearance and the result of a certain mechanism in completely determined environments; so that it will be easy, after all, to prove that the behaviour of living bodies, as well as the behaviour of inorganic bodies, is dominated by a necessary determinism linking them with conditions of a purely physico-chemical order.

Let us note, first of all, that this kind of independence of living beings in the cosmic environment appears only in complex higher animals. Inferior beings, such as the Infusoria, reduced to an elementary organism, have no real independence. These creatures exhibit the vital properties with which they are endowed, only under the influence of external moisture, light or warmth, and as soon as one or more of these conditions happens to fail, the vital manifestation ceases, because the parallel physico-chemical phenomenon has stopped. In vegetables the manifestation of vital phenomena is linked in the same way with conditions of warmth, moisture and light in the surrounding environment. It is the same again with cold-blooded animals; the phenomena of life are benumbed or stimulated according to the same conditions. Now the influences producing or retarding vital manifestations in living beings are exactly the same as those which produce, accelerate or retard manifestations of physico-chemical phenomena in inorganic bodies, so that instead of following the example of the vitalists in seeing a kind of opposition or incompatibility between the conditions of vital manifestations and the conditions of physico-chemical manifestations, we must note, on the contrary, in these two orders of phenomena a complete parallelism

and a direct and necessary relation. Only in warm-blooded animals do the conditions of the organism and those of the surrounding environment seem to be independent; in these animals indeed the manifestation of vital phenomena no longer suffers the alternations and variations that the cosmic conditions display; and an inner force seems to join combat with these influences and in spite of them to maintain the vital forces in equilibrium. But fundamentally it is nothing of the sort; and the semblance depends simply on the fact that, by the more complete protective mechanism which we shall have occasion to study, the warm-blooded animal's internal environment comes less easily into equilibrium with the external cosmic environment. External influences, therefore, bring about changes and disturbances in the intensity of organic functions only in so far as the protective system of the organism's internal environment becomes insufficient in given conditions.

Thoroughly to understand the application of experimentation to living beings, it is of the first importance to reach a definite judgment on the ideas which we are now explaining. When we examine a higher, *i.e.*, a complex living organism, and see it fulfill its different functions in the general cosmic environment common to all the phenomena of nature, it seems to a certain extent independent of this environment. But this appearance results simply from our deluding ourselves about the simplicity of vital phenomena. The external phenomena which we perceive in the living being are fundamentally very complex; they are the resultant of a host of intimate properties of organic units whose manifestations are linked together with the physico-chemical conditions of the internal environment in which they are immersed. In our explanations we suppress this inner environment and see only the outer environment before our eyes. But the real explanation of vital phenomena rests on study and knowledge of the extremely tenuous and delicate particles which form the organic units of the body. This idea, long ago set forth in biology by great physiologists, seems more and more true in proportion as the science of the organization of living beings makes progress. We must, moreover, learn that the *intimate particles* of an organism exhibit their vital activity only through a necessary physico-chemical relation with immediate environments which we must also study and know. Otherwise, if we limit ourselves to the survey of total phenomena visible from without, we may falsely believe that a force in living beings violates the physico-chemical laws of the general cosmic environment, just as an untaught man might believe that some special force in a

machine, rising in the air or running along the ground, violated the laws of gravitation. Now, a living organism is nothing but a wonderful machine endowed with the most marvellous properties and set going by means of the most complex and delicate mechanism. There are no forces opposed and struggling one with another; in nature there can be only order and disorder, harmony or discord.

In experimentation on inorganic bodies, we need take account of only one environment, the external cosmic environment; while in the higher living animals, at least two environments must be considered, the external or extra-organic environment and the internal or intra-organic environment. In my course on physiology at the Faculty of Sciences, I explain each year these ideas on organic environment–new ideas which I regard as fundamental in general physiology; they are also necessarily fundamental in general pathology, and the same thoughts will guide us in adapting experimentation to living beings. For, as I have said elsewhere, the great difficulties that we meet in experimentally determining vital phenomena and in applying suitable means to altering them are caused by the complexity involved in the existence of an internal organic environment.

Physicists and chemists experimenting on inert bodies need consider only the external environment; by means of the thermometer, barometer and other instruments used in recording and measuring the properties of the external environment, they can always set themselves in equivalent conditions. For physiologists these instruments no longer suffice; and yet the internal environment is just the place where they should use them. Indeed, the internal environment of living beings is always in direct relation with the normal or pathological vital manifestations of organic units. In proportion as we ascend the scale of living beings, the organism grows more complex, the organic units become more delicate and require a more perfected internal environment. The circulating liquids, the blood serum and the intra-organic fluids all constitute the internal environment.

In living beings the internal environment, which is a true product of the organism, preserves the necessary relations of exchange and equilibrium with the external cosmic environment; but in proportion as the organism grows more perfect, the organic environment becomes specialized and more and more isolated, as it were, from the surrounding environment. In vegetables and in cold-blooded animals, as we have said, this isolation is less complete than in warm-blooded animals; in the latter the blood serum maintains an almost fixed and constant temperature and composition. But these differing conditions do not constitute differences of

nature in different living beings; they are merely improvements in the isolating and protecting mechanisms of their environment. Vital manifestations in animals vary only because the physico-chemical conditions of their internal environments vary; thus a mammal, whose blood has been chilled either by natural hibernation or by certain lesions of the nervous system, closely resembles a really cold-blooded animal in the properties of its tissues.

To sum up, from what has been said we can gain an idea of the enormous complexity of vital phenomena and of the almost insuperable difficulties which their accurate determination opposes to physiologists forced to carry on experimentation in the internal or organic environments. These obstacles, however, cannot terrify us if we are thoroughly convinced that we are on the right road. Absolute determinism exists indeed in every vital phenomenon; hence biological science exists also; and consequently the studies to which we are devoting ourselves will not all be useless. General physiology is the basic biological science toward which all others converge. Its problem is to determine the elementary condition of vital phenomena. Pathology and therapeutics also rest on this common foundation. By normal activity of its organic units, life exhibits a state of health; by abnormal manifestation of the same units, diseases are characterized; and finally through the organic environment modified by means of certain toxic or medicinal substances, therapeutics enables us to act on the organic units. To succeed in solving these various problems, we must, as it were, analyze the organism, as we take apart a machine to review and study all its works; that is to say, before succeeding in experimenting on smaller units we must first experiment on the machinery and on the organs. We must, therefore, have recourse to analytic study of the successive phenomena of life, and must make use of the same experimental method which physicists and chemists employ in analyzing the phenomena of inorganic bodies. The difficulties which result from the complexity of the phenomena of living bodies arise solely in applying experimentation; for fundamentally the object and principles of the method are always exactly the same.

If the physicist and the physiologist differ in this, that one busies himself with phenomena taking place in inorganic matter, and the other with phenomena occurring in living matter, still they do not differ in the object which they mean to attain. Indeed, they both set themselves a common object, viz., getting back to the immediate cause of the phenomena which they are studying.

Now, what we call the immediate cause of a phenomenon is nothing

but the physical and material condition in which it exists or appears. The object of the experimental method or the limit of every scientific research is therefore the same for living bodies as for inorganic bodies; it consists in finding the relations which connect any phenomenon with its immediate cause, or putting it differently, it consists in defining the conditions necessary to the appearance of the phenomenon. Indeed, when an experimenter succeeds in learning the necessary conditions of a phenomenon, he is, in some sense, its master; he can predict its course and its appearance, he can promote or prevent it at will. An experimenter's object, then, is reached; through science, he has extended his power over a natural phenomenon.

We shall therefore define physiology thus: the science whose object it is to study the phenomena of living beings and to *determine* the material conditions in which they appear. Only by the analytic or experimental method can we attain the determination of the conditions of phenomena, in living bodies as well as in inorganic bodies; for we reason in identically the same way in experimenting in all the sciences.

For physiological experimenters, neither spiritualism nor materialism can exist. These words belong to a philosophy which has grown old; they will fall into disuse through the progress of science. We shall never know either spirit or matter; and if this were the proper place I should easily show that on one side, as on the other, we quickly fall into scientific negations. The conclusion is that all such considerations are idle and useless. It is our sole concern to study phenomena, to learn their material conditions and manifestations, and to determine the laws of those manifestations.

First causes are outside the realm of science; they forever escape us in the sciences of living as well as in those of inorganic bodies. The experimental method necessarily turns aside from the chimerical search for a vital principle; vital force exists no more than mineral force exists, or, if you like, one exists quite as much as the other. The word force is merely an abstraction which we use for linguistic convenience. For mechanics, force is the relation of a movement to its cause. For physicists, chemists and physiologists, it is fundamentally the same. As the essence of things must always remain unknown, we can learn only relations, and phenomena are merely the results of relations. The properties of living bodies are revealed only through reciprocal organic relations. A salivary gland, for instance, exists only because it is in relation with the digestive system, and because its histological units are in certain relations one with another and with the blood. Destroy these relations by

isolating the units of the organism, one from another in thought, and the salivary gland simply ceases to be.

A scientific law gives us the numerical relation of an effect to its cause, and that is the goal at which science stops. When we have the law of a phenomenon, we not only know absolutely the conditions determining its existence, but we also have the relations applying to all its variations, so that we can predict modifications of the phenomenon in any given circumstances.

As a corollary to the above we must add that neither physiologists nor physicians need imagine it their task to seek the cause of life or the essence of disease. That would be entirely wasting one's time in pursuing a phantom. The words life, death, health, disease have no objective reality. We must imitate the physicists in this matter and say, as Newton said of gravitation: "Bodies fall with an accelerated motion whose law we know: that is a fact, that is reality. But the first cause which makes these bodies fall is utterly unknown. To picture the phenomenon to our minds, we may say that the bodies fall as if there were a force of attraction toward the centre of the earth, *quasi esset attractio*. But the force of attraction does not exist, we do not see it; it is merely a word used to abbreviate speech." When a physiologist calls in vital force or life, he does not see it; he merely pronounces a word; only the vital phenomenon exists, with its material conditions; that is the one thing that he can study and know.

To sum up, the object of science is everywhere the same: to learn the material conditions of phenomena. But though this goal is the same in the physico-chemical and in biological sciences, it is much harder to reach in the latter because of the mobility and complexity of the phenomena which we meet.

We must acknowledge as an experimental axiom that in living beings as well as in inorganic bodies the necessary conditions of every phenomenon are absolutely determined. That is to say, in other terms, that when once the conditions of a phenomenon are known and fulfilled, the phenomenon must always and necessarily be reproduced at the will of the experimenter. Negation of this proposition would be nothing less than negation of science itself. Indeed, as science is simply the determinate and the determinable, we must perforce accept as an axiom that, in identical conditions, all phenomena are identical and that, as soon as conditions are no longer the same, the phenomena cease to be identical. This principle is absolute in the phenomena of inorganic bodies as

well as in those of living beings, and the influence of life, whatever view of it we take, can nowise alter it. As we have said, what we call vital force is a first cause analogous to all other first causes, in this sense, that it is utterly unknown. It matters little whether or not we admit that this force differs essentially from the forces presiding over manifestations of the phenomena of inorganic bodies, the vital phenomena which it governs must still be determinable; for the force would otherwise be blind and lawless, and that is impossible. The conclusion is that the phenomena of life have their special law because there is rigorous determinism in the various circumstances constituting conditions necessary to their existence or to their manifestations; and that is the same thing. Now in the phenomena of living bodies as in those of inorganic bodies, it is only through experimentation, as I have already often repeated, that we can attain knowledge of the conditions which govern these phenomena and so enable us to master them.

Everything so far said may seem elementary to men cultivating the physico-chemical sciences. But among naturalists and especially among physicians, we find men who, in the name of what they call vitalism, express most erroneous ideas on the subject which concerns us. They believe that study of the phenomena of living matter can have no relation to study of the phenomena of inorganic matter. They look on life as a mysterious supernatural influence which acts arbitrarily by freeing itself wholly from determinism, and they brand as materialists all who attempt to reconcile vital phenomena with definite organic and physico-chemical conditions. These false ideas are not easy to uproot when once established in the mind; only the progress of science can dispel them. But vitalistic ideas, taken in the sense which we have just indicated, are just a kind of medical superstition—a belief in the supernatural. Now, in medicine, belief in occult causes, whether it is called vitalism or is otherwise named, encourages ignorance and gives birth to a sort of unintentional quackery; that is to say, the belief in an inborn, indefinable science. Confidence in absolute determinism in the phenomena of life leads, on the contrary, to real science, and gives the modesty which comes from the consciousness of our little learning and the difficulty of science. This feeling incites us, in turn, to work toward knowledge; and to this feeling alone, science in the end owes all its progress.

I should agree with the vitalists if they would simply recognize that living beings exhibit phenomena peculiar to themselves and unknown in inorganic nature. I admit, indeed, that manifestations of life cannot be wholly elucidated by the physico-chemical phenomena known in in-

organic nature. I shall later explain my view of the part played in biology by physico-chemical sciences; I will here simply say that if vital phenomena differ from those of inorganic bodies in complexity and appearance, this difference obtains only by virtue of determined or determinable conditions proper to themselves. So if the sciences of life must differ from all others in explanation and in special laws, they are not set apart by scientific method. Biology must borrow the experimental method of physico-chemical sciences, but keep its special phenomena and its own laws.

In living bodies, as in inorganic bodies, laws are immutable, and the phenomena governed by these laws are bound to the conditions on which they exist, by a necessary and absolute determinism. I use the word determinism here as more appropriate than the word fatalism, which sometimes serves to express the same idea. Determinism in the conditions of vital phenomena should be one of the axioms of experimenting physicians. If they are thoroughly imbued with the truth of this principle, they will exclude all supernatural intervention from their explanations; they will have unshaken faith in the idea that fixed laws govern biological science; and at the same time they will have a reliable criterion for judging the often variable and contradictory appearance of vital phenomena. Indeed, starting with the principle that immutable laws exist, experimenters will be convinced that phenomena can never be mutually contradictory, if they are observed in the same conditions; and if they show variations, they will know that this is necessarily so because of the intervention or interference of other conditions which alter or mask phenomena. There will be occasion thenceforth to try to learn the conditions of these variations, for there can be no effect without a cause. Determinism thus becomes the foundation of all scientific progress and criticism. If we find disconcerting or even contradictory results in performing an experiment, we must never acknowledge exceptions or contradictions as real. That would be unscientific. We must simply and necessarily decide that conditions in the phenomena are different, whether or not we can explain them at the time.

I assert that the word exception is unscientific; and as soon as laws are known, no exception indeed can exist, and this expression, like so many others, merely enables us to speak of things whose causation we do not know. Every day we hear physicians use the words: ordinarily, more often, generally, or else express themselves numerically by saying, for instance: nine times out of ten, things happen in this way. I have heard old practitioners say that the words “always” and “never” should be

crossed out of medicine. I condemn neither these restrictions nor the use of these locutions if they are used as empirical approximations about the appearances of phenomena when we are still more or less ignorant of the exact conditions in which they exist. But certain physicians seem to reason as if exceptions were necessary; they seem to believe that a vital force exists which can arbitrarily prevent things from always happening alike; so that exceptions would result directly from the action of mysterious vital force. Now this cannot be the case; what we now call an exception is a phenomenon, one or more of whose conditions are unknown; if the conditions of the phenomena of which we speak were known and determined, there would be no further exceptions, medicine would be as free from them as is any other science. For instance, we might formerly say that sometimes the itch was cured and sometimes not; but now that we attack the cause of this disease, we cure it always. Formerly it might be said that a lesion of the nerves brought on paralysis, now of feeling, and again of motion; but now we know that cutting the anterior spinal nerve paralyzes motion only. Motor paralysis occurs consistently and always, because its condition has been accurately determined by experimenters.

The certainty with which phenomena are determined should also be, as we have said, the foundation of experimental criticism, whether applied to one's self or to others. A phenomenon, indeed, always appears in the same way if conditions are similar; the phenomenon never fails if the conditions are present, just as it does fail to appear if the conditions are absent. Thus an experimenter who has made an experiment, in conditions which he believes were determined, may happen not to get the same results in a new series of investigations as in his first observation; in repeating the experiment, with fresh precautions, it may happen again that, instead of his first result, he may encounter a wholly different one. In such a situation, what is to be done? Should we acknowledge that the facts are indeterminable? Certainly not, since that cannot be. We must simply acknowledge that experimental conditions, which we believed to be known, are not known. We must more closely study, search out and define the experimental conditions, for the facts cannot be contradictory one to another; they can only be indeterminate. Facts never exclude one another, they are simply explained by differences in the conditions in which they are born. So an experimenter can never deny a fact that he has seen and observed, merely because he cannot rediscover it. In the third part of this introduction, we shall cite instances in which

the principles of experimental criticism which we have just suggested are put in practice.

As a natural phenomenon is only the expression of ratios and relations and connections, at least two bodies are necessary to its appearance. So we must always consider, first, a body which reacts or which manifests the phenomenon; second, another body which acts and plays the part of environment in relation to the first. It is impossible to imagine a body wholly isolated in nature; it would no longer be real, because there would be no relation to manifest its existence.

In phenomenal relations, as nature presents them to us, more or less complexity always prevails. In this respect mineral phenomena are much less complex than vital phenomena; this is why the sciences dealing with inorganic bodies have succeeded in establishing themselves more quickly. In living bodies, the complexity of phenomena is immense, and what is more, the mobility accompanying vital characteristics makes them much harder to grasp and to define.

The properties of living matter can be learned only through their relation to the properties of inorganic matter; it follows that the biological sciences must have as their necessary foundation the physico-chemical sciences from which they borrow their means of analysis and their methods of investigation. Such are the necessary reasons for the secondary and backward evolution of the sciences concerned with the phenomena of life. But though the complexity of vital phenomena creates great obstacles, we must not be appalled, for, as we have already said, unless we deny the possibility of biological science, the principles of science are everywhere the same. So we may be sure that we are on the right road and that in time we shall reach the scientific result that we are seeking, that is to say, determinism in the phenomena of living beings.

We can reach knowledge of definite elementary conditions of phenomena only by one road, viz., by experimental analysis. Analysis dissociates all the complex phenomena successively into more and more simple phenomena, until they are reduced, if possible, to just two elementary conditions. Experimental science, in fact, considers in a phenomenon only the definite conditions necessary to produce it. Physicists try to picture these conditions to themselves, more or less ideally in mechanics or mathematical physics. Chemists successively analyze complex matters; and in thus reaching either elements or definite substances (individual compounds or chemical species), they attain the elementary

or irreducible conditions of phenomena. In the same way, biologists should analyze complex organisms and reduce the phenomena of life to conditions that cannot be analyzed in the present state of science.

Experimental physiology and medicine have no other goal. When faced by complex questions, physiologists and physicians, as well as physicists and chemists, should divide the total problem into simpler and simpler and more and more clearly defined partial problems. They will thus reduce phenomena to their simplest possible material conditions and make application of the experimental method easier and more certain. All the analytic sciences divide problems, in order to experiment better. By following this path, physicists and chemists have succeeded in reducing what seemed the most complex phenomena to simple properties connected with well-defined mineral species. By following the same analytic path, physiologists should succeed in reducing all the vital manifestations of a complex organism to the play of certain organs, and the action of these organs to the properties of well-defined tissues or organic units. Anatomico-physiological experimental analysis, which dates from Galen, has just this meaning, and histology, in pursuing the same problem to-day, is naturally coming closer and closer to the goal.

Though we can succeed in separating living tissues into chemical elements or bodies, still these elementary chemical bodies are not elements for physiologists. In this respect biologists are more like physicists than chemists, for they seek to determine the properties of bodies and are much less preoccupied with their elementary composition. In the present state of the science, it would be impossible to establish any relation between the vital properties of bodies and their chemical composition; because tissues and organs endowed with the most diverse properties are at times indistinguishable from the point of view of their elementary chemical composition. Chemistry is most useful to physiologists in giving them means of separating and studying individual compounds, true organic products which play important parts in the phenomena of life.

Organic individual compounds, though well defined in their properties, are still not active elements in physiological phenomena; like mineral matter, they are, as it were, only passive elements in the organism. For physiologists, the truly active elements are what we call anatomical or histological units. Like the organic individual compounds, these are not chemically simple; but physiologically considered, they are as simplified as possible in that their vital properties are the simplest that we know—vital properties which vanish when we happen to destroy this elementary organized part. However, all ideas of ours about these elements

are limited by the present state of our knowledge; for there can be no question that these histological units, in the condition of cells and fibres, are still complex. That is why certain naturalists refuse to give them the names of elements and propose to call them elementary organisms. This appellation is in fact more appropriate; we can perfectly well picture to ourselves a complex organism made up of a quantity of distinct elementary organisms, uniting, joining and grouping together in various ways, to give birth first to the different tissues of the body, then to its various organs; anatomical mechanisms are themselves only assemblages of organs which present endlessly varied combinations in living beings. When we come to analyze the complex manifestations of any organism, we should therefore separate the complex phenomena and reduce them to a certain number of simple properties belonging to elementary organisms; then synthetically reconstruct the total organism in thought, by reuniting and ordering the elementary organisms, considered at first separately, then in their reciprocal relations.

When physicians, chemists or physiologists, by successive experimental analyses, succeed in determining the irreducible element of a phenomenon in the present state of their science, the scientific problem is simplified, but its nature is not changed thereby; and men of science are no nearer to absolute knowledge of the essence of things. Nevertheless, they have gained what it is truly important to obtain, to wit, knowledge of the necessary conditions of the phenomenon and determination of the definite relation existing between a body manifesting its properties and the immediate cause of this manifestation. The object of analysis, in biological as in physico-chemical science, is, after all, to determine and, as far as possible, to isolate the conditions governing the occurrence of each phenomenon. We can act on the phenomena of nature only by reproducing the natural conditions in which they exist; and we act the more easily on these conditions in proportion as they have first been better analyzed and reduced to a greater state of simplicity. Real science exists, then, only from the moment when a phenomenon is accurately defined as to its nature and rigorously determined in relation to its material conditions, that is, when its law is known. Before that, we have only groping and empiricism.

The most superficial examination of what goes on around us shows that all natural phenomena result from the reaction of bodies one against another. There always come under consideration the *body,* in which the phenomenon takes place, and the outward circumstance or the

environment which determines or invites the body to exhibit its properties. The conjunction of these conditions is essential to the appearance of the phenomenon. If we suppress the environment, the phenomenon disappears, just as if the body had been taken away. The phenomena of life, as well as those of inorganic bodies, are thus doubly conditioned. On the one hand, we have the organism in which vital phenomena come to pass; on the other hand, the cosmic environment in which living bodies, like inorganic bodies, find the conditions essential to the appearance of their phenomena. The conditions necessary to life are found neither in the organism nor in the outer environment, but in both at once. Indeed, if we suppress or disturb the organism, life ceases, even though the environment remains intact; if, on the other hand, we take away or vitiate the environment, life just as completely disappears, even though the organism has not been destroyed.

Thus phenomena appear as results of contact or relation of a body with its environment. Indeed, if we absolutely isolate a body in our thought, we annihilate it in so doing; and if, on the contrary, we multiply its relations with the outer world, we multiply its properties.

Phenomena, then, are definite relations of bodies; we always conceive these relations as resulting from forces outside of matter, because we cannot absolutely localize them in a single body. For physicists, universal attraction is only an abstract idea; manifestation of this force requires the presence of two bodies; if only one body is present, we can no longer conceive of attraction. For example, electricity results from the action of copper and zinc in certain chemical conditions; but if we suppress the interrelation of bodies, electricity–an abstraction without existence in itself–ceases to appear. In the same way, life results from contact of the organism with its environment; we can no more understand it through the organism alone than through the environment alone. It is therefore a similar abstraction, that is to say, a force which appears as if it were outside of matter.

But however the mind conceives the forces of nature, that cannot alter an experimenter's conduct in any respect. For him the problem reduces itself solely to determining the material conditions in which a phenomenon appears. These conditions once known, he can then master the phenomenon; by supplying or not supplying them, he can make the phenomenon appear or disappear at will. Thus physicists and chemists exert their power over inorganic bodies; thus physiologists gain empire over vital phenomena. Living bodies, however, seem at first sight to elude the

experimenter's action. We see the higher organisms uniformly exhibit their vital phenomena, in spite of variations in the surrounding cosmic environment, and from another angle we see life extinguished in an organism after a certain length of time without being able to find reasons in the external environment for this extinction. But, as we have already said, there is an illusion here, resulting from incomplete and superficial analysis of the conditions of vital phenomena. Ancient science was able to conceive only the outer environment; but to establish the science of experimental biology, we must also conceive an inner environment. I believe I was the first to express this idea clearly and to insist on it, the better to explain the application of experimentation to living beings. Since the outer environment, on the other hand, infiltrates into the inner environment, knowing the latter teaches us the former's every influence. Only by passing into the inner, can the influence of the outer environment reach us, whence it follows that knowing the outer environment cannot teach us the actions born in, and proper to, the inner environment. The general cosmic environment is common to living and to inorganic bodies; but the inner environment created by an organism is special to each living being. Now, here is the true physiological environment; this it is which physiologists and physicians should study and know, for by its means they can act on the histological units which are the only effective agents in vital phenomena. Nevertheless, though so deeply seated, these units are in communication with the outer world; they still live in the conditions of the outer environment perfected and regulated by the play of the organism. The organism is merely a living machine so constructed that, on the one hand, the outer environment is in free communication with the inner organic environment, and, on the other hand, the organic units have protective functions, to place in reserve the materials of life and uninterruptedly to maintain the humidity, warmth and other conditions essential to vital activity. Sickness and death are merely a dislocation or disturbance of the mechanism which regulates the contact of vital stimulants with organic units. In a word, vital phenomena are the result of contact between the organic units of the body with the *inner physiological environment;* this is the pivot of all experimental medicine. Physiologists and physicians gain mastery over the phenomena of life by learning which conditions, in this inner environment, are normal and which abnormal, for the appearance of vital activity in the organic units; for apart from complexity of conditions, phenomena exhibiting life, like physico-chemical phenomena,

result from contact between an active body and the environment in which it acts.

To sum up, the study of life includes two things: (1) study of the properties of organized units; (2) study of the organic environment, *i.e.*, study of the conditions which this environment must fulfill to permit the appearance of vital activities. Physiology, pathology and therapeutics rest on this double knowledge; apart from this, neither medical science nor any truly scientific or effectual therapeutics exists.

In living organisms it is convenient to distinguish between three kinds of definite bodies: first, chemical elements; second, organic and inorganic individual compounds; third, organized anatomical units. Of about 70 elements known to chemistry to-day, only 16 are found in that most complex of organisms, the organism of man. But these 16 elements combine with one another to form the various liquid, solid and gaseous substances of the organism. Oxygen and nitrogen, however, are merely dissolved in the organic fluids; and in living beings, seem to act as elements. The inorganic individual compounds (earthy salts, phosphates, chlorides, sulphates, etc.) are essential constituents in the composition of living bodies, but are taken ready-made directly from the outer world. Organic individual compounds are also constituents of living bodies, but by no means borrowed from the outer world; they are made by the vegetable or animal organism; among such substances are starch, sugar, fat, albumen, etc., etc. When extracted from the body, they preserve their properties because they are not alive; they are organic products, but not organized. Anatomical units stand alone as organized living parts. These parts are irritable and, under the influence of various stimulants, exhibit properties exclusively characteristic of living beings. They live and nourish themselves, and their nourishment creates and preserves their properties, which means that they cannot be cut off from the organism without more or less rapidly losing their vitality.

Though very different from one another in respect to their functions in the organism, these three classes of bodies all show physico-chemical reactions under the influence of the outer stimuli–warmth, light, electricity; but living parts also have the power of being irritable, *i.e.*, reacting under the influence of certain stimuli in a way specially characteristic of living tissues, such as muscular contraction, nervous transmission, glandular secretion, etc. But whatever the variety presented by the three classes of phenomena, whether the reaction be physico-chemical or vital, it is never in any way spontaneous. The phenomenon always

results from the influence exerted on the reacting body by a physico-chemical stimulant outside itself.

Every definite substance, whether inorganic, organic or organized, is autonomous; that is to say, it has characteristic properties and exhibits independent action. Nevertheless, each one of these bodies is inert, that is, it is incapable of putting itself into action; to do this, it must always enter into relation with another body, from which it receives a stimulus. Thus every mineral body in the cosmic environment is stable; it changes its state only when the circumstances in which it is placed are rather seriously changed, either naturally or through experimental interference. In any organic environment, the substances created by animals and vegetables are much more changeable and less stable, but still they are inert and exhibit their properties only as they are influenced by agents outside themselves. Finally, anatomical units themselves, which are the most changeable and unstable of substances, are still inert, that is, they never break into vital activity unless some foreign influence invites them. A muscle-fibre, for instance, has the vital property peculiar to itself of contracting, but this living fibre is inert in the sense that if nothing changes in its environmental or its inner conditions, it cannot bring its functions into play, and it will not contract. For the muscular fibre to contract, a change must necessarily be produced in it, by its coming into relation with a stimulation from without, which may come either from the blood or from a nerve. We may say as much of all the histological units, nerve units, blood units, etc. Different living units thus play the part of stimuli, one in relation to another; and the functional manifestations of an organism are merely the expression of their harmonious reciprocal relations. The histological units react either separately or one against another by means of vital properties which are themselves in necessary connection with surrounding physico-chemical conditions; and this relation is so intimate that we may say the intensity of physico-chemical phenomena taking place in an organism may be used to measure the intensity of its vital phenomena. Therefore, as has already been said, we must not set up an antagonism between vital phenomena and physico-chemical phenomena, but, on the contrary, we must note the complete and necessary parallelism between the two classes of phenomena. To sum up, living matter is no more able than inorganic matter to get into activity or movement by itself. Every change in matter implies intervention of a new relation, *i.e.*, an outside condition or influence. The role of men of science is to try to define and determine the material conditions producing the appearance of each phenomenon.

These conditions once known, experimenters master the phenomenon in this sense, that they can give movement to matter, or take it away, at pleasure.

What we have just said is equally true for the phenomena of living bodies and the phenomena of inorganic bodies. Only in the case of the complex higher organisms, physiologists and physicians must study the stimuli of vital phenomena, not in the relations of the whole organism with the general cosmic environment, but rather in the organic conditions of the inner environment. Considered in the general cosmic environment, the functions of man and of the higher animals seem to us, indeed, free and independent of the physico-chemical conditions of the environment, because its actual stimuli are found in an inner, organic, liquid environment. What we see from the outside is merely the result of physico-chemical stimuli from the inner environment; that is where physiologists must build up the real determinism of vital functions.

Living machines are therefore created and constructed in such a way that, in perfecting themselves, they become freer and freer in the general cosmic environment. But the most absolute determinism still obtains, none the less, in the inner environment which is separated more and more from the outer cosmic environment, by reason of the same organic development. A living machine keeps up its movement because the inner mechanism of the organism, by acts and forces ceaselessly renewed, repairs the losses involved in the exercise of its functions. Machines created by the intelligence of man, though infinitely coarser, are built in just this fashion. A steam engine's activity is independent of outer physico-chemical conditions, since the machine goes on working through cold, heat, dryness and moisture. But physicists going down into the inner environment of the machine find that this independence is only apparent, and that the movement of its every inner gear is determined by physical conditions whose law they know. As for physiologists, if they can go down into the inner environment of a living machine, they find likewise absolute determinism that must become the real foundation of the science of living bodies.

The nature of our mind leads us to seek the essence or the *why* of things. Thus we aim beyond the goal that it is given us to reach; for experience soon teaches us that we cannot get beyond the *how*, *i.e.*, beyond the immediate cause or the necessary conditions of phenomena. In this respect the limits of our knowledge are the same in biological as in physico-chemical sciences.

When, by successive analyses, we find the immediate cause determining the circumstances in which a phenomenon presents itself, we reach a scientific goal beyond which we cannot pass. When we know that water, with all its properties, results from combining oxygen and hydrogen in certain proportions, we know everything we can know about it; and that corresponds to the *how* and not to the *why* of things. We know how water can be made; but why does the combination of one volume of oxygen with two volumes of hydrogen produce water? We have no idea. In medicine it is equally absurd to concern one's self with the question "why." Yet physicians ask it often. It was probably to make fun of this tendency, which results from lack of the sense of limits to our learning, that Molière put the following answer into the mouth of his candidate for the medical degree. Asked why opium puts people to sleep, he answered: "*Quia est in eo virtus dormitiva, cujus est natura sensus assoupire* [Because it contains a soporific element, whose nature it is to put the senses to sleep]." This answer seems ludicrous and absurd; yet no other answer could be made. In the same way, if we wished to answer the question: "Why does hydrogen, in combining with oxygen, produce water?" we should have to answer: "Because hydrogen has the quality of being able to beget water." Only the question "why," then, is really absurd, because it necessarily involves a naïve or ridiculous answer. So we had better recognize that we do not know; and that the limits of our knowledge are precisely here.

In physiology, if we prove, for instance, that carbon monoxide is deadly when uniting more firmly than oxygen with the hemoglobin, we know all that we can know about the cause of death. Experience teaches us that a part of the mechanism of life is lacking; oxygen can no longer enter the organism, because it cannot displace the carbon monoxide in its union with the hemoglobin. But why has carbon monoxide more affinity than oxygen for this substance? Why is entrance of oxygen into the organism necessary to life? Here is the limit of our knowledge in our present state of learning; and even assuming that we succeed in further advancing our experimental analysis, we shall reach a blind cause at which we shall be forced to stop, without finding the primal reason for things.

Let us add that, when the relative determinism of a phenomenon is established, our scientific goal is reached. Experimental analysis of the conditions of the phenomenon, when pushed still further, gives us fresh information, but really teaches us nothing about the nature of the phenomenon originally determined. The conditions necessary to a phenome-

non teach us nothing about its nature. When we know that physical and chemical contact between the blood and the cerebral nerve cells is necessary to the production of intellectual phenomena, that points to conditions, but it cannot teach us anything about the primary nature of intelligence. Similarly, when we know that friction and that chemical action produce electricity, we are still ignorant of the primary nature of electricity.

We must therefore, in my opinion, stop differentiating the phenomena of living bodies from those of inorganic bodies, by a distinction based on our own ability to know the nature of the former and our inability to know that of the latter. The truth is that the nature or very essence of phenomena, whether vital or mineral, will always remain unknown. The essence of the simplest mineral phenomenon is as completely unknown to chemists and physicists to-day as is the essence of intellectual phenomena or of any other vital phenomenon to physiologists. That, moreover, is easy to apprehend; knowledge of the inmost nature or the absolute, in the simplest phenomenon, would demand knowledge of the whole universe; for every phenomenon of the universe is evidently a sort of radiation from that universe to whose harmony it contributes. In living bodies absolute truth would be still harder to attain; because, besides implying knowledge of the universe outside a living body, it would also demand complete knowledge of the organism which, as we have long been saying, is a little world (microcosm) in the great universe (macrocosm). Absolute knowledge could, therefore, leave nothing outside itself; and only on condition of knowing everything could man be granted its attainment. Man behaves as if he were destined to reach this absolute knowledge; and the incessant *why* which he puts to nature proves it. Indeed, this hope, constantly disappointed, constantly reborn, sustains and always will sustain successive generations in the passionate search for truth.

Our feelings lead us at first to believe that absolute truth must lie within our realm; but study takes from us, little by little, these chimerical conceits. Science has just the privilege of teaching us what we do not know, by replacing feeling with reason and experience and clearly showing us the present boundaries of our knowledge. But by a marvellous compensation, science, in humbling our pride, proportionately increases our power. Men of science who carry experimental analysis to the point of relatively determining a phenomenon doubtless see clearly their own ignorance of the phenomenon in its primary cause; but they have become its master; the instrument at work is unknown, but they can use it. This is true of all experimental sciences in which we can reach only relative

or partial truths and know phenomena only in their necessary conditions. But this knowledge is enough to broaden our power over nature. Though we do not know the essence of phenomena, we can produce or prevent their appearance, because we can regulate their physico-chemical conditions. We do not know the essence of fire, of electricity, of light, and still we regulate their phenomena to our own advantage. We know absolutely nothing of the essence even of life; but we shall nevertheless regulate vital phenomena as soon as we know enough of their necessary conditions. Only in living bodies these conditions are much more complex and more difficult to grasp than in inorganic bodies; that is the whole difference.

To sum up, if our feeling constantly puts the question *why*, our reason shows us that only the question *how* is within our range; for the moment, then, only the question *how* concerns men of science and experimenters. If we cannot know *why* opium and its alkaloids put us to sleep, we can learn the mechanism of sleep and know *how* opium or its ingredients puts us to sleep; for sleep takes place only because an active substance enters into contact with certain organic substances which it changes. Learning these changes will give us the means of producing or preventing sleep, and we shall be able to act on the phenomenon and regulate it at pleasure.

In the knowledge that we acquire, we should distinguish between two sets of notions: the first corresponds to the *cause* of phenomena, the second to the *means* of producing them. By the cause of a phenomemon we mean the constant and definite condition necessary to existence; we call this the relative determinism or the *how* of things, *i.e.*, the immediate or determining cause. The means of obtaining phenomena are the varied processes by whose aid we may succeed in putting in action the single determining cause which produces the phenomenon. The necessary cause in the formation of water is the combination of two volumes of hydrogen with one of oxygen; this is the single cause which always determines the phenomenon. We cannot conceive of water apart from this essential condition. Subordinate conditions or processes in the formation of water may be extremely varied; only all these processes reach the same result, viz., combination of oxygen and hydrogen in invariable proportions. Let us take another example. I assume that we wish to transform starch into glucose; we have any number of means or processes for doing this, but fundamentally there will always be the identical cause, and a single determinism will beget the phenomenon. This cause is fixation of one more unit of water in the substance, to bring about its

transformation. Only we may produce this hydration in any number of conditions and by any number of methods: by means of acidulated water, of heat, of animal or vegetable enzymes; but all these processes finally come to a single condition, hydrolysis of the starch. The determinism, *i.e.*, the cause of the phenomenon, is therefore single, though the means for making it appear may be multiple and apparently very various. It is most important to establish this distinction especially in medicine, where the greatest confusion reigns, precisely because physicians recognize a multitude of causes for the same disease. To convince ourselves of what I am urging we have only to open a treatise on pathology. By no means all the circumstances enumerated are causes; at most they are means or processes by which a disease can be produced. But the real and effective cause of a disease must be *constant* and *determined*, that is unique; anything else would be a denial of science in medicine. It is true that determining causes are much harder to recognize and define in the phenomena of living beings; but they exist nevertheless, in spite of the seeming diversity of means employed. Thus in certain toxic phenomena we see different poisons lead to one cause and to a single determinism for the death of histological units, for example, the coagulation of muscular substance. In the same way, varied circumstances producing the same disease must all correspond to a single and determined pathogenic action. In a word, determinism which insists on identity of effect bound up with identity of cause is an axiom of science which can no more be transgressed in the sciences of life than in the sciences of inorganic matter.

We know the phenomena of nature only through their relations with the causes which produce them. Now the *law* of phenomena is nothing else than this relation numerically established, in such a way as to let us foresee the ratio of cause to effect in any given case. This ratio, established by observation, enables astronomers to predict celestial phenomena; this same ratio, established by observation and experiment, again enables physicists, chemists, physiologists not only to predict the phenomena of nature but even to modify them at pleasure and to a certainty, provided they do not swerve from the ratio which experience has pointed out, *i.e.*, the law. In other terms, we can guide natural phenomena only by submitting to laws that govern them.

Observers can only observe natural phenomena; experimenters can only modify them; it is not given them to create or to destroy them utterly, because they cannot change natural law. We have often repeated that

experimenters act, not on phenomena themselves, but on the physico-chemical conditions necessary to their appearance. Phenomena are just the actual expression of the ratio of these conditions; hence, when conditions are similar, the ratio is constant and the phenomenon identical, and when conditions change, there is another ratio, and a different phenomenon. In a word, to make a new phenomenon appear, experimenters merely bring new conditions to pass, but they create nothing, either in the way of force or of matter. At the end of the last century science proclaimed a great truth, to wit, that with respect to matter, nothing is lost, neither is anything created in nature; the bodies whose qualities ceaselessly vary under our eyes are all only transmutations of aggregations of matter of equal weight. In recent times science has proclaimed a second truth which it is still seeking to prove and which in some sense is truly complementary to the first, to wit, that with respect to forces nothing is lost and nothing created in nature; it follows that all the infinitely varied forms of phenomena in the universe are only equivalent transformation of forces, one into another. I reserve for treatment elsewhere the question whether differences separate the forces of living bodies from those of inert bodies; let it suffice for the moment to say that the two preceding truths are universal, and that they embrace the phenomena of living bodies as well as those of inert bodies.

All phenomena, to whatever order they belong, exist implicitly in the changeless laws of nature; and they show themselves only when their necessary conditions are actualized. The bodies and beings on the surface of our earth express the harmonious relation of the cosmic conditions of our planet and our atmosphere with the beings and phenomena whose existence they permit. Other cosmic conditions would necessarily make another world appear in which all the phenomena would occur which found in it their necessary conditions, and from which would disappear all that could not develop in it. But no matter what infinite varieties of phenomena we conceive on the earth, by placing ourselves in thought in all the cosmic conditions that our imagination can bring to birth, we are still forced to admit that this would all take place according to the laws of physics, chemistry and physiology, which have existed without our knowledge from all eternity; and that whatever happens, nothing is created by way either of force or of matter; that only different relations will be produced and through them creation of new beings and phenomena.

When a chemist makes a new body appear in nature, he cannot flatter himself with having created the laws which brought it to birth; he

produced only the conditions which the creative law demanded for its manifestation. The case of organic bodies is the same. Chemists and physiologists, in their experiments, can make new beings appear only by obeying the laws of nature which they cannot alter in any way.

It is not given to man to alter the cosmic phenomena of the whole universe nor even those of the earth; but the advances of science enable him to alter the phenomena within his reach. Thus man has already gained a power over mineral nature which is brilliantly revealed in the application of modern science, still at its dawn. The result of experimental science applied to living bodies must also be to alter vital phenomena, by acting solely on the conditions of these phenomena. But here our difficulties are greatly increased by the delicacy of the conditions of vital phenomena and the complexity and interrelation of all the parts grouped together to form an organized being. This is why man can probably never act as easily on animal or vegetable, as on mineral, species. His power over living beings will remain more limited, especially where they form higher, *i.e.*, more complicated, organisms. Nevertheless, the difficulties obstructing the power of physiologists do not pertain to the nature of vital phenomena, but merely to their complexity. Physiologists will first begin by getting at phenomena of vegetables and of animals in easier relations with the outer cosmic environment. It appears, at first sight, as if man and the higher animals must escape from its power to change, because they seem freed from the direct influence of the outer environment. But we know that vital phenomena in man, as in the animals nearest him, are connected with the physico-chemical conditions of an inner organic environment. This inner environment we must first seek to know, because this must become the real field of action for physiology and experimental medicine.

The foregoing is Chapter III from Bernard's
AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE,
translated by Henry C. Greene.

Ivan Petrovich Pavlov

1849–1936

Pavlov was born in the district of Ryazan, in Russia, in 1849. He studied science and medicine at St. Petersburg and received a medical degree in 1883, but he chose to follow a career of research rather than practice medicine. In 1891, he was appointed director of the physiological department of the Institute of Experimental Medicine, in St. Petersburg; in 1895, he was made a professor at the Medical Academy. Later he was elected to the Russian Academy of Sciences and was made a foreign member of the British Royal Society. He won the Nobel Prize in 1904 for physiology and medicine and continued to accumulate fame and honors for the rest of his long life. He died on February 27, 1936.

Pavlov is best known for his work on conditioned, or modified, reflexes in experimental animals, but he did research in many areas of physiology. He worked on the problem of digestion, and he was much concerned, as the following selection shows, with the question of the activity of the central nervous system. He was a brilliant experimentalist, devising new and original methods of handling animals so that they could be observed under normal conditions. He was a meticulous scientist who took great care that his laboratory, as well as his reasoning, was uncluttered. He has had an important influence on the course which modern psychology has followed.

The first thing to consider in the following selection is the title of it. It is a "scientific study." And it is concerned with the "so-called psychical processes in the higher animals." The two phrases are both significant.

Pavlov himself emphasizes his use of the word "so-called." Psychi-

cal processes in higher animals are not directly observable. We cannot get into the mind of a dog and see how it works, or if it "works" at all. Since this is so, such processes can only be assumed.

"The naturalist must consider only one thing," Pavlov writes: "what is the relation of this or that external reaction of the animal to the phenomena of the external world?" This is what it means to him to be "scientific." In this sense, it is behavior alone that can be studied scientifically. It is the obligation of natural science "to ascertain completely how a living being maintains itself in constant equilibrium with its environment." Such equilibrium is a matter of give-and-take, but its psychological aspects are mysterious. Indeed, Pavlov says, the study of the "physiology of the highest parts of the central nervous system . . . has been cluttered with foreign ideas, borrowed from psychology." The implication would seem to be that psychology is not a natural science, and therefore not relevant to Pavlov's concern.

This position—that the scientist ought only to investigate the external behavior of organic as well as inorganic beings—is often taken by modem scientists. (It can be traced back at least as far as Claude Bernard.) Behavior can be *measured;* and measurement has been said to be the essence of science. What cannot be measured is illusory, it is sometimes contended. The supporters of the position can point to the great success of quantitative methods not only in physics and chemistry, but in the biological sciences as well.

Other modern scientists have wondered whether there is not something more to the science of man than Pavlov appears to allow. The argument cannot be ended by a few pages, written by exponents of either side. It is Pavlov's ultimate goal that "the human mind will contemplate itself not from within but from without." But it may be asked if such a view is sufficient. Is it really possible to understand man, or for that matter the outside world, without the view from within?

Notes from the artist: "Diagrammatic designs related to his work surround the portrait of Pavlov. Some of the recognizable elements are a dog, parotid glands, the sympathetic reflex, and taste buds at the back of the tongue, showing sensory impulses toward the brain."

PAVLOV

Scientific Study of the So-called Psychical Processes in the Higher Animals[1]

The subject of today's address,[2] delivered in honor of Thomas Huxley, an eminent representative of natural science and a most energetic champion of that greatest biological principle (the doctrine of evolution), is the naturalistic investigation of the psychical processes in the higher animal.

I shall begin with an actual case which occurred in my laboratory a few years ago. Among my collaborators was a young doctor with an active mind capable of appreciating the joys and triumphs of investigation. Great was my astonishment when this loyal friend of science became profoundly disturbed on hearing of our plans to investigate the psychical activity of the dog in that same laboratory and by the same means which we had been using for the solution of physiological questions. All of our arguments were ineffective; he prophesied and hoped for only failure. The cause of this, as far as we could understand, was his idea that the psychical life of man and that of the higher animals was so individual and exalted that it not only did not lend itself to investigation, but would even be sullied by our rude physiological methods. Although this, gentlemen, may have been a somewhat exaggerated example, I believe it is characteristic and typical. In dealing with the highest vital

1. In the expression "the so-called psychical process" the reader will see that the author has taken a new position. Now he considers all of his results as purely physiological. And he rejects definitely the further possibility of investigating subjective states. He begins to bring out a mass of evidence in favor of the purely physiological nature of his data. The artificial conditioned reflex treated of in this chapter strengthened his view and gave new possibilities for thorough experimentation [Translator].
2. Read at the Charing Cross Medical School, London, October 1, 1906.

phenomena, the fact must not be overlooked that a systematic appreciation of natural science to the last limits of life will not be able to avoid misconception and opposition from those who are accustomed to regard these phenomena from another point of view and are convinced that this point of view is unassailable.

This is why I feel it obligatory first to explain exactly and clearly my point of view concerning the psychical activities of the higher animals, and secondly to pass from the preliminaries to the subject itself as soon as possible. I have referred intentionally to psychical activities as "so-called." If the naturalist hopes to make a complete analysis of the activity of the higher animals, he has not the right to speak of the psychical processes of these animals, and he can not so speak without deserting the principles of natural science. This is natural science–the work of the human mind applied to nature, and the investigation of nature without any kind of assumption or explanation from sources other than nature itself. Were the investigator to speak of the psychical faculties of the higher animals, he would be transferring ideas from his own inner world to nature, repeating the procedure of his predecessors who were accustomed, on observing nature, to apply to its inanimate phenomena their own thoughts, wishes and sensations. The naturalist must consider only one thing: what is the relation of this or that external reaction of the animal to the phenomena of the external world? This response may be extremely complicated in comparison with the reactions of lower animals, and infinitely complicated in comparison with the reaction of any inanimate object, but the principle involved remains the same.

Strictly speaking, natural science is under obligation to determine only the precise connection which exists between a given natural phenomenon and the response of the living organism to that phenomenon, or, in other words, to ascertain completely how a living being maintains itself in constant equilibrium with its environment. This assertion can hardly be contested, and is further supported by the fact that it receives daily more and more general acceptance in the investigation of the lower and intermediate stages of the zoological scale. The question is simply whether this rule is already applicable to the examination of the higher functions of the higher vertebrates. A serious endeavor to institute inquiries in that direction is, as it appears to me, the only reasonable answer to the question. I and my many collaborators began this work some years ago and we have recently devoted ourselves to it almost exclusively. I would now ask your attention to an account, first, of the

most important results of this inquiry, which seem to me to be very instructive; and secondly, to an account of the inferences which may be drawn from it.

Our experiments have been performed exclusively on the dog, in which the particular reaction used was an unimportant physiologic process–the secretion of saliva. The experimenter was always working with a perfectly normal animal; *i.e.,* an animal which was not subjected to abnormal influences during the experiment. Exact observations on the work of the salivary glands could be made at any moment by means of a simple method. Saliva flows, as we all know, when something is given the dog to eat or is introduced forcibly into his mouth. Both the quality and the quantity of the saliva, under these conditions, is strictly dependent upon the quality and quantity of the substances brought into the dog's mouth. In this well-known physiological process we have before us a reflex. The idea of reflex action as a special elementary function of the nervous system is an old and established truism of physiology. It is the reaction of the organism to the external world, effected through the nervous system, by which an external stimulus is transformed into a nervous process and transmitted along a circuitous route (from the peripheral endings of the centripetal nerve, along its fibers to the apparatus of the central nervous system, and out along the centrifugal path until, reaching one or another organ, it excites its activity). This reaction is specific and permanent. Its specificity is a manifestation of a close and peculiar relation of the external phenomenon to the physiological action, and is founded on the specific sensibility of the peripheral nerve endings in the given nervous chain. These specific reflex actions in normal life, or to state it much more accurately, in the absence of abnormal vital conditions, are constant and unchanging.

The responses of the salivary glands to external influences are, however, not limited by the above-mentioned ordinary reflex actions. We all know that the salivary glands begin to secrete not only when the stimulus of appropriate substances is impressed on the interior surface of the mouth but that they also often begin to secrete when other receptive surfaces, including the eye and the ear, are stimulated. The actions last mentioned are, however, generally considered apart from physiology and receive the name of psychical stimuli.

We shall take another course, and shall endeavor to restore to physiology what properly belongs to it. These exceptional manifestations unquestionably have much in common with ordinary reflex action. Every time that such a flow of saliva begins it is attributable to the occurrence

of some special stimulus among the external influences that may be recognized. On very careful exercise of his attention the observer perceives that the number of spontaneous flows of saliva forms a rapidly diminishing series, and it is in the highest degree probable that those extremely infrequent flows of saliva, for which no particular cause is at first sight apparent, are, in reality, the result of some stimulus invisible to the eye of the observer. From this it follows that the centripetal paths are always stimulated primarily, and the centrifugal paths secondarily, with the interposition, of course, of the central nervous system. Now these are actually all the elements of a reflex action, the only missing points being exact data as to the operation of the stimulus in the central nervous system. Are we familiar with this last mechanism in the ordinary reflexes? Speaking generally, then, our phenomena are reflexes, but the difference between these newly recognized reflexes and the long-known ones is certainly immense, for they have been assigned to quite different departments of science. Physiology has, therefore, before it the problem of evaluating this difference experimentally, and of establishing the essential properties of the reflexes which have been newly recognized.

In the first place they arise from all the body surfaces which are sensitive to stimulation, even from such regions as the eye and the ear, from which an ordinary reflex action affecting the salivary glands is never known to proceed. It must be mentioned that usual salivary reflexes may originate not only from the cavity of the mouth but also from the skin and the nasal cavity; the skin, however, produces this effect only when it is subjected to some destructive process such as cutting or erosion by caustics, while the nasal cavity produces this effect only through the contact of vapors or gases, such as ammonia, which cause local irritation, but never through the agency of usual odors. In the second place, a conspicuous feature of these reflexes is that they are in the highest degree inconstant. All stimuli applied to the mouth of the dog unfailingly give a positive result with reference to the secretion of saliva, but the same objects when presented to the eye, the ear, etc., may sometimes be efficient and sometimes not. In consequence only of the last-mentioned fact have we provisionally called the new reflexes "conditioned reflexes," and for the sake of distinction we have called the old ones "unconditioned."

The further question naturally arose whether the conditions which determine the occurrence of the "conditioned reflexes" could be investigated, and whether a complete knowledge of the conditions would make it possible to impart to these reflexes a character of constancy. This question

must be regarded, it seems to me, as answered in the affirmative. I will remind you of some well-established laws which have already been published from our laboratory. Every conditioned stimulus becomes totally ineffective on repetition. The shorter the interval between the separate repetitions of the conditioned reflex the more quickly is this reflex extinguished. The extinguishing of one conditioned reflex does not affect the operation of the others. Spontaneous restoration of extinguished conditioned reflexes does not occur until after the lapse of one, two, or more hours, but there is a way in which our reflex may be restored immediately. All that is necessary is to obtain a repetition of the *un*conditioned reflex, as, for instance, by pouring a weak solution of acid into the dog's mouth and then either showing it to him or letting him smell it. The action of the last-mentioned stimulus, which was previously quite obliterated, is now restored in its full extent. The following fact can be regularly observed: If for a long time, such as days or weeks continuously, a certain kind of food is shown to the animal without it being given to him to eat, it loses its power of stimulating from a distance, that is, its power of acting from the eye, the nose, etc. These last-mentioned facts show plainly the close connection which exists between the stimulant effects of various properties of the substance–namely, the effects of the properties which excite secretion of saliva when the substance is in the mouth–and the effects of other properties of the same substance acting upon other receptive surfaces of the body. This material gives us the ground for assuming that the conditioned reflex in some way originates owing to the existence of the unconditioned reflex. And at the same time we may perceive the main features of the mechanism which gives rise to the conditioned reflex. When an object is placed in the mouth of the dog, some of its properties excite the simple reflex apparatus of the salivary glands; and for the production of our conditioned reflex that action must synchronize with the action of other properties of the same object influencing other receptive regions of the body whence the excitation is conveyed to other parts of the central nervous system. Just as the stimulant effects due to certain properties of an object placed in the mouth (unconditioned reflex) may coincide with a number of stimuli arising from other objects, so all these manifold stimuli may by frequent repetition be turned into conditioned stimuli for the salivary glands. Such stimuli may arise from the man who feeds the dog or who forcibly introduces certain articles into the dog's mouth, or they may owe their origin to the general environment in which this takes place. For this reason the above-mentioned experiments, by which the laws of the con-

ditioned reflexes must be determined, require for their performance a well-trained experimenter who can really investigate only the action of the given conditioned stimulus or a definite number of such stimuli, without unconsciously introducing new stimuli with each successive repetition. If this last condition is not realized the laws in question will naturally be obscured. It must be remembered that in feeding a dog or forcing something into his mouth, each separate movement and each variation of a movement may by itself represent a conditioned stimulus. If that is the case, and if our hypothesis as to the origin of the conditioned reflex is correct, it follows that any natural phenomenon chosen at will may be converted into a conditioned stimulus. This has, in effect, been proved to be true. Any visual stimulus, any desired sound, any odor, and the stimulation of any part of the skin, either by mechanical means or by the application of heat or cold, have never failed in our hands to stimulate the salivary glands, although before they were all ineffective for that purpose. This was accomplished by applying the stimuli simultaneously with the action of the salivary glands, their action having been evoked by the giving of certain kinds of food, or by forcing certain substances into the dog's mouth. These artificial conditioned reflexes,[3] the product of our training, showed exactly the same properties as the previously described natural conditioned reflexes. As regards their extinction and restoration they followed essentially the same laws as the natural conditioned reflexes.[4] Thus we have the right to say that our analysis of the origin of conditioned reflexes is proved by the facts.

3. The possibility of establishing these artificial conditioned reflexes was of great importance. First of all it proved that the circumstances which give rise to the conditioned reflex . . . are adequately explained by the proposed theory. Besides this, the intentional formation of conditioned reflexes made possible a more thorough and conscious experimentation [Translator].

4. Professor Pavlov says (*Activity of the Cerebral Hemispheres,* p. 49):

> Formerly we made a distinction between "natural" and "artificial" conditioned reflexes; "natural" reflexes being those which appeared to be formed spontaneously as a result of the natural association of, for example, the sight and smell of food with the eating of food itself, or of the procedure of introducing acid or some rejectable substances with the acid or the rejectable substance itself, while "artificial" reflexes were those which could be formed as a result of artificially associating with the food or rejectable substance, stimuli which in the ordinary course of events have nothing in common with food or the rejectable substance. At the present time, however, we know that there is not the slightest difference in properties between all these reflexes. I mention this fact here because the numerous experiments of the earlier period of our work were carried out with the "natural" conditioned reflexes, and it is from these that I shall draw many examples in the present lecture. All the numerous artificial stimuli which we now use every day in our experiments were important to us at the time of those experiments because they provided easily controlled, exact, and regularly reproducible

Now that so much has been adduced on the subject we may advance further than was possible at the outset in the understanding of conditioned reflexes. In the manifestations of nervous energy which have up to the present time been submitted to careful scientific examination (our old specific reflex), the stimuli with which we had to do were comparatively few in number, but very constant in their action, and there was abundant evidence of a constant connection existing between the external influences and definite physiological effects. Now, however, in another more complicated part of the nervous system we encounter a new phenomenon, namely, the conditioned stimulus. On the one hand, this nervous apparatus becomes responsible in the highest degree, *i.e.,* it is susceptible to the most varied external stimuli, but, on the other hand, these stimuli are not constant in their operation and are not definitely associated with certain physiological effects. At any given moment we find comparatively few circumstances favorable for these stimuli becoming active in the organism for a longer or shorter time and producing distinct physiological results.

The introduction of the idea of conditioned stimuli into physiology seems to me to be justified for many reasons. In the first place, it corresponds to the facts that have been adduced, since it represents a direct inference from them. In the second place, it is in agreement with the general mechanical hypotheses of natural science. In many kinds of apparatus and machinery, even of simple construction, certain forces can not develop their action unless at the proper time the necessary conditions are present. In the third place, it is completely covered by the ideas of facilitation (bahnung) and inhibition, ideas which have been sufficiently elaborated in recent physiological literature. Finally, in these conditioned stimuli, looked at from the point of view of general biology, we have a most perfect mechanism of adaptation, or, what amounts to the same thing, a very delicate mechanism for maintaining an equilibrium with the surrounding medium. The body has the capacity to react in a sensitive way to the phenomena of the outer world which are essential to it, because all other phenomena of the outer world, even the most insignificant, coinciding even temporarily with the essential become their indicators or, as they may be called, their signalling stimuli. The delicacy of the reaction shows itself both in the production of the con-

stimuli, and because they could be applied to check the correctness of our conception of the mechanism by which natural conditioned reflexes are formed. At present the artificial stimuli predominate in importance because of the vast field of research they have unfolded to us and because they came ultimately to provide the most important material for our investigation [Translator].

ditioned stimulus and in its disappearance when it ceases to be a proper signal. There must be assumed to exist at this point one of the chief mechanisms for further discrimination in the nervous system. In view of all this, it is permissible, I think, to regard the idea of conditioned stimuli as the fruit of previous labors of biologists, and to consider my present report as illustrating the result of this work on a most complicated subject. It would be unreasonable to attempt to determine at present the limits of the immense field thus opened and to partition it. The following must be regarded as, and nothing more than, a provisional arrangement of material that has been collected, giving only the points indispensable for purposes of explanation.

There are reasons for considering the process of the conditioned reflex to be elementary, namely, a process which consists only in the coincidence of any one of the innumerable indifferent external stimuli with a state of excitation of a point in a definite part of the central nervous system. Now a path is established between the former indifferent stimulus and this given point. The first argument in favor of this hypothesis is the repeated occurrence of this phenomenon: the conditioned reflex may be obtained in all dogs, and it may be produced by all imaginable stimuli. In the second place, there is the certainty of its occurrence; under definite conditions it is reproduced inevitably. We see, therefore, that the process is not complicated by any other (and unknown) conditions. It may here be mentioned that various conditioned stimuli which had been rendered effective were applied at a distance, as from another room; the experimenter, who for the purpose of obtaining the conditioned reflex usually either gave the dog something to eat or put a substance of some kind into the dog's mouth, was not now in close proximity to the animal, but the result of the stimuli was, nevertheless, the same.

It has already been stated that every imaginable phenomenon of the outer world affecting a specific receptive surface of the body may be converted into a conditioned stimulus. After conditioned reflexes had been obtained from the eye, the ear, the nose, and the skin, it was a matter of interest to know what relation the cavity of the mouth had to the general question, and whether a conditioned reflex originated in the mouth. The answer to the inquiry could not be a simple one, because in this case not only the receptive surfaces for the stimuli of the conditioned and of the unconditioned reflex, but also the stimuli themselves were all brought together. Careful observations, however, have made it possible to separate the conditioned stimulus from the unconditioned stimulus even in this instance. When inedible, irritant sub-

stances were many times in succession forcibly introduced into the dog's mouth, we could observe the following facts:

If, for instance, a certain amount of acid was poured into the dog's mouth many times in succession, on each fresh repetition of this procedure, there was regularly a greater flow of saliva; the same thing was repeated on a series of successive days until a certain maximum was attained, whereupon for a considerable time the secretion remained constant. If the experiments were stopped for some days the quantity of saliva secreted became much less. This fact could be very simply explained as follows. On the first administration of the acid solution the secretion of saliva depended principally, or even exclusively, on the unconditioned reflex which the acid caused, while the subsequently occurring increase in secretion pointed to a conditioned reflex gradually formed under the influence of the same acid, and having as its receptor surface also the mouth cavity.

We will now consider the conditions which determine the formation of conditioned reflexes. This question taken comprehensively is naturally a vast one. The following account will serve to give you only a slight idea of the full compass of this vast subject.

Although there are great differences in the time required for the establishing of a conditioned reflex, some relations have been seen to exist. From our experiments it is evident that the intensity of the stimulus is of essential importance. We have some dogs in which the cooling or warming of a definite place on the skin acted as a conditioned stimulus for the salivary glands. A temperature of zero or 1° C. in an experiment repeated 20 or 30 times caused saliva to flow, whilst a temperature of 4° or 5° C. in an experiment repeated 100 times gave no effect whatever. Exactly the same thing occurs with high temperatures. Heat of 45° C. applied as a conditioned stimulus showed similarly no action after even 100 applications; a temperature of 50°, on the other hand, caused a secretion of saliva after from 20 to 30 applications. In contradistinction to this we must state with regard to acoustic stimuli that very loud sounds such as the violent ringing of a bell did not, in comparison with weaker stimuli, quickly establish a conditioned reflex. It can be assumed that powerful acoustic stimuli call out some other important reaction in the body (*e.g.,* motor), which hinders the development of the salivary response.

There is another group of related phenomena which deserves mention. When an odor not naturally exciting the salivary reflex—that of camphor, for instance—is by means of a special apparatus diffused, this

diffusion of the odor must be made to coincide 10 or 20 times with the action of the unconditioned stimulus, such as acid poured into the dog's mouth. But if some of the odoriferous material is added to the acid, the new odor after one or two administrations acts as a conditioned stimulus. It should be asked whether the important circumstance in this experiment is the exact coincidence in time of the conditioned reflex or something else.

For the sake of brevity I will entirely omit the technical details, such as by what methods the conditioned reflexes are best obtained; whether with food or with nonfood substances; how many times the various stimuli may be applied in a day; with what length of intermissions, and so on. Next in order comes the important question, What are the stimuli that the nervous system of the dog recognizes as individual phenomena in the outer world? Or, in other words, What are the elements of a stimulus? With regard to this a good deal of evidence is in existence already. If the application of cold to a definite area of the skin (a circle having a diameter of from four to five centimeters) acts as a conditioned stimulus for the salivary glands, the application of cold to any other portion of the skin causes secretion of saliva on the very first occasion. This shows that the stimulation by cold is generalized over a considerable part of the skin, or perhaps even over the whole of it. But the application of cold to the skin is very clearly distinguished as such from the application of heat and from mechanical stimulation. Each of these stimuli must be elaborated separately in order to give a conditioned reflex. Just as in the case of cold, the application to the skin of heat as a conditioned stimulus also generalizes itself. This is equivalent to saying that if an application made to one place on the skin stimulates the salivary glands, an application made to another cutaneous area will also produce a secretion of saliva. Totally different results were yielded by mechanical stimulation of the skin, such as rubbing with a coarse brush (by means of a special apparatus). When this treatment applied to a certain area of the skin had become converted into a conditioned stimulus, the same treatment applied to another place on the skin remained completely ineffective. Other forms of mechanical stimulation, such as pressure with a sharp or a blunt object, proved themselves less effective. Apparently the first mechanical stimulus formed only a small part of the latter.

Stimulation by musical sounds or by noises is remarkably convenient for determining the discriminating or analytical faculty of the nervous system of the dog. In this respect the precision of our reaction is very great. If a certain note of an instrument is employed as a conditioned

stimulus, it often happens that not only all the notes adjoining it but even those differing from it by a quarter of a tone fail to produce any effect. Musical timbre (quality) is recognized with similar or even with much greater precision. An external agent acts as a conditioned stimulus not only when it comes on the scene but also when it disappears, so that either its beginning or its end may be made the stimulus. Of course, a separate analysis has to be undertaken in order to explain the nature of such stimuli.

We have hitherto spoken of the analytical ability of the nervous system as it presents itself to us in, so to say, a finished state. But we have now accumulated material which contains evidence of a continuous and great increase of this ability if the experimenter persists in subdividing and varying the conditioned stimuli. Here, again, is a new field of enormous extent.

In the material relating to the various conditioned stimuli, there are not a few cases in which can be seen an evident connection between the intensity of a stimulus and its effect. As soon as a temperature of 50° C. had begun to provoke a flow of saliva, it was found that even 30° C. had a similar but lesser effect. An analogous result may be observed in cases of mechanical stimulation. A diminished rate of rubbing with the brush (5 strokes instead of 25 to 30 strokes per minute) gives less saliva than the ordinary rate of rubbing, and accelerated rubbing (up to 60 strokes per minute) gives more saliva.

Furthermore, combinations consisting of stimuli of the same kind and also of stimuli of different kinds were tried. The simplest example is a combination of different musical tones, such as a chord consisting of three tones. When this is employed as a conditioned stimulus, the tones played in pairs and each separate tone of the chord produce an effect, but the pairs produce less saliva than the three together, and the notes played separately less than those played in pairs. The case becomes more complicated when we employ as a conditioned stimulus a combination of stimuli of different kinds, that is, of stimuli acting upon different receptive surfaces. Only a few of such combinations have been provisionally experimented with. In these cases, one of the stimuli generally became a conditioned stimulus. In a combination in which rubbing and cold were employed the former was preponderant as a conditioned stimulus, while the application of cold taken by itself produced an effect hardly perceptible. But if an attempt is made to convert the weaker stimulus separately into a conditioned stimulus it soon acts energetically. If we now apply the two stimuli together, we have before us an increased effect resulting from the summation of stimuli.

The following problem had for its object the explanation of what happens to an active conditioned stimulus when a new stimulus is added to it. In the cases that we examined we saw that the action of the previously formed conditioned stimulus was disturbed when a new stimulus of like kind was added to it. A new similar odor inhibited the operation of another odor which was already a conditioned stimulus; a new musical note likewise impeded the action of a note employed as a conditioned stimulus, and just previously applied. It is not without interest, I think, to mention that we started with these experiments with another object in view. We were intending to form a new conditioned reflex with the aid of another conditioned reflex which had been previously formed. We accordingly experimented with combinations of dissimilar stimuli. Researches in this direction are well advanced. We have to discriminate between different cases. Some examples may be given. Scratching (or rubbing with a brush) may be a ready and effective conditioned stimulus. When we add to it the ticking of a metronome, applying both stimuli simultaneously, the scratching immediately loses its efficacy as a stimulant during the first applications (first phase); and this loss extends over some days but returns again, notwithstanding the addition of the metronome, and now our double stimulus has nearly the same effect as the scratching alone (second phase); later, scratching, when applied simultaneously with the metronome, ceases to act and the influence of this double stimulus now comes to an end altogether (third phase). When the glare of an ordinary electric lamp is added to scratching which is a conditioned stimulus, the scratching at first produces exactly the same effect as before when it was without the lamp, but afterwards the combination of scratching and the luminous stimulus ceases to act.[5] Apparently a phenomenon of the same kind was observed when the action of other mechanical stimuli was experimented with instead of the scratching which had been made to play the part of a conditioned stimulus. In the first place, secretion of saliva was caused by pressure with a sharp as well as with a blunt object, but to a less degree than by scratching; on repetition, however, the effect of the pressure stimulus became progressively less, until finally, it altogether disappeared.

We may assume that a part of the stimulation by the sharp and blunt

5. As in both these cases the action of the new agent which checks the activity of the conditioned agent, must be especially elaborated by coincidence of the conditioned stimuli with this new agent (in the cases cited, metronome or light) and with lack of activity, *i.e.,* elaborated in a direction opposite to that of the conditioned stimulus, this new agent was designated as a conditioned *inhibitor* and the corresponding process as conditioned inhibition. The building up of this conditioned inhibition [is discussed elsewhere by Pavlov]. [Translator.]

objects was identical with scratching, and that this component was responsible for the action of these objects during their first applications. But a part of the action was special; it led in the course of time to a destruction of the influence of the first. In these inhibitions we see the following phenomenon which in all experiments of this kind is regularly repeated. After a conditioned stimulus had been applied together with another one which inhibited its action, the effect of the first one tried alone was greatly weakened, and sometimes even arrested completely. This is either an aftereffect of the inhibiting stimulus which was added, or it is the extinguishing of the conditioned reflex because in the experiment with the added stimulus the conditioned reflex had not been strengthened by the unconditioned reflex.

The inhibition of the conditioned reflex is observed also in the converse case. When you have a combination of agents acting as a conditioned stimulus, in which, as has been already stated, one of the agents by itself produces almost no effect, then frequent repetition of the powerfully acting stimulus alone, without the other one, leads to a marked inhibition of its action, almost to the point of its annihilation. The relative magnitudes of all these manifestations of stimulation and inhibition are closely dependent on the conditions under which they originate.

The following is an example. We assume that the stimulus of scratching is acting as a conditioned reflex in the following manner: In the first place nothing but scratching was employed for 15 seconds, then acid was poured into the dog's mouth, scratching being continued up to the end of one minute. If you now apply scratching for a full minute, you get a copious secretion of saliva. Try to keep up this reflex, that is, continue the scratching for a second minute, and only then pour acid into the dog's mouth. If you do this several times in succession, the effect of the scratching will quickly diminish during the first minute and will ultimately cease altogether. In order that the scratching may regain its efficiency during the first minute, it is only necessary to repeat the experiment several times; indeed, its effect will be even greater than it was in the previous experiments.

We have observed a similar course of events also in the exact measurement of the inhibitory effect.

Finally, it may be mentioned that the attempt was made to form conditioned reflexes from the traces [6] of the latest remnants or afteref-

6. Trace reflexes are the remnants of the excitations in the central nervous system. The traces of the excitation are supposed to function as signals for the setting in of the action. As stated in the text, these conditioned trace reflexes have quite peculiar

fects, both of a conditioned and of an unconditioned stimulus. This was accomplished by allowing a conditioned stimulus to act for one minute immediately before the unconditioned stimulus, or by even three minutes earlier. There was always an interval of a few seconds to several minutes between the stimuli. In all these cases the conditioned reflex developed. But in the cases in which the conditioned stimulus was applied three minutes before the unconditioned one, and was separated from the latter by an interval of two minutes, we obtained a result which, although quite unexpected and extremely peculiar, always occurred. When scratching, for example, was applied to a certain spot on the skin as a conditioned stimulus, after it became active we found that scratching of any other place also produced an effect; cold or heat applied to the skin, new musical sounds, optical stimuli, and odors–all these had the same effect as the conditioned stimulus. The unusually copious secretion of saliva and the extremely expressive movements of the animal attracted our attention. During the action of the conditioned stimulus the dog behaved exactly as if the acid which served as the unconditioned stimulus had been actually poured into its mouth.

It may appear that this phenomenon is of a different order from those with which we have hitherto been occupied. The fact is that in the earlier experiments at least one coincidence of the conditioned stimulus with the unconditioned one was necessary; but in these experiments, phenomena which had never occurred simultaneously with an unconditioned reflex were acting as conditioned stimuli. Here an unquestionable difference naturally comes to light, but at the same time there is seen an essential property of these phenomena which they have in common with the former ones, that is, the existence of an easily excitable point in the central nervous system, to which, as a result of its condition, are directed all the essential stimuli from the external world that affect the cells of the highest parts of the brain.

I now bring to a close my cursory and very incomplete summary of the data which have been obtained in this new field of research. Three characteristic features of this subject deeply impress the investigator. In the first place, these phenomena are easily accessible for exact investigation, being in this respect scarcely inferior to the ordinary physiological phenomena. I refer to the ease with which they may be repeated–beyond all expectation–to their uniformity under similar conditions

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properties. The reader will meet with references to them at several places throughout the lectures. [Translator.]

of experimentation, and to the fact that they are suitable for experimental analysis. In the second place, there is the possibility of considering this subject objectively. The introduction of a few subjective considerations which we admitted now and again for purposes of comparison seemed on further reflection to be an act of violence or an affront to a serious intellectual endeavor. In the third place, the subject involves an unusual number of stimulating questions for the investigator.

Under what heading is the subject to be classified? To what part of physiology does it correspond? The reply to this question presents no difficulties. It corresponds partly to what was, in former days, the physiology of the special sense organs, and partly to the physiology of the central nervous system.

Up to the present time the physiology of the eye, ear, and other receptor organs has been regarded almost exclusively in its subjective aspect; this presented some advantages, but at the same time, of course, limited the range of inquiry. Investigation by the method of conditioned stimuli in higher animals avoids this limitation, and a number of important questions in this field of research can be at once examined with the aid of all the immense resources which experiments on animals place in the hand of the physiologist. Owing to the shortness of the time that remains it is impossible to give illustrations of such questions. The investigation of conditioned reflexes is even of greater importance for the physiology of the highest parts of the central nervous system. Hitherto this department of physiology, throughout most of its extent, has been cluttered with foreign ideas, borrowed from psychology, but now there is a possibility of its being liberated from such harmful dependence. The conditioned reflexes disclose before us the vast field of the relations and reactions of animals to nature; this is a subject of immense extent and one that must be treated objectively. The physiologist can and must examine these reactions, using in connection with them progressive and systematic removal of parts of the central nervous system in order that he may ultimately arrive at an exact knowledge of the mechanism involved. And here arise at once some urgent and practical questions.

Still one point remains. What relation is there between psychological data and the facts just described? What points of mutual correspondence are there? Who will occupy himself with these relations? and when? This relationship may be interesting even now, but it must be confessed that physiology has at present no serious reason for discussing it. Its immediate problem is to collect and to analyze the endless amount of objective

material which presents itself. But it is plain that the conquest which physiology has yet to make consists for the most part of the actual solution of those questions which hitherto have vexed and perplexed humanity. Mankind will possess incalculable advantages and extraordinary control over human behavior when the scientific investigator will be able to subject his fellow men to the same external analysis as he would employ for any natural object, and when the human mind will contemplate itself not from within but from without.

Must I say something about the relationship which exists between medicine and the subject of my address? Physiology and medicine are fundamentally inseparable. If the physician is in his actual practice, and even more important, in his ideals, a mechanic of the human organism, then inevitably every fresh discovery in physiology will sooner or later increase his power over this extraordinary machine, his power to conserve and repair this mechanism. It is extremely gratifying to me that in honoring the memory of a great naturalist and man of science I am able to make use of ideas and facts which from this single successful point of view promise to throw light upon the highest and most complicated part of the animal mechanism. I am fully persuaded of, and boldly express my confidence in, the ultimate triumph of this new method of research and I avow it the more fearlessly because Thomas Huxley, who is an example to all of us, fought with rare courage for the freedom and the rights of the scientific point of view.

The foregoing comprises Chapter IV
of LECTURES ON CONDITIONED REFLEXES.
Translated by W. Horsley Gantt.

Friedrich Wöhler

1800–1882

Friedrich Wöhler was born near Frankfurt am Main, Germany, in 1800. He studied at Heidelberg, where he worked in Gmelin's laboratory. Gmelin told him that he need not attend the chemistry lectures, as they would be, for him, a waste of time. He took a degree in medicine but was persuaded to devote himself to chemistry. He studied in Sweden and taught at Berlin and Cassel; in 1836 he was appointed professor of chemistry at Göttingen, in which position he remained until his death. He made Göttingen famous for its department of chemistry, and many prominent chemists were trained by him.

Wöhler's greatest single contribution to the science of chemistry was the synthesis of urea, his paper on which follows. This important work was done when he was only twenty-eight. He also, in company with the chemist Justus von Liebig, laid the foundations of organic chemistry—the chemistry of carbon compounds. He isolated, analyzed and studied many elements and compounds, the most notable among them being perhaps aluminum. His studies touched upon practically every known element. In his youth, chemistry was an open field of endeavor. Because of his work and that of others, the science of chemistry was divided into various special fields of investigation; now no man can do the kind of wide-ranging experimentation that Wöhler so much enjoyed.

Wöhler published more than 300 papers and memoirs on chemical subjects. He received many honors. He died in Göttingen on September 23, 1882.

Research gave the unexpected result," Wöhler writes, "that by the combination of cyanic acid with ammonia, urea is formed, a fact

that is noteworthy since it furnishes an example of the artificial production of an organic, indeed a so-called animal substance, from inorganic materials." The fact was indeed noteworthy. For with these few lines, and the short paper that supported them, a new epoch in thought was inaugurated. If an organic substance could be made in the laboratory out of inorganic materials, where was the essential dividing line between life and non-life?

Aristotle held that living things acted in a different way from non-living ones.[1] Each living thing had a principle of life, an entelechy, which naturally defined its form and function. This view was not seriously disputed until the seventeenth century, when Descartes suggested that animals, if not men, were machines subject to the basic mechanical laws that governed all natural things, living or non-living.[2] Descartes' idea was not a popular one. The theory of "vitalism" countered it. To vitalists, the word "machine" expressed exactly what the animal body was not. Living organisms were not governed by physical and chemical laws, but by laws of a completely different kind. Wöhler's three pages delivered an exacting challenge to vitalism.

Wöhler does not mention vitalism. Humbly, in true scientific fashion, he refrains "from the considerations which so naturally offer themselves as a consequence of these facts." He notes, however, with wonderful diffidence, that "from further experiments on these and similar cases, a general law might be deduced." He did not have to plunge into the controversy which continues to our day. He knew what he had done, and he knew also that other men would not refrain from consideration of the consequences of it.

What is life? Is there something mysteriously different about it, or is the difference between living and non-living things merely a matter, as some modern scientists say, of the relative size of molecules? An answer to this question—one which is completely satisfactory to everybody—may never be forthcoming. But the answer, whatever its form, will have to take into account this paper of Wöhler's, written by a twenty-eight-year-old chemist who did not have to attend class because he already knew so much.

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[1] See *Great Books of the Western World.*
[2] See *Great Books of the Western World.*

On the Artificial Production of Urea

In a brief earlier communication, printed in Volume III of these Annals, I stated that by the action of cyanogen on liquid ammonia, besides several other products, there are formed oxalic acid and a crystallizable white substance, which is certainly not ammonium cyanate, but which one always obtains when one attempts to make ammonium cyanate by combining cyanic acid with ammonia, *e.g.*, by so-called double decomposition. The fact that in the union of these substances they appear to change their nature, and give rise to a new body, drew my attention anew to this subject, and research gave the unexpected result that by the combination of cyanic acid with ammonia, urea is formed, a fact that is noteworthy since it furnishes an example of the artificial production of an organic, indeed a so-called animal substance, from inorganic materials.

I have already stated that the above-mentioned white crystalline substance is best obtained by breaking down silver cyanate with ammonium chloride solution, or lead cyanate with liquid ammonia. In the latter way I prepared for myself the not unimportant amounts employed in this research. It was precipitated in colourless, transparent crystals, often more than an inch long. . . .

With caustic soda or chalk this substance developed no trace of ammonia; with acids it showed none of the breakdown phenomena of cyanates which occur so easily, namely, the evolution of carbon dioxide and cyanic acid; neither could the lead and silver salts be precipitated from it, as from a true cyanate; it could thus contain neither cyanic acid nor ammonia as such. Since I found that by the last named method of preparation no other product was formed and the lead oxide was separated in a pure form, I imagined that an organic substance might arise by the union of cyanic acid with ammonia, possibly a substance like a vegetable salifiable base. I therefore made some experiments from this

point of view on the behaviour of the crystalline substance to acids. But it was indifferent to them, nitric acid excepted; this, when added to a concentrated solution of the substance, produced at once a precipitate of glistening scales. After these had been purified by several recrystallizations, they showed very acid characters, and I was already inclined to take the compound for a real acid, when I found that after neutralization with bases it gave salts of nitric acid, from which the crystallizable substance could be extracted again with alcohol, with all the characters it had before the addition of nitric acid. This similarity to urea in behaviour induced me to make parallel experiments with perfectly pure urea separated from urine, from which I drew the conclusion that without doubt urea and this crystalline substance, or ammonium cyanate, if one can so call it, are absolutely identical compounds.

I will describe the behaviour of this artificial urea no further, since it coincides perfectly with that of urea from urine, according to the accounts of Proust, Prout and others, to be found in their writings, and I will mention only the fact, not specified by them, that both natural and artificial urea, on distillation, evolve first large amounts of ammonium carbonate, and then give off to a remarkable extent the stinging, acetic-acid-like smell of cyanic acid, exactly as I found in the distillation of mercuric cyanate or uric acid, and especially of the mercury salt of uric acid. In the distillation of urea, another white, apparently distinct substance also appears, with the examination of which I am still occupied.

But if the combination of cyanic acid and ammonia actually gives urea, it must have exactly the composition allotted to ammonium cyanate by calculation from my composition formula for the cyanates; and this is in fact the case if one atom of water is added to ammonium cyanate, as all ammonium salts contain water, and if Prout's analysis of urea is taken as the most correct. According to him, urea consists of

Nitrogen	46.650	4 atoms
Carbon	19.975	2 atoms
Hydrogen	6.670	8 atoms
Oxygen	26.650	2 atoms
	99.875	

But ammonium cyanate would consist of 56.92 cyanic acid, 28.14 ammonia, and 14.75 water, which for the separate elements gives

Nitrogen	46.78	4 atoms
Carbon	20.19	2 atoms
Hydrogen	6.59	8 atoms
Oxygen	26.24	2 atoms
	99.80	

One would have been able to reckon beforehand that ammonium cyanate with 1 atom of water has the same composition as urea, without having discovered by experiment the formation of urea from cyanic acid and ammonia. By the combustion of cyanic acid with copper oxide one obtains 2 volumes of carbon dioxide and 1 volume of nitrogen, but by the combustion of ammonium cyanate one must obtain equal volumes of these gases, which proportion also holds for urea, as Prout found.

I refrain from the considerations which so naturally offer themselves as a consequence of these facts, *e.g.*, with respect to the composition proportions of organic substances, and the similar elementary and quantitative composition of compounds of very different properties, as for example fulminic acid and cyanic acid, a liquid hydrocarbon and olefiant gas (ethylene). From further experiments on these and similar cases, a general law might be deduced.

Sir Charles Lyell

1797–1875

Charles Lyell was born in Scotland in 1797, the son of a botanist and translator of Dante. Like his father, he was for a time divided in his choice of a career. At Oxford he studied science, but to earn his bread he prepared for the law. He entered Lincoln's Inn and was called to the bar in 1825. But he had become progressively more drawn to science; and, after a conflict which lasted several years, he gave up the law and devoted himself entirely to geology. His major work, *The Principles of Geology,* was completed, in its first edition at least, by the time he was thirty-six years old.

A great theorist, Lyell was also a painstaking observer. He studied the marine remains of the Italian Tertiary strata and gave the names Eocene, Miocene, and Pliocene to the various ages of the earth. He traveled through Scandinavia and wrote a paper about Swedish mountains. He visited America twice, where he estimated the rate of recession of Niagara Falls, the average yearly increase of the Mississippi Delta, and the composition of the underlying vegetable matter of the Great Dismal Swamp, in Virginia. With another geologist, he discovered the earliest known land shell.

Unlike his friend Charles Darwin, Lyell was knighted by Queen Victoria, and later created a baronet. Though he accepted Darwin's theory–he had, indeed, helped to inspire it with his own work–Lyell was not attacked for his views. It may be that geology is less controversial than anthropology. He died, full of years and honors, on February 22, 1875, and was buried in Westminster Abbey.

Lyell's teacher at Oxford, Dr. Buckland, was a "catastrophist." Catastrophism maintained that the earth's present conformation was

the result of a series of geological crises, ending with the Biblical flood. This was an old idea, and it was still commonly believed in Lyell's youth.

In the centuries before Lyell, men looked at the earth and saw that it was changing, in its main characteristics, very slowly. There was, nevertheless, evidence that it had once been very different. The two facts would not have given trouble if devout Christians had not also believed that the earth was comparatively young. As late as 1800, it was widely held that the world had been created in 4004 B.C. Catastrophism seemed the only way out of the dilemma.

It was impossible to deny the slowness of geological change. Mountains do not rise overnight, and rivers wear away their valleys at a pace imperceptible even to generations. It was also impossible to deny the differences in the past. Marine fossils were discovered high above present sea level. Whole continents had apparently changed their shape. Thus, if catastrophism was unacceptable, something else had to give way.

What gave way was the view of the age of the earth. The effect of Copernicus had been immensely to increase the size of the universe. The effect of Lyell was immensely to increase its age. Lyell's *Principles of Geology* showed, beyond the possibility of reasonable doubt, that the earth was unimaginably old. His later studies, in which he supplied evidence of the antiquity of man, so useful to Darwin, were as nothing to his proofs of the antiquity of fossils like *Pupa vetusta,* the earliest known land shell. If that little shell was as old as he said it was, much that men believed in would have to be given up.

Darwin, for example, received from Lyell a fact essential to his theory of natural selection. Darwin had derived from Malthus the idea that the pressure of environment, the "struggle for existence," might be the cause of selection. But he could not see, as long as he believed that the world was only a few thousand years old, how the evolution of species could have occurred. When he read Lyell,

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Notes from the artist: "Lyell's classic work on the nomenclature of geologic periods, which he developed largely through his study of sea-shell deposits, inspired the technique and form of this portrait."

Charles Lyell

his eyes were opened. Now there was plenty of time. Age after age stretched out behind the present, during which the slow, cumulative changes that his hypothesis called for could have taken place.

There may have been other effects of Lyell's work. The Copernican Revolution is said to have been one of the greatest shocks that mankind ever experienced. Infinite space "terrified" Pascal. Was it also disturbing to discover that a man's lifetime, once thought to be a significant portion of the total life of the earth, was no more than an infinitesimal part of it?

On the other hand, if the earth had great antiquity, was it not also reasonable to believe that its future might be equally vast in extent? Those who believed that the world had been created in 4004 B.C. also believed that it would end fairly soon. Was it possible now to envision an almost unlimited future, in which mankind could shape a better, a more just and satisfying, existence?

Geological Evolution

from *The Principles of Geology*

Having considered, in the preceding volumes, the actual operation of the causes of change which affect the earth's surface and its inhabitants, we are now about to enter upon a new division of our inquiry, and shall therefore offer a few preliminary observations, to fix in the reader's mind the connection between two distinct parts of our work, and to explain in what manner the plan pursued by us differs from that more usually followed by preceding writers on geology.

All naturalists, who have carefully examined the arrangement of the mineral masses composing the earth's crust, and who have studied their internal structure and fossil contents, have recognized therein the signs of a great succession of former changes; and the causes of these changes have been the object of anxious inquiry. As the first theorists possessed but a scanty acquaintance with the present economy of the animate and inanimate world, and the vicissitudes to which these are subject, we find them in the situation of novices, who attempt to read a history written in a foreign language, doubting the meaning of the most ordinary terms; disputing, for example, whether a shell was really a shell, whether sand and pebbles were the result of aqueous trituration, whether stratification was the effect of successive deposition from water; and a thousand other elementary questions which now appear to us so easy and simple that we can hardly conceive them to have once afforded matter for warm and tedious controversy.

In the first volume we enumerated many prepossessions which biassed the minds of the earlier inquirers, and checked an impartial desire of arriving at truth. But of all the causes to which we alluded, no one contributed so powerfully to give rise to a false method of philosophizing as the entire unconsciousness of the first geologists of the extent of their own ignorance respecting the operations of the existing agents of change.

They imagined themselves sufficiently acquainted with the mutations now in progress in the animate and inanimate world, to entitle them at once to affirm, whether the solution of certain problems in geology, could ever be derived from the observation of the actual economy of nature, and having decided that they could not, they felt themselves at liberty to indulge their imaginations, in guessing what *might be,* rather than inquiring *what is*; in other words, they employed themselves in conjecturing what might have been the course of nature at a remote period, rather than in the investigation of what was the course of nature in their own times.

It appeared to them more philosophical to speculate on the possibilities of the past, than patiently to explore the realities of the present, and having invented theories under the influence of such maxims, they were consistently unwilling to test their validity by the criterion of their accordance with the ordinary operations of nature. On the contrary, the claims of each new hypothesis to credibility appeared enhanced by the great contrast of the causes or forces introduced to those now developed in our terrestrial system during a period, as it has been termed, of *repose*.

Never was there a dogma more calculated to foster indolence and to blunt the edge of curiosity, than this assumption of the discordance between the former and the existing causes of change. It produced a state of mind unfavourable in the highest conceivable degree to the candid reception of those minute, but incessant mutations, which every part of the earth's surface is undergoing, and by which the condition of its living inhabitants is continually made to vary. The student, instead of being encouraged with the hope of interpreting the enigmas presented to him in the earth's structure, instead of being prompted to undertake laborious inquiries into the natural history of the organic world, and the complicated effects of the igneous and aqueous causes now in operation, was taught to despond from the first. Geology, it was affirmed, could never rise to the rank of an exact science–the greater number of phenomena must for ever remain inexplicable, or only be partially elucidated by ingenious conjectures. Even the mystery which invested the subject was said to constitute one of its principal charms, affording, as it did, full scope to the fancy to indulge in a boundless field of speculation.

The course directly opposed to these theoretical views consists in an earnest and patient endeavour to reconcile the former indications of change with the evidence of gradual mutations now in progress; restricting us, in the first instance, to known causes, and then speculating on

those which may be in activity in regions inaccessible to us. It seeks an interpretation of geological monuments by comparing the changes of which they give evidence with the vicissitudes now in progress, or which may be in progress.

We shall give a few examples in illustration of the practical results already derived from the two distinct methods of theorizing, for we now have the advantage of being enabled to judge by experience of their respective merits, and by the respective value of the fruits which they have produced.

In our historical sketch of the progress of geology, the reader has seen that a controversy was maintained for more than a century, respecting the origin of fossil shells and bones—were they organic or inorganic substances? That the latter opinion should for a long time have prevailed, and that these bodies should have been supposed to be fashioned into their present form by a plastic virtue, or some other mysterious agency, may appear absurd; but it was, perhaps, as reasonable a conjecture as could be expected from those who did not appeal, in the first instance, to the analogy of the living creation, as affording the only source of authentic information. It was only by an accurate examination of living Testacea, and by a comparison of the osteology of the existing vertebrated animals with the remains found entombed in ancient strata, that this favourite dogma was exploded, and all were, at length, persuaded that these substances were exclusively of organic origin.

In like manner, when a discussion had arisen as to the nature of basalt and other mineral masses, evidently constituting a particular class of rocks, the popular opinion inclined to a belief that they were of aqueous, not of igneous origin. These rocks, it was said, might have been precipitated from an aqueous solution, from a chaotic fluid, or an ocean which rose over the continents, charged with the requisite mineral ingredients. All are now agreed that it would have been impossible for human ingenuity to invent a theory more distant from the truth; yet we must cease to wonder, on that account, that it gained so many proselytes, when we remember that its claims to probability arose partly from its confirming the assumed want of all analogy between geological causes and those now in action. By what train of investigation were all theorists brought round at length to an opposite opinion, and induced to assent to the igneous origin of these formations? By an examination of the structure of active volcanoes, the mineral composition of their lavas and ejections, and by comparing the undoubted products of fire with the ancient rocks in question.

We shall conclude with one more example. When the organic origin of fossil shells had been conceded, their occurrence in strata forming some of the loftiest mountains in the world, was admitted as a proof of a great alteration of the relative level of sea and land, and doubts were then entertained whether this change might be accounted for by the partial drying-up of the ocean, or by the elevation of the solid land. The former hypothesis, although afterwards abandoned by general consent, was at first embraced by a vast majority. A multitude of ingenious speculations were hazarded to show how the level of the ocean might have been depressed, and when these theories had all failed, the inquiry, as to what vicissitudes of this nature might now be taking place, was, as usual, resorted to in the last instance. The question was agitated, whether any changes in the level of sea and land had occurred during the historical period, and, by patient research, it was soon discovered that considerable tracts of land had been permanently elevated and depressed, while the level of the ocean remained unaltered. It was therefore necessary to reverse the doctrine which had acquired so much popularity, and the unexpected solution of a problem at first regarded as so enigmatical, gave, perhaps, the strongest stimulus ever yet afforded to investigate the ordinary operations of nature. For it must have appeared almost as improbable to the earlier geologists, that the laws of earthquakes should one day throw light on the origin of mountains, as it must to the first astronomers, that the fall of an apple should assist in explaining the motions of the moon.

Of late years the points of discussion in geology have been transferred to new questions, and those, for the most part, of a higher and more general nature; but, notwithstanding the repeated warnings of experience, the ancient method of philosophizing has not been materially modified.

We are now, for the most part, agreed as to what rocks are of igneous, and what of aqueous origin, in what manner fossil shells, whether of the sea or of lakes, have been embedded in strata, how sand may have been converted into sandstone, and are unanimous as to other propositions which are not of a complicated nature; but when we ascend to those of a higher order, we find as little disposition, as formerly, to make a strenuous effort, in the first instance, to search out an explanation in the ordinary economy of Nature. If, for example, we seek for the causes why mineral masses are associated together in certain groups; why they are arranged in a certain order which is never inverted; why there are many breaks in the continuity of the series; why different organic re-

mains are found in distinct sets of strata; why there is often an abrupt passage from an assemblage of species contained in one formation to that in another immediately superimposed—when these and other topics of an equally extensive kind are discussed, we find the habit of indulging conjectures, respecting irregular and extraordinary causes, to be still in full force.

We hear of sudden and violent revolutions of the globe, of the instantaneous elevation of mountain chains, of paroxysms of volcanic energy, declining according to some, and according to others increasing in violence, from the earliest to the latest ages. We are also told of general catastrophes and a succession of deluges, of the alternation of periods of repose and disorder, of the refrigeration of the globe, of the sudden annihilation of whole races of animals and plants, and other hypotheses, in which we see the ancient spirit of speculation revived, and a desire manifested to cut, rather than patiently to untie, the Gordian knot.

In our attempt to unravel these difficult questions, we shall adopt a different course, restricting ourselves to the known or possible operations of existing causes; feeling assured that we have not yet exhausted the resources which the study of the present course of nature may provide, and therefore that we are not authorized, in the infancy of our science, to recur to extraordinary agents. We shall adhere to this plan, not only on the grounds explained in the first volume, but because, as we have above stated, history informs us that this method has always put geologists on the road that leads to truth, suggesting views which, although imperfect at first, have been found capable of improvement, until at last adopted by universal consent. On the other hand, the opposite method, that of speculating on a former distinct state of things, has led invariably to a multitude of contradictory systems, which have been overthrown one after the other, which have been found quite incapable of modification, and which are often required to be precisely reversed.

In regard to the subjects treated of in our first two volumes, if systematic treatises had been written on these topics, we should willingly have entered at once upon the description of geological monuments properly so called, referring to other authors for the elucidation of elementary and collateral questions, just as we shall appeal to the best authorities in conchology and comparative anatomy, in proof of many positions which, but for the labours of naturalists devoted to these departments, would have demanded long digressions. When we find it asserted, for example, that the bones of a fossil animal at Oeningen were those of man, and the fact adduced as a proof of the deluge, we are now able at once to

dismiss the argument as nugatory, and to affirm the skeleton to be that of a reptile, on the authority of an able anatomist; and when we find among ancient writers the opinion of the gigantic stature of the human race in times of old, grounded on the magnitude of certain fossil teeth and bones, we are able to affirm these remains to belong to the elephant and rhinoceros, on the same authority.

But since, in our attempt to solve geological problems, we shall be called upon to refer to the operation of aqueous and igneous causes, the geographical distribution of animals and plants, the real existence of species, their successive extinction, and so forth, we were under the necessity of collecting together a variety of facts, and of entering into long trains of reasoning, which could only be accomplished in preliminary treatises.

These topics we regard as constituting the alphabet and grammar of geology; not that we expect from such studies to obtain a key to the interpretation of all geological phenomena, but because they form the groundwork from which we must rise to the contemplation of more general questions relating to the complicated results to which, in an indefinite lapse of ages, the existing causes of change may give rise.

The foregoing consists of Chapter I
from Volume III
of Lyell's PRINCIPLES OF GEOLOGY.

Galileo Galilei

1564–1642

Galileo was born at Pisa, Italy, in 1564, the son of a musician. At a monastery near Florence he received his early education. In 1581, at his father's request, young Galileo began to study medicine at the University of Pisa, but when his passion for mathematics declared itself, he was allowed to follow his own scientific bent. In his first year at the university, he checked the time of the swings of a lamp by his pulse beats, noting that the time was always the same, whatever the amplitude of the swing. He had discovered the isochronism of the pendulum. When poverty obliged him to withdraw from the university in 1585, he gave lectures and published an account of his invention of the hydrostatic balance.

In 1589 he was made mathematical lecturer at the University of Pisa and spent the following two years conducting experiments on falling bodies, which laid the foundations for modern physical science. His results, directly contrary to the doctrine of Aristotle, angered the Aristotelian members of the faculty, and in 1591 he resigned to take the chair of mathematics at Padua. There he taught for eighteen years, established a European reputation as a scientist, and attracted many students.

In 1609, hearing that magnifying glasses were being made in Holland, he built his first telescope. Under this sudden magnification, which was gradually increased to thirty times, thousands of unknown stars were revealed in the Milky Way, and the huge moon and planets became new worlds to conquer. He described his discoveries in the *Starry Messenger* (1610), from which the following selection is taken.

Although Galileo had long since accepted the Copernican hypothesis, he prudently continued to teach the old Ptolemaic system

during his whole stay at Padua. By 1610, however, having just discovered the four satellites of Jupiter, and while regaling in the plaudits of scientists all over Europe, he at last took the bold step of announcing his belief in the Copernican theory. For a time all went well. He even received a lucrative post as court mathematician at Florence, under the Medicis.

Galileo demonstrated the telescope with great success to the ecclesiastical authorities at Rome. But his assertion that the Copernican hypothesis could be reconciled with Scripture brought him into conflict with the theologians. In defense of his position, he quoted the remark of Cardinal Baronius that the "Holy Spirit intended to teach us in the Bible how to go to Heaven, not how the heavens go." In 1615 he was warned by Maffeo Barberini (later Pope Urban VIII) not to defend or even to hold the heretical doctrine that the earth moves around the sun, and he agreed to keep silent on the subject henceforth.

He kept his word up to 1632, when his *Dialogue of the Two Principal Systems of the World* appeared. In this beautifully written dialogue, one speaker defends the Ptolemaic system, whereas the other two uphold the Copernican conception, but in very different ways. One is bold and imaginative, the other cautious–unwilling to go beyond the evidence. Galileo did not identify himself with any of the three characters, but it was clear that his sympathies were divided between the two Copernicans. There were two immediate developments. The book was a dazzling success and admired throughout Europe. Secondly, Galileo was summoned to Rome by the Inquisition. After a trial, he was forced to forswear on his knees "the false doctrine" that the earth moves around the sun and is not the center of the universe. He was placed under house arrest, in which relatively comfortable state he remained for the rest of his life. His real punishment was the compulsion to disavow a profound conviction that his own discoveries had gone far to confirm.

In December, 1633, he was permitted to return to Florence and

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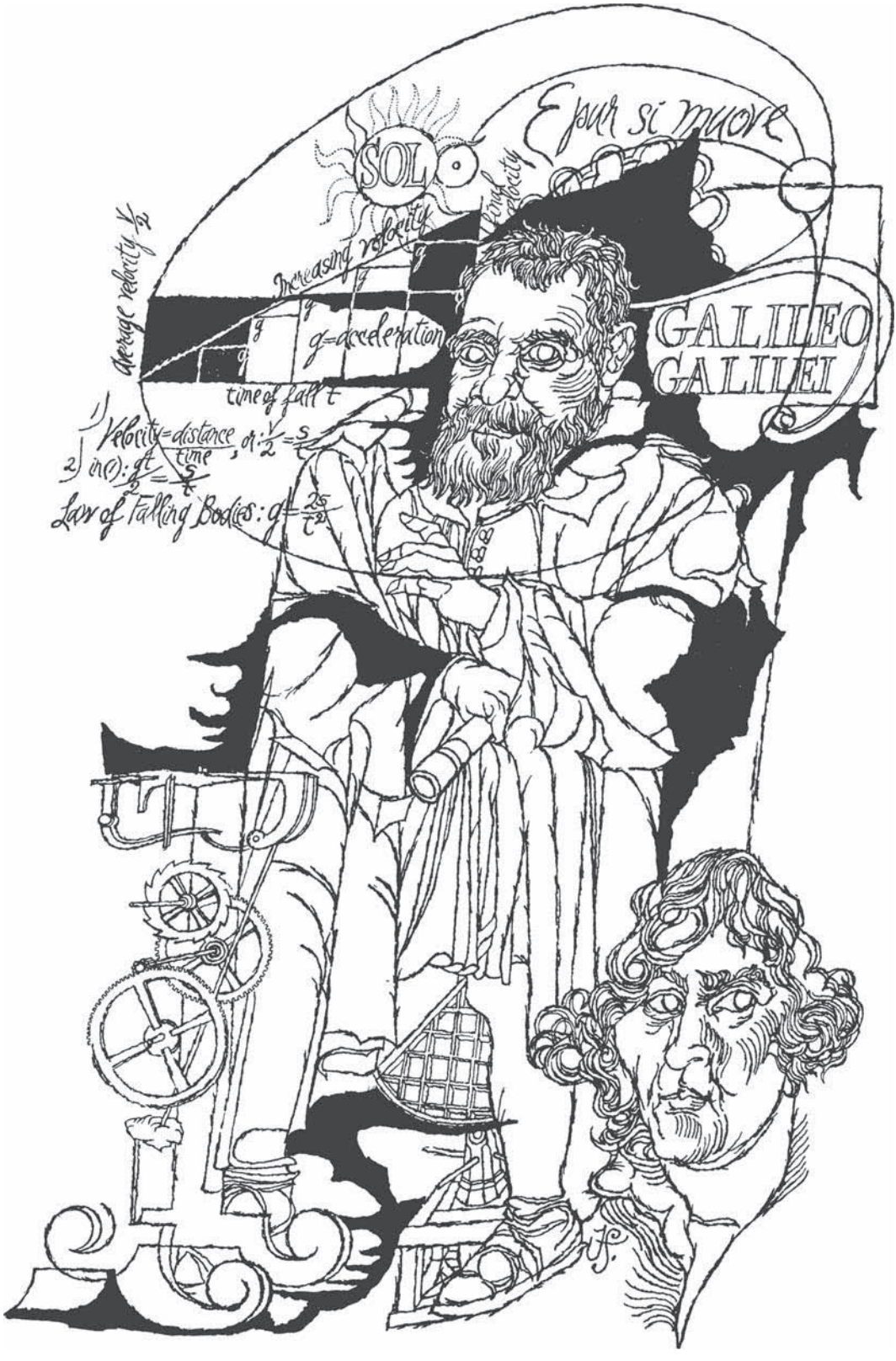
Notes from the artist: "Full length portrait of Galileo set in a background including the law of falling bodies, a quadrant, and Galileo's idea for a clock pendulum. The quotation, E pur si muove (*'But it does move'*), *was attributed to Galileo after his recantation in 1632. The small portrait of Copernicus recalls Galileo's defense of the Copernican system."*


SOL
E pur si muove
GALILEO
GALILEI
average velocity v/2
increasing velocity
g
g
g
g
g=acceleration
time of fall t
1) Velocity = distance / time , or: v/2 = s/t
2) in (1): gt/2 = s/t
Law of Falling Bodies: g = 2s/t²

live in his villa. There he completed his *Dialogues Concerning the Two New Sciences*[1] (1638), which treated of the physical investigations he had begun in his youth. He became blind in 1637 but continued to work on various problems in physics. He died on January 8, 1642, and was buried in the church of Santa Croce, in Florence. Isaac Newton was born on December 25 the same year.

Ancient peoples–the Indians, Egyptians, Assyrians, Persians, Greeks, and Romans–had followed the movements and patterns of the stars with passionate attention. The stars were the abode of the gods and the source of hope. They had guided travelers on sea and land, and the meaning of life and particular destinies had been seen in their constellations and conjunctions. Imagine the sensation caused by the first telescope, which suddenly transformed this immemorial steadfast sky, showing innumerable new stars, revealing satellites revolving about the familiar planets, and the moon scarred by rugged mountain chains and desolate valleys. The heavenly bodies could no longer be regarded as perfect and immutable. Old religions and long revered philosophical doctrines tottered at the spectacle.

Prior to Galileo and his telescope, the Copernican theory, in spite of its beautiful mathematical simplicity, was at a disadvantage. The followers of the old Ptolemaic system could point out that everyone *sees* the sun rise in the morning and set in the evening. Can we not trust our senses? Moreover, the world does *appear* to be the center of the universe. On all sides we see equal spaces. Copernican thinkers could reply that if space is infinite it has no center, and that if it is vast enough, any place you stand in will *appear* to be the center of the universe and will *seem* to be stationary, while the rest of creation moves. Space and motion are relative. If we take the sun to be the center, however, the scheme of the universe becomes far more economical and comprehensible.

But so far there was no *empirical* support for the heliocentric system. Galileo's telescopic discoveries began to turn the tide. His discovery that Jupiter has four satellites (the number has now been increased to twelve), which revolve about that planet, could be taken as a model of what goes on in the heavens. If these four satellites revolve about Jupiter, why may not Jupiter, Saturn, Uranus,

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[1] See *Great Books of the Western World.*

Mars, the Earth, Venus, and Mercury revolve about the sun? Would not Galileo's conclusions about the moon, and the shifting of light and shadow on its rugged surface, also favor the Copernican hypothesis?

Galileo's law of falling bodies, the reader will want to keep in mind, furnished in the end the strongest kind of support for the Copernican view, and for Kepler's system of elliptical planetary orbits, which was being evolved at the same time. The idea that the motion of bodies depends on their qualitative nature had been a serious handicap for centuries. Galileo's demonstration that the acceleration of falling bodies depends alone upon the time of fall led the way to Newton's laws of motion–to the modern science of mechanics, including celestial mechanics.

The larger spots on the moon had long been recognized. It was the smaller ones which Galileo discovered, and his measurement of these are renowned for their accuracy. They persuaded him that "the surface of the moon is not smooth, uniform and precisely spherical as a great number of philosophers believe it (and the other heavenly bodies) to be, but is uneven, rough, and full of cavities and prominences, being not unlike the face of the earth. . . ." The evidence offered for this conclusion is a model of careful induction and lucid exposition and takes on added interest today, when close-up lunar photographs have been taken and there is a near prospect of putting men on the moon.

The analogy drawn between the moon and the earth is of great assistance in understanding our "fickle" companion, but it can occasionally mislead. We find Galileo arguing, for example, that the reason we do not see the high mountains of the moon at its periphery may be that our line of vision here passes through a greater thickness of lunar atmosphere (see the diagram on p. 340). But why assume that the moon has an atmosphere? We know today that it has none. Galileo did not need this explanation, for he had just offered another: we may fail to see the peaks at the periphery, just as we fail to see the separate peaks of a mountain chain on earth, when we look at it from a distance.

Galileo's rapid account of his observations and deductions is flushed by the excitement of new and portentous discovery. The moon and Jupiter–the largest planet–are fascinating in themselves, but the *Starry Messenger* is also one of the finest examples of the scientific method in action.

The Starry Messenger

ASTRONOMICAL MESSAGE

Which contains and explains recent observations
made with the aid of a new spyglass [1]
concerning the surface of the moon,
the Milky Way, nebulous stars, and
innumerable fixed stars,
as well as four planets never before seen, and
now named
The Medicean Stars

reat indeed are the things which in this brief treatise I propose for observation and consideration by all students of nature. I say great, because of the excellence of the subject itself, the entirely unexpected and novel character of these things, and finally because of the instrument by means of which they have been revealed to our senses.

Surely it is a great thing to increase the numerous host of fixed stars previously visible to the unaided vision, adding countless more which have never before been seen, exposing these plainly to the eye in numbers ten times exceeding the old and familiar stars.

It is a very beautiful thing, and most gratifying to the sight, to behold the body of the moon, distant from us almost sixty earthly radii,[2] as if it

1. The word "telescope" was not coined until 1611. A detailed account of its origin is given by Edward Rosen in *The Naming of the Telescope* (New York, 1947). In the present translation the modern term has been introduced for the sake of dignity and ease of reading, but only after the passage in which Galileo describes the circumstances which led him to construct the instrument.
2. The original text reads "diameters" here and in another place. That this error was Galileo's and not the printer's has been convincingly shown by Edward Rosen (*Isis,* 1952, pp. 344 ff.). The slip was a curious one, as astronomers of all schools

were no farther away than two such measures—so that its diameter appears almost thirty times larger, its surface nearly nine hundred times, and its volume twenty-seven thousand times as large as when viewed with the naked eye. In this way one may learn with all the certainty of sense evidence that the moon is not robed in a smooth and polished surface but is in fact rough and uneven, covered everywhere, just like the earth's surface, with huge prominences, deep valleys, and chasms.

Again, it seems to me a matter of no small importance to have ended the dispute about the Milky Way by making its nature manifest to the very senses as well as to the intellect. Similarly it will be a pleasant and elegant thing to demonstrate that the nature of those stars which astronomers have previously called "nebulous" is far different from what has been believed hitherto. But what surpasses all wonders by far, and what particularly moves us to seek the attention of all astronomers and philosophers, is the discovery of four wandering stars not known or observed by any man before us. Like Venus and Mercury, which have their own periods about the sun, these have theirs about a certain star that is conspicuous among those already known, which they sometimes precede and sometimes follow, without ever departing from it beyond certain limits. All these facts were discovered and observed by me not many days ago with the aid of a spyglass which I devised, after first being illuminated by divine grace. Perhaps other things, still more remarkable, will in time be discovered by me or by other observers with the aid of such an instrument, the form and construction of which I shall first briefly explain, as well as the occasion of its having been devised. Afterwards I shall relate the story of the observations I have made.

About ten months ago a report reached my ears that a certain Fleming [3] had constructed a spyglass by means of which visible objects, though very distant from the eye of the observer, were distinctly seen as if nearby. Of this truly remarkable effect several experiences were related, to which some persons gave credence while others denied them. A few days later the report was confirmed to me in a letter from a noble Frenchman at Paris, Jacques Badovere,[4] which caused me to apply my-

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had long agreed that the maximum distance of the moon was approximately sixty terrestrial radii. Still more curious is the fact that neither Kepler nor any other correspondent appears to have called Galileo's attention to this error; not even a friend who ventured to criticize the calculations in this very passage.

3. Credit for the original invention is generally assigned to Hans Lippershey, a lens grinder in Holland who chanced upon this property of combined lenses and applied for a patent on it in 1608.

4. Badovere studied in Italy toward the close of the sixteenth century and is said to have been a pupil of Galileo's about 1598. When he wrote concerning the new

self wholeheartedly to inquire into the means by which I might arrive at the invention of a similar instrument. This I did shortly afterwards, my basis being the theory of refraction. First I prepared a tube of lead, at the ends of which I fitted two glass lenses, both plane on one side while on the other side one was spherically convex and the other concave. Then placing my eye near the concave lens I perceived objects satisfactorily large and near, for they appeared three times closer and nine times larger than when seen with the naked eye alone. Next I constructed another one, more accurate, which represented objects as enlarged more than sixty times. Finally, sparing neither labor nor expense, I succeeded in constructing for myself so excellent an instrument that objects seen by means of it appeared nearly one thousand times larger and over thirty times closer than when regarded with our natural vision.

It would be superfluous to enumerate the number and importance of the advantages of such an instrument at sea as well as on land. But forsaking terrestrial observations, I turned to celestial ones, and first I saw the moon from as near at hand as if it were scarcely two terrestrial radii away. After that I observed often with wondering delight both the planets and the fixed stars, and since I saw these latter to be very crowded, I began to seek (and eventually found) a method by which I might measure their distances apart.

Here it is appropriate to convey certain cautions to all who intend to undertake observations of this sort, for in the first place it is necessary to prepare quite a perfect telescope, which will show all objects bright, distinct, and free from any haziness, while magnifying them at least four hundred times and thus showing them twenty times closer. Unless the instrument is of this kind it will be vain to attempt to observe all the things which I have seen in the heavens, and which will presently be set forth. Now in order to determine without much trouble the magnifying power of an instrument, trace on paper the contour of two circles or two squares of which one is four hundred times as large as the other, as it will be when the diameter of one is twenty times that of the other. Then, with both these figures attached to the same wall, observe them simultaneously from a distance, looking at the smaller one through the telescope and at the larger one with the other eye unaided. This may be done without inconvenience while holding both eyes open at the same time; the two figures will appear to be of the same size if the instrument magnifies objects in the desired proportion.

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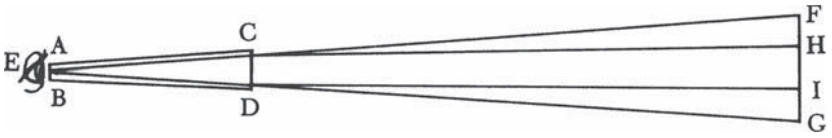
instrument in 1609 he was in the French diplomatic service at Paris, where he died in 1620.

Such an instrument having been prepared, we seek a method of measuring distances apart. This we shall accomplish by the following contrivance.

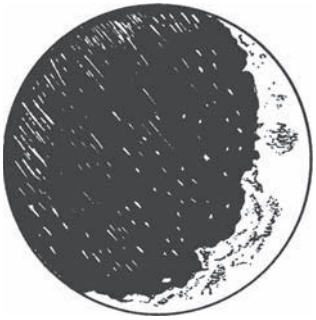


Let ABCD be the tube and E be the eye of the observer. Then if there were no lenses in the tube, the rays would reach the object FG along the straight lines ECF and EDG. But when the lenses have been inserted, the rays go along the refracted lines ECH and EDI; thus they are brought closer together, and those which were previously directed freely to the object FG now include only the portion of it HI. The ratio of the distance EH to the line HI then being found, one may by means of a table of sines determine the size of the angle formed at the eye by the object HI, which we shall find to be but a few minutes of arc. Now, if to the lens CD we fit thin plates, some pierced with larger and some with smaller apertures, putting now one plate and now another over the lens as required, we may form at pleasure different angles subtending more or fewer minutes of arc, and by this means we may easily measure the intervals between stars which are but a few minutes apart, with no greater error than one or two minutes. And for the present let it suffice that we have touched lightly on these matters and scarcely more than mentioned them, as on some other occasion we shall explain the entire theory of this instrument.

Now let us review the observations made during the past two months, once more inviting the attention of all who are eager for true philosophy to the first steps of such important contemplations. Let us speak first of that surface of the moon which faces us. For greater clarity I distinguish two parts of this surface, a lighter and a darker; the lighter part seems to surround and to pervade the whole hemisphere, while the darker part discolors the moon's surface like a kind of cloud, and makes it appear covered with spots. Now those spots which are fairly dark and rather large are plain to everyone and have been seen throughout the ages; these I shall call the "large" or "ancient" spots, distinguishing them from others that are smaller in size but so numerous as to occur all over the lunar surface, and especially the lighter part. The latter spots had never been seen by anyone before me. From observations of these spots repeated many times I have been led to the opinion and conviction

that the surface of the moon is not smooth, uniform, and precisely spherical as a great number of philosophers believe it (and the other heavenly bodies) to be, but is uneven, rough, and full of cavities and prominences, being not unlike the face of the earth, relieved by chains of mountains and deep valleys. The things I have seen by which I was enabled to draw this conclusion are as follows.

On the fourth or fifth day after new moon, when the moon is seen with brilliant horns, the boundary which divides the dark part from the light does not extend uniformly in an oval line as would happen on a perfectly spherical solid, but traces out an uneven, rough, and very wavy line as shown in the figure below. Indeed, many luminous excrescences extend beyond the boundary into the darker portion, while on the other hand some dark patches invade the illuminated part. Moreover a great quantity of small blackish spots, entirely separated from the dark region, are scattered almost all over the area illuminated by the sun with the exception only of that part which is occupied by the large and ancient spots. Let us note, however, that the said small spots always agree in having their blackened parts directed toward the sun, while on the side opposite the sun they are crowned with bright contours, like shining summits. There is a similar sight on earth about sunrise, when we behold the valleys not yet flooded with light though the mountains surrounding them are already ablaze with glowing splendor on the side opposite the sun. And just as the shadows in the hollows on earth diminish in size as the sun rises higher, so these spots on the moon lose their blackness as the illuminated region grows larger and larger.



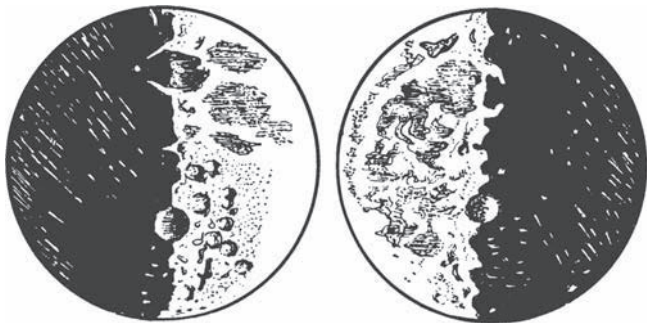
Again, not only are the boundaries of shadow and light in the moon seen to be uneven and wavy, but still more astonishingly many bright points appear within the darkened portion of the moon, completely divided and separated from the illuminated part and at a considerable

distance from it. After a time these gradually increase in size and brightness, and an hour or two later they become joined with the rest of the lighted part which has now increased in size. Meanwhile more and more peaks shoot up as if sprouting now here, now there, lighting up within the shadowed portion; these become larger, and finally they too are united with that same luminous surface which extends ever further. An illustration of this is to be seen in the figure above. And on the earth, before the rising of the sun, are not the highest peaks of the mountains illuminated by the sun's rays while the plains remain in shadow? Does not the light go on spreading while the larger central parts of those mountains are becoming illuminated? And when the sun has finally risen, does not the illumination of plains and hills finally become one? But on the moon the variety of elevations and depressions appears to surpass in every way the roughness of the terrestrial surface, as we shall demonstrate further on.

At present I cannot pass over in silence something worthy of consideration which I observed when the moon was approaching first quarter, as shown in the previous figure. Into the luminous part there extended a great dark gulf in the neighborhood of the lower cusp. When I had observed it for a long time and had seen it completely dark, a bright peak began to emerge, a little below its center, after about two hours. Gradually growing, this presented itself in a triangular shape, remaining completely detached and separated from the lighted surface. Around it three other small points soon began to shine, and finally, when the moon was about to set, this triangular shape (which had meanwhile become more widely extended) joined with the rest of the illuminated region and suddenly burst into the gulf of shadow like a vast promontory of light, surrounded still by the three bright peaks already mentioned. Beyond the ends of the cusps, both above and below, certain bright points emerged which were quite detached from the remaining lighted part, as may be seen depicted in the same figure. There were also a great number of dark spots in both the horns, especially in the lower one; those nearest the boundary of light and shadow appeared larger and darker, while those more distant from the boundary were not so dark and distinct. But in all cases, as we have mentioned earlier, the blackish portion of each spot is turned toward the source of the sun's radiance, while a bright rim surrounds the spot on the side away from the sun in the direction of the shadowy region of the moon. This part of the moon's surface, where it is spotted as the tail of a peacock is sprinkled with azure eyes, resembles those glass vases which have been plunged while still hot into

cold water and have thus acquired a crackled and wavy surface, from which they receive their common name of "ice-cups."

As to the large lunar spots, these are not seen to be broken in the above manner and full of cavities and prominences; rather, they are even and uniform, and brighter patches crop up only here and there. Hence if anyone wished to revive the old Pythagorean [5] opinion that the moon is like another earth, its brighter part might very fitly represent the surface of the land and its darker region that of the water. I have never doubted that if our globe were seen from afar when flooded with sunlight, the land regions would appear brighter and the watery regions darker.[6] The large spots in the moon are also seen to be less elevated than the brighter tracts, for whether the moon is waxing or waning there are always seen, here and there along its boundary of light and shadow, certain ridges of brighter hue around the large spots (and we have attended to this in preparing the diagrams); the edges of these spots are not only lower, but also more uniform, being uninterrupted by peaks or ruggedness.



Near the large spots the brighter part stands out particularly in such a way that before first quarter and toward last quarter, in the vicinity of a certain spot in the upper (or northern) region of the moon, some vast prominences arise both above and below as shown in the figures reproduced below. Before last quarter this same spot is seen to be walled about with certain blacker contours which, like the loftiest mountain-

5. Pythagoras was a mathematician and philosopher of the sixth century B.C., a semilegendary figure whose followers were credited at Galileo's time with having anticipated the Copernican system. This tradition was based upon a misunderstanding. The Pythagoreans made the earth revolve about a "central fire" whose light and heat were reflected to the earth by the sun.

6. Leonardo da Vinci had previously suggested that the dark and light regions of the moon were bodies of land and water, though Galileo probably did not know this. Da Vinci, however, had mistakenly supposed that the water would appear brighter than the land.

tops, appear darker on the side away from the sun and brighter on that which faces the sun. (This is the opposite of what happens in the cavities, for there the part away from the sun appears brilliant, while that which is turned toward the sun is dark and in shadow.) After a time, when the lighted portion of the moon's surface has diminished in size and when all (or nearly all) the said spot is covered with shadow, the brighter ridges of the mountains gradually emerge from the shade. This double aspect of the spot is illustrated in the ensuing figures.

There is another thing which I must not omit, for I beheld it not without a certain wonder; this is that almost in the center of the moon there is a cavity larger than all the rest, and perfectly round in shape. I have observed it near both first and last quarters, and have tried to represent it as correctly as possible in the second of the above figures. As to light and shade, it offers the same appearance as would a region like Bohemia [7] if that were enclosed on all sides by very lofty mountains arranged exactly in a circle. Indeed, this area on the moon is surrounded by such enormous peaks that the bounding edge adjacent to the dark portion of the moon is seen to be bathed in sunlight before the boundary of light and shadow reaches halfway across the same space. As in other spots, its shaded portion faces the sun while its lighted part is toward the dark side of the moon; and for a third time I draw attention to this as a very cogent proof of the ruggedness and uneveness that pervades all the bright region of the moon. Of these spots, moreover, those are always darkest which touch the boundary line between light and shadow, while those farther off appear both smaller and less dark, so that when

7. This casual comparison between a part of the moon and a specific region on earth was later the basis of much trouble for Galileo. Even in antiquity the idea that the moon (or any other heavenly body) was of the same nature as the earth had been dangerous to hold. The Athenians banished the philosopher Anaxagoras for teaching such notions, and charged Socrates with blasphemy for repeating them.

the moon ultimately becomes full (at opposition [8] to the sun), the shade of the cavities is distinguished from the light of the places in relief by a subdued and very tenuous separation.

The things we have reviewed are to be seen in the brighter region of the moon. In the large spots, no such contrast of depressions and prominences is perceived as that which we are compelled to recognize in the brighter parts by the changes of aspect that occur under varying illumination by the sun's rays throughout the multiplicity of positions from which the latter reach the moon. In the large spots there exist some holes rather darker than the rest, as we have shown in the illustrations. Yet these present always the same appearance, and their darkness is neither intensified nor diminished, although with some minute difference they appear sometimes a little more shaded and sometimes a little lighter according as the rays of the sun fall on them more or less obliquely. Moreover, they join with the neighboring regions of the spots in a gentle linkage, the boundaries mixing and mingling. It is quite different with the spots which occupy the brighter surface of the moon; these, like precipitous crags having rough and jagged peaks, stand out starkly in sharp contrasts of light and shade. And inside the large spots there are observed certain other zones that are brighter, some of them very bright indeed. Still, both these and the darker parts present always the same appearance; there is no change either of shape or of light and shadow; hence one may affirm beyond any doubt that they owe their appearance to some real dissimilarity of parts. They cannot be attributed merely to irregularity of shape, wherein shadows move in consequence of varied illuminations from the sun, as indeed is the case with the other, smaller, spots which occupy the brighter part of the moon and which change, grow, shrink, or disappear from one day to the next, as owing their origin only to shadows of prominences.

But here I foresee that many persons will be assailed by uncertainty and drawn into a grave difficulty, feeling constrained to doubt a conclusion already explained and confirmed by many phenomena. If that part of the lunar surface which reflects sunlight more brightly is full of chasms (that is, of countless prominences and hollows), why is it that the western edge of the waxing moon, the eastern edge of the waning moon, and the entire periphery of the full moon are not seen to be uneven, rough, and wavy? On the contrary they look as precisely round as if they were drawn

8. Opposition of the sun and moon occurs when they are in line with the earth between them (full moon, or lunar eclipse); conjunction, when they are in line on the same side of the earth (new moon, or eclipse of the sun).

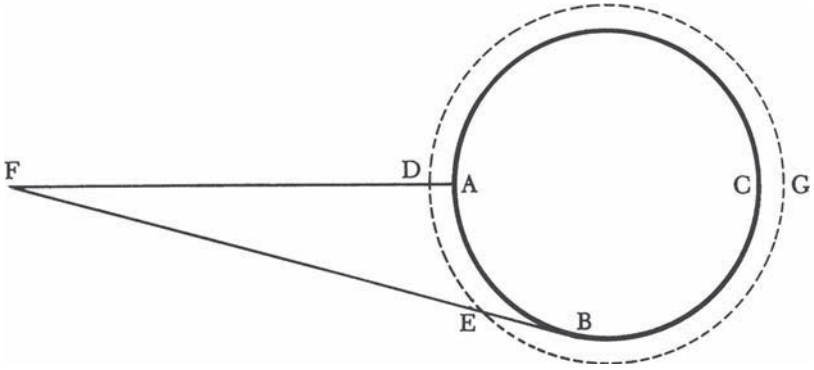
with a compass; and yet the whole periphery consists of that brighter lunar substance which we have declared to be filled with heights and chasms. In fact not a single one of the great spots extends to the extreme periphery of the moon, but all are grouped together at a distance from the edge.

Now let me explain the twofold reason for this troublesome fact, and in turn give a double solution to the difficulty. In the first place, if the protuberances and cavities in the lunar body existed only along the extreme edge of the circular periphery bounding the visible hemisphere, the moon might (indeed, would necessarily) look to us almost like a toothed wheel, terminated by a warty or wavy edge. Imagine, however, that there is not a single series of prominences arranged only along the very circumference, but a great many ranges of mountains together with their valleys and canyons disposed in ranks near the edge of the moon, and not only in the hemisphere visible to us but everywhere near the boundary line of the two hemispheres. Then an eye viewing them from afar will not be able to detect the separation of prominences by cavities, because the intervals between the mountains located in a given circle or a given chain will be hidden by the interposition of other heights situated in yet other ranges. This will be especially true if the eye of the observer is placed in the same straight line with the summits of these elevations. Thus on earth the summits of several mountains close together appear to be situated in one plane if the spectator is a long way off and is placed at an equal elevation. Similarly in a rough sea the tops of the waves seem to lie in one plane, though between one high crest and another there are many gulfs and chasms of such depth as not only to hide the hulls but even the bulwarks, masts, and rigging of stately ships. Now since there are many chains of mountains and chasms on the moon in addition to those around its periphery, and since the eye, regarding these from a great distance, lies nearly in the plane of their summits, no one need wonder that they appear as arranged in a regular and unbroken line.

To the above explanation another may be added; namely, that there exists around the body of the moon, just as around the earth, a globe of some substance denser than the rest of the aether.[9] This may serve to receive and reflect the sun's radiations without being sufficiently opaque to prevent our seeing through it, especially when it is not illuminated.

9. The aether, or "ever-moving," was the special substance of which the sky and all the heavenly bodies were supposed to be made, a substance essentially different from all the earthly "elements." In later years Galileo abandoned his suggestion here that the moon has a vaporous atmosphere.

Such a globe, lighted by the sun's rays, makes the body of the moon appear larger than it really is, and if it were thicker it would be able to prevent our seeing the actual body of the moon. And it actually is thicker near the circumference of the moon; I do not mean in an absolute sense, but relatively to the rays of our vision, which cut it obliquely there. Thus it may obstruct our vision, especially when it is lighted, and cloak the lunar periphery that is exposed to the sun. This may be more clearly understood from the figure below, in which the body of the moon, ABC, is surrounded by the vaporous globe DEG.



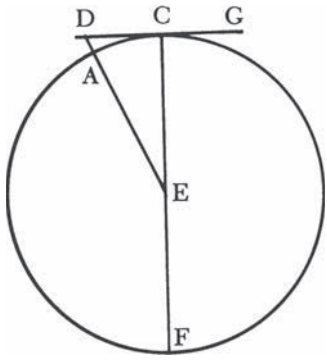
The eyesight from F reaches the moon in the central region, at A for example, through a lesser thickness of the vapors DA, while toward the extreme edges a deeper stratum of vapors, EB, limits and shuts out our sight. One indication of this is that the illuminated portion of the moon appears to be larger in circumference than the rest of the orb, which lies in shadow. And perhaps this same cause will appeal to some as reasonably explaining why the larger spots on the moon are nowhere seen to reach the very edge, probable though it is that some should occur there. Possibly they are invisible by being hidden under a thicker and more luminous mass of vapors.

That the lighter surface of the moon is everywhere dotted with protuberances and gaps has, I think, been made sufficiently clear from the appearances already explained. It remains for me to speak of their dimensions, and to show that the earth's irregularities are far less than those of the moon. I mean that they are absolutely less, and not merely in relation to the sizes of the respective globes. This is plainly demonstrated as follows.

I had often observed, in various situations of the moon with respect to the sun, that some summits within the shadowy portion appeared lighted,

though lying some distance from the boundary of the light. By comparing this separation to the whole diameter of the moon, I found that it sometimes exceeded one-twentieth of the diameter. Accordingly, let CAF be a great circle of the lunar body, E its center, and CF a diameter, which is to the diameter of the earth as two is to seven.

Since according to very precise observations the diameter of the earth is seven thousand miles, CF will be two thousand, CE one thousand, and one-twentieth of CF will be one hundred miles. Now let CF be the diameter of the great circle which divides the light part of the moon from the dark part (for because of the very great distance of the



sun from the moon, this does not differ appreciably from a great circle), and let A be distant from C by one-twentieth of this. Draw the radius EA, which, when produced, cuts the tangent line GCD (representing the illuminating ray) in the point D. Then the arc CA, or rather the straight line CD, will consist of one hundred units whereof CE contains one thousand, and the sum of the squares of DC and CE will be 1,010,000. This is equal to the square of DE; hence ED will exceed 1,004, and AD will be more than four of those units of which CE contains one thousand. Therefore the altitude AD on the moon, which represents a summit reaching up to the solar ray GCD and standing at the distance CD from C, exceeds four miles. But on the earth we have no mountains which reach to a perpendicular height of even one mile.[10] Hence it is quite clear that the prominences on the moon are loftier than those on the earth.

10. Galileo's estimate of four miles for the height of some lunar mountains was a very good one. His remark about the maximum height of mountains on the earth was, however, quite mistaken. An English propagandist for his views, John Wilkins, took pains to correct this error in his anonymous *Discovery of a New World . . . in the Moon* (London, 1638), Prop. ix.

Here I wish to assign the cause of another lunar phenomenon well worthy of notice. I observed this not just recently, but many years ago, and pointed it out to some of my friends and pupils, explaining it to them and giving its true cause. Yet since it is rendered more evident and easier to observe with the aid of the telescope, I think it not unsuitable for introduction in this place, especially as it shows more clearly the connection between the moon and the earth.

When the moon is not far from the sun, just before or after new moon, its globe offers itself to view not only on the side where it is adorned with shining horns, but a certain faint light is also seen to mark out the periphery of the dark part which faces away from the sun, separating this from the darker background of the aether. Now if we examine the matter more closely, we shall see that not only does the extreme limb of the shaded side glow with this uncertain light, but the entire face of the moon (including the side which does not receive the glare of the sun) is whitened by a not inconsiderable gleam. At first glance only a thin luminous circumference appears, contrasting with the darker sky coterminous with it; the rest of the surface appears darker from its contact with the shining horns which distract our vision. But if we place ourselves so as to interpose a roof or chimney or some other object at a considerable distance from the eye, the shining horns may be hidden while the rest of the lunar globe remains exposed to view. It is then found that this region of the moon, though deprived of sunlight, also shines not a little. The effect is heightened if the gloom of night has already deepened through departure of the sun, for in a darker field a given light appears brighter.

Moreover, it is found that this secondary light of the moon (so to speak) is greater according as the moon is closer to the sun. It diminishes more and more as the moon recedes from that body until, after the first quarter and before the last, it is seen very weakly and uncertainly even when observed in the darkest sky. But when the moon is within sixty degrees of the sun it shines remarkably, even in twilight; so brightly indeed that with the aid of a good telescope one may distinguish the large spots. This remarkable gleam has afforded no small perplexity to philosophers, and in order to assign a cause for it some have offered one idea and some another. Some would say it is an inherent and natural light of the moon's own; others, that it is imparted by Venus; others yet, by all the stars together; and still others derive it from the sun, whose rays they would have permeate the thick solidity of the moon. But statements of this sort are refuted and their falsity evinced with little difficulty.

For if this kind of light were the moon's own, or were contributed by the stars, the moon would retain it and would display it particularly during eclipses, when it is left in an unusually dark sky. This is contradicted by experience, for the brightness which is seen on the moon during eclipses is much fainter and is ruddy, almost copper-colored, while this is brighter and whitish. Moreover the other light is variable and movable, for it covers the face of the moon in such a way that the place near the edge of the earth's shadow is always seen to be brighter than the rest of the moon; this undoubtedly results from contact of the tangent solar rays with some denser zone which girds the moon about.[11] By this contact a sort of twilight is diffused over the neighboring regions of the moon, just as on earth a sort of crepuscular light is spread both morning and evening; but with this I shall deal more fully in my book on the system of the world.[12]

To assert that the moon's secondary light is imparted by Venus is so childish as to deserve no reply. Who is so ignorant as not to understand that from new moon to a separation of sixty degrees between moon and sun, no part of the moon which is averted from the sun can possibly be seen from Venus? And it is likewise unthinkable that this light should depend upon the sun's rays penetrating the thick solid mass of the moon, for then this light would never dwindle, inasmuch as one hemisphere of the moon is always illuminated except during lunar eclipses. And the light does diminish as the moon approaches first quarter, becoming completely obscured after that is passed.

Now since the secondary light does not inherently belong to the moon, and is not received from any star or from the sun, and since in the whole universe there is no other body left but the earth, what must we conclude? What is to be proposed? Surely we must assert that the lunar body (or any other dark and sunless orb) is illuminated by the earth. Yet what is there so remarkable about this? The earth, in fair and grateful exchange, pays back to the moon an illumination similar to that which it receives from her throughout nearly all the darkest gloom of night.

Let us explain this matter more fully. At conjunction the moon occu-

11. Kepler had correctly accounted for the existence of this light and its ruddy color. It is caused by refraction of sunlight in the earth's atmosphere, and does not require a lunar atmosphere as supposed by Galileo.

12. The book thus promised was destined not to appear for more than two decades. Events which will presently be recounted prevented its publication for many years, and then it had to be modified to present the arguments for both the Ptolemaic and Copernican systems instead of just the latter as Galileo here planned. Even then it was suppressed, and the author was condemned to life imprisonment.

pies a position between the sun and the earth; it is then illuminated by the sun's rays on the side which is turned away from the earth. The other hemisphere, which faces the earth, is covered with darkness; hence the moon does not illuminate the surface of the earth at all. Next, departing gradually from the sun, the moon comes to be lighted partly upon the side it turns toward us, and its whitish horns, still very thin, illuminate the earth with a faint light. The sun's illumination of the moon increasing now as the moon approaches first quarter, a reflection of that light to the earth also increases. Soon the splendor on the moon extends into a semicircle, and our nights grow brighter; at length the entire visible face of the moon is irradiated by the sun's resplendent rays, and at full moon the whole surface of the earth shines in a flood of moonlight. Now the moon, waning, sends us her beams more weakly, and the earth is less strongly lighted; at length the moon returns to conjunction with the sun, and black night covers the earth.

In this monthly period, then, the moonlight gives us alternations of brighter and fainter illumination; and the benefit is repaid by the earth in equal measure. For while the moon is between us and the sun (at new moon), there lies before it the entire surface of that hemisphere of the earth which is exposed to the sun and illuminated by vivid rays. The moon receives the light which this reflects, and thus the nearer hemisphere of the moon—that is, the one deprived of sunlight—appears by virtue of this illumination to be not a little luminous. When the moon is ninety degrees away from the sun it sees but half the earth illuminated (the western half), for the other (the eastern half) is enveloped in night. Hence the moon itself is illuminated less brightly from the earth, and as a result its secondary light appears fainter to us. When the moon is in opposition to the sun, it faces a hemisphere of the earth that is steeped in the gloom of night, and if this position occurs in the plane of the ecliptic the moon will receive no light at all, being deprived of both the solar and the terrestrial rays. In its various other positions with respect to the earth and sun, the moon receives more or less light according as it faces a greater or smaller portion of the illuminated hemisphere of the earth. And between these two globes a relation is maintained such that whenever the earth is most brightly lighted by the moon, the moon is least lighted by the earth, and vice versa.

Let these few remarks suffice us here concerning this matter, which will be more fully treated in our *System of the World*. In that book, by a multitude of arguments and experiences, the solar reflection from the

earth will be shown to be quite real–against those who argue that the earth must be excluded from the dancing whirl of stars for the specific reason that it is devoid of motion and of light. We shall prove the earth to be a wandering body surpassing the moon in splendor, and not the sink of all dull refuse of the universe; this we shall support by an infinitude of arguments drawn from nature.

Thus far we have spoken of our observations concerning the body of the moon. Let us now set forth briefly what has thus far been observed regarding the fixed stars. And first of all, the following fact deserves consideration: The stars, whether fixed or wandering,[13] appear not to be enlarged by the telescope in the same proportion as that in which it magnifies other objects, and even the moon itself. In the stars this enlargement seems to be so much less that a telescope which is sufficiently powerful to magnify other objects a hundredfold is scarcely able to enlarge the stars four or five times. The reason for this is as follows.

When stars are viewed by means of unaided natural vision, they present themselves to us not as of their simple (and, so to speak, their physical) size, but as irradiated by a certain fulgor and as fringed with sparkling rays, especially when the night is far advanced. From this they appear larger than they would if stripped of those adventitious hairs of light, for the angle at the eye is determined not by the primary body of the star but by the brightness which extends so widely about it. This appears quite clearly from the fact that when stars first emerge from twilight at sunset they look very small, even if they are of the first magnitude; Venus itself, when visible in broad daylight, is so small as scarcely to appear equal to a star of the sixth magnitude. Things fall out differently with other objects, and even with the moon itself; these, whether seen in daylight or the deepest night, appear always of the same bulk. Therefore the stars are seen crowned among shadows, while daylight is able to remove their headgear; and not daylight alone, but any thin cloud that interposes itself between a star and the eye of the observer. The same effect is produced by black veils or colored glasses, through the interposition of which obstacles the stars are abandoned by their surrounding brilliance. A telescope similarly accomplishes the same result. It removes from the stars their adventitious and accidental rays, and then it enlarges their simple globes (if indeed the stars are naturally globular) so that they seem to be magnified in a lesser ratio than other objects.

13. That is, planets. Among these bodies Galileo counted his newly discovered satellites of Jupiter. The term "satellites" was introduced somewhat later by Kepler.

In fact a star of the fifth or sixth magnitude when seen through a telescope presents itself as one of the first magnitude.

Deserving of notice also is the difference between the appearances of the planets and of the fixed stars.[14] The planets show their globes perfectly round and definitely bounded, looking like little moons, spherical and flooded all over with light; the fixed stars are never seen to be bounded by a circular periphery, but have rather the aspect of blazes whose rays vibrate about them and scintillate a great deal. Viewed with a telescope they appear of a shape similar to that which they present to the naked eye, but sufficiently enlarged so that a star of the fifth or sixth magnitude seems to equal the Dog Star, largest of all the fixed stars. Now, in addition to stars of the sixth magnitude, a host of other stars are perceived through the telescope which escape the naked eye; these are so numerous as almost to surpass belief. One may, in fact, see more of them than all the stars included among the first six magnitudes. The largest of these, which we may call stars of the seventh magnitude, or the first magnitude of invisible stars, appear through the telescope as larger and brighter than stars of the second magnitude when the latter are viewed with the naked eye. In order to give one or two proofs of their almost inconceivable number, I have adjoined pictures of two constellations. With these as samples, you may judge of all the others.

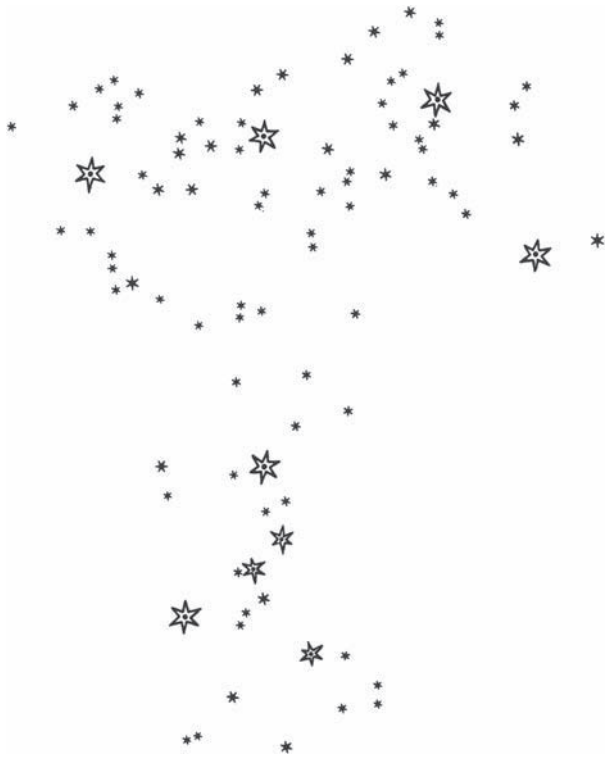
In the first I had intended to depict the entire constellation of Orion, but I was overwhelmed by the vast quantity of stars and by limitations of time, so I have deferred this to another occasion. There are more than five hundred new stars distributed among the old ones within limits of one or two degrees of arc. Hence to the three stars in the Belt of Orion and the six in the Sword which were previously known, I have added eighty adjacent stars discovered recently, preserving the intervals between them as exactly as I could. To distinguish the known or ancient stars, I have depicted them larger and have outlined them doubly; the other (invisible) stars I have drawn smaller and without the extra line. I have also preserved differences of magnitude as well as possible.

In the second example I have depicted the six stars of Taurus known as the Pleiades (I say six, inasmuch as the seventh is hardly ever visible) which lie within very narrow limits in the sky. Near them are more than

14. Fixed stars are so distant that their light reaches the earth as from dimensionless points. Hence their images are not enlarged by even the best telescopes, which serve only to gather more of their light and in that way increase their visibility. Galileo was never entirely clear about this distinction. Nevertheless, by applying his knowledge of the effects described here, he greatly reduced the prevailing overestimation of visual dimensions of stars and planets.

forty others, invisible, no one of which is much more than half a degree away from the original six. I have shown thirty-six of these in the diagram [p. 348]; as in the case of Orion I have preserved their intervals and magnitudes, as well as the distinction between old stars and new.

Third, I have observed the nature and the material of the Milky Way. With the aid of the telescope this has been scrutinized so directly and



The Belt and Sword of Orion

with such ocular certainty that all the disputes which have vexed philosophers through so many ages have been resolved, and we are at last freed from wordy debates about it. The galaxy is, in fact, nothing but a congeries of innumerable stars grouped together in clusters. Upon whatever part of it the telescope is directed, a vast crowd of stars is immediately presented to view. Many of them are rather large and quite bright, while the number of smaller ones is quite beyond calculation.

But it is not only in the Milky Way that whitish clouds are seen; several

patches of similar aspect shine with faint light here and there throughout the aether, and if the telescope is turned upon any of these it confronts us with a tight mass of stars. And what is even more remarkable, the stars which have been called "nebulous" by every astronomer up to this time turn out to be groups of very small stars arranged in a wonderful manner. Although each star separately escapes our sight on account of its smallness or the immense distance from us, the mingling of their rays gives rise to that gleam which was formerly believed to be some denser part of the aether that was capable of reflecting rays from stars or from the sun. I have observed some of these constellations and have decided to depict two of them [see opposite page].

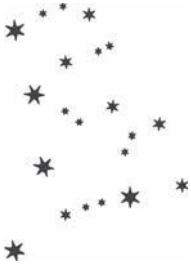
The Pleiades

In the first you have the nebula called the Head of Orion, in which I have counted twenty-one stars. The second contains the nebula called Praesepe,[15] which is not a single star but a mass of more than forty starlets. Of these I have shown thirty-six, in addition to the Aselli, arranged in the order shown.

We have now briefly recounted the observations made thus far with regard to the moon, the fixed stars, and the Milky Way. There remains the matter which in my opinion deserves to be considered the most important of all—the disclosure of four Planets never seen from the creation of the world up to our own time, together with the occasion of my having discovered and studied them, their arrangements, and the observa-

15. Praesepe, "the Manger," is a small whitish cluster of stars lying between the two Aselli (ass-colts) which are imagined as feeding from it. It lies in the constellation Cancer.

tions made of their movements and alterations during the past two months. I invite all astronomers to apply themselves to examine them and determine their periodic times, something which has so far been quite impossible to complete, owing to the shortness of the time. Once more, however, warning is given that it will be necessary to have a very accurate telescope such as we have described at the beginning of this discourse.



Nebula of Orion

Nebula of Praesepe

On the seventh day of January in this present year 1610, at the first hour of night, when I was viewing the heavenly bodies with a telescope, Jupiter presented itself to me; and because I had prepared a very excellent instrument for myself, I perceived (as I had not before, on account of the weakness of my previous instrument) that beside the planet there were three starlets, small indeed, but very bright. Though I believed them to be among the host of fixed stars, they aroused my curiosity somewhat by appearing to lie in an exact straight line parallel to the ecliptic, and by their being more splendid than others of their size. Their arrangement with respect to Jupiter and each other was the following:

that is, there were two stars on the eastern side and one to the west. The most easterly star and the western one appeared larger than the other. I paid no attention to the distances between them and Jupiter, for at the

outset I thought them to be fixed stars, as I have said.[16] But returning to the same investigation on January eighth–led by what, I do not know–I found a very different arrangement. The three starlets were now all to the west of Jupiter, closer together, and at equal intervals from one another as shown in the following sketch:

At this time, though I did not yet turn my attention to the way the stars had come together, I began to concern myself with the question how Jupiter could be east of all these stars when on the previous day it had been west of two of them. I commenced to wonder whether Jupiter was not moving eastward at that time, contrary to the computations of the astronomers, and had got in front of them by that motion.[17] Hence it was with great interest that I awaited the next night. But I was disappointed in my hopes, for the sky was then covered with clouds everywhere.

On the tenth of January, however, the stars appeared in this position with respect to Jupiter:

that is, there were but two of them, both easterly, the third (as I supposed) being hidden behind Jupiter. As at first, they were in the same straight line with Jupiter and were arranged precisely in the line of the zodiac. Noticing this, and knowing that there was no way in which such alterations could be attributed to Jupiter's motion, yet being certain that these were still the same stars I had observed (in fact no other was to be found along the line of the zodiac for a long way on either side of Jupiter), my perplexity was now transformed into amazement. I was sure that the apparent changes belonged not to Jupiter but to the observed stars, and I resolved to pursue this investigation with greater care and attention.

And thus, on the eleventh of January, I saw the following disposition:

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16. The reader should remember that the telescope was nightly revealing to Galileo hundreds of fixed stars never previously observed. His unusual gifts for astronomical observation are illustrated by his having noticed and remembered these three merely by reason of their alignment, and recalling them so well that when by chance he happened to see them the following night he was certain that they had changed their positions. No such plausible and candid account of the discovery was given by the rival astronomer Simon Mayr, who four years later claimed priority.
17. Jupiter was at this time in "retrograde" motion; that is, the earth's motion made the planet appear to be moving westward among the fixed stars.

There were two stars, both to the east, the central one being three times as far from Jupiter as from the one farther east. The latter star was nearly double the size of the former, whereas on the night before they had appeared approximately equal.

I had now decided beyond all question that there existed in the heavens three stars wandering about Jupiter as do Venus and Mercury about the sun, and this became plainer than daylight from observations on similar occasions which followed. Nor were there just three such stars; four wanderers complete their revolutions about Jupiter, and of their alterations as observed more precisely later on we shall give a description here. Also I measured the distances between them by means of the telescope, using the method explained before. Moreover I recorded the times of the observations, especially when more than one was made during the same night–for the revolutions of these planets are so speedily completed that it is usually possible to take even their hourly variations.

Thus on the twelfth of January at the first hour of night I saw the stars arranged in this way:

The most easterly star was larger than the western one, though both were easily visible and quite bright. Each was about two minutes of arc distant from Jupiter. The third star was invisible at first, but commenced to appear after two hours; it almost touched Jupiter on the east, and was quite small. All were on the same straight line directed along the ecliptic.

On the thirteenth of January four stars were seen by me for the first time, in this situation relative to Jupiter:

Three were westerly and one was to the east; they formed a straight line except that the middle western star departed slightly toward the north. The eastern star was two minutes of arc away from Jupiter, and the intervals of the rest from one another and from Jupiter were about one minute. All the stars appeared to be of the same magnitude, and though small were very bright, much brighter than fixed stars of the same size.[18]

18. Galileo's day-by-day journal of observations continued in unbroken sequence until ten days before publication of the book, which he remained in Venice to supervise. The observations omitted here contained nothing of a novel character.

On the twenty-sixth of February, midway in the first hour of night, there were only two stars:

One was to the east, ten minutes from Jupiter; the other to the west, six minutes away. The eastern one was somewhat smaller than the western. But at the fifth hour three stars were seen:

In addition to the two already noticed, a third was discovered to the west near Jupiter; it had at first been hidden behind Jupiter and was now one minute away. The eastern one appeared farther away than before, being eleven minutes from Jupiter.

This night for the first time I wanted to observe the progress of Jupiter and its accompanying planets along the line of the zodiac in relation to some fixed star, and such a star was seen to the east, eleven minutes distant from the easterly starlet and a little removed toward the south, in the following manner:

On the twenty-seventh of February, four minutes after the first hour, the stars appeared in this configuration:

The most easterly was ten minutes from Jupiter; the next, thirty seconds; the next to the west was two minutes thirty seconds from Jupiter, and the most westerly was one minute from that. Those nearest Jupiter appeared very small, while the end ones were plainly visible, especially the westernmost. They marked out an exactly straight line along the course of the ecliptic. The progress of these planets toward the east is seen quite clearly by reference to the fixed star mentioned, since Jupiter and its accompanying planets were closer to it, as may be seen in the figure above. At the fifth hour, the eastern star closer to Jupiter was one minute away.

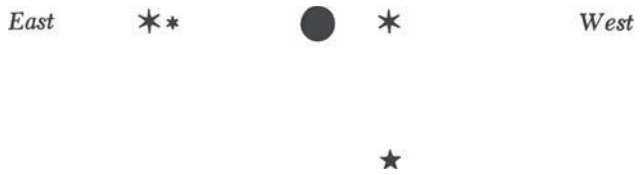
At the first hour on February twenty-eighth, two stars only were seen; one easterly, distant nine minutes from Jupiter, and one to the west, two minutes away. They were easily visible and on the same

straight line. The fixed star, perpendicular to this line, now fell under the eastern planet as in this figure:

At the fifth hour a third star, two minutes east of Jupiter, was seen in this position:

On the first of March, forty minutes after sunset, four stars all to the east were seen, of which the nearest to Jupiter was two minutes away, the next was one minute from this, the third two seconds from that and brighter than any of the others; from this in turn the most easterly was four minutes distant, and it was smaller than the rest. They marked out almost a straight line, but the third one counting from Jupiter was a little to the north. The fixed star formed an equilateral triangle with Jupiter and the most easterly star, as in this figure:

On March second, half an hour after sunset, there were three planets, two to the east and one to the west, in this configuration:



The most easterly was seven minutes from Jupiter and thirty seconds from its neighbor; the western one was two minutes away from Jupiter. The end stars were very bright and were larger than that in the middle, which appeared very small. The most easterly star appeared a little elevated toward the north from the straight line through the other planets and Jupiter. The fixed star previously mentioned was eight minutes from the western planet along the line drawn from it perpendicularly to the straight line through all the planets, as shown above.

I have reported these relations of Jupiter and its companions with the fixed star so that anyone may comprehend that the progress of those planets, both in longitude and latitude, agrees exactly with the movements derived from planetary tables.

Such are the observations concerning the four Medicean planets recently first discovered by me, and although from these data their periods have not yet been reconstructed in numerical form, it is legitimate at least to put in evidence some facts worthy of note. Above all, since they sometimes follow and sometimes precede Jupiter by the same intervals, and they remain within very limited distances either to east or west of Jupiter, accompanying that planet in both its retrograde and direct movements in a constant manner, no one can doubt that they complete their revolutions about Jupiter and at the same time effect all together a twelve-year period about the center of the universe. That they also revolve in unequal circles is manifestly deduced from the fact that at the greatest elongation [19] from Jupiter it is never possible to see two of these planets in conjunction, whereas in the vicinity of Jupiter they are found united two, three, and sometimes all four together. It is also observed that the revolutions are swifter in those planets which describe smaller circles about Jupiter, since the stars closest to Jupiter are usually seen to the east when on the previous day they appeared to the west, and vice versa, while the planet which traces the largest orbit appears upon accurate observation of its returns to have a semimonthly period.

Here we have a fine and elegant argument for quieting the doubts of those who, while accepting with tranquil mind the revolutions of the planets about the sun in the Copernican system, are mightily disturbed to have the moon alone revolve about the earth and accompany it in an annual rotation about the sun. Some have believed that this structure of the universe should be rejected as impossible. But now we have not just one planet rotating about another while both run through a great orbit around the sun; our own eyes show us four stars which wander around Jupiter as does the moon around the earth, while all together trace out a grand revolution about the sun in the space of twelve years.

And finally we should not omit the reason for which the Medicean stars appear sometimes to be twice as large as at other times, though their orbits about Jupiter are very restricted. We certainly cannot seek the cause in terrestrial vapors, as Jupiter and its neighboring fixed stars are not seen to change size in the least while this increase and diminution are tak-

19. By this is meant the greatest angular separation from Jupiter attained by any of the satellites.

ing place. It is quite unthinkable that the cause of variation should be their change of distance from the earth at perigee and apogee, since a small circular rotation could by no means produce this effect, and an oval motion (which in this case would have to be nearly straight) seems unthinkable and quite inconsistent with the appearances.[20] But I shall gladly explain what occurs to me on this matter, offering it freely to the judgment and criticism of thoughtful men. It is known that the interposition of terrestrial vapors makes the sun and moon appear large, while the fixed stars and planets are made to appear smaller. Thus the two great luminaries are seen larger when close to the horizon, while the stars appear smaller and for the most part hardly visible. Hence the stars appear very feeble by day and in twilight, though the moon does not, as we have said. Now from what has been said above, and even more from what we shall say at greater length in our *System*, it follows that not only the earth but also the moon is surrounded by an envelope of vapors, and we may apply precisely the same judgment to the rest of the planets. Hence it does not appear entirely impossible to assume that around Jupiter also there exists an envelope denser than the rest of the aether, about which the Medicean planets revolve as does the moon about the elemental sphere. Through the interposition of this envelope they appear larger when they are in perigee by the removal, or at least the attenuation, of this envelope.

Time prevents my proceeding further, but the gentle reader may expect more soon.

20. The marked variation in brightness of the satellites which Galileo observed may be attributed mainly to markings upon their surfaces, though this was not determined until two centuries later. The mention here of a possible oval shape of the orbits is the closest Galileo ever came to accepting Kepler's great discovery of the previous year. Even here, however, he was probably not thinking of Kepler's work but of an idea proposed by earlier astronomers for the moon and the planet Venus.

Translated by Stillman Drake.

Tommaso Campanella

1568–1639

Campanella, Italian philosopher, was born at Stilo, Calabria, in 1568. He became a member of the Dominican Order in 1582. The chance reading of a work of natural philosophy called *De Rerum Natura* by one Telesio is said to have changed his view of the world. Telesio's work appealed to nature rather than to authority, and Campanella defended its author in a book titled *Philosophy Demonstrated According to the Senses* (1591). This book, and his own opposition to the authorities, required his departure from Naples for Rome and other Italian cities in the following years. He returned to Naples in 1598 and was implicated, perhaps unjustly, in a plot to free the city from Spanish rule. He was convicted, sentenced to prison, and remained there for twenty-eight years. During this time he composed a sonnet series and most of his philosophical works, including the *Defense of Galileo*, from which the following selection is taken.

Campanella never denied–indeed he always supported–the temporal power of the pope. On his release from prison, he found favor with Pope Urban VIII. The latter persuaded Campanella to go to Paris upon the outbreak of a new conspiracy. There he was well received by Cardinal Richelieu. Campanella died in Paris, while engaged in preparing a complete edition of his works, on May 21, 1639.

Campanella was widely read in the scientific literature of his day. He rejected Aristotelianism in the study of man and nature, preferring instead direct recourse to the subject of inquiry. He accepted the authority of faith in matters of revealed theology, but he maintained that philosophy should be based on experience. In what is probably his most famous work, *The City of the Sun* (1623),

he describes an ideal state, much influenced by Plato's *Republic*, which is ruled by philosopher-priests.

Is the philosophy which Galileo has made famous and important in harmony with or opposed to the Holy Scriptures?" asks Campanella in the Foreword to the *Defense of Galileo.* That is the prime question which concerns him in the following selection, and it should not surprise us, therefore, that he does not defend Galileo by asserting the "truth" of Galileo's discoveries, in which Campanella probably believed. The question is, after all, not whether Galileo's theories are true, but whether their truth, even if it exists, runs counter to what even Campanella would have insisted was a higher truth. For any Christian of the seventeenth century, Galileo not excepted, the assertion of propositions obviously or demonstrably contrary to Scripture would have been unthinkable.

The question whether Galileo's philosophy was in fact contrary to Scripture was, however, susceptible to argument, and Campanella discusses that question here. Though it is clear enough where his sympathies lie, it is noteworthy that he is careful to do full justice to the arguments of his opponents. And he counters them on their own terms. If they cite authority against Galileo, he cites authority for Copernicus, which is in effect authority for Galileo himself. If they cite Scripture, he cites Scripture in return. If they cite tradition, then he cites tradition in return. The argument is thus a proper one; the issue is truly joined. The same cannot be said of some of the controversies, however hotly waged, of our own day.

Simply stated, the position of those who opposed Galileo was as follows: that Galileo asserted the truth, and not merely the hypothetical possibility, of the Copernican system; that this assertion involved the denial of Holy Writ; that this denial involved the denial of God; and that the denial of God involved the eternal damnation of the denier and, possibly, of the entire human race. The fact that the last three propositions are no longer held to follow from the first should not lead us to ignore the deadly seriousness of the matter. Indeed, within the last generation the question whether scientific advances involve the possible destruction of the entire human race has once again been raised. There are many persons of so-called liberal persuasion—persons, that is, who would have defended Galileo's

right to speak—who now advocate the control of science because of what it can and may do to man and the world. At the same time, modern states feel morally obliged, as the church did in Galileo's time, to set limits on the freedom of scientific inquiry and on the communication of scientific knowledge.

Though it is stated in an outmoded way, the question that Campanella asks is a perennial one. Should science be in the service of man? If so, and if it is allowed free reign, then its results may lead to the disservice of man. However, the restriction of science might also lead to the disservice of man. On the other hand, it is sometimes claimed that science is an end in itself, and that it is wrong to demand that it be in the service of anything else. It is not at all too much to say that Campanella's arguments are capable of helping us to understand this great dilemma.

Arguments for and against Galileo

from *The Defense of Galileo*

FOREWORD

It is now essential to discuss two questions: first, should the new philosophy be permitted to search for truth, and secondly, is it desirable or allowable to suppress both the Aristotelian sect and the authority of heathen philosophers, and for our Christian schools to teach the new philosophy in harmony with Sacred Doctrine? A third fundamental controversy has been precipitated by those who condemn the exalted philosophy of Galileo the Florentine because they believe it opposed to the dogmas of Holy Scripture. I shall reply as the truth appears to me.

I ask therefore: Is the philosophy which Galileo has made famous and important in harmony with or opposed to the Holy Scriptures? Five chapters will complete this inquiry. In the first I shall set forth the arguments and contentions which oppose Galileo; in the second, those which support him. I shall develop in the following chapter three hypotheses which lead to a double conclusion, and answer in the fourth the arguments brought against Galileo. In the fifth and last I shall discuss [and in part refute] the arguments which favor him.

THE ARGUMENTS BROUGHT AGAINST GALILEO

1. He has completely overturned theological dogmas, and attempts to introduce new theories opposed to the science and metaphysics of Aristotle upon which St. Thomas and all scholastics have based theological doctrine.

2. He promulgates opinions which contradict those of all the Fathers and scholastics. Indeed, he teaches that the sun and sphere of the stars

remain fixed, that the earth moves, and is placed beyond the center of the world. The Fathers, the scholastics, and our senses inform us differently.

3. Galileo openly contradicts Sacred Scripture. It is said in Psalm 92, "For he hath established the world which shall not be moved," and in Psalm 103, "Who hast founded the earth upon its own bases; it shall not be moved for ever and ever." And Solomon states in Ecclesiastes 1, "But the earth standeth for ever."

4. Scripture clearly describes the motion of the sun, and says in Ecclesiastes 1, "The earth standeth for ever; the sun riseth and goeth down, and returneth to his place, and there rising again, maketh his round by the south, and turneth again to the north; the spirit goeth forward surveying all places round about, and returneth to his circuits."

5. It is called in Joshua 10 a great miracle that Joshua restrained the motion of the sun by his command, "Move not, O sun, toward Gabaon, nor thou, O moon, toward the valley of Ajalon. . . . So the sun stood still in the midst of heaven, and hasted not to go down for the space of one day." This miracle again is described in Ecclesiasticus 46.

6. In Isaiah 38, God gave Hezekiah a portent in the sundial of Ahaz, as a sign that he would recover his health, "And the sun returned ten lines by the degrees by which it had gone down." As we know from 2 Paralipomenon 32 [2 Chronicles], the King of the Chaldeans questioned Hezekiah regarding this portent, and believing that it resulted from natural causes, denied that the sun had moved backward. If God did not stop the motion of the sun [it is declared], there was no miracle. Therefore Galileo shows that Scripture is false, for Scripture describes as true miracles the standing and the returning of the sun.

7. The moving stars of heaven are praised in Holy Scripture. Deborah sings in her song, Judges 5, "The stars remaining in their order and courses fought against Sisra." Therefore the stars move, and necessarily the heaven, for they are believed placed within it as knots within a board. Moreover, the Apostle Judas speaks of "wandering stars," [13] and 3 Esdras 4, "Great is the earth, high is the heaven, swift is the sun in his course, for he compasseth the heavens round about, and returneth again to his own place in one day." Since Galileo makes the starry heaven immobile, he openly contradicts the Scripture of God.

8. Galileo also says that water exists on the moon and the planets, which cannot be. These bodies are incorruptible, for do not all scholastics contend with Aristotle that they endure without change throughout all time? He describes lands and mountains in the moon and other celestial globes,

and not only vilifies immeasurably the homes of the angels, but lessens our hope regarding heaven.

9. If the four elements which form our world exist in the stars, it follows from the doctrine of Galileo that, as Mohammed declared, there are many worlds with lands and seas, and with human inhabitants. However, Scripture speaks of only one world and of one created man, so that this belief is opposed to Scripture. I pass without comment the opinion that Galileo has revived the heresy that Christ must make atonement for the men who inhabit the stars, and die there again; just as formerly it was said that Christ must be crucified a second time in the antipodes, if the men living there were to be saved as we have been saved. The heretic Paracelsus, whom the Jesuit Martin Delrio attacked in his *Discourse on Magic*, placed men, who rightly should participate in heavenly bliss, under the earth, in the air, and within the water, and questioned their redemption.

10. It is believed that nothing except the derogatory and the scandalous can be contributed by Galileo. Our schools now have and teach a theory of heaven and earth which supports scholastic theology. Whatever conflicting theory others present is therefore believed to degrade this theology and to prepare the way for its destruction.

11. Holy Scripture counsels us to "seek nothing higher, nor attempt to know more than it is necessary to know"; that we "leap not over the bounds which the Fathers set"; and that "the diligent searcher of majesty is overcome by vainglory." Galileo disregards this counsel, subjects the heavens to his invention, and constructs the whole fabric of the world according to his pleasure. Cato rightly taught us to "leave secret things to God, and to permit heaven to inquire concerning them; for he who is mortal should concern himself with mortal things."

THE ARGUMENTS WHICH SUPPORT GALILEO

1. I mention first that *De Revolutionibus Orbium Caelestium Libri VI*, which Copernicus grounded upon observations of the heavens made in 1525, was presented for publication by respected and reputable theologians. By this act they expressed a judgment that the book contains nothing inimical to Catholic faith, despite the fact that it argues for the motion of the earth, the immobility of the firmament, and places the sun in the center of the starry heaven. Galileo has made no additions to the system advanced by Copernicus, and if the *Revolutions* does not adversely affect Catholic faith, neither does the work of Galileo.

2. Pope Paul III, to whom Copernicus dedicated the *Revolutions*, approved the book. Likewise did the Cardinal [Schonberg], who, as the prefatory epistle shows, begged to have the unprinted manuscript transcribed at his own expense. At the time of Paul III distinguished genius flourished within the church, and the Pontiff summoned from afar men of ability, spirit, and noble mind, and supported and adorned them with honor. It indeed would be strange if such able men had imitated blind moles by rejecting Copernicus. Our contemporaries who oppose his theory are not so great in reputation. I add that Galileo, who seeks always more precise observations, has [with the telescope] sharper eyes than Argus.

3. After Copernicus had published the *Revolutions*, Erasmus Reinhold, John Stadius, Michael Maestlin, Christopher Rothmann and many others accepted his theory. Later astronomers thought themselves unable to prepare accurate ephemerides unless they employed the calculations of Copernicus. They also found themselves wholly at a loss to explain celestial motions without violation of mathematical principles and in harmony with the judgment of reason and of all people, unless they employed the Copernican hypothesis. Nor is the heliocentric theory as recent as Copernicus. As the result of his observations of celestial phenomena, Francesco [Domenico] Maria of Ferrara previously had taught that a new system of astronomy should be constructed. His disciple Copernicus built this system.

4. The learned Cardinal Cusanus accepted the hypothesis, and acknowledged that other suns and planets move in orbits in the starry heaven. Nolanus [Bruno], whose errors cannot be named, also supported the theory, as did other philosophers. (Nor were the heretics so much condemned for upholding the hypothesis; rather, Catholics were forbidden to read their books.) Outstanding among Copernican advocates is John Kepler, mathematician to the Emperor, who defends the theory in his prefatory dissertation to the *Starry Messenger* of Galileo. I also may add to them William Gilbert, in his *On the Magnet*, and innumerable other Englishmen. Giovanni Antonio Magini, mathematician of Padua, declared in his *Ephemerides* from 1581 to the present year of 1616 that he accepted the calculations and positions set forth by Copernicus and Reinhold. He boldly criticized other cosmological theories in many of his letters.

5. For more than thirty years the Jesuit and Aristotelian, Reverend Father Clavius, supported the Ptolemaic hypothesis. When he observed however that the planets Mercury and Venus revolve about the sun, he

advised astronomers in the final edition of his *Works* that some system other than the Ptolemaic must be sought. One recent astronomer, Fictus Apelles, gave serious consideration to this admonition, and as a result of both the warning and his observation of spots on the sun, looked with favor upon the hypothesis of Galileo and Copernicus.

6. Galileo's theory of the motion of the earth, of a central sun, and of the systems of stars with waters and earthly elements is indeed an ancient conception. It comes from the mouth of Moses himself, and from Pythagoras. Saint Ambrose tells us that although Pythagoras was born in a Grecian city, he was a Jew with Moses. He taught disciples in Greece, and after going into Italy, in Crotona of Calabria. His beliefs [later] were attacked by Aristotle, not with mathematical demonstrations, but with inane reasons and moralistic, rustic conjectures. According to the statements of Giovanni Pico della Mirandola and Saint Ambrose, Aristotle condemned Pythagoras in the same fashion as he condemned the *Books* of Moses. He was unable by syllogistic logic to understand their divine mystery, recondite thought, and sublime majesty. Such an attack upon Moses vindicates our great Galileo from similar insults cast by the Greeks.

As not only Ovid, but as many historians declare, Numa Pompilius, disciple of Pythagoras and the wisest emperor of Rome, supported the hypothesis. Pliny truthfully states, despite the denial of some writers, that having been commanded by the oracle of Delphos to erect and dedicate a statue to the wisest of the Greeks, the Roman Senate dedicated a statue to Pythagoras and named him the most learned of the philosophers. Those who blacken the doctrine and scientific method of Galileo defame Moses, Rome, and Italy. They set Aristotle above Pythagoras at a time when long-buried truth is gleaming forth. But this is not our greatest sin; this sin is that we have neither made known the new earths, the new systems in the heavens, and the new celestial phenomena, nor have declared abroad the harmony of Scripture and Copernican philosophy.

7. From the time of Caselli and Francesco Maria of Ferrara until the present, theologians did not condemn Copernican astronomy. Moreover, reputable men ordered that the *Revolutions* be printed. Such theologians are not fewer today. The traducers of Galileo have fomented insurrection, not because of their zeal for the teaching of Christ, but from ignorance and jealousy.

8. Because heaven is immobile, Holy Scripture names it the firmament. The earth therefore must rotate, and the sun stand in the center of

the world. As Copernicus and his followers prove and the followers of Ptolemy now admit, this system explains all phenomena and accords with all principles of mathematics.

9. The spots on the sun, the new stars in the heavens, and comets above the moon demonstrate clearly that the stars are worlds constructed of material substance.

10. It is not possible to explain correctly and satisfactorily the text of Moses unless the stars are so constructed. We prove this below from the most saintly Fathers.

11. In his *Answers to the Orthodox*, St. Justin teaches us that when controversy regarding the shape and movement of heaven arose between Christians and heathen, the heathen declared heaven was spherical and mobile, and the Christians that it was a vault which stood immobile. Many Fathers of the Church describe heaven as the firmament because it is unmoved.

Translated by G. McColley.

Michael Faraday[1]

1791–1867

The Royal Institution in London, of which Michael Faraday was the director for more than forty years, was not a school. It was supported by endowments and was a pure research establishment. But there were paying members who were allowed to come to the lectures given by associates of the Institution. The audience of these lectures consisted at first only of adults. But Faraday liked to talk to young people about scientific subjects, and he knew that young people liked to hear him. In December, 1826, he began a series of lectures for the sons and daughters of members of the Institution. These became known as the Christmas Lectures, since they were given during the Christmas holidays.

The Christmas Lectures were highly successful from the very beginning. In all, Faraday gave them nineteen times, choosing as his subject matter, on different occasions, aspects of chemistry, electricity and magnetism, gravitation, the various forces of nature, and other scientific fields. In December, 1860, Faraday gave the last of his Christmas Lectures. The title was *The Chemical History of a Candle*.

Faraday did not write down his lectures. We owe our knowledge of them to a young scientist named William Crookes, who had a stenographer take down a complete word-for-word record. Crookes published the lectures, and it is this version that we reprint here. In his introduction, Crookes bemoaned "the impossibility, alas! of conveying the manner as well as the matter of the Lecturer." Faraday was sixty-nine years old when he gave the lectures on *The Chemical History of a Candle*, but he was still alert and as enthusiastic about

[1] For a biography of Faraday, see Vol. 7, pp. 204–206, in this set.

science as he ever had been. His slender fingers handled the pieces of equipment with the same wonderful skill for which he was famous throughout the scientific world. What we have here in print is perhaps a pale copy of the reality. It would have been a fine thing to be one of those young people in the great lecture hall of the Royal Institution, listening to its celebrated director talking about candles, light, and the beauty of scientific truth. Yet it may be that some of the magic of that occasion comes through in the printed text. At least, generations of readers have found it to be so.

"You have the glittering beauty of gold and silver," says Faraday, "and the still higher lustre of jewels, like the ruby and diamond; but none of these rival the brilliancy and beauty of flame." Perhaps the greatest scientist who ever lived was that forgotten Stone Age man who discovered fire. He gave mankind something to use and to worship. In our enlightened age we still maintain some "sacred" flames to remind us how much we owe to fire.

Fire is sacred not only because it gives us power to control nature. Fire, a flame, is also symbolical of understanding; it gives light. Faraday, in these lectures, sees not only the pure light of the candle as beautiful. What the burning candle represents is also beautiful, and he succeeds in making us see this. For "there is not a law under which any part of this universe is governed which does not come into play, and is touched upon in these phenomena" of the candle flame. Everything fits together. The universe is understandable. Facts have meaning; they are not just so many puzzles. It is Faraday's delight in the scientific laws which he did so much to discover that shines through these pages.

The candle flame represents for him even more than the meaningfulness of the physical world. The study of fire shows us the interdependence of all living things. Flame itself has a kind of life; "it breaks out with a power of life which is quite wonderful." What is more, our breathing is a kind of fire. The air acts upon the blood in our lungs, "producing precisely the same results in kind as we have seen in the case of the candle." Finally, the product of our breathing is carbonic acid (we call it carbon dioxide); this goes up into the air and "is the very life and support of plants and vegetables that grow upon the surface of the earth." These in turn produce oxygen, and "so are we made dependent, not merely upon our fellow-creatures, but upon our fellow-existers, all Nature being tied to-

gether by the laws that make one part conduce to the good of another."

"Life is a pure flame; we live by an invisible fire within us," wrote Sir Thomas Browne. Though Sir Thomas was a physician, he lived before the Age of Science, and he probably meant something more mysterious by that famous sentence than Faraday would have liked. Nevertheless, Faraday does seem to be saying that there is something mysterious, as well as beautiful, about a candle flame. "The candle alone shines by itself, and for itself," he says, and he ends his last lecture by wishing "that you may, in your generation, be fit to compare to a candle; that you may, like it, shine as light to those about you."

The Chemical History of a Candle

LECTURE I

I purpose, in return for the honour you do us by coming to see what are our proceedings here, to bring before you, in the course of these lectures, the chemical history of a candle. I have taken this subject on a former occasion; and were it left to my own will, I should prefer to repeat it almost every year—so abundant is the interest that attaches itself to the subject, so wonderful are the varieties of outlet which it offers into the various departments of philosophy. There is not a law under which any part of this universe is governed which does not come into play, and is touched upon in these phenomena. There is no better, there is no more open door by which you can enter into the study of natural philosophy, than by considering the physical phenomena of a candle. I trust, therefore, I shall not disappoint you in choosing this for my subject rather than any newer topic, which could not be better, were it even so good.

And before proceeding, let me say this also—that though our subject be so great, and our intention that of treating it honestly, seriously, and philosophically, yet I mean to pass away from all those who are seniors amongst us. I claim the privilege of speaking to juveniles as a juvenile myself. I have done so on former occasions—and, if you please, I shall do so again. And though I stand here with the knowledge of having the words I utter given to the world, yet that shall not deter me from speaking in the same familiar way to those whom I esteem nearest to me on this occasion.

And now, my boys and girls, I must first tell you of what candles are made. Some are great curiosities. I have here some bits of timber, branches of trees particularly famous for their burning. And here you see a piece of that very curious substance taken out of some of the bogs in

Ireland, called *candle-wood*–a hard, strong, excellent wood, evidently fitted for good work as a resister of force, and yet withal burning so well that where it is found they make splinters of it, and torches, since it burns like a candle, and gives a very good light indeed. And in this wood we have one of the most beautiful illustrations of the general nature of a candle that I can possibly give. The fuel provided, the means of bringing that fuel to the place of chemical action, the regular and gradual supply of air to that place of action, heat and light–all produced by a little piece of wood of this kind, forming, in fact, a natural candle.

But we must speak of candles as they are in commerce. Here are a couple of candles commonly called dips. They are made of lengths of cotton cut off, hung up by a loop, dipped into melted tallow, taken out again and cooled, then re-dipped until there is an accumulation of tallow round the cotton. In order that you may have an idea of the various characters of these candles, you see these which I hold in my hand–they are very small, and very curious. They are, or were, the candles used by the miners in coal mines. In olden times the miner had to find his own candles; and it was supposed that a small candle would not so soon set fire to the fire-damp in the coal mines as a large one; and for that reason, as well as for economy's sake, he had candles made of this sort–twenty, thirty, forty, or sixty to the pound. They have been replaced since then by the steel mill, and then by the Davy lamp, and other safety-lamps of various kinds. I have here a candle that was taken out of the *Royal George*,[1] it is said, by Colonel Pasley. It has been sunk in the sea for many years, subject to the action of salt water. It shows you how well candles may be preserved; for though it is cracked about and broken a good deal, yet, when lighted, it goes on burning regularly, and the tallow resumes its natural condition as soon as it is fused.

Mr. Field, of Lambeth, has supplied me abundantly with beautiful illustrations of the candle and its materials. I shall therefore now refer to them. And, first, there is the suet–the fat of the ox–Russian tallow, I believe, employed in the manufacture of these dips, which Gay-Lussac, or some one who entrusted him with his knowledge, converted into that beautiful substance, stearin, which you see lying beside it. A candle, you know, is not now a greasy thing like an ordinary tallow candle, but a clean thing, and you may almost scrape off and pulverize the drops which

1. The *Royal George* sunk at Spithead on the 29th of August, 1782. Colonel Pasley commenced operations for the removal of the wreck by the explosion of gunpowder, in August, 1839. The candle which Professor Faraday exhibited must therefore have been exposed to the action of salt water for upwards of fifty-seven years.–William Crookes.

fall from it without soiling anything. This is the process he adopted.[2] The fat or tallow is first boiled with quicklime, and made into a soap, and then the soap is decomposed by sulphuric acid, which takes away the lime, and leaves the fat re-arranged as stearic acid, while a quantity of glycerine is produced at the same time. Glycerine—absolutely a sugar, or a substance similar to sugar—comes out of the tallow in this chemical change. The oil is then pressed out of it; and you see here this series of pressed cakes, showing how beautifully the impurities are carried out by the oily part as the pressure goes on increasing, and at last you have left that substance which is melted, and cast into candles as here represented. The candle I have in my hand is a stearin candle, made of stearin from tallow in the way I have told you. Then here is a sperm candle, which comes from the purified oil of the spermaceti whale. Here also are yellow bees-wax and refined bees-wax, from which candles are made. Here, too, is that curious substance called paraffin, and some paraffin candles made of paraffin obtained from the bogs of Ireland. I have here also a substance brought from Japan, since we have forced an entrance into that out-of-the-way place—a sort of wax which a kind friend has sent me, and which forms a new material for the manufacture of candles.

And how are these candles made? I have told you about dips, and I will show you how moulds are made. Let us imagine any of these candles to be made of materials which can be cast. "Cast!" you say. "Why, a candle is a thing that melts; and surely if you can melt it, you can cast it." Not so. It is wonderful, in the progress of manufacture, and in the consideration of the means best fitted to produce the required result, how things turn up which one would not expect beforehand. Candles cannot always be cast. A wax candle can never be cast. It is made by a particular process, which I can illustrate in a minute or two; but I must not spend much time on it. Wax is a thing which, burning so well, and melting so easily in a candle, cannot be cast. However, let us take a material that can be cast. Here is a frame, with a number of moulds fastened in it. The first thing to be done is to put a wick through them. Here is one—a

2. The fat or tallow consists of a chemical combination of fatty acids with glycerine. The lime unites with the palmitic, oleic, and stearic acids, and separates the glycerine. After washing, the insoluble lime soap is decomposed with hot dilute sulphuric acid. The melted fatty acids thus rise as an oil to the surface, when they are decanted. They are again washed and cast into thin plates, which, when cold, are placed between layers of cocoa-nut matting, and submitted to intense hydraulic pressure. In this way the soft oleic acid is squeezed out, while the hard palmitic and stearic acids remain. These are further purified by pressure at a higher temperature, and washing in warm dilute sulphuric acid, when they are ready to be made into candles. These acids are harder and whiter than the fats from which they were obtained, while at the same time they are cleaner and more combustible.

plaited wick, which does not require snuffing [3]—supported by a little wire. It goes to the bottom, where it is pegged in—the little peg holding the cotton tight, and stopping the aperture, so that nothing fluid shall run out. At the upper part there is a little bar placed across, which stretches the cotton and holds it in the mould. The tallow is then melted, and the moulds are filled. After a certain time, when the moulds are cool, the excess of tallow is poured off at one corner, and then cleaned off altogether, and the ends of the wick cut away. The candles alone then remain in the mould, and you have only to upset them, as I am doing, when out they tumble, for the candles are made in the form of cones, being narrower at the top than at the bottom; so that what with their form and their own shrinking, they only need a little shaking, and out they fall. In the same way are made these candles of stearin and of paraffin. It is a curious thing to see how wax candles are made. A lot of cottons are hung upon frames, as you see here, and covered with metal tags at the ends to keep the wax from covering the cotton in those places. These are carried to a heater, where the wax is melted. As you see, the frames can turn round; and as they turn, a man takes a vessel of wax and pours it first down one, and then the next, and the next, and so on. When he has gone once round, if it is sufficiently cool, he gives the first a second coat, and so on until they are all of the required thickness When they have been thus clothed, or fed, or made up to that thickness, they are taken off, and placed elsewhere. I have here, by the kindness of Mr. Field, several specimens of these candles. Here is one only half-finished. They are then taken down, and well rolled upon a fine stone slab, and the conical top is moulded by properly shaped tubes, and the bottoms cut off and trimmed. This is done so beautifully that they can make candles in this way weighing exactly four, or six, to the pound, or any number they please.

We must not, however, take up more time about the mere manufacture, but go a little further into the matter. I have not yet referred you to luxuries in candles (for there is such a thing as luxury in candles). See how beautifully these are coloured: you see here mauve, magenta, and all the chemical colours recently introduced, applied to candles. You observe, also, different forms employed. Here is a fluted pillar most beautifully shaped; and I have also here some candles sent me by Mr. Pearsall, which are ornamented with designs upon them, so that as they burn you have as it were a glowing sun above, and a bouquet of flowers beneath.

3. A little borax or phosphorus salt is sometimes added, in order to make the ash fusible.

All, however, that is fine and beautiful is not useful. These fluted candles, pretty as they are, are bad candles; they are bad because of their external shape. Nevertheless, I show you these specimens sent to me from kind friends on all sides, that you may see what is done, and what may be done in this or that direction; although, as I have said, when we come to these refinements, we are obliged to sacrifice a little in utility.

Now, as to the light of the candle. We will light one or two, and set them at work in the performance of their proper functions. You observe a candle is a very different thing from a lamp. With a lamp you take a little oil, fill your vessel, put in a little moss or some cotton prepared by artificial means, and then light the top of the wick. When the flame runs down the cotton to the oil, it gets extinguished, but it goes on burning in the part above. Now I have no doubt you will ask, how is it that the oil, which will not burn of itself, gets up to the top of the cotton, where it will burn? We shall presently examine that; but there is a much more wonderful thing about the burning of a candle than this. You have here a solid substance with no vessel to contain it; and how is it that this solid substance can get up to the place where the flame is? How is it that this solid gets there, it not being a fluid? or, when it is made a fluid, then how is it that it keeps together? This is a wonderful thing about a candle.

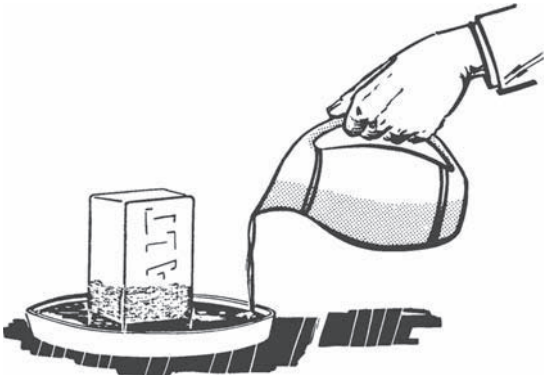
We have here a good deal of wind, which will help us in some of our illustrations, but tease us in others; for the sake, therefore, of a little regularity, and to simplify the matter, I shall make a quiet flame–for who can study a subject when there are difficulties in the way not belonging to it? Here is a clever invention of some costermonger or street stander in the market-place for the shading of their candles on Saturday nights, when they are selling their greens, or potatoes, or fish. I have very often admired it. They put a lamp-glass round the candle, supported on a kind of gallery, which clasps it, and it can be slipped up and down as required. By the use of this lamp-glass, employed in the same way, you have a steady flame, which you can look at, and carefully examine, as I hope you will do, at home.

You see, then, in the first instance, that a beautiful cup is formed. As the air comes to the candle it moves upwards by the force of the current which the heat of the candle produces, and it so cools all the sides of the wax, tallow, or fuel, as to keep the edge much cooler than the part within; the part within melts by the flame that runs down the wick as far as it can go before it is extinguished, but the part on the outside does not melt. If I made a current in one direction, my cup would be lop-sided, and the fluid would consequently run over–for the same force of gravity

which holds worlds together holds this fluid in a horizontal position, and if the cup be not horizontal, of course the fluid will run away in guttering. You see, therefore, that the cup is formed by this beautifully regular ascending current of air playing upon all sides, which keeps the exterior of the candle cool. No fuel would serve for a candle which has not the property of giving this cup, except such fuel as the Irish bogwood, where the material itself is like a sponge, and holds its own fuel. You see now why you would have had such a bad result if you were to burn these beautiful candles that I have shown you, which are irregular, intermittent in their shape, and cannot therefore have that nicely formed edge to the cup which is the great beauty in a candle. I hope you will now see that the perfection of a process—that is, its utility—is the better point of beauty about it. It is not the best-looking thing, but the best-acting thing, which is the most advantageous to us. This good-looking candle is a bad burning one. There will be a guttering round about it because of the irregularity of the stream of air and the badness of the cup which is formed thereby. You may see some pretty examples (and I trust you will notice these instances) of the action of the ascending current when you have a little gutter run down the side of a candle, making it thicker there than it is elsewhere. As the candle goes on burning, that keeps its place and forms a little pillar sticking up by the side, because, as it rises higher above the rest of the wax or fuel, the air gets better round it, and it is more cooled and better able to resist the action of the heat at a little distance. Now, the greatest mistakes and faults with regard to candles, as in many other things, often bring with them instruction which we should not receive if they had not occurred. We come here to be philosophers; and I hope you will always remember that whenever a result happens, especially if it be new, you should say, "What is the cause? Why does it occur?" and you will in the course of time find out the reason.

Then, there is another point about these candles which will answer a question—that is, as to the way in which this fluid gets out of the cup, up the wick, and into the place of combustion. You know that the flames on these burning wicks in candles made of bees-wax, stearin, or spermaceti do not run down to the wax or other matter, and melt it all away, but keep to their own right place. They are fenced off from the fluid below, and do not encroach on the cup at the sides. I cannot imagine a more beautiful example than the condition of adjustment under which a candle makes one part subserve to the other to the very end of its action. A combustible thing like that, burning away gradually, never being intruded upon by the flame, is a very beautiful sight; especially when

you come to learn what a vigorous thing flame is—what power it has of destroying the wax itself when it gets hold of it, and of disturbing its proper form if it come only too near.



But how does the flame get hold of the fuel? There is a beautiful point about that—*capillary attraction*.[4] "Capillary attraction!" you say. "The attraction of hairs!" Well, never mind the name: it was given in old times, before we had a good understanding of what the real power was. It is by what is called capillary attraction that the fuel is conveyed to the part where combustion goes on, and is deposited there, not in a careless way, but very beautifully in the very midst of the centre of action which takes place around it. Now, I am going to give you one or two instances of capillary attraction. It is that kind of action or attraction which makes two things that do not dissolve in each other still hold together. When you wash your hands, you wet them thoroughly; you take a little soap to make the adhesion better, and you find your hand remains wet. This is by that kind of attraction of which I am about to speak. And, what is more, if your hands are not soiled (as they almost always are by the usages of life), if you put your finger into a little warm water, the water will creep a little way up the finger, though you may not stop to examine it. I have here a substance which is rather porous—a column of salt—and I will pour into the plate at the bottom, not water, as it appears, but a saturated solution of salt which cannot absorb more; so that the action which you see will not be due to its dissolving anything. We may consider the plate to be the candle, and the salt the wick, and this solution the melted tallow. (I have coloured the fluid, that you may see the action better.) You observe that, now I pour in the fluid, it rises and gradually creeps up the salt higher

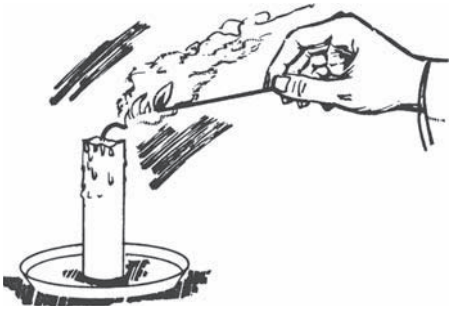
4. Capillary attraction or repulsion is the cause which determines the ascent or descent of a fluid in a capillary tube. If a piece of thermometer tubing, open at each end, be plunged into water, the latter will instantly rise in the tube considerably above its external level. If, on the other hand, the tube be plunged into mercury, repulsion instead of attraction will be exhibited, and the level of the mercury will be lower in the tube than it is outside.

and higher; and provided the column does not tumble over, it will go to the top. If this blue solution were combustible, and we were to place a wick at the top of the salt, it would burn as it entered into the wick. It is a most curious thing to see this kind of action taking place, and to observe how singular some of the circumstances are about it. When you wash your hands, you take a towel to wipe off the water; and it is by that kind of wetting, or that kind of attraction which makes the towel become wet with water, that the wick is made wet with the tallow. I have known some careless boys and girls (indeed, I have known it happen to careful people as well) who, having washed their hands and wiped them with a towel, have thrown the towel over the side of the basin, and before long it has drawn all the water out of the basin and conveyed it to the floor, because it happened to be thrown over the side in such a way as to serve the purpose of a siphon.[5] That you may the better see the way in which the substances act one upon another, I have here a vessel made of wire gauze filled with water, and you may compare it in its action to the cotton in one respect, or to a piece of calico in the other. In fact, wicks are sometimes made of a kind of wire gauze. You will observe that this vessel is a porous thing; for if I pour a little water on to the top, it will run out at the bottom. You would be puzzled for a good while if I asked you what the state of this vessel is, what is inside it, and why it is there? The vessel is full of water, and yet you see the water goes in and runs out as if it were empty. In order to prove this to you, I have only to empty it. The reason is this: the wire, being once wetted, remains wet; the meshes are so small that the fluid is attracted so strongly from the one side to the other, as to remain in the vessel although it is porous. In like manner the particles of melted tallow ascend the cotton and get to the top; other particles then follow by their mutual attraction for each other, and as they reach the flame they are gradually burned.

Here is another application of the same principle. You see this bit of cane. I have seen boys about the streets, who are very anxious to appear like men, take a piece of cane, and light it and smoke it, as an imitation of a cigar. They are enabled to do so by the permeability of the cane in one direction, and by its capillarity. If I place this piece of cane on a plate containing some camphine (which is very much like paraffin in its

5. The late Duke of Sussex was, we believe, the first to show that a prawn might be washed upon this principle. If the tail, after pulling off the fan part, be placed in a tumbler of water, and the head be allowed to hang over the outside, the water will be sucked up the tail by capillary attraction, and will continue to run out through the head until the water in the glass has sunk so low that the tail ceases to dip into it.

general character), exactly in the same manner as the blue fluid rose through the salt will this fluid rise through the piece of cane. There being no pores at the side, the fluid cannot go in that direction, but must pass through its length. Already the fluid is at the top of the cane: now I can light it and make it serve as a candle. The fluid has risen by the capillary attraction of the piece of cane, just as it does through the cotton in the candle.



Now, the only reason why the candle does not burn all down the side of the wick is that the melted tallow extinguishes the flame. You know that a candle, if turned upside down so as to allow the fuel to run upon the wick, will be put out. The reason is that the flame has not had time to make the fuel hot enough to burn, as it does above, where it is carried in small quantities into the wick, and has all the effect of the heat exercised upon it.

There is another condition which you must learn as regards the candle, without which you would not be able fully to understand the philosophy of it, and that is the vaporous condition of the fuel. In order that you may understand that, let me show you a very pretty but very commonplace experiment. If you blow a candle out cleverly, you will see the vapour rise from it. You have, I know, often smelt the vapour of a blown-out candle–and a very bad smell it is; but if you blow it out cleverly, you will be able to see pretty well the vapour into which this solid matter is transformed. I will blow out one of these candles in such a way as not to disturb the air around it, by the continuing action of my breath; and now, if I hold a lighted taper two or three inches from the wick, you will observe a train of fire going through the air till it reaches the candle. I am obliged to be quick and ready, because, if I allow the vapour time to cool, it becomes condensed into a liquid or solid, or the stream of combustible matter gets disturbed [illustration above].

Now, as to the shape or form of the flame. It concerns us much to know about the condition which the matter of the candle finally assumes at the top of the wick–where you have such beauty and brightness as nothing but combustion or flame can produce. You have the glittering beauty of gold and silver, and the still higher lustre of jewels, like the ruby and diamond; but none of these rival the brilliancy and beauty of

flame. What diamond can shine like flame? It owes its lustre at nighttime to the very flame shining upon it. The flame shines in darkness, but the light which the diamond has is as nothing until the flame shine upon it, when it is brilliant again. The candle alone shines by itself, and for itself, or for those who have arranged the materials. Now, let us look a little at the form of the flame as you see it under the glass shade. It is steady and equal; and its general form is that which is represented in the diagram, varying with atmospheric disturbances, and also varying according to the size of the candle. It is a bright oblong–brighter at the top than towards the bottom–with the wick in the middle, and besides the wick in the middle, certain darker parts towards the bottom, where the ignition is not so perfect as in the part above. I have a drawing here, sketched many years ago by Hooker, when he made his investigations. It is the drawing of the flame of a lamp, but it will apply to the flame of a candle. The cup of the candle is the vessel or lamp, the melted spermaceti is the oil, and the wick is common to both. Upon that he sets this little flame, and then he represents what is true–a certain quanity of matter rising about it which you do not see, and which, if you have not been here before, or are not familiar with the subject, you will not know of. He has here represented the parts of the surrounding atmosphere that are very essential to the flame, and that are always present with it. There is a current formed, which draws the flame out–for the flame which you see is really drawn out by the current, and drawn upward to a great height–just as Hooker has here shown you by that prolongation of the current in the diagram. You may see this by taking a lighted candle, and putting it in the sun so as to get its shadow thrown on a piece of paper. How remarkable it is that that thing which is light enough to produce shadows of other objects can be made to throw its own shadow on a piece of white paper or card, so that you can actually see streaming round the flame something which is not part of the flame, but is ascending and drawing the flame upwards. Now, I am going to imitate the sunlight, by applying the voltaic battery to the electric lamp. You now see our sun, and its great luminosity; and by placing a candle between it and the screen, we get the shadow of the flame. You observe the shadow of the candle and of the wick; then there is a darkish part, as represented in the diagram, and then a part which is

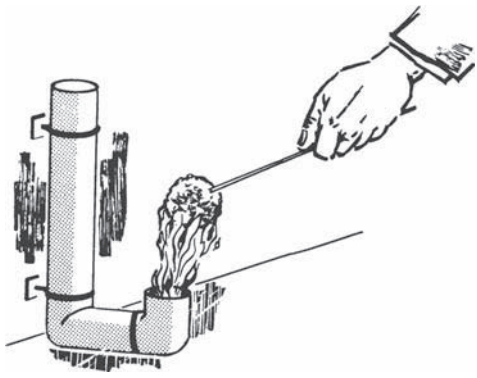
more distinct. Curiously enough, however, what we see in the shadow as the darkest part of the flame is, in reality, the brightest part; and here you see streaming upwards the ascending current of hot air, as shown by Hooker, which draws out the flame, supplies it with air, and cools the sides of the cup of melted fuel [illustration below].

I can give you here a little further illustration, for the purpose of showing you how flame goes up or down, according to the current. I have here a flame—it is not a candle flame—but you can, no doubt, by this time, generalize enough to be able to compare one thing with another. What I am about to do is to change the ascending current that takes the flame upwards into a descending current. This I can easily do by the little apparatus you see before me. The flame, as I have said, is not a candle flame, but it is produced by alcohol, so that it shall not smoke too much. I will also colour the flame with another substance,[6] so that you may trace its course; for with the spirit alone you could hardly see well enough to have the opportunity of tracing its direction. By lighting this spirit-of-wine, we have then a flame produced; and you observe that when held in the air, it naturally goes upwards. You understand now easily enough why flames go up under ordinary circumstances—it is because of the draught of air by which the combustion is formed. But now, by blowing the flame down, you see I am enabled to make it go downwards into this little chimney—the direction of the current being changed [illustration p. 379]. Before we have concluded this course of lectures, we shall show you a lamp in which the flame goes up and the smoke goes down, or the flame goes down and the smoke goes up. You see, then, that we have the power in this way of varying the flame in different directions.

There are now some other points that I must bring before you. Many of the flames you see here vary very much in their shape by the currents of air blowing around them in different directions; but we can, if we like, make flames so that they will look like fixtures, and we can photograph them—indeed, we have to photograph them, so that they become fixed to us, if we wish to find out everything concerning them. That, however, is not the only thing I wish to mention. If I take a flame sufficiently large, it does not keep that homogeneous, that uniform condition of shape, but it breaks out with a power of life which is quite won-

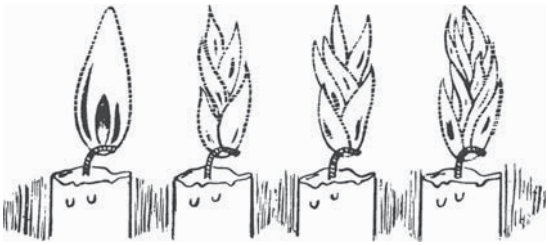
6. The alcohol had chloride of copper dissolved in it: this produces a beautiful green flame.

derful. I am about to use another kind of fuel, but one which is truly and fairly a representative of the wax or tallow of a candle. I have here a large ball of cotton, which will serve as a wick. And, now that I have immersed it in spirit and applied a light to it, in what way does it differ from an ordinary candle? Why, it differs very much in one respect, that we have a vivacity and power about it, a beauty and a life entirely different from the light presented by a candle. You see those fine tongues of flame rising up. You have the same general disposition of the mass of the flame from below upwards; but, in addition to that, you have this remarkable breaking out into tongues which you do not perceive in the case of a candle. Now, why is this? I must explain it to you, because



when you understand that perfectly, you will be able to follow me better in what I have to say hereafter. I suppose some here will have made for themselves the experiment I am going to show you. Am I right in supposing that anybody here has played at snapdragon? I do not know a more beautiful illustration of the philosophy of flame, as to a certain part of its history, than the game of snapdragon. First, here is the dish; and let me say, that when you play snapdragon properly, you ought to have the dish well warmed; you ought also to have warm plums and warm brandy, which, however, I have not got. When you have put the spirit into the dish, you have the cup and the fuel; and are not the raisins acting like the wicks? I now throw the plums into the dish, and light the spirit, and you see those beautiful tongues of flame that I refer to. You have the air creeping in over the edge of the dish forming these tongues. Why? Because, through the force of the current and the irregularity of the action of the flame, it cannot flow in one uniform stream. The air flows in so irregularly that you have what would otherwise be a single image, broken up into a variety of forms, and each of these little tongues has an independent existence of its own. Indeed, I might say, you have here a multitude of independent candles. You must not imagine, because you see these tongues all at once, that the flame is of this particular shape. A flame of that shape is never so at any one time. Never is a body of flame, like that which you just saw rising from the ball, of the shape it appears to you. It consists of a multitude of dif-

ferent shapes, succeeding each other so fast that the eye is only able to take cognizance of them all at once. In former times, I purposely analysed a flame of that general character, and the diagram shows you the different parts of which it is composed. They do not occur all at once: it is only because we see these shapes in such rapid succession, that they seem to us to exist all at one time.

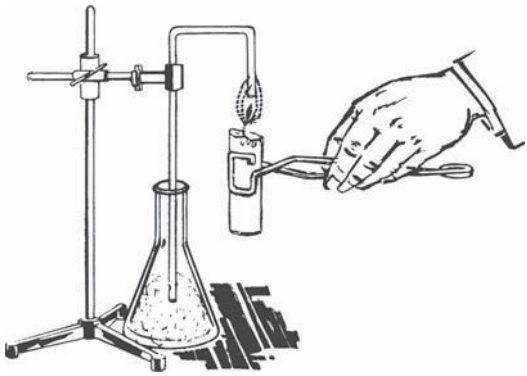


It is too bad that we have not got further than my game of snapdragon; but we must not, under any circumstances, keep you beyond your time. It will be a lesson to me in future to hold you more strictly to the philosophy of the thing, than to take up your time so much with these illustrations.

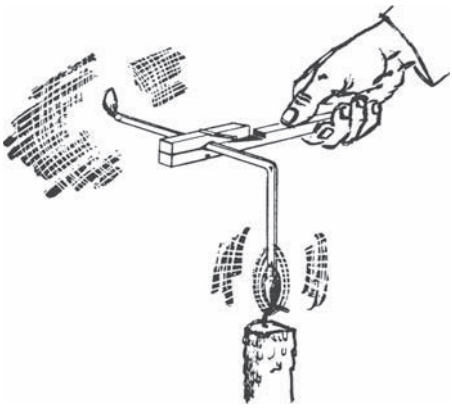
LECTURE II

We were occupied the last time we met in considering the general character and arrangement as regards the fluid portion of a candle, and the way in which that fluid got into the place of combustion. You see, when we have a candle burning fairly in a regular, steady atmosphere, it will have a shape something like the one shown in the diagram, and will look pretty uniform, although very curious in its character. And now, I have to ask your attention to the means by which we are enabled to ascertain what happens in any particular part of the flame—why it happens, what it does in happening, and where, after all, the whole candle goes to: because, as you know very well, a candle being brought before us and burned, disappears, if burned properly, without the least trace of dirt in the candlestick—and this is a very curious circumstance. In order, then, to examine this candle carefully, I have arranged certain apparatus, the use of which you will see as I go on. Here is a candle: I am about to put the end of this glass tube into the middle of the flame—into that part which old Hooker has represented in the diagram as being rather dark, and which you can see at any time, if you will look at a candle carefully, without blowing it about. We will examine this dark part first.

Now, I take this bent glass tube, and introduce one end into that part of the flame, and you see at once that something is coming from the flame, out at the other end of the tube; and if I put a flask there, and leave it for a little while, you will see that something from the middle part of the flame is gradually drawn out, and goes through the tube and into that flask, and there behaves very differently from what it does in the open air. It not only escapes from the end of the tube, but falls down to the bottom of the flask like a heavy substance, as indeed it is. We find that this is the wax of the candle made into a vaporous fluid–not a gas. (You must learn the difference between a gas and a vapour: a gas remains permanent, a vapour is something that will condense.) If you blow out a candle, you perceive a very nasty smell, resulting from the condensation of this vapour. That is very different from what you have outside the flame; and, in order to make that more clear to you, I am about to produce and set fire to a larger portion of this vapour–for what we have in the small way in a candle, to understand thoroughly, we must, as philosophers, produce in a larger way, if needful, that we may examine the different parts. And now Mr. Anderson will give me a source of heat, and I am about to show you what that vapour is. Here is some wax in a glass flask, and I am going to make it hot, as the inside of that candle-flame is hot, and the matter about the wick is hot. [*The Lecturer placed some wax in a glass flask, and heated it over a lamp*.] Now, I dare say that is hot enough for me. You see that the wax I put in it has become fluid, and there is a little smoke coming from it. We shall very soon have the vapour rising up. I will make it still hotter, and now we get more of it, so that I can actually pour the vapour out of the flask into that basin, and set it on fire there. This, then, is exactly the same kind of vapour as we have in the middle of the candle; and that you may be sure this is the case, let us try whether we have not got here, in this flask, a real combustible vapour out of the middle of the candle [*taking the flask into which the tube from the candle proceeded, and introducing a lighted taper*]. See how it burns. Now, this is the vapour from the middle of the candle, produced by its own heat; and



that is one of the first things you have to consider with respect to the progress of the wax in the course of its combustion, and as regards the changes it undergoes. I will arrange another tube carefully in the flame,



and I should not wonder if we were able, by a little care, to get that vapour to pass through the tube to the other extremity, where we will light it, and obtain absolutely the flame of the candle at a place distant from it. Now, look at that. Is not that a very pretty experiment? Talk about laying on gas—why, we can actually lay on a candle! And you see from this that there are clearly two different kinds of action—one the *production* of the vapour, and the other the *combustion* of it—both of which take place in particular parts of the candle.

I shall get no vapour from that part which is already burnt. If I raise the tube [see fig. on p. 381] to the upper part of the flame, so soon as the vapour has been swept out, what comes away will be no longer combustible; it is already burned. How burned? Why, burned thus: in the middle of the flame, where the wick is, there is this combustible vapour; on the outside of the flame is the air which we shall find necessary for the burning of the candle; between the two, intense chemical action takes place, whereby the air and the fuel act upon each other, and at the very same time that we obtain light the vapour inside is destroyed. If you examine where the heat of a candle is, you will find it very curiously arranged. Suppose I take this candle, and hold a piece of paper close upon the flame, where is the heat of that flame? Do you not see that it is *not* in the inside? It is in a ring, exactly in the place where I told you the chemical action was; and even in my irregular mode of making the experiment, if there is not too much disturbance, there will always be a ring. This is a good experiment for you to make at home. Take a strip of paper, have the air in the room quiet, and put the piece of paper right across the middle of the flame (I must not talk while I make the experiment), and you will find that it is burnt in two places, and that it is not burnt, or very little so, in the middle; and when you have tried the experiment once or twice, so as to make it nicely, you will be very in-

terested to see where the heat is, and to find that it is where the air and the fuel come together.

This is most important for us as we proceed with our subject. Air is absolutely necessary for combustion; and, what is more, I must have you understand that *fresh* air is necessary, or else we should be imperfect in our reasoning and our experiments. Here is a jar of air. I place it over a candle, and it burns very nicely in it at first, showing that what I have said about it is true; but there will soon be a change. See how the flame is drawing upwards, presently fading, and at last going out. And going out, why? Not because it wants air merely, for the jar is as full now as it was before; but it wants pure, fresh air. The jar is full of air, partly changed, partly not changed; but it does not contain sufficient of the fresh air which is necessary for the combustion of a candle. These are all points which we, as young chemists, have to gather up; and if we look a little more closely into this kind of action, we shall find certain steps of reasoning extremely interesting. For instance, here is the oil-lamp I showed you—an excellent lamp for our experiments—the old Argand lamp. I now make it like a candle [*obstructing the passage of air into the centre of the flame*]; there is the cotton; there is the oil rising up it; and there is the conical flame. It burns poorly, because there is a partial restraint of air. I have allowed no air to get to it, save round the outside of the flame, and it does not burn well. I cannot admit more air from the outside, because the wick is large; but if, as Argand did so cleverly, I open a passage to the middle of the flame, and so let air come in there, you will see how much more beautifully it burns. If I shut the air off, look how it smokes; and why? We have now some very interesting points to study. We have the case of the combustion of a candle; we have the case of a candle being put out by the want of air; and we have now the case of imperfect combustion; and this is to us so interesting, that I want you to understand it as thoroughly as you do the case of a candle burning in its best possible manner. I will now make a great flame, because we need the largest possible illustrations. Here is a larger wick [*burning turpentine on a ball of cotton*]. All these things are the same as candles, after all. If we have larger wicks, we must have a larger supply of air, or we shall have less perfect combustion. Look now at this black substance going up into the atmosphere; there is a regular stream of it. I have provided means to carry off the imperfectly burned part, lest it should annoy you. Look at the soots that fly off from the flame: see what an imperfect combustion it is, because it cannot get enough air. What, then, is happening? Why, certain things which are necessary to the com-

bustion of a candle are absent, and very bad results are accordingly produced; but we see what happens to a candle when it is burnt in a pure and proper state of air. At the time when I showed you this charring by the ring of flame on the one side of the paper, I might have also shown you, by turning to the other side, that the burning of a candle produces the same kind of soot—charcoal or carbon.

But, before I show that, let me explain to you—as it is quite necessary for our purpose—that, though I take a candle and give you, as the general result, its combustion in the form of a flame, we must see whether combustion is always in this condition, or whether there are other conditions of flame; and we shall soon discover that there are, and that they are most important to us. I think, perhaps, the best illustration of such a point to us, as juveniles, is to show the result of strong contrast. Here is a little gunpowder. You know that gunpowder burns with flame—we may fairly call it flame. It contains carbon and other materials, which altogether cause it to burn with a flame. And here is some pulverized iron, or iron filings. Now, I purpose burning these two things together. I have a little mortar in which I will mix them. (Before I go into these experiments, let me hope that none of you, by trying to repeat them, for fun's sake, will do any harm. These things may all be very properly used if you take care; but without that, much mischief will be done.) Well, then, here is a little gunpowder, which I put at the bottom of that little wooden vessel, and mix the iron filings up with it, my object being to make the gunpowder set fire to the filings and burn them in the air, and thereby show the difference between substances burning with flame and not with flame. Here is the mixture; and when I set fire to it, you must watch the combustion, and you will see that it is of two kinds. You will see the gunpowder burning with a flame, and the filings thrown up. You will see them burning too, but without the production of flame. They will each burn separately. [*The Lecturer then ignited the mixture*.] There is the gunpowder, which burns with a flame; and there are the filings—they burn with a different kind of combustion. You see, then, these two great distinctions; and upon these differences depend all the utility and all the beauty of flame which we use for the purpose of giving out light. When we use oil, or gas, or candle, for the purpose of illumination, their fitness all depends upon these different kinds of combustion.

There are such curious conditions of flame, that it requires some cleverness and nicety of discrimination to distinguish the kinds of combustion one from another. For instance, here is a powder which is very

combustible, consisting, as you see, of separate little particles. It is called *lycopodium*,[7] and each of these particles can produce a vapour, and produce its own flame; but, to see them burning, you would imagine it was all one flame. I will now set fire to a quantity, and you will see the effect. We saw a cloud of flame, apparently in one body; but that rushing noise [*referring to the sound produced by the burning*] was a proof that the combustion was not a continuous or regular one. This is the lightning of the pantomimes, and a very good imitation. [*The experiment was twice repeated by blowing lycopodium from a glass tube through a spirit-flame*.] This is not an example of combustion like that of the filings I have been speaking of, to which we must now return.

Suppose I take a candle, and examine that part of it which appears brightest to our eyes. Why, there I get these black particles, which already you have seen many times evolved from the flame, and which I am now about to evolve in a different way. I will take this candle and clear away the gutterage, which occurs by reason of the currents of air; and if I now arrange a glass tube so as just to dip into this luminous part, as in our first experiment, only higher, you see the result. In place of having the same white vapour that you had before, you will now have a black vapour. There it goes, as black as ink. It is certainly very different from the white vapour; and when we put a light to it, we shall find that it does not burn, but that it puts the light out. Well, these particles, as I said before, are just the smoke of the candle; and this brings to mind that old employment which Dean Swift recommended to servants for their amusement, namely, writing on the ceiling of a room with a candle. But what is that black substance? Why, it is the same carbon which exists in the candle. How comes it out of the candle? It evidently existed in the candle, or else we should not have had it here. And now I want you to follow me in this explanation. You would hardly think that all those substances which fly about London, in the form of soots and blacks, are the very beauty and life of the flame, and which are burned in it as those iron filings were burned here. Here is a piece of wire gauze, which will not let the flame go through it; and I think you will see, almost immediately, that when I bring it low enough to touch that part of the flame which is otherwise so bright, that it quells and quenches it at once, and allows a volume of smoke to rise up.

I want you now to follow me in this point—that whenever a substance burns, as the iron filings burnt in the flame of gunpowder, without assum-

7. Lycopodium is a yellowish powder found in the fruit of the club moss (*Lycopodium clavatum*). It is used in fireworks.

ing the vaporous state (whether it becomes liquid or remains solid), it becomes exceedingly luminous. I have here taken three or four examples apart from the candle, on purpose to illustrate this point to you; because what I have to say is applicable to all substances, whether they burn or whether they do not burn—that they are exceedingly bright if they retain their solid state, and that it is to this presence of solid particles in the candle-flame that it owes its brilliancy.

Here is a platinum-wire, a body which does not change by heat. If I heat it in this flame, see how exceedingly luminous it becomes. I will make the flame dim, for the purpose of giving a little light only, and yet you will see that the heat which it can give to that platinum-wire, though far less than the heat it has itself, is able to raise the platinum-wire to a far higher state of effulgence. This flame has carbon in it; but I will take one that has no carbon in it. There is a material, a kind of fuel—a vapour, or gas, whichever you like to call it—in that vessel, and it has no solid particles in it; so I take that because it is an example of flame itself burning without any solid matter whatever; and if I now put this solid substance in it, you see what an intense heat it has and how brightly it causes the solid body to glow. This is the pipe through which we convey this particular gas, which we call hydrogen, and which you shall know all about next time we meet. And here is a substance called oxygen, by means of which this hydrogen can burn; and although we produce, by their mixture, far greater heat [8] than you can obtain from the candle, yet there is very little light. If, however, I take a solid substance, and put that into it, we produce an intense light. If I take a piece of lime, a substance which will not burn, and which will not vaporize by the heat (and because it does not vaporize, remains solid, and remains heated), you will soon observe what happens as to its glowing. I have here a most intense heat, produced by the burning of hydrogen in contact with the oxygen; but there is as yet very little light—not for want of heat, but for want of particles which can retain their solid state; but when I hold this piece of lime in the flame of the hydrogen as it burns in the oxygen, see how it glows! This is the glorious lime-light, which rivals the voltaic-light, and which is almost equal to sunlight. I have here a piece of carbon or charcoal, which will burn and give us light exactly in the same manner as if it were burnt as part of a candle. The heat that is in the flame of a candle decomposes the vapour of the wax, and sets

8. Bunsen has calculated that the temperature of the oxyhydrogen blowpipe is 8,061° C. Hydrogen burning in air has a temperature of 3,259 C., and coal-gas in air, 2,350 C.

free the carbon particles–they rise up heated and glowing as this now glows, and then enter into the air. But the particles when burnt never pass off from a candle in the form of carbon. They go off into the air as a perfectly invisible substance, about which we shall know hereafter.

Is it not beautiful to think that such a process is going on, and that such a dirty thing as charcoal can become so incandescent? You see it comes to this–that all bright flames contain these solid particles; all things that burn and produce solid particles, either during the time they are burning, as in the candle, or immediately after being burnt, as in the case of the gunpowder and iron-filings–all these things give us this glorious and beautiful light.

I will give you a few illustrations. Here is a piece of phosphorus, which burns with a bright flame. Very well; we may now conclude that phosphorus will produce, either at the moment that it is burning or afterwards, these solid particles. Here is the phosphorus lighted, and I cover it over with this glass for the purpose of keeping in what is produced. What is all that smoke? That smoke consists of those very particles which are produced by the combustion of the phosphorus. Here, again, are two substances. This is chlorate of potassa, and this other sulphuret of antimony. I shall mix these together a little, and then they may be burnt in many ways. I shall touch them with a drop of sulphuric acid, for the purpose of giving you an illustration of chemical action, and they will instantly burn.[9] [*The Lecturer then ignited the mixture by means of sulphuric acid.*] Now, from the appearance of things, you can judge for yourselves whether they produce solid matter in burning. I have given you the train of reasoning which will enable you to say whether they do or do not; for what is this bright flame but the solid particles passing off? [See illustration on p. 388.]

Mr. Anderson has in the furnace a very hot crucible–I am about to throw into it some zinc filings, and they will burn with a flame like gunpowder. I make this experiment because you can make it well at home. Now, I want you to see what will be the result of the combustion of this zinc. Here it is burning–burning beautifully like a candle, I may say. But what is all that smoke, and what are those little clouds of wool which will come to you if you cannot come to them, and make themselves sensible to you in the form of the old philosophic wool, as it was called? We

9. The following is the action of the sulphuric acid in inflaming the mixture of sulphuret of antimony and chlorate of potassa. A portion of the latter is decomposed by the sulphuric acid into oxide of chlorine, bisulphate of potassa, and perchlorate of potassa. The oxide of chlorine inflames the sulphuret of antimony, which is a combustible body, and the whole mass instantly bursts into flame.

shall have left in that crucible, also, a quantity of this woolly matter. But I will take a piece of this same zinc and make an experiment a little more closely at home, as it were. You will have here the same thing happening. Here is the piece of zinc, there [*pointing to a jet of hydrogen*] is the furnace,

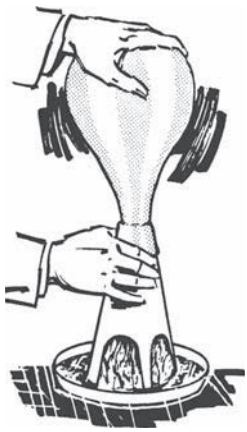
and we will set to work and try and burn the metal. It glows, you see: there is the combustion, and there is the white substance into which it burns. And so, if I take that flame of hydrogen as the representative of a candle, and show you a substance like zinc burning in the flame, you will see that it was merely during the action of combustion that this substance glowed—while it was kept hot; and if I take a flame of hydrogen, and put this white substance from the zinc into it, look how beautifully it glows, and just because it is a solid substance.

I will now take such a flame as I had a moment since, and set free from it the particles of carbon. Here is some camphine, which will burn with a smoke; but if I send these particles of smoke through this pipe into the hydrogen flame, you will see they will burn and become luminous, because we heat them a second time. There they are. Those are the particles of carbon re-ignited a second time. They are those particles which you can easily see by holding a piece of paper behind them, and which, while they are in the flame, are ignited by the heat produced, and, when so ignited, produce this brightness. When the particles are not separated, you get no brightness. The flame of coal-gas owes its brightness to the separation, during combustion, of these particles of carbon, which are equally in that as in a candle. I can very quickly alter that arrangement. Here, for instance, is a bright flame of gas. Supposing I add so much air to the flame as to cause it all to burn before those particles are set free, I shall not have this brightness; and I can do that in this way: if I place over the jet this wire-gauze cap, as you see, and then light the gas over it, it burns with a nonluminous flame, owing to its having plenty of air mixed with it before it burns; and if I raise the gauze, you see it does not burn below.[10] There is plenty of carbon in the gas; but, because

10. The "air-burner," which is of such value in the laboratory, owes its advantage to this principle. It consists of a cylindrical metal chimney, covered at the top with a piece of rather coarse iron-wire gauze. This is supported over an Argand burner, in such a manner that the gas may mix in the chimney with an amount of air sufficient to burn the carbon and hydrogen simultaneously, so that there may be no separation of carbon in the flame with consequent deposition of soot. The flame, being unable to pass through the wire gauze, burns in a steady, nearly invisible manner above.

the atmosphere can get to it, and mix with it before it burns, you see how pale and blue the flame is. And if I blow upon a bright gas-flame, so as to consume all this carbon before it gets heated to the glowing point, it will also burn blue. [*The Lecturer illustrated his remarks by blowing on the gas-light.*] The only reason why I have not the same bright light when I thus blow upon the flame is that the carbon meets with sufficient air to burn it before it gets separated in the flame in a free state. The difference is solely due to the solid particles not being separated before the gas is burnt.

You observe that there are certain products as the result of the combustion of a candle, and that of these products one portion may be considered as charcoal, or soot; that charcoal, when afterwards burnt, produces some other product; and it concerns us very much now to ascertain what that other product is. We showed that something was going away; and I want you now to understand how much is going up into the air; and for that purpose we will have combustion on a little larger scale. From that candle ascends heated air, and two or three experiments will show you the ascending current; but, in order to give you a notion of the quantity of matter which ascends in this way, I will make an experiment by which I shall try to imprison some of the products of this combustion. For this purpose I have here what boys call a fire-balloon. I use this fire-balloon merely as a sort of measure of the result of the combustion we are considering; and I am about to make a flame in such an easy and simple manner as shall best serve my present purpose. This plate shall be the "cup," we will so say, of the candle; this spirit shall be our fuel; and I am about to place this chimney over it, because it is better for me to do so than to let things proceed at random. Mr. Anderson will now light the fuel, and here at the top we shall get the results of the combustion. What we get at the top of that tube is exactly the same, generally speaking, as you get from the combustion of a candle; but we do not get a luminous flame here, because we use a substance which is feeble in carbon. I am about to put this balloon—not into action, because that is not my object—but to show you the effect which results from the action of those products which arise from the candle, as they arise here from the furnace. [*The balloon was held over the chimney, when it immediately commenced to fill.*] You see how



it is disposed to ascend; but we must not let it up, because it might come in contact with those upper gas-lights, and that would be very inconvenient. [*The upper gas-lights were turned out, at the request of the Lecturer, and the balloon was allowed to ascend.*] Does not that show you what a large bulk of matter is being evolved? Now, there are going through this tube [*placing a large glass tube over a candle*] all the products of that candle, and you will presently see that the tube will become quite opaque. Suppose I take another candle, and place it under a jar, and then put a light on the other side, just to show you what is going on. You see that the sides of the jar become cloudy, and the light begins to burn feebly. It is the products, you see, which make the light so dim, and this is the same thing which makes the sides of the jar so opaque. If you go home and take a spoon that has been in the cold air, and hold it over a candle–not so as to soot it–you will find that it becomes dim, just as that jar is dim. If you can get a silver dish, or something of that kind, you will make the experiment still better. And now, just to carry your thoughts forward to the time we shall next meet, let me tell you that it is *water* which causes the dimness; and when we next meet, I will show you that we can make it, without difficulty, assume the form of a liquid.

LECTURE III

I dare say you will remember that when we parted we had just mentioned the word "products" from the candle. For when a candle burns we found we were able, by nice adjustment, to get various products from it. There was one substance which was not obtained when the candle was burning properly, which was charcoal or smoke; and there was some other substance that went upwards from the flame, which did not appear as smoke, but took some other form, and made part of that general current which, ascending from the candle upwards, becomes invisible, and escapes. There were also other products to mention. You remember that in that rising current having its origin at the candle, we found that one part was condensable against a cold spoon, or against a clean plate, or any other cold thing, and another part was incondensable.

We will first take the condensable part, and examine it; and, strange to say, we find that that part of the product is just water–nothing but water. On the last occasion I spoke of it incidentally, merely saying that water was produced among the condensable products of the candle; but today I wish to draw your attention to water, that we may examine it carefully,

especially in relation to this subject, and also with respect to its general existence on the surface of the globe.

Now, having previously arranged an experiment for the purpose of condensing water from the products of the candle, my next point will be to show you this water; and perhaps one of the best means that I can adopt for showing its presence to so many at once is to exhibit a very visible action of water, and then to apply that test to what is collected as a drop at the bottom of that vessel. I have here a chemical substance, discovered by Sir Humphry Davy, which has a very energetic action upon water, which I shall use as a test of the presence of water. If I take a little piece of it—it is called potassium, as coming from potash—if I take a little piece of it, and throw it into that basin, you see how it shows the presence of water by lighting up and floating about, burning with a violent flame. I am now going to take away the candle which has been burning beneath the vessel containing ice and salt, and you see a drop of water—a condensed product of the candle—hanging from under the surface of the dish. I will show you that potassium has the same action upon it as upon the water in that basin in the experiment we have just tried. See, it takes fire, and burns in just the same manner. I will take another drop upon this glass slab, and when I put the potassium onto it, you see at once, from its taking fire, that there is water present. Now, that water was produced by the candle. In the same manner, if I put this spirit-lamp under that jar, you will soon see the latter become damp, from the dew which is deposited upon it—that dew being the result of combustion; and I have no doubt you will shortly see by the drops of water which fall upon the paper below, that there is a good deal of water produced from the combustion of the lamp. I will let it remain, and you can afterwards see how much water has been collected. So, if I take a gas-lamp, and put any cooling arrangement over it, I shall get water—water being likewise produced from the combustion of gas. Here, in this bottle, is a quantity of water—perfectly pure, distilled water—produced from the combustion of a gas-lamp, in no point different from the water that you distil from the river, or ocean, or spring, but exactly the same thing. Water is one individual thing—it never changes. We can add to it by careful adjustment, for a little while, or we can take it apart, and get other things from it; but water, as water, remains always the same,

either in a solid, liquid, or fluid state. Here, again [*holding another bottle*], is some water produced by the combustion of an oil-lamp. A pint of oil, when burnt fairly and properly, produces rather more than a pint of water. Here, again, is some water, produced by a rather long experiment from a wax candle. And so we can go on with almost all combustible substances, and find that if they burn with a flame, as a candle, they produce water. You may make these experiments yourselves. The head of a poker is a very good thing to try with, and if it remains cold long enough over the candle, you may get water condensed in drops on it; or a spoon or ladle, or anything else may be used, provided it be clean, and can carry off the heat, and so condense the water.

And now—to go into the history of this wonderful production of water from combustibles, and by combustion—I must first of all tell you that this water may exist in different conditions; and although you may now be acquainted with all its forms, they still require us to give a little attention to them for the present, so that we may perceive how the water, while it goes through its protean changes, is entirely and absolutely the same thing, whether it is produced from a candle, by combustion, or from the rivers or ocean.

First of all, water, when at the coldest, is ice. Now, we philosophers—I hope that I may class you and myself together in this case—speak of water as water; whether it be in its solid, or liquid, or gaseous state, we speak of it chemically as water. Water is a thing compounded of two substances, one of which we have derived from the candle, and the other we shall find elsewhere. Water may occur as ice; and you have had most excellent opportunities lately of seeing this. Ice changes back into water—for we had on our last Sabbath a strong instance of this change, by the sad catastrophe which occurred in our own house, as well as in the houses of many of our friends—ice changes back into water when the temperature is raised: water also changes into steam when it is warmed enough. The water which we have here before us is in its densest state,[11] and although it changes in weight, in condition, in form, and in many other qualities, it still is water; and whether we alter it into ice by cooling, or whether we change it into steam by heat, it increases in volume—in the one case very strangely and powerfully, and in the other case very largely and wonderfully. For instance, I will now take this tin cylinder, and pour a little water into it; and seeing how much water I pour in, you may easily estimate for yourselves how high it will rise in

11. Water is in its densest state at a temperature of 39.1° F.

the vessel: it will cover the bottom about two inches. I am now about to convert the water into steam, for the purpose of showing to you the different volumes which water occupies in its different states of water and steam.

Let us now take the case of water changing into ice: we can effect that by cooling it in a mixture of salt and pounded ice;[12] and *I* shall do so to show you the expansion of water into a thing of larger bulk when it is so changed. These bottles [*holding one*] are made of strong cast iron, very strong and very thick–I suppose they are the third of an inch in thickness; they are very carefully filled with water, so as to exclude all air, and then they are screwed down tight. We shall see that when we freeze the water in these iron vessels, they will not be able to hold the ice, and the expansion within them will break them in pieces as these [*pointing to some fragments*] are broken, which have been bottles of exactly the same kind. I am about to put these two bottles into that mixture of ice and salt, for the purpose of showing that when water becomes ice, it changes in volume in this extraordinary way.

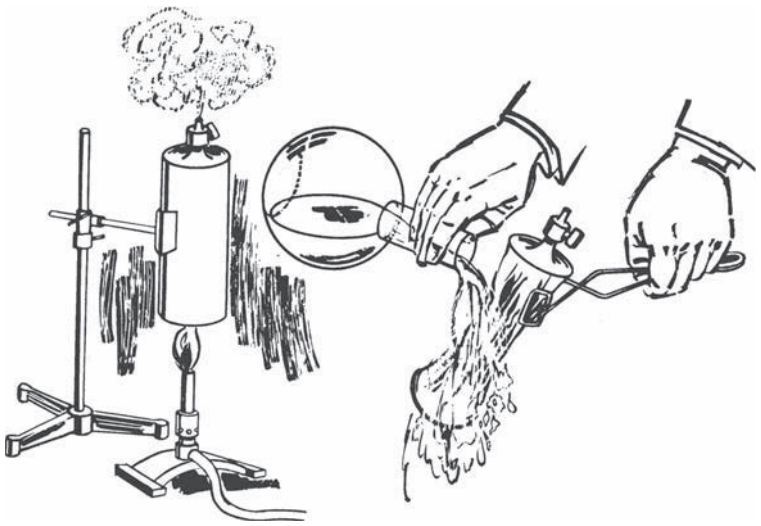
In the mean time, look at the change which has taken place in the water to which we have applied heat–it is losing its fluid state. You may tell this by two or three circumstances. I have covered the mouth of this glass flask, in which water is boiling, with a watch-glass. Do you see what happens? It rattles away like a valve chattering, because the steam rising from the boiling water sends the valve up and down, and forces itself out, and so makes it clatter. You can very easily perceive that the flask is quite full of steam, or else it would not force its way out. You see, also, that the flask contains a substance very much larger than the water, for it fills the whole of the flask over and over again, and there it is blowing away into the air; and yet you cannot observe any great diminution in the bulk of the water, which shows you that its change of bulk is very great when it becomes steam.

I have put our iron bottles containing water into this freezing mixture, that you may see what happens. No communication will take place, you observe, between the water in the bottles and the ice in the outer vessel. But there will be a conveyance of heat from the one to the other; and if we are successful–we are making our experiment in very great haste–I expect you will by and by, so soon as the cold has taken possession of the bottles and their contents, hear a pop on the occasion of the bursting of the one bottle or the other; and, when we come to

12. A mixture of salt and pounded ice reduces the temperature from 32° F. to zero–the ice at the same time becoming fluid.

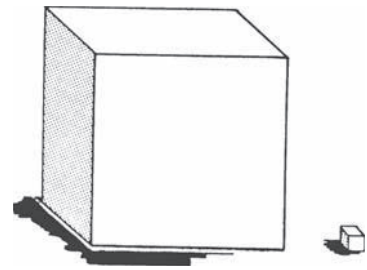
examine the bottles, we shall find their contents masses of ice, partly enclosed by the covering of iron which is too small for them, because the ice is larger in bulk than the water. You know very well that ice floats upon water: if a boy falls through a hole into the water, he tries to get on the ice again to float him up. Why does the ice float? Think of that, and philosophize. Because the ice is larger than the quantity of water which can produce it; and therefore the ice weighs the lighter, and the water is the heavier.

To return now to the action of heat on water. See what a stream of vapour is issuing from this tin vessel! You observe, we must have made it quite full of steam to have it sent out in that great quantity. And now, as we can convert the water into steam by heat, we convert it back into liquid water by the application of cold. And if we take a glass, or any other cold thing, and hold it over this steam, see how soon it gets damp with water; it will condense it until the glass is warm—it condenses the water which is now running down the sides of it. I have here another experiment to show the condensation of water from a vaporous state back into a liquid state, in the same way as the vapour, one of the products of the candle, was condensed against the bottom of the dish, and obtained in the form of water; and to show you how truly and thoroughly these



changes take place, I will take this tin flask, which is now full of steam, and close the top. We shall see what takes place when we cause this water or steam to return back to the fluid state by pouring some cold water on the outside. [*The Lecturer poured the cold water over the ves-*

sel, when it immediately collapsed.] You see what has happened. If I had closed the stopper, and still kept the heat applied to it, it would have burst the vessel; yet, when the steam returns to the state of water, the vessel collapses, there being a vacuum produced inside by the condensation of the steam. I show you these experiments for the purpose of pointing out that in all these occurrences there is nothing that changes the water into any other thing–it still remains water; and so the vessel is obliged to give way, and is crushed inwards, as in the other case, by the further application of heat, it would have been blown outwards.



And what do you think the bulk of that water is when it assumes the vaporous condition? You see that cube [*pointing to a cubic foot*]. There, by its side, is a cubic inch, exactly the same shape as the cubic foot, and that bulk of water [*the cubic inch*] is sufficient to expand into that bulk [*the cubic foot*] of steam; and, on the contrary, the application of cold will contract that large quantity of steam into this small quantity of water. [*One of the iron bottles burst at that moment.*] Ah! There is one of our bottles burst, and here you see is a crack down one side an eighth of an inch in width. [*The other now exploded, sending the freezing mixture in all directions.*] This other bottle is also broken; although the iron was nearly half an inch thick, the ice has burst it asunder. These changes always take place in water: they do not require to be always produced by artificial means–we only use them here because we want to produce a small winter round that little bottle, instead of a long and severe one. But if you go to Canada, or to the North, you will find the temperature there out-of-doors will do the same thing as has been done here by the freezing mixture.

To return to our quiet philosophy. We shall not in future be deceived, therefore, by any changes that are produced in water. Water is the same everywhere, whether produced from the ocean or from the flame of the candle. Where, then, is this water which we get from a candle? I must anticipate a little, and tell you. It evidently comes, as to part of it, from the candle; but is it within the candle beforehand? No. It is not in the candle; and it is not in the air round about the candle which is necessary for its combustion. It is neither in one nor the other, but it comes from their conjoint action, a part from the candle, a part from the air; and this we have now to trace, so that we may understand thoroughly

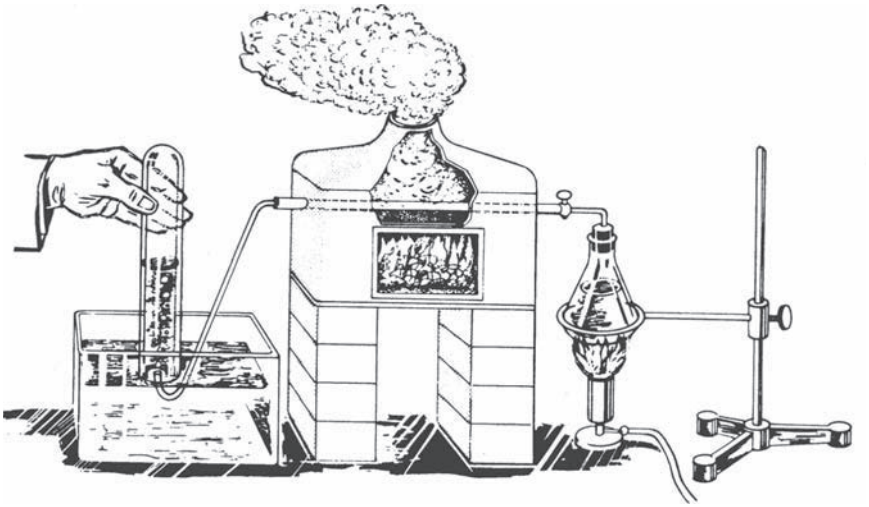
what is the chemical history of a candle when we have it burning on our table. How shall we get at this? I myself know plenty of ways, but I want *you* to get at it from the association in your own minds of what I have already told you.

I think you can see a little in this way. We had just now the case of a substance which acted upon the water in the way that Sir Humphry Davy showed us,[13] and which I am now going to recall to your minds by making again an experiment upon that dish. It is a thing which we have to handle very carefully, for you see, if I allow a little splash of water to come upon this mass, it sets fire to part of it; and if there were free access of air, it would quickly set fire to the whole. Now, this is a metal—a beautiful and bright metal—which rapidly changes in the air, and, as you know, rapidly changes in water. I will put a piece on the water, and you see it burns beautifully, making a floating lamp, using the water in the place of air. Again, if we take a few iron filings or turnings, and put them in water, we find that they likewise undergo an alteration. They do not change so much as this potassium does, but they change somewhat in the same way; they become rusty, and show an action upon the water, though in a different degree of intensity to what this beautiful metal does: but they act upon the water in the same manner generally as this potassium. I want you to put these different facts together in your minds. I have another metal here [*zinc*], and when we examined it with regard to the solid substance produced by its combustion, we had an opportunity of seeing that it burned; and I suppose, if I take a little strip of this zinc and put it over the candle, you will see something half-way, as it were, between the combustion of potassium on the water and the action of iron—you see there is a sort of combustion. It has burned, leaving a white ash or residuum, and here also we find that the metal has a certain amount of action upon water.

By degrees we have learned how to modify the action of these different substances, and to make them tell us what we want to know. And now, first of all, I take iron. It is a common thing in all chemical reactions, where we get any result of this kind, to find that it is increased by the action of heat; and if we want to examine minutely and carefully the action of bodies one upon another, we often have to refer to the action of heat. You are aware, I believe, that iron filings burn beauti-

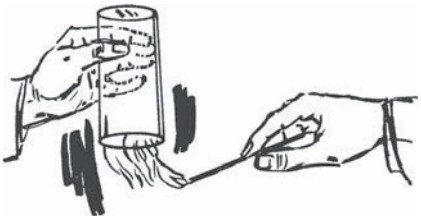
13. Potassium, the metallic basis of potash, was discovered by Sir Humphry Davy in 1807, who succeeded in separating it from potash by means of a powerful voltaic battery. Its great affinity for oxygen causes it to decompose water with evolution of hydrogen, which takes fire with the heat produced.

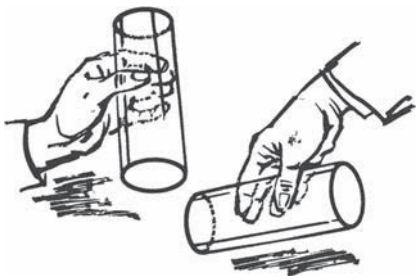
fully in the air; but I am about to show you an experiment of this kind, because it will impress upon you what I am going to say about iron in its action on water. If I take a flame and make it hollow—you know why, because I want to get air to it and into it, and therefore I make it hollow—and then take a few iron filings and drop them into the flame, you see how well they burn. That combustion results from the chemical action which is going on when we ignite those particles. And so we proceed to consider these different effects, and ascertain what iron will do when it meets with water. It will tell us the story so beautifully, so gradually and regularly, that I think it will please you very much.



I have here a furnace with a pipe going through it like an iron gun barrel, and I have stuffed that barrel full of bright iron turnings, and placed it across the fire, to be made red-hot. We can either send air through the barrel to come in contact with the iron, or we can send steam from this little boiler at the end of the barrel. Here is a stopcock which shuts off the steam from the barrel until we wish to admit it. There is some water in these glass jars, which I have coloured blue, so that you may see what happens. Now, you know very well that any steam I might send through that barrel, if it went through into the water, would be condensed; for you have seen that steam cannot retain its gaseous form if it be cooled down. You saw it here [*pointing to the tin flask*], crushing itself into a small bulk, and causing the flask holding it to collapse; so that if I were to send steam through that barrel, it would be condensed—supposing the barrel were cold: it is, therefore, heated to

perform the experiment I am now about to show you. I am going to send the steam through the barrel in small quantities; and you shall judge for yourselves, when you see it issue from the other end, whether it still remains steam. Steam is condensable into water, and when you lower the temperature of steam, you convert it back into fluid water; but I have lowered the temperature of the gas which I have collected in this jar, by passing it through water after it has traversed the iron barrel, and still it does not change back into water. I will take another test and apply to this gas. (I hold the jar in an inverted position, or my substance would escape.) If I now apply a light to the mouth of the jar, it ignites with a slight noise. That tells you that it is not steam. Steam puts out a fire—it does not burn; but you saw that what I had in that jar burnt. We may obtain this substance equally from water produced from the candle-flame as from any other source. When it is obtained by the action of the iron upon the aqueous vapour, it leaves the iron in a state very similar to that in which these filings were after they were burnt. It makes the iron heavier than it was before. So long as the iron remains in the tube and is heated, and is cooled again without the access of air or water, it does not change in its weight; but after having had this current of steam passed over it, it then comes out heavier than it was before, having taken something out of the steam, and having allowed something else to pass forth, which we see here. And now, as we have another jar full, I will show you something most interesting. It is a combustible gas; and I might at once take this jar and set fire to the contents, and show you that it is combustible; but I intend to show you more if I can. It is also a very light substance. Steam will condense; this body will rise in the air, and not condense. Suppose I take another glass jar, empty of all but air: if I examine it with a taper, I shall find that it contains nothing but air. I will now take this jar full of the gas that I am speaking of, and deal with it as though it were a light body. I will hold both upside down, and turn the one up under the other; and that which did contain the gas procured from the



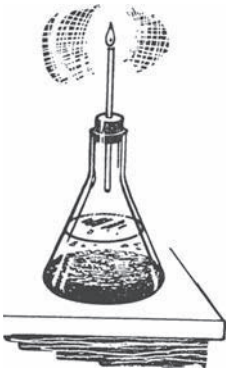


steam, what does it contain now? You will find it now only contains air. But look! Here is the combustible substance [*taking the other jar*] which I have poured out of the one jar into the other. It still preserves its quality, and condition, and independence, and therefore is the more worthy of our consideration, as belonging to the products of a candle.

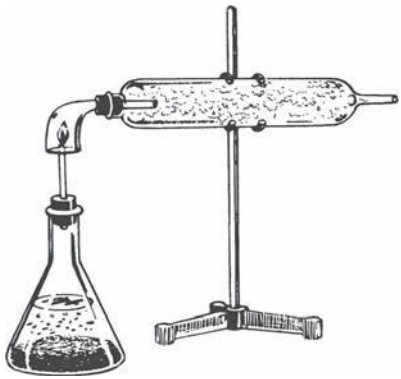
Now, this substance which we have just prepared by the action of iron on the steam or water, we can also get by means of those other things which you have already seen act so well upon the water. If I take a piece of potassium, and make the necessary arrangements, it will produce this gas; and if, instead, a piece of zinc, I find, when I come to examine it very carefully, that the main reason why this zinc cannot act upon the water continuously as the other metal does is because the result of the action of the water envelops the zinc in a kind of protecting coat. We have learned, in consequence, that if we put into our vessel only the zinc and water, they by themselves do not give rise to much action, and we get no result. But suppose I proceed to dissolve off this varnish—this encumbering substance—which I can do by a little acid; the moment I do this, I find the zinc acting upon the water exactly as the iron did, but at the common temperature. The acid in no way is altered, except in its combination with the oxide of zinc, which is produced. I have now poured the acid into the glass, and the effect is as though I were applying heat to cause this boiling up. There is something coming off from the zinc very abundantly, which is not steam. There is a jar full of it; and you will find that I have exactly the same combustible substance remaining in the vessel, when I hold it upside down, that I produced during the experiment with the iron barrel. This is what we get from water—the same substance which is contained in the candle.

Let us now trace distinctly the connection between these two points. This is hydrogen—a body classed among those things which in chemistry we call elements, because we can get nothing else out of them. A candle is not an elementary body, because we can get carbon out of it; we can get this hydrogen out of it, or at least out of the water which it supplies. And this gas has been so named hydrogen, because it is that element which, in association with another, generates water. Mr. Anderson having now been able to get two or three jars of gas, we shall have a few experiments to make, and I want to show you the best way of making these experiments. I am not afraid to show you, for I wish you to make experiments, if you will only make them with care and attention, and the assent of those around you. As we advance in chemistry, we are obliged to deal with substances which are rather injurious, if in their wrong

places–the acids, and heat, and combustible things we use might do harm if carelessly employed. If you want to make hydrogen, you can make it easily from bits of zinc, and sulphuric or muriatic acid. Here is what in former times was called the "philosopher's candle." It is a little phial with a cork, and a tube or pipe passing through it. And I am now putting a few little pieces of zinc into it. This little instrument I am going to apply to a useful purpose in our demonstrations–for I want to show you that you can prepare hydrogen, and make some experiments with it as you please at your own homes. Let me here tell you why I am so careful to fill this phial nearly, and yet not quite full. I do it because the evolved gas, which, as you have seen, is very combustible, is explosive to a considerable extent when mixed with air, and might lead to harm, if you were to apply a light to the end of that pipe before all the air had been swept out of the space above the water. I am now about to pour in the sulphuric acid. I have used very little zinc, and more sulphuric acid and water, because I want to keep it at work for some time. I therefore take care in this way to modify the proportions of the ingredients, so that I may have a regular supply–not too quick, and not too slow. Supposing I now take a glass and put it upside down over the end of the tube; because the hydrogen is light I expect that it will remain in that vessel a little while. We will now test the contents of our glass to see if there be hydrogen in it. I think I am safe in saying we have caught some [*applying a light*]. There it is, you see. I will now apply a light to the top of the tube. There is the hydrogen burning. There is our philosophical candle. It is a foolish feeble sort of a flame, you may say; but it is so hot that scarcely any common flame gives out so much heat. It goes on burning regularly, and I am now about to put that flame to burn under a certain arrangement, in order that we may examine its results and make use of the information which we may thereby acquire. Inasmuch as the candle produces water, and this gas comes out of the water, let us see what this gives us by the same process of combustion that the candle went through when it burnt in the atmosphere; and for that purpose I am going to put the lamp under this apparatus, in order to condense whatever may arise from the combustion within it. In the course of a short time you will see moisture appearing in the cylinder [p. 401], and you will get the water running down the side; and the water from this hydrogen flame



will have absolutely the same effect upon all our tests, being obtained by the same general process as in the former case. This hydrogen is a very beautiful substance. It is so light that it carries things up: it is far lighter than the atmosphere; and I dare say I can show you this by an experiment which, if you are very clever, some of you may even have skill enough to repeat. Here is our generator of hydrogen, and here are some soap-suds. I have an india-rubber tube connected with the hydrogen generator, and at the end of the tube is a tobacco-pipe. I can thus put the pipe into the suds, and blow bubbles by means of the hydrogen. You observe how the bubbles fall downwards when I blow them with my warm breath; but notice the difference when I blow them with hydrogen. [*The Lecturer here blew bubbles with hydrogen, which rose to the roof of the theatre.*] It shows you how light this gas must be in order to carry with it not merely the ordinary soap-bubble, but the larger portion of a drop hanging to the bottom of it. I can show its lightness in a better way than this; larger bubbles than these may be so lifted up; indeed, in former times balloons used to be filled with this gas. Mr. Anderson will fasten this tube on to our generator, and we shall have a stream of hydrogen here with which we can charge this balloon made of collodion. I need not even be very careful to get all the air out, for I know the power of this gas to carry it up. [*Two collodion balloons were inflated and sent up, one being held by a string.*] Here is another larger one made of thin membrane, which we will fill and allow to ascend. You will see they will all remain floating about until the gas escapes.



What, then, are the comparative weights of these substances? I have a table here which will show you the proportion which their weights bear to each other. I have taken a pint and a cubic foot as the measures, and have placed opposite to them the respective figures. A pint measure of this hydrogen weighs three quarters of our smallest weight (a grain), and a cubic foot weighs one-twelfth of an ounce; whereas a pint of water weighs 8,750 grains, and a cubic foot of water weighs almost 1,000 ounces. You see, therefore, what a vast difference there is between the weight of a cubic foot of water and a cubic foot of hydrogen.

Hydrogen gives rise to no substance that can become solid, either

during combustion or afterwards as a product of its combustion. But when it burns, it produces water only; and if we take a cold glass and put it over the flame, it becomes damp, and you have water produced immediately in appreciable quantity; and nothing is produced by its combustion but the same water which you have seen the flame of the candle produce. It is important to remember that this hydrogen is the only thing in nature which furnishes water as the sole product of combustion.

And now we must endeavour to find some additional proof of the general character and composition of water; and for this purpose I will keep you a little longer, so that at our next meeting we may be better prepared for the subject. We have the power of arranging the zinc, which you have seen acting upon the water by the assistance of an acid, in such a manner as to cause all the power to be evolved in the place where we require it. I have behind me a voltaic pile, and I am just about to show you, at the end of this lecture, its character and power, that you may see what we shall have to deal with when next we meet. I hold here the extremities of the wires which transport the power from behind me, and which I shall cause to act on the water.

We have previously seen what a power of combustion is possessed by the potassium, or the zinc, or the iron filings; but none of them show such energy as this. [*The Lecturer here made contact between the two terminal wires of the battery, when a brilliant flash of light was produced.*] This light is, in fact, produced by a forty-zinc power of burning; it is a power that I can carry about in my hands, through these wires, at pleasure–although, if I applied it wrongly to myself, it would destroy me in an instant, for it is a most intense thing, and the power you see here put forth while you count five [*bringing the poles in contact, and exhibiting the electric light*] is equivalent to the power of several thunder-storms, so great is its force.[14] And that you may see what intense energy it has, I will take the ends of the wires which convey the power from the battery, and with it I dare say I can burn this iron file. Now, this is a chemical power, and one which, when we next meet, I shall apply to water, and show you what results we are able to produce.

LECTURE IV

I see you are not tired of the candle yet, or I am sure you would not be interested in the subject in the way you are. When our candle was burn-

14. Professor Faraday has calculated that there is as much electricity required to decompose one grain of water as there is in a very powerful flash of lightning.

ing, we found it produced water exactly like the water we have around us; and by further examination of this water we found in it that curious body, hydrogen—that light substance of which there is some in this jar. We afterwards saw the burning powers of that hydrogen, and that it produced water. And I think I introduced to your notice an apparatus which I very briefly said was an arrangement of chemical force, or power, or energy, so adjusted as to convey its power to us in these wires; and I said I should use that force to pull the water to pieces, to see what else there was in the water besides hydrogen; because, you remember, when we passed the water through the iron tube, we by no means got the weight of water back which we put in, in the form of steam, though we had a very large quantity of gas evolved. We have now to see what is the other substance present. That you may understand the character and use of this instrument, let us make an experiment or two. Let us put together, first of all, some substances, knowing what they are, and then see what that instrument does to them. There is some copper (observe the various changes which it can undergo), and here is some nitric acid, and you will find that this, being a strong chemical agent, will act very powerfully when I add it to the copper. It is now sending forth a beautiful red vapour; but as we do not want that vapour, Mr. Anderson will hold it near the chimney for a short time, that we may have the use and beauty of the experiment without the annoyance. The copper which I have put into the flask will dissolve: it will change the acid and the water into a blue fluid, containing copper and other things; and I propose then showing you how this voltaic battery deals with it; and in the mean time we will arrange another kind of experiment for you to see what power it has. This is a substance which is to us like water—that is to say, it contains bodies which we do not know of as yet, as water contains a body which we do not know as yet. Now, this solution of a salt [15] I will put upon paper, and spread about, and apply the power of the battery to it, and observe what will happen. Three or four important things will happen which we shall take advantage of. I place this wetted paper upon a sheet of tinfoil, which is convenient for keeping all clean, and also for the advantageous application of the power; and this solution, you see, is not at all affected by being put upon the paper or tinfoil, nor by anything else I have brought in contact with it yet, and therefore is free to us to use as

15. A solution of acetate of lead, submitted to the action of the voltaic current, yields lead at the negative pole, and brown peroxide of lead at the positive pole. A solution of nitrate of silver, under the same circumstances, yields silver at the negative pole, and peroxide of silver at the positive pole.

regards that instrument. But first let us see that our instrument is in order. Here are our wires. Let us see whether it is in the state in which it was last time. We can soon tell. As yet, when I bring them together, we have no power, because the conveyors—what we call the electrodes, the passages or ways for the electricity—are stopped; but now Mr. Anderson by that [*referring to a sudden flash at the ends of the wires*] has given me a telegram to say that it is ready. Before I begin our experiment I will get Mr. Anderson to break contact again at the battery behind me, and we will put a platinum-wire across to connect the poles, and then if I find I can ignite a pretty good length of this wire, we shall be safe in our experiment. Now you will see the power. [*The connection was established, and the intermediate wire became red-hot.*] There is the power running beautifully through the wire, which I have made thin on purpose to show you that we have those powerful forces; and now, having that power, we will proceed with it to the examination of water.

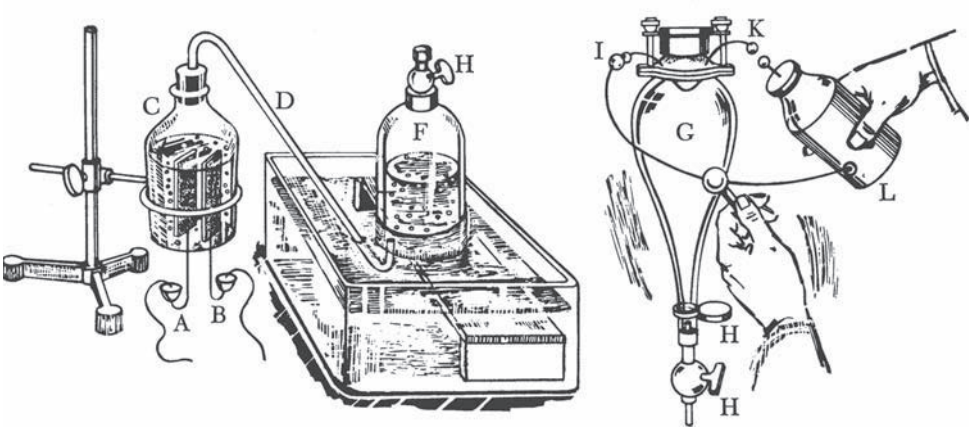
I have here two pieces of platinum, and if I lay them down upon this piece of paper [*the moistened paper on the tinfoil*], you will see no action; and if I take them up, there is no change that you can see, but the arrangement remains just as it was before. But, now, see what happens: if I take these two poles and put either one or the other of them down separately on the platinum-plates, they do nothing for me; both are perfectly without action; but if I let them both be in contact at the same moment, see what happens. [*A brown spot appeared under each pole of the battery.*] Look here at the effect that takes place, and see how I have pulled something apart from the white—something brown; and I have no doubt, if I were to arrange it thus, and were to put one of the poles to the tinfoil on the other side of the paper—why, I get such a beautiful action upon the paper, that I am going to see whether I cannot write with it—a telegram, if you please. [*The Lecturer here traced the word "juvenile" on the paper with one of the terminal wires.*] See there how beautifully we can get our results!

You see we have here drawn something, which we have not known about before, out of this solution. Let us now take that flask from Mr. Anderson's hands, and see what we can draw out of that. This, you know, is a liquid which we have just made up from copper and nitric acid, while our other experiments were in hand; and though I am making this experiment very hastily, and may bungle a little, yet I prefer to let you see what I do rather than prepare it beforehand.

Now, see what happens. These two platinum-plates are the two ends (or I will make them so immediately) of this apparatus; and I am about

to put them in contact with that solution just as we did a moment ago on the paper. It does not matter to us whether the solution be on the paper or whether it be in the jar, so long as we bring the ends of the apparatus to it. If I put the two platinums in by themselves, they come out as clean and as white as they go in [*inserting them into the fluid without connecting them with the battery*]; but when we take the power and lay that on [*the platinums were connected with the battery and again dipped into the solution*], this, you see [*exhibiting one of the platinums*], is at once turned into copper, as it were: it has become like a plate of copper; and that [*exhibiting the other piece of platinum*] has come out quite clean. If I take this coppered piece and change sides, the copper will leave the right-hand side and come over to the left side; what was before the coppered plate comes out clean, and the plate which was clean comes out coated with copper; and thus you see that the same copper we put into this solution we can also take out of it by means of this instrument.

Putting that solution aside, let us now see what effect this instrument [see drawing below] will have upon water. Here are two little platinum-plates which I intend to make the ends of the battery, and this [C] is a little vessel so shaped as to enable me to take it to pieces, and show you its construction. Into these two cups [A *and* B] I pour mercury, which touches the ends of the wires connected with the platinum-plates. In the vessel [C] I pour some water containing a little acid (but which is put only for the purpose of facilitating the action; it undergoes no change in the process), and connected with the top of the vessel is a bent glass tube [D], which may remind you of the pipe which was connected with the gun barrel in our furnace experiment, and which now passes under the



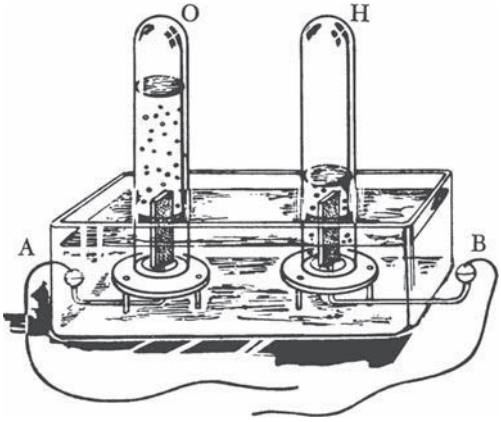
jar [F]. I have now adjusted this apparatus, and we will proceed to affect the water in some way or other. In the other case, I sent the water through a tube which was made red-hot; I am now going to pass the electricity through the contents of this vessel. Perhaps I may boil the water; if I do boil the water, I shall get steam; and you know that steam condenses when it gets cold, and you will therefore see by that whether I do boil the water or not. Perhaps, however, I shall not boil the water, but produce some other effect. You shall have the experiment and see. There is one wire which I will put to this side [A], and here is the other wire which I will put to the other side [B], and you will soon see whether any disturbance takes place. Here it is seeming to boil up famously; but does it boil? Let us see whether that which goes out is steam or not. I think you will soon see the jar [F] will be filled with vapour, if that which rises from the water is steam. But can it be steam? Why, certainly not; because there it remains, you see, unchanged. There it is standing over the water, and it cannot therefore be steam, but must be a permanent gas of some sort. What is it? Is it hydrogen? Is it anything else? Well, we will examine it. If it is hydrogen, it will burn. [*The Lecturer then ignited a portion of the gas collected, which burnt with an explosion*.] It is certainly something combustible, but not combustible in the way that hydrogen is. Hydrogen would not have given you that noise; but the colour of that light, when the thing did burn, was like that of hydrogen: it will, however, burn without contact with the air. That is why I have chosen this other form of apparatus, for the purpose of pointing out to you what are the particular circumstances of this experiment. In place of an open vessel I have taken one that is closed (our battery is so beautifully active that we are even boiling the mercury, and getting all things right—not wrong, but vigorously right); and I am going to show you that that gas, whatever it may be, can burn without air, and in that respect differs from a candle, which cannot burn without the air. And our manner of doing this is as follows: I have here a glass vessel [G] which is fitted with two platinum-wires [I *and* K], through which I can apply electricity; and we can put the vessel on the air-pump and exhaust the air, and when we have taken the air out we can bring it here and fasten it on to this jar [F], and let into the vessel that gas which was formed by the action of the voltaic battery upon the water, and which we have produced by changing the water into it—for I may go as far as this, and say we have really, by that experiment, changed the water into that gas. We have not only altered its condition, but we have changed it really and truly into that gaseous substance, and all the water is there

which was decomposed by the experiment. As I screw this vessel [G H] on here [H], and make the tubes well connected, and when I open the stopcocks [H, H, H], if you watch the level of the water [*in* F], you will see that the gas will rise. I will now close the stopcocks, as I have drawn up as much as the vessel can hold, and being safely conveyed into that chamber, I will pass into it an electric spark from this Leyden jar [L], when the vessel, which is now quite clear and bright, will become dim. There will be no sound, for the vessel is strong enough to confine the explosion. [*A spark was then passed through the jar, when the explosive mixture was ignited.*] Did you see that brilliant light? If I again screw the vessel on to the jar, and open these stopcocks, you will see that the gas will rise a second time. [*The stopcocks were then opened.*] Those gases [*referring to the gases first collected in the jar, and which had just been ignited by the electric spark*] have disappeared, as you see: their place is vacant, and fresh gas has gone in. Water has been formed from them; and if we repeat our operation [*repeating the last experiment*], I shall have another vacancy, as you will see by the water rising. I always have an empty vessel after the explosion, because the vapour or gas into which that water has been resolved by the battery explodes under the influence of the spark, and changes into water; and by and by you will see in this upper vessel some drops of water trickling down the sides and collecting at the bottom.

We are here dealing with water entirely, without reference to the atmosphere. The water of the candle had the atmosphere helping to produce it; but in this way it can be produced independently of the air. Water, therefore, ought to contain that other substance which the candle takes from the air, and which, combining with the hydrogen, produces water.

Just now you saw that one end of this battery took hold of the copper, extracting it from the vessel which contained the blue solution. It was effected by this wire; and surely we may say, if the battery has such power with a metallic solution which we made and unmade, may we not find that it is possible to split asunder the component parts of the water, and put them into this place and that place? Suppose I take the poles—the metallic ends of this battery—and see what will happen with the water in this apparatus [see fig. on p. 408], where we have separated the two ends far apart. I place one here [*at* A], and the other there [*at* B], and I have little shelves with holes which I can put upon each pole, and so arrange them that whatever escapes from the two ends of the battery will appear as separate gases; for you saw that the water

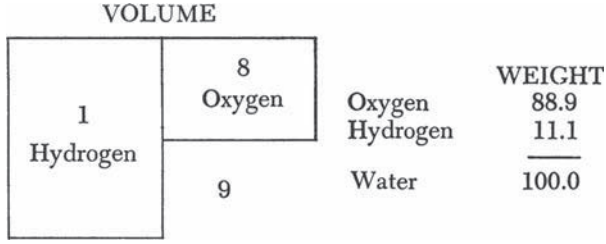
did not become vaporous, but gaseous. The wires are now in perfect and proper connection with the vessel containing the water; and you see the bubbles rising: let us collect these bubbles and see what they are. Here is a glass cylinder [O]; I fill it with water and put it over one end [A] of the pile; and I will take another [H] and put it over the other end [B] of the pile. And so now we have a double apparatus, with both places delivering gas. Both these jars will fill with gas. There they go, that to the right [H] filling very rapidly; the one to the left [O] filling not so rapidly; and though I have allowed some bubbles to escape, yet still the action is going on pretty regularly; and were it not that one is rather smaller than the other, you would see that I should have twice as much in this [H] as I have in that [O]. Both these gases are colourless; they stand over the water without condensing; they are alike in all things–I mean in all *apparent* things; and we have here an opportunity of examining these bodies and ascertaining what they are. Their bulk is large, and we can easily apply experiments to them. I will take this jar [H] first, and will ask you to be prepared to recognize hydrogen.



Think of all its qualities–the light gas which stood well in inverted vessels, burning with a pale flame at the mouth of the jar–and see whether this gas does not satisfy all these conditions. If it be hydrogen, it will remain here while I hold this jar inverted. [*A light was then applied, when the hydrogen burnt.*] What is there now in the other jar? You know that the two together made an explosive mixture. But what can this be which we find as the other constituent in water, and which must therefore be that substance which made the hydrogen burn? We know that the water we put into the vessel consisted of the two things together. We find one of these is hydrogen; what must that other be which was in the water before the experiment, and which we now have by itself? I am about to put this lighted splinter of wood into the gas. The gas itself will not burn, but it will make the splinter of wood burn. [*The Lecturer ignited the end of the wood, and introduced it into the*

jar of gas.] See how it invigorates the combustion of the wood, and how it makes it burn far better than the air would make it burn; and now you see by itself that very other substance which is contained in the water, and which, when the water was formed by the burning of the candle, must have been taken from the atmosphere. What shall we call it, A, B, or C? Let us call it O—call it "Oxygen": it is a very good distinct-sounding name. This, then, is the oxygen which was present in the water, forming so large a part of it.

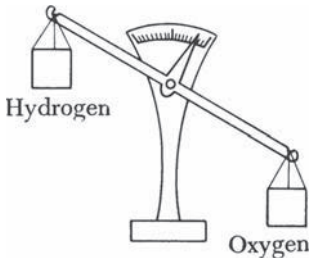
We shall now begin to understand more clearly our experiments and researches; because, when we have examined these things once or twice, we shall soon see why a candle burns in the air. When we have in this way analysed the water—that is to say, separated, or electrolyzed, its parts out of it—we get two volumes of hydrogen, and one of the body that burns it. And these two are represented to us on the following diagram, with their weights also stated; and we shall find that the oxygen is a very heavy body by comparison with the hydrogen. It is the other element in water.



I had better, perhaps, tell you now how we get this oxygen abundantly, having shown you how we can separate it from the water. Oxygen, as you will immediately imagine, exists in the atmosphere; for how should the candle burn to produce water without it? Such a thing would be absolutely impossible, and chemically impossible, without oxygen. Can we get it from the air? Well, there are some very complicated and difficult processes by which we can get it from the air; but we have better processes. There is a substance called the black oxide of manganese: it is a very black-looking mineral, but very useful, and when made red-hot gives out oxygen. Here is an iron bottle which has had some of this substance put into it, and there is a tube fixed to it, and a fire ready made, and Mr. Anderson will put that retort into the fire, for it is made of iron, and can stand the heat. Here is a salt called chlorate of potassa, which is now made in large quantities for bleaching, and chemical and medical uses, and for pyrotechnic and other purposes. I will take some and

mix it with some of the oxide of manganese (oxide of copper, or oxide of iron would do as well); and if I put these together in a retort, far less than a red heat is sufficient to evolve this oxygen from the mixture. I am not preparing to make much, because we only want sufficient for our experiments; only, as you will see immediately, if I use too small a charge, the first portion of the gas will be mixed with the air already in the retort, and I should be obliged to sacrifice the first portion of the gas, because it would be so much diluted with air; the first portion must therefore be thrown away. You will find, in this case, that a common spirit-lamp is quite sufficient for me to get the oxygen, and so we shall have two processes going on for its preparation. See how freely the gas is coming over from that small portion of the mixture. We will examine it, and see what are its properties. Now, in this way we are producing, as you will observe, a gas just like the one we had in the experiment with the battery—transparent, undissolved by water, and presenting the ordinary visible properties of the atmosphere. (As this first jar contains the air, together with the first portions of the oxygen set free during the preparation, we will carry it out of the way, and be prepared to make our experiments in a regular, dignified manner.) And, inasmuch as that power of making wood, wax, or other things burn, was so marked in the oxygen we obtained by means of the voltaic battery from water, we may expect to find the same property here. We will try it. You see there is the combustion of a lighted taper in air, and here is its combustion in this gas [*lowering the taper into the jar*]. See how brightly and how beautifully it burns! You can also see more than this—you will perceive it is a heavy gas, while the hydrogen would go up like a balloon, or even faster than a balloon, when not encumbered with the weight of the envelope. You may easily see that although we obtained from water twice as much in volume of the hydrogen as of oxygen, it does not follow that we have twice as much in weight—because one is heavy, and the other a very light gas. We have means of weighing gases or air; but without stopping to explain that, let me just tell you what their respective weights are. The weight of a pint of hydrogen is three-quarters of a grain; the weight of the same quantity of oxygen is nearly twelve grains. This

is a very great difference. The weight of a cubic foot of hydrogen is one-twelfth of an ounce; and the weight of a cubic foot of oxygen is one ounce and a third. And so on we might come to masses of matter which may be weighed in the balance, and which we can take account of as to hundredweights and as to tons, as you will see almost immediately.



Now, as regards this very property of oxygen supporting combustion, which we may compare to air, I will take a piece of candle to show it you in a rough way, and the result will be rough. There is our candle burning in the air: how will it burn in oxygen? I have here a jar of this gas, and I am about to put it over the candle for you to compare the action of this gas with that of the air. Why, look at it: it looks something like the light you saw at the poles of the voltaic battery. Think how vigorous that action must be! And yet, during all that action, nothing more is produced than what is produced by the burning of the candle in air. We have the same production of water, and the same phenomena exactly, when we use this gas instead of air, as we have when the candle is burnt in air.

But now we have got a knowledge of this new substance, we can look at it a little more distinctly, in order to satisfy ourselves that we have got a good general understanding of this part of the product of a candle. It is wonderful how great the supporting powers of this substance are as regards combustion. For instance, here is a lamp which, simple though it be, is the original, I may say, of a great variety of lamps which are constructed for divers purposes—for lighthouses, microscopic illuminations, and other uses; and if it were proposed to make it burn very brightly, you would say, "If a candle burnt better in oxygen, will not a lamp do the same?" Why, it will do so. Mr. Anderson will give me a tube coming from our oxygen reservoir, and I am about to apply it to this flame, which I will previously make burn

badly on purpose. There comes the oxygen: what a combustion that makes! But if I shut it off, what becomes of the lamp? [*The flow of oxygen was stopped, and the lamp relapsed to its former dimness.*] It is wonderful how, by means of oxygen, we get combustion accelerated. But it does not affect merely the combustion of hydrogen, or carbon, or the candle; but it exalts all combustions of the common kind. We will take one which relates to iron, for instance, as you have already seen iron burn a little in the atmosphere. Here is a jar of oxygen, and this is a piece of iron wire; but if it were a bar as thick as my wrist, it would burn the same. I first attach a little piece of wood to the iron, I then set the wood on fire, and let them both down together into the jar. The wood is now alight, and there it burns as wood should burn in oxygen; but it will soon communicate its combustion to the iron. The iron is now burning brilliantly, and will continue so for a long time. As long as we supply oxygen, so long can we carry on the combustion of the iron, until the latter is consumed.

We will now put that on one side, and take some other substance; but we must limit our experiments, for we have not time to spare for all the illustrations you would have a right to if we had more time. We will take a piece of sulphur—you know how sulphur burns in the air—well, we put it into the oxygen, and you will see that whatever can burn in air can burn with a far greater intensity in oxygen, leading you to think that perhaps the atmosphere itself owes all its power of combustion to this gas. The sulphur is now burning very quietly in the oxygen; but you cannot for a moment mistake the very high and increased action which takes place when it is so burnt, instead of being burnt merely in common air.

I am now about to show you the combustion of another substance—phosphorus. I can do it better for you here than you can do it at home. This is a very combustible substance; and if it be so combustible in air, what might you expect it would be in oxygen? I am about to show it to you, not in its fullest intensity, for if I did so we should almost blow the apparatus up—I may even now crack the jar, though I do not want to break things carelessly. You see how it burns in the air. But what a glorious light it gives out when I introduce it into oxygen! [*Introducing*

the lighted phosphorus into the jar of oxygen] There you see the solid particles going off which cause that combustion to be so brilliantly luminous.

Thus far we have tested this power of oxygen, and the high combustion it produces, by means of other substances. We must now, for a little while longer, look at it as respects the hydrogen. You know, when we allowed the oxygen and the hydrogen derived from the water to mix and burn together, we had a little explosion. You remember, also, that when I burnt the oxygen and the hydrogen in a jet together, we got very little light, but great heat. I am now about to set fire to oxygen and hydrogen, mixed in the proportion in which they occur in water. Here is a vessel containing one volume of oxygen and two volumes of hydrogen. This mixture is exactly of the same nature as the gas we just now obtained from the voltaic battery: it would be far too much to burn at once; I have therefore arranged to blow soap-bubbles with it, and burn those bubbles, that we may see by a general experiment or two how this oxygen supports the combustion of the hydrogen. First of all, we will see whether we can blow a bubble. Well, there goes the gas [*causing it to issue through a tobacco-pipe into some soap-suds*]. Here I have a bubble. I am receiving them on my hand: and you will perhaps think I am acting oddly in this experiment; but it is to show you that we must not always trust to noise and sounds, but rather to real facts [*exploding a bubble on the palm of his hand*]. I am afraid to fire a bubble from the end of the pipe, because the explosion would pass up into the jar and blow it to pieces. This oxygen then will unite with the hydrogen, as you see by the phenomena, and hear by the sound, with the utmost readiness of action, and all its powers are then taken up in its neutralization of the qualities of the hydrogen.

So now I think you will perceive the whole history of water with reference to oxygen and the air, from what we have before said. Why does a piece of potassium decompose water? Because it finds oxygen in the water. What is set free when I put it in the water, as I am about to do again? It sets free hydrogen, and the hydrogen burns; but the potassium itself combines with oxygen; and this piece of potassium, in taking the water apart—the water, you may say, derived from the combustion of the candle—takes away the oxygen which the candle took from the air, and so sets the hydrogen free; and even if I take a piece of ice, and put a piece of potassium upon it, the beautiful affinities by which the oxygen and the hydrogen are related are such that the ice will absolutely set fire to the potassium. I show this to you today, in order to enlarge your

ideas of these things, and that you may see how greatly results are modified by circumstances. There is the potassium on the ice, producing a sort of volcanic action.

It will be my place, when next we meet, having pointed out these anomalous actions, to show you that none of these extra and strange effects are met with by us—that none of these strange and injurious actions take place when we are burning, not merely a candle, but gas in our streets, or fuel in our fire places—so long as we confine ourselves within the laws that Nature has made for our guidance.

LECTURE V

We have now seen that we can produce hydrogen and oxygen from the water that we obtained from the candle. Hydrogen, you know, comes from the candle, and oxygen, you believe, comes from the air. But then you have a right to ask me, "How is it that the air and the oxygen do not equally well burn the candle?" If you remember what happened when I put a jar of oxygen over a piece of candle, you recollect there was a very different kind of combustion to that which took place in the air. Now, why is this? It is a very important question, and one I shall endeavour to make you understand: it relates most intimately to the nature of the atmosphere, and is most important to us.

We have several tests for oxygen besides the mere burning of bodies. You have seen a candle burnt in oxygen, or in the air; you have seen phosphorus burnt in the air, or in oxygen; and you have seen iron filings burnt in oxygen. But we have other tests besides these, and I am about to refer to one or two of them for the purpose of carrying your conviction and your experience further. Here we have a vessel of oxygen. I will show its presence to you: if I take a little spark and put it into that oxygen, you know, by the experience you gained the last time we met, what will happen; if I put that spark into the jar, it will tell you whether we have oxygen here or not. Yes! We have proved it by combustion; and now here is another test for oxygen, which is a very curious and useful one. I have here two jars full of gas, with a plate between them to prevent their mixing; I take the plate away, and the gases are creeping one into the other. "What happens?" say you. "They together produce no such combustion as was seen in the case of the candle." But see how the presence of oxygen is told by its association with this other substance.[16] What a beautifully coloured gas I have obtained in this way, showing me

16. The gas which is thus employed as a test for the presence of oxygen is the binoxide of nitrogen, or nitrous oxide. It is a colourless gas, which, when brought in contact with oxygen, unites with it, forming hyponitric acid, the red gas referred to.

the presence of the oxygen! In the same way we can try this experiment by mixing common air with this test gas. Here is a jar containing air—such air as the candle would burn in—and here is a jar or bottle containing the test gas. I let them come together over water, and you see the result: the contents of the test bottle are flowing into the jar of air, and you see I obtain exactly the same kind of action as before, and that shows me that there is oxygen in the air—the very same substance that has been already obtained by us from the water produced by the candle. But then, beyond that, how is it that the candle does not burn in air as well as in oxygen? We will come to that point at once. I have here two jars; they are filled to the same height with gas, and the appearance to the eye is alike in both, and I really do not know at present which of these jars contains oxygen and which contains air, although I know they have previously been filled with these gases. But here is our test gas, and I am going to work with the two jars, in order to examine whether there is any difference between them in the quality of reddening this gas. I am now going to turn this test gas into one of the jars, and observe what happens. There is reddening, you see; there is then oxygen present. We will now test the other jar; but you see this is not so distinctly red as the first: and, further, this curious thing happens—if I take these two gases and shake them well together with water, we shall absorb the red gas; and then, if I put in more of this test gas and shake again, we shall absorb more; and I can go on as long as there be any oxygen present to produce that effect. If I let in air, it will not matter; but the moment I introduce water, the red gas disappears; and I may go on in this way, putting in more and more of the test gas, until I come to something left behind which will not redden any longer by the use of that particular body that rendered the air and the oxygen red. Why is that? You see in a moment it is because there is, besides oxygen, something else present which is left behind. I will let a little more air into the jar, and if it turns red you will know that some of that reddening gas is still present, and that consequently it was not for the want of this producing body that the air was left behind.

Now, you will begin to understand what I am about to say. You saw that when I burnt phosphorus in a jar, as the smoke produced by the phosphorus and the oxygen of the air condensed, it left a good deal of gas unburnt, just as this red gas left something untouched—there was, in fact, this gas left behind, which the phosphorus cannot touch, which the reddening gas cannot touch, and this something is not oxygen, and yet is part of the atmosphere.

So that is one way of opening out air into the two things of which it is

composed—oxygen, which burns our candles, our phosphorus, or anything else; and this other substance—nitrogen—which will not burn them. This other part of the air is by far the larger proportion, and it is a very curious body, when we come to examine it; it is remarkably curious, and yet you say, perhaps, that it is very uninteresting. It is uninteresting in some respects because of this—that it shows no brilliant effects of combustion. If I test it with a taper as I do oxygen and hydrogen, it does not burn like hydrogen, nor does it make the taper burn like oxygen. Try it in any way I will, it does neither the one thing nor the other: it will not take fire; it will not let the taper burn; it puts out the combustion of everything. There is nothing that will burn in it in common circumstances. It has no smell; it is not sour; it does not dissolve in water; it is neither an acid nor an alkali; it is as indifferent to all our organs as it is possible for a thing to be. And you might say, "It is nothing; it is not worth chemical attention; what does it do in the air?" Ah! then come our beautiful and fine results shown us by an observant philosophy. Suppose, in place of having nitrogen, or nitrogen and oxygen, we had pure oxygen as our atmosphere; what would become of us? You know very well that a piece of iron lit in a jar of oxygen goes on burning to the end. When you see a fire in an iron grate, imagine where the grate would go to if the whole of the atmosphere were oxygen. The grate would burn up more powerfully than the coals—for the iron of the grate itself is even more combustible than the coals which we burn in it. A fire put into the middle of a locomotive would be a fire in a magazine of fuel, if the atmosphere were oxygen. The nitrogen lowers it down and makes it moderate and useful for us, and then, with all that, it takes away with it the fumes that you have seen produced from the candle, disperses them throughout the whole of the atmosphere, and carries them away to places where they are wanted to perform a great and glorious purpose of good to man, for the sustenance of vegetation; and thus does a most wonderful work, although you say, on examining it, "Why, it is a perfectly indifferent thing." This nitrogen in its ordinary state is an inactive element; no action short of the most intense electric force, and then in the most infinitely small degree, can cause the nitrogen to combine directly with the other element of the atmosphere, or with other things round about it; it is a perfectly indifferent, and therefore to say, a safe substance.

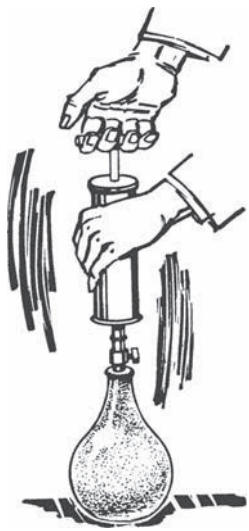
But before I take you to that result, I must tell you about the atmosphere itself. I have written on this diagram the composition of one hundred parts of atmospheric air:

	Bulk	Weight
Oxygen	20	22.3
Nitrogen	80	77.7
	100	100.0

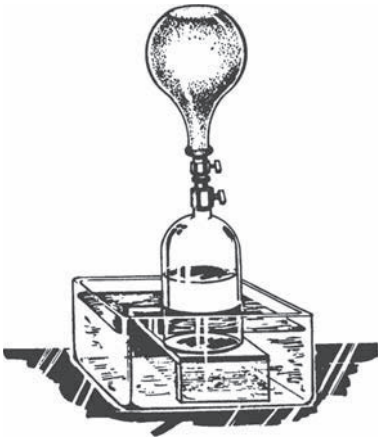
It is a true analysis of the atmosphere, so far as regards the quantity of oxygen and the quantity of nitrogen present. By our analysis, we find that 5 pints of the atmosphere contain only 1 pint of oxygen, and 4 pints, or 4 parts, of nitrogen by bulk. That is our analysis of the atmosphere. It requires all that quantity of nitrogen to reduce the oxygen down, so as to be able to supply the candle properly with fuel, so as to supply us with an atmosphere which our lungs can healthily and safely breathe; for it is just as important to make the oxygen right for us to breathe, as it is to make the atmosphere right for the burning of the fire and the candle.

But now for this atmosphere. First of all, let me tell you the weight of these gases. A pint of nitrogen weighs 10 4/10 grains, or a cubic foot weighs 1 1/6 ounce. That is the weight of the nitrogen. The oxygen is heavier: a pint of it weighs 11 9/10 grains, and a cubic foot weighs 1 1/3 ounce. A pint of air weighs about 10 7/10 grains, and a cubic foot 1 1/5 ounce.

You have asked me several times, and I am very glad you have, "How do you weigh gases?" I will show you; it is very simple, and easily done. Here is a balance, and here a copper bottle, made as light as we can consistent with due strength, turned very nicely in the lathe, and made perfectly air-tight, with a stopcock, which we can open and shut, which at present is open, and therefore allows the bottle to be full of air. I have here a nicely adjusted balance, in which I think the bottle, in its present condition, will be balanced by the weight on the other side. And here is a pump by which we can force the air into this bottle, and with it we will force in a certain number of volumes of air, as measured by the pump. [*Twenty measures were pumped in.*] We will shut that in and put it in the balance. See how it sinks: it is much heavier than it was. By what? By the air that we have forced into it by the pump. There is not a greater *bulk* of air, but there is the same bulk of *heavier* air, because we have forced in air upon it. And that you may have a fair notion in your mind as to how much this air measures, here is a jar full of water. We will open that copper vessel into this jar, and let the air

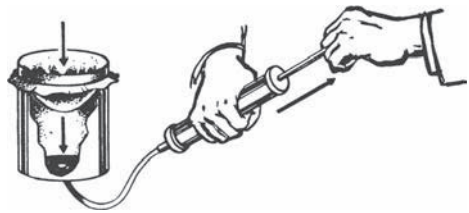


return to its former state. All I have to do now is to screw them tightly together, and to turn the taps, when there, you see, is the bulk of the twenty pumps of air which I forced into the bottle; and to make sure that we have been quite correct in what we have been doing, we will take the bottle again to the balance, and, if it is now counterpoised by the original weight, we shall be quite sure we have made our experiment correctly. It is balanced; so, you see, we can find out the weight of the extra volumes of air forced in, in that way, and by that means we are able to ascertain that a cubic foot of air weighs 1 ⅕ ounce. But that small experiment will by no means convey to your mind the whole literal truth of this matter. It is wonderful how it accumulates when you come to larger volumes. This bulk of air [*a cubic foot*] weighs 1 ⅕ ounce. What do you think of the contents of that box above there, which I have had made for the purpose? The air which is within that box weighs one pound–a full pound; and I have calculated the weight of the air in this room–you would hardly imagine it, but it is above a ton. So rapidly do the weights rise up, and so important is the presence of the atmosphere, and of the oxygen and the nitrogen in it, and the use it performs in conveying things to and fro from place to place, and carrying bad vapours to places where they will do good instead of harm.



Having given you that little illustration with respect to the weight of the air, let me show you certain consequences of it. You have a right to them, because you would not understand so much without it. Do you remember this kind of experiment? Have you ever seen it? Suppose I take a pump somewhat similar to the one I had a little while ago to force air into the bottle, and suppose I place it in such a manner that by certain arrangements I can apply my hand to it: my hand moves about in the air so easily that it seems to feel nothing, and I can hardly get velocity enough by any motion of my own in the atmosphere to make sure that there is much resistance to it. But, when I put my hand here [*on the air-pump receiver, which was afterwards exhausted*], you see what happens. Why is my hand fastened to this place, and why am I

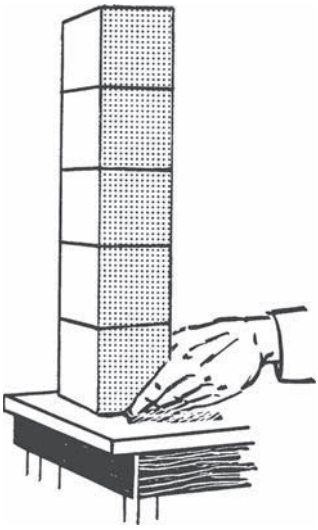
able to pull this pump about? And see! how is it that I can hardly get my hand away? Why is this? It is the weight of the air—the weight of the air that is above. I have another experiment here, which I think will explain to you more about it. When the air is pumped from underneath the bladder which is stretched over this glass, you will see the effect in another shape: the top is quite flat at present, but I will make a very little motion with the pump, and now look at it—see how it has gone down, see how it is bent in. You will see the bladder go in more and more, until at last I expect it will be driven in and broken by the force



of the atmosphere pressing upon it. [*The bladder at last broke with a loud report.*] Now, that was done entirely by the weight of the air pressing on it, and you can easily understand how that is. The particles that are piled up in the atmosphere stand upon each other, as these five cubes do [p. 420]. You can easily conceive that four of these five cubes are resting upon the bottom one, and if I take that away, the others will all sink down. So it is with the atmosphere: the air that is above is sustained by the air that is beneath; and when the air is pumped away from beneath them, the change occurs which you saw when I placed my hand on the air-pump, and which you saw in the case of the bladder, and which you shall see better here. I have tied over this jar a piece of sheet india-rubber, and I am now about to take away the air from the inside of the jar; and if you will watch the india-rubber—which acts as a partition between the air below and the air above—you will see, when I pump, how the pressure shows itself. See where it is going to—I can actually put my hand into the jar; and yet this result is only caused by the great and powerful action of the air above. How beautifully it shows this curious circumstance!

Here is something that you can have a pull at, when I have finished to-day. It is a little apparatus of two hollow brass hemispheres, closely fitted together, and having connected with it a pipe and a cock, through which we can exhaust the air from the inside; and although the two

halves are so easily taken apart, while the air is left within, yet you will see, when we exhaust it by and by, no power of any two of you will be able to pull them apart. Every square inch of surface that is contained in the area of that vessel sustains fifteen pounds by weight, or nearly so, when the air is taken out; and you may try your strength presently in seeing whether you can overcome that pressure of the atmosphere.



Here is another very pretty thing–the boys' sucker, only refined by the philosopher. We young ones have a perfect right to take toys, and make them into philosophy, inasmuch as now-a-days we are turning philosophy into toys. Here is a sucker, only it is made of india-rubber: if I clap it upon the table, you see at once it holds. Why does it hold? I can slip it about, and yet if I try to pull it up, it seems as if it would pull the table with it. I can easily make it slip about from place to place; but only when I bring it to the edge of the table can I get it off. It is only kept down by the pressure of the atmosphere above. We have a couple of them; and if you take these two and press them together, you will see how firmly they stick. And, indeed, we may use them as they are proposed to be used, to stick against windows, or against walls, where they will adhere for an evening, and serve to hang anything on that you want. I think, however, that you boys ought to be shown experiments that you can make at home; and so here is a very pretty experiment in illustration of the pressure of the atmosphere. Here is a tumbler of water. Suppose I were to ask you to turn that tumbler upside down, so that the water should not fall out, and yet not be kept in by your hand, but merely by using the pressure of the atmosphere. Could you do that? Take a wine-glass, either quite full or half full of water, and put a flat card on the top, turn it upside down, and then see what becomes of the card and of the water. The air cannot get in because the water by its capillary attraction round the edge keeps it out.

I think this will give you a correct notion of what you may call the materiality of the air; and when I tell you that the box holds a pound of it, and this room more than a ton, you will begin to think that air is

something very serious. I will make another experiment, to convince you of this positive resistance. There is that beautiful experiment of the pop-gun, made so well and so easily, you know, out of a quill, or a tube or anything of that kind, where we take a slice of potato, for instance, or an apple, and take the tube and cut out a pellet, as I have now done, and push it to one end. I have made that end tight; and now I take another piece and put it in: it will confine the air that is within the tube perfectly and completely for our purpose; and I shall now find it absolutely impossible by any force of mine to drive that little pellet close up to the other. It cannot be done. I may press the air to a certain extent, but if I go on pressing, long before it comes to the second, the confined air will drive the front one out with a force something like that of gunpowder; for gunpowder is in part dependent upon the same action that you see here exemplified.

I saw the other day an experiment which pleased me much, as I thought it would serve our purpose here. (I ought to have held my tongue for four or five minutes before beginning this experiment, because it depends upon my lungs for success.) By the proper application of air I expect to be able to drive this egg out of one cup into the other by the force of my breath; but if I fail, it is in a good cause; and I do not promise success, because I have been talking more than I ought to do to make the experiment succeed.

[*The Lecturer here tried the experiment, and succeeded in blowing the egg from one egg-cup to the other.*]

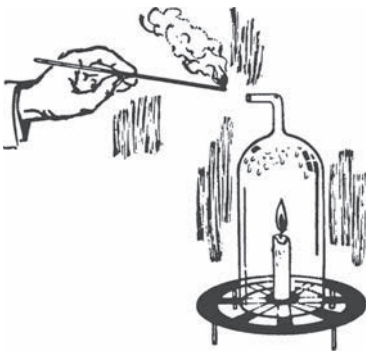
You see that the air which I blow goes downwards between the egg and the cup, and makes a blast under the egg, and is thus able to lift a heavy thing–for a full egg is a very heavy thing for air to lift. If you want to make the experiment, you had better boil the egg quite hard first, and then you may very safely try to blow it from one cup to the other, with a little care.

I have now kept you long enough upon this property of the weight of the air, but there is another thing I should like to mention. You saw the way in which, in this pop-gun, I was able to drive the second piece of potato half or two-thirds of an inch before the first piece started, by virtue of the elasticity of the air–just as I pressed into the copper bottle the particles of air by means of the pump. Now, this depends upon a wonderful property in the air, namely, its elasticity; and I should like to give you a good illustration of this. If I take anything that confines the air properly, as this membrane, which also is able to contract and expand so as to give us a measure of the elasticity of the air, and confine in

this bladder a certain portion of air; and then, if we take the atmosphere off from the outside of it, just as in these cases we put the pressure on—if we take the pressure off, you will see how it will then go on expanding and expanding, larger and larger, until it will fill the whole of this bell-jar, showing you that wonderful property of the air, its elasticity, its compressibility, and expansibility, to an exceedingly large extent, and which is very essential for the purposes and services it performs in the economy of creation.

We will now turn to another very important part of our subject, remembering that we have examined the candle in its burning, and have found that it gives rise to various products. We have the products, you know, of soot, of water, and of something else which you have not yet examined. We have collected the water, but have allowed the other things to go into the air. Let us now examine some of these other products.

Here is an experiment which I think will help you in part in this way. We will put our candle there, and place over it a chimney, thus. I think my candle will go on burning, because the air-passage is open at the bottom and the top. In the first place, you see the moisture appearing—that you know about. It is water produced from the candle by the action of the air upon its hydrogen. But, besides that, something is going out at the top: it is not moisture—it is not water—it is not condensable; and yet, after all, it has very singular properties. You will find that the air coming out of the top of our chimney is nearly sufficient to blow out the light I am holding to it; and if I put the light fairly opposed to the current, it will blow it quite out. You will say that is as it should be; and I am supposing that you think it ought to do so, because the nitrogen does not support combustion, and ought to put the candle out, since the candle will not burn in nitrogen. But is there nothing else there than nitrogen? I must now anticipate—that is to say, I must use my own knowledge to supply you with the means that we adopt for the purpose of ascertaining these things, and examining such gases as these. I will take an empty bottle—here is one—and if I hold it over this chimney, I shall get the combustion of the candle below sending its results into the bottle above; and we shall soon find that this bottle con-



tains, not merely an air that is bad as regards the combustion of a taper put into it, but having other properties.

Let me take a little quicklime and pour some common water on to it—the commonest water will do. I will stir it a moment, then pour it upon a piece of filtering paper in a funnel, and we shall very quickly have a clear water proceeding to the bottle below, as I have here. I have plenty of this water in another bottle; but, nevertheless, I should like to use the lime-water that was prepared before you, so that you may see what its uses are. If I take some of this beautiful clear lime-water, and pour it into this jar, which has collected the air from the candle, you will see a change coming about. Do you see that the water has become quite milky? Observe, that will not happen with air merely. Here is a bottle filled with air; and if I put a little lime-water into it, neither the oxygen nor the nitrogen, nor anything else that is in that quantity of air, will make any change in the lime-water. It remains perfectly clear, and no shaking of that quantity of lime-water with that quantity of air in its common state will cause any change; but if I take this bottle with the lime-water, and hold it so as to get the general products of the candle in contact with it, in a very short time we shall have it milky. There is the chalk, consisting of the lime which we used in making the lime-water, combined with something that came from the candle—that other product which we are in search of, and which I want to tell you about to-day. This is a substance made visible to us by its action, which is not the action of the lime-water either upon the oxygen or upon the nitrogen, nor upon the water itself, but it is something new to us from the candle. And then we find this white powder, produced by the lime-water and the vapour from the candle, appears to us very much like whitening or chalk, and, when examined, it does prove to be exactly the same substance as whitening or chalk. So we are led, or have been led, to observe upon the various circumstances of this experiment, and to trace this production of chalk to its various causes, to give us the true knowledge of the nature of this combustion of the candle—to find that this substance, issuing from the candle, is exactly the same as that substance which would issue from a retort, if I were to put some chalk into it with a little moisture, and make it red-hot: you would then find that exactly the same substance would issue from it as from the candle.

But we have a better means of getting this substance, and in greater quantity, so as to ascertain what its general characters are. We find this substance in very great abundance in a multitude of cases where you would least expect it. All limestones contain a great deal of this gas

which issues from the candle, and which we call *carbonic acid*. All chalks, all shells, all corals contain a great quantity of this curious air. We find it fixed in these stones; for which reason Dr. Black called it "fixed air"–finding it in these fixed things like marble and chalk. He called it fixed air, because it lost its quality of air, and assumed the condition of a solid body. We can easily get this air from marble. Here is a jar containing a little muriatic acid, and here is a taper which, if I put it into that jar, will show only the presence of common air. There is, you see, pure air down to the bottom; the jar is full of it. Here is a substance–marble,[17] a very beautiful and superior marble–and if I put these pieces of marble into the jar, a great boiling apparently goes on. That, however, is not steam–it is a gas that is rising up; and if I now search the jar by a candle, I shall have exactly the same effect produced upon the taper as I had from the air which issued from the end of the chimney over the burning candle. It is exactly the same action, and caused by the very same substance that issued from the candle; and in this way we can get carbonic acid in great abundance–we have already nearly filled the jar. We also find that this gas is not merely contained in marble. Here is a vessel in which I have put some common whitening–chalk, which has been washed in water and deprived of its coarser particles, and so supplied to the plasterer as whitening. Here is a large jar containing this whitening and water, and I have here some strong sulphuric acid, which is the acid you might have to use if you were to make these experiments (only, in using this acid with limestone, the body that is produced is an insoluble substance, whereas the muriatic acid produces a soluble substance that does not so much thicken the water). And you will seek out a reason why I take this kind of apparatus for the purpose of showing this experiment. I do it because you may repeat in a small way what I am about to do in a large one. You will have here just the same kind of action; and I am evolving in this large jar carbonic acid, exactly the same in its nature and properties as the gas which we obtained from the combustion of the candle in the atmosphere. And no matter how different the two methods by which we prepare this carbonic acid, you will see, when we get to the end of our subject, that it is all exactly the same, whether prepared in the one way or in the other.

We will now proceed to the next experiment with regard to this gas.

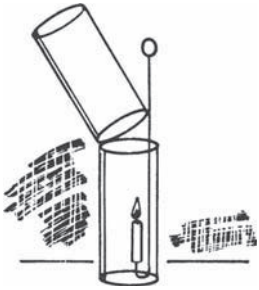
17. Marble is a compound of carbonic acid and lime. The muriatic acid, being the stronger of the two, takes the place of the carbonic acid, which escapes as a gas, the residue forming muriate of lime or chloride of calcium.

What is its nature? Here is one of the vessels full, and we will try it, as we have done so many other gases, by combustion. You see it is not combustible, nor does it support combustion. Neither, as we know, does it dissolve much in water, because we collect it over water very easily. Then, you know that it has an effect, and becomes white in contact with lime-water; and when it does become white in that way, it becomes one of the constituents to make carbonate of lime or limestone.

The next thing I must show you is, that it really does dissolve a little in water, and therefore that it is unlike oxygen and hydrogen in that respect. I have here an apparatus by which we can produce this solution. In the lower part of this apparatus is marble and acid, and in the upper part cold water. The valves are so arranged that the gas can get from one to the other. I will set it in action now, and you can see the gas bubbling up through the water, as it has been doing all night long, and by this time we shall find that we have this substance dissolved in the water. If I take a glass and draw off some of the water, I find that it tastes a little acid to the mouth: it is impregnated with carbonic acid; and if I now apply a little lime-water to it, that will give us a test of its presence. This water will make the lime-water turbid and white, which is proof of the presence of carbonic acid.

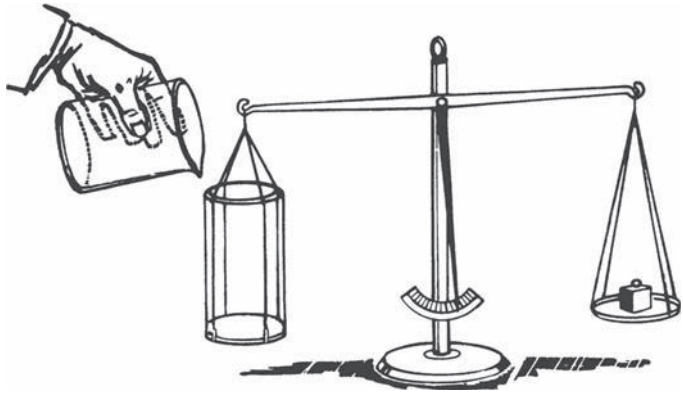
Then it is a very weighty gas–it is heavier than the atmosphere. I have put their respective weights at the lower part of this table, along with, for comparison, the weights of the other gases we have been examining:

	Pint (Grains)	Cubic Foot (Ounces)
Hydrogen	3/4	1/12
Oxygen	11 9/10	1 1/3
Nitrogen	10 4/10	1 1/6
Air	10 7/10	1 1/5
Carbonic acid	16 1/3	1 9/10



A pint of it weighs 16⅓ grains, and a cubic foot weighs 1 9/10 ounce, almost two ounces. You can see by many experiments that this is a heavy gas. Suppose I take a glass containing nothing else but air, and from this vessel containing the carbonic acid I attempt to pour a little of this gas into that glass; I wonder whether any has gone in or not. I cannot tell by the appearance, but I can in this way [*introducing the taper*]. Yes, there it is, you see; and if I were to examine it by lime-water, I should find it by that test also. I will take this little bucket, and put it down into the

well of carbonic acid–indeed, we too often have real wells of carbonic acid–and now, if there is any carbonic acid, I must have got to it by this time, and it will be in this bucket, which we will examine with a taper. There it is, you see; it is full of carbonic acid.



There is another experiment by which I will show you its weight. I have here a jar suspended at one end of a balance–it is now equipoised; but when I pour this carbonic acid into the jar on the one side which now contains air, you will see it sink down at once, because of the carbonic acid that I pour into it. And now, if I examine this jar with the lighted taper, I shall find that the carbonic acid has fallen into it, and it no longer has any power of supporting the combustion. If I blow a soap-bubble, which of course will be filled with air, and let it fall into this jar of carbonic acid, it will float. But I shall first of all take one of these little balloons filled with air. I am not quite sure where the carbonic acid is; we will just try the depth, and see whereabouts is its level. There, you see, we have this bladder floating on the carbonic acid; and if I evolve some more of the carbonic acid, the bladder will be lifted up higher. There it goes–the jar is nearly full; and now I will see whether I can blow a soap-bubble on that, and float it in the same way. [*The Lecturer here blew a soap-bubble, and allowed it to fall into the jar of carbonic acid, when it floated in it midway.*] It is floating, as the balloon floated, by virtue of the greater weight of the carbonic acid than of the air. And now, having so far given you the history of the carbonic acid–as to its sources in the candle, as to its physical properties and weight–when we next meet I shall show you of what it is composed, and where it gets its elements from.

LECTURE VI

A lady who honours me by her presence at these lectures has conferred a still further obligation by sending me these two candles, which are from Japan, and, I presume, are made of that substance to which I referred in a former lecture. You see that they are even far more highly ornamented than the French candles; and, I suppose, are candles of luxury, judging from their appearance. They have a remarkable peculiarity about them, namely, a hollow wick—that beautiful peculiarity which Argand introduced into the lamp, and made so valuable. To those who receive such presents from the East, I may just say that this and such like materials gradually undergo a change which gives them on the surface a dull and dead appearance; but they may easily be restored to their original beauty, if the surface be rubbed with a clean cloth or silk handkerchief, so as to polish the little rugosity or roughness: this will restore the beauty of the colours. I have so rubbed one of these candles, and you see the difference between it and the other which has not been polished, but which may be restored by the same process. Observe, also, that these moulded candles from Japan are made more conical than the moulded candles in this part of the world.

I told you, when we last met, a good deal about carbonic acid. We found, by the lime-water test, that when the vapour from the top of the candle or lamp was received into bottles, and tested by this solution of lime-water (the composition of which I explained to you, and which you can make for yourselves), we had that white opacity which was in fact calcareous matter, like shells and corals, and many of the rocks and minerals in the earth. But I have not yet told you fully and clearly the chemical history of this substance—carbonic acid—as we have it from the candle, and I must now resume that subject. We have seen the products, and the nature of them, as they issue from the candle. We have traced the water to its elements, and now we have to see where are the elements of the carbonic acid supplied by the candle. A few experiments will show this. You remember that when a candle burns badly, it produces smoke; but if it is burning well, there is no smoke. And you know that the brightness of the candle is due to this smoke, which becomes ignited. Here is an experiment to prove this: so long as the smoke remains in the flame of the candle and becomes ignited, it gives a beautiful light, and never appears to us in the form of black particles. I will light some fuel which is extravagant in its burning. This will serve our purpose—a

little turpentine on a sponge. You see the smoke rising from it, and floating into the air in large quantities; and, remember now, the carbonic acid that we have from the candle is from such smoke as that. To make that evident to you, I will introduce this turpentine burning on the sponge into a flask where I have plenty of oxygen, the rich part of the atmosphere, and you now see that the smoke is all consumed. This is the first part of our experiment; and now, what follows? The carbon which you saw flying off from the turpentine flame in the air is now entirely burned in this oxygen, and we shall find that it will, by this rough and temporary experiment, give us exactly the same conclusion and result as we had from the combustion of the candle. The reason why I make the experiment in this manner is solely that I may cause the steps of our demonstration to be so simple that you can never for a moment lose the train of reasoning, if you only pay attention. All the carbon which is burned in oxygen, or air, comes out as carbonic acid, while those particles which are not so burned show you the second substance in the carbonic acid—namely, the carbon—that body which made the flame so bright while there was plenty of air, but which was thrown off in excess when there was not oxygen enough to burn it.

I have also to show you a little more distinctly the history of carbon and oxygen, in their union to make carbonic acid. You are now better able to understand this than before, and I have prepared three or four experiments by way of illustration. This jar is filled with oxygen, and here is some carbon which has been placed in a crucible, for the purpose of being made red-hot. I keep my jar dry, and venture to give you a result imperfect in some degree, in order that I may make the experiment brighter. I am about to put the oxygen and the carbon together. That this is carbon (common charcoal pulverized), you will see by the way in which it burns in the air [*letting some of the red-hot charcoal fall out of the crucible*]. I am now about to burn it in oxygen gas, and look at the difference. It may appear to you at a distance as if it were burning with a flame; but it is not so. Every little piece of charcoal is burning as a spark, and while it so burns it is producing carbonic acid. I specially want these two or three experiments to point out what I shall dwell upon more distinctly by and by—that carbon burns in this way, and not as a flame.

Instead of taking many particles of carbon to burn, I will take a rather large piece, which will enable you to see the form and size, and to trace the effects very decidedly. Here is the jar of oxygen, and here is the piece of charcoal, to which I have fastened a little piece of wood,

which I can set fire to, and so commence the combustion, which I could not conveniently do without. You now see the charcoal burning, but not as a flame (or if there be a flame, it is the smallest possible one, which I know the cause of–namely, the formation of a little carbonic oxide close upon the surface of the carbon). It goes on burning, you see, slowly producing carbonic acid by the union of this carbon or charcoal (they are equivalent terms) with the oxygen. I have here another piece of charcoal, a piece of bark, which has the quality of being blown to pieces–exploding as it burns. By the effect of the heat, we shall reduce the lump of carbon into particles that will fly off; still every particle, equally with the whole mass, burns in this peculiar way: it burns as a coal, and not like a flame. You observe a multitude of little combustions going on, but no flame. I do not know a finer experiment than this to show that carbon burns with a spark.

Here, then, is carbonic acid formed from its elements. It is produced at once; and if we examined it by lime-water, you will see that we have the same substance which I have previously described to you. By putting together 6 parts of carbon by weight (whether it comes from the flame of a candle or from powdered charcoal) and 16 parts of oxygen by weight, we have 22 parts of carbonic acid; and, as we saw last time, the 22 parts of carbonic acid, combined with 28 parts of lime, produced common carbonate of lime. If you were to examine an oyster-shell, and weigh the component parts, you would find that every 50 parts would give 6 of carbon and 16 of oxygen, combined with 28 of lime. However, I do not want to trouble you with these minutiae–it is only the general philosophy of the matter that we can now go into. See how finely the carbon is dissolving away [*pointing to the lump of charcoal burning quietly in the jar of oxygen*]. You may say that the charcoal is actually dissolving in the air round about; and if that were perfectly pure charcoal, which we can easily prepare, there would be no residue whatever. When we have a perfectly cleansed and purified piece of carbon, there is no ash left. The carbon burns as a solid dense body, that heat alone cannot change as to its solidity, and yet it passes away into vapour that never condenses into solid or liquid under ordinary circumstances; and what is more curious still is the fact that the oxygen does not change in its bulk by the solution of the carbon in it. Just as the bulk is at first, so it is at last, only it has become carbonic acid.

There is another experiment which I must give you before you are fully acquainted with the general nature of carbonic acid. Being a compound body, consisting of carbon and oxygen, carbonic acid is a body that

we ought to be able to take asunder. And so we can. As we did with water, so we can with carbonic acid—take the two parts asunder. The simplest and quickest way is to act upon the carbonic acid by a substance that can attract the oxygen from it, and leave the carbon behind. You recollect that I took potassium and put it upon water or ice, and you saw that it could take the oxygen from the hydrogen. Now, suppose we do something of the same kind here with this carbonic acid. You know carbonic acid to be a heavy gas. I will not test it with lime-water, as that will interfere with our subsequent experiments; but I think the heaviness of the gas and the power of extinguishing flame will be sufficient for our purpose. I introduce a flame into the gas, and you will see whether it will be put out. You see the light is extinguished. Indeed, the gas may, perhaps, put out phosphorus, which, you know, has a pretty strong combustion. Here is a piece of phosphorus heated to a high degree. I introduce it into the gas, and you observe the light is put out; but it will take fire again in the air, because there it re-enters into combustion. Now, let me take a piece of potassium, a substance which, even at common temperatures, can act upon carbonic acid, though not sufficiently for our present purpose, because it soon gets covered with a protecting coat; but if we warm it up to the burning point in air, as we have a fair right to do, and as we have done with phosphorus, you will see that it can burn in carbonic acid; and if it burns, it will burn by taking oxygen, so that you will see what is left behind. I am going, then, to burn this potassium in the carbonic acid, as a proof of the existence of oxygen in the carbonic acid. [*In the preliminary process of heating, the potassium exploded.*] Sometimes we get an awkward piece of potassium that explodes, or something like it, when it burns. I will take another piece; and now that it is heated, I introduce it into the jar, and you perceive that it burns in the carbonic acid—not so well as in the air, because the carbonic acid contains the oxygen combined; but it does burn, and takes away the oxygen. If I now put this potassium into water, I find that, besides the potash formed (which you need not trouble about), there is a quantity of carbon produced. I have here made the experiment in a very rough way; but I assure you that if I were to make it carefully, devoting a day to it, instead of five minutes, we should get all the proper amount of charcoal left in the spoon, or in the place where the potassium was burned, so that there could be no doubt as to the result. Here, then, is the carbon obtained from the carbonic acid, as a common black substance; so that you have the entire proof of the nature of carbonic acid as consisting of carbon and oxygen. And now, I may tell you, that

whenever carbon burns under common circumstances, it produces carbonic acid.

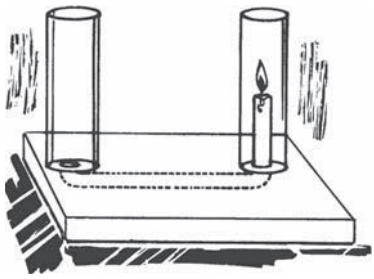
Suppose I take this piece of wood, and put it into a bottle with lime-water. I might shake that lime-water up with wood and the atmosphere as long as I pleased, it would still remain clear as you see it; but suppose I burn the piece of wood in the air of that bottle. You, of course, know I get water. Do I get carbonic acid? [*The experiment was performed.*] There it is, you see—that is to say, the carbonate of lime, which results from carbonic acid, and that carbonic acid must be formed from the carbon which comes from the wood, from the candle, or any other thing. Indeed, you have yourselves frequently tried a very pretty experiment, by which you may see the carbon in wood. If you take a piece of wood, and partly burn it, and then blow it out, you have carbon left. There are things that do not show carbon in this way. A candle does not show it, but it contains carbon. Here also is a jar of coal-gas, which produces carbonic acid abundantly. You do not see the carbon, but we can soon show it to you. I will light it, and as long as there is any gas in this cylinder it will go on burning. You see no carbon, but you see a flame; and because that is bright, it will lead you to guess that there is carbon in the flame. But I will show it to you by another process. I have some of the same gas in another vessel, mixed with a body that will burn the hydrogen of the gas, but will not burn the carbon. I will light them with a burning taper, and you perceive the hydrogen is consumed, but not the carbon, which is left behind as a dense black smoke. I hope that by these three or four experiments you will learn to see when carbon is present, and understand what are the products of combustion, when gas or other bodies are thoroughly burned in the air.

Before we leave the subject of carbon, let us make a few experiments and remarks upon its wonderful condition as respects ordinary combustion. I have shown you that the carbon in burning burns only as a solid body, and yet you perceive that, after it is burned, it ceases to be a solid. There are very few fuels that act like this. It is, in fact, only that great source of fuel, the carbonaceous series, the coals, charcoals, and woods, that can do it. I do not know that there is any other elementary substance besides carbon that burns with these conditions; and if it had not been so, what would happen to us? Suppose all fuel had been like iron, which, when it burns, burns into a solid substance. We could not then have such a combustion as you have in this fire-place. Here also is another kind of fuel which burns very well—as well as, if not better, than carbon—so well, indeed, as to take fire of itself when it is in the air, as you see

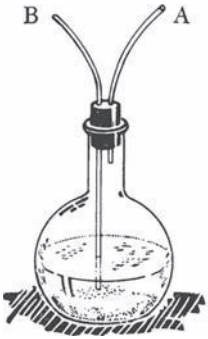
[*breaking a tube full of lead pyrophorus*]. This substance is lead, and you see how wonderfully combustible it is. It is very much divided, and is like a heap of coals in the fire-place; the air can get to its surface and inside, and so it burns. But why does it not burn in that way now, when it is lying in a mass? [*emptying the contents of the tube in a heap on to a plate of iron*]. Simply because the air cannot get to it. Though it can produce a great heat, the great heat which we want in our furnaces and under our boilers, still that which is produced cannot get away from the portion which remains unburned underneath, and that portion, therefore, is prevented from coming in contact with the atmosphere, and cannot be consumed. How different is that from carbon. Carbon burns just in the same way as this lead does, and so gives an intense fire in the furnace, or wherever you choose to burn it; but then the body produced by its combustion passes away, and the remaining carbon is left clear. I showed you how carbon went on dissolving in the oxygen, leaving no ash; whereas here [*pointing to the heap of pyrophorus*] we have actually more ash than fuel, for it is heavier by the amount of the oxygen which has united with it. Thus you see the difference between carbon and lead or iron: if we choose iron, which gives so wonderful a result in our application of this fuel, either as light or heat. If, when the carbon burnt, the product went off as a solid body, you would have had the room filled with an opaque substance, as in the case of the phosphorus; but when carbon burns, everything passes up into the atmosphere. It is in a fixed, almost unchangeable condition before the combustion; but afterwards it is in the form of gas, which it is very difficult (though we have succeeded) to produce in a solid or a liquid state.

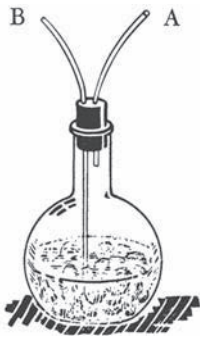
Now, I must take you to a very interesting part of our subject—to the relation between the combustion of a candle and that living kind of combustion which goes on within us. In every one of us there is a living process of combustion going on very similar to that of a candle; and I must try to make that plain to you. For it is not merely true in a poetical sense—the relation of the life of man to a taper; and if you will follow, I think I can make this clear. In order to make the relation very plain, I have devised a little apparatus which we can soon build up before you. Here is a board and a groove cut in it, and I can close the groove at the top part by a little cover. I can then continue the groove as a channel by a glass tube at each end, there being a free passage through the whole. Suppose I take a taper or candle (we can now be liberal in our use of the word "candle," since we understand what it means), and place it in one of the tubes; it will go on, you see, burning very well. You observe

that the air which feeds the flame passes down the tube at one end, then goes along the horizontal tube, and ascends the tube at the other end in which the taper is placed. If I stop the aperture through which the air enters, I stop combustion, as you perceive. I stop the supply of air, and consequently the candle goes out. But, now, what will you think of this fact? In a former experiment I showed you the air going from one burning candle to a second candle. If I took the air proceeding from another candle, and sent it down by a complicated arrangement into this tube, I should put this burning candle out. But what will you say when I tell you that my breath will put out that candle? I do not mean by blowing at all, but simply that the nature of my breath is such that a candle cannot burn in it. I will now hold my mouth over the aperture, and without blowing the flame in any way, let no air enter the tube but what comes from my mouth. You see the result. I did not blow the candle out. I merely let the air which I expired pass into the aperture, and the result was that the light went out for want of oxygen, and for no other reason. Something or other–namely, my lungs–had taken away the oxygen from the air, and there was no more to supply the combustion of the candle. It is, I think, very pretty to see the time it takes before the bad air which I throw into this part of the apparatus has reached the candle. The candle at first goes on burning, but so soon as the air has had time to reach it, it goes out. And, now, I will show you another experiment, because this is an important part of our philosophy. Here is a jar which contains fresh air, as you can see by the circumstance of a candle or gas-light burning it. I make it close for a little time, and by means of a pipe I get my mouth over it so that I can inhale the air. By putting it over water, in the way that you see, I am able to draw up this air (supposing the cork to be quite tight), take it into my lungs, and throw it back into the jar. We can then examine it, and see the result. You observe, I first take up the air, and



then throw it back, as is evident from the ascent and descent of the water; and now, by putting a taper into the air, you will see the state in which it is, by the light being extinguished. Even one inspiration, you see, has completely spoiled this air, so that it is no use my trying to breathe it a second time. Now, you understand the ground of the impropriety of many of the arrangements among the houses of the poorer classes, by which the air is breathed over and over again, for the want of a supply, by means of proper ventilation, sufficient to produce a good result. You see how bad the air becomes by a single breathing; so that you can easily understand how essential fresh air is to us.





To pursue this a little further, let us see what will happen with lime-water. Here is a globe which contains a little lime-water, and it is so arranged as regards the pipes, as to give access to the air within, so that we can ascertain the effect of respired or unrespired air upon it. Of course, I can either draw in air [*through* A], and so make the air that feeds my lungs go through the lime-water, or I can force the air out of my lungs through the tube [B], which goes to the bottom, and so show its effect upon the lime-water. You will observe that, however long I draw the external air into the lime-water, and then through it to my lungs, I shall produce no effect upon the water—it will not make the lime-water turbid; but if I throw the air *from* my lungs through the lime-water, several times in succession, you see how white and milky the water is getting, showing the effect which expired air has had upon it; and now you begin to know that the atmosphere which we have spoiled by respiration is spoiled by carbonic acid, for you see it here in contact with the lime-water.

I have here two bottles, one containing lime-water and the other common water, and tubes which pass into the bottles and connect them. The apparatus is very rough, but it is useful notwithstanding. If I take these two bottles, inhaling here and exhaling there, the arrangement of the tubes will prevent the air going backwards. The air coming in will go to my mouth and lungs, and in going out, will pass through the lime-water, so that I can go on breathing and making an experiment, very refined in its nature, and very good in its results. You will ob-

serve that the good air has done nothing to the lime-water; in the other case nothing has come to the lime-water but my respiration, and you see the difference in the two cases.

Let us now go a little further. What is all this process going on within us which we cannot do without, either day or night, which is so provided for by the author of all things that He has arranged that it shall be independent of all will? If we restrain our respiration, as we can to a certain extent, we should destroy ourselves. When we are asleep, the organs of respiration, and the parts that are associated with them, still go on with their action—so necessary is this process of respiration to us, this contact of the air with the lungs. I must tell you, in the briefest possible manner, what this process is. We consume food; the food goes through that strange set of vessels and organs within us, and is brought into various parts of the system, into the digestive parts especially; and alternately the portion which is so changed is carried through our lungs by one set of vessels, while the air that we inhale and exhale is drawn into and thrown out of the lungs by another set of vessels, so that the air and the food come close together, separated only by an exceedingly thin surface: the air can thus act upon the blood by this process, producing precisely the same results in kind as we have seen in the case of the candle. The candle combines with parts of the air, forming carbonic acid, and evolves heat; so in the lungs there is this curious, wonderful change taking place. The air entering, combines with the carbon (not carbon in a free state, but, as in this case, placed ready for action at the moment), and makes carbonic acid, and is so thrown out into the atmosphere, and thus this singular result takes place: we may thus look upon the food as fuel. Let me take that piece of sugar, which will serve my purpose. It is a compound of carbon, hydrogen, and oxygen, similar to a candle, as containing the same elements, though not in the same proportion—the proportions being as shown in this table:

Sugar		
Carbon	72	
Hydrogen	11	99
Oxygen	88	

This is, indeed, a very curious thing, which you can well remember, for

the oxygen and hydrogen are in exactly the proportions which form water, so that sugar may be said to be compounded of 72 parts of carbon and 99 parts of water; and it is the carbon in the sugar that combines with the oxygen carried in by the air in the process of respiration—so making us like candles—producing these actions, warmth, and far more wonderful results besides, for the sustenance of the system, by a most beautiful and simple process. To make this still more striking, I will take a little sugar; or, to hasten the experiment, I will use some syrup, which contains about three-fourths of sugar and a little water. If I put a little oil of vitriol on it, it takes away the water, and leaves the carbon in a black mass. [*The Lecturer mixed the two together.*] You see how the carbon is coming out, and before long we shall have a solid mass of charcoal, all of which has come out of sugar. Sugar, as you know, is food, and here we have absolutely a solid lump of carbon where you would not have expected it. And if I make arrangements so as to oxidize the carbon of sugar, we shall have a much more striking result. Here is sugar, and I have here an oxidizer—a quicker one than the atmosphere; and so we shall oxidize this fuel by a process different from respiration in its form, though not different in its kind. It is the combustion of the carbon by the contact of oxygen which the body has supplied to it. If I set this into action at once, you will see combustion produced. Just what occurs in my lungs—taking in oxygen from another source, namely, the atmosphere—takes place here by a more rapid process.

You will be astonished when I tell you what this curious play of carbon amounts to. A candle will burn some four, five, six, or seven hours. What, then, must be the daily amount of carbon going up into the air in the way of carbonic acid! What a quantity of carbon must go from each of us in respiration! What a wonderful change of carbon must take place under these circumstances of combustion or respiration! A man in twenty-four hours converts as much as seven ounces of carbon into carbonic acid; a milch-cow will convert seventy ounces, and a horse seventy-nine ounces, solely by the act of respiration. That is, the horse in twenty-four hours burns seventy-nine ounces of charcoal, or carbon, in his organs of respiration, to supply his natural warmth in that time. All the warm-blooded animals get their warmth in this way, by the conversion of carbon, not in a free state, but in a state of combination. And what an extraordinary notion this gives us of the alterations going on in our atmosphere. As much as 5,000,000 pounds, or 548 tons, of carbonic acid is formed by respiration in London alone in twenty-four hours. And where does all this go? Up into the air. If the carbon had been like

the lead which I showed you, or the iron which, in burning, produces a solid substance, what would happen? Combustion could not go on. As charcoal burns, it becomes a vapour and passes off into the atmosphere, which is the great vehicle, the great carrier for conveying it away to other places. Then, what becomes of it? Wonderful is it to find that the change produced by respiration, which seems so injurious to us (for we cannot breathe air twice over), is the very life and support of plants and vegetables that grow upon the surface of the earth. It is the same also under the surface, in the great bodies of water; for fishes and other animals respire upon the same principle, though not exactly by contact with the open air.

Such fish as I have here [*pointing to a globe of gold-fish*] respire by the oxygen which is dissolved from the air by the water, and from carbonic acid; and they all move about to produce the one great work of making the animal and vegetable kingdoms subservient to each other. And all the plants growing upon the surface of the earth, like that which I have brought here to serve as an illustration, absorb carbon. These leaves are taking up their carbon from the atmosphere, to which we have given it in the form of carbonic acid, and they are growing and prospering. Give them a pure air like ours, and they could not live in it; give them carbon with other matters, and they live and rejoice. This piece of wood gets all its carbon, as the trees and plants get theirs, from the atmosphere, which, as we have seen, carries away what is bad for us and at the same time good for them—what is disease to the one being health to the other. So are we made dependent, not merely upon our fellow-creatures, but upon our fellow-existers, all Nature being tied together by the laws that make one part conduce to the good of another.

There is another little point which I must mention before we draw to a close—a point which concerns the whole of these operations, and most curious and beautiful it is to see it clustering upon and associated with the bodies that concern us—oxygen, hydrogen, and carbon, in different states of their existence. I showed you just now some powdered lead, which I set burning;[18] and you saw that the moment the fuel was brought to the air, it acted, even before it got out of the bottle—the moment the air crept in, it acted. Now, there is a case of chemical affinity by which all our operations proceed. When we breathe, the same operation is go-

18. Lead pyrophorus is made by heating dry tartrate of lead in a glass tube (closed at one end, and drawn out to a fine point at the other) until no more vapours are evolved. The open end of the tube is then to be sealed before the blow-pipe. When the tube is broken and the contents shaken out into the air, they burn with a red flash.

ing on within us. When we burn a candle, the attraction of the different parts one to the other is going on. Here it is going on in this case of the lead; and it is a beautiful instance of chemical affinity. If the products of combustion rose off from the surface, the lead would take fire, and go on burning to the end; but you remember that we have this difference between charcoal and lead–that, while the lead can start into action at once, if there be access of air to it, the carbon will remain days, weeks, months, or years. The manuscripts of Herculaneum were written with carbonaceous ink, and there they have been for 1,800 years or more, not having been at all changed by the atmosphere, though coming in contact with it under various circumstances. Now, what is the circumstance which makes the lead and carbon differ in this respect? It is a striking thing to see that the matter which is appointed to serve the purpose of fuel *waits* in its action: it does not start off burning, like the lead and many other things that I could show you, but which I have not encumbered the table with; but it waits for action. This waiting is a curious and wonderful thing. Candles–those Japanese candles, for instance–do not start into action at once, like the lead or iron (for iron finely divided does the same thing as lead), but there they wait for years, perhaps for ages, without undergoing any alteration. I have here a supply of coal-gas. The jet is giving forth the gas, but you see it does not take fire–it comes out into the air, but it waits till it is hot enough before it burns. If I make it hot enough, it takes fire. If I blow it out, the gas that is issuing forth waits till the light is applied to it again. It is curious to see how different substances wait–how some will wait till the temperature is raised a little, and others till it is raised a good deal. I have here a little gunpowder and some gun-cotton; even these things differ in the conditions under which they will burn. The gunpowder is composed of carbon and other substances, making it highly combustible; and the gun-cotton is another combustible preparation. They are both waiting, but they will start into activity at different degrees of heat, or under different conditions. By applying a heated wire to them, we shall see which will start first [*touching the gun-cotton with the hot iron*]. You see the gun-cotton has gone off, but not even the hottest part of the wire is now hot enough to fire the gunpowder. How beautifully that shows you the difference in the degree in which bodies act in this way! In the one case the substance will wait any time until the associated bodies are made active by heat; but in the other, as in the process of respiration, it waits no time. In the lungs, as soon as the air enters, it unites with the carbon; even in the lowest temperature which the body can bear short of being frozen, the action

begins at once, producing the carbonic acid of respiration: and so all things go on fitly and properly. Thus you see the analogy between respiration and combustion is rendered still more beautiful and striking. Indeed, all I can say to you at the end of these lectures (for we must come to an end at one time or other) is to express a wish that you may, in your generation, be fit to compare to a candle; that you may, like it, shine as light to those about you; that, in all your actions, you may justify the beauty of the taper by making your deeds honourable and effectual in the discharge of your duty to your fellow-men.

Dmitri Mendeleev

1834–1907

Dmitri Ivanovich Mendeleev (or Mendeleyev) was the youngest of seventeen children. He was born at Tobolsk, Siberia, in 1834. He studied science at St. Petersburg, where he graduated in chemistry. He studied further abroad with Regnault and Bunsen, inventor of the famous burner. He was made professor of chemistry at the University of St. Petersburg, but in 1890 he resigned the position to become Director of the Bureau of Weights and Measures. There he remained until his death.

His best known work was on the periodic law of the elements, but he did important research in many branches of chemistry. He studied the nature of solutions and investigated the expansion of liquids when heated. He studied the origins of petroleum, and he speculated on the nature of the ether, that will-o'-the-wisp of nineteenth-century physics. He wrote *The Principles of Chemistry* in 1868–70. It is a standard work which has gone through many editions in a number of languages. The following selection is often printed as an appendix.

Mendeleev was also one of the great teachers of his time. His lecture room was always crowded. Many of his auditors found it difficult to keep up with him. The subject was difficult, his reasoning tight; he wasted no words. These are characteristics of the selection that follows. Yet it was said that all of his listeners gained from him "a lesson in scientific thinking." He died in St. Petersburg in 1907.

The atomic theory was first proposed by such ancient writers as Democritus and Lucretius. Dalton, the English chemist, revived it in the 18th century to explain chemical reactions. In the beginning of

the 19th century, the distinction between chemical elements—that is, substances which could not be broken down into components—and compounds became clear. But the atomic hypothesis was not enough in itself. Given a group of apparently unrelated chemical elements, it was desirable to put them in some sort of order. Many men tried to do this, but Mendeleev was the first to suggest an adequate arrangement.

He describes the "three series of data without the knowledge of which the periodic law could not have been discovered." None of these was gathered by Mendeleev. His effort was synthetic rather than analytical. The periodic law was, he says, "a direct outcome of the stock of generalizations and established facts which had accumulated by . . . 1870." Still, the law was a very great discovery. Why was this so? And why was Mendeleev's formulation of the relation between the elements preferred to those that had gone before?

Mendeleev lists eight considerations which led him to propose the law. The sixth is the most important. He was able to predict that elements of a certain weight would be found, though they were not yet known. On his hypothesis, he predicted the existence, and a number of the properties, of elements which he called eka-boron, eka-aluminum, eka-silicon, eka-manganese, dvi-manganese and eka-tantalum. ("Eka" means "one," "dvi" means "two." Thus the words are in effect like mathematical subscripts.) These hypothetical elements were soon discovered: they are now called, respectively, scandium, gallium, germanium, technetium, rhenium, and protactinium. Mendeleev's hypothesis was thus triumphantly validated.

It was recognized after Mendeleev's death, due to the work of such men as Planck, Einstein, Bohr, and others, that the order of elements in the periodic table corresponds to their atomic numbers, and that these in turn depend on the number of protons in the atomic nuclei. But this new knowledge has not contradicted the old law; in fact, it has increased its value. The periodic law, the genesis of which is described in this selection, is one of the fundamentals of modern science.

The Genesis of a Law of Nature

from *The Periodic Law of the Chemical Elements*

Before one of the oldest and most powerful of (scientific societies) I am about to take the liberty of passing in review the 20 years' life of a generalization which is known under the name of the Periodic Law. It was in March, 1869, that I ventured to lay before the then youthful Russian Chemical Society the ideas upon the same subject which I had expressed in my just written *Principles of Chemistry*.

Without entering into details, I will give the conclusions I then arrived at in the very words I used:

1. The elements, if arranged according to their atomic weights, exhibit an evident *periodicity* of properties.

2. Elements which are similar as regards their chemical properties have atomic weights which are either of nearly the same value (*e.g.* platinum, iridium, osmium) or which increase regularly (*e.g.* potassium, rubidium, caesium).

3. The arrangement of the elements, or of groups of elements, in the order of their atomic weights, corresponds to their so-called *valencies* as well as, to some extent, to their distinctive chemical properties—as is apparent, among other series, in that of lithium, beryllium, barium, carbon, nitrogen, oxygen, and iron.

4. The elements which are the most widely diffused have small atomic weights.

5. The *magnitude* of the atomic weight determines the character of the element, just as the magnitude of the molecule determines the character of a compound.

6. We must expect the discovery of many yet *unknown* elements—

for example, elements analogous to aluminium and silicon, whose atomic weight would be between 65 and 75.

7. The atomic weight of an element may sometimes be amended by a knowledge of those of the contiguous elements. Thus, the atomic weight of tellurium must lie between 123 and 126, and cannot be 128.

8. Certain characteristic properties of the elements can be foretold from their atomic weights.

The aim of this communication will be fully attained if I succeed in drawing the attention of investigators to those relations which exist between the atomic weights of dissimilar elements, which, as far as I know, have hitherto been almost completely neglected. I believe that the solution of some of the most important problems of our science lies in researches of this kind.

To-day, twenty years after the above conclusions were formulated, they may still be considered as expressing the essence of the now well-known periodic law.

Reverting to the epoch terminating with the sixties, it is proper to indicate three series of data without the knowledge of which the periodic law could not have been discovered, and which rendered its appearance natural and intelligible.

In the first place, it was at that time that the numerical value of atomic weights became definitely known. Ten years earlier such knowledge did not exist, as may be gathered from the fact that in 1860 chemists from all parts of the world met at Karlsruhe in order to come to some agreement, if not with respect to views relating to atoms, at any rate as regards their definite representation. Many of those present probably remember how vain were the hopes of coming to an understanding, and how much ground was gained at that congress by the followers of the unitary theory so brilliantly represented by Cannizzaro. I vividly remember the impression produced by his speeches, which admitted of no compromise, and seemed to advocate truth itself, based on the conceptions of Avogadro, Gerhardt, and Regnault, which at that time were far from being generally recognized. And though no understanding could be arrived at, yet the objects of the meeting were attained, for the ideas of Cannizzaro proved, after a few years, to be the only ones which could stand criticism, and which represented an atom as—"the smallest portion of an element which enters into a molecule of its compound." Only such real atomic weights—not conventional ones—could af-

ford a basis for generalization. It is sufficient, by way of example, to indicate the following cases in which the relation is seen at once and is perfectly clear:

K = 39	Rb = 85	Cs = 133
Ca = 40	Sr = 87	Ba = 137

whereas with the equivalents then in use–

K = 39	Rb = 85	Cs = 133
Ca = 20	Sr = 43.5	Ba = 68.5

the consecutiveness of change in atomic weights, which with the true values is so evident, completely disappears.

Secondly, it had become evident during the period 1860–70, and even during the preceding decade, that the relations between the atomic weights of analogous elements were governed by some general and simple laws. Cooke, Cremers, Gladstone, Gmelin, Lenssen, Pettenkofer, and especially Dumas, had already established many facts bearing on that view. Thus Dumas compared the following groups of analogous elements with organic radicals:

Diff.	Diff.	Diff.	Diff.
Li = 7 } 16	Mg = 12 } 8	P = 31 } 44	O = 8 } 8
Na = 23 }	Ca = 20 } 3 × 8	As = 75 } 44	S = 16 } 3 × 8
K = 39 } 16	Sr = 44 } 3 × 8	Sb = 119 } 2 × 44	Se = 40 } 3 × 8
	Ba = 68 }	Bi = 207 }	Te = 64 }

Distribution of the Elements

Group	I		II		III		IV	
Series								
1	Hydrogen	1	___		___		___	
2	Lithium	7	Beryllium	9	Boron	11	Carbon	12
3	Sodium	23	Magnesium	24	Aluminum	27	Silicon	28
4	Potassium	39	Calcium	40	Scandium	44	Titanium	48
5	Copper	63	Zinc	65	Gallium	70	Germanium	72
6	Rubidium	85	Strontium	87	Yttrium	89	Zirconium	91
7	Silver	108	Cadmium	112	Indium	113	Tin	118
8	Caesium	133	Barium	137	Lanthanum	138	Cerium	140
9	___		___		___		___	
10	___		___		Ytterbium	173	___	
11	Gold	198	Mercury	200	Thallium	204	Lead	206
12	___		___		___		Thorium	232

and pointed out some really striking relationships, such as the following:

$$\begin{aligned} F &= 19 \\ Cl &= 35.5 = 19 + 16.5 \\ Br &= 80 = 19 + (2 \times 16.5) + 28 \\ I &= 127 = (2 \times 19) + (2 \times 16.5) + (2 \times 28). \end{aligned}$$

A. Strecker, in his work *Theorien und Experimente zur Bestimmung der Atomgewichte der Elemente* (Braunschweig, 1859), after summarizing the data relating to the subject, and pointing out the remarkable series of equivalents–Cr = 26.2 Mn = 27.6 Fe = 28 Ni = 29 Co = 30 Cu = 31.7 Zn = 32.5

remarks that: "It is hardly probable that all the above-mentioned relations between the atomic weights (or equivalents) of chemically analogous elements are merely accidental. We must, however, leave to the future the discovery of the *law* of the relations which appear in these figures."

In such attempts at arrangement and in such views are to be recognized the real forerunners of the periodic law; the ground was prepared for it between 1860 and 1870, and that it was not expressed in a determinate form before the end of the decade may, I suppose, be ascribed to the fact that only analogous elements had been compared. The idea of seeking for a relation between the atomic weights of all elements was foreign to the ideas then current, so that neither the *vis tellurique* [telluric screw] of De Chancourtois, nor the *law of octaves* of Newlands, could secure anybody's attention. And yet both De Chancourtois and Newlands, like Dumas and Strecker, more than Lenssen and Petten-

in Groups and Series

V	VI	VII	VIII
——	——	——	——
Nitrogen 14	Oxygen 16	Fluorine 19	
Phosphorus 31	Sulphur 32	Chlorine 35	
Vanadium 51	Chromium 52	Manganese 55	Iron 56 Cobalt 58 Nickel 59
Arsenic 75	Selenium 79	Bromine 80	
Niobium 94	Molybdenum 96	——	Ruthen- ium 103 Rhodium 104 Pallad- ium 106
Antimony 120	Tellurium 125	Iodine 127	
Didymium?	——	——	—— —— ——
——	——	——	
Tantalum 182	Tungsten 185	——	Osmium 191 Iridium 193 Platinum 196
Bismuth 208	——	——	
——	Uranium 240	——	

kofer, had made an approach to the periodic law and had discovered its germs. The solution of the problem advanced but slowly, because the facts, and not the law, stood foremost in all attempts; and the law could not awaken a general interest so long as elements, having no apparent connection with each other, were included in the same octave, as for example:

1st octave of Newlands	H	F	Cl	Co and Ni	Br	Pd	I	Pt & Ir
7th ditto	O	S	Fe	Se	Rh & Ru	Te	Au	Os or Th

Analogies of the above order seemed quite accidental, and the more so as the octave contained occasionally ten elements instead of eight, and when two such elements as Ba and V, Co and Ni, or Rh and Ru, occupied one place in the octave. Nevertheless, the fruit was ripening, and I now see clearly that Strecker, De Chancourtois, and Newlands stood foremost in the way towards the discovery of the periodic law, and that they merely wanted the boldness necessary to place the whole question at such a height that its reflection on the facts could be clearly seen.

A third circumstance which revealed the periodicity of chemical elements was the accumulation, by the end of the sixties, of new information respecting the rare elements, disclosing their many-sided relations to the other elements and to each other. The researches of Marignac on niobium, and those of Roscoe on vanadium, were of special moment. The striking analogies between vanadium and phosphorus on the one hand, and between vanadium and chromium on the other, which became so apparent in the investigations connected with that element, naturally induced the comparison of V = 51 with Cr = 52, Nb = 94 with Mo = 96, and Ta = 192 with W = 194; while, on the other hand, P = 31 could be compared with S = 32, As = 75 with Se = 79, and Sb = 120 with Te = 125. From such approximations there remained but one step to the discovery of the law of periodicity.

The law of periodicity was thus a direct outcome of the stock of generalizations and established facts which had accumulated by the end of the decade 1860–1870: it is the embodiment of those data in a more or less systematic expression.

The foregoing is a selection from the Faraday Lecture delivered before the Fellows of the Chemical Society at the Royal Institution, June 4, 1889.

H. L. F. von Helmholtz

1821–1894

Hermann Ludwig Ferdinand von Helmholtz was born at Potsdam, Germany, in 1821. He studied at Berlin and held various professorships at Potsdam, Königsberg (in physiology), Bonn (in anatomy and physiology), Heidelberg (in physiology), and Berlin (in physics). He was named director of the Physicotechnical Institute at Charlottenburg, near Berlin, 1887, and held this position as well as his Berlin professorship until his death.

Helmholtz did work in most areas of nineteenth-century science. In this respect, he was remarkable even in an age when many scientists ranged much more widely in their researches than they now do. His most important early paper was on the conservation of energy; the essay that follows is a popular exposition of some of the conclusions described therein. In 1851 he invented the ophthalmoscope, and with it investigated the mechanism of sight. He collected his researches in a book, *Physiological Optics* (1856–66), which was the most important work on the physics of vision to have appeared until that time. He then turned his attention to acoustics. He explained the mechanism of the ear and attempted to account for our sensations of tone. He showed that these depend on the order, number and intensity of the overtones, or harmonics, which constitute a part of the structure of musical notes. His book *The Sensations of Tone* (1862) is said to be the principia of physiological acoustics.

In his later years, Helmholtz did work on the conservation of energy, hydrodynamics, electrodynamics, meteorology, optics, and the abstract principles of dynamics. He also wrote and lectured on philosophical and aesthetic problems. He died on September 8, 1894.

The mathematician W. K. Clifford paid tribute to Helmholtz for his remarkable ability to make important contributions in fields far

removed from that of his own special competence. Helmholtz was, Clifford wrote, "the physiologist who learned physics for the sake of his physiology, and mathematics for the sake of his physics, and is now in the first rank of all three."

The title of the following very famous essay is a little misleading. Helmholtz is here not writing primarily of force but of energy, or work. Work is the product of a force times the distance over which the force acts. The modern term for this quantity is kinetic energy, and the modern title of the essay would be "The Conservation of Energy."

"The total quantity of all the forces capable of work in the whole universe remains eternal and unchanged throughout all their changes," writes Helmholtz. This is the famous law of the conservation of energy, the so-called first law of thermodynamics. The relation of this law to the second law of thermodynamics, and entropy, is discussed in *The Running-down of the Universe*, by A. S. Eddington.

Helmholtz' researches into the nature of energy conversion were of prime importance. When he was a young doctor, the prevailing biological theory was vitalism.[1] Helmholtz came to the conclusion that vitalism must violate natural laws, because the vital force did not require any energy, and its operation seemed to him to imply perpetual motion. He decided that the question consisted in whether the force—the sum of the mechanical energy plus heat—produced by an organism was or was not solely the result of the digestion of foods by the organism. He concluded that the question must be answered in the affirmative. He collected his researches in

[1] For a discussion of vitalism see the Introductory note to Wöhler's *On the Artificial Production of Urea*, Vol. 8, pp. 310–311, in this set, and Claude Bernard, *Experimental Considerations Common to Living Things and to Inorganic Bodies*, Vol. 8, pp. 266–290, in this set.

Notes from the artist: "The profile of Helmholtz is enclosed by some of the instruments he used in his study of sound. Also included are the ophthalmoscope, which he invented, and a diagram of the bony cochlea of the ear."

von Helmholtz

the early paper, *On the Conservation of Force* (1847), which is the source of the following essay.

Helmholtz' work was not entirely original. Eighteenth-century physicists such as Bernoulli, Euler, d'Alembert, and La Grange had extended the principle of the conservation of energy from simple machines to the actions of all mechanical systems in the universe. Helmholtz gives credit to Rumford and Davy, and especially to Robert Mayer and Joule, for their extension of it to living beings. But Helmholtz' paper had a great influence. After its publication, the principle gained wider and wider acceptance. In particular, it went far toward convincing physicists that perpetual motion was impossible. And the popular essays which Helmholtz subsequently wrote on this subject helped laymen and scientists alike to understand the change to the new mechanical theory of heat from the older caloric theory—the idea that heat was a substance. This change in theories is discussed by Einstein and Infeld in "The Rise and Decline of Classical Physics." [2]

Max Planck in his *Scientific Autobiography* recalled that Helmholtz was a disappointing classroom lecturer. To others, however, and later even to Planck, who became his colleague at Berlin, he was a superior teacher. And Helmholtz took seriously the task of interpreting science to the general public, for he was disturbed by the split, which has perhaps grown even wider since his time, between scientists and what are now called humanists. He was a clear and patient writer, and he searched his mind for interesting and illuminating examples which would be meaningful to his readers. These virtues, which are by no means shared by all writers of popular scientific exposition, are much in evidence in the following selection.

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[2] See Vol. 8, pp. 490–560, in this set.

On the Conservation of Force

s I have undertaken to deliver here a series of lectures, I think the best way in which I can discharge that duty will be to bring before you, by means of a suitable example, some view of the special character of those sciences to the study of which I have devoted myself. The natural sciences, partly in consequence of their practical applications, and partly from their intellectual influence on the last four centuries, have so profoundly, and with such increasing rapidity, transformed all the relations of the life of civilized nations; they have given these nations such increase of riches, of enjoyment of life, of the preservation of health, of means of industrial and of social intercourse, and even such increase of political power, that every educated man who tries to understand the forces at work in the world in which he is living, even if he does not wish to enter upon the study of a special science, must have some interest in that peculiar kind of mental labor, which works and acts in the sciences in question.

On a former occasion I have already discussed the characteristic differences which exist between the natural and the mental sciences as regards the kind of scientific work. I then endeavored to show that it is more especially in the thorough conformity with law which natural phenomena and natural products exhibit, and in the comparative ease with which laws can be stated, that this difference exists. Not that I wish by any means to deny, that the mental life of individuals and peoples is also in conformity with law, as is the object of philosophical, philological, historical, moral, and social sciences to establish. But in mental life, the influences are so interwoven, that any definite sequence can but seldom be demonstrated. In nature the converse is the case. It has been possible to discover the law of the origin and progress of many enormously extended series of natural phenomena with such ac-

curacy and completeness that we can predict their future occurrence with the greatest certainty; or in cases in which we have power over the conditions under which they occur, we can direct them just according to our will. The greatest of all instances of what the human mind can effect by means of a well-recognized law of natural phenomena is that afforded by modern astronomy. The one simple law of gravitation regulates the motions of the heavenly bodies not only of our own planetary system, but also of the far more distant double stars; from which, even the ray of light, the quickest of all messengers, needs years to reach our eye; and, just on account of this simple conformity with law, the motions of the bodies in question can be accurately predicted and determined both for the past and for future years and centuries to a fraction of a minute.

On this exact conformity with law depends also the certainty with which we know how to tame the impetuous force of steam, and to make it the obedient servant of our wants. On this conformity depends, moreover, the intellectual fascination which chains the physicist to his subjects. It is an interest of quite a different kind to that which mental and moral sciences afford. In the latter it is man in the various phases of his intellectual activity who chains us. Every great deed of which history tells us, every mighty passion which art can represent, every picture of manners, of civic arrangements, of the culture of peoples of distant lands or of remote times, seizes and interests us, even if there is no exact scientific connection among them. We continually find points of contact and comparison in our conceptions and feelings; we get to know the hidden capacities and desires of the mind, which in the ordinary peaceful course of civilized life remain unawakened.

It is not to be denied that, in the natural sciences, this kind of interest is wanting. Each individual fact, taken by itself, can indeed arouse our curiosity or our astonishment, or be useful to us in its practical applications. But intellectual satisfaction we obtain only from a connection of the whole, just from its conformity with law. *Reason* we call that faculty innate in us of discovering laws and applying them with thought. For the unfolding of the peculiar forces of pure reason in their entire certainty and in their entire bearing, there is no more suitable arena than inquiry into nature in the wider sense, the mathematics included. And it is not only the pleasure at the successful activity of one of our most essential mental powers; and the victorious subjections to the power of our thought and will of an external world, partly unfamiliar, and partly hostile, which is the reward of this labor; but there is a kind, I might almost say, of artistic satisfaction, when we are able to

survey the enormous wealth of nature as a regularly ordered whole–a cosmos, an image of the logical thought of our own mind.

The last decades of scientific development have led us to the recognition of a new universal law of all natural phenomena, which, from its extraordinarily extended range, and from the connection which it constitutes between natural phenomena of all kinds, even of the remotest times and the most distant places, is especially fitted to give us an idea of what I have described as the character of the natural sciences, which I have chosen as the subject of this lecture.

This law is *the law of the conservation of force*, a term the meaning of which I must first explain. It is not absolutely new; for individual domains of natural phenomena it was enunciated by Newton and Daniel Bernoulli; and Rumford and Humphry Davy have recognized distinct features of its presence in the laws of heat.

The possibility that it was of universal application was first stated by Dr. Julius Robert Mayer, a Schwabian physician (now living in Heilbronn), in the year 1842, while almost simultaneously with, and independently of him, James Prescott Joule, an English manufacturer, made a series of important and difficult experiments on the relation of heat to mechanical force, which supplied the chief points in which the comparison of the new theory with experience was still wanting.

The law in question asserts that the *quantity of force which can be brought into action in the whole of nature is unchangeable*, and can neither be increased nor diminished. My first object will be to explain to you what is understood by *quantity of force;* or, as the same idea is more popularly expressed with reference to its technical application, what we call *amount of work* in the mechanical sense of the word.

The idea of work for machines, or natural processes, is taken from comparison with the working power of man; and we can therefore best illustrate from human labor the most important features of the question with which we are concerned. In speaking of the work of machines and of natural forces we must, of course, in this comparison eliminate anything in which activity of intelligence comes into play. The latter is also capable of the hard and intense work of thinking, which tries a man just as muscular exertion does. But whatever of the actions of intelligence is met with in the work of machines, of course is due to the mind of the constructor and cannot be assigned to the instrument at work.

Now, the external work of man is of the most varied kind as regards the force or ease, the form and rapidity, of the motions used on it, and the kind of work produced. But both the arm of the blacksmith who

delivers his powerful blows with the heavy hammer, and that of the violinist who produces the most delicate variations in sound, and the hand of the lace-maker who works with threads so fine that they are on the verge of the invisible, all these acquire the force which moves them in the same manner and by the same organs, namely, the muscles of the arms. An arm the muscles of which are lamed is incapable of doing any work; the moving force of the muscle must be at work in it, and these must obey the nerves, which bring to them orders from the brain. That member is then capable of the greatest variety of motions; it can compel the most varied instruments to execute the most diverse tasks.

Just so it is with machines: they are used for the most diversified arrangements. We produce by their agency an infinite variety of movements, with the most various degrees of force and rapidity, from powerful steam hammers and rolling mills, where gigantic masses of iron are cut and shaped like butter, to spinning and weaving frames, the work of which rivals that of the spider. Modern mechanism has the richest choice of means of transferring the motion of one set of rolling wheels to another with greater or less velocity; of changing the rotating motion of wheels into the up-and-down motion of the piston rod, of the shuttle, of falling hammers and stamps; or, conversely, of changing the latter into the former; or it can, on the other hand, change movements of uniform into those of varying velocity, and so forth. Hence this extraordinarily rich utility of machines for so extremely varied branches of industry. But one thing is common to all these differences; they all need a *moving force*, which sets and keeps them in motion, just as the works of the human hand all need the moving force of the muscles.

Now, the work of the smith requires a far greater and more intense exertion of the muscles than that of the violin player; and there are in machines corresponding differences in the power and duration of the moving force required. These differences, which correspond to the different degree of exertion of the muscles in human labor, are alone what we have to think of when we speak of the *amount of work* of a machine. We have nothing to do here with the manifold character of the actions and arrangements which the machines produce; we are only concerned with an expenditure of force.

This very expression which we use so fluently, "expenditure of force," which indicates that the force applied has been expended and lost, leads us to a further characteristic analogy between the effects of the human arm and those of machines. The greater the exertion, and the longer it lasts, the more is the arm *tired*, and the more *is the store of its*

moving force for the time exhausted. We shall see that this peculiarity of becoming exhausted by work is also met with in the moving forces of inorganic nature; indeed, that this capacity of the human arm of being tired is only one of the consequences of the law with which we are now concerned. When fatigue sets in, recovery is needed, and this can only be effected by rest and nourishment. We shall find that also in the inorganic moving forces, when their capacity for work is spent, there is a possibility of reproduction, although in general other means must be used to this end than in the case of the human arm.

From the feeling of exertion and fatigue in our muscles, we can form a general idea of what we understand by amount of work; but we must endeavor, instead of the indefinite estimate afforded by this comparison, to form a clear and precise idea of the standard by which we have to measure the amount of work. This we can do better by the simplest inorganic moving forces than by the actions of our muscles, which are a very complicated apparatus, acting in an extremely intricate manner.

Let us now consider that moving force which we know best, and which is simplest—gravity. It acts, for example, as such in those clocks which are driven by a weight. This weight, fastened to a string, which is wound round a pulley connected with the first toothed wheel of the clock, cannot obey the pull of gravity without setting the whole clockwork in motion. Now I must beg you to pay special attention to the following points: the weight cannot put the clock in motion without itself sinking; did the weight not move, it could not move the clock, and its motion can only be such a one as obeys the action of gravity. Hence, if the clock is to go, the weight must continually sink lower and lower, and must at length sink so far that the string which supports it is run out. The clock then stops. The usual effect of its weight is for the present exhausted. Its gravity is not lost or diminished; it is attracted by the earth as before, but the capacity of this gravity to produce the motion of the clockwork is lost. It can only keep the weight at rest in the lowest point of its path, it cannot farther put it in motion.

But we can wind up the clock by the power of the arm, by which the weight is again raised. When this has been done, it has regained its former capacity, and can again set the clock in motion.

We learn from this that a raised weight possesses a *moving force*, but that it must necessarily sink if this force is to act; that by sinking, this moving force is exhausted, but by using another extraneous moving force—that of the arm—its activity can be restored.

The work which the weight has to perform in driving the clock is not indeed great. It has continually to overcome the small resistances which the friction of the axles and teeth, as well as the resistance of the air, oppose to the motion of the wheels, and it has to furnish the force for the small impulses and sounds which the pendulum produces at each oscillation. If the weight is detached from the clock, the pendulum swings for a while before coming to a rest, but its motion becomes each moment feebler, and ultimately ceases entirely, being gradually used up by the small hindrances I have mentioned. Hence, to keep the clock going, there must be a moving force, which, though small, must be continually at work. Such a one is the weight.

We get, moreover, from this example, a measure for the amount of work. Let us assume that a clock is driven by a weight of a pound, which falls five feet in twenty-four hours. If we fix ten such clocks, each with a weight of one pound, then ten clocks will be driven twenty-four hours; hence, as each has to overcome the same resistances in the same time as the others, ten times as much work is performed for ten pounds fall through five feet. Hence, we conclude that the height of the fall being the same, the work increases directly as the weight.

Now, if we increase the length of the string so that the weight runs down ten feet, the clock will go two days instead of one; and, with double the height of fall, the weight will overcome on the second day the same resistances as on the first, and will therefore do twice as much work as when it can only run down five feet. The weight being the same, the work increases as the height of fall. Hence, we may take the product of the weight into the height of fall as a measure of work, at any rate, in the present case. The application of this measure is, in fact, not limited to the individual case, but the universal standard adopted in manufactures for measuring magnitude of work is a *foot-pound*–that is, the amount of work which a pound raised through a foot can produce.[1]

We may apply this measure of work to all kinds of machines, for we should be able to set them all in motion by means of a weight sufficient to turn a pulley. We could thus always express the magnitude of any driving force, for any given machine, by the magnitude and height of fall of such a weight as would be necessary to keep the machine going with its arrangements until it had performed a certain work. Hence it is that the measurement of work by foot-pounds is universally applica-

1. This is the *technical* measure of work; to convert it into scientific measure it must be multiplied by the intensity of gravity.

ble. The use of such a weight as a driving force would not indeed be practically advantageous in those cases in which we were compelled to raise it by the power of our own arm; it would in that case be simpler to work the machine by the direct action of the arm. In the clock we use a weight so that we need not stand the whole day at the clockwork, as we should have to do to move it directly. By winding up the clock we accumulate a store of working capacity in it, which is sufficient for the expenditure of the next twenty-four hours.

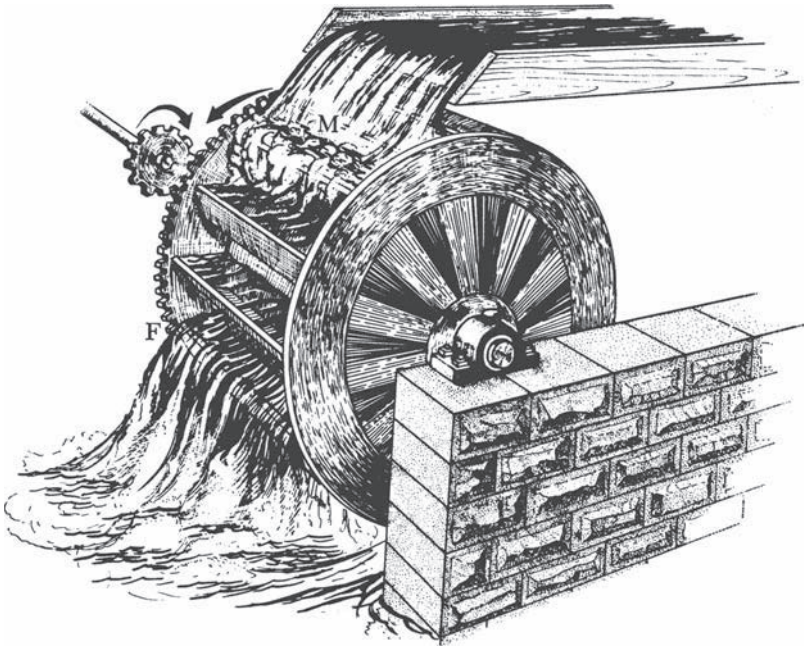

Fig. 1

The case is somewhat different when nature herself raises the weight, which then works for us. She does not do this with solid bodies, at least not with such regularity as to be utilized; but she does it abundantly with water, which, being raised to the tops of mountains by meteorological processes, returns in streams from them. The gravity of water we use as moving force, the most direct application being in what are called *overshot* wheels, one of which is represented in Fig. 1. Along the circumference of such a wheel are a series of buckets, which act as receptacles for the water, and, on the side turned to the observer, have the tops uppermost; on the opposite side the tops of the buckets are upside down. The water flows at M into the buckets of the front of the wheel,

and at F, where the mouth begins to incline downwards, it flows out. The buckets on the circumference are filled on the side turned to the observer, and empty on the other side. Thus the former are weighted by the water contained in them, the latter not; the weight of the water acts continuously on only one side of the wheel, draws this down, and thereby turns the wheel; the other side of the wheel offers no resistance, for it contains no water. It is thus the weight of the falling water which turns the wheel, and furnishes the motive power. But you will at once see that the mass of water which turns the wheel must necessarily fall in order to do so, and that though, when it has reached the bottom, it has lost none of its gravity, it is no longer in a position to drive the wheel, if it is not restored to its original position, either by the power of the human arm or by means of some other natural force. If it can flow from the mill stream to still lower levels, it may be used to work other wheels. But when it has reached its lowest level, the sea, the last remainder of the moving force is used up, which is due to gravity–that is, to the attraction of the earth, and it cannot act by its weight until it has been again raised to a high level. As this is actually effected by meteorological processes, you will at once observe that these are to be considered as sources of moving force.

Water power was the first inorganic force which man learned to use instead of his own labor or of that of domestic animals. According to Strabo, it was known to King Mithridates of Pontus, who was also otherwise celebrated for his knowledge of nature; near his palace there was a water wheel. Its use was first introduced among the Romans in the time of the first emperors. Even now we find water mills in all mountains, valleys, or wherever there are rapidly flowing regularly filled brooks and streams. We find water power used for all purposes which can possibly be effected by machines. It drives mills which grind corn, sawmills, hammers and oil presses, spinning frames and looms, and so forth. It is the cheapest of all motive powers, it flows spontaneously from the inexhaustible stores of nature; but it is restricted to a particular place, and only in mountainous countries is it present in any quantity; in level countries extensive reservoirs are necessary for damming the rivers to produce any amount of water power.

Before passing to the discussion of other motive forces I must answer an objection which may readily suggest itself. We all know that there are numerous machines, systems of pulleys, levers and cranes, by the aid of which heavy burdens may be lifted by a comparatively small expenditure of force. We have all of us often seen one or two workmen

hoist heavy masses of stones to great heights, which they would be quite unable to do directly; in like manner, one or two men, by means of a crane, can transfer the largest and heaviest chests from a ship to the quay. Now, it may be asked, If a large, heavy weight had been used for driving a machine, would it not be very easy, by means of a crane or a system of pulleys, to raise it anew, so that it could again be used as a motor, and thus acquire motive power, without being compelled to use a corresponding exertion in raising the weight?

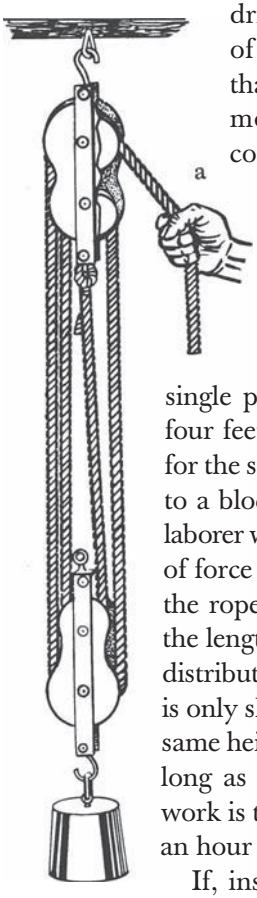

Fig. 2

The answer to this is, that all these machines, in that degree in which for the moment they facilitate the exertion, also prolong it, so that by their help no motive power is ultimately gained. Let us assume that four laborers have to raise a load of four hundredweight by means of a rope passing over a single pulley. Every time the rope is pulled down through four feet, the load is also raised through four feet. But now, for the sake of comparison, let us suppose the same load hung to a block of four pulleys, as represented in Fig. 2. A single laborer would now be able to raise the load by the same exertion of force as each one of the four put forth. But when he pulls the rope through four feet, the load only rises one foot, for the length through which he pulls the rope, at *a*, is uniformly distributed in the block over four ropes, so that each of these is only shortened by a foot. To raise the load, therefore, to the same height, the one man must necessarily work four times as long as the four together did. But the total expenditure of work is the same, whether four laborers work for a quarter of an hour or one works for an hour.

If, instead of human labor, we introduce the work of a weight, and hang to the block a load of 400, and at *a*, where otherwise the laborer works, a weight of 100 pounds, the block is then in equilibrium, and, without any appreciable exertion of the arm, may be set in motion. The weight of 100 pounds sinks, that of 400 rises. Without any measurable expenditure of force, the heavy weight has been raised by the sinking of the smaller one. But observe that the smaller weight will have sunk through four times the distance that the greater one has risen. But a fall of 100 pounds through four feet is just as much 400 foot-pounds as a fall of 400 pounds through one foot.

The action of levers in all their various modifications is precisely simi-

lar. Let *a b*, Fig. 3, be a simple lever, supported at *c*, the arm *c b* being four times as long as the other arm *a c*. Let a weight of one pound be hung at *b*, and a weight of four pounds at *a,* the lever is then in equilibrium, and the least pressure of the finger is sufficient, without any ap-

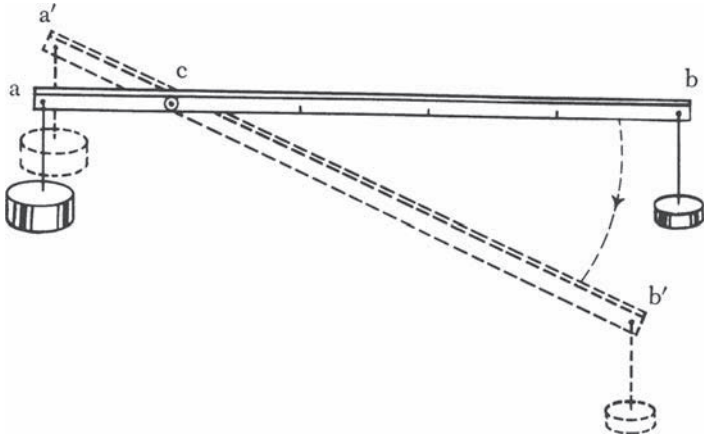

Fig. 3

preciable exertion of force, to place it in the position *a´ b´*, in which the heavy weight of four pounds has been raised, while the one-pound weight has sunk. But here, also, you will observe no work has been gained, for while the heavy weight has been raised through one inch, the lighter one has fallen through four inches; and four pounds through one inch is, as work, equivalent to the product of one pound through four inches.

Most other fixed parts of machines may be regarded as modified and compound levers; a toothed-wheel, for instance as a series of levers, the ends of which are represented by the individual teeth, and one after the other of which is put in activity in the degree in which the tooth in question seizes or is seized by the adjacent pinion. Take, for instance, the crabwinch, represented in Fig. 4. Suppose the pinion, G, on the axis of the barrel of the winch has twelve teeth, and the toothed-wheel, H, seventy-two teeth, that is, six times as many as the former. The winch must now be turned round six times before the toothed-wheel, H, and the barrel, D, have made one turn, and before the rope which raises the load has been lifted by a length equal to the circumference of the barrel. The workman thus requires six times the time, though to be sure only one-sixth of the exertion, which he would have to use if the handle

were directly applied to the barrel, D. In all these machines, and parts of machines, we find it confirmed that in proportion as the velocity of the motion increases its power diminishes, and that when the power increases the velocity diminishes, but that the amount of work is never thereby increased.

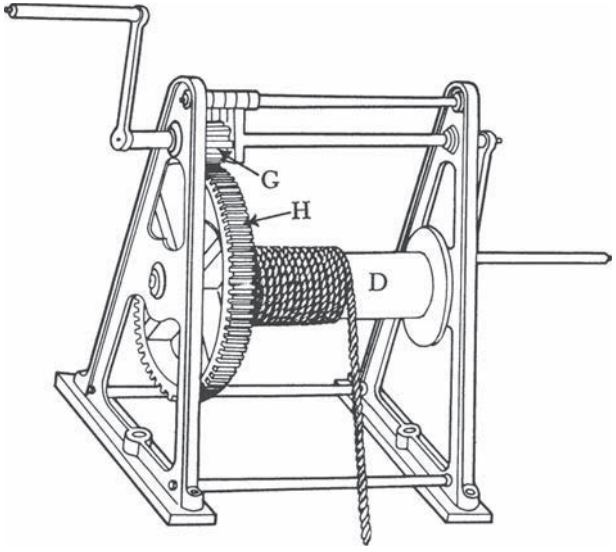

Fig. 4

In the overshot mill wheel, described above, water acts by its weight. But there is another form of mill wheel, what is called the *undershot wheel*, in which it only acts by its impact, as represented in Fig. 5 [p. 462]. These are used where the height from which the water comes is not great enough to flow on the upper part of the wheel. The lower part of undershot wheels dips in the flowing water which strikes against their float-boards and carries them along. Such wheels are used in swift-flowing streams which have a scarcely perceptible fall, as, for instance, on the Rhine. In the immediate neighborhood of such a wheel, the water need not necessarily have a great fall if it only strikes with considerable velocity. It is the velocity of the water, exerting an impact against the float-boards, which acts in this case, and which produces the motive power.

Windmills, which are used in the great plains of Holland and North Germany to supply the want of falling water, afford another instance of the action of velocity. The sails are driven by air in motion–by wind.

Air at rest could just as little drive a windmill as water at rest a water wheel. The driving force depends here on the velocity of moving masses.

A bullet resting in the hand is the most harmless thing in the world; by its gravity it can exert no great effect; but when fired and endowed with great velocity it drives through all obstacles with the most tremendous force.

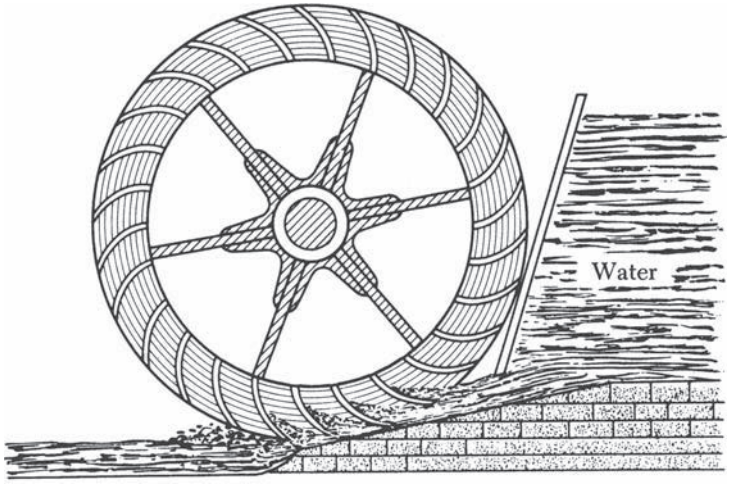

Fig. 5

If I lay the head of a hammer gently on a nail, neither its small weight nor the pressure of my arm is quite sufficient to drive the nail into the wood; but if I swing the hammer and allow it to fall with great velocity, it acquires a new force, which can overcome far greater hindrances.

These examples teach us that the velocity of a moving mass can act as motive force. In mechanics, velocity in so far as it is motive force, and can produce work, is called *vis viva.* The name is not well chosen; it is too apt to suggest to us the force of living beings. Also in this case you will see, from the instances of the hammer and of the bullet, that velocity is lost, as such, when it produces working power. In the case of the water mill, or of the windmill, a more careful investigation of the moving masses of water and air is necessary to prove that part of their velocity has been lost by the work which they have performed.

The relation of velocity to working power is most simply and clearly seen in a simple pendulum, such as can be constructed by any weight which we suspend to a cord. Let M, Fig. 6, be such a weight, of a spherical form; A B, a horizontal line drawn through the center of the sphere;

P the point at which the cord is fastened. If now I draw the weight M on one side towards A, it moves in the arc *m a*, the end of which, *a*, is somewhat higher than the point A in the horizontal line. The weight is thereby raised to the height A *a*. Hence my arm must exert a certain force to bring the weight to *a*. Gravity resists this motion, and endeavors to bring back the weight to M, the lowest point which it can reach.

Now, if after I have brought the weight to *a* I let it go, it obeys this force of gravity and returns to *m*, arrives there with a certain velocity, and no longer remains quietly hanging at *m* as it did before, but swings

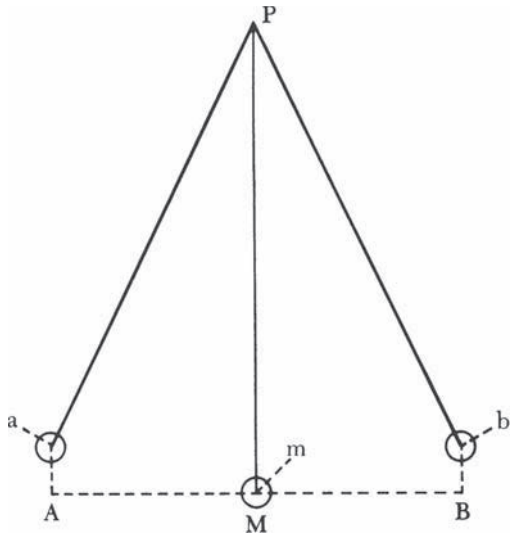

Fig. 6

beyond *m* towards *b*, where its motion stops as soon as it has traversed on the side of B an arc equal in length to that on the side of A, and after it has risen to a distance B *b* above the horizontal line, which is equal to the height A *a*, to which my arm had previously raised it. In *b* the pendulum returns, swings the same way back through *m* towards *a*, and so on, until its oscillations are gradually diminished, and ultimately annulled by the resistance of the air and by friction.

You see here that the reason why the weight, when it comes from *a* to *m*, and does not stop there, but ascends to *b*, in opposition to the action of gravity, is only to be sought in its velocity. The velocity which it has acquired in moving from the height A *a* is capable of again raising it to an equal height, B *b*. The velocity of the moving mass, M, is thus capable

of raising this mass; that is to say, in the language of mechanics, of performing work. This would also be the case if we had imparted such a velocity to the suspended weight by a blow.

From this we learn further how to measure the working power of velocity—or, what is the same thing, the *vis viva* of the *moving mass*. It is equal to the work, expressed in foot-pounds, which the same mass can exert after its velocity has been used to raise it, under the most favorable circumstances, to as great a height as possible.[2] This does not depend on the direction of the velocity; for if we swing a weight attached to a thread in a circle, we can even change a downward motion into an upward one.

The motion of the pendulum shows us very distinctly how the forms of working power hitherto considered—that of a raised weight and that of a moving mass—may merge into one another. In the points *a* and *b*, Fig. 6, the mass has no velocity; at the point *m* it has fallen as far as possible, but possesses velocity. As the weight goes from *a* to *m* the work of the raised weight is changed into *vis viva*; as the weight goes further from *m* to *b* the *vis viva* is changed into the work of a raised weight. Thus the work which the arm originally imparted to the pendulum is not lost in these oscillations provided we may leave out of consideration the influence of the resistance of the air and of friction. Neither does it increase, but it continually changes the form of its manifestation.

Let us now pass to other mechanical forces, those of elastic bodies. Instead of the weights which drive our clocks, we find in timepieces and in watches, steel springs which are coiled in winding up the clock, and are uncoiled by the working of the clock. To coil up the spring we consume the force of the arm; this has to overcome the resisting elastic force of the spring as we wind it up, just as in the clock we have to overcome the force of gravity which the weight exerts. The coiled spring can, however, perform work; it gradually expends this acquired capability in driving the clockwork.

If I stretch a crossbow and afterwards let it go, the stretched string moves the arrow; it imparts to it force in the form of velocity. To stretch the cord my arm must work for a few seconds; this work is imparted to the arrow at the moment it is shot off. Thus the crossbow concentrates into an extremely short time the entire work which the

2. The measure of *vis viva* in theoretical mechanics is half the product of the weight into the square of the velocity. To reduce it to the technical measure of the work we must divide it by the intensity of gravity; that is, by the velocity at the end of the first second of a freely falling body.

arm had communicated in the operation of stretching; the clock, on the contrary, spreads it over one or several days. In both cases no work is produced which my arm did not originally impart to the instrument; it is only expended more conveniently.

The case is somewhat different if by any other natural process I can place an elastic body in a state of tension without having to exert my arm. This is possible and is most easily observed in the case of gases.

If, for instance, I discharge a firearm loaded with gunpowder, the greater part of the mass of the powder is converted into gases at a very high temperature, which have a powerful tendency to expand, and can only be retained in the narrow space in which they are formed, by the exercise of the most powerful pressure. In expanding with enormous force they propel the bullet, and impart to it a great velocity, which we have already seen is a form of work.

In this case, then, I have gained work which my arm has not performed. Something, however, has been lost—the gunpowder, that is to say, whose constituents have changed into other chemical compounds, from which they cannot, without further ado, be restored to their original condition. Here, then, a chemical change has taken place, under the influence of which work has been gained.

Elastic forces are produced in gases by the aid of heat, on a far greater scale.

Let us take, as the most simple instance, atmospheric air. In Fig. 7 an apparatus is represented such as Regnault used for measuring the expansive force of heated gases. If no great accuracy is required in the measurement, the apparatus may be arranged more simply. At C is a glass globe filled with dry air, which is placed in a metal vessel, in which it can be heated by steam. It is connected with the U-shaped tube, S *s*, which contains a liquid, and the limbs of which communicate with each other when the stopcock R is closed. If the liquid is in equilibrium in the tube S *s* when the globe is cold, it rises in the leg *s*, and ultimately overflows when the globe is heated. If, on the contrary, when the globe is heated, equilibrium be restored by allowing some of the liquid to flow out at R, as the globe cools it will be drawn up towards *n*. In both cases liquid is raised, and work thereby produced.

The same experiment is continuously repeated on the largest scale in steam engines, though, in order to keep up a continual disengagement of compressed gases from the boiler, the air in the globe in Fig. 7, which would soon reach the maximum of its expansion, is replaced by water, which is gradually changed into steam by the application of heat.

But steam, so long as it remains as such, is an elastic gas which endeavors to expand exactly like atmospheric air. And instead of the column of liquid which was raised in our last experiment, the machine is caused to drive a solid piston which imparts its motion to other parts of the machine. Fig. 8 represents a front view of the working parts of a high-pressure engine, and Fig. 9 [p. 468] a section. The boiler in which steam is generated is not represented; the steam passes through the tube *z z*, Fig. 9, to the cylinder A A, in which moves a tightly fitting piston C.

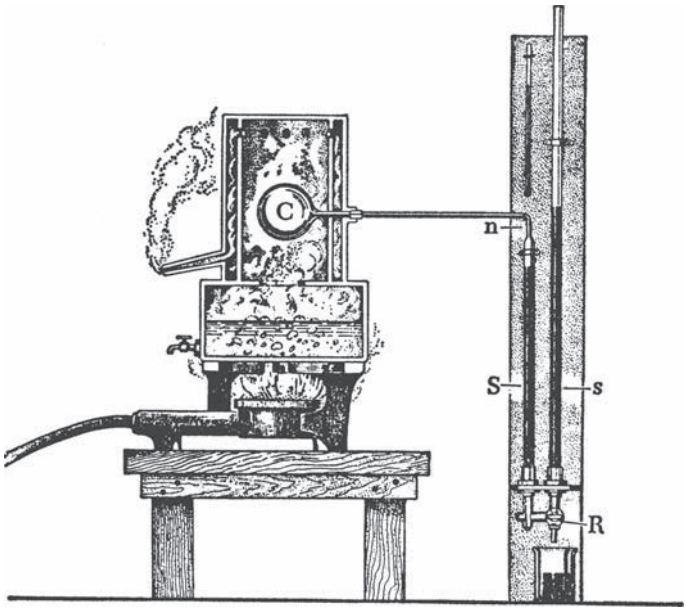

Fig. 7

The parts between the tube *z z* and the cylinder A A, that is the slide valve in the valve-chest K K, and the two tubes *d* and *e* allow the steam to pass first below and then above the piston, while at the same time the steam has free exit from the other half of the cylinder. When the steam passes under the piston, it forces it upward; when the piston has reached the top of its course the position of the valve in K K changes, and the steam passes above the piston and forces it down again. The piston rod acts by means of the connecting rod P, on the crank Q of the flywheel X and sets this in motion. By means of the rod *s*, the motion of the rod regulates the opening and closing of the valve. But we need not here enter into those mechanical arrangements, however in-

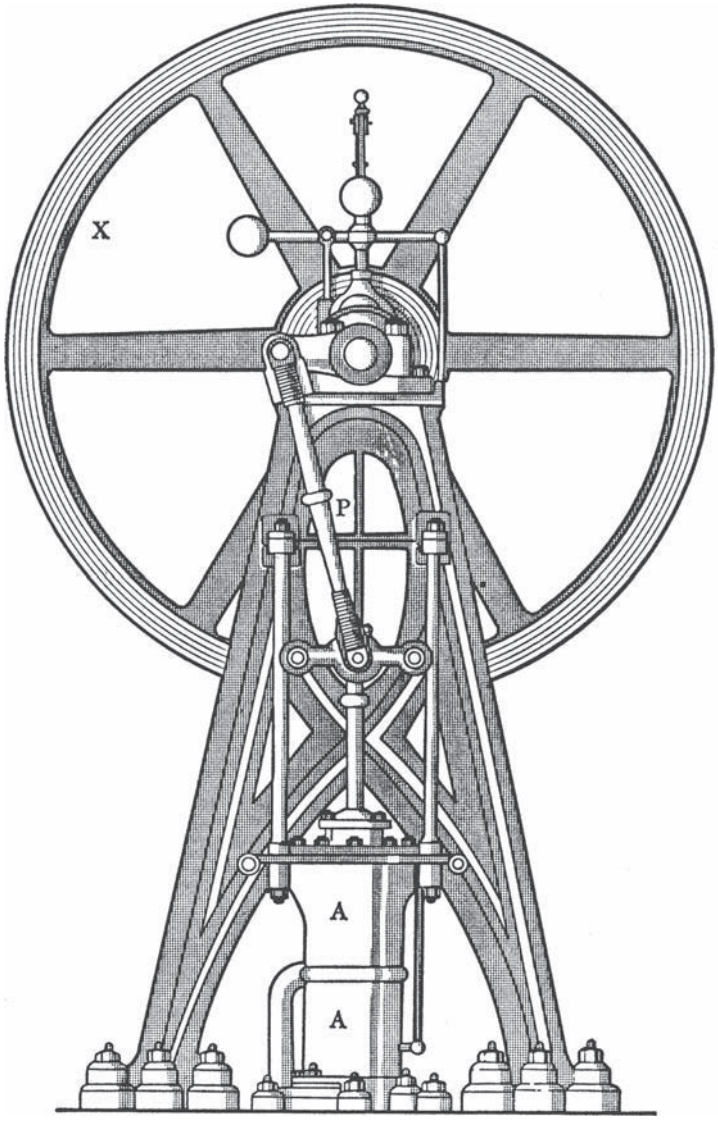

Fig. 8

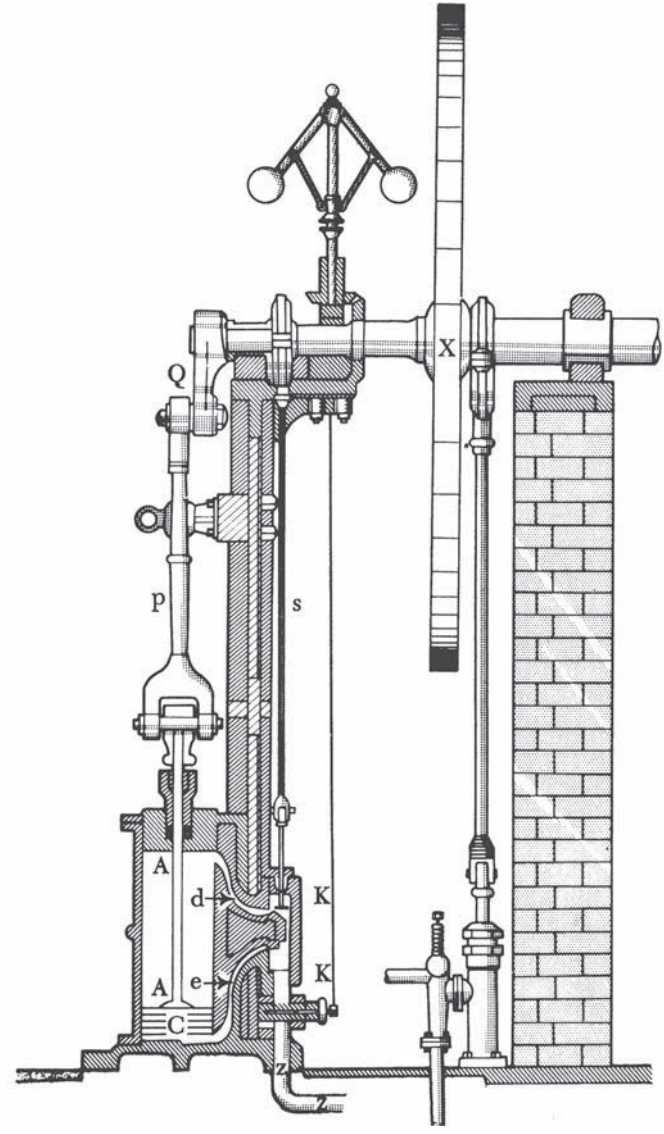

Fig. 9

geniously they have been devised. We are only interested in the manner in which heat produces elastic vapor, and how this vapor, in its endeavor to expand, is compelled to move the solid parts of the machine, and furnish work.

You all know how powerful and varied are the effects of which steam engines are capable; with them has really begun the great development of industry which has characterized our century before all others. Its most essential superiority over motive powers formerly known is that it is not restricted to a particular place. The store of coal and the small quantity of water which are the sources of its power can be brought everywhere, and steam engines can even be made movable, as is the case with steamships and locomotives. By means of these machines we can develop motive power to almost an indefinite extent at any place on the earth's surface, in deep mines and even on the middle of the ocean; while water and windmills are bound to special parts of the surface of the land. The locomotive transports travelers and goods over the land in numbers and with a speed which must have seemed an incredible fable to our forefathers, who looked upon the mailcoach with its six passengers in the inside, and its ten miles an hour, as an enormous progress. Steam engines traverse the ocean independently of the direction of the wind, and, successfully resisting storms which would drive sailing vessels far away, reach their goal at the appointed time. The advantages which the concourse of numerous and variously skilled workmen in all branches offers in large towns where wind and water power are wanting, can be utilized, for steam engines find place everywhere, and supply the necessary crude force; thus the more intelligent human force may be spared for better purposes; and, indeed, wherever the nature of the ground or the neighborhood of suitable lines of communication present a favorable opportunity for the development of industry, the motive power is also present in the form of steam engines.

We see, then, that heat can produce mechanical power; but in the cases which we have discussed we have seen that the quantity of force which can be produced by a given measure of a physical process is always accurately defined, and that the further capacity for work of the natural forces is either diminished or exhausted by the work which has been performed. How is it now with heat in this respect?

This question was of decisive importance in the endeavor to extend the law of the conservation of force to all natural processes. In the answer lay the chief difference between the older and newer views in

these respects. Hence it is that many physicists designate that view of nature corresponding to the law of the conservation of force with the name of *mechanical theory of heat.*

The older view of the nature of heat was that it is a substance, very fine and imponderable indeed, but indestructible, and unchangeable in quantity, which is an essential fundamental property of all matter. And, in fact, in a large number of natural processes, the quantity of heat which can be demonstrated by the thermometer is unchangeable.

By conduction and radiation, it can indeed pass from hotter to colder bodies; but the quantity of heat which the former lose can be shown by the thermometer to have reappeared in the latter. Many processes, too, were known, especially in the passage of bodies from the solid to the liquid and gaseous states, in which heat disappeared—at any rate, as regards the thermometer. But when the gaseous body was restored to the liquid, and the liquid to the solid state, exactly the same quantity of heat reappeared which formerly seemed to have been lost. Heat was said *to have become latent.* On this view, liquid water differed from solid ice in containing a certain quantity of heat bound, which, just because it was bound, could not pass to the thermometer, and therefore was not indicated by it. Aqueous vapor contains a far greater quantity of heat thus bound. But if the vapor be precipitated, and the liquid water restored to the state of ice, exactly the same amount of heat is liberated as had become latent in the melting of the ice and in the vaporization of the water.

Finally, heat is sometimes produced and sometimes disappears in chemical processes. But even here it might be assumed that the various chemical elements and chemical compounds contain certain constant quantities of latent heat, which, when they change their composition, are sometimes liberated and sometimes must be supplied from external sources. Accurate experiments have shown that the quantity of heat which is developed by a chemical process—for instance, in burning a pound of pure carbon into carbonic acid—is perfectly constant, whether the combustion is slow or rapid, whether it takes place all at once or by intermediate stages. This also agreed very well with the assumption, which was the basis of the theory of heat, that heat is a substance entirely unchangeable in quantity. The natural processes which have here been briefly mentioned, were the subject of extensive experimental and mathematical investigations, especially of the great French physicists in the last decade of the former, and the first decade of the present, century; and a rich and accurately worked chapter of physics had been developed, in which everything agreed excellently with the hypothe-

sis—that heat is a substance. On the other hand, the invariability in the quantity of heat in all these processes could at that time be explained in no other manner than that heat is a substance.

But one relation of heat—namely, that to mechanical work—had not been accurately investigated. A French engineer, Sadi Carnot, son of the celebrated War Minister of the Revolution, had indeed endeavored to deduce the work which heat performs, by assuming that the hypothetical caloric endeavored to expand like a gas; and from this assumption he deduced in fact a remarkable law as to the capacity of heat for work, which even now, though with an essential alteration introduced by Clausius, is among the bases of the modern mechanical theory of heat, and the practical conclusions from which, so far as they could at that time be compared with experiments, have held good.

But it was already known that whenever two bodies in motion rubbed against each other, heat was developed anew, and it could not be said whence it came.

The fact is universally recognized; the axle of a carriage which is badly greased and where the friction is great, becomes hot—so hot, indeed, that it may take fire; machine wheels with iron axles going at a great rate may become so hot that they weld to their sockets. A powerful degree of friction is not, indeed, necessary to disengage an appreciable degree of heat; thus, a lucifer match, which by rubbing is so heated that the phosphoric mass ignites, teaches this fact. Nay, it is enough to rub the dry hands together to feel the heat produced by friction, and which is far greater than the heating which takes place when the hands lie gently on each other. Uncivilized people use the friction of two pieces of wood to kindle a fire. With this view, a sharp spindle of hard wood is made to revolve rapidly on a base of soft wood in the manner represented in Fig. 10 [see p. 472].

So long as it was only a question of the friction of solids, in which particles from the surface become detached and compressed, it might be supposed that some changes in structure of the bodies rubbed might here liberate latent heat, which would thus appear as heat of friction.

But heat can also be produced by the friction of liquids, in which there could be no question of changes in structure, or of the liberation of latent heat. The first decisive experiment of this kind was made by Sir Humphry Davy in the commencement of the present century. In a cooled space he made two pieces of ice rub against each other, and thereby caused them to melt. The latent heat which the newly formed water must have here assimilated could not have been conducted to it

by the cold ice, or have been produced by a change of structure; it could have come from no other cause than from friction, and must have been created by friction.

Heat can also be produced by the impact of imperfectly elastic bodies as well as by friction. This is the case, for instance, when we produce fire by striking flint against steel, or when an iron bar is worked for some time by powerful blows of the hammer.

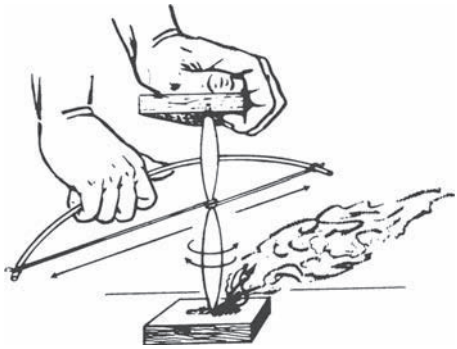

Fig. 10

If we inquire into the mechanical effects of friction and of inelastic impact, we find at once that these are the processes by which all terrestrial movements are brought to rest. A moving body whose motion was not retarded by any resisting force would continue to move to all eternity. The motions of the planets are an instance of this. This is apparently never the case with the motion of the terrestrial bodies, for they are always in contact with other bodies which are at rest, and rub against them. We can, indeed, very much diminish their friction, but never completely annul it. A wheel which turns about a well-worked axle, once set in motion, continues it for a long time; and the longer, the more truly and smoother the axle is made to turn, the better it is greased, and the less the pressure it has to support. Yet the *vis viva* of the motion which we have imparted to such a wheel when we started it, is gradually lost in consequence of friction. It disappears, and if we do not carefully consider the matter, it seems as if the *vis viva* which the wheel had possessed had been simply destroyed without any substitute.

A bullet which is rolled on a smooth horizontal surface continues to roll until its velocity is destroyed by friction on the path, caused by the very minute impacts on its little roughnesses.

A pendulum which has been put in vibration can continue to oscillate

for hours if the suspension is good, without being driven by a weight; but by the friction against the surrounding air, and by that at its place of suspension, it ultimately comes to rest.

A stone which has fallen from a height has acquired a certain velocity on reaching the earth; this we know is the equivalent of a mechanical work; so long as this velocity continues as such, we can direct it upwards by means of suitable arrangements, and thus utilize it to raise the stone again. Ultimately the stone strikes against the earth and comes to rest; the impact has destroyed its velocity, and therewith apparently also the mechanical work which this velocity could have affected.

If we review the results of all these instances, which each of you could easily add to from your own daily experience, we shall see that friction and inelastic impact are processes in which mechanical work is destroyed, and heat produced in its place.

The experiments of Joule, which have been already mentioned, lead us a step further. He has measured in foot-pounds the amount of work which is destroyed by the friction of solids and by the friction of liquids; and, on the other hand, he has determined the quantity of heat which is thereby produced, and has established a definite relation between the two. His experiments show that when heat is produced by the consumption of work, a definite quantity of work is required to produce that amount of heat which is known to physicists as the *unit of heat*; the heat, that is to say, which is necessary to raise one gram of water through one degree centigrade. The quantity of work necessary for this is, according to Joule's best experiments, equal to the work which a gram would perform in falling through a height of 425 meters.

In order to show how closely concordant are his numbers, I will adduce the results of a few series of experiments which he obtained after introducing the latest improvements in his methods.

1. A series of experiments in which water was heated by friction in a brass vessel. In the interior of this vessel a vertical axle provided with sixteen paddles was rotated, the eddies thus produced being broken by a series of projecting barriers, in which parts were cut out large enough for the paddles to pass through. The value of the equivalent was 424.9 meters.

2. Two similar experiments, in which mercury in an iron vessel was substituted for water in a brass one, gave 425 and 426.3 meters.

3. Two series of experiments, in which a conical ring rubbed against another, both surrounded by mercury, gave 426.7 and 425.6 meters.

Exactly the same relations between heat and work were also found in

the reverse process—that is, when work was produced by heat. In order to execute this process under physical conditions that could be controlled as perfectly as possible, permanent gases and not vapors were used, although the latter are, in practice, more convenient for producing large quantities of work, as in the case of the steam engine. A gas which is allowed to expand with moderate velocity becomes cooled. Joule was the first to show the reason of this cooling. For the gas has, in expanding, to overcome the resistance which the pressure of the atmosphere and the slowly yielding side of the vessel oppose to it: or, if it cannot of itself overcome this resistance, it supports the arm of the observer which does it. Gas thus performs work, and this work is produced at the cost of its heat. Hence the cooling. If, on the contrary, the gas is suddenly allowed to issue into a perfectly exhausted space where it finds no resistance, it does not become cool, as Joule has shown; or if individual parts of it become cool, others become warm; and, after the temperature has become equalized, this is exactly as much as before the sudden expansion of the gaseous mass.

How much heat the various gases disengage when they are compressed, and how much work is necessary for their compression; or, conversely, how much heat disappears when they expand under a pressure equal to their own counterpressure, was partly known from the older physical experiments, and has partly been determined by the recent experiments of Regnault by extremely perfect methods. Calculations with the best data of this kind give us the value of the thermal equivalent from experiments:

With	atmospheric air	426.0	meters
"	oxygen	425.7	"
"	nitrogen	431.3	"
"	hydrogen	425.3	"

Comparing these numbers with those which determine the equivalence of heat and mechanical work in friction, as close an agreement is seen as can at all be expected from numbers which have been obtained by such varied investigations of different observers.

Thus then: a certain quantity of heat may be changed into a definite quantity of work; this quantity of work can also be retransformed into heat, and, indeed, into exactly the same quantity of heat as that from which it originated; in a mechanical point of view, they are exactly equivalent. Heat is a new form in which a quantity of work may appear.

These facts no longer permit us to regard heat as a substance, for its

quantity is not unchangeable. It can be produced anew from the *vis viva* of motion destroyed; it can be destroyed, and then produces motion. We must rather conclude from this that heat itself is a motion, an internal invisible motion of the smallest elementary particles of bodies. If, therefore, motion seems lost in friction and impact, it is not actually lost, but only passes from the great visible masses to their smallest particles; while in steam engines the internal motion of the heated gaseous particles is transferred to the piston of the machine, accumulated in it, and combined in a resultant whole.

But what is the nature of this internal motion can only be asserted with any degree of probability in the case of gases. Their particles probably cross one another in rectilinear paths in all directions, until, striking another particle, or against the side of the vessel, they are reflected in another direction. A gas would thus be analogous to a swarm of gnats, consisting, however, of particles infinitely small and infinitely more closely packed. This hypothesis, which has been developed by Krönig, Clausius, and Maxwell, very well accounts for all the phenomena of gases.

What appeared to the earlier physicists to be the constant quantity of heat is nothing more than the whole motive power of the motion of heat, which remains constant so long as it is not transformed into other forms of work, or results afresh from them.

We turn now to another kind of natural forces which can produce work—I mean the chemical. We have today already come across them. They are the ultimate cause of the work which gunpowder and the steam engine produce; for the heat which is consumed in the latter, for example, originates in the combustion of carbon—that is to say, in a chemical process. The burning of coal is the chemical union of carbon with the oxygen of the air, taking place under the influence of the chemical affinity of the two substances.

We may regard this force as an attractive force between the two, which, however, only acts through them with extraordinary power, if the smallest particles of the two substances are in closest proximity to each other. In combustion this force acts; the carbon and oxygen atoms strike against each other and adhere firmly, inasmuch as they form a new compound—carbonic acid—a gas known to all of you as that which ascends from all fermenting and fermented liquids—from beer and champagne. Now this attraction between the atoms of carbon and of oxygen performs work just as much as that which the earth in the form of gravity exerts upon a raised weight. When the weight falls to the ground, it produces an agitation, which is partly transmitted to the vicin-

ity as sound waves, and partly remains as the motion of heat. The same result we must expect from chemical action. When carbon and oxygen atoms have rushed against each other, the newly formed particles of carbonic acid must be in the most violent molecular motion—that is, in the motion of heat. And this is so. A pound of carbon burned with oxygen to form carbonic acid, gives as much heat as is necessary to raise 80.9 pounds of water from the freezing to the boiling point; and just as the same amount of work is produced when a weight falls, whether it falls slowly or fast, so also the same quantity of heat is produced by the combustion of carbon, whether this is slow or rapid, whether it takes place all at once, or by successive stages.

When the carbon is burned, we obtain in its stead, and in that of the oxygen, the gaseous product of combustion—carbonic acid. Immediately after combustion it is incandescent. When it has afterwards imparted heat to the vicinity, we have in the carbonic acid the entire quantity of carbon and the entire quantity of oxygen, and also the force of affinity quite as strong as before. But the action of the latter is now limited to holding the atoms of carbon and oxygen firmly united; they can no longer produce either heat or work any more than a fallen weight can do work if it has not been again raised by some extraneous force. When the carbon has been burned we take no further trouble to retain the carbonic acid; it can do no more service, we endeavor to get it out of the chimneys of our houses as fast as we can.

Is it possible, then, to tear asunder the particles of carbonic acid, and give to them once more the capacity of work which they had before they were combined, just as we can restore the potentiality of a weight by raising it from the ground? It is indeed possible. We shall afterwards see how it occurs in the life of plants; it can also be effected by inorganic processes, though in roundabout ways, the explanation of which would lead us too far from our present course.

This can, however, be easily and directly shown for another element, hydrogen, which can be burned just like carbon. Hydrogen with carbon is a constituent of all combustible vegetable substances, among others, it is also an essential constituent of the gas which is used for lighting our streets and rooms; in the free state it is also a gas, the lightest of all, and burns when ignited with a feebly luminous blue flame. In this combustion—that is, in the chemical combination of hydrogen with oxygen, a very considerable quantity of heat is produced; for a given weight of hydrogen, four times as much heat as in the combustion of

the same weight of carbon. The product of combustion is water, which, therefore, is not of itself further combustible, for the hydrogen in it is completely saturated with oxygen. The force of affinity, therefore, of hydrogen for oxygen, like that of carbon for oxygen, performs work in combustion, which appears in the form of heat. In the water which has been formed during combustion, the force of affinity is exerted between the elements as before, but its capacity for work is lost. Hence the two elements must be again separated, their atoms torn apart, if new effects are to be produced from them.

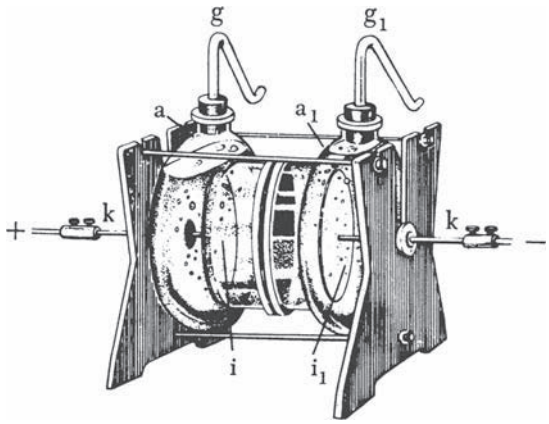

Fig. 11

This we can do by the aid of currents of electricity. In the apparatus depicted in Fig. 11, we have two glass vessels filled with acidulated water *a* and a_1, which are separated in the middle by a porous plate moistened with water. In both sides are fitted platinum wires, *k,* which are attached to platinum plates, *i* and i_1. As soon as a galvanic current is transmitted through the water by the platinum wires, *k*, you see bubbles of gas ascend from the plates *i* and i_1. These bubbles are the two elements of water, hydrogen on the one hand, and oxygen on the other. The gases emerge through the tubes *g* and g_1. If we wait until the upper part of the vessels and the tubes have been filled with it, we can inflame hydrogen at one side; it burns with a blue flame. If I bring a glimmering spill near the mouth of the other tube, it bursts into flame, just as happens with oxygen gas, in which the processes of combustion are far more intense than in atmospheric air, where the oxygen mixed with nitrogen is only one-fifth of the whole volume.

If I hold a glass flask filled with water over the hydrogen flame, the water, newly formed in combustion, condenses upon it.

If a platinum wire be held in the almost non-luminous flame, you see how intensely it is ignited; in a plentiful current of a mixture of the gases, hydrogen and oxygen, which have been liberated in the above experiment, the almost infusible platinum might even be melted. The hydrogen which has here been liberated from the water by the electrical current has regained the capacity of producing large quantities of heat by a fresh combination with oxygen; its affinity for oxygen has regained for it its capacity for work.

We here become acquainted with a new source of work, the electric current which decomposes water. This current is itself produced by a galvanic battery, Fig. 12. Each of the four vessels contains nitric acid, in which there is a hollow cylinder of very compact carbon. In the middle

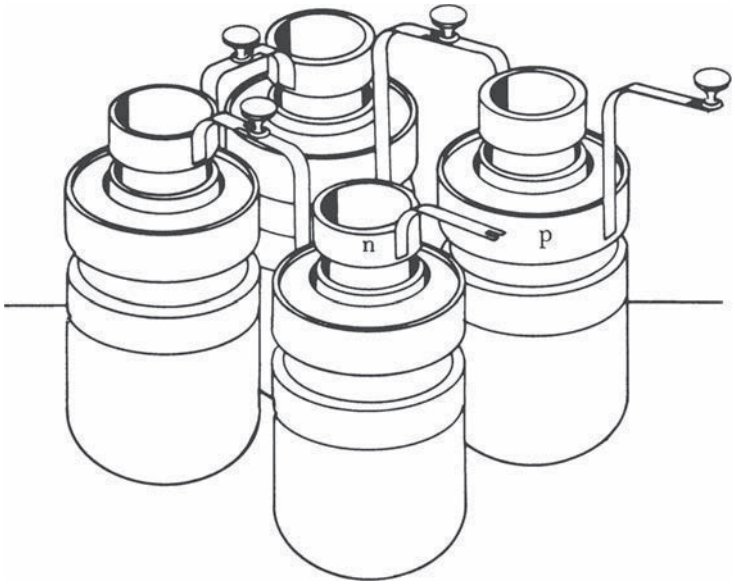

Fig. 12

of the carbon cylinder is a cylindrical porous vessel of white clay, which contains dilute sulfuric acid; in this dips a zinc cylinder. Each zinc cylinder is connected by a metal ring with the carbon cylinder of the next vessel, the last zinc cylinder, *n*, is connected with one platinum plate, and the first carbon cylinder, *p*, with the other platinum plate of the apparatus for the decomposition of water.

If now the conducting circuit of this galvanic apparatus is completed, and the decomposition of water begins, a chemical process takes place simultaneously in the cells of the voltaic battery. Zinc takes oxygen from the surrounding water and undergoes a slow combustion. The product of combustion thereby produced, oxide of zinc, unites further with sulfuric acid, for which it has a powerful affinity, and sulfate of zinc, a saline kind of substance, dissolves in the liquid. The oxygen, moreover, which is withdrawn from it is taken by the water from the nitric acid surrounding the cylinder of carbon, which is very rich in it, and readily gives it up. Thus, in the galvanic battery, zinc burns to sulfate of zinc at the cost of the oxygen of nitric acid.

Thus, while one product of combustion, water, is again separated, a new combustion is taking place–that of zinc. While we there reproduce chemical affinity which is capable of work, it is here lost. The electrical current is, as it were, only the carrier which transfers the chemical force of the zinc uniting with oxygen and acid to water in the decomposing cell, and uses it for overcoming the chemical force of hydrogen and oxygen.

In this case, we can restore work which has been lost, but only by using another force, that of oxidizing zinc.

Here we have overcome chemical forces by chemical forces, through the instrumentality of the electrical current. But we can attain the same object by mechanical forces, if we produce the electrical current by a magnetoelectrical machine, Fig. 13. If we turn the handle, the anker R R′, on which is coiled copper wire, rotates in front of the poles of the horseshoe magnet, and in these coils electrical currents are produced, which can be led from the points *a* and *b*. If the ends of these wires are connected with the apparatus for decomposing water, we obtain hydrogen and oxygen, though in far smaller quantity than by the aid of the battery which we used before. But this process is interesting, for the mechanical force of the arm which turns the wheel produces the work which is required for separating the combined chemical elements. Just as the steam engine changes chemical into mechanical force the magneto-electrical machine transforms mechanical force into chemical.

The application of electrical currents opens out a large number of relations between the various natural forces. We have decomposed water into its elements by such currents, and should be able to decompose a large number of other chemical compounds. On the other hand, in ordinary galvanic batteries electrical currents are produced by chemical forces.

In all conductors through which electrical currents pass they produce heat; I stretch a thin platinum wire between the ends *n* and *p* of the galvanic battery, Fig. 12; it becomes ignited and melts. On the other hand, electrical currents are produced by heat in what are called thermoelectric elements.

Iron which is brought near a spiral of copper wire, traversed by an electrical current, becomes magnetic, and then attracts other pieces of

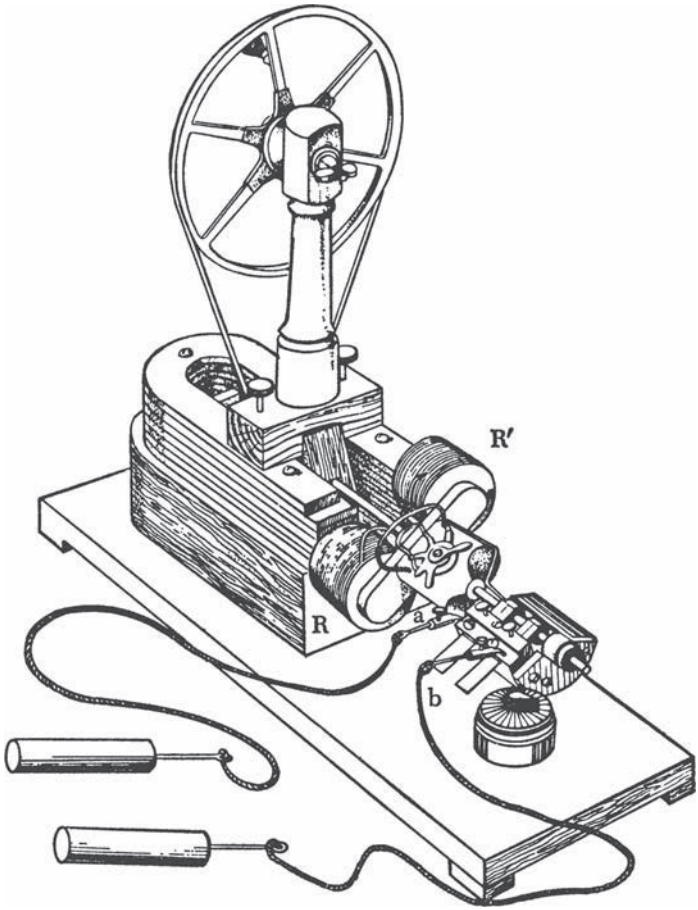

Fig. 13

iron, or a suitably placed steel magnet. We thus obtain mechanical actions which meet with extended applications in the electrical telegraph, for instance. Fig. 14 represents a Morse's telegraph in one-third of the natural size. The essential part is a horseshoe-shaped iron core, which

stands in the copper spirals *b b*. Just over the top of this is a small steel magnet *c c*, which is attracted the moment an electrical current, arriving by the telegraph wire, traverses the spirals *b b*. The magnet *c c* is rigidly fixed in the lever *d d*, at the other end of which is a style; this makes a mark on a paper band, drawn by a clockwork, as often and as long as *c c* is attracted by the magnetic action of the electrical current. Conversely, by reversing the magnetism in the iron core of the spirals *b b*, we should obtain in them an electrical current just as we have obtained such currents in the magnetoelectrical machine, Fig. 13; in the spirals of that machine there is an iron core which, by being approached to the poles of the large horseshoe magnet, is sometimes magnetized in one and sometimes in the other direction.

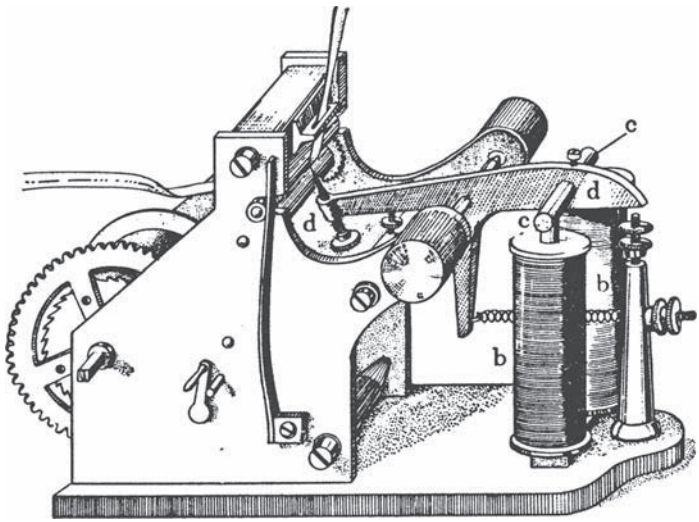

Fig. 14

I will not accumulate examples of such relations; in subsequent lectures we shall come across them. Let us review these examples once more, and recognize in them the law which is common to all.

A raised weight can produce work, but in doing so it must necessarily sink from its height, and, when it has fallen as deep as it can fall, its gravity remains as before, but it can no longer do work.

A stretched spring can do work, but in so doing it becomes loose. The velocity of a moving mass can do work, but in doing so it comes to rest. Heat can perform work; it is destroyed in the operation. Chemical forces can perform work, but they exhaust themselves in the effort.

Electrical currents can perform work, but to keep them up we must consume either chemical or mechanical forces, or heat.

We may express this generally. *It is a universal character of all known natural forces that their capacity for work is exhausted in the degree in which they actually perform work.*

We have seen, further, that when a weight fell without performing any work, it *either* acquired velocity or produced heat. We might also drive a magnetoelectrical machine by a falling weight; it would then furnish electrical currents.

We have seen that chemical forces, when they come into play, produce either heat or electrical currents or mechanical work.

We have seen that heat may be changed into work; there are apparatus (thermoelectric batteries) in which electrical currents are produced by it. Heat can directly separate chemical compounds; thus, when we burn limestone, it separates carbonic acid from lime.

Thus, whenever the capacity for work of one natural force is destroyed, it is transformed into another kind of activity. Even within the circuit of inorganic natural forces, we can transform each of them into an active condition by the aid of any other natural force which is capable of work. The connections between the various natural forces which modern physics has revealed, are so extraordinarily numerous that several entirely different methods may be discovered for each of these problems.

I have stated how we are accustomed to measure mechanical work, and how the equivalent in work of heat may be found. The equivalent in work of chemical processes is again measured by the heat which they produce. By similar relations, the equivalent in work of the other natural forces may be expressed in terms of mechanical work.

If, now, a certain quantity of mechanical work is lost, there is obtained, as experiments made with the object of determining this point show, an equivalent quantity of heat, or, instead of this, of chemical force; and, conversely, when heat is lost, we gain an equivalent quantity of chemical or mechanical force; and, again, when chemical force disappears, an equivalent of heat or work; so that in all these interchanges between various inorganic natural forces working force may indeed disappear in one form, but then it reappears in exactly equivalent quantity in some other form; it is thus neither increased nor diminished, but always remains in exactly the same quantity. We shall subsequently see that the same law holds good also for processes in organic nature, so far as the facts have been tested.

It follows thence *that the total quantity of all the forces* capable of work *in the whole universe remains eternal and unchanged throughout all their changes.* All change in nature amounts to this, that force can change its form and locality without its quantity being changed. The universe possesses, once for all, a store of force which is not altered by any change of phenomena, can neither be increased nor diminished, and which maintains any change which takes place on it.

You see how, starting from considerations based on the immediate practical interests of technical work, we have been led up to a universal natural law, which, as far as all previous experience extends, rules and embraces all natural processes; which is no longer restricted to the practical objects of human utility, but expresses a perfectly general and particularly characteristic property of all natural forces, and which, as regards generality, is to be placed by the side of the laws of the unalterability of mass, and the unalterability of the chemical elements.

At the same time, it also decides a great practical question which has been much discussed in the last two centuries, to the decision of which an infinity of experiments has been made and an infinity of apparatus constructed–that is, the question of the possibility of a perpetual motion. By this was understood a machine which was to work continuously without the aid of any external driving force. The solution of this problem promised enormous gains. Such a machine would have had all the advantages of steam without requiring the expenditure of fuel. Work is wealth. A machine which could produce work from nothing was as good as one which made gold. This problem had thus for a long time occupied the place of gold making, and had confused many a pondering brain. That a perpetual motion could not be produced by the aid of the then known mechanical forces could be demonstrated in the last century by the aid of the mathematical mechanics which had at that time been developed. But to show also that it is not possible even if heat, chemical forces, electricity, and magnetism were made to cooperate, could not be done without a knowledge of our law in all its generality. The possibility of a perpetual motion was first finally negatived by the law of the conservation of force, and this law might also be expressed in the practical form that no perpetual motion is possible, that force cannot be produced from nothing; something must be consumed.

You will only be ultimately able to estimate the importance and the scope of our law when you have before your eyes a series of its applications to individual processes in nature.

What I have today mentioned as to the origin of the moving forces which are at our disposal, directs us to something beyond the narrow confines of our laboratories and our manufactories, to the great operations at work in the life of the earth and of the universe. The force of falling water can only flow down from the hills when rain and snow bring it to them. To furnish these, we must have aqueous vapor in the atmosphere, which can only be effected by the aid of heat, and this heat comes from the sun. The steam engine needs the fuel which the vegetable life yields, whether it be the still active life of the surrounding vegetation, or the extinct life which has produced the immense coal deposits in the depths of the earth. The forces of man and animals must be restored by nourishment; all nourishment comes ultimately from the vegetable kingdom, and leads us back to the same source.

You see then that when we inquire into the origin of the moving forces which we take into our service, we are thrown back upon the meteorological processes in the earth's atmosphere, on the life of plants in general, and on the sun.

The foregoing consists of an introduction to a series of lectures delivered at Carlsruhe in the winter of 1862–1863, translated by Edmund Atkinson.

Albert Einstein

1879–1955

Leopold Infeld

(1898–1968)

Albert Einstein was born at Ulm, Germany, in 1879. In 1896 he entered the Swiss Federal Polytechnic School at Zürich; but bored by the teaching, he found time to read the works of the great physicists of the nineteenth century. Receiving his degree in 1900, he searched in vain for a teaching post. He finally took a job in the Berne patent office. Again he found himself with free time, which he used for further reading and thinking. In 1905, when he was twenty-six, he published four papers, each of which contained a great discovery in physics, and which had the effect of creating three new branches of physics: relativity, statistical mechanics, and the quantum theory of radiation.

In 1909 Einstein was made professor of physics at the University of Zürich, where he had received his Ph.D. in 1905. He continued to work on relativity, the special theory of which had constituted one of his papers of 1905; and in 1916 he published his famous paper on the general theory of relativity. He received the Nobel Prize in physics for 1921.

After 1920 Einstein to some extent parted company from the main development of modern physics. Its dependence on probability concerned him, for this seemed to indicate that its laws were only provisional. He asserted that an over-all reduction of all physical laws to geometry would be the test of a true theory. He believed that he had made such a reduction before his death, but most physicists do not as yet agree that his final formulation adequately explains the observed phenomena.

To escape the anti-Jewish persecutions of Hitler's Germany, and in order to continue his researches in freedom, Einstein left Europe for the United States in 1933. He joined the Institute for Advanced

Study, in Princeton, New Jersey, and remained there for the rest of his life. In 1939 it became known to him that two German physicists had brought about the fission of uranium. He was asked to inform the American government of the possible results of this achievement, and he did so, in a letter to President Roosevelt. As a consequence, the Manhattan Project was instituted, which built the atomic bomb. There was a profound irony in this, for Einstein was always a sincere pacifist and humanitarian. He died at Princeton in 1955.

Leopold Infeld was born at Crakow, Poland, in 1898. He studied at Lwów and Crakow, receiving his Ph.D. from the latter's university in 1921. He went to England and then to America, where he joined the Institute for Advanced Study, 1936–38. He was professor of applied mathematics at the University of Toronto from 1939–50, after which he returned to Poland. He was associated with the University of Warsaw until his death on January 16, 1968.

He made contributions to the theory of relativity and to quantum theory, and he wrote several books of a popular nature. It was at the Institute for Advanced Study that he and Einstein planned and wrote *The Evolution of Physics* (1938), from which the following selection is taken.

Scientific concepts often begin with those used in ordinary language for the affairs of everyday life," say the authors, "but they develop quite differently. They are transformed and lose the ambiguity associated with them in ordinary language, gaining in rigorousness so that they may be applied to scientific thought." They go on to explain that the special language of science is mathematics. "Mathematics as a tool of reasoning," they write, "is necessary if we wish to draw conclusions which may be compared with experiment." And they point out that "the price which must be paid for abandoning the language of mathematics is a loss in precision, and the neces-

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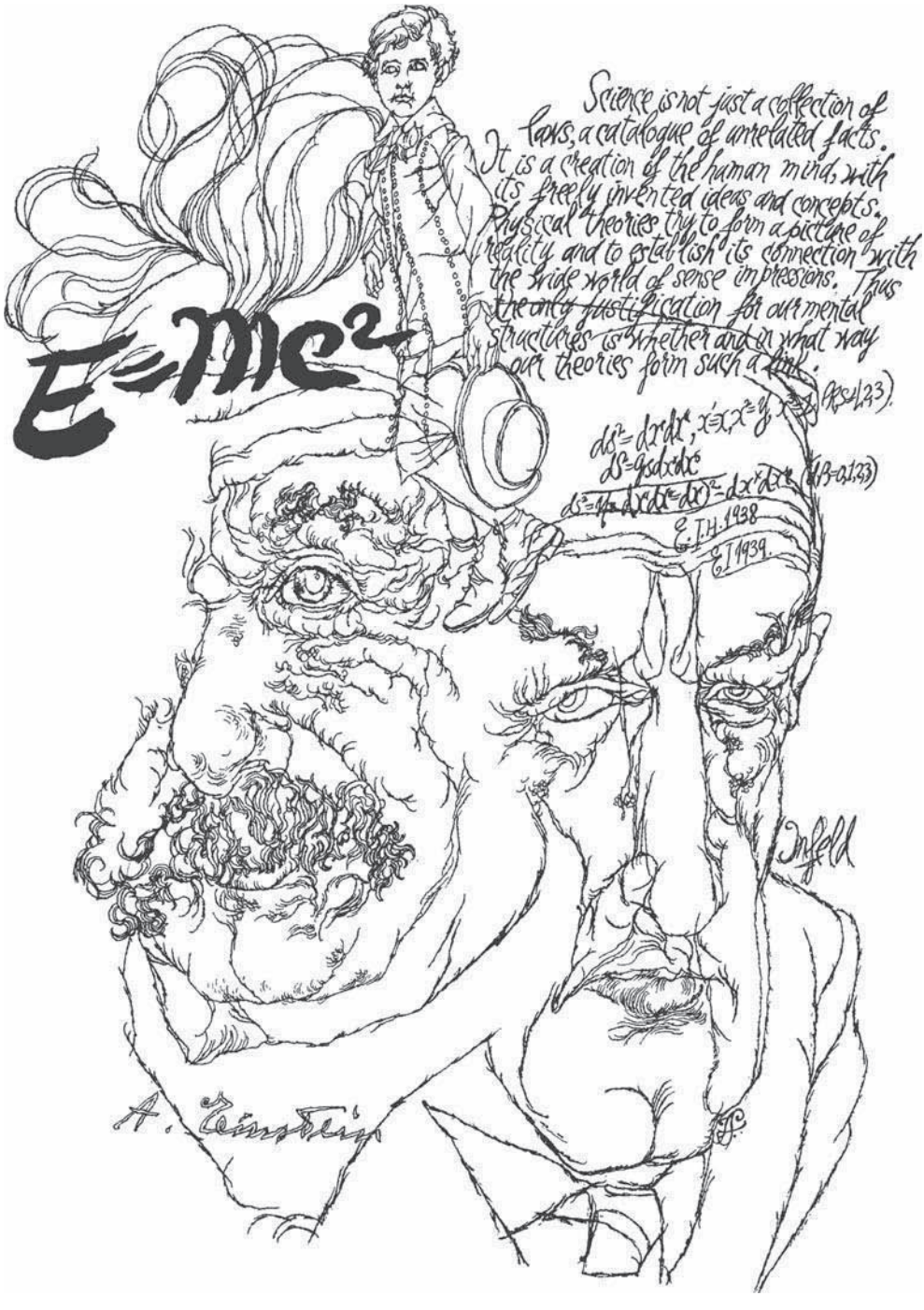
Notes from the artist: "Einstein and his collaborator, Infeld, are presented in a double portrait, together with the famous formula expressing the relation of mass and energy. A sketch of Einstein as a boy is also included. The quotation is from The Evolution of Physics."


E=mc²
Science is not just a collection of laws, a catalogue of unrelated facts. It is a creation of the human mind, with its freely invented ideas and concepts. Physical theories try to form a picture of reality and to establish its connection with the wide world of sense impressions. Thus the only justification for our mental structures is whether and in what way our theories form such a link.
(μ,ν=1,2,3).
(μ=0,1,2,3)
E. I. H. 1938
©I 1939
Infeld
A. Einstein

sity of sometimes quoting results without showing how they were reached."

However, the authors are willing to pay the price. The reader will notice that in this long selection–indeed, in the entire book from which it is taken–there is not a single mathematical formula. This discussion of classical physical theory and its transformation into modern physics is written in a language other than the special language that made the transformation possible and necessary.

That revolutionary changes in scientific theory are necessary, and indeed inevitable, is a point emphasized by the authors. "Physical concepts are free creations of the human mind," they say, "and are not, however it may seem, uniquely determined by the external world." They compare the scientist to a man "trying to understand the mechanism of a closed watch." He can never open the watch; he can only form a picture of a mechanism that would explain what he sees happening on the face of the watch. "He will never be able to compare his picture with the real mechanism. . . . But he certainly believes that, as his knowledge increases, his picture of reality will become simpler and simpler and will explain a wider and wider range of his sensuous impressions."

This idea is an extremely important one for modern science. Successive theories only approximate the "objective truth," they can never reach it. Indeed, its existence may be denied. The criteria by which one theory is preferred to another would still remain the same. They are, as Einstein and Infeld point out, simplicity and comprehensibility.

The authors indicate why it is that "there are no eternal theories in science." They write: "It always happens that some of the facts predicted by a theory are disproved by experiment. Every theory has its period of gradual development and triumph, after which it may experience a rapid decline. . . . Nearly every great advance in science arises from a crisis in the old theory, through an endeavor to find a way out of the difficulties created. We must examine old ideas, old theories, although they belong to the past, for this is the only way to understand the importance of the new ones and the extent of their validity."

This, too, is an important point. And it applies not only in science. In philosophy, in history, in law, and in medicine, it is equally essential, for an adequate understanding of the present, to understand the past. It is often said that the unwillingness of modern

education to recognize this principle is one of its most striking failures.

The following selection from *The Evolution of Physics* is a remarkable piece of writing. It treats of difficult ideas with the utmost simplicity; it makes plain what would otherwise be dark. Its discussion, for example, of the change from the substance theory of heat to the mechanical theory of heat is a model of clarity. It is particularly useful for the reader of this volume, for it reviews the history of physics from Galileo and Newton to Einstein himself. That is a period in which most of the essays and lectures reprinted here were first published. Besides being illuminating in itself, it can thus serve as background reading for many of them.

The selection is most valuable of all, perhaps, for the questions it raises. Indeed, it suggests that asking questions is of primary importance. "The formulation of a problem," the authors say, "is often more essential than its solution, which may be merely a matter of mathematical or experimental skill."

The Rise and Decline of Classical Physics
from *The Evolution of Physics*

THE RISE OF THE MECHANICAL VIEW

The Great Mystery Story

In imagination there exists the perfect mystery story. Such a story presents all the essential clues, and compels us to form our own theory of the case. If we follow the plot carefully we arrive at the complete solution for ourselves just before the author's disclosure at the end of the book. The solution itself, contrary to those of inferior mysteries, does not disappoint us; moreover, it appears at the very moment we expect it.

Can we liken the reader of such a book to the scientists, who throughout successive generations continue to seek solutions of the mysteries in the book of nature? The comparison is false and will have to be abandoned later, but it has a modicum of justification which may be extended and modified to make it more appropriate to the endeavor of science to solve the mystery of the universe.

This great mystery story is still unsolved. We cannot even be sure that it has a final solution. The reading has already given us much; it has taught us the rudiments of the language of nature; it has enabled us to understand many of the clues, and has been a source of joy and excitement in the oftentimes painful advance of science. But we realize that in spite of all the volumes read and understood we are still far from a complete solution, if, indeed, such a thing exists at all. At every stage we try to find an explanation consistent with the clues already discovered. Tentatively accepted theories have explained many of the facts, but no general solution compatible with all known clues has yet been evolved. Very often a seemingly perfect theory has

proved inadequate in the light of further reading. New facts appear, contradicting the theory or unexplained by it. The more we read, the more fully do we appreciate the perfect construction of the book, even though a complete solution seems to recede as we advance.

In nearly every detective novel since the admirable stories of Conan Doyle there comes a time where the investigator has collected all the facts he needs for at least some phase of his problem. These facts often seem quite strange, incoherent, and wholly unrelated. The great detective, however, realizes that no further investigation is needed at the moment, and that only pure thinking will lead to a correlation of the facts collected. So he plays his violin, or lounges in his armchair enjoying a pipe, when suddenly, by Jove, he has it! Not only does he have an explanation for the clues at hand, but he knows that certain other events must have happened. Since he now knows exactly where to look for it, he may go out, if he likes, to collect further confirmation for his theory.

The scientist reading the book of nature, if we may be allowed to repeat the trite phrase, must find the solution for himself, for he cannot, as impatient readers of other stories often do, turn to the end of the book. In our case the reader is also the investigator, seeking to explain, at least in part, the relation of events to their rich context. To obtain even a partial solution the scientist must collect the unordered facts available and make them coherent and understandable by creative thought.

It is our aim, in the following pages, to describe in broad outline that work of physicists which corresponds to the pure thinking of the investigator. We shall be chiefly concerned with the role of thoughts and ideas in the adventurous search for knowledge of the physical world.

The First Clue. Attempts to read the great mystery story are as old as human thought itself. Only a little over three hundred years ago, however, did scientists begin to understand the language of the story. Since that time, the age of Galileo and Newton, the reading has proceeded rapidly. Techniques of investigation, systematic methods of finding and following clues, have been developed. Some of the riddles of nature have been solved although many of the solutions have proved temporary and superficial in the light of further research.

A most fundamental problem, for thousands of years wholly obscured by its complications, is that of motion. All those motions we observe in nature, that of a stone thrown into the air, a ship sailing the sea, a cart pushed along the street, are in reality very intricate. To understand

these phenomena it is wise to begin with the simplest possible cases, and proceed gradually to the more complicated ones. Consider a body at rest, where there is no motion at all. To change the position of such a body it is necessary to exert some influence upon it, to push it or lift it, or let other bodies, such as horses or steam engines, act upon it. Our intuitive idea is that motion is connected with the acts of pushing, lifting or pulling. Repeated experience would make us risk the further statement that we must push harder if we wish to move the body faster. It seems natural to conclude that the stronger the action exerted on a body, the greater will be its speed. A four-horse carriage goes faster than a carriage drawn by only two horses. Intuition thus tells us that speed is essentially connected with action.

It is a familiar fact to readers of detective fiction that a false clue muddles the story and postpones the solution. The method of reasoning dictated by intuition was wrong and led to false ideas of motion which were held for centuries. Aristotle's great authority throughout Europe was perhaps the chief reason for the long belief in this intuitive idea. We read in the *Mechanics*, for two thousand years attributed to him:

> The moving body comes to a standstill when the force which pushes it along can no longer so act as to push it.

The discovery and use of scientific reasoning by Galileo was one of the most important achievements in the history of human thought, and marks the real beginning of physics. This discovery taught us that intuitive conclusions based on immediate observation are not always to be trusted, for they sometimes lead to the wrong clues.

But where does intuition go wrong? Can it possibly be wrong to say that a carriage drawn by four horses must travel faster than one drawn by only two?

Let us examine the fundamental facts of motion more closely, starting with simple everyday experiences familiar to mankind since the beginning of civilization and gained in the hard struggle for existence.

Suppose that someone going along a level road with a pushcart suddenly stops pushing. The cart will go on moving for a short distance before coming to rest. We ask: how is it possible to increase this distance? There are various ways, such as oiling the wheels, and making the road very smooth. The more easily the wheels turn, and the smoother the road, the longer the cart will go on moving. And just what has been done by the oiling and smoothing? Only this: the external influences have been made smaller. The effect of what is called friction has been diminished, both in the wheels and between the wheels and the road.

This is already a theoretical interpretation of the observable evidence, an interpretation which is, in fact, arbitrary. One significant step further and we shall have the right clue. Imagine a road perfectly smooth, and wheels with no friction at all. Then there would be nothing to stop the cart, so that it would run forever. This conclusion is reached only by thinking of an idealized experiment, which can never be actually performed, since it is impossible to eliminate all external influences. The idealized experiment shows the clue which really formed the foundation of the mechanics of motion.

Comparing the two methods of approaching the problem we can say: the intuitive idea is—the greater the action the greater the velocity. Thus the velocity shows whether or not external forces are acting on a body. The new clue found by Galileo is: if a body is neither pushed, pulled, nor acted on in any other way, or, more briefly, if no external forces act on a body, it moves uniformly, that is, always with the same velocity along a straight line. Thus, the velocity does not show whether or not external forces are acting on a body. Galileo's conclusion, the correct one, was formulated a generation later by Newton as the *law of inertia*. It is usually the first thing about physics which we learn by heart in school, and some of us may remember it:

> Every body perseveres in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed thereon.

We have seen that this law of inertia cannot be derived directly from experiment, but only by speculative thinking consistent with observation. The idealized experiment can never be actually performed, although it leads to a profound understanding of real experiments.

From the variety of complex motions in the world around us we choose as our first example uniform motion. This is the simplest, because there are no external forces acting. Uniform motion can, however, never be realized; a stone thrown from a tower, a cart pushed along a road can never move absolutely uniformly because we cannot eliminate the influence of external forces.

In a good mystery story the most obvious clues often lead to the wrong suspects. In our attempts to understand the laws of nature we find, similarly, that the most obvious intuitive explanation is often the wrong one.

Human thought creates an ever-changing picture of the universe. Galileo's contribution was to destroy the intuitive view and replace it by a new one. This is the significance of Galileo's discovery.

But a further question concerning motion arises immediately. If the velocity is no indication of the external forces acting on a body, what is? The answer to this fundamental question was found by Galileo and still more concisely by Newton, and forms a further clue in our investigation.

To find the correct answer we must think a little more deeply about the cart on a perfectly smooth road. In our idealized experiment the uniformity of the motion was due to the absence of all external forces. Let us now imagine that the uniformly moving cart is given a push in the direction of the motion. What happens now? Obviously its speed is increased. Just as obviously, a push in the direction opposite to that of the motion would decrease the speed. In the first case the cart is accelerated by the push, in the second case decelerated, or slowed down. A conclusion follows at once: the action of an external force changes the velocity. Thus not the velocity itself but its change is a consequence of pushing or pulling. Such a force either increases or decreases the velocity according to whether it acts in the direction of motion or in the opposite direction. Galileo saw this clearly and wrote in his *Two New Sciences*:

> . . . any velocity once imparted to a moving body will be rigidly maintained as long as the external causes of acceleration or retardation are removed, a condition which is found only on horizontal planes; for in the case of planes which slope downwards there is already present a cause of acceleration; while on planes sloping upward there is retardation; from this it follows that motion along a horizontal plane is perpetual; for, if the velocity be uniform, it cannot be diminished or slackened, much less destroyed.

By following the right clue we achieve a deeper understanding of the problem of motion. The connection between force and the change of velocity and not, as we should think according to our intuition, the connection between force and the velocity itself is the basis of classical mechanics as formulated by Newton.

We have been making use of two concepts which play principal roles in classical mechanics: force and change of velocity. In the further development of science both of these concepts are extended and generalized. They must, therefore, be examined more closely.

What is force? Intuitively, we feel what is meant by this term. The concept arose from the effort of pushing, throwing or pulling; from the muscular sensation accompanying each of these acts. But its gener-

alization goes far beyond these simple examples. We can think of force even without picturing a horse pulling a carriage! We speak of the force of attraction between the sun and the earth, the earth and the moon, and of those forces which cause the tides. We speak of the force by which the earth compels ourselves and all the objects about us to remain within its sphere of influence, and of the force with which the wind makes waves on the sea, or moves the leaves of trees. When and where we observe a change in velocity, an external force, in the general sense, must be held responsible. Newton wrote in his *Principia:*

> An impressed force is an action exerted upon a body, in order to change its state, either of rest, or of moving uniformly forward in a right line.
>
> This force consists in the action only; and remains no longer in the body, when the action is over. For a body maintains every new state it acquires, by its *vis inertiae* [force of inertia] only. Impressed forces are of different origins; as from percussion, from pressure, from centripetal force.

If a stone is dropped from the top of a tower its motion is by no means uniform; the velocity increases as the stone falls. We conclude: an external force is acting in the direction of the motion. Or, in other words: the earth attracts the stone. Let us take another example. What happens when a stone is thrown straight upward? The velocity decreases until the stone reaches its highest point and begins to fall. This decrease in velocity is caused by the same force as the acceleration of a falling body. In one case the force acts in the direction of the motion, in the other case in the opposite direction. The force is the same, but it causes acceleration or deceleration according to whether the stone is dropped or thrown upward.

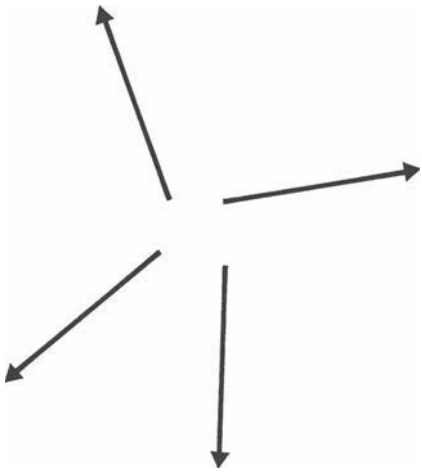
Vectors. All motions we have been considering are *rectilinear*, that is, along a straight line. Now we must go one step further. We gain an understanding of the laws of nature by analyzing the simplest cases and by leaving out of our first attempts all intricate complications. A straight line is simpler than a curve. It is, however, impossible to be satisfied with an understanding of rectilinear motion alone. The motions of the moon, the earth and the planets, just those to which the principles of mechanics have been applied with such brilliant success, are motions along curved paths. Passing from rectilinear motion to motion along a curved path brings new difficulties. We must have the courage to overcome them if we wish to understand the principles of classical mechanics which gave us the first clues and so formed the starting point for the development of science.

Let us consider another idealized experiment, in which a perfect sphere rolls uniformly on a smooth table. We know that if the sphere is given a push, that is, if an external force is applied, the velocity will be changed. Now suppose that the direction of the blow is not, as in the example of the cart, in the line of motion, but in a quite different direction, say, perpendicular to that line. What happens to the sphere? Three stages of the motion can be distinguished: the initial motion, the action of the force, and the final motion after the force has ceased to act. According to the law of inertia the velocities before and after the action of the force are both perfectly uniform. But there is a difference between the uniform motion before and after the action of the force: the direction is changed. The initial path of the sphere and the direction of the force are perpendicular to each other. The final motion will be along neither of these two lines, but somewhere between them, nearer the direction of the force if the blow is a hard one and the initial velocity small, nearer the original line of motion if the blow is gentle and the initial velocity great. Our new conclusion, based on the law of inertia, is: in general the action of an external force changes not only the speed but also the direction of the motion. An understanding of this fact prepares us for the generalization introduced into physics by the concept of *vectors*.

We can continue to use our straightforward method of reasoning. The starting point is again Galileo's law of inertia. We are still far from exhausting the consequences of this valuable clue to the puzzle of motion.

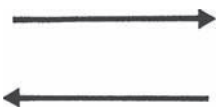
Let us consider two spheres moving in different directions on a smooth table. So as to have a definite picture we may assume the two directions perpendicular to each other. Since there are no external forces acting, the motions are perfectly uniform. Suppose, further, that the speeds are equal, that is, both cover the same distance in the same interval of time. But is it correct to say that the two spheres have the same velocity? The answer can be yes or no! If the speedometers of two cars both show forty miles per hour it is usual to say that they have the same speed or velocity, no matter in which direction they are traveling. But science must create its own language, its own concepts, for its own use. Scientific concepts often begin with those used in ordinary language for the affairs of everyday life, but they develop quite differently. They are transformed and lose the ambiguity associated with them in ordinary language, gaining in rigorousness so that they may be applied to scientific thought.

From the physicist's point of view it is advantageous to say that the velocities of the two spheres moving in different directions are different. Although purely a matter of convention, it is more convenient to say that four cars traveling away from the same traffic circle on different roads do not have the same velocity even though the speeds, as registered on the speedometers, are all forty miles per hour. This differentiation between speed and velocity illustrates how physics, starting with a concept used in everyday life, changes it in a way which proves fruitful in the further development of science.



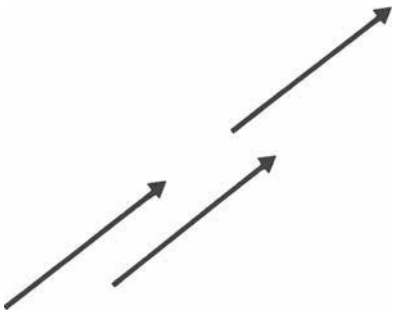
If a length is measured, the result is expressed as a number of units. The length of a stick may be 3 ft. 7 in.; the weight of some object 2 lb. 3 oz.; a measured time interval so many minutes or seconds. In each of these cases the result of the measurement is expressed by a number. A number alone is, however, insufficient for describing some physical concepts. The recognition of this fact marked a distinct advance in scientific investigation. A direction as well as a number is essential for the characterization of a velocity, for example. Such a quantity, possessing both magnitude and direction, is called a *vector*. A suitable symbol for it is an arrow. Velocity may be represented by an arrow or, briefly speaking, by a vector whose length in some chosen scale of units is a measure of the speed, and whose direction is that of the motion.

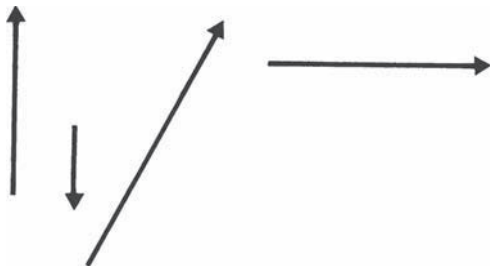
If four cars diverge with equal speed from a traffic circle, their velocities can be represented by four vectors of the same length, as seen from our last drawing. In the scale used one inch stands for 40 m.p.h. In this way any velocity may be denoted by a vector, and conversely, if the scale is known, one may ascertain the velocity from such a vector diagram.



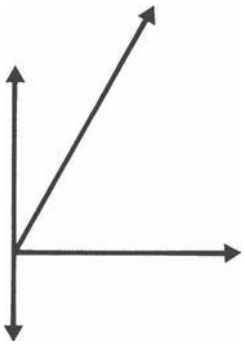
If two cars pass each other on the highway and their speedometers both show 40 m.p.h. we characterize their velocities by two different vectors with arrows pointing in opposite directions. So also the arrows indicating "uptown" and "downtown" subway trains must point in

opposite directions. But all trains moving uptown at different stations or on different avenues with the same speed have the same velocity, which may be represented by a single vector. There is nothing about a vector to indicate which stations the train passes or on which of the many parallel tracks it is running. In other words, according to the accepted convention, all such vectors, as drawn [at left], may be regarded as equal; they lie along the same or parallel lines, are of equal length, and finally, have arrows pointing in the same direction. The next figure shows vectors all different, because they differ either in length or direction, or both. The same four vectors may be drawn in another way, in which they all diverge



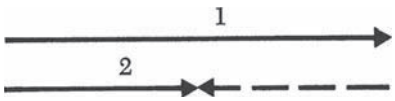


from a common point. Since the starting point does not matter, these vectors can represent the velocities of four cars moving away from the same traffic circle, or the velocities of four cars in different parts of the country traveling with the indicated speeds in the indicated directions.



This vector representation may now be used to describe the facts previously discussed concerning rectilinear motion. We talked of a cart, moving uniformly in a straight line and receiving a push in the direction of its motion which increases its velocity. Graphically [p. 499] this may be represented by two vectors, a shorter one denoting the velocity before the push and a longer one in the same direction denoting the velocity after the push. The meaning of the dotted [dashed] vector is clear; it represents the change in velocity for which, as we know, the push is responsible. For the case where the force

is directed against the motion, where the motion is slowed down, the diagram is somewhat different. Again the dotted vector corresponds to a change in velocity, but in this case its direction is different. It is clear that not only velocities themselves but also their changes are vectors. But every change in velocity is due to the action of an external force; thus the force must also be represented by a vector. In order to characterize a force it is not sufficient to state how hard we push the cart; we must also say in which direction we push. The force, like the velocity or its change, must be represented by a vector and not by a number alone. Therefore: the external force is also a vector, and must have the same direction as the change in velocity. In the last two drawings the dotted vectors show the direction of the force as truly as they indicate the change in velocity.



Here the skeptic may remark that he sees no advantage in the introduction of vectors. All that has been accomplished is the translation of previously recognized facts into an unfamiliar and complicated language. At this stage it would indeed be difficult to convince him that he is wrong. For the moment he is, in fact, right. But we shall see that just this strange language leads to an important generalization in which vectors appear to be essential.

The Riddle of Motion. So long as we deal only with motion along a straight line we are far from understanding the motions observed in nature. We must consider motions along curved paths, and our next step is to determine the laws governing such motions. This is no easy task. In the case of rectilinear motion our concepts of velocity, change of velocity, and force proved most useful. But we do not immediately see how we can apply them to motion along a curved path. It is indeed possible to imagine that the old concepts are unsuited to the description of general motion, and that new ones must be created. Should we try to follow our old path, or seek a new one?

The generalization of a concept is a process very often used in science. A method of generalization is not uniquely determined, for there are usually numerous ways of carrying it out. One requirement, however, must be rigorously satisfied: any generalized concept must reduce to the original one when the original conditions are fulfilled.

We can best explain this by the example with which we are now dealing. We can try to generalize the old concepts of velocity, change

of velocity and force for the case of motion along a curved path. Technically, when speaking of curves, we include straight lines. The straight line is a special and trivial example of a curve. If, therefore, velocity, change in velocity and force are introduced for motion along a curved line, then they are automatically introduced for motion along a straight line. But this result must not contradict those results previously obtained. If the curve becomes a straight line, all the generalized concepts must reduce to the familiar ones describing rectilinear motion. But this restriction is not sufficient to determine the generalization uniquely. It leaves open many possibilities. The history of science shows that the simplest generalizations sometimes prove successful and sometimes not. We must first make a guess. In our case it is a simple matter to guess the right method of generalization. The new concepts prove very successful and help us to understand the motion of a thrown stone as well as that of the planets.

And now just what do the words velocity, change in velocity, and force mean in the general case of motion along a curved line? Let us begin with velocity. Along the curve a very small body is moving from left to right. Such a small body is often called a *particle*. The dot on the curve in our drawing shows the position of the particle at some instant of time. What is the velocity corresponding to this time and position?

Again Galileo's clue hints at a way of introducing the velocity. We must, once more, use our imagination and think about an idealized experiment. The particle moves along the curve, from left to right, under the influence of external forces. Imagine that at a given time and at the point indicated by the dot, all these forces suddenly cease to act. Then, the motion must, according to the law of inertia, be uniform. In practice we can, of course, never completely free a body from all external influences. We can only surmise "what would happen if . . . ?" and judge the pertinence of our guess by the conclusions which can be drawn from it and by their agreement with experiment.

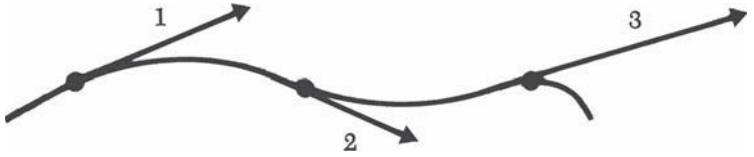
The vector in the next drawing indicates the guessed direction of the uniform motion if all external forces were to vanish. It is the direction of the so-called tangent. Looking at a moving particle through a microscope one sees a very small part of the curve, which appears as a small

segment. The tangent is its prolongation. Thus the vector drawn represents the velocity at a given instant. The velocity vector lies on the

tangent. Its length represents the magnitude of the velocity, or the speed as indicated, for instance, by the speedometer of a car.

Our idealized experiment about destroying the motion in order to find the velocity vector must not be taken too seriously. It only helps us to understand what we should call the velocity vector and enables us to determine it for a given instant at a given point.

In the next drawing, the velocity vectors for three different positions of a particle moving along a curve are shown. In this case not only the



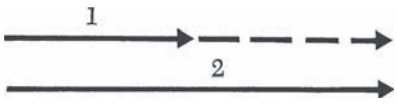
direction but the magnitude of the velocity, as indicated by the length of the vector, varies during the motion.

Does this new concept of velocity satisfy the requirement formulated for all generalizations? That is: does it reduce to the familiar concept if the curve becomes a straight line? Obviously it does. The tangent to a straight line is the line itself. The velocity vector lies in the line of the motion, just as in the case of the moving cart or the rolling spheres.

The next step is the introduction of the change in velocity of a particle moving along a curve. This also may be done in various ways, from which we choose the simplest and most convenient. The last drawing showed several velocity vectors representing the motion at various

points along the path. The first two of these may be drawn again so that they have a common starting point, as we have seen is possible

with vectors. The dotted vector, we call the change in velocity. Its starting point is the end of the first vector and its end point the end of the second vector. This definition of the change in velocity may, at first sight, seem artificial and meaningless. It becomes much clearer in the special case in which vectors (1) and (2) have the same direction. This, of course, means going over to the case of straight-line motion. If both vectors have the same initial point the dotted vector again connects their end points. The drawing is now identical with that on page 499, and the previous concept is regained as a special case of the new one. We may remark that we had to separate the two lines in our drawing since otherwise they would coincide and be indistinguishable.



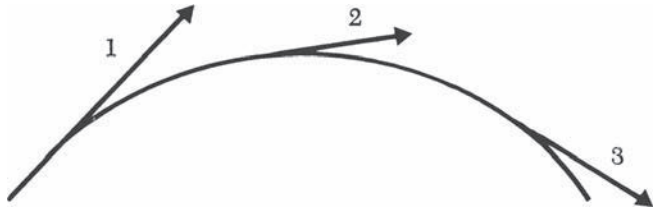
We now have to take the last step in our process of generalization. It is the most important of all the guesses we have had to make so far. The connection between force and change in velocity has to be established so that we can formulate the clue which will enable us to understand the general problem of motion.

The clue to an explanation of motion along a straight line was simple: external force is responsible for change in velocity; the force vector has the same direction as the change. And now what is to be regarded as the clue to curvilinear motion? Exactly the same! The only difference is that change of velocity has now a broader meaning than before. A glance at the dotted vectors of the last two drawings shows this point clearly. If the velocity is known for all points along the curve, the direction of the force at any point can be deduced at once. One must draw the velocity vectors for two instants separated by a very short time-interval and therefore corresponding to positions very near each other. The vector from the end point of the first to that of the second indicates the direction of the acting force. But it is essential that the two velocity vectors should be separated only by a "very short" time-interval. The rigorous analysis of such words as "very near," "very short" is far from simple. Indeed it was this analysis which led Newton and Leibnitz to the discovery of differential calculus.

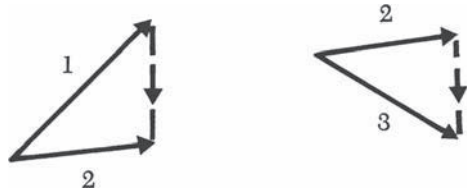
It is a tedious and elaborate path which leads to the generalization of Galileo's clue. We cannot show here how abundant and fruitful the consequences of this generalization have proved. Its application leads to simple and convincing explanations of many facts previously incoherent and misunderstood.

From the extremely rich variety of motions we shall take only the simplest and apply to their explanation the law just formulated.

A bullet shot from a gun, a stone thrown at an angle, a stream of water emerging from a hose, all describe familiar paths of the same type, the parabola. Imagine a speedometer attached to a stone, for example, so that its velocity vector may be drawn for any instant. The

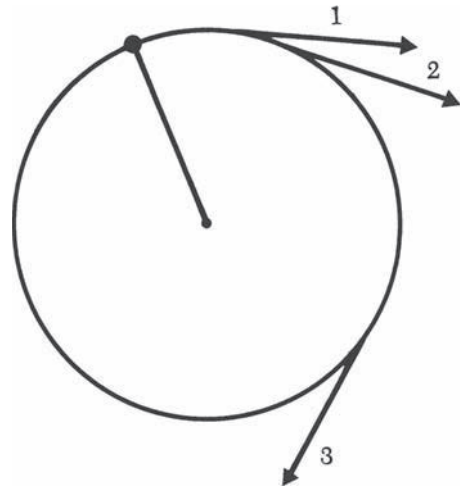


result may well be that represented in the last drawing. The direction of the force acting on the stone is just that of the change in velocity, and we have seen how it may be determined. The result, shown in the next drawing, indicates that the force is vertical, and directed down-



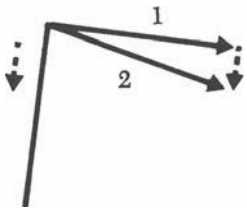
ward. It is exactly the same as when a stone is allowed to fall from the top of a tower. The paths are quite different, as also are the velocities, but the change in velocity has the same direction, that is, toward the center of the earth.

A stone attached to the end of a string and swung around in a horizontal plane moves in a circular path.



All the vectors in the diagram representing this motion have the same length if the speed is uniform. Nevertheless, the velocity is not uniform, for the path is not a straight line. Only in uniform, rectilinear motion are there no forces involved. Here, however, there are, and the velocity changes not in magnitude but in direction. According to the law of motion there must be some force responsible for this change, a force in this case between the stone and

the hand holding the string. A further question arises immediately: in what direction does the force act? Again a vector diagram shows the answer. The velocity vectors for two very near points are drawn, and the change of velocity found. This last vector is seen to be directed along the string toward the center of the circle, and is always perpendicular to the velocity vector, or tangent. In other words the hand exerts a force on the stone by means of the string.



Very similar is the more important example of the revolution of the moon around the earth. This may be represented approximately as uniform circular motion. The force is directed toward the earth for the same reason that it was directed toward the hand in our former example. There is no string connecting the earth and the moon, but we can imagine a line between the centers of the two bodies; the force lies along this line and is directed toward the center of the earth, just as the force on a stone thrown in the air or dropped from a tower.

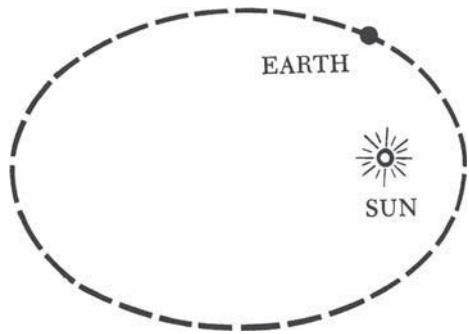
All that we have said concerning motion can be summed up in a single sentence. *Force and change of velocity are vectors having the same direction*. This is the initial clue to the problem of motion, but it certainly does not suffice for a thorough explanation of all motions observed. The transition from Aristotle's line of thought to that of Galileo formed a most important cornerstone in the foundation of science. Once this break was made, the line of further development was clear. Our interest here lies in the first stages of development, in following initial clues, in showing how new physical concepts are born in the painful struggle with old ideas. We are concerned only with pioneer work in science, which consists of finding new and unexpected paths of development; with the adventures in scientific thought which create an ever-changing picture of the universe. The initial and fundamental steps are always of a revolutionary character. Scientific imagination finds old concepts too confining, and replaces them by new ones. The continued development along any line already initiated is more in the nature of evolution, until the next turning point is reached when a still newer field must be conquered. In order to understand, however, what reasons and what difficulties force a change in important concepts, we must know not only the initial clues, but also the conclusions which can be drawn.

One of the most important characteristics of modern physics is that the conclusions drawn from initial clues are not only qualitative but

also quantitative. Let us again consider a stone dropped from a tower. We have seen that its velocity increases as it falls, but we should like to know much more. Just how great is this change? And what is the position and the velocity of the stone at any time after it begins to fall? We wish to be able to predict events and to determine by experiment whether observation confirms these predictions and thus the initial assumptions.

To draw quantitative conclusions we must use the language of mathematics. Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone. To follow up these ideas demands the knowledge of a highly refined technique of investigation. Mathematics as a tool of reasoning is necessary if we wish to draw conclusions which may be compared with experiment. So long as we are concerned only with fundamental physical ideas we may avoid the language of mathematics. Since in these pages we do this consistently, we must occasionally restrict ourselves to quoting, without proof, some of the results necessary for an understanding of important clues arising in the further development. The price which must be paid for abandoning the language of mathematics is a loss in precision, and the necessity of sometimes quoting results without showing how they were reached.

A very important example of motion is that of the earth around the sun. It is known that the path is a closed curve, called the ellipse. The construction of a vector diagram of the change in velocity shows that the force on the earth is directed toward the sun. But this, after all, is scant information. We should like to be able to predict the position of the earth and the other planets for any arbitrary instant of time, we should like to predict the date and duration of the next solar eclipse and many other astronomical events. It is possible to do these things, but not on the basis of our initial clue alone, for it is now necessary to know not only the direction of the force but also its absolute value, its magnitude. It was Newton who made the inspired guess on this point. According to his law of gravitation the force of attraction between two bodies depends in a simple way on their distance



from each other. It becomes smaller when the distance increases. To be specific it becomes $2 \times 2 = 4$ times smaller if the distance is doubled, $3 \times 3 = 9$ times smaller if the distance is made three times as great.

Thus we see that in the case of gravitational force we have succeeded in expressing, in a simple way, the dependence of the force on the distance between the moving bodies. We proceed similarly in all other cases where forces of different kinds, for instance, electric, magnetic, and the like, are acting. We try to use a simple expression for the force. Such an expression is justified only when the conclusions drawn from it are confirmed by experiment.

But this knowledge of the gravitational force alone is not sufficient for a description of the motion of the planets. We have seen that vectors representing force and change in velocity for any short interval of time have the same direction, but we must follow Newton one step further and assume a simple relation between their lengths. Given all other conditions the same, that is, the same moving body and changes considered over equal time intervals, then, according to Newton, the change of velocity is proportional to the force.

Thus just two complementary guesses are needed for quantitative conclusions concerning the motion of the planets. One is of a general character, stating the connection between force and change in velocity. The other is special, and states the exact dependence of the particular kind of force involved on the distance between the bodies. The first is Newton's general law of motion, the second his law of gravitation. Together they determine the motion. This can be made clear by the following somewhat clumsy-sounding reasoning. Suppose that at a given time the position and velocity of a planet can be determined, and that the force is known. Then, according to Newton's laws we know the change in velocity during a short time interval. Knowing the initial velocity and its change, we can find the velocity and position of the planet at the end of the time interval. By a continued repetition of this process the whole path of the motion may be traced without further recourse to observational data. This is, in principle, the way mechanics predicts the course of a body in motion, but the method used here is hardly practical. In practice such a step-by-step procedure would be extremely tedious as well as inaccurate. Fortunately, it is quite unnecessary; mathematics furnishes a short cut, and makes possible precise description of the motion in much less ink than we use for a single sentence. The conclusions reached in this way can be proved or disproved by observation.

The same kind of external force is recognized in the motion of a stone falling through the air and in the revolution of the moon in its orbit, namely, that of the earth's attraction for material bodies. Newton recognized that the motions of falling stones, of the moon, and of planets are only very special manifestations of a universal gravitational force acting between any two bodies. In simple cases the motion may be described and predicted by the aid of mathematics. In remote and extremely complicated cases, involving the action of many bodies on each other, a mathematical description is not so simple, but the fundamental principles are the same.

We find the conclusions, at which we arrived by following our initial clues, realized in the motion of a thrown stone, in the motion of the moon, the earth, and the planets.

It is really our whole system of guesses which is to be either proved or disproved by experiment. No one of the assumptions can be isolated for separate testing. In the case of the planets moving around the sun it is found that the system of mechanics works splendidly. Nevertheless we can well imagine that another system, based on different assumptions, might work just as well.

Physical concepts are free creations of the human mind, and are not, however it may seem, uniquely determined by the external world. In our endeavor to understand reality we are somewhat like a man trying to understand the mechanism of a closed watch. He sees the face and the moving hands, even hears its ticking, but he has no way of opening the case. If he is ingenious he may form some picture of a mechanism which could be responsible for all the things he observes, but he may never be quite sure his picture is the only one which could explain his observations. He will never be able to compare his picture with the real mechanism and he cannot even imagine the possibility or the meaning of such a comparison. But he certainly believes that, as his knowledge increases, his picture of reality will become simpler and simpler and will explain a wider and wider range of his sensuous impressions. He may also believe in the existence of the ideal limit of knowledge and that it is approached by the human mind. He may call this ideal limit the objective truth.

One Clue Remains. When first studying mechanics one has the impression that everything in this branch of science is simple, fundamental and settled for all time. One would hardly suspect the existence of an important clue which no one noticed for three hundred years. The neglected clue is connected with one of the fundamental concepts of mechanics, that of *mass.*

Again we return to the simple idealized experiment of the cart on a perfectly smooth road. If the cart is initially at rest and then given a push, it afterwards moves uniformly with a certain velocity. Suppose that the action of the force can be repeated as many times as desired, the mechanism of pushing acting in the same way and exerting the same force on the same cart. However many times the experiment is repeated the final velocity is always the same. But what happens if the experiment is changed, if previously the cart was empty and now it is loaded? The loaded cart will have a smaller final velocity than the empty one. The conclusion is: if the same force acts on two different bodies, both initially at rest, the resulting velocities will not be the same. We say that the velocity depends on the mass of the body, being smaller if the mass is greater.

We know, therefore, at least in theory, how to determine the mass of a body or, more exactly, how many times greater one mass is than another. We have identical forces acting on two resting masses. Finding that the velocity of the first mass is three times greater than that of the second we conclude that the first mass is three times smaller than the second. This is certainly not a very practical way of determining the ratio of two masses. We can, nevertheless, well imagine having done it in this, or in some similar way, based upon the application of the law of inertia.

How do we really determine mass in practice? Not, of course, in the way just described. Everyone knows the correct answer. We do it by weighing on a scale.

Let us discuss in more detail the two different ways of determining mass.

The first experiment had nothing whatever to do with gravity, the attraction of the earth. The cart moves along a perfectly smooth and horizontal plane after the push. Gravitational force, which causes the cart to stay on the plane, does not change, and plays no role in the determination of the mass. It is quite different with weighing. We could never use a scale if the earth did not attract bodies, if gravity did not exist. The difference between the two determinations of mass is that the first has nothing to do with the force of gravity while the second is based essentially on its existence.

We ask: if we determine the ratio of two masses in both ways described above do we obtain the same result? The answer given by experiment is quite clear. The results are exactly the same! This conclu-

sion could not have been foreseen, and is based on observation, not reason. Let us, for the sake of simplicity, call the mass determined in the first way the *inertial mass* and that determined in the second way the *gravitational mass*. In our world it happens that they are equal but we can well imagine that this should not have been the case at all. Another question arises immediately: is this identity of the two kinds of mass purely accidental, or does it have a deeper significance? The answer, from the point of view of classical physics, is: the identity of the two masses is accidental and no deeper significance should be attached to it. The answer of modern physics is just the opposite: the identity of the two masses is fundamental and forms a new and essential clue leading to a more profound understanding. This was, in fact, one of the most important clues from which the so-called general theory of relativity was developed.

A mystery story seems inferior if it explains strange events as accidents. It is certainly more satisfying to have the story follow a rational pattern. In exactly the same way a theory which offers an explanation for the identity of gravitational and inertial mass is superior to one which interprets their identity as accidental, provided, of course, that the two theories are equally consistent with observed facts.

Since this identity of inertial and gravitational mass was fundamental for the formulation of the theory of relativity we are justified in examining it a little more closely here. What experiments prove convincingly that the two masses are the same? The answer lies in Galileo's old experiment in which he dropped different masses from a tower. He noticed that the time required for the fall was always the same, that the motion of a falling body does not depend on the mass. To link this simple but highly important experimental result with the identity of the two masses needs some rather intricate reasoning.

A body at rest gives way before the action of an external force, moving and attaining a certain velocity. It yields more or less easily, according to its inertial mass, resisting the motion more strongly if the mass is large than if it is small. We may say, without pretending to be rigorous: the readiness with which a body responds to the call of an external force depends on its inertial mass. If it were true that the earth attracts all bodies with the same force, that of greatest inertial mass would move more slowly in falling than any other. But this is not the case: all bodies fall in the same way. This means that the force by which the earth attracts different masses must be different. Now the

earth attracts a stone with the force of gravity and knows nothing about its inertial mass. The "calling" force of the earth depends on the gravitational mass. The "answering" motion of the stone depends on the inertial mass. Since the "answering" motion is always the same–all bodies dropped from the same height fall in the same way–it must be deduced that gravitational mass and inertial mass are equal.

More pedantically a physicist formulates the same conclusion: the acceleration of a falling body increases in proportion to its gravitational mass and decreases in proportion to its inertial mass. Since all falling bodies have the same constant acceleration, the two masses must be equal.

In our great mystery story there are no problems wholly solved and settled for all time. After three hundred years we had to return to the initial problem of motion, to revise the procedure of investigation, to find clues which had been overlooked, thereby reaching a different picture of the surrounding universe.

Is Heat a Substance? Here we begin to follow a new clue, one originating in the realm of heat phenomena. It is impossible, however, to divide science into separate and unrelated sections. Indeed, we shall soon find that the new concepts introduced here are interwoven with those already familiar, and with those we shall still meet. A line of thought developed in one branch of science can very often be applied to the description of events apparently quite different in character. In this process the original concepts are often modified so as to advance the understanding both of those phenomena from which they sprang and of those to which they are newly applied.

The most fundamental concepts in the description of heat phenomena are *temperature* and *heat*. It took an unbelievably long time in the history of science for these two to be distinguished, but once this distinction was made rapid progress resulted. Although these concepts are now familiar to everyone we shall examine them closely, emphasizing the differences between them.

Our sense of touch tells us quite definitely that one body is hot and another cold. But this is a purely qualitative criterion, not sufficient for a quantitative description and sometimes even ambiguous. This is shown by a well-known experiment: we have three vessels containing, respectively, cold, warm and hot water. If we dip one hand into the cold water and the other into the hot, we receive a message from the first that it is cold and from the second that it is hot. If we then dip both hands into the same warm water we receive two contradictory mes-

sages, one from each hand. For the same reason an Eskimo and a native of some equatorial country meeting in New York on a spring day would hold different opinions as to whether the climate was hot or cold. We settle all such questions by the use of a thermometer, an instrument designed in a primitive form by Galileo. Here again that familiar name! The use of a thermometer is based on some obvious physical assumptions. We shall recall them by quoting a few lines from lectures given about a hundred and fifty years ago by Black, who contributed a great deal toward clearing up the difficulties connected with the two concepts, heat and temperature:

> By the use of this instrument we have learned, that if we take 1000, or more, different kinds of matter, such as metals, stones, salts, woods, feathers, wool, water and a variety of other fluids, although they be all at first of different *heats*, let them be placed together in the same room without a fire, and into which the sun does not shine, the heat will be communicated from the hotter of these bodies to the colder, during some hours perhaps, or the course of a day, at the end of which time, if we apply a thermometer to them all in succession, it will point precisely to the same degree.

The italicized word *heats* should, according to present-day nomenclature, be replaced by the word *temperatures*.

A physician taking the thermometer from a sick man's mouth might reason like this: "The thermometer indicates its own temperature by the length of its column of mercury. We assume that the length of the mercury column increases in proportion to the increase in temperature. But the thermometer was for a few minutes in contact with my patient, so that both patient and thermometer have the same temperature. I conclude, therefore, that my patient's temperature is that registered on the thermometer." The doctor probably acts mechanically, but he applies physical principles without thinking about it.

But does the thermometer contain the same amount of heat as the body of the man? Of course not. To assume that two bodies contain equal quantities of heat just because their temperatures are equal would, as Black remarked, be

> taking a very hasty view of the subject. It is confounding the quantity of heat in different bodies with its general strength or intensity, though it is plain that these are two different things, and should always be distinguished, when we are thinking of the distribution of heat.

An understanding of this distinction can be gained by considering a very simple experiment. A pound of water placed over a gas flame takes some time to change from room temperature to the boiling point. A much longer time is required for heating twelve pounds, say, of water in the same vessel by means of the same flame. We interpret this fact as indicating that now more of "something" is needed and we call this "something"—*heat.*

A further important concept, *specific heat*, is gained by the following experiment: let one vessel contain a pound of water and another a pound of mercury, both to be heated in the same way. The mercury gets hot much more quickly than the water, showing that less "heat" is needed to raise the temperature by one degree. In general, different amounts of "heat" are required to change by one degree, say from 40 to 41 degrees Fahrenheit, the temperatures of different substances such as water, mercury, iron, copper, wood, etc., all of the same mass. We say that each substance has its individual *heat capacity,* or *specific heat.*

Once having gained the concept of heat we can investigate its nature more closely. We have two bodies, one hot, the other cold, or more precisely, one of a higher temperature than the other. We bring them into contact and free them from all other external influences. Eventually they will, we know, reach the same temperature. But how does this take place? What happens between the instant they are brought into contact and the achievement of equal temperatures? The picture of heat "flowing" from one body to another suggests itself, like water flowing from a higher level to a lower. This picture, though primitive, seems to fit many of the facts, so that the analogy runs:

Water	–	Heat
Higher level	–	Higher temperature
Lower level	–	Lower temperature

The flow proceeds until both levels, that is, both temperatures, are equal. This naïve view can be made more useful by quantitative considerations. If definite masses of water and alcohol, each at a definite temperature, are mixed together, a knowledge of the specific heats will lead to a prediction of the final temperature of the mixture. Conversely, an observation of the final temperature, together with a little algebra, would enable us to find the ratio of the two specific heats.

We recognize in the concept of heat which appears here a similarity to other physical concepts. Heat is, according to our view, a substance, such as mass in mechanics. Its quantity may change or not, like money put aside in a safe or spent. The amount of money in a safe will remain

unchanged so long as the safe remains locked, and so will the amounts of mass and heat in an isolated body. The ideal Thermos bottle is analogous to such a safe. Furthermore, just as the mass of an isolated system is unchanged even if a chemical transformation takes place, so heat is conserved even though it flows from one body to another. Even if heat is not used for raising the temperature of a body but for melting ice, say, or changing water into steam, we can still think of it as a substance and regain it entirely by freezing the water or liquefying the steam. The old names, latent heat of melting or vaporization, show that these concepts are drawn from the picture of heat as a substance. Latent heat is temporarily hidden, like money put away in a safe, but available for use if one knows the lock combination.

But heat is certainly not a substance in the same sense as mass. Mass can be detected by means of scales, but what of heat? Does a piece of iron weigh more when red-hot than when ice-cold? Experiment shows that it does not. If heat is a substance at all, it is a weightless one. The "heat-substance" was usually called *caloric* and is our first acquaintance among a whole family of weightless substances. Later we shall have occasion to follow the history of the family, its rise and fall. It is sufficient now to note the birth of this particular member.

The purpose of any physical theory is to explain as wide a range of phenomena as possible. It is justified in so far as it does make events understandable. We have seen that the substance theory explains many of the heat phenomena. It will soon become apparent, however, that this again is a false clue, that heat cannot be regarded as a substance, even weightless. This is clear if we think about some simple experiments which marked the beginning of civilization.

We think of a substance as something which can be neither created nor destroyed. Yet primitive man created by friction sufficient heat to ignite wood. Examples of heating by friction are, as a matter of fact, much too numerous and familiar to need recounting. In all these cases some quantity of heat is created, a fact difficult to account for by the substance theory. It is true that a supporter of this theory could invent arguments to account for it. His reasoning would run something like this: "The substance theory can explain the apparent creation of heat. Take the simplest example of two pieces of wood rubbed one against the other. Now rubbing is something which influences the wood and changes its properties. It is very likely that the properties are so modified that an unchanged quantity of heat comes to produce a higher temperature than before. After all, the only thing we notice is

the rise in temperature. It is possible that the friction changes the specific heat of the wood and not the total amount of heat."

At this stage of the discussion it would be useless to argue with a supporter of the substance theory, for this is a matter which can be settled only by experiment. Imagine two identical pieces of wood and suppose equal changes of temperature are induced by different methods; in one case by friction and in the other by contact with a radiator, for example. If the two pieces have the same specific heat at the new temperature the whole substance theory must break down. There are very simple methods for determining specific heats, and the fate of the theory depends on the result of just such measurements. Tests which are capable of pronouncing a verdict of life or death on a theory occur frequently in the history of physics, and are called *crucial* experiments. The crucial value of an experiment is revealed only by the way the question is formulated, and only one theory of the phenomena can be put on trial by it. The determination of the specific heats of two bodies of the same kind, at equal temperatures attained by friction and heat flow respectively, is a typical example of a crucial experiment. This experiment was performed about a hundred and fifty years ago by Rumford, and dealt a death blow to the substance theory of heat.

An extract from Rumford's own account tells the story:

> It frequently happens, that in the ordinary affairs and occupations of life, opportunities present themselves of contemplating some of the most curious operations of Nature; and very interesting philosophical experiments might often be made, almost without trouble or expense, by means of machinery contrived for the mere mechanical purposes of the arts and manufactures.
>
> I have frequently had occasion to make this observation; and am persuaded that a habit of keeping the eyes open to every thing that is going on in the ordinary course of the business of life has oftener led, as it were by accident, or in the playful excursions of the imagination, put into action by contemplating the most common appearances, to useful doubts, and sensible schemes for investigation and improvement, than all the more intense meditations of philosophers, in the hours expressly set apart for study. . . .
>
> Being engaged, lately, in superintending the boring of cannon, in the workshops of the military arsenal at Munich, I was struck with the very considerable degree of Heat which a brass gun acquires, in a short time, in being bored; and with the still more intense Heat (much greater than that of boiling water, as I found by experiment) of the metallic chips separated from it by the borer. . . .

> From whence comes the Heat actually produced in the mechanical operation above mentioned?
>
> Is it furnished by the metallic chips which are separated by the borer from the solid mass of metal?
>
> If this were the case, then, according to the modern doctrines of latent Heat, and of caloric, the capacity ought not only to be changed, but the change undergone by them should be sufficiently great to account for all the Heat produced.
>
> But no such change had taken place; for I found, upon taking equal quantities, by weight, of these chips, and of thin slips of the same block of metal separated by means of a fine saw and putting them, at the same temperature (that of boiling water), into equal quantities of cold water (that is to say, at the temperature of 59½° F.) the portion of water into which the chips were put was not, to all appearance, heated either less or more than the other portion, in which the slips of metal were put.

Finally we reach his conclusion:

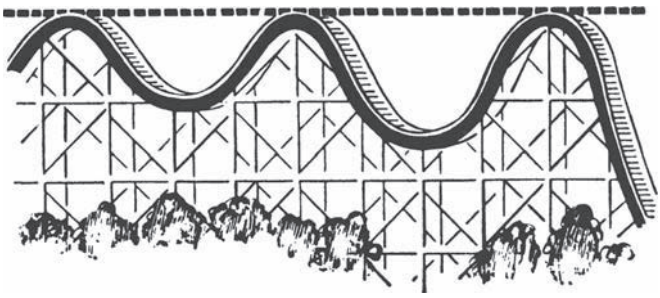
> And, in reasoning on this subject, we must not forget to consider that most remarkable circumstance, that the source of the Heat generated by friction, in these Experiments, appeared evidently to be *inexhaustible*.
>
> It is hardly necessary to add, that anything which any *insulated* body, or system of bodies, can continue to furnish *without limitation*, cannot possibly be a *material substance;* and it appears to me to be extremely difficult, if not quite impossible, to form any distinct idea of anything, capable of being excited and communicated, in the manner the Heat was excited and communicated in these Experiments, except it be MOTION.

Thus we see the breakdown of the old theory, or to be more exact, we see that the substance theory is limited to problems of heat flow. Again, as Rumford has intimated, we must seek a new clue. To do this, let us leave for the moment the problem of heat and return to mechanics.

The Roller Coaster. Let us trace the motion of that popular thrill-giver, the roller coaster. A small car is lifted or driven to the highest point of the track. When set free it starts rolling down under the force of gravity, and then goes up and down along a fantastically curved line, giving the occupants a thrill by the sudden changes in velocity. Every roller coaster has its highest point, that from which it starts. Never again, throughout the whole course of the motion will it reach the same height. A complete description of the motion would be very complicated. On the one hand is the mechanical side of the problem, the changes of velocity and position in time. On the other there is friction

and therefore the creation of heat, on the rail and in the wheels. The only significant reason for dividing the physical process into these two aspects is to make possible the use of the concepts previously discussed. The division leads to an idealized experiment, for a physical process in which only the mechanical aspect appears can be only imagined but never realized.

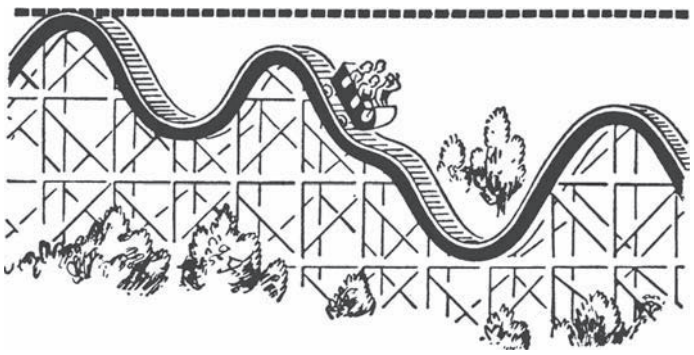
For the idealized experiment we may imagine that someone has learned to eliminate entirely the friction which always accompanies motion. He decides to apply his discovery to the construction of a roller coaster, and must find out for himself how to build one. The car is to run up and down, with its starting point, say, at one hundred feet above ground level. He soon discovers by trial and error that he must follow a very



simple rule: he may build his track in whatever path he pleases so long as no point is higher than the starting point. If the car is to proceed freely to the end of the course its height may attain a hundred feet as many times as he likes, but never exceed it. The initial height can never be reached by a car on an actual track because of friction, but our hypothetical engineer need not consider that.

Let us follow the motion of the idealized car on the idealized roller coaster as it begins to roll downward from the starting point. As it moves its distance from the ground diminishes, but its speed increases. This sentence at first sight may remind us of one from a language lesson: "I have no pencil, but you have six oranges." It is not so stupid, however. There is no connection between my having no pencil and your having six oranges, but there is a very real correlation between the distance of the car from the ground and its speed. We can calculate the speed of the car at any moment if we know how high it happens to be above the ground, but we omit this point here because of its quantitative character which can best be expressed by mathematical formulae.

At its highest point the car has zero velocity and is one hundred feet from the ground. At the lowest possible point it is no distance from the ground, and has its greatest velocity. These facts may be expressed in other terms. At its highest point the car has *potential energy* but no *kinetic energy* or energy of motion. At its lowest point it has the greatest kinetic energy and no potential energy whatever. At all intermediate positions, where there is some velocity and some elevation, it has both kinetic and potential energy. The potential energy increases with the elevation, while the kinetic energy becomes greater as the velocity increases. The principles of mechanics suffice to explain the motion. Two expressions for energy occur in the mathematical description, each of which changes, although the sum does not vary. It is thus possible to introduce mathematically and rigorously the concepts of potential energy, depending on position, and kinetic energy, depending on velocity. The introduction of the two names is, of course, arbitrary and justified only by convenience. The sum of the two quantities remains unchanged, and is called a constant of the motion. The total energy, kinetic plus potential, is like a substance, for example, money kept intact as to amount but changed continually from one currency to another, say from dollars to pounds and back again, according to a well-defined rate of exchange.



In the real roller coaster, where friction prevents the car from again reaching as high a point as that from which it started, there is still a continuous change between kinetic and potential energy. Here, however, the sum does not remain constant, but grows smaller. Now one important and courageous step more is needed to relate the mechanical and heat aspects of motion. The wealth of consequences and generalizations from this step will be seen later.

Something more than kinetic and potential energies is now in-

volved, namely, the heat created by friction. Does this heat correspond to the diminution in mechanical energy, that is kinetic and potential energy? A new guess is imminent. If heat may be regarded as a form of energy, perhaps the sum of all three, heat, kinetic and potential energies, remains constant. Not heat alone, but heat and other forms of energy taken together are, like a substance, indestructible. It is as if a man must pay himself a commission in francs for changing dollars to pounds, the commission money also being saved so that the sum of dollars, pounds, and francs is a fixed amount according to some definite exchange rate.

The progress of science has destroyed the older concept of heat as a substance. We try to create a new substance, energy, with heat as one of its forms.

The Rate of Exchange. Less than a hundred years ago the new clue which led to the concept of heat as a form of energy was guessed by Mayer and confirmed experimentally by Joule. It is a strange coincidence that nearly all the fundamental work concerned with the nature of heat was done by nonprofessional physicists who regarded physics merely as their great hobby. There was the versatile Scotsman Black, the German physician Mayer, and the great American adventurer Count Rumford, who afterward lived in Europe, and among other activities, became Minister of War for Bavaria. There was also the English brewer Joule who, in his spare time, performed some most important experiments concerning the conservation of energy.

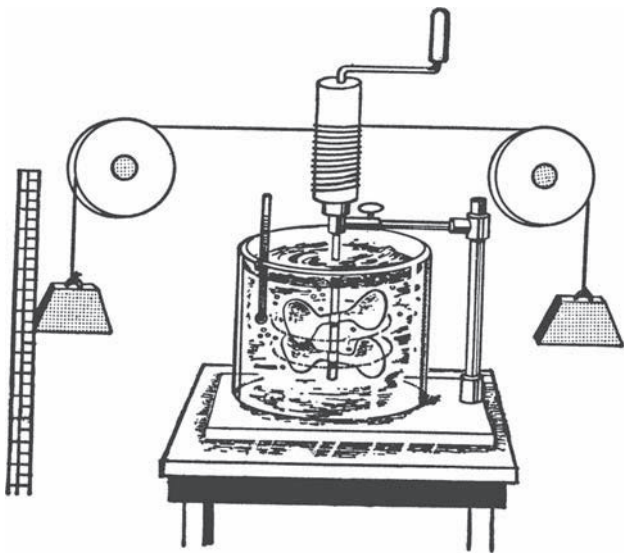
Joule verified by experiment the guess that heat is a form of energy, and determined the rate of exchange. It is worth our while to see just what his results were.

The kinetic and potential energy of a system together constitute its *mechanical* energy. In the case of the roller coaster we made a guess that some of the mechanical energy was converted into heat. If this is right there must be here and in all other similar physical processes a definite *rate of exchange* between the two. This is rigorously a quantitative question, but the fact that a given quantity of mechanical energy can be changed into a definite amount of heat is highly important. We should like to know what number expresses the rate of exchange, *i.e*., how much heat we obtain from a given amount of mechanical energy.

The determination of this number was the object of Joule's researches. The mechanism of one of his experiments is very much like that of a weight clock. The winding of such a clock consists of elevating two weights, thereby adding potential energy to the system. If the clock is

not further interfered with it may be regarded as a closed system. Gradually the weights fall and the clock runs. At the end of a certain time the weights will have reached their lowest position and the clock will have stopped. What has happened to the energy? The potential energy of the weights has changed into kinetic energy of the mechanism, and has then gradually been dissipated as heat.

A clever alteration in this sort of mechanism enabled Joule to measure the heat lost and thus the rate of exchange. In his apparatus two weights caused a paddle wheel to turn while immersed in water. The potential energy of the weights was changed into kinetic energy of the movable parts, and thence into heat which raised the temperature of the water.



Joule measured this change of temperature and, making use of the known specific heat of water, calculated the amount of heat absorbed. He summarized the results of many trials as follows:

> 1st. That the quantity of heat produced by the friction of bodies, whether solid or liquid, is always proportional to the quantity of force [by force Joule means energy] expended. And
>
> 2nd. That the quantity of heat capable of increasing the temperature of a pound of water (weighed in vacuo and taken at between 55° and 60°) by 1° Fahr. requires for its evolution the expenditure of a mechanical force [energy] represented by the fall of 772 lb. through the space of one foot.

In other words the potential energy of 772 pounds elevated one foot above the ground is equivalent to the quantity of heat necessary to raise the temperature of one pound of water from 55° F. to 56° F. Later experimenters were capable of somewhat greater accuracy, but the mechanical equivalent of heat is essentially what Joule found in his pioneer work.

Once this important work was done, further progress was rapid. It was soon recognized that these kinds of energy, mechanical and heat, are only two of its many forms. Everything which can be converted into either of them is also a form of energy. The radiation given off by the sun is energy, for part of it is transformed into heat on the earth. An electric current possesses energy, for it heats a wire or turns the wheels of a motor. Coal represents chemical energy, liberated as heat when the coal burns. In every event in nature one form of energy is being converted into another, always at some well-defined rate of exchange. In a closed system, one isolated from external influences, the energy is conserved and thus behaves like a substance. The sum of all possible forms of energy in such a system is constant, although the amount of any one kind may be changing. If we regard the whole universe as a closed system we can proudly announce with the physicists of the nineteenth century that the energy of the universe is invariant, that no part of it can ever be created or destroyed.

Our two concepts of substance are, then, *matter* and *energy*. Both obey conservation laws: An isolated system cannot change either in mass or in total energy. Matter has weight but energy is weightless. We have therefore two different concepts and two conservation laws. Are these ideas still to be taken seriously? Or has this apparently well-founded picture been changed in the light of newer developments? It has! Further changes in the two concepts are connected with the theory of relativity. We shall return to this point later.

The Philosophical Background. The results of scientific research very often force a change in the philosophical view of problems which extend far beyond the restricted domain of science itself. What is the aim of science? What is demanded of a theory which attempts to describe nature? These questions, although exceeding the bounds of physics, are intimately related to it, since science forms the material from which they arise. Philosophical generalizations must be founded on scientific results. Once formed and widely accepted, however, they very often influence the further development of scientific thought by indicating one of the many possible lines of procedure. Successful revolt

against the accepted view results in unexpected and completely different developments, becoming a source of new philosophical aspects. These remarks necessarily sound vague and pointless until illustrated by examples quoted from the history of physics.

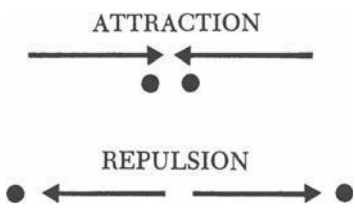
We shall here try to describe the first philosophical ideas on the aim of science. These ideas greatly influenced the development of physics until nearly a hundred years ago, when their discarding was forced by new evidence, new facts and theories, which in their turn formed a new background for science.

In the whole history of science from Greek philosophy to modern physics there have been constant attempts to reduce the apparent complexity of natural phenomena to some simple fundamental ideas and relations. This is the underlying principle of all natural philosophy. It is expressed even in the work of the Atomists. Twenty-three centuries ago Democritus wrote:

> By convention sweet is sweet, by convention bitter is bitter, by convention hot is hot, by convention cold is cold, by convention color is color. But in reality there are atoms and the void. That is, the objects of sense are supposed to be real and it is customary to regard them as such, but in truth they are not. Only the atoms and the void are real.

This idea remains in ancient philosophy nothing more than an ingenious figment of the imagination. Laws of nature relating subsequent events were unknown to the Greeks. Science connecting theory and experiment really began with the work of Galileo. We have followed the initial clues leading to the laws of motion. Throughout two hundred years of scientific research force and matter were the underlying concepts in all endeavors to understand nature. It is impossible to imagine one without the other because matter demonstrates its existence as a source of force by its action on other matter.

Let us consider the simplest example: two particles with forces acting between them. The easiest forces to imagine are those of attraction and repulsion. In both cases the force vectors lie on a line connecting the material points. The demand for simplicity leads to the picture of particles attracting or repelling each other; any other assumption about the direction of the acting forces would give a much more complicated picture. Can we make an equally simple assumption about



the length of the force vectors? Even if we want to avoid too special assumptions we can still say one thing: The force between any two given particles depends only on the distance between them, like gravitational forces. This seems simple enough. Much more complicated forces could be imagined, such as those which might depend not only on the distance but also on the velocities of the two particles. With matter and force as our fundamental concepts we can hardly imagine simpler assumptions than that forces act along the line connecting the particles and depend only on the distance. But is it possible to describe all physical phenomena by forces of this kind alone?

The great achievements of mechanics in all its branches, its striking success in the development of astronomy, the application of its ideas to problems apparently different and non-mechanical in character, all these things contributed to the belief that it *is* possible to describe all natural phenomena in terms of simple forces between unalterable objects. Throughout the two centuries following Galileo's time such an endeavor, conscious or unconscious, is apparent in nearly all scientific creation. This was clearly formulated by Helmholtz about the middle of the nineteenth century:

> Finally, therefore, we discover the problem of physical material science to be to refer natural phenomena back to unchangeable attractive and repulsive forces whose intensity depends wholly upon distance. The solubility of this problem is the condition of the complete comprehensibility of nature.

Thus, according to Helmholtz, the line of development of science is determined and follows strictly a fixed course:

> And its vocation will be ended as soon as the reduction of natural phenomena to simple forces is complete and the proof given that this is the only reduction of which the phenomena are capable.

This view appears dull and naïve to a twentieth-century physicist. It would frighten him to think that the great adventure of research could be so soon finished, and an unexciting if infallible picture of the universe established for all time.

Although these tenets would reduce the description of all events to simple forces, they do leave open the question of just how the forces should depend on distance. It is possible that for different phenomena this dependence is different. The necessity of introducing many different kinds of force for different events is certainly unsatisfactory from a philosophical point of view. Nevertheless this so-called *me-*

chanical view, most clearly formulated by Helmholtz, played an important role in its time. The development of the kinetic theory of matter is one of the greatest achievements directly influenced by the mechanical view.

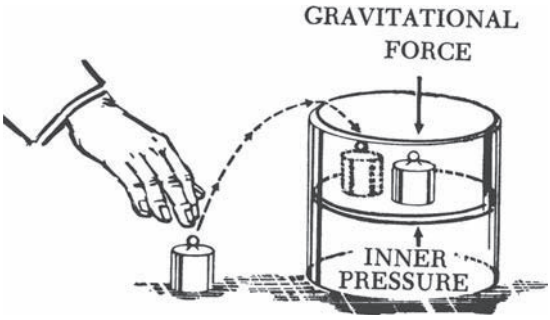
Before witnessing its decline, let us provisionally accept the point of view held by the physicists of the past century and see what conclusions we can draw from their picture of the external world.

The Kinetic Theory of Matter. Is it possible to explain the phenomena of heat in terms of the motions of particles interacting through simple forces? A closed vessel contains a certain mass of gas, air, for example, at a certain temperature. By heating we raise the temperature, and thus increase the energy. But how is this heat connected with motion? The possibility of such a connection is suggested both by our tentatively accepted philosophical point of view and by the way in which heat is generated by motion. Heat must be mechanical energy if every problem is a mechanical one. The object of the *kinetic theory* is to present the concept of matter just in this way. According to this theory a gas is a congregation of an enormous number of particles, or *molecules*, moving in all directions, colliding with each other and changing in direction of motion with each collision. There must exist an average speed of molecules, just as in a large human community there exists an average age, or an average wealth. There will therefore be an average kinetic energy per particle. More heat in the vessel means a greater average kinetic energy. Thus heat, according to this picture, is not a special form of energy different from the mechanical one but is just the kinetic energy of molecular motion. To any definite temperature there corresponds a definite average kinetic energy per molecule. This is, in fact, not an arbitrary assumption. We are forced to regard the kinetic energy of a molecule as a measure of the temperature of the gas if we wish to form a consistent mechanical picture of matter.

This theory is more than a play of the imagination. It can be shown that the kinetic theory of gases is not only in agreement with experiment, but actually leads to a more profound understanding of the facts. This may be illustrated by a few examples.

We have a vessel closed by a piston which can move freely. The vessel contains a certain amount of gas to be kept at a constant temperature. If the piston is initially at rest in some position it can be moved upward by removing and downward by adding weight. To push the piston down force must be used acting against the inner pressure of the gas. What is the mechanism of this inner pressure according to

the kinetic theory? A tremendous number of particles constituting the gas are moving in all directions. They bombard the walls and the piston, bouncing back like balls thrown against a wall. This continual bombardment by a great number of particles keeps the piston at a certain height by opposing the force of gravity acting downward on the piston and the weights. In one direction there is a constant gravitational force, in the other very many irregular blows from the molecules. The net effect on the piston of all these small irregular forces must be equal to that of the force of gravity if there is to be equilibrium.



Suppose the piston were pushed down so as to compress the gas to a fraction of its former volume, say one-half, its temperature being kept unchanged. What, according to the kinetic theory, can we expect to happen? Will the force due to the bombardment be more or less effective than before? The particles are now packed more closely. Although the average kinetic energy is still the same, the collisions of the particles with the piston will now occur more frequently and thus the total force will be greater. It is clear from this picture presented by the kinetic theory that to keep the piston in this lower position more weight is required. This simple experimental fact is well known, but its prediction follows logically from the kinetic view of matter.

Consider another experimental arrangement. Take two vessels containing equal volumes of different gases, say hydrogen and nitrogen, both at the same temperature. Assume the two vessels are closed with identical pistons, on which are equal weights. This means, briefly, that both gases have the same volume, temperature, and pressure. Since the temperature is the same, so, according to the theory, is the average kinetic energy per particle. Since the pressures are equal, the two pistons are bombarded with the same total force. On the average every particle carries the same energy and both vessels have the same volume. Therefore, *the number of molecules in each must be the same*, although the gases are chemically different. This result is very important for the understanding of many chemical phenomena. It means that the number of molecules in a given volume, at a certain tem-

perature and pressure, is something which is characteristic, not of a particular gas, but of all gases. It is most astonishing that the kinetic theory not only predicts the existence of such a universal number, but enables us to determine it. To this point we shall return very soon.

The kinetic theory of matter explains quantitatively as well as qualitatively the laws of gases as determined by experiment. Furthermore, the theory is not restricted to gases, although its greatest successes have been in this domain.

A gas can be liquefied by means of a decrease of temperature. A fall in the temperature of matter means a decrease in the average kinetic energy of its particles. It is therefore clear that the average kinetic energy of a liquid particle is smaller than that of a corresponding gas particle.

A striking manifestation of the motion of particles in liquids was given for the first time by the so-called Brownian movement, a remarkable phenomenon which would remain quite mysterious and incomprehensible without the kinetic theory of matter. It was first observed by the botanist Brown, and was explained eighty years later, at the beginning of this century. The only apparatus necessary for observing Brownian motion is a microscope, which need not even be a particularly good one.

Brown was working with grains of pollen of certain plants, that is:

> particles or granules of unusually large size varying from one four-thousandth to about five-thousandth of an inch in length.

He reports further:

> While examining the form of these particles immersed in water, I observed many of them evidently in motion. . . . These motions were such as to satisfy me, after frequently repeated observation, that they arose neither from current in the fluid nor from its gradual evaporation, but belonged to the particle itself.

What Brown observed was the unceasing agitation of the granules when suspended in water and visible through the microscope. It is an impressive sight!

Is the choice of particular plants essential for the phenomenon? Brown answered this question by repeating the experiment with many different plants, and found that all the granules, if sufficiently small, showed such motion when suspended in water. Furthermore, he found the same kind of restless, irregular motion in very small particles of in-

organic as well as organic substances. Even with a pulverized fragment of a sphinx he observed the same phenomenon!

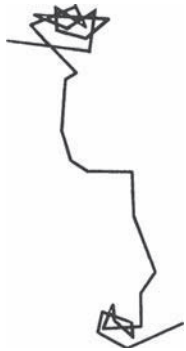
How is this motion to be explained? It seems contradictory to all previous experience. Examination of the position of one suspended particle, say every thirty seconds, reveals the fantastic form of its path. The amazing thing is the apparently eternal character of the motion. A swinging pendulum placed in water soon comes to rest if not impelled by some external force. The existence of a never diminishing motion seems contrary to all experience. This difficulty was splendidly clarified by the kinetic theory of matter.

Looking at water through even our most powerful microscopes we cannot see molecules and their motion as pictured by the kinetic theory of matter. It must be concluded that if the theory of water as a congregation of particles is correct, the size of the particles must be beyond the limit of visibility of the best microscopes. Let us nevertheless stick to the theory and assume that it represents a consistent picture of reality. The Brownian particles visible through a microscope are bombarded by the smaller ones composing the water itself. The Brownian movement exists if the bombarded particles are sufficiently small. It exists because this bombardment is not uniform from all sides and cannot be averaged out, owing to its irregular and haphazard character. The observed motion is thus the result of the unobservable one. The behavior of the big particles reflects in some way that of the molecules, constituting, so to speak, a magnification so high that it becomes visible through the microscope. The irregular and haphazard character of the path of the Brownian particles reflects a similar irregularity in the path of the smaller particles which constitute matter. We can understand, therefore, that a quantitative study of Brownian movement can give us deeper insight into the kinetic theory of matter. It is apparent that the visible Brownian motion depends on the size of the invisible bombarding molecules. There would be no Brownian motion at all if the bombarding molecules did not possess a certain amount of energy or, in other words, if they did not have mass and velocity. That the study of Brownian motion can lead to a determination of the mass of a molecule is therefore not astonishing.

Through laborious research, both theoretical and experimental, the quantitative features of the kinetic theory were formed. The clue originating in the phenomenon of Brownian movement was one of those which led to the quantitative data. The same data can be obtained in

different ways, starting from quite different clues. The fact that all these methods support the same view is most important, for it demonstrates the internal consistency of the kinetic theory of matter.

Consecutive positions observed through a microscope for one Brownian particle.



The path averaged from these consecutive positions.

Only one of the many quantitative results reached by experiment and theory will be mentioned here. Suppose we have a gram of the lightest of all elements, hydrogen, and ask: how many particles are there in this one gram? The answer will characterize not only hydrogen but also all other gases, for we already know under what conditions two gases have the same number of particles.

The theory enables us to answer this question from certain measurements of the Brownian motion of a suspended particle. The answer is an astonishingly great number: a three followed by twenty-three other digits! The number of molecules in one gram of hydrogen is

303,000,000,000,000,000,000,000.

Imagine the molecules of a gram of hydrogen so increased in size that they are visible through a microscope, say that the diameter becomes one five-thousandth of an inch, such as that of a Brownian particle. Then, to pack them closely, we should have to use a box each side of which is about one-quarter of a mile long!

We can easily calculate the mass of one such hydrogen molecule by dividing 1 by the number quoted above. The answer is a fantastically small number: 0.000 000 000 000 000 000 000 0033 grams, representing the mass of one molecule of hydrogen.

The experiments on Brownian motion are only some of the many independent experiments leading to the determination of this number which plays such an important part in physics.

In the kinetic theory of matter and in all its important achievements we see the realization of the general philosophical program: to reduce the explanation of all phenomena to the interaction between particles of matter.

We summarize:

In mechanics the future path of a moving body can be predicted and its past disclosed if its present condition and the forces acting upon it are known. Thus, for example, the future paths of all planets can be foreseen. The active forces are Newton's gravitational forces depending on the distance alone. The great results of classical mechanics suggest that the mechanical view can be consistently applied to all branches of physics, that all phenomena can be explained by the action of forces representing either attraction or repulsion, depending only upon distance and acting between unchangeable particles.

In the kinetic theory of matter we see how this view, arising from mechanical problems, embraces the phenomena of heat and how it leads to a successful picture of the structure of matter.

THE DECLINE OF THE MECHANICAL VIEW

The Two Electric Fluids. The following pages contain a dull report of some very simple experiments. The account will be boring not only because the description of experiments is uninteresting in comparison with their actual performance, but also because the meaning of the experiments does not become apparent until theory makes it so. Our purpose is to furnish a striking example of the role of theory in physics.

1. A metal bar is supported on a glass base, and each end of the bar is connected by means of a wire to an electroscope. What is an electroscope? It is a simple apparatus consisting essentially of two leaves of gold foil hanging from the end of a short piece of metal. This is enclosed in a glass jar or flask and the metal is in contact only with nonmetallic bodies, called insulators. In addition to the electroscope and metal bar we are equipped with a hard rubber rod and a piece of flannel.

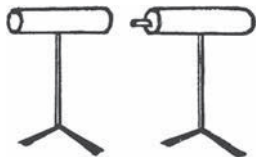
The experiment is performed as follows: we look to see whether the leaves hang close together, for this is their normal position. If by

chance they do not, a touch of the finger on the metal rod will bring them together. These preliminary steps being taken, the rubber rod is rubbed vigorously with the flannel and brought into contact with the

metal. The leaves separate at once! They remain apart even after the rod is removed.

2. We perform another experiment, using the same apparatus as before, again starting with the gold leaves hanging close together. This time we do not bring the rubbed rod into actual contact with the metal, but only near it. Again the leaves separate. But there is a difference! When the rod is taken away without having touched the metal, the leaves immediately fall back to their normal position instead of remaining separated.

3. Let us change the apparatus slightly for a third experiment. Suppose that the metal bar consists of two pieces, joined together. We rub the rubber rod with flannel and again bring it near the metal. The same phenomenon occurs, the leaves separate. But now let us divide the metal rod into its two separate parts and then take away the rubber rod. We notice that in this case the leaves remain apart, instead of falling back to their normal position as in the second experiment.

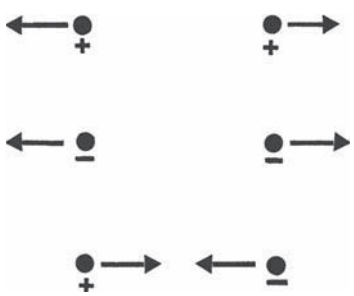


It is difficult to evince enthusiastic interest in these simple and naïve experiments. In the Middle Ages their performer would probably have been condemned; to us they seem both dull and illogical. It would be very difficult to repeat them, after reading the account only once, without becoming confused. Some notion of the theory makes them understandable. We could say more: it is hardly possible to imagine such experiments performed as accidental play, without the pre-existence of more or less definite ideas about their meaning.

We shall now point out the underlying ideas of a very simple and naïve theory which explains all the facts described.

There exist two *electric fluids*, one called *positive* (+) and the other *negative* (–). They are somewhat like substance in the sense already explained, in that the amount can be enlarged or diminished, but the total in any isolated system is preserved. There is, however, an essential difference between this case and that of heat, matter or energy. We have two electrical substances. It is impossible here to use the previous analogy of money unless it is somehow generalized. A body is electrically neutral if the positive and negative electric fluids exactly cancel each other. A man has nothing, either because he really has nothing, or because the amount of money put aside in his safe is exactly equal to the sum of his debts. We can compare the debit and credit entries in his ledger to the two kinds of electric fluids.

The next assumption of the theory is that two electric fluids of the same kind repel each other, while two of the opposite kind attract. This can be represented graphically in the following way:



A final theoretical assumption is necessary: There are two kinds of bodies, those in which the fluids can move freely, called *conductors*, and those in which they cannot, called *insulators*. As is always true in such cases, this division is not to be taken too seriously. The ideal conductor or insulator is a fiction which can never be realized. Metals, the earth, the human body, are all examples of conductors, although not equally good. Glass, rubber, china, and the like are insulators. Air is only partially an insulator as everyone who has seen the described experiments knows. It is always a good excuse to ascribe the bad results of electrostatic experiments to the humidity of the air, which increases its conductivity.

These theoretical assumptions are sufficient to explain the three experiments described. We shall discuss them once more, in the same order as before, but in the light of the theory of electric fluids.

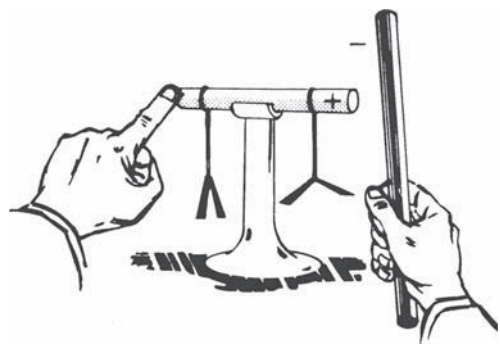
1. The rubber rod, like all other bodies under normal conditions, is electrically neutral. It contains the two fluids, positive and negative, in equal amounts. By rubbing with flannel we separate them. This statement is pure convention, for it is the application of the terminology created by the theory to the description of the process of rub-

bing. The kind of electricity that the rod has in excess afterwards is called negative, a name which is certainly only a matter of convention. If the experiments had been performed with a glass rod rubbed with cat's fur we should have had to call the excess positive, to conform with the accepted convention. To proceed with the experiment, we bring electric fluid to the metal conductor by touching it with the rubber. Here it moves freely, spreading over the whole metal including the gold leaves. Since the action of negative on negative is repulsion, the two leaves try to get as far from each other as possible and the result is the observed separation. The metal rests on glass or some other insulator so that the fluid remains on the conductor, as long as the conductivity of the air permits. We understand now why we have to touch the metal before beginning the experiment. In this case the metal, the human body, and the earth form one vast conductor, with the electric fluid so diluted that practically nothing remains on the electroscope.

2. This experiment begins just in the same way as the previous one. But instead of being allowed to touch the metal the rubber is now only brought near it. The two fluids in the conductor, being free to move, are separated, one attracted and the other repelled. They mix again when the rubber rod is removed, as fluids of opposite kinds attract each other.

3. Now we separate the metal into two parts and afterwards remove the rod. In this case the two fluids cannot mix, so that the gold leaves retain an excess of one electric fluid and remain apart.

In the light of this simple theory all the facts mentioned here seem comprehensible. The same theory does more, enabling us to understand not only these, but many other facts in the realm of "electrostatics." The aim of every theory is to guide us to new facts, suggest new experiments, and lead to the discovery of new phenomena and new laws. An example will make this clear. Imagine a change in the second experiment. Suppose I keep the rubber rod near the metal and at the same time touch the conductor with my finger. What will happen now? Theory answers: the repelled fluid (–) can now make its escape through my body, with the result that only



one fluid remains, the positive. Only the leaves of the electroscope near the rubber rod will remain apart. An actual experiment confirms this prediction.

The theory with which we are dealing is certainly naïve and inadequate from the point of view of modern physics. Nevertheless it is a good example showing the characteristic features of every physical theory.

There are no eternal theories in science. It always happens that some of the facts predicted by a theory are disproved by experiment. Every theory has its period of gradual development and triumph, after which it may experience a rapid decline. The rise and fall of the substance theory of heat, already discussed here, is one of many possible examples. Others, more profound and important, will be discussed later. Nearly every great advance in science arises from a crisis in the old theory, through an endeavor to find a way out of the difficulties created. We must examine old ideas, old theories, although they belong to the past, for this is the only way to understand the importance of the new ones and the extent of their validity.

In the first pages of our book we compared the role of an investigator to that of a detective who, after gathering the requisite facts, finds the right solution by pure thinking. In one essential this comparison must be regarded as highly superficial. Both in life and in detective novels the crime is given. The detective must look for letters, fingerprints, bullets, guns, but at least he knows that a murder has been committed. This is not so for a scientist. It should not be difficult to imagine someone who knows absolutely nothing about electricity, since all the ancients lived happily enough without any knowledge of it. Let this man be given metal, gold foil, bottles, hard-rubber rod, flannel, in short, all the material required for performing our three experiments. He may be a very cultured person, but he will probably put wine into the bottles, use the flannel for cleaning, and never once entertain the idea of doing the things we have described. For the detective the crime is given, the problem formulated: who killed Cock Robin? The scientist must, at least in part, commit his own crime, as well as carry out the investigation. Moreover, his task is not to explain just one case, but all phenomena which have happened or may still happen.

In the introduction of the concept of fluids we see the influence of those mechanical ideas which attempt to explain everything by substances and simple forces acting between them. To see whether the mechanical point of view can be applied to the description of elec-

trical phenomena, we must consider the following problem. Two small spheres are given, both with an electric charge, that is, both carrying an excess of one electric fluid. We know that the spheres will either attract or repel each other. But does the force depend only on the distance, and if so, how? The simplest guess seems to be that this force depends on the distance in the same way as gravitational force, which diminishes, say, to one-ninth of its former strength if the distance is made three times as great. The experiments performed by Coulomb showed that this law is really valid. A hundred years after Newton discovered the law of gravitation, Coulomb found a similar dependence of electrical force on distance. The two major differences between Newton's law and Coulomb's law are: gravitational attraction is always present, while electric forces exist only if the bodies possess electric charges. In the gravitational case there is only attraction, but electric forces may either attract or repel.

There arises here the same question which we considered in connection with heat. Are the electrical fluids weightless substances or not? In other words, is the weight of a piece of metal the same whether neutral or charged? Our scales show no difference. We conclude that the electric fluids are also members of the family of weightless substances.

Further progress in the theory of electricity requires the introduction of two new concepts. Again we shall avoid rigorous definitions, using instead analogies with concepts already familiar. We remember how essential it was for an understanding of the phenomena of heat to distinguish between heat itself and temperature. It is equally important here to distinguish between electric potential and electric charge. The difference between the two concepts is made clear by the analogy:

Electric potential – Temperature
Electric charge – Heat

Two conductors, for example two spheres of different size, may have the same electric charge, that is the same excess of one electric fluid, but the potential will be different in the two cases, being higher for the smaller and lower for the larger sphere. The electric fluid will have greater density and thus be more compressed on the small conductor. Since the repulsive forces must increase with the density, the tendency of the charge to escape will be greater in the case of the smaller sphere than in that of the larger. This tendency of charge to

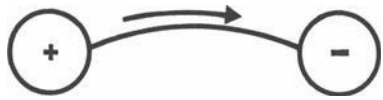
escape from a conductor is a direct measure of its potential. In order to show clearly the difference between charge and potential we shall formulate a few sentences describing the behavior of heated bodies, and the corresponding sentences concerning charged conductors.

Heat	*Electricity*
Two bodies, initially at different temperatures, reach the same temperature after some time if brought into contact.	Two insulated conductors, initially at different electric potentials, very quickly reach the same potential if brought into contact.
Equal quantities of heat produce different changes of temperature in two bodies if their heat capacities are different.	Equal amounts of electric charge produce different changes of electric potential in two bodies if their electrical capacities are different.
A thermometer in contact with a body indicates—by the length of its mercury column—its own temperature and therefore the temperature of the body.	An electroscope in contact with a conductor indicates—by the separation of the gold leaves—its own electric potential and therefore the electric potential of the conductor.

But this analogy must not be pushed too far. An example shows the differences as well as the similarities. If a hot body is brought into contact with a cold one, the heat flows from the hotter to the colder. On the other hand suppose that we have two insulated conductors having equal but opposite charges, one positive and the other negative. The two are at different potentials. By convention we regard the potential corresponding to a negative charge as lower than that corresponding to a positive charge. If the two conductors are brought together or connected by a wire, it follows from the theory of electric fluids that they will show no charge and thus no difference of electric potential at all. We must imagine a "flow" of electric charge from one conductor to the other during the short time in which the potential difference is equalized. But how? Does the positive fluid flow to the negative body, or the negative fluid to the positive body?

In the material presented here we have no basis for deciding between these two alternatives. We can assume either of the two possibilities, or that the flow is simultaneous in both directions. It is only a matter of adopting a convention, and no significance can be attached to the choice, for we know no method of deciding the question experimentally. Further development leading to a much more profound theory of electricity gave an answer to this problem, which is quite meaningless when formulated in terms of the simple and primitive theory of electric

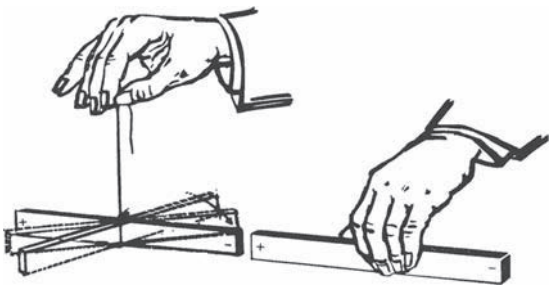
fluids. Here we shall simply adopt the following mode of expression. The electric fluid flows from the conductor having the higher potential to that having the lower. In the case of our two conductors the electricity thus flows from positive to negative. This expression is only a matter of convention and is at this point quite arbitrary. The whole difficulty indicates that the analogy between heat and electricity is by no means complete.



We have seen the possibility of adapting the mechanical view to a description of the elementary facts of electrostatics. The same is possible in the case of magnetic phenomena.

The Magnetic Fluids. We shall proceed here in the same manner as before, starting with very simple facts and then seeking their theoretical explanation.

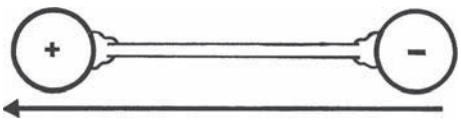
1. We have two long bar magnets, one suspended freely at its center, the other held in the hand. The ends of the two magnets are brought together in such a way that a strong attraction is noticed between them. This can always be done. If no attraction results we must turn the magnet and try the other end. Something will happen if the bars are magnetized at all. The ends of the magnets are called their *poles*. To continue with the experiment we move the pole of the magnet held in the hand along the other magnet. A decrease in the attraction is noticed and when the pole reaches the middle of the suspended magnet there is no evidence of any force at all. If the pole is moved further in the same direction a repulsion is observed, attaining its greatest strength at the second pole of the hanging magnet.



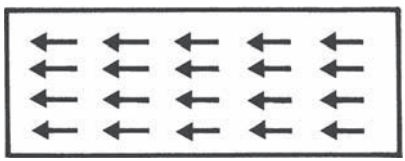
2. The above experiment suggests another. Each magnet has two poles. Can we not isolate one of them? The idea is very simple: just break a magnet into two equal parts. We have seen that there is no force between the pole of one magnet and the middle of the other. But the result of actually breaking a magnet is surprising and unexpected. If we repeat the experiment described under (1), with only half a magnet suspended, the results are exactly the same as before!

Where there was no trace of magnetic force previously, there is now a strong pole.

How are these facts to be explained? We can attempt to pattern a theory of magnetism after the theory of electric fluids. This is suggested by the fact that here, as in electrostatic phenomena, we have attraction and repulsion. Imagine two spherical conductors possessing equal charges, one positive and the other negative. Here "equal" means having the same absolute value; +5 and –5, for example, have the same absolute value. Let us assume that these spheres are connected by means of an insulator such as a glass rod. Schematically this arrangement can be represented by an arrow directed from the negatively charged conductor to the positive one. We shall call the whole thing an electric *dipole*. It



is clear that two such dipoles would behave exactly like the bar magnets in experiment (1). If we think of our invention as a model for a real magnet, we may say, assuming the existence of magnetic fluids, that a magnet is nothing but a *magnetic dipole*, having at its ends two fluids of different kinds. This simple theory, imitating the theory of electricity, is adequate for an explanation of the first experiment. There would be attraction at one end, repulsion at the other, and a balancing of equal and opposite forces in the middle. But what of the second experiment? By breaking the glass rod in the case of the electric dipole we get two isolated poles. The same ought to hold good for the iron bar of the magnetic dipole, contrary to the results of the second experiment. Thus this contradiction forces us to introduce a somewhat more subtle theory. Instead of our previous model we may imagine that the magnet consists of very small *elementary* magnetic dipoles which cannot be broken into separate poles.



Order reigns in the magnet as a whole, for all the elementary dipoles are directed in the same way. We see immediately why cutting a magnet causes two new poles to appear on the new ends, and why this more refined theory explains the facts of experiment (1) as well as (2).

For many facts, the simpler theory gives an explanation and the refinement seems unnecessary. Let us take an example: We know that a magnet attracts pieces of iron. Why? In a piece of ordinary iron the two

magnetic fluids are mixed, so that no net effect results. Bringing a positive pole near acts as a "command of division" to the fluids, attracting the negative fluid of the iron and repelling the positive. The attraction between iron and magnet follows. If the magnet is removed, the fluids go back to more or less their original state, depending on the extent to which they remember the commanding voice of the external force.

Little need be said about the quantitative side of the problem. With two very long magnetized rods we could investigate the attraction (or repulsion) of their poles when brought near one another. The effect of the other ends of the rods is negligible if the rods are long enough. How does the attraction or repulsion depend on the distance between the poles? The answer given by Coulomb's experiment is that this dependence on distance is the same as in Newton's law of gravitation and Coulomb's law of electrostatics.

We see again in this theory the application of a general point of view: the tendency to describe all phenomena by means of attractive and repulsive forces depending only on distance and acting between unchangeable particles.

One well-known fact should be mentioned, for later we shall make use of it. The earth is a great magnetic dipole. There is not the slightest trace of an explanation as to why this is true. The North Pole is approximately the minus (–) and the South Pole the plus (+) magnetic pole of the earth. The names plus and minus are only a matter of convention, but when once fixed, enable us to designate poles in any other case. A magnetic needle supported on a vertical axis obeys the command of the magnetic force of the earth. It directs its (+) pole toward the North Pole, that is, toward the (–) magnetic pole of the earth.

Although we can consistently carry out the mechanical view in the domain of electric and magnetic phenomena introduced here, there is no reason to be particularly proud or pleased about it. Some features of the theory are certainly unsatisfactory if not discouraging. New kinds of substances had to be invented: two electric fluids and the elementary magnetic dipoles. The wealth of substances begins to be overwhelming!

The forces are simple. They are expressible in a similar way for gravitational, electric, and magnetic forces. But the price paid for this simplicity is high: the introduction of new weightless substances. These are rather artificial concepts, and quite unrelated to the fundamental substance, mass.

The First Serious Difficulty. We are now ready to note the first grave difficulty in the application of our general philosophical point of view. It will be shown later that this difficulty, together with another even more serious, caused a complete breakdown of the belief that all phenomena can be explained mechanically.

The tremendous development of electricity as a branch of science and technique began with the discovery of the electric current. Here we find in the history of science one of the very few instances in which accident seemed to play an essential role. The story of the convulsion of a frog's leg is told in many different ways. Regardless of the truth concerning details, there is no doubt that Galvani's accidental discovery led Volta at the end of the eighteenth century to the construction of what is known as a *voltaic battery*. This is no longer of any practical use, but it still furnishes a very simple example of a source of current in school demonstrations and in textbook descriptions.

The principle of its construction is simple. There are several glass tumblers, each containing water with a little sulphuric acid. In each glass two metal plates, one copper and the other zinc, are immersed in the solution. The copper plate of one glass is connected to the zinc of the next, so that only the zinc plate of the first and the copper plate of the last glass remain unconnected. We can detect a difference in electric potential between the copper in the first glass and the zinc in the last by means of a fairly sensitive electroscope if the number of the "elements," that is, glasses with plates, constituting the battery, is sufficiently large.

It was only for the purpose of obtaining something easily measurable with apparatus already described that we introduced a battery consisting of several elements. For further discussion, a single element will serve just as well. The potential of the copper turns out to be higher than that of the zinc. "Higher" is used here in the sense in which +2 is greater than −2. If one conductor is connected to the free copper plate and another to the zinc, both will become charged, the first positively and the other negatively. Up to this point nothing particularly new or striking has appeared, and we may try to apply our previous ideas about potential differences. We have seen that a potential difference between two conductors can be quickly nullified by connecting them with a wire, so that there is a flow of electric fluid from one conductor to the other. This process was similar to the equalization of temperatures by heat flow. But does this work in the case of a voltaic battery? Volta wrote in his report that the plates behave like conductors:

> . . . feebly charged, which act unceasingly or so that their charge after each discharge re-establishes itself; which, in a word, provides an unlimited charge or imposes a perpetual action or impulsion of the electric fluid.

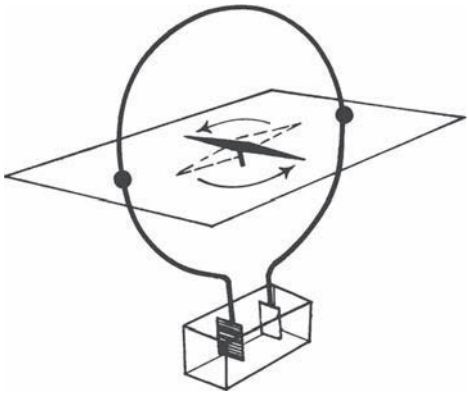
The astonishing result of his experiment is that the potential difference between the copper and zinc plates does not vanish as in the case of two charged conductors connected by a wire. The difference persists, and according to the fluids theory it must cause a constant flow of electric fluid from the higher potential level (copper plate) to the lower (zinc plate). In an attempt to save the fluid theory, we may assume that some constant force acts to regenerate the potential difference and cause a flow of electric fluid. But the whole phenomenon is astonishing from the standpoint of energy. A noticeable quantity of heat is generated in the wire carrying the current, even enough to melt the wire if it is a thin one. Therefore, heat-energy is created in the wire. But the whole voltaic battery forms an isolated system, since no external energy is being supplied. If we want to save the law of conservation of energy we must find where the transformations take place, and at what expense the heat is created. It is not difficult to realize that complicated chemical processes are taking place in the battery, processes in which the immersed copper and zinc, as well as the liquid itself, take active parts. From the standpoint of energy this is the chain of transformations which are taking place: chemical energy→energy of the flowing electric fluid, *i.e.*, the current→heat. A voltaic battery does not last forever; the chemical changes associated with the flow of electricity make the battery useless after a time.

The experiment which actually revealed the great difficulties in applying the mechanical ideas must sound strange to anyone hearing about it for the first time. It was performed by Oersted about a hundred and twenty years ago. He reports:

> By these experiments it seems to be shown that the magnetic needle was moved from its position by help of a galvanic apparatus, and that, when the galvanic circuit was closed, but not when open, as certain very celebrated physicists in vain attempted several years ago.

Suppose we have a voltaic battery and a conducting wire. If the wire is connected to the copper plate but not to the zinc, there will exist a potential difference but no current can flow. Let us assume that the wire is bent to form a circle, in the center of which a magnetic needle is placed, both wire and needle lying in the same plane. Nothing hap-

pens as long as the wire does not touch the zinc plate. There are no forces acting, the existing potential difference having no influence whatever on the position of the needle. It seems difficult to understand why the "very celebrated physicists," as Oersted called them, expected such an influence.



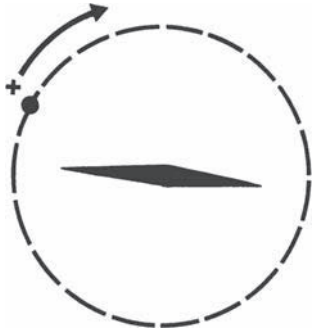
But now let us join the wire to the zinc plate. Immediately a strange thing happens. The magnetic needle turns from its previous position. One of its poles now points to the reader if the page of this book represents the plane of the circle. The effect is that of a force, *perpendicular* to the plane, acting on the magnetic pole. Faced with the facts of the experiment, we can hardly avoid drawing such a conclusion about the direction of the force acting.

This experiment is interesting, in the first place, because it shows a relation between two apparently quite different phenomena, magnetism and electric current. There is another aspect even more important. The force between the magnetic pole and the small portions of the wire through which the current flows cannot lie along lines connecting the wire and needle, or the particles of flowing electric fluid and the elementary magnetic dipoles. The force is perpendicular to these lines! For the first time there appears a force quite different from that to which, according to our mechanical point of view, we intended to reduce all actions in the external world. We remember that the forces of gravitation, electrostatics, and magnetism, obeying the laws of Newton and Coulomb, act along the line joining the two attracting or repelling bodies.

This difficulty was stressed even more by an experiment performed with great skill by Rowland nearly sixty years ago. Leaving out technical details, this experiment could be described as follows. Imagine a small charged sphere. Imagine further that this sphere moves very fast in a circle at the center of which is a magnetic needle. This is, in principle, the same experiment as Oersted's, the only difference being that instead of an ordinary current we have a mechanically effected motion of the electric charge. Rowland found that the result is indeed

similar to that observed when a current flows in a circular wire. The magnet is deflected by a perpendicular force.

Let us now move the charge faster. The force acting on the magnetic pole is, as a result, increased; the deflection from its initial position becomes more distinct. This observation presents another grave complication. Not only does the force fail to lie on the line connecting charge and magnet, but the intensity of the force depends on the velocity of the charge. The whole mechanical point of view was based on the belief that all phenomena can be explained in terms of forces depending only on the distance and not on the velocity. The result of Rowland's experiment certainly shakes this belief. Yet we may choose to be conservative and seek a solution within the frame of old ideas.



Difficulties of this kind, sudden and unexpected obstacles in the triumphant development of a theory, arise frequently in science. Sometimes a simple generalization of the old ideas seems, at least temporarily, to be a good way out. It would seem sufficient, in the present case, for example, to broaden the previous point of view and introduce more general forces between the elementary particles. Very often, however, it is impossible to patch up an old theory, and the difficulties result in its downfall and the rise of a new one. Here it was not only the behavior of a tiny magnetic needle which broke the apparently well-founded and successful mechanical theories. Another attack, even more vigorous, came from an entirely different angle. But this is another story, and we shall tell it later.

The Velocity of Light. In Galileo's *Two New Sciences*, we listen to a conversation of the master and his pupils about the velocity of light:

> SAGREDO: But of what kind and how great must we consider this speed of light to be? Is it instantaneous or momentary or does it, like other motion, require time? Can we not decide this by experiment?
>
> SIMPLICIO: Everyday experience shows that the propagation of light is instantaneous; for when we see a piece of artillery fired, at great distance, the flash reaches our eyes without lapse of time; but the sound reaches the ear only after a noticeable interval.
>
> SAGREDO: Well, Simplicio, the only thing I am able to infer from this familiar bit of experience is that sound, in reaching our ears, travels more

> slowly than light; it does not inform me whether the coming of the light is instantaneous or whether, although extremely rapid, it still occupies time. . . .
>
> SALVIATI: The small conclusiveness of these and other similar observations once led me to devise a method by which one might accurately ascertain whether illumination, *i.e.*, propagation of light, is really instantaneous. . . .

Salviati goes on to explain the method of his experiment. In order to understand his idea let us imagine that the velocity of light is not only finite, but also small, that the motion of light is slowed down, like that in a slow-motion film. Two men, A and B, have covered lanterns and stand, say, at a distance of one mile from each other. The first man, A, opens his lantern. The two have made an agreement that B will open his the moment he sees A's light. Let us assume that in our "slow motion" the light travels one mile in a second. A sends a signal by uncovering his lantern. B sees it after one second and sends an answering signal. This is received by A two seconds after he had sent his own. That is to say, if light travels with a speed of one mile per second, then two seconds will elapse between A's sending and receiving a signal, assuming that B is a mile away. Conversely, if A does not know the velocity of light but assumes that his companion kept the agreement, and he notices the opening of B's lantern two seconds after he opened his, he can conclude that the speed of light is one mile per second.

With the experimental technique available at that time Galileo had little chance of determining the velocity of light in this way. If the distance were a mile, he would have had to detect time intervals of the order of one hundred-thousandth of a second!

Galileo formulated the problem of determining the velocity of light, but did not solve it. The formulation of a problem is often more essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science. The principle of inertia, the law of conservation of energy were gained only by new and original thoughts about already well-known experiments and phenomena. Many instances of this kind will be found in the following pages of this book, where the importance of seeing known facts in a new light will be stressed and new theories described.

Returning to the comparatively simple question of determining the velocity of light, we may remark that it is surprising that Galileo did not

realize that his experiment could be performed much more simply and accurately by one man. Instead of stationing his companion at a distance he could have mounted there a mirror, which would automatically send back the signal immediately after receiving it.

About two hundred and fifty years later this very principle was used by Fizeau, who was the first to determine the velocity of light by terrestrial experiments. It had been determined by Roemer much earlier, though less accurately, by astronomical observation.

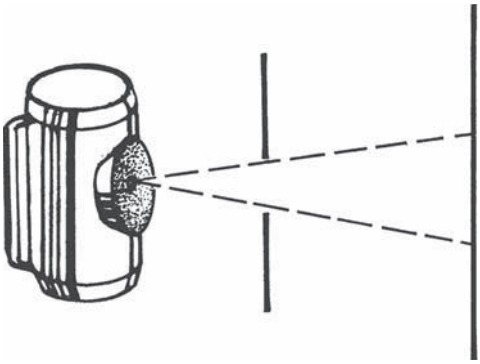
It is quite clear that in view of its enormous magnitude, the velocity of light could be measured only by taking distances comparable to that between the earth and another planet of the solar system or by a great refinement of experimental technique. The first method was that of Roemer, the second that of Fizeau. Since the days of these first experiments the very important number representing the velocity of light has been determined many times, with increasing accuracy. In our own century a highly refined technique was devised for this purpose by Michelson. The result of these experiments can be expressed simply: The velocity of light *in vacuo* is approximately 186,000 miles per second, or 300,000 kilometers per second.

Light as Substance. Again we start with a few experimental facts. The number just quoted concerns the velocity of light *in vacuo*. Undisturbed, light travels with this speed through empty space. We can see through an empty glass vessel if we extract the air from it. We see planets, stars, nebulae, although the light travels from them to our eyes through empty space. The simple fact that we can see through a vessel whether or not there is air inside shows us that the presence of air matters very little. For this reason we can perform optical experiments in an ordinary room with the same effect as if there were no air.

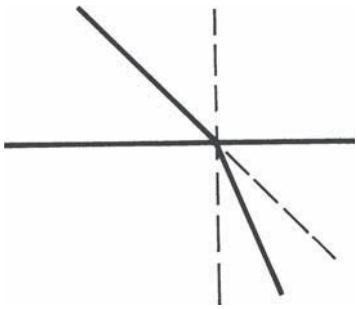
One of the simplest optical facts is that the propagation of light is rectilinear. We shall describe a primitive and naïve experiment showing this. In front of a point source is placed a screen with a hole in it. A point source is a very small source of light, say, a small opening in a closed lantern. On a distant wall the hole in the screen will be represented as light on a dark background. The next drawing [p. 544] shows how this phenomenon is connected with the rectilinear propagation of light. All such phenomena, even the more complicated cases in which light, shadow, and half-shadows appear, can be explained by the assumption that light, *in vacuo* or in air, travels along straight lines.

Let us take another example, a case in which light passes through matter. We have a light beam traveling through a vacuum and falling on a

glass plate. What happens? If the law of rectilinear motion were still valid, the path would be that shown by the dotted line. But actually it is not. There is a break in the path, such as is shown in the drawing [below]. What we observe here is the phenomenon known as *refraction.* The familiar appearance of a stick which seems to be bent in the middle if half-immersed in water is one of the many manifestations of refraction.



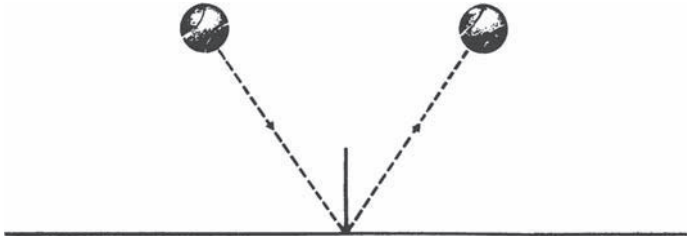
These facts are sufficient to indicate how a simple mechanical theory of light could be devised. Our aim here is to show how the ideas of substances, particles, and forces penetrated the field of optics, and how finally the old philosophical point of view broke down.



The theory here suggests itself in its simplest and most primitive form. Let us assume that all lighted bodies emit particles of light, or *corpuscles,* which, falling on our eyes, create the sensation of light. We are already so accustomed to introduce new substances, if necessary for a mechanical explanation, that we can do it once more without any great hesitation. These corpuscles must travel along straight lines through empty space with a known speed, bringing to our eyes messages from the bodies emitting light. All phenomena exhibiting the rectilinear propagation of light support the corpuscular theory, for just this kind of motion was prescribed for the corpuscles. The theory also explains very simply the reflection of light by mirrors as the same kind of reflection as that shown in the mechanical experiment of elastic balls thrown against a wall, as the next drawing indicates.

The explanation of refraction is a little more difficult. Without going into details we can see the possibility of a mechanical explanation. If corpuscles fall on the surface of glass, for example, it may be that a force is exerted on them by the particles of the matter, a force which strangely enough acts only in the immediate neighborhood of matter. Any force acting on a moving particle changes the velocity, as we

already know. If the net force on the light-corpuscles is an attraction perpendicular to the surface of the glass, the new motion will lie somewhere between the line of the original path and the perpendicular.



This simple explanation seems to promise success for the corpuscular theory of light. To determine the usefulness and range of validity of the theory, however, we must investigate new and more complicated facts.

The Riddle of Color. It was again Newton's genius which explained for the first time the wealth of color in the world. Here is a description of one of Newton's experiments in his own words:

> In the year 1666 (at which time I applied myself to the grinding of optick glasses of other figures than spherical) I procured me a triangular glass prism, to try therewith the celebrated phenomena of colours. And in order thereto, having darkened my chamber, and made a small hole in my window-shuts, to let in a convenient quantity of the sun's light, I placed my prism at its entrance, that it might thereby be refracted to the opposite wall. It was at first a very pleasing divertisement, to view the vivid and intense colours produced thereby.

The light from the sun is "white." After passing through a prism it shows all the colors which exist in the visible world. Nature herself reproduces the same result in the beautiful color scheme of the rainbow. Attempts to explain this phenomenon are very old. The Biblical story that a rainbow is God's signature to a covenant with man is, in a sense, a "theory." But it does not satisfactorily explain why the rainbow is repeated from time to time, and why always in connection with rain. The whole puzzle of color was first scientifically attacked and the solution pointed out in the great work of Newton.

One edge of the rainbow is always red and the other violet. Between them all other colors are arranged. Here is Newton's explanation of this phenomenon: every color is already present in white light. They all traverse interplanetary space and the atmosphere in unison and give the effect of white light. White light is, so to speak, a mixture of

corpuscles of different kinds, belonging to different colors. In the case of Newton's experiment the prism separates them in space. According to the mechanical theory, refraction is due to forces acting on the particles of light and originating from the particles of glass. These forces are different for corpuscles belonging to different colors, being strongest for the violet and weakest for the red. Each of the colors will therefore be refracted along a different path and be separated from the others when the light leaves the prism. In the case of a rainbow, drops of water play the role of the prism.

The substance theory of light is now more complicated than before. We have not one light substance but many, each belonging to a different color. If, however, there is some truth in the theory, its consequences must agree with observation.

The series of colors in the white light of the sun, as revealed by Newton's experiment, is called the *spectrum* of the sun, or more precisely, its *visible spectrum*. The decomposition of white light into its components, as described here, is called the *dispersion* of light. The separated colors of the spectrum could be mixed together again by a second prism properly adjusted, unless the explanation given is wrong. The process should be just the reverse of the previous one. We should obtain white light from the previously separated colors. Newton showed by experiment that it is indeed possible to obtain white light from its spectrum and the spectrum from white light in this simple way as many times as one pleases. These experiments formed a strong support for the theory in which corpuscles belonging to each color behave as unchangeable substances. Newton wrote thus:

> . . . which colours are not new generated, but only made apparent by being parted; for if they be again entirely mixt and blended together, they will again compose that colour, which they did before separation. And for the same reason, transmutations made by the convening of divers colours are not real; for when the difform rays are again severed, they will exhibit the very same colours which they did before they entered the composition; as you see blue and yellow powders, when finely mixed, appear to the naked eye, green, and yet the colours of the component corpuscles are not thereby really transmuted, but only blended. For when viewed with a good microscope they still appear blue and yellow interspersedly.

Suppose that we have isolated a very narrow strip of the spectrum. This means that of all the many colors we allow only one to pass through the slit, the others being stopped by a screen. The beam which

comes through will consist of *homogeneous* light, that is, light which cannot be split into further components. This is a consequence of the theory and can be easily confirmed by experiment. In no way can such a beam of single color be divided further. There are simple means of obtaining sources of homogeneous light. For example, sodium, when incandescent, emits homogeneous yellow light. It is very often convenient to perform certain optical experiments with homogeneous light, since, as we can well understand, the result will be much simpler.

Let us imagine that suddenly a very strange thing happens: our sun begins to emit only homogeneous light of some definite color, say yellow. The great variety of colors on the earth would immediately vanish. Everything would be either yellow or black! This prediction is a consequence of the substance theory of light, for new colors cannot be created. Its validity can be confirmed by experiment: in a room where the only source of light is incandescent sodium everything is either yellow or black. The wealth of color in the world reflects the variety of color of which white light is composed.

The substance theory of light seems to work splendidly in all these cases, although the necessity for introducing as many substances as colors may make us somewhat uneasy. The assumption that all the corpuscles of light have exactly the same velocity in empty space also seems very artificial.

It is imaginable that another set of suppositions, a theory of entirely different character, would work just as well and give all the required explanations. Indeed, we shall soon witness the rise of another theory, based on entirely different concepts, yet explaining the same domain of optical phenomena. Before formulating the underlying assumptions of this new theory, however, we must answer a question in no way connected with these optical considerations. We must go back to mechanics and ask:

What Is a Wave? A bit of gossip starting in Washington reaches New York very quickly, even though not a single individual who takes part in spreading it travels between these two cities. There are two quite different motions involved, that of the rumor, Washington to New York, and that of the persons who spread the rumor. The wind, passing over a field of grain, sets up a wave which spreads out across the whole field. Here again we must distinguish between the motion of the wave and the motion of the separate plants, which undergo only small oscillations. We have all seen the waves that spread in wider and wider

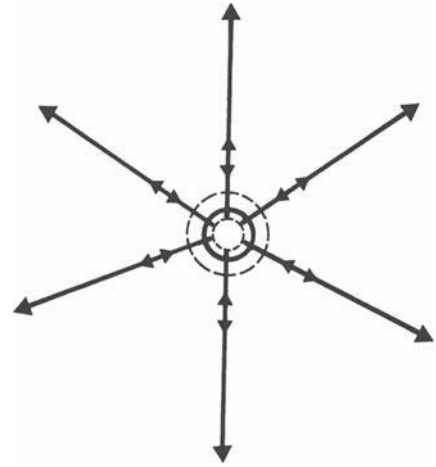
circles when a stone is thrown into a pool of water. The motion of the wave is very different from that of the particles of water. The particles merely go up and down. The observed motion of the wave is that of a state of matter and not of matter itself. A cork floating on the wave shows this clearly, for it moves up and down in imitation of the actual motion of the water, instead of being carried along by the wave.

In order to understand better the mechanism of the wave let us again consider an idealized experiment. Suppose that a large space is filled quite uniformly with water, or air, or some other "medium." Somewhere in the center there is a sphere. At the beginning of the experiment there is no motion at all. Suddenly the sphere begins to "breathe" rhythmically, expanding and contracting in volume, although retaining its spherical shape. What will happen in the medium? Let us begin our examination at the moment the sphere begins to expand. The particles of the medium in the immediate vicinity of the sphere are pushed out, so that the density of a spherical shell of water, or air, as the case may be, is increased above its normal value. Similarly, when the sphere contracts, the density of that part of the medium immediately surrounding it will be decreased. These changes of density are propagated throughout the entire medium. The particles constituting the medium perform only small vibrations, but the whole motion is that of a progressive wave. The essentially new thing here is that for the first time we consider the motion of something which is not matter, but energy propagated through matter.

Using the example of the pulsating sphere, we may introduce two general physical concepts, important for the characterization of waves. The first is the velocity with which the wave spreads. This will depend on the medium, being different for water and air, for example. The second concept is that of *wave length*. In the case of waves on a sea or river it is the distance from the trough of one wave to that of the next, or from the crest of one wave to that of the next. Thus sea waves have greater wave length than river waves. In the case of our waves set up by a pulsating sphere the wave length is the distance, at some definite time, between two neighboring spherical shells showing maxima or minima of density. It is evident that this distance will not depend on the medium alone. The rate of pulsation of the sphere will certainly have a great effect, making the wave length shorter if the pulsation becomes more rapid, longer if the pulsation becomes slower.

This concept of a wave proved very successful in physics. It is

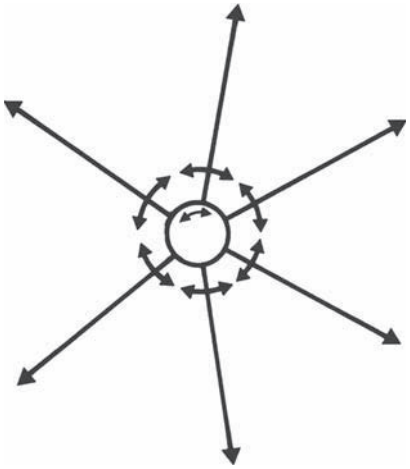
definitely a mechanical concept. The phenomenon is reduced to the motion of particles which, according to the kinetic theory, are constituents of matter. Thus every theory which uses the concept of wave can, in general, be regarded as a mechanical theory. For example, the explanation of acoustical phenomena is based essentially on this concept. Vibrating bodies, such as vocal cords and violin strings, are sources of sound waves which are propagated through the air in the manner explained for the pulsating sphere. It is thus possible to reduce all acoustical phenomena to mechanics by means of the wave concept.



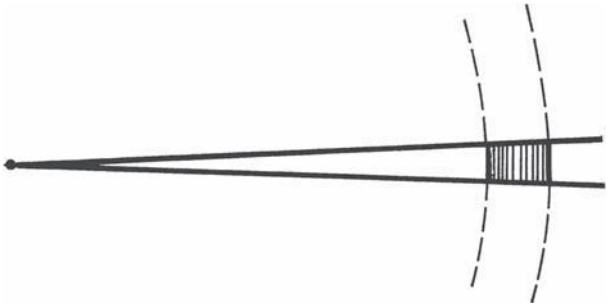
It has been emphasized that we must distinguish between the motion of the particles and that of the wave itself, which is a state of the medium. The two are very different but it is apparent that in our example of the pulsating sphere both motions take place in the same straight line. The particles of the medium oscillate along short line segments, and the density increases and decreases periodically in accordance with this motion. The direction in which the wave spreads and the line on which the oscillations lie are the same. This type of wave is called *longitudinal*. But is this the only kind of wave? It is important for our further considerations to realize the possibility of a different kind of wave, called *transverse*.

Let us change our previous example. We still have the sphere, but it is immersed in a medium of a different kind, a sort of jelly instead of air or water. Furthermore, the sphere no longer pulsates but rotates in one direction through a small angle and then back again, always in the same rhythmical way and about a definite axis. The jelly adheres to the sphere and thus the adhering portions are forced to imitate the motion. These portions force those situated a little further away to imitate the same motion, and so on, so that a wave is set up in the medium. If we keep in mind the distinction between the motion of the medium and the motion of the wave we see that here they do not lie on the same line. The wave is propagated in the direction of the radius of the sphere, while the parts of the medium move perpendicularly to this direction. We have thus created a transverse wave [see p. 550].

Waves spreading on the surface of water are transverse. A floating cork only bobs up and down, but the wave spreads along a horizontal plane. Sound waves, on the other hand, furnish the most familiar example of longitudinal waves.



One more remark: the wave produced by a pulsating or oscillating sphere in a homogeneous medium is a *spherical* wave. It is called so because at any given moment all points on any sphere surrounding the source behave in the same way. Let us consider a portion of such a sphere at a great distance from the source. The farther away the portion is, and the smaller we take it, the more it resembles a plane. We can say, without trying to be too rigorous, that there is no essential difference between a part of a plane and a part of a sphere whose radius is sufficiently large. We very often speak of small portions of a spherical wave far removed from the source as *plane waves*. The farther we place the shaded portion of our drawing from the center of the spheres and the smaller the angle between the two radii, the better our representation of a plane wave. The concept of a plane wave, like



many other physical concepts, is no more than a fiction which can be realized with only a certain degree of accuracy. It is, however, a useful concept which we shall need later.

The Wave Theory of Light. Let us recall why we broke off the description of optical phenomena. Our aim was to introduce another

theory of light, different from the corpuscular one, but also attempting to explain the same domain of facts. To do this we had to interrupt our story and introduce the concept of waves. Now we can return to our subject.

It was Huygens, a contemporary of Newton, who put forward a quite new theory. In his treatise on light he wrote:

> If, in addition, light takes time for its passage–which we are now going to examine–it will follow that this movement, impressed on the intervening matter, is successive; and consequently it spreads, as sound does, by spherical surfaces and waves, for I call them waves from their resemblance to those which are seen to be formed in water when a stone is thrown into it, and which present a successive spreading as circles, though these arise from another cause, and are only in a flat surface.

According to Huygens, light is a wave, a transference of energy and not of substance. We have seen that the corpuscular theory explains many of the observed facts. Is the wave theory also able to do this? We must again ask the questions which have already been answered by the corpuscular theory, to see whether the wave theory can do the answering just as well. We shall do this here in the form of a dialogue between N and H, where N is a believer in Newton's corpuscular theory, and H in Huygen's theory. Neither is allowed to use arguments developed after the work of the two great masters was finished.

N: In the corpuscular theory the velocity of light has a very definite meaning. It is the velocity at which the corpuscles travel through empty space. What does it mean in the wave theory?

H: It means the velocity of the light wave, of course. Every known wave spreads with some definite velocity, and so should a wave of light.

N: That is not as simple as it seems. Sound waves spread in air, ocean waves in water. Every wave must have a material medium in which it travels. But light passes through a vacuum, whereas sound does not. To assume a wave in empty space really means not to assume any wave at all.

H: Yes, that is a difficulty, although not a new one to me. My master thought about it very carefully, and decided that the only way out is to assume the existence of a hypothetical substance, the *ether*, a transparent medium permeating the entire universe. The universe is, so to speak, immersed in ether. Once we have the courage to introduce this concept, everything else becomes clear and convincing.

N: But I object to such an assumption. In the first place it introduces a new hypothetical substance, and we already have too many substances in physics. There is also another reason against it. You no doubt believe that we must explain everything in terms of mechanics. But what about the ether? Are you able to answer the simple question as to how the ether is constructed from its elementary particles and how it reveals itself in other phenomena?

H: Your first objection is certainly justified. But by introducing the somewhat artificial weightless ether we at once get rid of the much more artificial light corpuscles. We have only one "mysterious" substance instead of an infinite number of them corresponding to the great number of colors in the spectrum. Do you not think that this is real progress? At least all the difficulties are concentrated on one point. We no longer need the factitious assumption that particles belonging to different colors travel with the same speed through empty space. Your second argument is also true. We cannot give a mechanical explanation of ether. But there is no doubt that the future study of optical and perhaps other phenomena will reveal its structure. At present we must wait for new experiments and conclusions, but finally, I hope, we shall be able to clear up the problem of the mechanical structure of the ether.

N: Let us leave the question for the moment, since it cannot be settled now. I should like to see how your theory, even if we waive the difficulties, explains those phenomena which are so clear and understandable in the light of the corpuscular theory. Take, for example, the fact that light rays travel *in vacuo* or in air along straight lines. A piece of paper placed in front of a candle produces a distinct and sharply outlined shadow on the wall. Sharp shadows would not be possible if the wave theory of light were correct, for waves would bend around the edges of the paper and thus blur the shadow. A small ship is not an obstacle for waves on the sea, you know; they simply bend around it without casting a shadow.

H: That is not a convincing argument. Take short waves on a river impinging on the side of a large ship. Waves originating on one side of the ship will not be seen on the other. If the waves are small enough and the ship large enough a very distinct shadow appears. It is very probable that light seems to travel in straight lines only because its wave length is very small in comparison with the size of ordinary obstacles and of apertures used in experiments. Possibly, if we could create a sufficiently small obstruction, no shadow would occur. We might meet

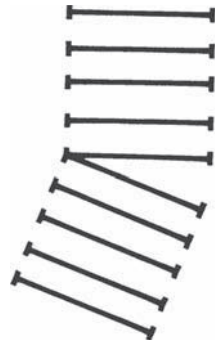
with great experimental difficulties in constructing apparatus which would show whether light is capable of bending. Nevertheless, if such an experiment could be devised it would be crucial in deciding between the wave theory and the corpuscular theory of light.

N: The wave theory may lead to new facts in the future, but I do not know of any experimental data confirming it convincingly. Until it is definitely proved by experiment that light may be bent I do not see any reason for not believing in the corpuscular theory, which seems to me to be simpler, and therefore better, than the wave theory.

At this point we may interrupt the dialogue, though the subject is by no means exhausted.

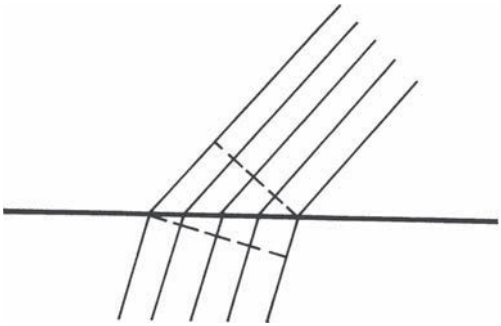
It still remains to be shown how the wave theory explains the refraction of light and the variety of colors. The corpuscular theory is capable of this, as we know. We shall begin with refraction, but it will be useful to consider first an example having nothing to do with optics.

There is a large open space in which there are walking two men holding between them a rigid pole. At the beginning they are walking straight ahead, both with the same velocity. As long as their velocities remain the same, whether great or small, the stick will be undergoing parallel displacement; that is, it does not turn or change its direction. All consecutive positions of the pole are parallel to each other. But now imagine that for a time which may be as short as a fraction of a second the motions of the two men are not the same. What will happen? It is clear that during this moment the stick will turn, so that it will no longer be displaced parallel to its original position. When the equal velocities are resumed it is in a direction different from the previous one. This is shown clearly in the drawing. The change in direction took place during the time interval in which the velocities of the two walkers were different.



This example will enable us to understand the refraction of a wave. A plane wave traveling through the ether strikes a plate of glass. In the next drawing we see a wave which presents a comparatively wide front as it marches along. The wave front is a plane on which at any given moment all parts of the ether behave in precisely the same way. Since the velocity depends on the medium through which the light is passing it will be different in glass from the velocity in empty space. During the very short time in which the wave front enters the glass, dif-

ferent parts of the wave front will have different velocities. It is clear that the part which has reached the glass will travel with the velocity of light in glass, while the other still moves with the velocity of light in ether. Because of this difference in velocity along the wave front during the time of "immersion" in the glass, the direction of the wave itself will be changed.



Thus we see that not only the corpuscular theory, but also the wave theory, leads to an explanation of refraction. Further consideration, together with a little mathematics, shows that the wave theory explanation is simpler and better, and that the consequences are in perfect agreement with observation. Indeed, quantitative methods of reasoning enable us to deduce the velocity of light in a refractive medium if we know how the beam refracts when passing into it. Direct measurements splendidly confirm these predictions, and thus also the wave theory of light.

There still remains the question of color.

It must be remembered that a wave is characterized by two numbers, its velocity and its wave length. The essential assumption of the wave theory of light is that *different wave lengths correspond to different colors*. The wave length of homogeneous yellow light differs from that of red or violet. Instead of the artificial segregation of corpuscles belonging to various colors we have the natural difference in wave length.

It follows that Newton's experiments on the dispersion of light can be described in two different languages, that of the corpuscular theory and that of the wave theory. For example:

Corpuscular Language	*Wave Language*
The corpuscles belonging to different colors have the same velocity *in vacuo*, but different velocities in glass.	The rays of different wave length belonging to different colors have the same velocity in the ether, but different velocities in glass.
White light is a composition of corpuscles belonging to different colors, whereas in the spectrum they are separated.	White light is a composition of waves of all wave lengths, whereas in the spectrum they are separated.

It would seem wise to avoid the ambiguity resulting from the existence of two distinct theories of the same phenomena, by deciding in favor of one of them after a careful consideration of the faults and merits of each. The dialogue between N and H shows that this is no easy task. The decision at this point would be more a matter of taste than of scientific conviction. In Newton's time, and for more than a hundred years after, most physicists favored the corpuscular theory.

History brought in its verdict, in favor of the wave theory of light and against the corpuscular theory, at a much later date, the middle of the nineteenth century. In his conversation with H, N stated that a decision between the two theories was, in principle, experimentally possible. The corpuscular theory does not allow light to bend, and demands the existence of sharp shadows. According to the wave theory, on the other hand, a sufficiently small obstacle will cast no shadow. In the work of Young and Fresnel this result was experimentally realized and theoretical conclusions were drawn.

An extremely simple experiment has already been discussed, in which a screen with a hole was placed in front of a point source of light and a light appeared on the wall. We shall simplify the experiment further by assuming that the source emits homogeneous light. For the best results the source should be a strong one. Let us imagine that the hole in the screen is made smaller and smaller. If we use a strong source and succeed in making the hole small enough, a new and surprising phenomenon appears, something quite incomprehensible from the point of view of the corpuscular theory. There is no longer a sharp distinction between light and dark. Light gradually fades into the dark background in a series of light and dark rings. The appearance of rings is very characteristic of a wave theory. The explanation for alternating light and dark areas will be clear in the case of a somewhat different experimental arrangement. Suppose we have a sheet of dark paper with two pinholes through which light may pass. If the holes are close together and very small, and if the source of homogeneous light is strong enough, many light and dark bands will appear on the wall, gradually fading off at the sides into the dark background. The explanation is simple. A dark band is where a trough of a wave from one pinhole meets the crest of a wave from the other pinhole, so that the two cancel. A band of light is where two troughs or two crests from waves of the different pinholes meet and reinforce each other. The explanation is more complicated in the case of the dark and light rings of our previous example in which we used a screen

with one hole, but the principle is the same. . . . The experiments described here show the *diffraction* of light, the deviation from the rectilinear propagation when small holes or obstacles are placed in the way of the light wave.

With the aid of a little mathematics we are able to go much further. It is possible to find out how great or, rather, how small the wave length must be to produce a particular pattern. Thus the experiments described enable us to measure the wave length of the homogeneous light used as a source. To give an idea of how small the numbers are we shall cite two wave lengths, those representing the extremes of the solar spectrum, that is, the red and the violet.

The wave length of red light is 0.00008 cm.
The wave length of violet light is 0.00004 cm.

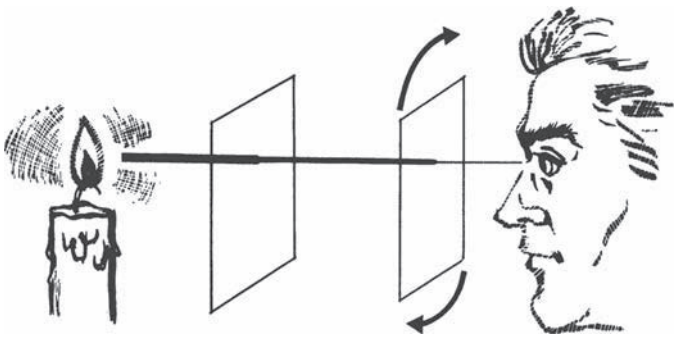
We should not be astonished that the numbers are so small. The phenomenon of distinct shadow, that is, the phenomenon of rectilinear propagation of light, is observed in nature only because all apertures and obstacles ordinarily met with are extremely large in comparison with the wave lengths of light. It is only when very small obstacles and apertures are used that light reveals its wave-like nature.

But the story of the search for a theory of light is by no means finished. The verdict of the nineteenth century was not final and ultimate. For the modern physicist the entire problem of deciding between corpuscles and waves again exists, this time in a much more profound and intricate form. Let us accept the defeat of the corpuscular theory of light until we recognize the problematic nature of the victory of the wave theory.

Longitudinal or Transverse Light Waves? All the optical phenomena we have considered speak for the wave theory. The bending of light around small obstacles and the explanation of refraction are the strongest arguments in its favor. Guided by the mechanical point of view we realize that there is still one question to be answered: the determination of the mechanical properties of the ether. It is essential for the solution of this problem to know whether light waves in the ether are longitudinal or transverse. In other words: is light propagated like sound? Is the wave due to changes in the density of the medium, so that the oscillations of the particles are in the direction of the propagation? Or does the ether resemble an elastic jelly, a medium in which only transverse waves can be set up and whose particles move in a direction perpendicular to that in which the wave itself travels?

Before solving this problem let us try to decide which answer should be preferred. Obviously, we should be fortunate if light waves were longitudinal. The difficulties in designing a mechanical ether would be much simpler in this case. Our picture of ether might very probably be something like the mechanical picture of a gas that explains the propagation of sound waves. It would be much more difficult to form a picture of ether carrying transverse waves. To imagine a jelly as a medium made up of particles in such a way that transverse waves are propagated by means of it is no easy task. Huygens believed that the ether would turn out to be "air-like" rather than "jelly-like." But nature cares very little for our limitations. Was nature, in this case, merciful to the physicists attempting to understand all events from a mechanical point of view? In order to answer this question we must discuss some new experiments.

We shall consider in detail only one of many experiments which are able to supply us with an answer. Suppose we have a very thin plate of tourmaline crystal, cut in a particular way which we need not describe here. The crystal plate must be thin so that we are able to see a source of light through it. But now let us take two such plates and place both of them between our eyes and the light. What do we expect to see? Again



a point of light, if the plates are sufficiently thin. The chances are very good that the experiment will confirm our expectation. Without worrying about the statement that it may be chance, let us assume we do see the light point through the two crystals. Now let us gradually change the position of one of the crystals by rotating it. This statement makes sense only if the position of the axis about which the rotation takes place is fixed. We shall take as an axis the line determined by the incoming ray. This means that we displace all the points of the one crystal except those on the axis. A

strange thing happens! The light gets weaker and weaker until it vanishes completely. It reappears as the rotation continues and we regain the initial view when the initial position is reached.

Without going into the details of this and similar experiments we can ask the following question: can these phenomena be explained if the light waves are longitudinal? In the case of longitudinal waves the particles of the ether would move along the axis, as the beam does. If the crystal rotates, nothing along the axis changes. The points on the axis do not move, and only a very small displacement takes place nearby. No such distinct change as the vanishing and appearance of a new picture could possibly occur for a longitudinal wave. This and many other similar phenomena can be explained only by the assumption that light waves are transverse and not longitudinal! Or, in other words, the "jelly-like" character of the ether must be assumed.

This is very sad! We must be prepared to face tremendous difficulties in the attempt to describe the ether mechanically.

Ether and the Mechanical View. The discussion of all the various attempts to understand the mechanical nature of the ether as a medium for transmitting light, would make a long story. A mechanical construction means, as we know, that the substance is built up of particles with forces acting along lines connecting them and depending only on the distance. In order to construct the ether as a jelly-like mechanical substance physicists had to make some highly artificial and unnatural assumptions. We shall not quote them here; they belong to the almost forgotten past. But the result was significant and important. The artificial character of all these assumptions, the necessity for introducing so many of them all quite independent of each other, was enough to shatter the belief in the mechanical point of view.

But there are other and simpler objections to ether than the difficulty of constructing it. Ether must be assumed to exist everywhere, if we wish to explain optical phenomena mechanically. There can be no empty space if light travels only in a medium.

Yet we know from mechanics that interstellar space does not resist the motion of material bodies. The planets, for example, travel through the ether-jelly without encountering any resistance such as a material medium would offer to their motion. If ether does not disturb matter in its motion, there can be no interaction between particles of ether and particles of matter. Light passes through ether and also through glass and

water, but its velocity is changed in the latter substances. How can this fact be explained mechanically? Apparently only by assuming some interaction between ether particles and matter particles. We have just seen that in the case of freely moving bodies such interactions must be assumed not to exist. In other words, there is interaction between ether and matter in optical phenomena, but none in mechanical phenomena! This is certainly a very paradoxical conclusion!

There seems to be only one way out of all these difficulties. In the attempt to understand the phenomena of nature from the mechanical point of view, throughout the whole development of science up to the twentieth century, it was necessary to introduce artificial substances like electric and magnetic fluids, light corpuscles, or ether. The result was merely the concentration of all the difficulties in a few essential points, such as ether in the case of optical phenomena. Here all the fruitless attempts to construct an ether in some simple way, as well as the other objections, seem to indicate that the fault lies in the fundamental assumption that it is possible to explain all events in nature from a mechanical point of view. Science did not succeed in carrying out the mechanical program convincingly, and today no physicist believes in the possibility of its fulfillment.

In our short review of the principal physical ideas we have met some unsolved problems, have come upon difficulties and obstacles which discouraged the attempts to formulate a uniform and consistent view of all the phenomena of the external world. There was the unnoticed clue in classical mechanics of the equality of gravitational and inertial mass. There was the artificial character of the electric and magnetic fluids. There was, in the interaction between electric current and magnetic needle, an unsolved difficulty. It will be remembered that this force did not act in the line connecting the wire and the magnetic pole, and depended on the velocity of the moving charge. The law expressing its direction and magnitude was extremely complicated. And finally, there was the great difficulty with the ether.

Modern physics has attacked all these problems and solved them. But in the struggle for these solutions new and deeper problems have been created. Our knowledge is now wider and more profound than that of the physicist of the nineteenth century, but so are our doubts and difficulties.

We summarize:

In the old theories of electric fluids, in the corpuscular and wave theories of light, we witness the further attempts to apply the mechanical view. But in the realm of electric and optical phenomena we meet grave difficulties in this application.

A moving charge acts upon a magnetic needle. But the force, instead of depending only upon distance, depends also upon the velocity of the charge. The force neither repels nor attracts but acts perpendicular to the line connecting the needle and the charge.

In optics we have to decide in favor of the wave theory against the corpuscular theory of light. Waves spreading in a medium consisting of particles, with mechanical forces acting between them, are certainly a mechanical concept. But what is the medium through which light spreads and what are its mechanical properties? There is no hope of reducing the optical phenomena to the mechanical ones before this question is answered. But the difficulties in solving this problem are so great that we have to give it up and thus give up the mechanical view as well.

The foregoing consists of Chapters I and II
from Einstein and Infeld's
THE EVOLUTION OF PHYSICS.

Sir Arthur Eddington

1882–1944

Arthur Stanley Eddington was born in England in 1882. He was educated at Trinity College, Cambridge, where he was senior wrangler in 1904. (For a discussion of the intellectual eminence implied by this position, see the selection from Galton's *Hereditary Genius*.) [1] He was elected a fellow of Trinity and, in 1913, at the age of thirty-one, made the Plumian Professor of Astronomy and Experimental Philosophy at Cambridge. He succeeded a long line of distinguished scientists in this position; his immediate predecessor was Sir George Darwin, son of Charles.

Eddington made contributions to the theory of star clusters and, more important, to the theory of the evolution of stars; the latter are contained in his book, *The Internal Constitution of the Stars* (1926). He was deeply interested in Einstein's theory of relativity, and besides doing research which helped to validate its predictions, he wrote several popular books explaining the theory to laymen. Among them is *Space, Time and Gravitation* (1920). His interest in the new theory had a broad base. He believed that many observed facts could be predicted by means of pure mathematical reasoning; that is, he felt that most of the fundamental constants of nature could be calculated without recourse to experiment, and he performed astounding feats of calculation to prove his point.

Relativity was grist for his mill; by means of it and other theories he even claimed to be able to calculate definitely the number of electrons in the universe. His claim has been considered by many later physicists to be overambitious. Eddington himself appeared to believe that in this and similar contentions he was merely carrying

[1] Vol. 8, pp. 227–261, in this set.

to their inevitable conclusions the fundamental assumptions of modern physics.

The Nature of the Physical World, a work of popular exposition that exerted wide intellectual influence, appeared in 1928. The following selection is a chapter from that work. Eddington died on November 22, 1944.

The second law of thermodynamics, as Eddington explains it, is simplicity itself: "Entropy always increases"—that is all there is to it. Entropy is "the practical measure of the random element which can increase in the universe but can never decrease." The law holds, Eddington says, "the supreme position among the laws of nature." As such, it is of great importance. But it is also fraught with grave consequences.

Entropy is "time's arrow"; it points in one direction—to the future—and in one direction only. It is the law of nature which puts "some sense into the world." That is, it is the bridge between the apparently cold, inhuman, mathematical world of the primary laws of physics, and the—perhaps again apparently—warm, disorderly and familiar world which we sense and in which we live.

Furthermore, Eddington points out, it must follow from the law that the farther back we go in time the more organized, the less shuffled (to use his metaphor), the world must have been. Such a process—whether we consider it backward or forward—cannot, he says, be conceived as going on infinitely. The universe must have had a beginning, then, and must be expected to have an end. The law demands both.

This conclusion does not mean that Eddington is here disputing the claim that science can tell us nothing about the end and the beginning—"the first and the last catastrophe." Whether the world was created in the first place, and whether it will rejuvenate itself in the last, are, Eddington says, from the strictly scientific point of view questions susceptible only to "pure speculation."

Notes from the artist: "Behind the seated portrait of Eddington is an abstract interpretation of Eddington's prediction of the eventual gradual disintegration of the entire universe. The quotation is from The Nature of the Physical World.*"*

Verily, it is easier for a camel to pass through the eye of a needle than for a scientific man to pass through a door
Arthur Stanley Eddington

On the question whether the universe is running down once and for all, "science is silent," Eddington says, "and all that one can say is prejudice." He is willing, in his last paragraph, to be prejudiced–but toward a view which many people would call pessimistic. He is opposed to the assumption of "a never-ending cycle of rebirth of matter and worlds." "I am an Evolutionist," he says, "not a Multiplicationist."

The Running-Down of the Universe

The modern outlook on the physical world is not composed exclusively of conceptions which have arisen in the last twenty-five years; and we have now to deal with a group of ideas dating far back in the last century which have not essentially altered since the time of Boltzmann. These ideas display great activity and development at the present time. The subject is relevant at this stage because it has a bearing on the deeper aspects of the problem of time; but it is so fundamental in physical theory that we should be bound to deal with it sooner or later in any comprehensive survey.

If you take a pack of cards as it comes from the maker and shuffle it for a few minutes, all trace of the original systematic order disappears. The order will never come back however long you shuffle. Something has been done which cannot be undone, namely, the introduction of a random element in place of arrangement.

Illustrations may be useful even when imperfect, and therefore I have slurred over two points which affect the illustration rather than the application which we are about to make. It was scarcely true to say that the shuffling cannot be undone. *You* can sort out the cards into their original order if you like. But in considering the shuffling which occurs in the physical world we are not troubled by a *deus ex machina* like you. I am not prepared to say how far the human mind is bound by the conclusions we shall reach. So I exclude you—at least I exclude that activity of your mind which you employ in sorting the cards. I allow you to shuffle them because you can do that *absent-mindedly*.

Secondly, it is not quite true that the original order never comes back. There is a ghost of a chance that some day a thoroughly shuffled pack will be found to have come back to the original order. That is because of the comparatively small number of cards in the pack. In our applica-

tions the units are so numerous that this kind of contingency can be disregarded.

We shall put forward the contention that–

> Whenever anything happens which cannot be undone, it is always reducible to the introduction of a random element analogous to that introduced by shuffling.

Shuffling is the only thing which nature cannot undo.

When Humpty Dumpty had a great fall–

> All the king's horses and all the king's men
> Cannot put Humpty Dumpty together again.

Something had happened which could not be undone. The fall could have been undone. It is not necessary to invoke the king's horses and the king's men; if there had been a perfectly elastic mat underneath, that would have sufficed. At the end of his fall Humpty Dumpty had kinetic energy which, properly directed, was just sufficient to bounce him back on to the wall again. But, the elastic mat being absent, an irrevocable event happened at the end of the fall–namely, the introduction of a *random element* into Humpty Dumpty.

But why should we suppose that shuffling is the *only* process that cannot be undone?

> The Moving Finger writes; and, having writ,
> Moves on: nor all thy Piety and Wit
> Shall lure it back to cancel half a Line.

When there is no shuffling, is the Moving Finger stayed? The answer of physics is unhesitatingly Yes. To judge of this we must examine those operations of nature in which no increase of the random element can possibly occur. These fall into two groups. Firstly, we can study those laws of nature which control the behaviour of a single unit. Clearly no shuffling can occur in these problems; you cannot take the King of Spades away from the pack and shuffle him. Secondly, we can study the processes of nature in a crowd which is already so completely shuffled that there is no room for any further increase of the random element. If our contention is right, everything that occurs in these conditions is capable of being undone. We shall consider the first condition immediately; the second must be deferred until p. 575.

Any change occurring to a body which can be treated as a single unit can be undone. The laws of nature admit of the undoing as easily as of the doing. The earth describing its orbit is controlled by laws of motion

and of gravitation; these admit of the earth's actual motion, but they also admit of the precisely opposite motion. In the same field of force the earth could retrace its steps; it merely depends on how it was started off. It may be objected that we have no right to dismiss the starting-off as an inessential part of the problem; it may be as much a part of the coherent scheme of nature as the laws controlling the subsequent motion. Indeed, astronomers have theories explaining why the eight planets all started to move the same way round the sun. But that is a problem of eight planets, not of a single individual—a problem of the pack, not of the isolated card. So long as the earth's motion is treated as an isolated problem, no one would dream of putting into the laws of nature a clause requiring that it must go *this* way round and not the opposite.

There is a similar reversibility of motion in fields of electric and magnetic force. Another illustration can be given from atomic physics. The quantum laws admit of the emission of certain kinds and quantities of light from an atom; these laws also admit of absorption of the same kinds and quantities, *i.e.*, the undoing of the emission. I apologize for an apparent poverty of illustration; it must be remembered that many properties of a body, *e.g.*, temperature, refer to its constitution as a large number of separate atoms, and therefore the laws controlling temperature cannot be regarded as controlling the behaviour of a single individual.

The common property possessed by laws governing the individual can be stated more clearly by a reference to time. A certain sequence of states running from past to future is the *doing* of an event; the same sequence running from future to past is the *undoing* of it—because in the latter case we turn round the sequence so as to view it in the accustomed manner from past to future. So if the laws of nature are indifferent as to the doing and undoing of an event, they must be indifferent as to a direction of time from past to future. That is their common feature, and it is seen at once when (as usual) the laws are formulated mathematically. There is no more distinction between past and future than between right and left. In algebraic symbolism, left is $-x$, right is $+x$; past is $-t$, future is $+t$. This holds for all laws of nature governing the behaviour of non-composite individuals—the "primary laws," as we shall call them. There is only one law of nature—the second law of thermodynamics—which recognizes a distinction between past and future more profound than the difference of plus and minus. It stands aloof from all the rest. But this law has no application to the behaviour

of a single individual, and as we shall see later its subject matter is the random element in a crowd.

Whatever the primary laws of physics may say, it is obvious to ordinary experience that there is a distinction between past and future of a different kind from the distinction of left and right. In *The Plattner Story* H. G. Wells relates how a man strayed into the fourth dimension and returned with left and right interchanged. But we notice that this interchange is not the theme of the story; it is merely a corroborative detail to give an air of verisimilitude to the adventure. In itself the change is so trivial that even Mr. Wells cannot weave a romance out of it. But if the man had come back with past and future interchanged, then indeed the situation would have been lively. Mr. Wells in *The Time-Machine* and Lewis Carroll in *Sylvie and Bruno* give us a glimpse of the absurdities which occur when time runs backwards. If space is "looking-glassed" the world continues to make sense; but looking-glassed time has an inherent absurdity which turns the world drama into the most nonsensical farce.

Now the primary laws of physics taken one by one all declare that they are entirely indifferent as to which way you consider time to be progressing, just as they are indifferent as to whether you view the world from the right or the left. This is true of the classical laws, the relativity laws, and even of the quantum laws. It is not an accidental property; the reversibility is inherent in the whole conceptual scheme in which these laws find a place. Thus the question whether the world does or does not "make sense" is outside the range of these laws. We have to appeal to the one outstanding law—the second law of thermodynamics—to put some sense into the world. It opens up a new province of knowledge, namely, the study of organization; and it is in connection with organization that a direction of time-flow and a distinction between doing and undoing appears for the first time.

Time's Arrow. The great thing about time is that it goes on. But this is an aspect of it which the physicist sometimes seems inclined to neglect. In the four-dimensional world considered [previously] the events past and future lie spread out before us as in a map. The events are there in their proper spatial and temporal relation; but there is no indication that they undergo what has been described as "the formality of taking place," and the question of their doing or undoing does not arise. We see in the map the path from past to future or from future to past; but there is no signboard to indicate that it is a one-way street. Something must be added to the geometrical conceptions comprised in Minkowski's world before it becomes a complete picture of the world as we know it. We

may appeal to consciousness to suffuse the whole—to turn *existence* into *happening*, *being* into *becoming*. But first let us note that the picture as it stands is entirely adequate to represent those primary laws of nature which, as we have seen, are indifferent to a direction of time. Objection has sometimes been felt to the relativity theory because its four-dimensional picture of the world seems to overlook the directed character of time. The objection is scarcely logical, for the theory is in this respect no better and no worse than its predecessors. The classical physicist has been using without misgiving a system of laws which do not recognize a directed time; he is shocked that the new picture should expose this so glaringly.

Without any mystic appeal to consciousness it is possible to find a direction of time on the four-dimensional map by a study of organization. Let us draw an arrow arbitrarily. If as we follow the arrow we find more and more of the random element in the state of the world, then the arrow is pointing towards the future; if the random element decreases the arrow points towards the past. That is the only distinction known to physics. This follows at once if our fundamental contention is admitted that the introduction of randomness is the only thing which cannot be undone.

I shall use the phrase "time's arrow" to express this one-way property of time which has no analogue in space. It is a singularly interesting property from a philosophical standpoint. We must note that—

(1) It is vividly recognized by consciousness.

(2) It is equally insisted on by our reasoning faculty, which tells us that a reversal of the arrow would render the external world nonsensical.

(3) It makes no appearance in physical science except in the study of organization of a number of individuals. Here the arrow indicates the direction of progressive increase of the random element.

Let us now consider in detail how a random element brings the irrevocable into the world. When a stone falls it acquires kinetic energy, and the amount of the energy is just that which would be required to lift the stone back to its original height. By suitable arrangements the kinetic energy can be made to perform this task; for example, if the stone is tied to a string it can alternately fall and reascend like a pendulum. But if the stone hits an obstacle its kinetic energy is converted into heat energy. There is still the same quantity of energy, but even if we could scrape it together and put it through an engine we could not lift the stone back with it. What has happened to make the energy no longer serviceable?

Looking microscopically at the falling stone we see an enormous multi-

tude of molecules moving downwards with equal and parallel velocities—an organized motion like the march of a regiment. We have to notice two things, the *energy* and the *organization of the energy*. To return to its original height the stone must preserve both of them.

When the stone falls on a sufficiently elastic surface the motion may be reversed without destroying the organization. Each molecule is turned backwards and the whole array retires in good order to the starting-point—

> The famous Duke of York
> With twenty thousand men,
> He marched them up to the top of the hill
> And marched them down again.

History is not made that way. But what usually happens at the impact is that the molecules suffer more or less random collisions and rebound in all directions. They no longer conspire to make progress in any one direction; they have lost their organization. Afterwards they continue to collide with one another and keep changing their directions of motion, but they never again find a common purpose. Organization cannot be brought about by continued shuffling. And so, although the energy remains quantitatively sufficient (apart from unavoidable leakage which we suppose made good), it cannot lift the stone back. To restore the stone we must supply extraneous energy which has the required amount of organization.

Here a point arises which unfortunately has no analogy in the shuffling of a pack of cards. No one (except a conjurer) can throw two half-shuffled packs into a hat and draw out one pack in its original order and one pack fully shuffled. But we can and do put partly disorganized energy into a steam-engine, and draw it out again partly as fully organized energy of motion of massive bodies and partly as heat-energy in a state of still worse disorganization. Organization of energy is negotiable, and so is the disorganization or random element; disorganization does not for ever remain attached to the particular store of energy which first suffered it, but may be passed on elsewhere. We cannot here enter into the question why there should be a difference between the shuffling of energy and the shuffling of material objects; but it is necessary to use some caution in applying the analogy on account of this difference. As regards heat energy the temperature is the measure of its degree of organization; the lower the temperature, the greater the disorganization.

Coincidences. There are such things as chance coincidences; that is to

say, chance can deceive us by bringing about conditions which look very unlike chance. In particular chance might imitate organization, whereas we have taken organization to be the antithesis of chance or, as we have called it, the "random element." This threat to our conclusions is, however, not very serious. *There is safety in numbers.*

Suppose that you have a vessel divided by a partition into two halves, one compartment containing air and the other empty. You withdraw the partition. For the moment all the molecules of air are in one half of the vessel; a fraction of a second later they are spread over the whole vessel and remain so ever afterwards. The molecules will not return to one half of the vessel; the spreading cannot be undone—unless other material is introduced into the problem to serve as a scapegoat for the disorganization and carry off the random element elsewhere. This occurrence can serve as a criterion to distinguish past and future time. If you observe first the molecules spread through the vessel and (as it seems to you) an instant later the molecules all in one half of it—then your consciousness is going backwards, and you had better consult a doctor.

Now each molecule is wandering round the vessel with no preference for one part rather than the other. On the average it spends half its time in one compartment and half in the other. There is a faint possibility that at one moment all the molecules might in this way happen to be visiting the one half of the vessel. You will easily calculate that if n is the number of molecules (roughly a quadrillion) the chance of this happening is $(\frac{1}{2})^n$. The reason why we ignore this chance may be seen by a rather classical illustration. If I let my fingers wander idly over the keys of a typewriter it *might* happen that my screed made an intelligible sentence. If an army of monkeys were strumming on typewriters they *might* write all the books in the British Museum. The chance of their doing so is decidedly more favourable than the chance of the molecules returning to one half of the vessel.

When numbers are large, chance is the best warrant for certainty. Happily in the study of molecules and energy and radiation in bulk we have to deal with a vast population, and we reach a certainty which does not always reward the expectations of those who court the fickle goddess.

In one sense the chance of the molecules returning to one half of the vessel is too absurdly small to think about. Yet in science we think about it a great deal, because it gives a measure of the irrevocable mischief we did when we casually removed the partition. Even if we had good reasons for wanting the gas to fill the vessel there was no need to waste

the organization; as we have mentioned, it is negotiable and might have been passed on somewhere where it was useful.[1] When the gas was released and began to spread across the vessel, say from left to right, there was no immediate increase of the random element. In order to spread from left to right, left-to-right velocities of the molecules must have preponderated, that is to say the motion was partly organized. Organization of position was replaced by organization of motion. A moment later the molecules struck the farther wall of the vessel and the random element began to increase. But, before it was destroyed, the left-to-right organization of molecular velocities was the exact numerical equivalent of the lost organization in space. By that we mean that the chance against the left-to-right preponderance of velocity occurring by accident is the same as the chance against segregation in one half of the vessel occurring by accident.

The adverse chance here mentioned is a preposterous number which (written in the usual decimal notation) would fill all the books in the world many times over. We are not interested in it as a practical contingency; but we are interested in the fact that it is definite. It raises "organization" from a vague descriptive epithet to one of the measurable quantities of exact science. We are confronted with many kinds of organization. The uniform march of a regiment is not the only form of organized motion; the organized evolutions of a stage chorus have their natural analogue in sound waves. A common measure can now be applied to all forms of organization. Any loss of organization is equitably measured by the chance against its recovery by an accidental coincidence. The chance is absurd regarded as a contingency, but it is precise as a measure.

The practical measure of the random element which can increase in the universe but can never decrease is called *entropy*. Measuring by entropy is the same as measuring by the chance explained in the last paragraph, only the unmanageably large numbers are transformed (by a simple formula) into a more convenient scale of reckoning. Entropy continually increases. We can, by isolating parts of the world and postulating rather idealized conditions in our problems, arrest the increase, but we cannot turn it into a decrease. That would involve something much worse than a violation of an ordinary law of nature, namely, an improbable coincidence. The law that entropy always increases—the second law of thermodynamics—holds, I think, the supreme position among

1. If the gas in expanding had been made to move a piston, the organization would have passed into the motion of the piston.

the laws of nature. If someone points out to you that your pet theory of the universe is in disagreement with Maxwell's equations—then so much the worse for Maxwell's equations. If it is found to be contradicted by observation—well, these experimentalists do bungle things sometimes. But if your theory is found to be against the second law of thermodynamics I can give you no hope; there is nothing for it but to collapse in deepest humiliation. This exaltation of the second law is not unreasonable. There are other laws which we have strong reason to believe in, and we feel that a hypothesis which violates them is highly improbable; but the improbability is vague and does not confront us as a paralysing array of figures, whereas the chance against a breach of the second law (*i.e.*, against a decrease of the random element) can be stated in figures which are overwhelming.

I wish I could convey to you the amazing power of this conception of entropy in scientific research. From the property that entropy must always increase, practical methods of measuring it have been found. The chain of deductions from this simple law have been almost illimitable; and it has been equally successful in connection with the most recondite problems of theoretical physics and the practical tasks of the engineer. Its special feature is that the conclusions are independent of the nature of the microscopical processes that are going on. It is not concerned with the nature of the individual; it is interested in him only as a component of a crowd. Therefore the method is applicable in fields of research where our ignorance has scarcely begun to lift, and we have no hesitation in applying it to problems of the quantum theory, although the mechanism of the individual quantum process is unknown and at present unimaginable.

Primary and Secondary Law. I have called the laws controlling the behaviour of single individuals "primary laws," implying that the second law of thermodynamics, although a recognized law of nature, is in some sense a secondary law. This distinction can now be placed on a regular footing. Some things never happen in the physical world because they are *impossible*; others because they are *too improbable*. The laws which forbid the first are the primary laws; the laws which forbid the second are the secondary laws. It has been the conviction of nearly all physicists [2] that at the root of everything there is a complete scheme of primary law governing the career of every particle or constituent of the world with an iron determinism. This primary scheme is all-sufficing, for,

2. There are, however, others beside myself who have recently begun to question it.

since it fixes the history of every constituent of the world, it fixes the whole world history.

But for all its completeness primary law does not answer every question about nature which we might reasonably wish to put. Can a universe evolve backwards, *i.e.*, develop in the opposite way to our own system? Primary law, being indifferent to a time direction, replies, "Yes, it is not impossible." Secondary law replies, "No, it is too improbable." The answers are not really in conflict; but the first, though true, rather misses the point. This is typical of some much more commonplace queries. If I put *this* saucepan of water on *this* fire, will the water boil? Primary law can answer definitely if it is given the chance; but it must be understood that "this" translated into mathematics means a specification of the positions, motions, etc., of some quadrillions of particles and elements of energy. So in practice the question answered is not quite the one that is asked: If I put *a* saucepan resembling this one in a few major respects on *a* fire, will the water boil? Primary law replies, "It may boil; it may freeze; it may do pretty well anything. The details given are insufficient to exclude any result as impossible." Secondary law replies plainly, "It will boil because it is too improbable that it should do anything else" Secondary law is not in conflict with primary law, nor can we regard it as essential to complete a scheme of law already complete in itself. It results from a different (and rather more practical) conception of the aim of our traffic with the secrets of nature.

The question whether the second law of thermodynamics and other statistical laws are mathematical deductions from the primary laws, presenting their results in a conveniently usable form, is difficult to answer; but I think it is generally considered that there is an unbridgeable hiatus. At the bottom of all the questions settled by secondary law there is an elusive conception of "*a priori* probability of states of the world" which involves an essentially different attitude to knowledge from that presupposed in the construction of the scheme of primary law.

Thermodynamical Equilibrium. Progress of time introduces more and more of the random element into the constitution of the world. There is less of chance about the physical universe to-day than there will be tomorrow. It is curious that in this very matter-of-fact branch of physics, developed primarily because of its importance for engineers, we can scarcely avoid expressing ourselves in teleological language. We admit that the world contains both chance and design, or at any rate chance and the antithesis of chance. This antithesis is emphasized by our method of measurement of entropy; we assign to the organization or non-

chance element a measure which is, so to speak, proportional to the strength of our disbelief in a chance origin for it. "A fortuitous concourse of atoms"—that bugbear of the theologian—has a very harmless place in orthodox physics. The physicist is acquainted with it *as a much-prized rarity*. Its properties are very distinctive, and unlike those of the physical world in general. The scientific name for a fortuitous concourse of atoms is "thermodynamical equilibrium."

Thermodynamical equilibrium is the other case which we promised to consider in which no increase in the random element can occur, namely, that in which the shuffling is already as thorough as possible. We must isolate a region of the universe, arranging that no energy can enter or leave it, or at least that any boundary effects are precisely compensated. The conditions are ideal, but they can be reproduced with sufficient approximation to make the ideal problem relevant to practical experiment. A region in the deep interior of a star is an almost perfect example of thermodynamical equilibrium. Under these isolated conditions the energy will be shuffled as it is bandied from matter to ether and back again, and very soon the shuffling will be complete.

The possibility of the shuffling becoming complete is significant. If after shuffling the pack you tear each card in two, a further shuffling of the half-cards becomes possible. Tear the cards again and again; each time there is further scope for the random element to increase. With infinite divisibility there can be no end to the shuffling. The experimental fact that a definite state of equilibrium is rapidly reached indicates that energy is not infinitely divisible, or at least that it is not infinitely divided in the natural processes of shuffling. Historically this is the result from which the quantum theory first arose. . . .

In such a region we lose time's arrow. You remember that the arrow points in the direction of increase of the random element. When the random element has reached its limit and become steady the arrow does not know which way to point. It would not be true to say that such a region is timeless; the atoms vibrate as usual like little clocks; by them we can measure speeds and durations. Time is still there and retains its ordinary properties, but it has lost its arrow; like space it extends, but it does not "go on."

This raises the important question, Is the random element (measured by the criterion of probability already discussed) the only feature of the physical world which can furnish time with an arrow? Up to the present we have concluded that no arrow can be found from the behaviour of isolated individuals, but there is scope for further search among the

properties of crowds beyond the property represented by entropy. To give an illustration which is perhaps not quite so fantastic as it sounds, Might not the assemblage become more and more *beautiful* (according to some agreed aesthetic standard) as time proceeds?[3] The question is answered by another important law of nature which runs–

> Nothing in the statistics of an assemblage can distinguish a direction of time when entropy fails to distinguish one.

I think that although this law was only discovered in the last few years there is no serious doubt as to its truth. It is accepted as fundamental in all modern studies of atoms and radiation and has proved to be one of the most powerful weapons of progress in such researches. It is, of course, one of the secondary laws. It does not seem to be rigorously deducible from the second law of thermodynamics, and presumably must be regarded as an additional secondary law.[4]

The conclusion is that whereas other statistical characters besides entropy might perhaps be used to discriminate time's arrow, they can only succeed when it succeeds and they fail when it fails. Therefore they cannot be regarded as independent tests. So far as physics is concerned time's arrow is a property of entropy alone.

Are Space and Time Infinite? I suppose that everyone has at some time plagued his imagination with the question, Is there an end to space? If space comes to an end, what is beyond the end? On the other hand the idea that there is no end, but space beyond space for ever, is inconceivable. And so the imagination is tossed to and fro in a dilemma. Prior to the relativity theory the orthodox view was that space is infinite. No one can conceive infinite space; we had to be content to admit in the physical world an inconceivable conception–disquieting but not necessarily illogical. Einstein's theory now offers a way out of the dilemma. Is space infinite, or does it come to an end? Neither. Space is finite but it has no end; "finite but unbounded" is the usual phrase.

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3. In a kaleidoscope the shuffling is soon complete and all the patterns are equal as regards random element, but they differ greatly in elegance.
4. The law is so much disguised in the above enunciation that I must explain to the advanced reader that I am referring to "the Principle of Detailed Balancing." This principle asserts that to every type of process (however minutely particularized) there is a converse process, and in thermodynamical equilibrium direct and converse processes occur with equal frequency. Thus every statistical enumeration of the processes is unaltered by reversing the time direction, *i.e.*, interchanging direct and converse processes. Hence there can be no statistical criterion for a direction of time when there is thermodynamical equilibrium, *i.e.* when entropy is steady and ceases to indicate time's arrow.

Infinite space cannot be conceived by anybody; finite but unbounded space is difficult to conceive but not impossible. I shall not expect you to conceive it; but you can try. Think first of a circle; or, rather, not the circle, but the line forming its circumference. This is a finite but endless line. Next think of a sphere—the surface of a sphere—that also is a region which is finite but unbounded. The surface of this earth never comes to a boundary; there is always some country beyond the point you have reached; all the same there is not an infinite amount of room on the earth. Now go one dimension more; circle, sphere—the next thing. Got that? Now for the real difficulty. Keep a tight hold of the skin of this hypersphere and imagine that the inside is not there at all—that the skin exists without the inside. That is finite but unbounded space.

No; I don't think you have quite kept hold of the conception. You overbalanced just at the end. It was not the adding of one more dimension that was the real difficulty; it was the final taking away of a dimension that did it. I will tell you what is stopping you. You are using a conception of space which must have originated many million years ago and has become rather firmly embedded in human thought. But the space of physics ought not to be dominated by this creation of the dawning mind of an enterprising ape. Space is not necessarily like this conception; it is like—whatever we find from experiment it is like. Now the features of space which we discover by experiment are extensions, *i.e.*, lengths and distances. So space is *like* a network of distances. Distances are linkages whose intrinsic nature is inscrutable; we do not deny the inscrutability when we apply measure numbers to them—2 yards, 5 miles, etc.—as a kind of code distinction. We cannot predict out of our inner consciousness the laws by which code numbers are distributed among the different linkages of the network, any more than we can predict how the code numbers for electromagnetic force are distributed. Both are a matter for experiment.

If we go a very long way to a point *A* in one direction through the universe and a very long way to a point *B* in the opposite direction, it is believed that between *A* and *B* there exists a linkage of the kind indicated by a very small code number; in other words these points reached by travelling vast distances in opposite directions would be found experimentally to be close together. Why not? This happens when we travel east and west on the earth. It is true that our traditional inflexible conception of space refuses to admit it; but there was once a traditional conception of the earth which refused to admit circumnavigation. In our approach to the conception of spherical space the difficult part was

to destroy the inside of the hypersphere leaving only its three-dimensional surface existing. I do not think that is so difficult when we conceive space as a network of distances. The network over the surface constitutes a self-supporting system of linkage which can be contemplated without reference to extraneous linkages. We can knock away the constructional scaffolding which helped us to approach the conception of this kind of network of distances without endangering the conception.

We must realize that a scheme of distribution of inscrutable relations linking points to one another is not bound to follow any particular preconceived plan, so that there can be no obstacle to the acceptance of any scheme indicated by experiment.

We do not yet know what is the radius of spherical space; it must, of course, be exceedingly great compared with ordinary standards. On rather insecure evidence it has been estimated to be not many times greater than the distance of the furthest known nebulae. But the boundlessness has nothing to do with the bigness. Space is boundless by re-entrant form not by great extension. *That which is* is a shell floating in the infinitude of *that which is not.* We say with Hamlet, "I could be bounded in a nutshell and count myself a king of infinite space."

But the nightmare of infinity still arises in regard to time. The world is closed in its space dimensions like a sphere, but it is open at both ends in the time dimension. There is a bending round by which East ultimately becomes West, but no bending by which Before ultimately becomes After.

I am not sure that I am logical but I cannot feel the difficulty of an infinite future time very seriously. The difficulty about A.D. ∞ will not happen until we reach A.D. ∞, and presumably in order to reach A.D. ∞ the difficulty must first have been surmounted. It should also be noted that according to the second law of thermodynamics the whole universe will reach thermodynamical equilibrium at a not infinitely remote date in the future. Time's arrow will then be lost altogether and the whole conception of progress towards a future fades away.

But the difficulty of an infinite past is appalling. It is inconceivable that we are the heirs of an infinite time of preparation; it is not less inconceivable that there was once a moment with no moment preceding it.

This dilemma of the beginning of time would worry us more were it not shut out by another overwhelming difficulty lying between us and the infinite past. We have been studying the running-down of the universe; if our views are right, somewhere between the beginning of time and the present day we must place the winding up of the universe.

Travelling backwards into the past we find a world with more and more organization. If there is no barrier to stop us earlier we must reach a moment when the energy of the world was wholly organized with none of the random element in it. It is impossible to go back any further under the present system of natural law. I do not think the phrase "wholly organized" begs the question. The organization we are concerned with is exactly definable, and there is a limit at which it becomes perfect. There is not an infinite series of states of higher and still higher organization; nor, I think, is the limit one which is ultimately approached more and more slowly. Complete organization does not tend to be more immune from loss than incomplete organization.

There is no doubt that the scheme of physics as it has stood for the last three-quarters of a century postulates a date at which either the entities of the universe were created in a state of high organization, or pre-existing entities were endowed with that organization which they have been squandering ever since. Moreover, this organization is admittedly the antithesis of chance. It is something which could not occur fortuitously.

This has long been used as an argument against a too aggressive materialism. It has been quoted as scientific proof of the intervention of the Creator at a time not infinitely remote from to-day. But I am not advocating that we draw any hasty conclusions from it. Scientists and theologians alike must regard as somewhat crude the naïve theological doctrine which (suitably disguised) is at present to be found in every textbook of thermodynamics, namely that some billions of years ago God wound up the material universe and has left it to chance ever since. This should be regarded as the working hypothesis of thermodynamics rather than its declaration of faith. It is one of those conclusions from which we can see no logical escape—only it suffers from the drawback that it is incredible. As a scientist I simply do not believe that the present order of things started off with a bang; unscientifically I feel equally unwilling to accept the implied discontinuity in the divine nature. But I can make no suggestion to evade the deadlock.

Turning again to the other end of time, there is one school of thought which finds very repugnant the idea of a wearing out of the world. This school is attracted by various theories of rejuvenescence. Its mascot is the Phoenix. Stars grow cold and die out. May not two dead stars collide, and be turned by the energy of the shock into fiery vapour from which a new sun—with planets and with life—is born? This theory, very prevalent in the last century, is no longer contemplated

seriously by astronomers. There is evidence that the present stars at any rate are products of one evolutionary process which swept across primordial matter and caused it to aggregate; they were not formed individually by haphazard collisions having no particular time connection with one another. But the Phoenix complex is still active. Matter, we believe, is gradually destroyed and its energy set free in radiation. Is there no counter-process by which radiation collects in space, evolves into electrons and protons, and begins star-building all over again? This is pure speculation and there is not much to be said on one side or the other as to its truth. But I would mildly criticize the mental outlook which *wishes* it to be true. However much we eliminate the minor extravagances of nature, we do not by these theories stop the inexorable running-down of the world by loss of organization and increase of the random element. Whoever wishes for a universe which can continue indefinitely in activity must lead a crusade against the second law of thermodynamics; the possibility of re-formation of matter from radiation is not crucial and we can await conclusions with some indifference.

At present we can see no way in which an attack on the second law of thermodynamics could possibly succeed, and I confess that personally I have no great desire that it should succeed in averting the final running-down of the universe. I am no Phoenix worshipper. This is a topic on which science is silent, and all that one can say is prejudice. But since prejudice in favour of a never-ending cycle of rebirth of matter and worlds is often vocal, I may perhaps give voice to the opposite prejudice. I would feel more content that the universe should accomplish some great scheme of evolution and, having achieved whatever may be achieved, lapse back into chaotic changelessness, than that its purpose should be banalised by continual repetition. I am an Evolutionist, not a Multiplicationist. It seems rather stupid to keep doing the same thing over and over again.

The foregoing consists of Chapter IV
from Eddington's THE NATURE OF THE PHYSICAL WORLD.

Sir James Jeans

1877–1946

James Hopwood Jeans was born in London on September 11, 1877. He studied at Cambridge; he was second wrangler in 1898. The reader of Galton's *Hereditary Genius* [1] will realize that the last fact not only meant that Jeans had extraordinary intellectual gifts but that his career in the academic world was practically assured. Jeans became a lecturer in applied mathematics at Cambridge, was later a professor of the same subject at Princeton University, in New Jersey, and still later a professor of astronomy at the Royal Institution. His early studies were in the area of energy and radiation, but he made elegant contributions to astronomical theory, and it is as an astronomer that he is best known. He constructed mathematical models of the actions and interactions of astronomical bodies; in the course of this work he proved that Laplace's theory of the origin of the solar system was impossible.

Jeans conceived several original cosmogonies–theories, that is, of how the universe came into existence. And he wrote a number of widely read books for the laymen on this and other aspects of science and astronomy. Among these the best known is perhaps *The Universe Around Us,* which appeared in 1929, and from which the following selection is taken. We reprint here the last chapter of the book. Jeans was knighted in 1928 and was awarded the Order of Merit in 1939. He died on September 17, 1946.

The reader who compares the foregoing biographical note with that of A. S. Eddington [2] will not fail to see the very many similarities

[1] See Vol. 8, pp. 227–261, in this set.
[2] See Vol. 8, pp. 561–564, in this set.

between the two men. Jeans was five years older; he was second rather than senior wrangler; and he died two years later. But both men won the Smith Prize at Cambridge, a great honor; both were Cambridge teachers; both were astronomers; both were knighted; both were O.M.'s; and both were successful scientific popularizers. More significantly for our purposes, perhaps, is that both, in the selections which appear in these volumes, concern themselves with the beginning and end of the universe. And it is notable that in some respects they have the same things to say.

For example, in such a discussion it is now customary to mention entropy and the second law of thermodynamics, and both men do so. As to the question whether the universe will rejuvenate itself after its inevitable running down, both seem to agree that rebirth is not desirable, even if it is possible. And both emphasize the vastness of the time, space and radiation scales by which astronomers measure the world in which we live. But at this point an important difference may seem to appear between them.

Where Eddington refuses to speculate, or does so unwillingly, Jeans leaps in. His qualifications for doing so should not be questioned. He was a great mathematical astronomer, and he probably knew as much about the fate of the universe as anybody. But he is in the following selection not speaking of that fate from a strictly mathematical point of view. What strikes him about the immense amount of time that stretches before the earth is the opportunities it affords for the amelioration of man's condition. "Looked at in terms of time," he writes, "the message of astronomy . . . becomes one of almost endless possibility and hope." Eddington had apparently seen no such thing, in a book written only a year before. There is about Eddington's statements a kind of stoic resignation. Jeans is not resigned at all. "We have come into being in the fresh glory of the dawn," he says, "and a day of almost unthinkable length stretches before us with unimaginable opportunities for accomplish-

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Notes from the artist: "A modern technique, resembling that of the painter Miro, was used for the portrait of Jeans because of the very contemporary style of Jeans's own writings, which combined profundity with a colorful, popular style. The quotation is from The Mysterious Universe.*"*

if the universe is a universe of thought, then its creation must have been an act of thought..... Time and space must have come into being as part of this act..... modern scientific theory compels us to think of the Creator as working outside time and space, which are part of his creation, just as the artist is outside his canvas.

ment." All the problems of living will be possible of solution in this vast time, he seems to be implying, and life will have a meaning and, one supposes, a beauty that are practically inconceivable to the "dim heroic figures" of today.

It should be noted that Jeans, though he is by comparison with Eddington of a highly optimistic temperament, is not entirely optimistic. "We may perhaps be glad," he writes, "that our lives have fallen in the beginning, rather than at the end, of this great stretch of time. We may well imagine that if man survives to the end of it, he will have infinitely more knowledge than now, but one thing he will no longer know—the thrill of pleasure of the pioneer who opens up new realms of knowledge." For him, the thrill is in the pursuit of knowledge, not in its possession.

Beginnings and Endings

We have seen how the solid substance of the material universe is continually dissolving away into intangible radiation. Yesterday the sun weighed 360,000 million tons more than it does today, the difference being the weight of 24-hours' emission of radiation which is now travelling through space, and, so far as direct observation goes, is destined to journey on through space until the end of time. Less than a gramme of this radiation contains enough energy to take a liner across the Atlantic, while a pound of it would suffice to keep the whole British nation going for a fortnight—domestic fires, power stations, factories, trains, ships and all. The same transformation of material substance into radiation is in progress in all the stars, and to a lesser degree on earth, while the cosmic radiation may be found to provide evidence that the transformation takes place on a far grander scale throughout the depths of interstellar space.

Cyclic Processes. It is natural to ask whether a study of the universe as a whole reveals these processes as part only of a closed cycle, so that the wastage which we see in progress in the sun and stars and on the earth is made good elsewhere. When we stand on the banks of a river and watch its current ever carrying water out to sea, we know that this water is in due course transformed into clouds and rain which replenish the river. Is the physical universe a similar cyclic system, or ought it rather to be compared to a stream which, having no source of replenishment, must cease flowing after it has spent itself?

THERMODYNAMICS

To this question, the wide scientific principle known as the second law of thermodynamics provides an answer in very general terms. If we ask what is the underlying cause of all the varied animation we see around us in the world, the answer is, in every case, energy—the chemical

energy of the fuel which drives our ships, trains and cars, or of the food which keeps our bodies alive and is used in muscular effort, the mechanical energy of the earth's motion which is responsible for the alternations of day and night, of summer and winter, of high tide and low tide, the heat energy of the sun which makes our crops grow and provides us with wind and rain.

The science of thermodynamics deals primarily with energy and the various changes which it can undergo. It is based fundamentally on two laws which are generally known as the first and second laws of thermodynamics. These deal respectively with the quantity and quality of energy.

First Law of Thermodynamics. The first law of thermodynamics, which embodies the principle of "conservation of energy," teaches that energy is indestructible; it may change about from one form to another, but its total amount remains unaltered through all these changes, so that the total energy of the universe remains always the same. As the energy which is the cause of all the life of the universe is indestructible, it might be thought that this life would go on for ever undiminished in amount.

Availability of Energy. The second law of thermodynamics shows that this is not so. Energy is indestructible as regards its amount, but it continually changes in form, and generally speaking we may compare the two directions of change to journeys uphill and downhill. And it is the usual story. The descent is easy; but to retrace the steps–this is so difficult that we rightly treat it as impossible and think of energy as passing only in the one direction.

Actually it is not impossible, for the second law does not deal in certainties, but only in probabilities–and these of a somewhat unusual kind. It is perfectly in accordance with the laws of mechanics that energy should change its quality in the direction just described as upwards. But the odds against such a change in the energy either of the universe as a whole, or of any considerable part of it, are immense. The number of particles in the universe is perhaps of the order of 10^{79}, and the odds against such an occurrence as we have just mentioned are found to involve very high powers of 10^{79}. When the odds are of this kind, we need not trouble to differentiate too closely between long odds and certainties.

For instance, both light and heat are forms of energy, and a million ergs of light-energy can be transformed into a million ergs of heat with the utmost ease; let the light fall on any cool, black surface, and the thing is done. But the odds against the reverse transformation are of the kind we have just described, so that we generally say that it is impossible;

a million ergs which have once assumed the form of heat can never again assume the form of a million ergs of light. This is a special example of the general principle that radiative energy tends always to change into a form of longer, not shorter, wave-length. In general, for instance, fluorescence increases the wave-length of the light; it changes blue light into green, yellow or red, but not red light into yellow, green or blue. Exceptions to the general principle are known, but they are of special type, admitting of special explanations, and do not affect the general principle.

It may be objected that the everyday act of lighting a fire disproves all this. Has not the sun's heat been stored up in the coal we burn, and cannot we produce light by burning coal? The answer is that the sun's radiation is a mixture of both light and heat, and indeed of radiation of all wave-lengths. What is stored up in the coal is primarily the sun's light and other radiation of still shorter wave-length. When we burn coal we get some light, but not as much as the sun originally put into the coal; we also get some heat, and this is more than the amount of heat which was originally put in. On balance, the net result of the whole transaction is that a certain amount of light has been transformed into a certain amount of heat.

All this shows that we must learn to think of energy, not only in terms of quantity, but also in terms of quality. Its total quantity remains always the same; this is the first law of thermodynamics. But its quality changes, and tends to change always in the same direction; this is the second law of thermodynamics. Turnstiles are set up between the different qualities of energy; the passage is easy in one direction, impossible in the other. A human crowd may contrive to find a way round without jumping over turnstiles, but in nature there is no way round; energy flows always in the same direction, as surely as water flows downhill.

Part of the downward path consists, as we have seen, of the transition from radiation of short wave-length into radiation of longer wave-length. In terms of quanta the transition is from a few quanta of high energy to a large number of quanta of low energy, the total amount of energy of course remaining unaltered. The downfall of the energy accordingly consists in the breaking of its quanta into smaller units. And when once the fall and breakage have taken place, it is as impossible to reconstitute the original large quanta as it was to put Humpty-Dumpty back on his wall.

Although this is the main part of the downward path, it is not the whole of it. Thermodynamics teaches that all the different forms of

energy have different degrees of "availability," and that the downward path is always from higher to lower availability.

And now we may return to the question with which we started the present chapter: "What is it that keeps the varied life of the universe going?" Our original answer "energy" is seen to be incomplete. Energy is no doubt essential, but the really complete answer is that it is the transformation of energy from a more available to a less available form; it is the running downhill of energy. To argue that the total energy of the universe cannot diminish, and therefore the universe must go on for ever, is like arguing that as a clock weight cannot diminish, the clock-hand must go round and round for ever.

THE FINAL END OF THE UNIVERSE

Energy cannot run downhill for ever, and, like the clock weight, it must touch bottom at last. And so the universe cannot go on for ever; sooner or later the time must come when its last erg of energy has reached the lowest rung on the ladder of descending availability, and at this moment the active life of the universe must cease. The energy is still there, but it has lost all capacity for change; it is as little able to work the universe as the water in a flat pond is able to turn a water-wheel. We are left with a dead, although possibly a warm, universe–a "heat-death."

Such is the teaching of modern thermodynamics. There is no reason for doubting or challenging it, and indeed it is so fully confirmed by the whole of our terrestrial experience, that it would be difficult to find any point at which it could be open to attack. It disposes at once of any possibility of a cyclic universe in which the events we see are as the pouring of river water into the sea, while events we do not see restore this water back to the river. The water of a river can go round and round in this way, just because it is not the whole of the universe; something extraneous to the river cycle keeps it continually in motion–namely, the heat of the sun. But the universe as a whole cannot so go round and round. Short of postulating some sort of action from outside the universe, whatever this may mean, the energy of the universe must continually lose availability; a universe in which the energy had no further availability to lose would be dead already. Change can occur only in the one direction, which leads to the heat-death. With universes as with mortals, the only possible life is progress to the grave.

Even the flow of the river to the sea, which we selected as an obvious instance of true cyclic motion, is seen to illustrate this, as soon as all the

relevant factors are taken into account. As the river pours seaward over its falls and cascades, the tumbling of its waters generates heat, which ultimately passes off into space in the form of heat radiation. But the energy which keeps the river pouring along comes ultimately from the sun in the form mainly of light; shut off the sun's radiation and the river will soon stop flowing. The river flows only by continually transforming light-energy into heat-energy, and as soon as the cooling sun ceases to supply energy of sufficiently high availability the flow must cease.

The same general principles may be applied to the astronomical universe. There is no question as to the way in which energy runs down here. It is first liberated in the hot interior of a star in the form of quanta of extremely short wave-length and excessively high energy. As this radiant energy struggles out to the star's surface, it continually adjusts itself, through repeated absorption and re-emission, to the temperature of that part of the star through which it is passing. As longer wave-lengths are associated with lower temperatures, the wave-length of the radiation is continually lengthened; a few energetic quanta are being transformed into numerous feeble quanta. Once these are free in space, they travel onward unchanged until they meet dust particles, stray atoms, free electrons, or some other form of interstellar matter. Except in the highly improbable event of this matter being at a higher temperature than the surfaces of the stars, these encounters still further increase the wave-length of the radiation, and the final result of innumerable encounters is radiation of very great wave-length; the quanta have increased enormously in numbers, but have paid for their increase by a corresponding decrease in individual strength. Thus the main physical process of the universe consists in the energy of exceedingly high availability which is bottled up in atomic and nuclear structures being transformed into heat-energy at the lowest level of availability.

Many, giving rein to their fancy, have speculated that this low-level heat-energy may in due course re-form itself into new electrons and protons. As the existing universe dissolves away into radiation, their imagination sees new heavens and a new earth coming into being out of the ashes of the old. Science can give no support to such fancies. She cannot, it is true, prove that the fanciful will not happen–she can only calculate the odds against it happening. And these prove to be so enormous that we may disregard altogether the possibility of its occurrence. Perhaps it is as well; it is hard to see what advantage could accrue from an eternal reiteration of the same theme, or even from endless variations of it.

The final state of the universe will be attained when all the material

mass which is capable of being transformed into radiation has been so transformed.

We have seen that matter is distributed in space at an average rate of something like 10^{-28} gramme per cubic centimetre. The transformation of a gramme of matter into radiation liberates 9×10^{20} ergs of energy, so that the transformation of 10^{-28} gramme of matter liberates 9×10^{-8} erg of energy. It follows that the complete transformation of all the substance of the existing universe would only fill space with energy at the rate of 9×10^{-8} erg per cubic centimetre. This would only raise the temperature of space from absolute zero to a temperature which is still well below that of liquid air; it would only raise the temperature of the earth's surface by about a tenth part of a degree Centigrade. The reason why the effect of annihilating a whole universe is so extraordinarily slight is of course that space is so extraordinarily empty of matter; trying to warm space by annihilating all the matter in it is like trying to warm Waterloo Station by burning a few specks of dust here and there inside it.

Such would be the final result of transforming the whole substance of the universe into radiation, but it is improbable that more than a small fraction of it can ever be transformed, so that the maximum result ever to be expected must be far below that just mentioned. As compared with any amount of radiation that is ever likely to be poured into it, the capacity of space is that of a bottomless pit.

Such is the final end of things to which, so far as present-day science can see, the material universe must inevitably come in some far-off age, unless the course of nature is changed in the meantime. It is a state of things in which life, as we know it on earth, could not possibly survive.

LIFE AND THE UNIVERSE

Let us now glance for a moment at the relation of life to this dying universe.

The old view that every point of light in the sky represented a possible home for life is quite foreign to modern astronomy. The stars have surface temperatures of anything from 1,650 degrees to 60,000 degrees or more and, as we have seen, are at far higher temperatures inside. A large part of the matter of the universe consists of stellar matter at a temperature of millions of degrees, its molecules being broken up into atoms, and the atoms broken up, partially or wholly, into their constituent parts. The rest consists, for the most part, of nebular gas or dust. Now the very con-

cept of life implies duration in time; there can be no life–or at least no life at all similar to that we know on earth–where atoms change their make-up millions of times a second and no pair of atoms can ever stay joined together. It also implies a certain mobility in space, and these two implications restrict life to the small range of physical conditions in which the liquid state is possible. Our survey of the universe has shown how small this range is in comparison with that exhibited by the universe as a whole. It is not to be found in the stars, nor in the nebulae out of which the stars are born. Indeed, probably only an infinitesimal fraction of the matter of the universe is in the liquid state.

Actually we know of no type of astronomical body in which the conditions can be favourable to life except planets like our own revolving round a sun. Even these may be too hot or too cold for life to obtain a footing. In the solar system, for instance, it is hard to imagine life existing on Mercury or Neptune since liquids boil on the former and freeze hard on the latter.

Even when all the requisite conditions are satisfied, will life come or will it not? We must probably discard the at one time widely accepted view that if once life had come into the universe in any way whatsoever, it would rapidly spread from planet to planet and from one planetary system to another until the whole universe teemed with life; space now seems too cold, and planetary systems too far apart. Our terrestrial life must in all probability have originated on the earth itself. What we should like to know is whether it originated as the result of some amazing accident or succession of coincidences, or whether it is the normal event for inanimate matter to produce life in due course, when the physical environment is suitable. We look to the biologist for the answer, which so far he has not been able to produce.

The astronomer might be able to give a partial answer if he could find evidence of life on some other planet, for we should then at least know that life had occurred more than once in the history of the universe, but so far no convincing evidence has been forthcoming. There is no definite evidence of life anywhere in the universe, except on our own planet.

Apart from the certain knowledge that life exists on earth, our only definite knowledge is that, at the best, life must be limited to a tiny fraction of the universe. Millions of millions of stars exist which support no life, which have never done so and never will do so. Of the planetary systems in the sky, many must be entirely lifeless, and in others life, if it exists at all, is probably limited to a few of the planets. The three

centuries and more which have elapsed since Giordano Bruno expressed his belief in an infinite number of worlds have changed our conception of the universe almost beyond description, but they have not brought us appreciably nearer to understanding the relation of life to the universe. We can still only guess as to the meaning of this life which, to all appearances, is so rare. Is it the final climax towards which the whole creation moves, for which the thousands of millions of years of transformation of matter in uninhabited stars and nebulae, and of waste of radiation in desert space, have been only an incredibly extravagant preparation? Or is it a mere accidental and possibly quite unimportant by-product of natural processes, which have some other and more stupendous end in view? Or, to glance at a still more modest line of thought, must we regard it as something of the nature of a disease, which affects matter when it has lost the high temperature with which most of the matter in the universe would at once destroy life? Or, throwing humility aside, shall we venture to imagine that it is the only reality, which creates, instead of being created by, the colossal masses of the stars and nebulae and the almost inconceivably long vistas of astronomical time?

Again it is not for the astronomer to select between these alternative guesses; his task is done when he has delivered the message of astronomy. Perhaps it is over rash for him even to formulate the questions this message suggests.

THE EARTH AND ITS FUTURE PROSPECTS

Let us leave these rather abstract speculations and come down to earth. We feel the solid earth under our feet, and the rays of the sun overhead. Somehow, but we know not how or why, life also is here; we ourselves are part of it. And it is natural to enquire what astronomy has to say as to its future prospects.

The earth, which started life as a hot mass of gas, has gradually cooled, until it has now about touched bottom, and has almost no heat beyond that which it receives from the sun. This just about balances the amount it radiates away into space, so that it would stay at its present temperature for ever if external conditions did not change, and any changes in its condition will be forced on it by changes occurring outside. These changes may be either gradual or catastrophic.

Of the gradual changes which are possible, the most obvious is a diminution in the light and heat received from the sun. We have seen that if the sun consisted of pure hydrogen, it could lose one part in 150 of its

whole mass through the transformation of hydrogen into helium. The energy thus set free would provide for radiation at the present rate through a period of 100,000 million years.

The sun does not consist of pure hydrogen, and has never done so, but a fair proportion of its present substance is probably hydrogen, and this ought to provide radiation for at least several thousands of millions of years, at the present rate. After all the available supplies of hydrogen are used up, the sun will, so far as we can guess, proceed to contract to the white dwarf state, probably to a condition resembling that of the faint companion of Sirius. The shrinkage of the sun to this state would transform our oceans into ice and our atmosphere into liquid air; it seems impossible that terrestrial life could survive. The vast museum of the sky must almost certainly contain examples of shrunken suns of this type, and some will have planets like our earth revolving round them. Whether these planets carry on them the frozen remains of a life which was once as active as our present life on earth we can hardly even surmise.

Such at least would be the normal course of events, the tragedy we have described happening after a time of the order of perhaps 10,000 millions of years. But a variety of accidents may intervene to bring the human race to an end long before any such interval has elapsed. To mention only possible astronomical occurrences, the sun may run into another star, any asteroid may hit any other asteroid and, as a result, be so deflected from its path as to strike the earth, any of the stars in space may wander into the solar system and, in so doing, upset all the planetary orbits to such an extent that the earth becomes impossible as an abode of life. It is difficult to estimate the likelihood of any of these events happening, but rough calculations suggest that none of them is at all likely to happen within the next 10,000 million years or so.

A more serious possibility is that the sun's light and heat may increase so much as to shrivel up all terrestrial life. We have seen how "novae" occasionally appear in the sky, temporarily emitting anything up to 25,000 times the radiation of the sun. It seems fairly certain that if our sun were suddenly to become a nova, its emission of light and heat would so increase as to scorch all life off the earth, but we are completely in the dark as to whether our sun runs any risk of entering the nova stage. If it does, this is probably the greatest of all the risks to which life on earth is exposed.

Many a nova has been proved to be an ordinary star which was visible as a very faint star long before it appeared as a nova, flashed into brilliance for a brief span of life, and then lapsed back into commonplace-

ness, and it seems reasonable to suppose that all novae are of this kind, although the star may often escape detection until it assumes its brilliant nova state. These apparitions are by no means rare; something like six are noticed every year in the galactic system alone. Let us suppose that a further six occur unnoticed. Then, if the galactic system contains about 300,000 million stars, it follows that the average star becomes a nova once every 24,000 million years. This purely statistical consideration suggests that there is a substantial danger that our sun may do the same before 10,000 million years have elapsed.

What we should like to know is whether our sun is in danger of becoming a nova—so far as can be told from the geological record, it does not seem to have done so for the last 1000 million years or so. So far there is no agreement among astronomers either as to the physical causes which turn an ordinary star into a nova, or as to the physical conditions which prevail in novae. Various suggestions are in the field, but none of them wins general acceptance. But it seems quite possible that the nova stage is merely what happens when an ordinary main-sequence star first begins to contract into a white dwarf—if so, we need not count our dangers twice over.

Apart from improbable accidents, it seems that if the solar system is left to the natural course of evolution, the earth is likely to remain a possible abode of life for thousands of millions of years to come.

If so, we may perhaps be glad that our lives have fallen in the beginning, rather than at the end, of this great stretch of time. We may well imagine that if man survives to the end of it, he will have infinitely more knowledge than now, but one thing he will no longer know—the thrill of pleasure of the pioneer who opens up new realms of knowledge. Disease, perhaps even death, will have been conquered, and life will doubtless be safer and incomparably better-ordered than now. It will seem incredible that a time could have existed when men risked, and lost, their lives in traversing unexplored country, in climbing hitherto unclimbed peaks, in fighting wild beasts for the fun of it. Life will be more of a routine and less of an adventure than now; it will also be more purposeless when the human race knows that within a measurable space of time it must face extinction and the eternal destruction of all its hopes, endeavours, and achievements.

The 10,000 million years which seems a possible future for the existence of life on earth is more than three times the past age of the earth, and more than 10,000 times the period through which humanity has so far existed on earth. Let us try to set these times in their proper proportion

by the help of yet another simple model. Take a postage stamp, and stick it on to a penny. Now climb Cleopatra's needle and lay the penny flat, postage stamp uppermost, on top of the obelisk. The height of the whole structure may be taken to represent the time that has elapsed since the earth was born. On this scale, the thickness of the penny and postage stamp together represents the time that man has lived on earth. The thickness of the postage stamp represents the time he has been civilized, the thickness of the penny representing the time he lived in an uncivilized state. Now stick another postage stamp on top of the first to represent the next 10,000 years of civilization, and keep sticking on postage stamps until you have a pile as high as the towers of Westminster Abbey. Such a pile still provides an inadequate representation of the length of the future which, so far as astronomy can see, probably stretches before civilized humanity, unless an accident cuts it short. The first postage stamp was the past of civilization; a column higher than the abbey is its future. Or, to look at it another way, the first postage stamp represents what man has already achieved; a pile which out-tops Westminster Abbey represents what he may achieve, if his achievement is proportional simply to his time on earth.

Up to now, we know that his achievement has not been simply proportional to his time. In some respects at least—the mechanical arts, for instance—we advance at an ever increasing tempo. The contributions of successive generations are not equal, but continually increase in geometrical progression, so that material civilization advances more in a generation now than it did in a millennium when it was at its commencement. If this continual speeding-up were to persist throughout the whole astronomical future of the earth, it is impossible to imagine what the rate of advance would become before life disappeared from earth. But we can think of only too many factors which are likely to compel a slowing-down before long.

We must remember too that we cannot count on such a length of future with any certainty. Accidents may happen to the race as to the individual. Celestial collisions may occur; shrinking into a white dwarf, the sun may freeze terrestrial life out of existence; bursting out as a nova it may scorch our race to death. Accident may replace our tower of postage stamps by a truncated column of only a fraction of the height of which we have spoken. Even so, our race has an "expectation of life" which must be measured in terms of thousands of millions of years. It is a period which the human mind, as apart from the mind of the mathematician, can hardly conceive with any clearness. For all practical pur-

poses the only statement that conveys any real meaning is that our race may look forward to occupying the earth for a time longer than any we can think of, and achieving incomparably more than anything we can possibly imagine.

Looked at in terms of space, the message of astronomy is at best one of melancholy grandeur and oppressive vastness. Looked at in terms of time, it becomes one of almost endless possibility and hope. As inhabitants of a civilized earth, we are living at the very beginning of time. We have come into being in the fresh glory of the dawn, and a day of almost unthinkable length stretches before us with unimaginable opportunities for accomplishment. Our descendants of far-off ages, looking down this long vista of time from the other end, will see our present age as the misty morning of the world's history; they will see our contemporaries of to-day as dim heroic figures who fought their way through jungles of ignorance, error and superstition to discover truth, to learn how to harness the forces of nature, and to make a world worthy for mankind to live in. We are still too much engulfed in the greyness of the morning mists to be able to imagine, even vaguely, how this world of ours will appear to those who will come after us and see it in the full light of day. But by what light we have, we seem to discern that the main message of astronomy is one of hope to the race and of responsibility to the individual–of responsibility because we are drawing plans and laying foundations for a longer future than we can well imagine.

The foregoing is Chapter VII
from Jeans's THE UNIVERSE AROUND US.

Kees Boeke

1884–1966

Kees Boeke was born in Holland in 1884. He was trained as a civil engineer and later became a teacher. He founded the internationally famous Werkplaats Children's Community at Bilthoven, Holland. *Werkplaats* means "workshop." In its organization, methods, and curriculum this is a typical progressive school. But Boeke is far from being a typical educator. He is greatly interested in the possibilities of international education, and pupils in the Children's Community come from many lands. He founded the Dutch section of the New Education Fellowship. And he wrote *Cosmic View*.

Cosmic View is unique. It is the only selection in this set—indeed, it may be the only book in the world—that can be read backward as easily and as naturally as it can be read forward.

That sounds impossible. But if you will take a quick look at it, you will immediately see what is meant. It would take much longer to explain how and why the statement is true than for the reader to see that it is true. A glance at the author's introduction will also be helpful to an understanding of just what it is that Boeke is trying to do and, in particular, of the method of organization he makes use of to present his cosmic view.

Once this organization is understood, it becomes clear that the book, though it has a first and last page, has no real starting place. It is arranged according to the powers of ten, but it could have been arranged according to the powers of a thousand, or a million, or a billion. To put it another way, picture number 1, which corresponds in this arrangement to the first power of ten, could as easily have

been picture number 3, or 8, or 15. The basis of the arrangement is arbitrary. The book could begin and end anywhere.

It is arbitrary, however, only from one point of view—from a point of view which could be called abstract, or mathematical. From another point of view, the beginning of the book is not arbitrary at all. The author starts with the familiar. The first picture is of a little girl, with a cat in her arms. They are quite recognizable. Toward the middle of the book, this picture is repeated. That is not surprising. We expect to find something of human size at the center of the scale.

It is a traditional idea that man is at the center of things. Plato has Protagoras say that "man is the measure of all things." Pope sees man "in this isthmus of a middle state." And the astronomer Harlow Shapley suggests that man is really about halfway in size between our galaxy as a whole—that is, the largest thing we know anything about—and an atomic particle—the smallest thing. Whether this is strictly true is not the question. Man is the reference point for man. Science, like everything else, starts with our seeing the world around us. And we see the world in relation to ourselves. What is small is small relative to us; what is large is large relative to us, too.

It should be noted that on Boeke's scale there is a great deal more "space" in the direction of the vast than in the direction of the minute. Using powers of ten, he journeys "upward" to ten to the twenty-sixth power, and "downward" only to ten to the minus thirteenth power. Thus he has gone farther "up" and "out" than he has gone "down" and "in." And anyone who is acquainted with power series will realize that, though twenty-six is twice thirteen, he has gone much more than twice as far "out" as he has gone "in." Indeed, he has gone millions and billions of times farther in the one direction on his scale than in the other, because he stops at the relative magnitude of the atomic nucleus on his "inward" journey. An atomic particle would be much smaller—how much, we do not really know.

Not only is the reading direction of this book arbitrary—its length is arbitrary, too. Why does Boeke stop in the "outward" direction at ten to the twenty-sixth power? The reason is that beyond that order of magnitude we know almost nothing, if anything at all. Perhaps, as he suggests, the "curvature of space" would begin, at this point, to come into play. Perhaps we will know more about that in a few years or generations. And why does he stop on his "inward" journey at ten to the minus thirteenth power? Again it is a question of the limits of our knowledge. The universe is bounded, Boeke seems to be

saying, only by our ignorance. Nature itself does not stop in either direction. It is man, at the center of things, who can see only so far, But he sees farther all the time.

That is an exciting thought. Another exciting idea is the one that Boeke suggests at the end of the book. "Looking back on the whole series of 40 pictures," he says, "we find that in only 10 of them (3 to −6) is life known to exist. In other scales there may, however, be forms of life we do not yet know."

He does not speculate, as some science fiction writers have done, on what these forms of life might be. He realizes that his guess would be no better than anyone else's. But he does remind us, in a few wise, final sentences, what our responsibilities are when we are faced with a cosmic view. "Man, if he is to become really human," he writes, "must combine in his being the greatest humility with the most careful and considerate use of the cosmic powers that are at his disposal." Man, he is asking us to remember, is both very large and very small.

Cosmic View

We all, children and grownups alike, are inclined to live in our own little world, in our immediate surroundings, or at any rate with our attention concentrated on those things with which we are directly in touch. We tend to forget how vast are the ranges of existing reality which our eyes cannot directly see, and our attitudes may become narrow and provincial. We need to develop a wider outlook, to see ourselves in our relative position in the great and mysterious universe in which we have been born and live.

At school we are introduced to many different spheres of existence, but they are often not connected with each other, so that we are in danger of collecting a large number of images without realizing that they all join together in one great whole. It is therefore important in our education to find the means of developing a wider and more connected view of our world and a truly cosmic view of the universe and our place in it.

This book presents a series of forty pictures composed so that they may help to develop this wider view. They really give a series of views as seen during an imaginary and fantastic journey through space–a journey in one direction, straight upward from the place where it begins. Although these views are as true to reality as they can be made with our present knowledge, they portray a wonderland as full of marvels as that which Alice saw in her dreams.

The pictures originated in a school in the Netherlands, the Werkplaats Children's Community at Bilthoven, where a group of children under my guidance drew the first versions of them. I began the project because of the importance of developing a *sense of scale*, and I therefore proposed to draw the same objects in different scales. In doing this I took advantage of the metric system, which logically corresponds with our numerical system, and made each successive scale one-tenth of the one before. When we do this we seem to go right up into the sky, so that we see objects from

ever-increasing heights, and at the same time see a constantly increasing field around them. We also notice that each imaginary jump we make to move from one scale to another one ten times smaller must be ten times greater than the previous jump. That is, if we start at, say, five meters from an object and we first move to a distance of 50 meters in order to see it at one-tenth scale, we have moved 45 meters; if we then move again, to a distance of 500 meters, to reduce the scale again to one-tenth the previous scale, we will have moved 450 meters, or ten times the length of our first jump. The next jump would be 4,500 meters, to a distance of 5,000 meters, etc. We soon find that we have started on a tremendous journey of exploration, and we begin to wonder what we shall discover if we continue in the same way.

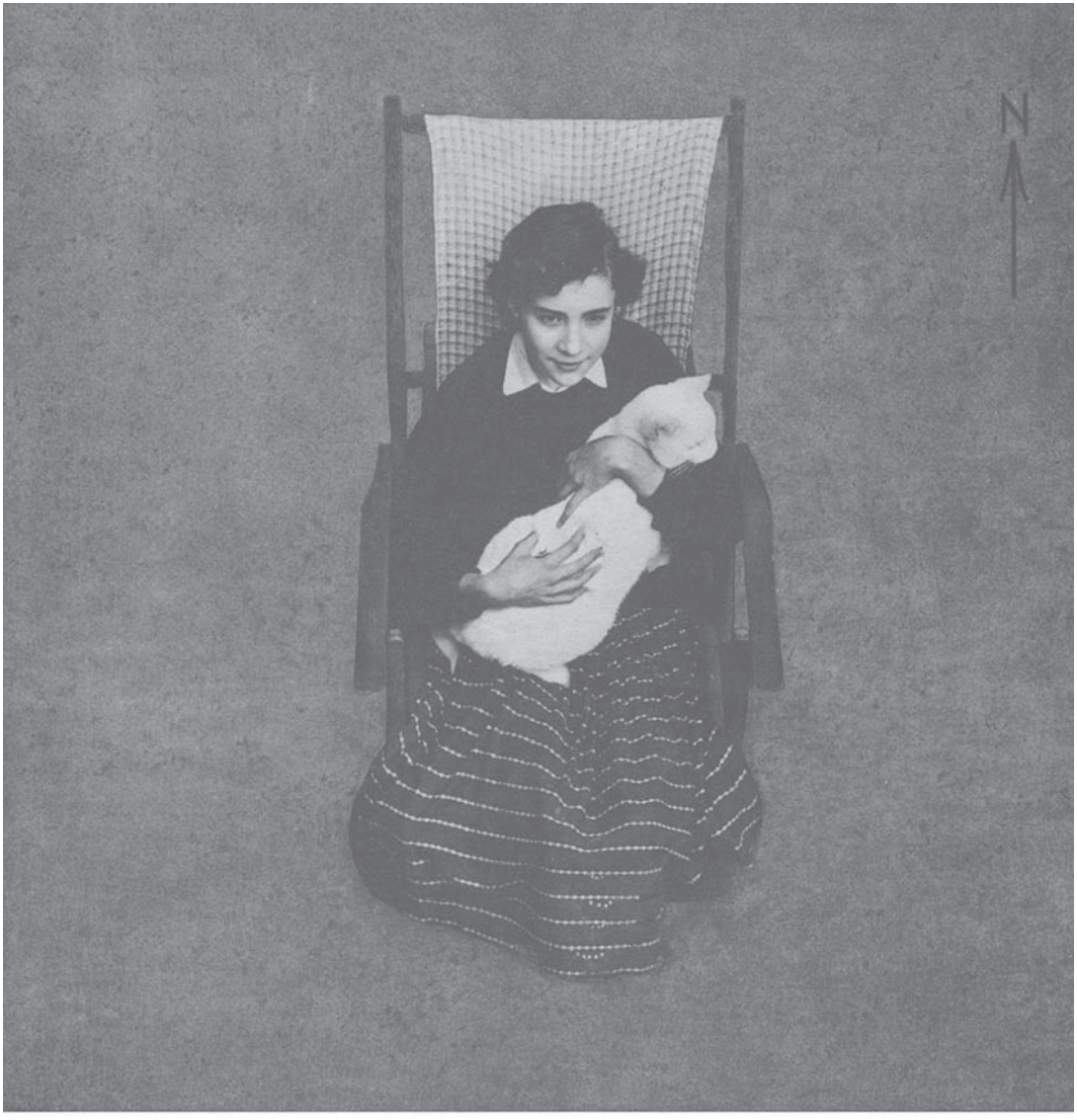
The first 26 pictures of this book are the record of such an imaginary journey.

When we undertook our plan, we saw that we must first decide on the date and the time of day of the journey, for we must know where the sun would be at that moment. So we assumed that the moment of observation in each case would be and would remain December 21st at noon. We knew that the sun would then be at the winter solstice and that it would stand in the south. As an "object" to start with, we chose a child sitting in a deck chair in the courtyard of the school building, facing toward the south.

As we raised our point of observation we saw first the school itself, then our village: Bilthoven near the town of Utrecht in the center of the Netherlands. Next our view included the whole central part of that country. Going still higher, we saw the western part of Europe, and then the whole earth. Soon the moon came into view, then the nearer planets and the sun. The size of the whole solar system diminished with an astonishing rapidity as the height of our viewpoint increased, tenfold each time.

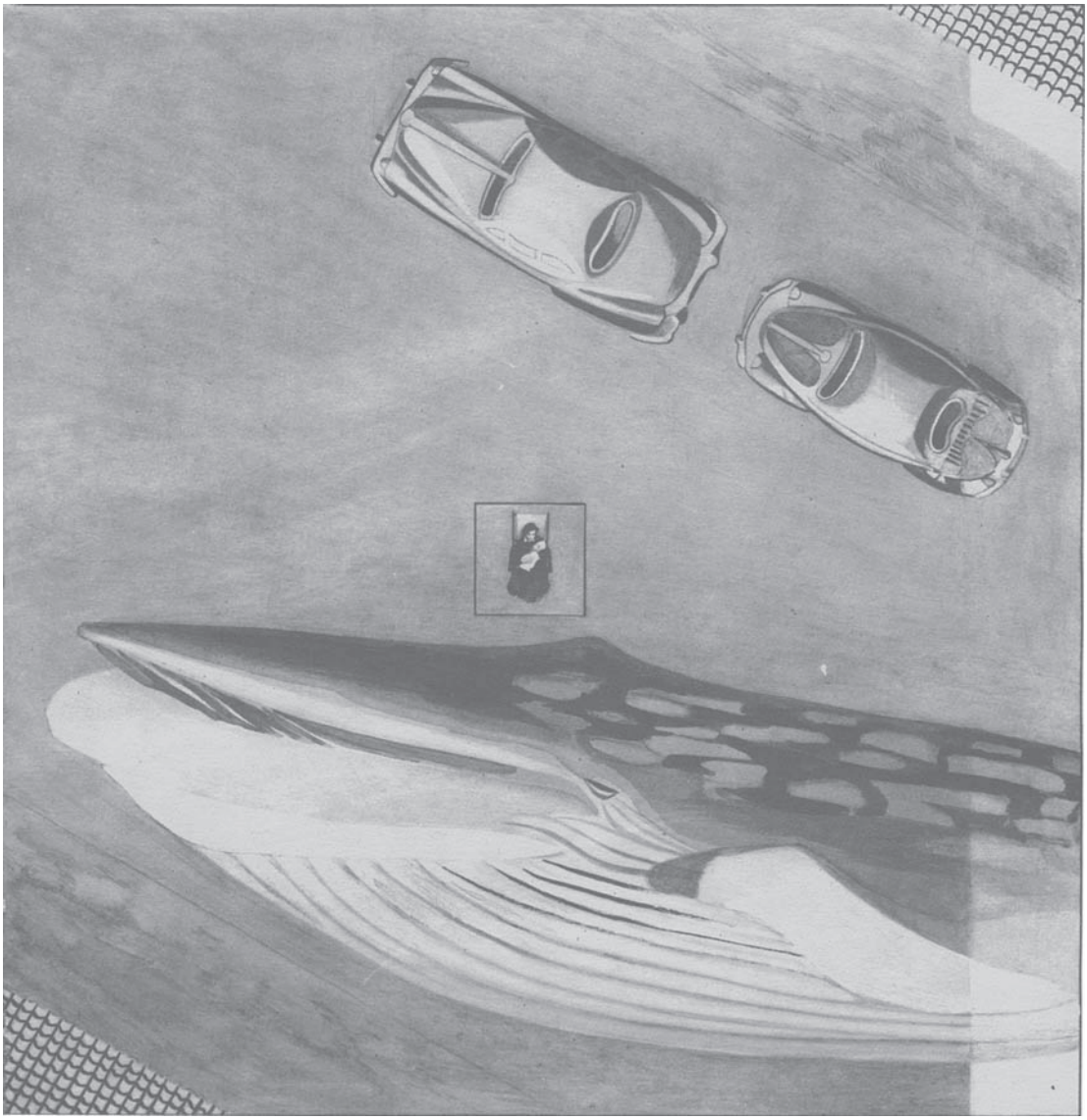
As we continue in this way, our nearest neighbor stars are drawn into the picture, and before we know it we have passed right out of the Milky Way, our galaxy, and see it from the outside. As we go on in ever more stupendous jumps our whole galaxy in turn shrinks and shrinks, until finally it becomes a small spot, and we gaze through the numberless universes which are beyond and which look like a cloud of tiny specks of light.

The question then arises: What should we see if, instead of decreasing the scale, we should increase it tenfold each time? To find this out, we first go back to the original picture of the little girl sitting in front of the school, and then we begin a second journey of exploration, which proves to be as full of marvels as the first, and which will be shown in the second half of this picture story.



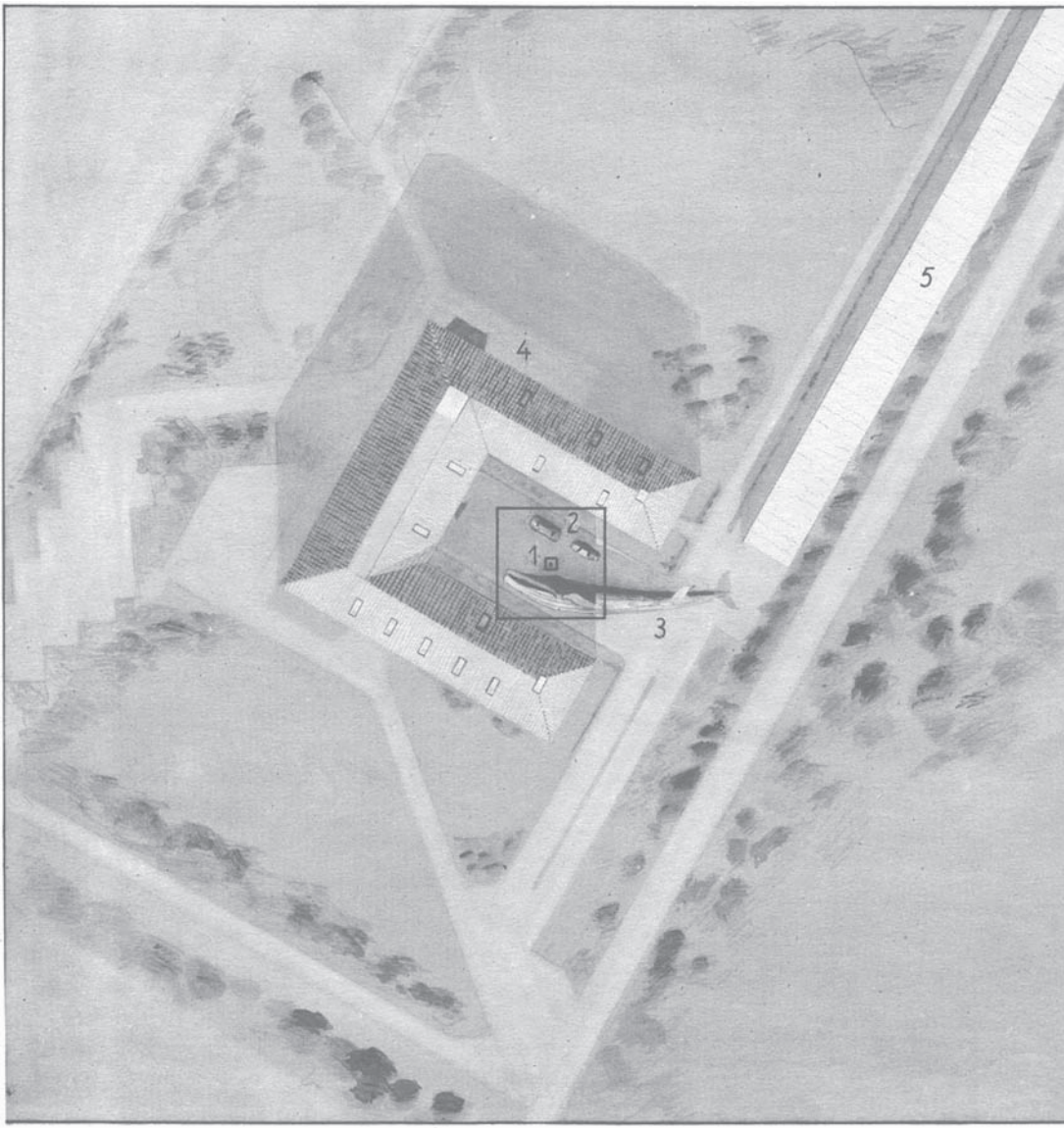
1. The first picture, from which we start, is as we said already one of a child sitting in front of the school, with a cat on her lap. It is drawn on a scale of 1 to 10. This means that a centimeter on the drawing is in reality 10 centimeters. A centimeter (abbreviated "cm.") is the hundredth part of a meter, which corresponds to the yard as a unit of length. To be precise, a meter is 3.37 inches longer than 1 yard. One centimeter is therefore nearly 0.4 inch. In both length and height, the picture measures 15 centimeters, or nearly 6 inches. An arrow shows the direction of north.

 1 cm. in picture = 10 cm. in actuality. Scale of picture therefore = 1:10



2. In the center of this second illustration we see a square 1.5 centimeters on each side and in it the picture of the opposite page to one-tenth size, for the sake of comparison. Shown to the same scale are two automobiles, a smaller and a larger type, and also a strange object which at first we hardly recognize as the front part of a whale. A long and unlikely story would certainly be needed to make the presence of a whale at this place and time plausible or even possible. For our present purpose, however, we shall not be held back by such considerations; our aim in putting the poor dead whale there lying on its side is only to enable us to compare the size of the young human being with one of the largest living creatures, also a mammal. Later this will enable us to observe in how many of the domains of scale living creatures occur.

1 cm. in picture = 100 cm. = 1 meter in actuality. Scale = 1:100 = $1:10^2$



3. In the center we now see a tiny square, the sides of which are only 1.5 millimeters in width (abbreviated 1.5 mm.). It clearly represents the illustration two pages before: #1. The child (1) in it is barely visible, but the cars (2) can easily be distinguished and the whale (3) shows up nicely in its full length of some 30 meters, which is about the record length these fellow mammals reach. The U-shaped building (4) tells a story of the war years, when the German military built it during the occupation of the Netherlands. After the liberation it was rebuilt and enlarged to become the central building for the Werkplaats Children's Community. The long building (5), typical of Holland, is a bicycle shed. *Note* that the number of each picture corresponds with the exponent of the power of 10 in the statement of the boldface line below each caption giving the scale.

 1 cm. in picture = 1,000 cm. = 10 m. Scale = 1:1000 = $1:10^3$

4. It is surprising that already in this fourth illustration the child, who filled the greater part of the first picture, has completely disappeared. The reason, as we said in the introduction, is that each time we jumped upward, we had to go ten times higher than we were, in order to produce an image at a scale one-tenth that of the one before. If we viewed the little girl from a height of, say, 5 meters in picture 1, we had of necessity risen to 50 meters to see #2, to 500 meters for #3, and now we look down from a height of 5,000 meters. That is higher than Mont Blanc, Europe's highest mountain! No wonder that the huge whale can now hardly be distinguished. We notice a strange wavy line reaching the school building. We wonder what that is. The next drawing will show.

5. We have now jumped to a height of 50,000 meters or 50 kilometers, that is more than 30 miles, and we notice a second effect of our jumps: not only are all lengths we see reduced tenfold each time, but the area which comes into our field of vision increases a hundredfold. So the above illustration covers a square 15 kilometers on a side, and we see Bilthoven (1) as a suburb of Utrecht (2). A dotted wavy line symbolizes a radio wave of 298 meters wave length reaching Bilthoven from the transmitter southwest of Utrecht, called "Hilversum" after the town (3) where its studios are. The 1.5-centimeter square in the middle gives again, as it has done each time, a reduced representation of the preceding illustration. As this illustration contains a photograph of a detailed plan of Bilthoven, it just shows the houses, though very minutely.

 1 cm. in picture = 10^5 cm. = 1,000 m. = 1 km. Scales 1:100,000 = 1:10^5

6. Here we see the central part of the Netherlands. The small square in the middle of course shows the town of Utrecht, and the tiny square inside is the twice-reduced picture of illustration 4. There is Bilthoven, and . . . there is the little girl: we know she must be there, but we cannot see her! The drawing has now become like a geographical map of central Holland. We see the largest towns: Amsterdam (1), The Hague (2), Rotterdam (3), also the rivers Rhine (4) and Meuse (5). The bay in the North used to be the Zuyder Zee. It now has become a lake, the "Yssel Lake," named thus after the Yssel (6), the arm of the Rhine which flows into it. In the Yssel Lake new land (7) is being reclaimed by making dikes (8) and removing the water by pumping. In the lower right center the town of Arnheim (9) is shown.

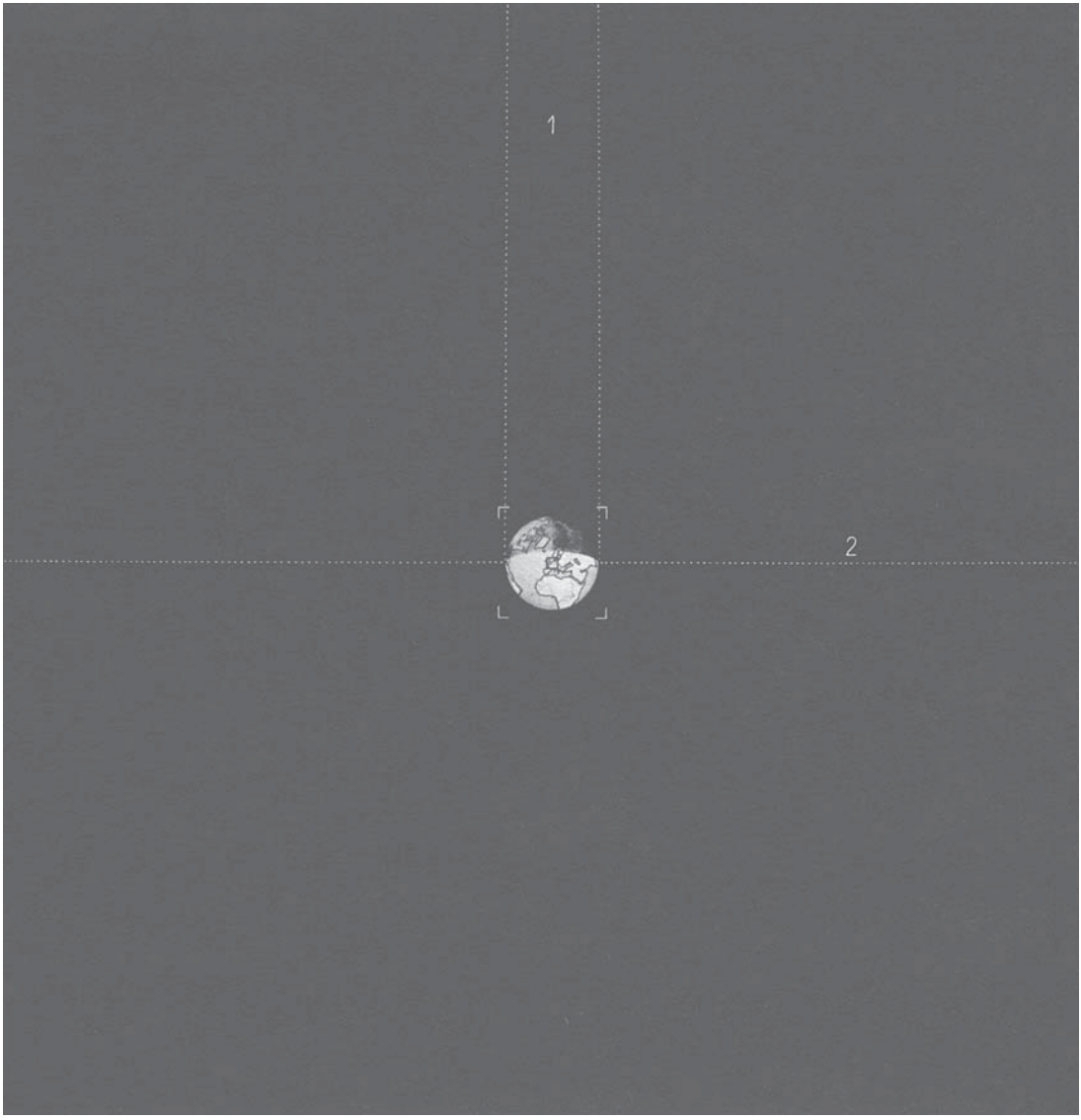
1 cm. in picture = 10^6 cm. = 10 km. Scale = 1:1,000,000 = 1:10^6

7. Whereas picture 5 gave us the *villages* of a *local district,* and #6 the *towns* of a *country*, this 7th drawing covers part of a *continent*–western Europe–and shows a number of its *countries*. Actually 15 different countries are wholly or partly visible, as well as 10 of their capitals and a number of rivers, too many to mention by name. The map further shows three seas–the North Sea, the Baltic, and the Adriatic–and a portion of one of the oceans, the Atlantic. As a square 1,500 kilometers on a side is covered, the spherical shape of the earth becomes visible; one of the parallels of latitude is drawn to demonstrate this, but the curvature is still so slight that the map can still be thought of as flat. It will need one more jump to reveal it as part of the surface of a sphere.

 1 cm. in picture = 10^7 cm. = 100 km. Scale = 1:10,000,000 = 1:10^7

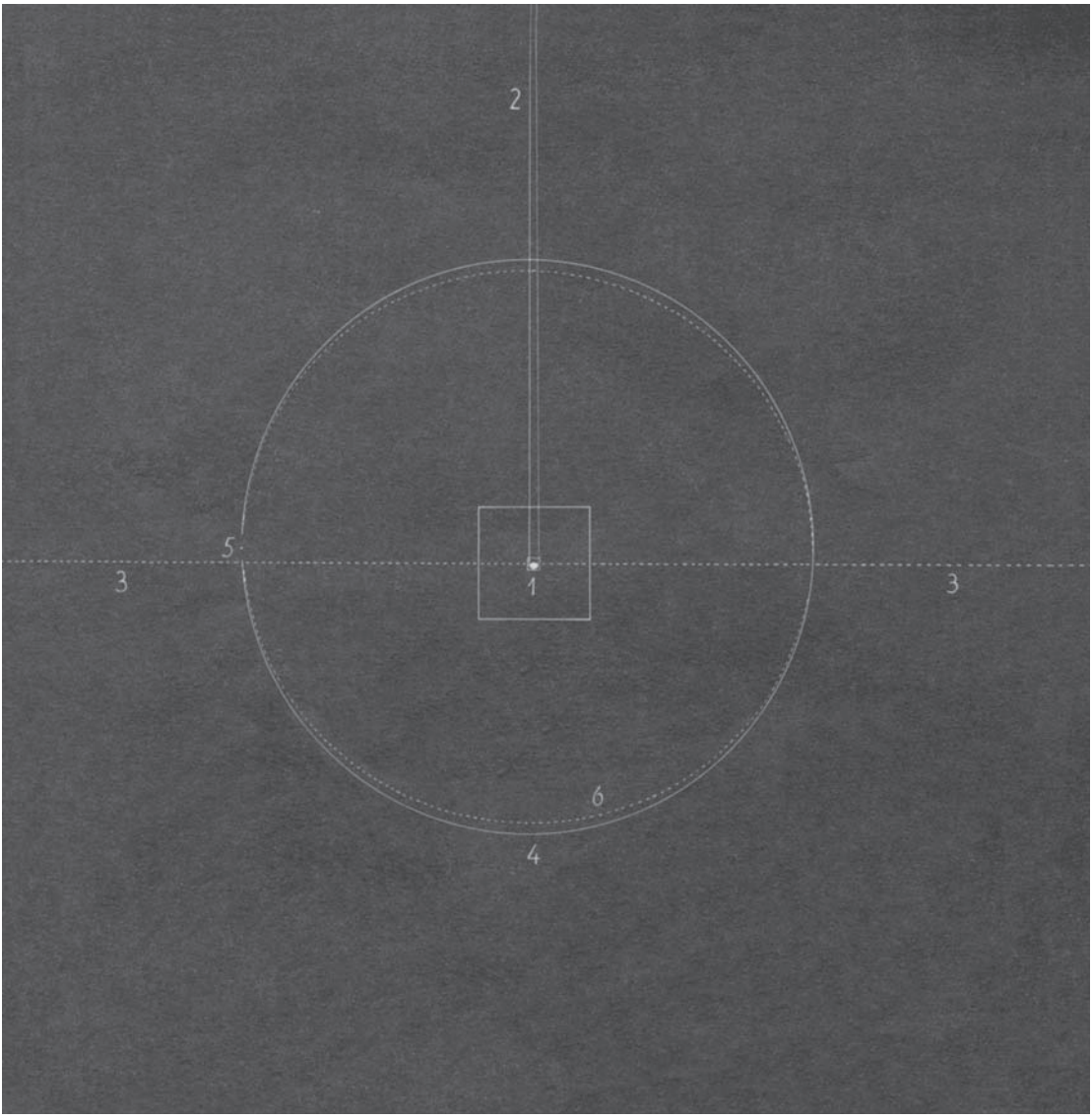
8. Until now we have been getting each time a wider view of our "world." We now see the whole of it as a limited dwelling place in the surrounding blackness of space. Whereas in the last picture we could see countries, we now can see five of the six continents: only Australia does not come into the picture. We notice that the northern part of the globe is in shadow; as the picture was taken on December 21st at noon, the sun was in the south, and daylight did not reach farther north than the Arctic Circle. This shaded part of the earth in reality would have been much darker. It has, however, been left a dark gray, in order to show the visible portions of North America and northeast Asia. The North Pole (1) and the Equator (2), as well as the meridians and the parallels of latitude for every 15 degrees, are shown as dotted lines.

1 cm. in picture = 10^8 cm. = 1,000 km. Scale = 1:100,000,000 = 1:10^8



9. The earth, which reached nearly to the large square on the previous page, now fits into the small square. The distance we have had to travel straight up, to get its size thus reduced, is tremendous: according to our reckoning in drawings 4 and 5, we should be now 500,000 kilometers up, or about 312,500 miles—more than the distance to the moon. From here we see the earth as a planet spinning counterclockwise in the empty, dark, surrounding space. The sun, in the south, makes it shed its shadow toward the north. Two faint dotted lines mark the limits of this "umbra" (1). Another dotted line (2) gives the path along which the earth moves, from right to left. Many faraway stars would be visible, but these are left out in this drawing and others that follow, to concentrate attention on our "immediate surroundings."

 1 cm. in picture = 10^9 cm. = 10,000 km. Scale = 1:1,000,000,000 = 1:10^9

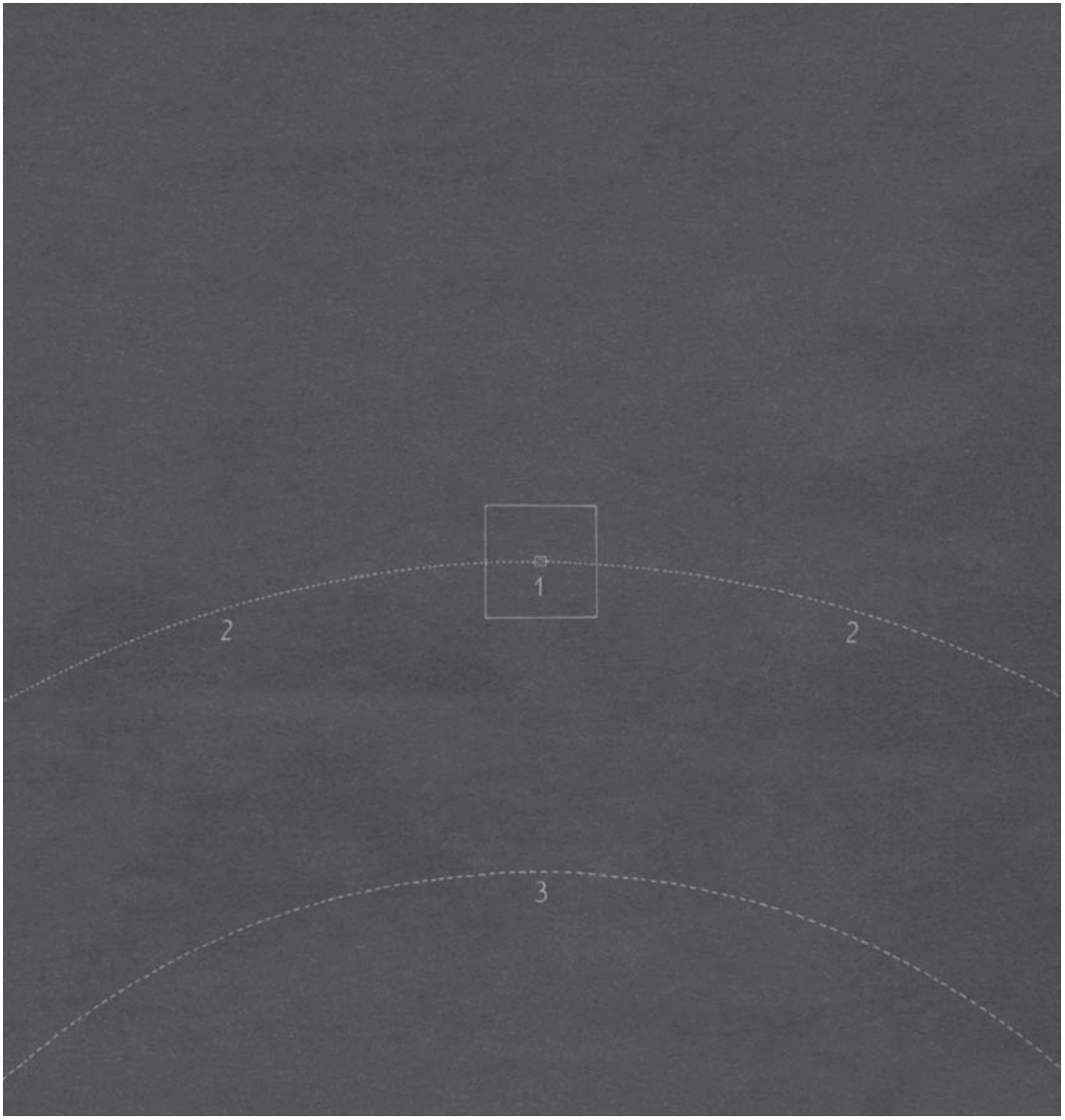


10. It must have struck the reader that in the last two illustrations the shaded part of the earth was not of even darkness, but was clearly lighter on the left hand side. The cause of this becomes clear in this picture. In it we not only see the earth (1), its umbra (2) and the path (3) along which it moves, but we notice around the earth what looks like a circle. This line (4) is the path or orbit of the moon as it moves around the earth. The actual position of the moon (5) on that December 21st when we were supposed to make our celestial jump of exploration is shown. It now is clear that as the moon was there on the left, the night on earth was lit up on that side. As light travels 300,000 kilometers per second (that is, 3 centimeters on this scale), we see that it would need 1.3 seconds to cover the distance from the moon to the earth.

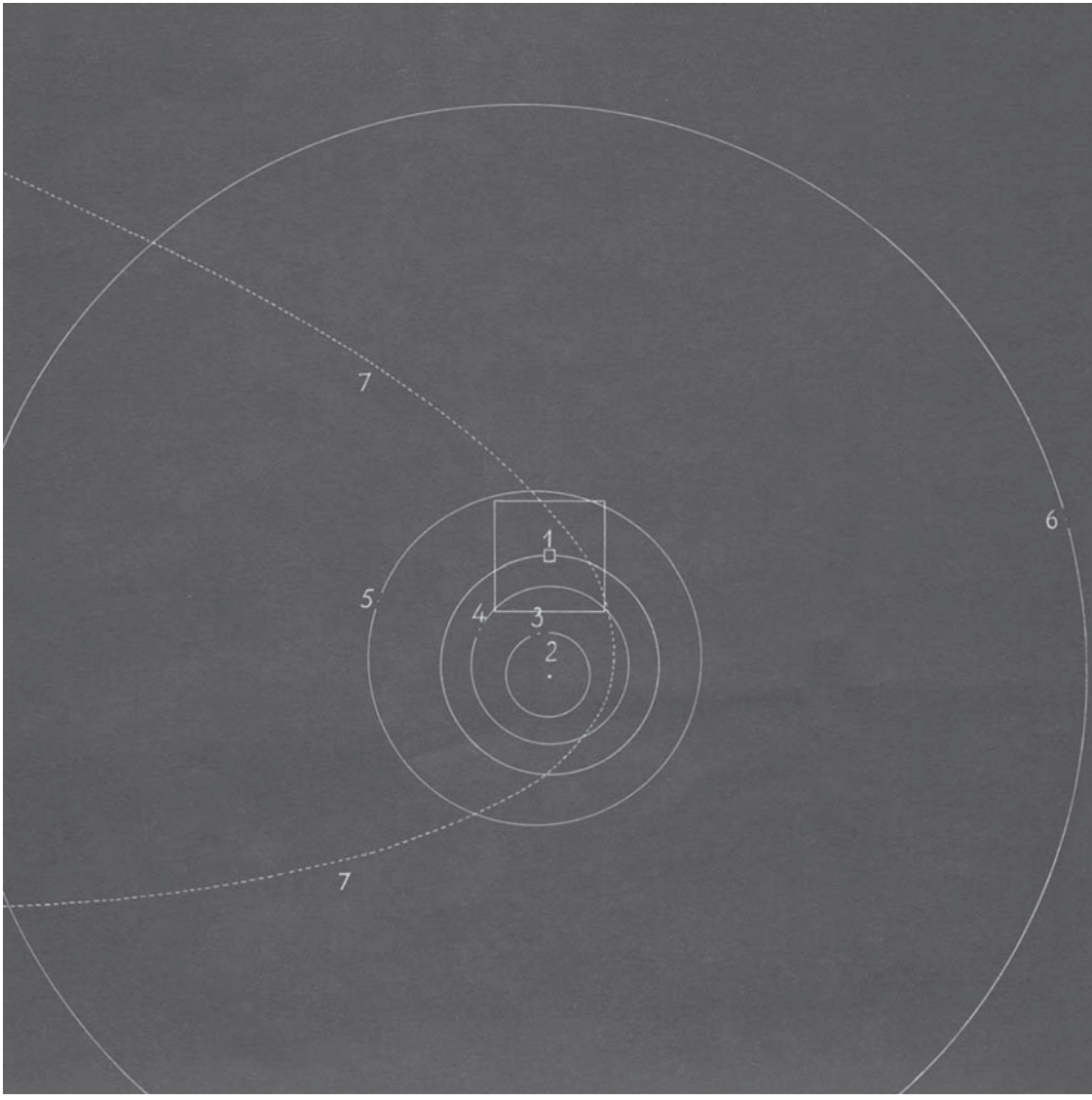
1 cm. in picture = 10^{10} cm. = 100,000 km. Scale = 1:10,000,000,000 = 1:10^{10}

11. In the preceding drawing, the actual shape of the moon's orbit appears to be practically a circle. As a matter of fact, it is not exactly a circle, but the difference is so slight that it is only visible in the position of the earth, which is in one focus of the ellipse, and therefore not in the center. There actually would be a slight flattening of the circle, because we are perpendicular above the earth, and therefore not straight above the plane of the moon's orbit, which itself makes a small angle with the earth's. These factors have been taken into account in composing the curve (6), *i.e.*, the orbit as it would really appear to us from above; but they are small even in #10 and in this drawing they are not noticeable. It shows the earth (1), the moon (5), and its orbit (4); the earth's umbra (2), and its orbit (3), which now can be seen to be very slightly curved.

 1 cm. in picture = 10^{11} cm. = 1,000,000 km. Scales = $1:10^{11}$

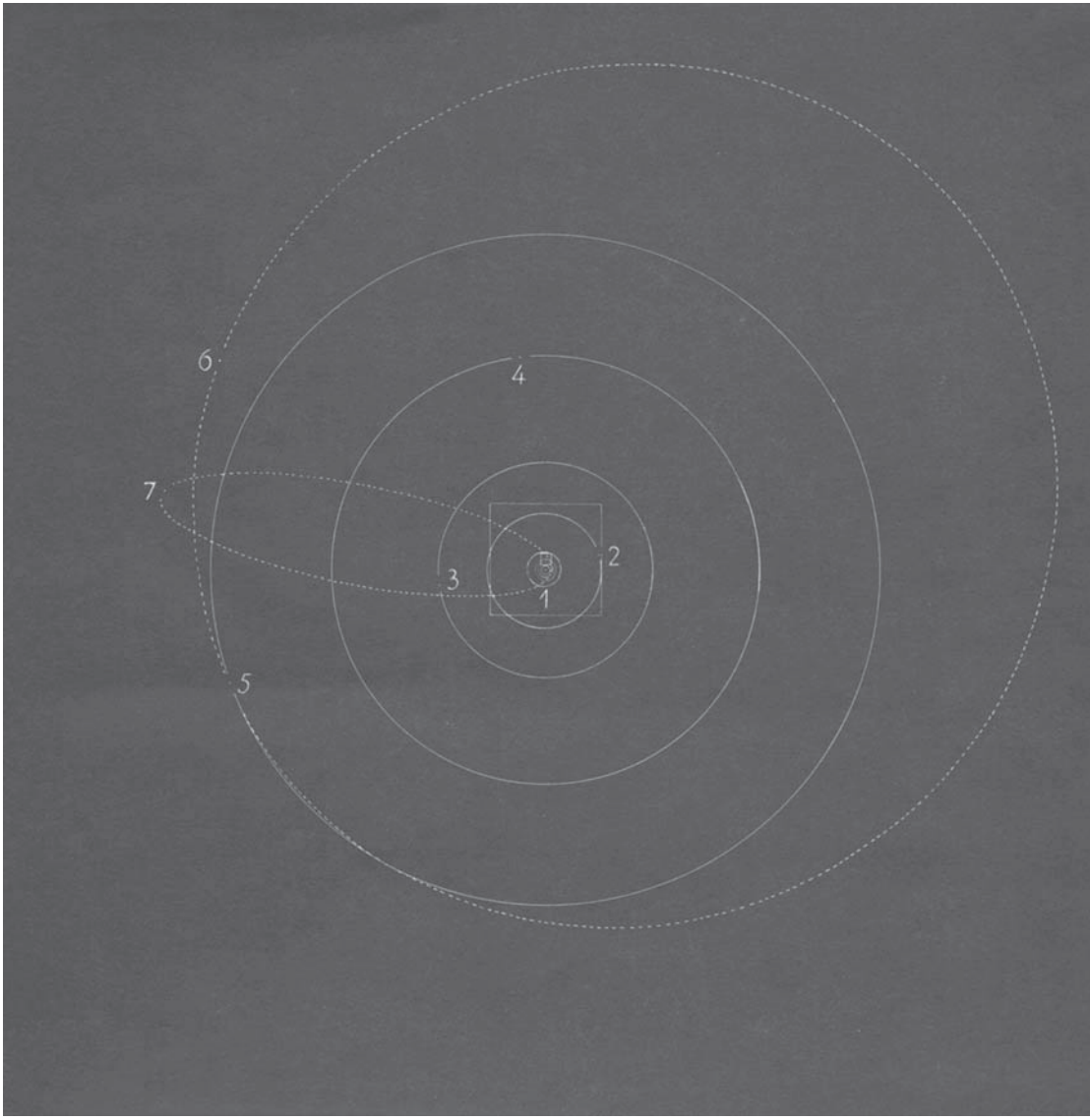


12. The tiny circle (1) in the center of the smallest square is now the moon's orbit. The earth's position is marked by a dot, although the dot is much too large and actually the earth would be invisible on this scale. Its orbit (2) is now clearly curved. Under the earth's orbit another curve (3) is drawn. That is the orbit of the planet Venus, which moves around the sun as the earth does and in the same direction: in this drawing, from right to left. The size of the sun, if it were drawn at this scale, would be 1.4 millimeters. We will repeat here that the black area of the above square would in reality be studded with a multitude of stars. We leave them out in this drawing and in the following drawings for the reason stated earlier.



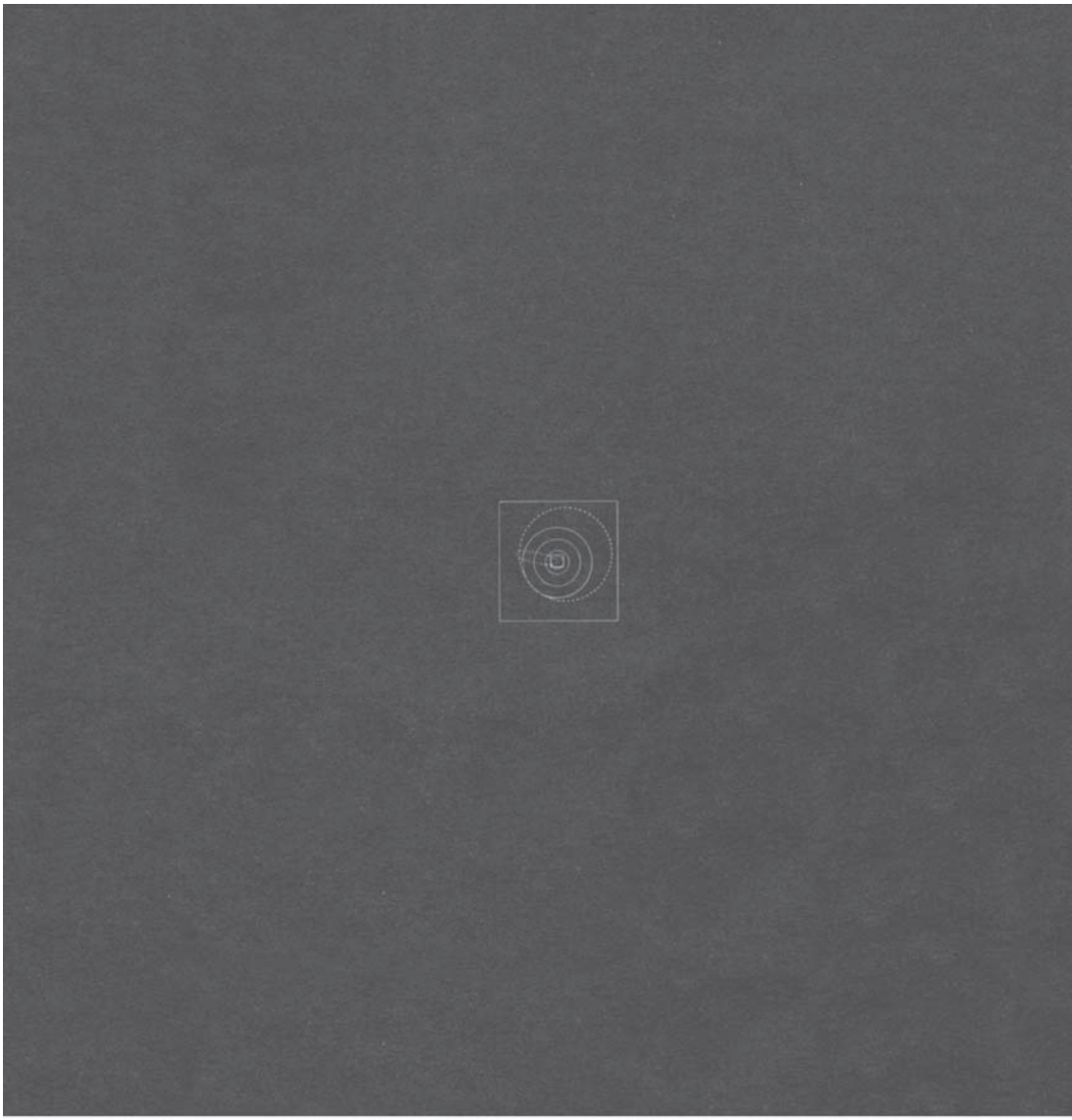
13. The sun (2) has now come into the picture. It is 1.5 centimeters away from the earth (1). The size of the earth has shrunk to 1.3 micron and even the sun's size should be only 140 microns. The dots denoting them are therefore much too big, for a micron is only a thousandth of a millimeter! Inside the earth's orbit we see the planets Mercury (3) and Venus (4). Outside it are Mars (5) and Jupiter (6) with their orbits. The positions of the planets (just as that of the moon in # 10) in this and following drawings are those which they occupied when we undertook our miraculous and timeless journey through space. We will now state more precisely when this was: It was December 21st of the year 1951. In addition to the sun and the planets we see part of the orbit of Halley's Comet (7), which comes into our "neighborhood" once every 77 years.

 1 cm. in picture = 10^{13} cm. = 100 million km. Scale = 1:10^{13}



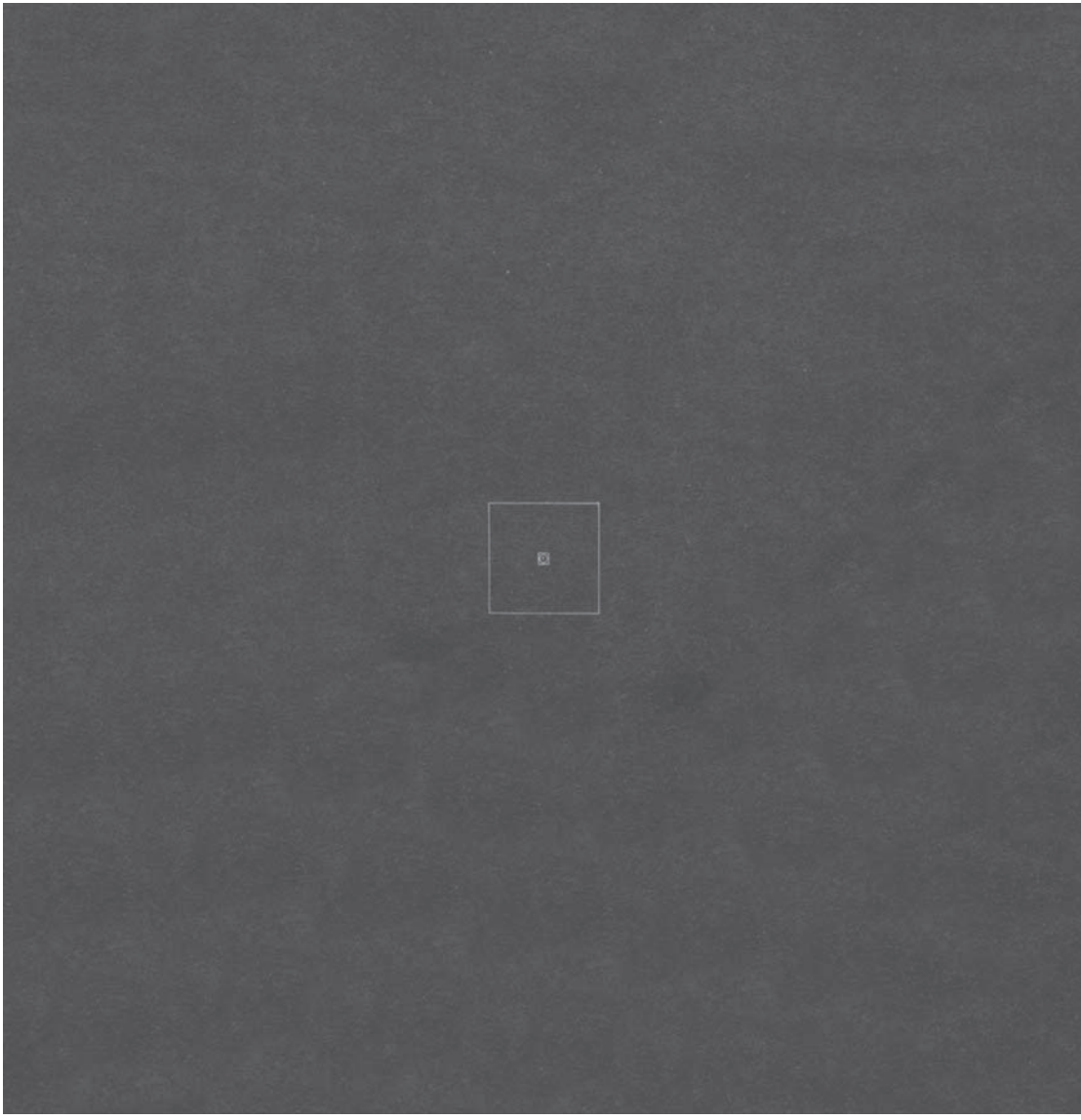
14. The whole solar system is now in view. The sun and the planets nearest it–Mercury, Venus, earth, Mars–have together been reduced to a tiny circle (1), but the other planets and their wider orbits are clearly seen: Jupiter (2), Saturn (3), Uranus (4), Neptune (5), and Pluto (6). The latter's orbit at one place comes inside Neptune's. The whole orbit of Halley's Comet is here; also its position in 1951 (7). It will be near the earth again in 1986. The elliptic nature of the planets' orbits has been taken into account. In most cases, however, this again means only that the sun is not in the center of an orbit, for the difference of its shape from the circle cannot be seen in any of them except Pluto's. The inclination of the orbits to the plane of the horizon of Bilthoven has been neglected. Light would on this scale travel about 1 centimeter per hour.

1 cm. in picture = 10^{14} cm. = 1,000,000,000 km. Scale = $1:10^{14}$



15. In this drawing the whole solar system, that is, the sun with all the smaller bodies which move around it, has been reduced to the space of a circle a little over 1 centimeter in diameter. Apart from the planets and Halley's Comet, which were shown in # 13 and # 14, there are a number of very small bodies, which we leave out because they are too small to be seen from such distances. These pictures really give a wrong impression of what the solar system would look like, for all the orbits are shown. What would be seen would be only the sun as a small star (it would at this distance seem only about 100 times as bright as Venus looks from the earth) and near it the planets, which themselves give no light but are merely lit up by the sun on the sides turned toward it. Light takes nearly 11 hours to travel across the solar system.

 1 cm. in picture = 10^{15} cm. = 10,000,000,000 km. Scale = $1:10^{15}$



16. The tiny circle inside the smallest square now contains the whole field in which the vicissitudes of the solar system take place. If we continue the reckoning we used in drawings 4, 5, and 9, we should be now at a height of 5 million million kilometers above the horizon of that village in Holland from where we started. As we have imagined all along that we are making our trip without spending time, this means that it would have taken the light rays which we now see more than six months to cover the enormous distance from the earth, even though they travel at the rate of 299,800 kilometers per second! It also means that if we had a marvelously good telescope and could see details of events on earth, the events we watched would be those that happened more than six months ago!

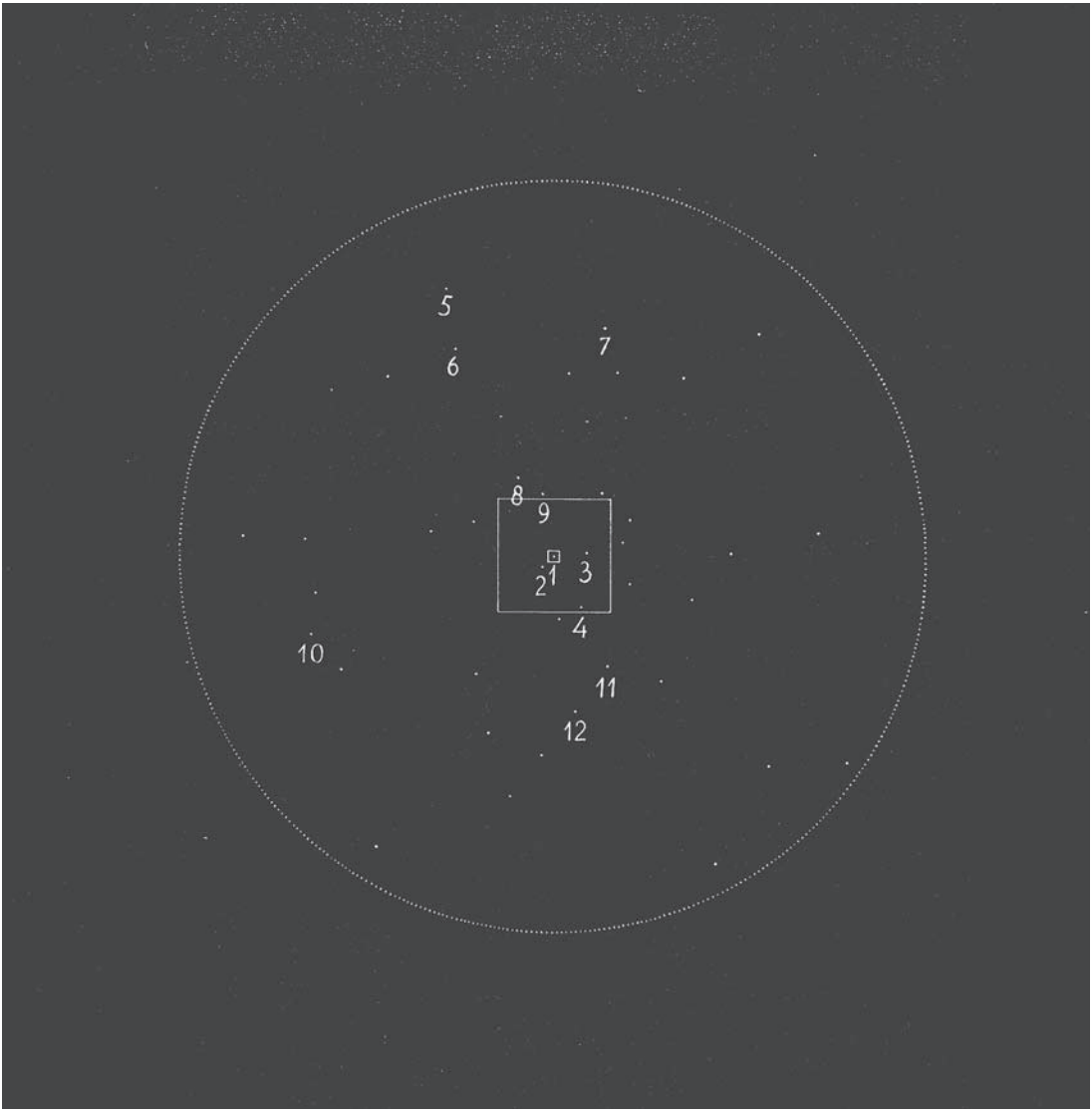
1 cm. in picture = 10^{16} cm. = 100,000,000,000 km. Scale = 1:10^{16}

17. This seems a very uninteresting picture: it contains no more than one tiny white spot in the center of a black square! That spot, however, stands for the whole solar system, which on this scale would be only little more than 0.1 millimeter in diameter. In reality this illustration therefore is a very interesting one, because we now know and understand that that little speck of light contains not only the sun, but with it, all the planets, comets, asteroids, and meteorites which move around it . . . and their orbits! And we now realize that it is quite possible that numberless other stars that we see at night may have such satellites moving around them. All other stars that could be seen besides our sun are still left out, as our aim is primarily to show our own "immediate surroundings." Light, on this scale, would travel 9.46 centimeters, or about 4 inches, in a year.

 1 cm. in picture = 10^{17} cm. 1 light-year = 9.46 cm. Scales = 1:10^{17}

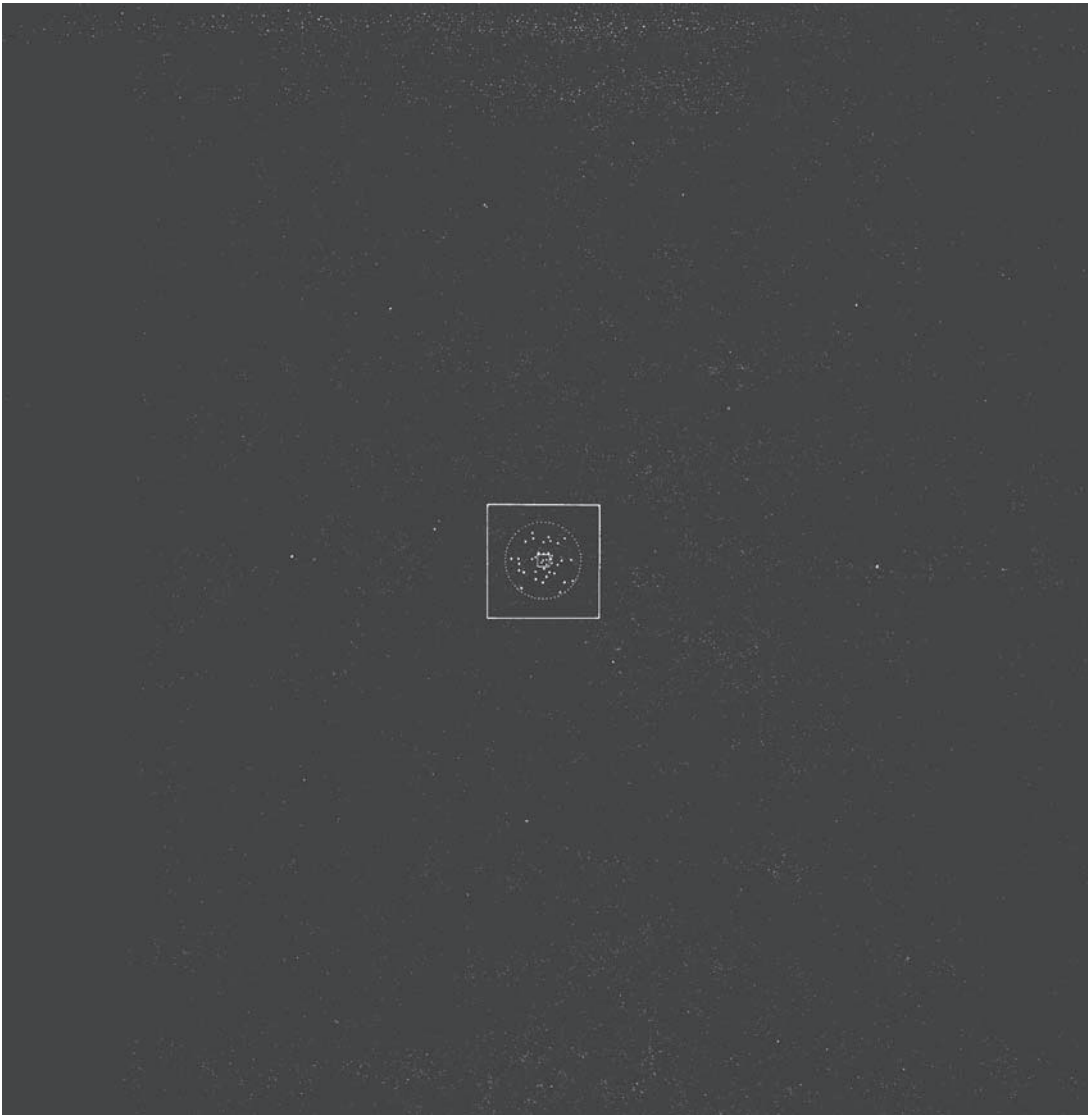
18. For the first time we now show just one star besides the sun; there is no longer fear of confusion, as the whole solar system has been reduced to a point (1). The star marked (2) is the double star called Alpha in the constellation Centaurus. This star, Alpha Centauri, is the star nearest to the earth, if we do not reckon the very faint Proxima Centauri, which may be slightly nearer. Its distance from the earth is about 4 light-years, which means that light needs about 4 years to cover that distance. On the scale of this drawing, 1 light-year would be 0.946 centimeters, that is, about 1 centimeter. Alpha Centauri is therefore at a distance of about 4 centimeters from the sun. In the drawing it seems nearer. The explanation of this seeming discrepancy is that Alpha Centauri is farther away than the sun from our faraway point of observation.

1 cm. in picture = 10^{18} cm. = about 1 light-year. Scales = 1:10^{18}



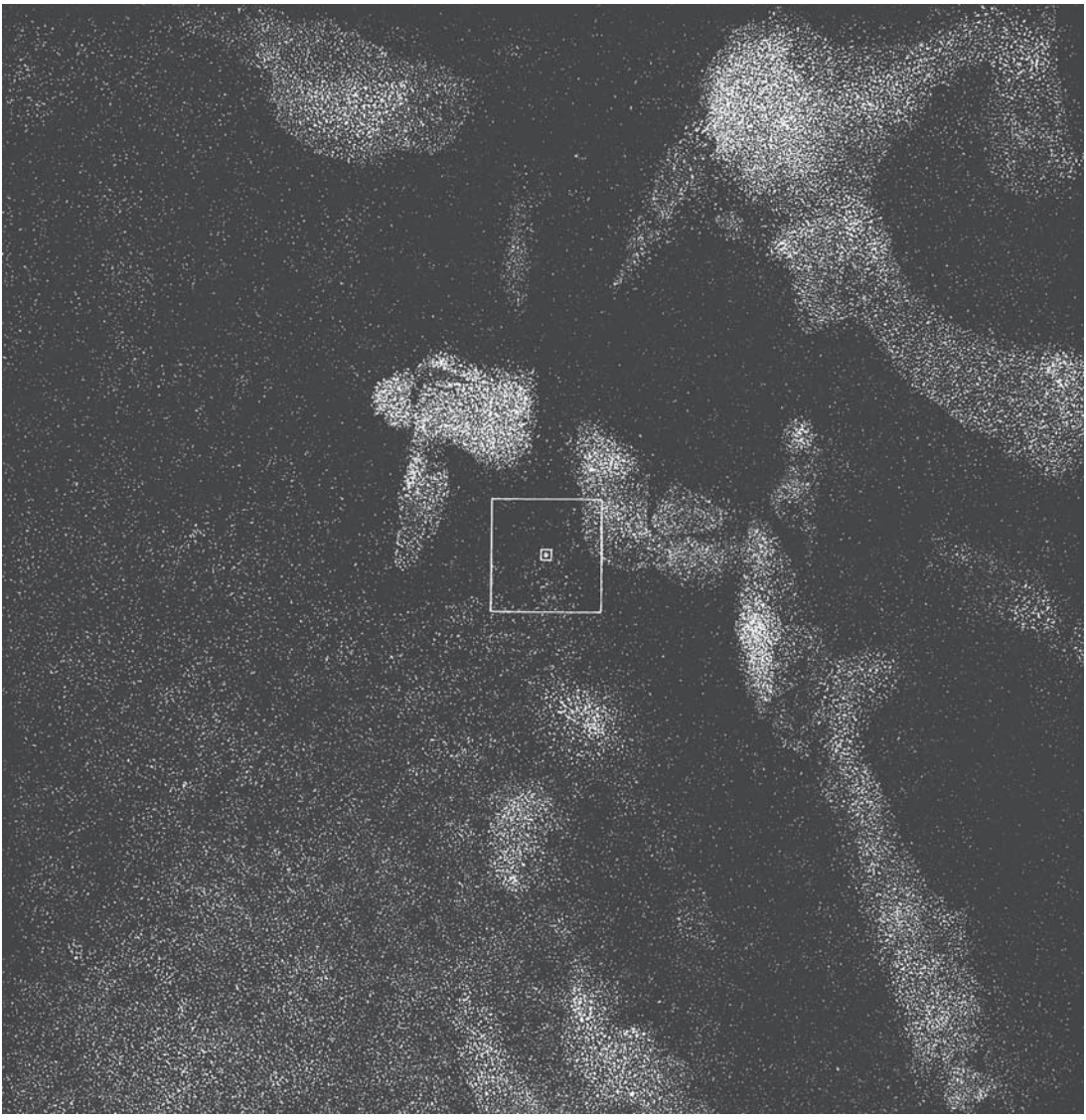
19. Every time, the jump we make to our next point of observation gets more inconceivably large. From the present one we could no longer see the sun with the naked eye, for without the help of a telescope a star such as the sun is barely visible at a distance of 55 light-years, and our point of observation would now be at a distance of 500 light-years. It is not surprising that the sun could no longer be seen with the naked eye from that distance, as its size at the scale of this drawing would only be 0.00014 micron, or about the size of an atom! Apart from the sun and Alpha Centauri, 36 stars are shown all of which are known to be at less than 50 light-years distance from the sun. They are all where they would seem to be if we looked down on them on December 21, 1951, at noon. A circle marks the distance of 50 light-years from the sun.

 1 cm. in picture = 10^{19} cm. = about 10 light-years. Scale = $1:10^{19}$



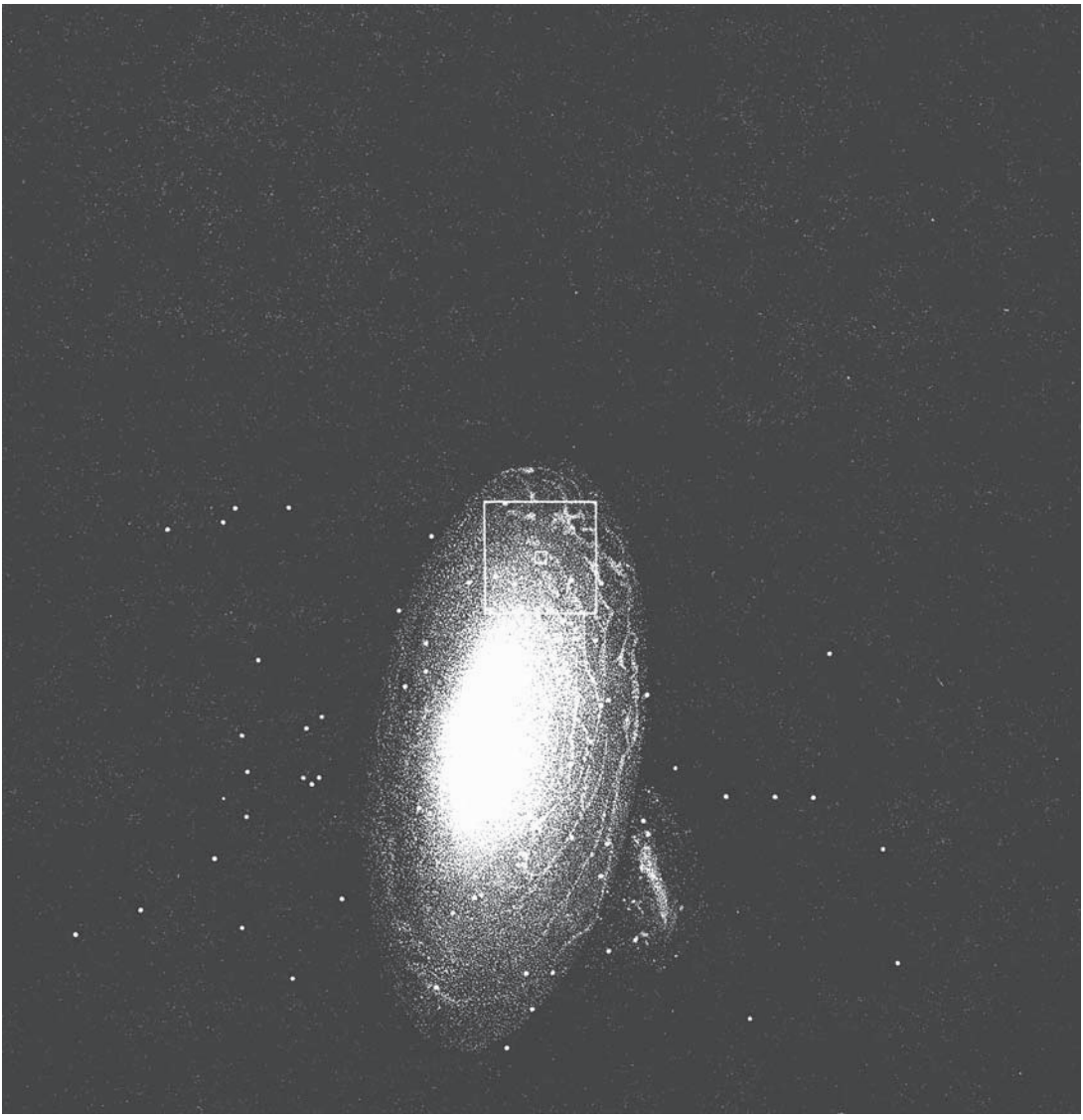
20. This little group of stars is of course the same as the one on # 19, but seen from ten times farther away. We could give for all of them the names by which the astronomers know them, but we mention only 12 of the best known, putting numbers under the corresponding stars in # 19, as there is room for them there. First the sun (1); then Alpha Centauri (2), Beta Hydri (3), Delta Pavloni (4), Castor (5), Pollux (6), Capella (7), Procyon (8), Sirius (9), Arcturus (10), Altair (11) and Vega (12). No attempt has been made to indicate the relative brightness of the stars shown, for it would be very different as seen from our present faraway point of observation from what it appears to be from the earth.

1 cm. in picture = 10^{20} cm. = about 100 light-years. Scale = 1:10^{20}



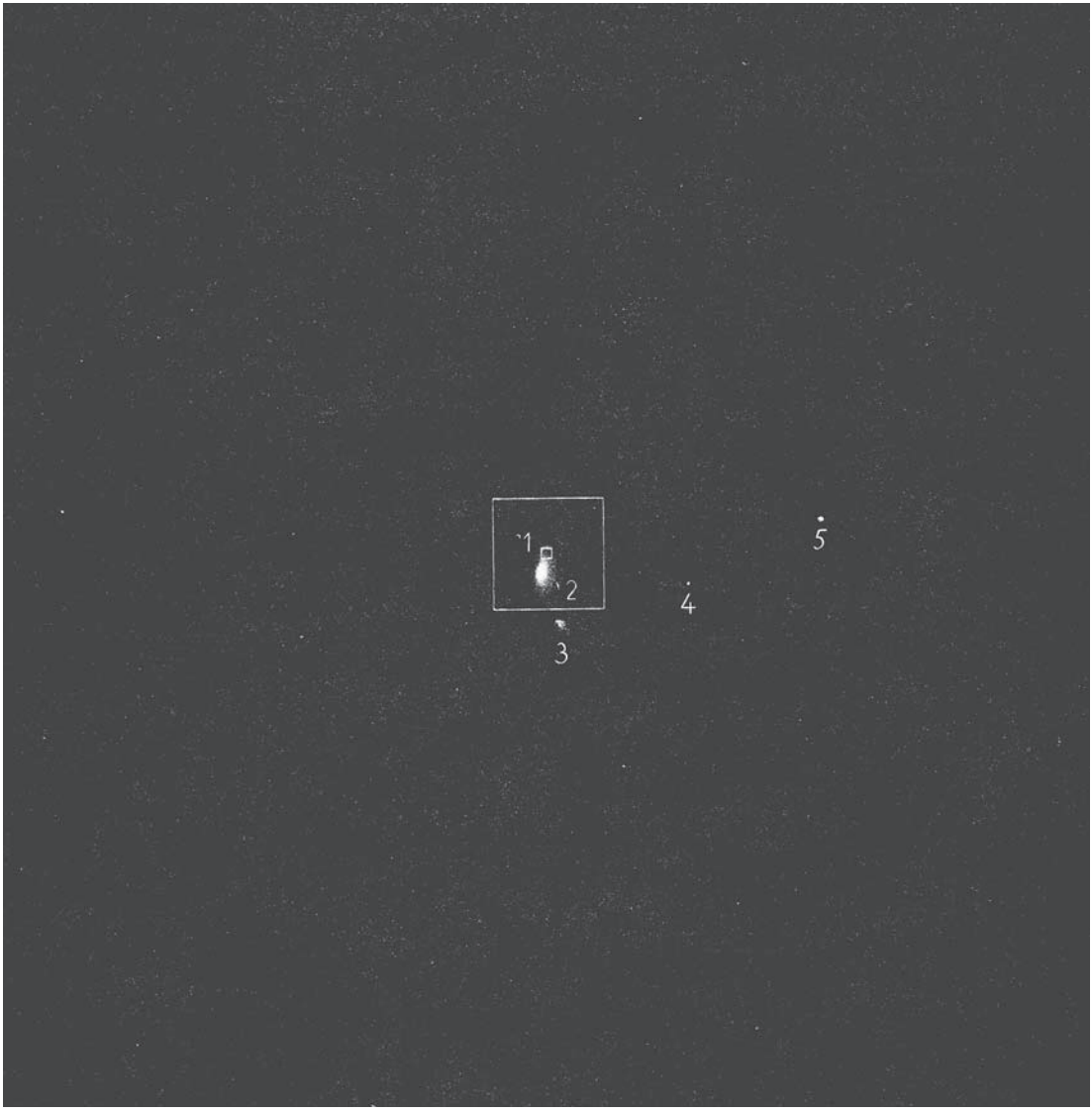
21. We have now jumped so high that we have come out of the complex of stars to which our solar system belongs, and which we can see on a clear starlit night as a faintly lighted strip right across the sky: the Milky Way. It is usually called the galactic system and contains many thousand millions of stars. The sun is only a very unimportant one of these, and it is situated not in the center but in the outskirts, which we see in the above drawing. In the tiny square we notice that the sun and its 37 neighbor stars, which in # 20 filled the small square, have now become but one dot. The other stars are huddled together in irregularly formed groupings, in which we can hardly discover any clear shape or line. We shall need to make another jump to discover the general form of the galaxy and of the formation of stars nearest to the sun.

622 1 cm. in picture = 10^{21} cm. = about 1,000 light-years. Scale = $1:10^{21}$



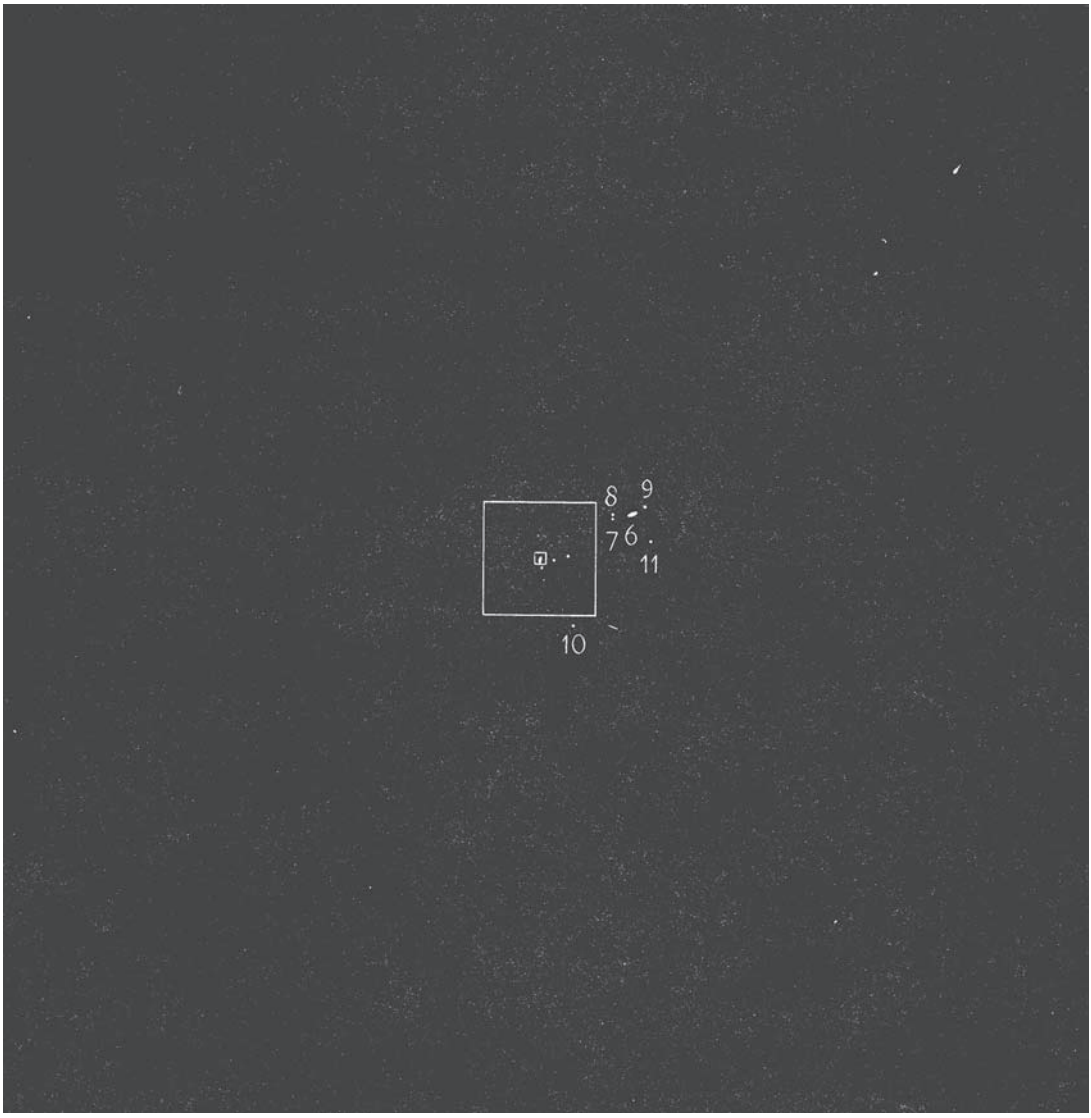
22. Here we have the entire galactic system or galaxy, of which on the previous page we saw only what is now in the small square. Our galaxy is a spiral; it has the shape of a disk from which a number of spiral arms protrude. At the center the disk is much thicker than at the edges, where it is quite thin; the bright shining center bulges out. We see this circular disk partly tilted from the side, so that it looks like an ellipse. In the small square we now recognize in the streak of light a rather irregular spiral arm near which our solar system is situated. Apart from this one, other spiral arms can be seen. Below on the right there is a strange nebulous body. It is the Great Magellanic Cloud, a much smaller galaxy, far behind our own Milky Way. The white spots around the galaxy are the hundred and more globular clusters of stars which surround it.

1 cm. in picture = 10^{22} cm. = about 10,000 light-years. Scale = 1:10^{22}



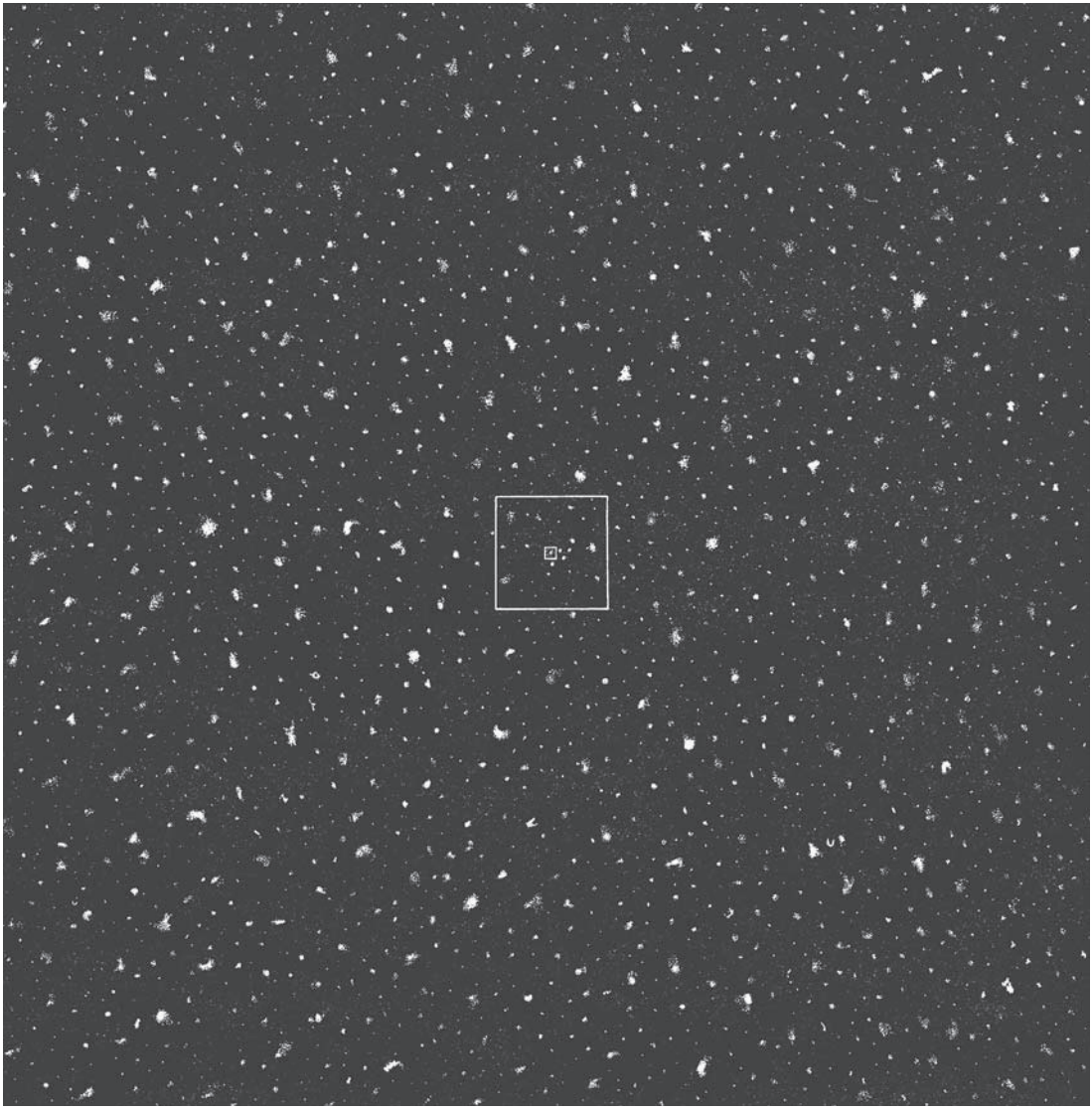
23. However large the object is, the next jump reduces it to one-tenth its size. So here we find our galaxy again, but as an ellipse (1) barely 8 millimeters in length, and inside the small square. The Great Magellanic Cloud (2) is again partly visible, but it lies far behind it. The Small Magellanic Cloud (3) can now be seen, and also two more of the galaxies which are relatively near our Milky Way. They are the Sculptor (4) and the Fornax (5) systems. No other galaxies are drawn, although many further away would be visible, for again we want to concentrate attention on "our own world" and its "nearest neighbors." We must think of our galaxy whirling around, clockwise, only once in 200 million years. And yet this movement gives to our solar system, because it is so close to the edge of the disk, the terrific speed of 216 kilometers per second!

 1 cm. in picture = 10^{23} cm. = about 100,000 light-years. Scale = 1:10^{23}



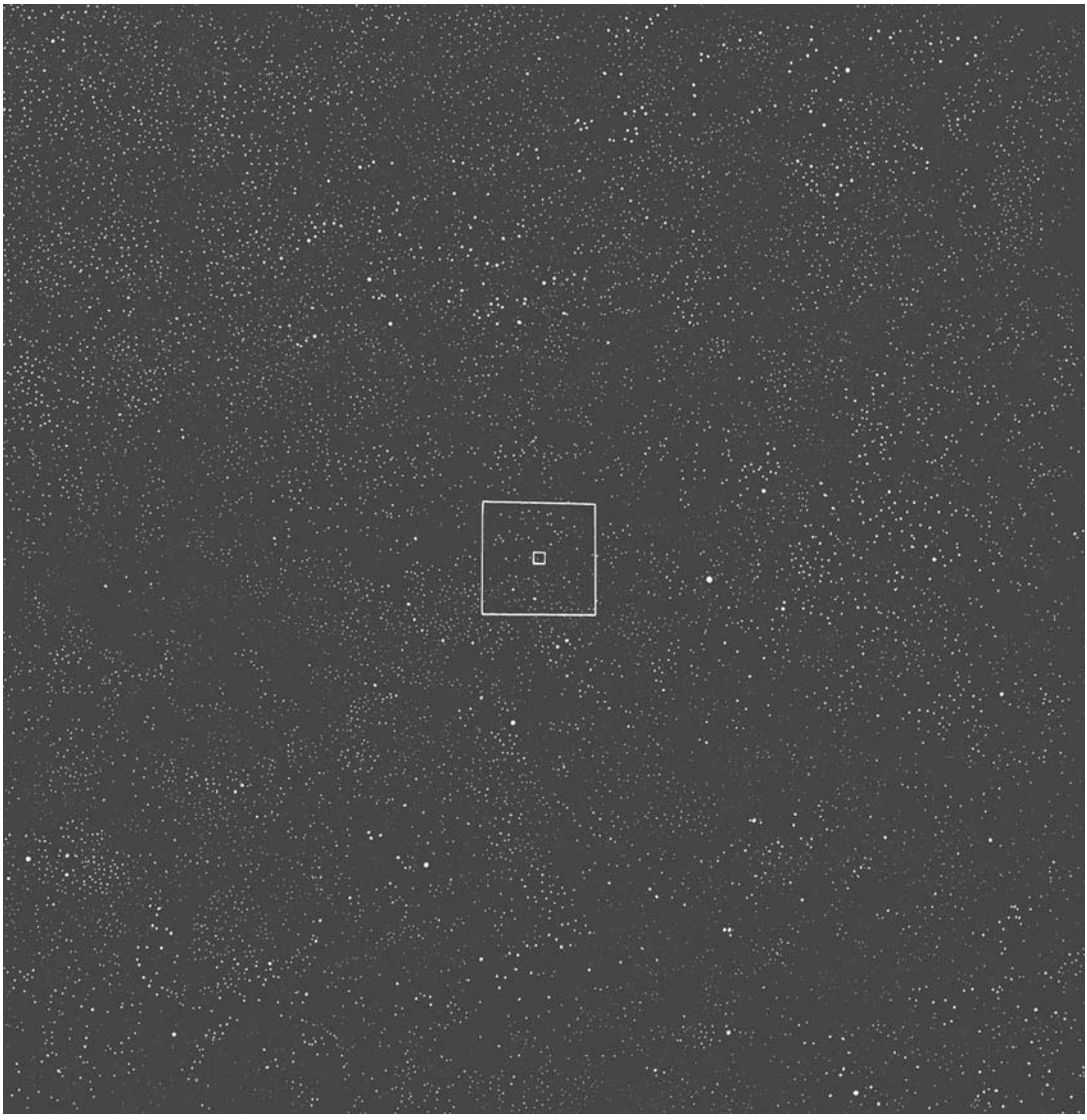
24. In this illustration we show only what astronomers call our local group of galaxies, leaving out all others. There is a general tendency of galaxies to gather in groups, some not numerous, others several hundred or even a thousand strong. How many must be reckoned to belong to our local group it is not possible to say; at these stupendous distances, it is no longer possible to obtain very precise data. It is certain that our local group includes the galaxies numbered 1, 2, and 3 in the previous drawing, and also, in the above illustration, the great spiral in Andromeda called Messier 31 (6) with its companions NGC 147 (7) and NGC 185 (8) and the spiral system Messier 33 in the constellation Triangulum (9). Other galaxies which are usually considered to belong are those numbered 4 and 5 on the previous page and the systems NGC 6822 (10) and IC 1613 (11).

1 cm. in picture = 10^{24} cm. = about 1 million light-years. Scale = 1:10^{24}



25. Now that our whole local group of galaxies has shrunk to the size of less than 2 millimeters in the center of the small square, we have in the above drawing indicated some of the countless other galaxies and clusters of galaxies which are spread out in all directions. Their distribution is known to be fairly uniform. Naturally the above drawing does not try to be an exact representation. In the two previous ones the galaxies shown were actually placed in the positions they would be in, with reference to our galaxy, if we could look at them from our imaginary point of observation above that place on earth and on that moment when we undertook our fantastic flight. Now, however, all we can do is to sketch a large number of galaxies and groups of galaxies of different sizes and to make their average distance the kind of dimension it is known to be.

 1 cm. in picture = 10^{25} cm = about 10 million light-years. Scale = $1:10^{25}$



26. In this last picture of the series at reduced scales, we naturally find that all galaxies and groups of galaxies, even the largest of them, are reduced to dots of various sizes. It goes without saying that the placing of them has been of necessity quite arbitrary. The object is merely to give a very faint idea of the inconceivably large number of galaxies in the midst of which our Milky Way is placed. The number of galaxies which are visible with our present telescopes is of the nature of a thousand million. The farthest of these would be at a distance from the earth of 2,000 million light-years, that is, something like the length of a diagonal of the large square above. What is drawn here is therefore certainly less than what exists. For the galaxies would be much nearer to each other than the picture shows, and they would continue far beyond its confines. . . .

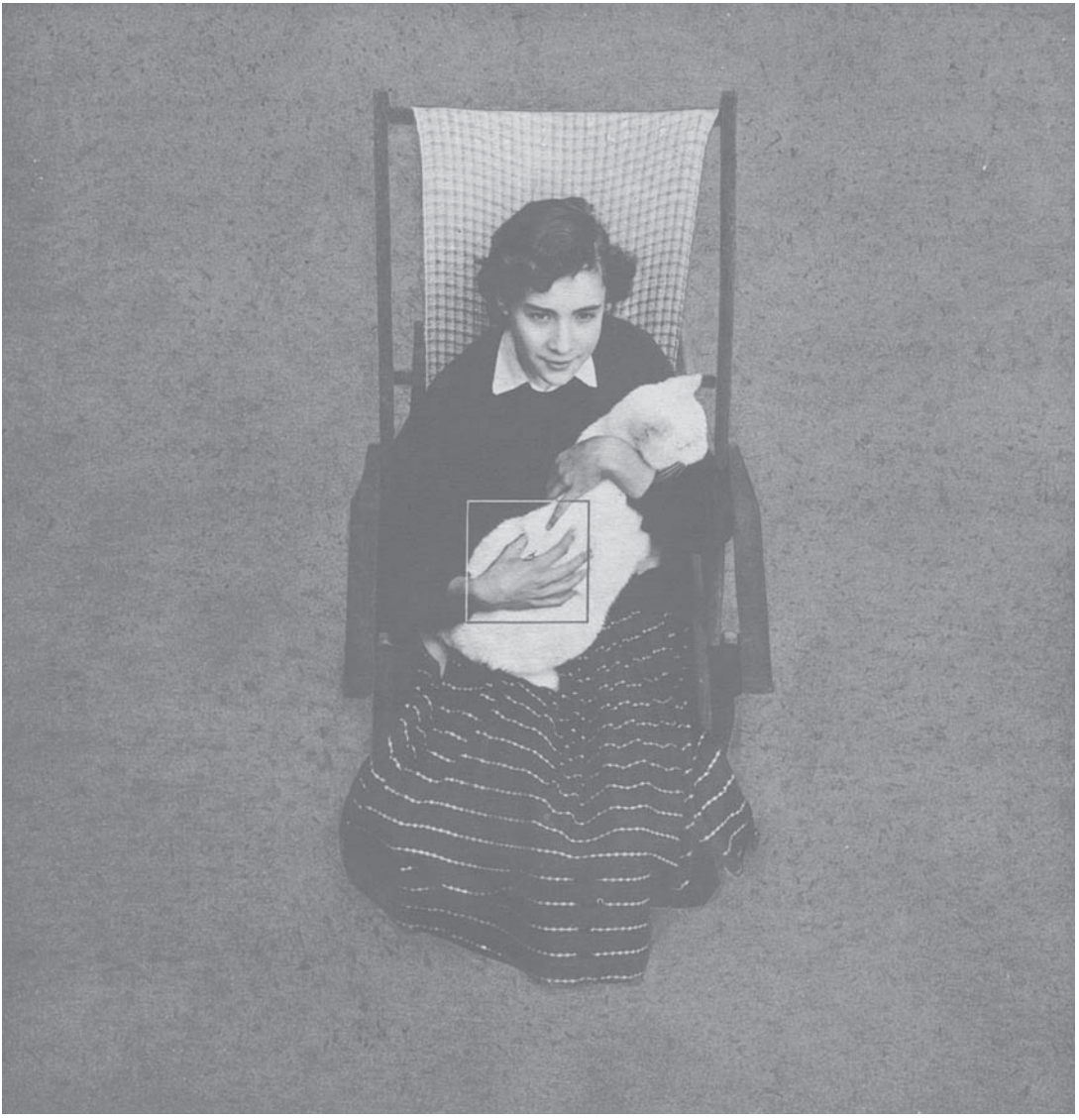
1 cm. in picture = 10^{26} cm. = about 100 million light-years. Scale = 1:10^{26}

On this page there might have been put a drawing 27 to continue the series, representing what would be seen if we could take up a point of observation 10 times farther away and thus reduce the lengths of # 26 to one-tenth. But we have not attempted it for more reasons than one. To begin with, it would be quite impossible to draw the galaxies and clusters of galaxies small enough and near enough to each other. But also, the limits of what is supposed to be the curved space of our universe would be within that 27th square, and there would be no possibility at all of portraying or even visualizing the "curvature of space," which would be the determining factor there.

How far the countless millions of universes would continue in this picture 27, if we attempted to draw it, is not known. All these worlds seem to be rushing away from a center somewhere, and therefore from each other, and their speeds seem to increase the farther they have proceeded on their ways.

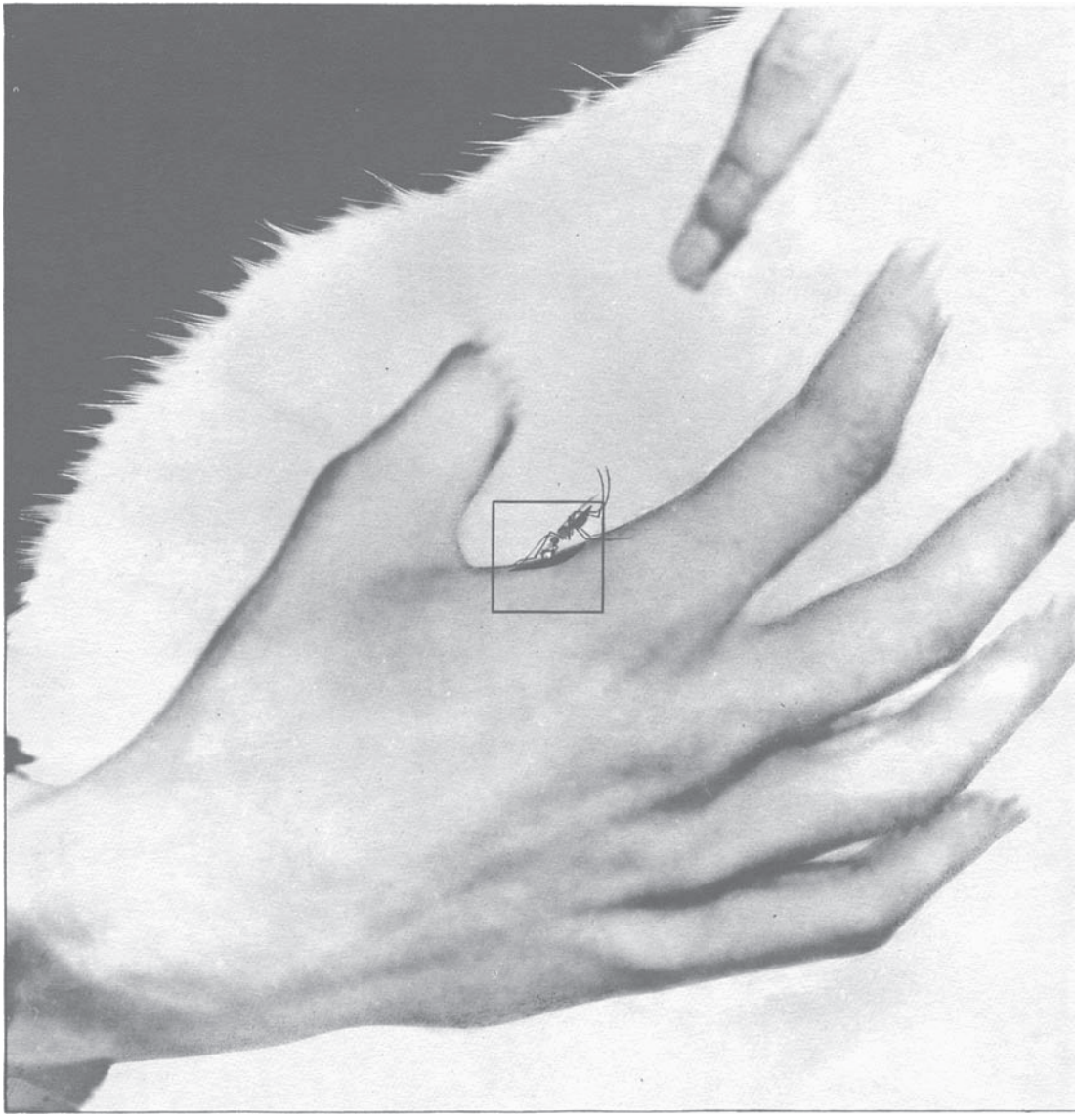
As all this is still so vague and uncertain, we end our imaginary journey into these infinite expanses of space and turn back, to go through all the stages we passed on our flight upward. We would advise you, reader, to concentrate your thought on this return journey. Try to picture how what you see in front of you would extend and extend as you came down . . . , how the small central square would grow, until it was the size of the large square on the previous page; how the small square on that page would in its turn extend as you dropped down and down. . . . It is clear that on this return journey the height from which we view the panorama each time *decreases* tenfold from station to station. When we have returned to the original picture of the little girl in her chair, which we reproduce again on the right, the height of our point of observation has once more become only 5 meters, and when we go on in the same way to the next picture, it will be one tenth of this, that is, only 50 centimeters.

We shall find, when we continue our exploration in the same way, that on this leg of our journey we can go through only half the number of stages that we passed on the first: we shall reach the unknown already after 13 of them, whereas in the journey up we counted just twice that number, 26. But who will say what wonders are hidden beyond the limits of man's investigations of today?



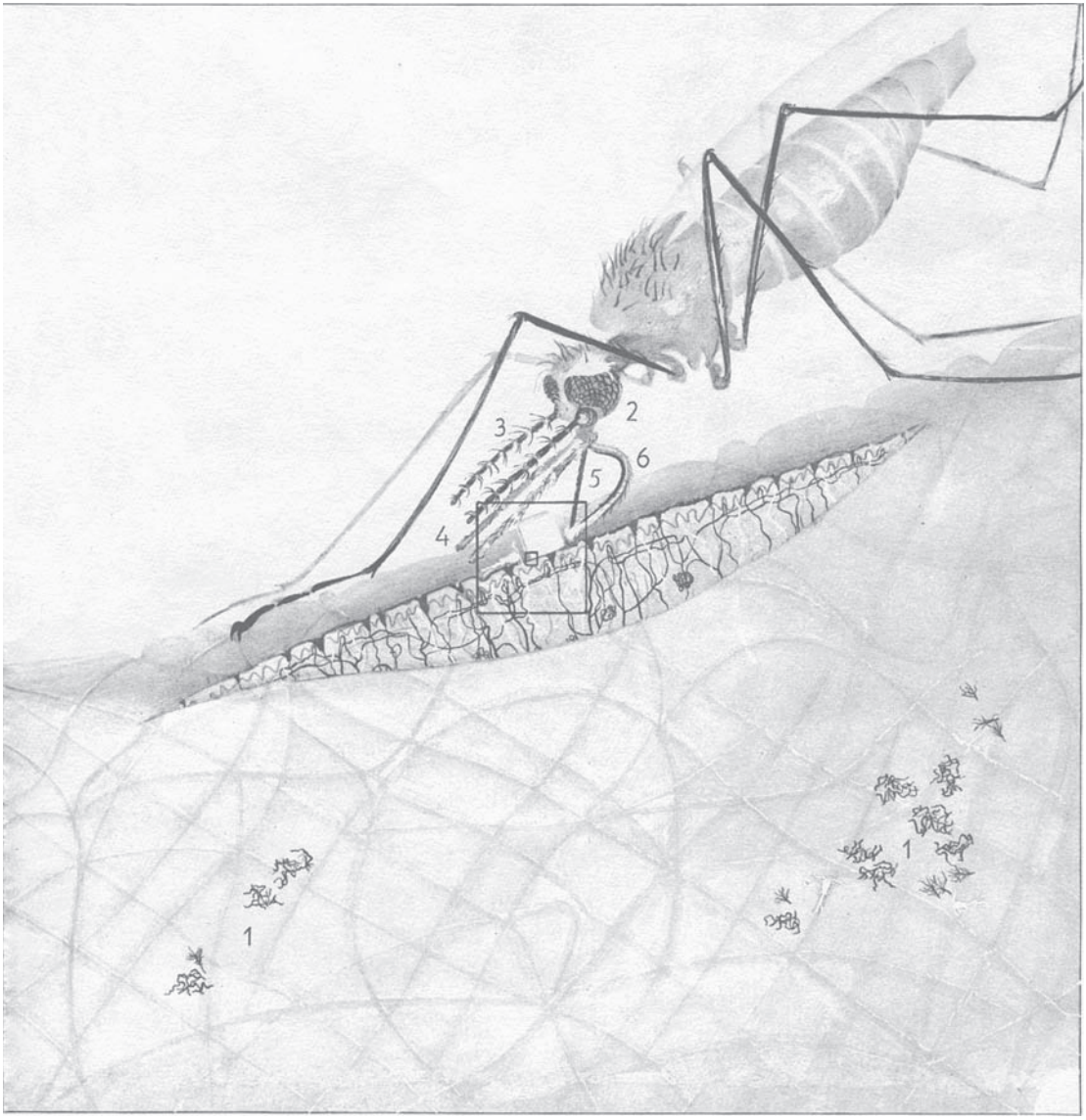
1. We said before that the reason why we took as the initial picture this little girl with her cat was that we wanted to find out in how many of the total number of domains of scale living creatures are known to occur. We have found them so far only in pictures 1, 2, and 3. Now we shall continue to look for representatives of the living world in all succeeding scales. Rather strange coincidences will occur in the following pictures: unexpected things coming together on the hand of this child! We feel justified, however, in bringing them together, as this helps us to compare their sizes. In this and all the remaining pictures, of course, the small square in the center encloses what is to be found in the *next* picture, rather than in the preceding one as in the first series; and the tiny square (beginning with #0) shows the area of the second following picture.

1 cm. in picture = 10 cm. in actuality. Scale = 1:10



0. The living creature portrayed in this drawing is a mosquito, to be exact an anopheles, or malaria mosquito. We can see this from the way it sticks up its hind legs. This is the first strange coincidence, for from the first series of pictures we know that it was in December that the scene occurred, and this insect is rather rare in Holland in winter. We notice that there is a little cut in the girl's finger. Right in the center of the tiny square in the middle is a minute white spot. It is a grain of salt which stuck to the girl's hand, having been left there, we may assume, after she ate her lunch. As it is not exactly the thing we would most expect to find there, it will be evident that there is a special reason for choosing it. That reason will appear later.

630 1 cm. in picture = 1 cm. in actuality. Scale: "life size" = 1:1 = $1:10^0$

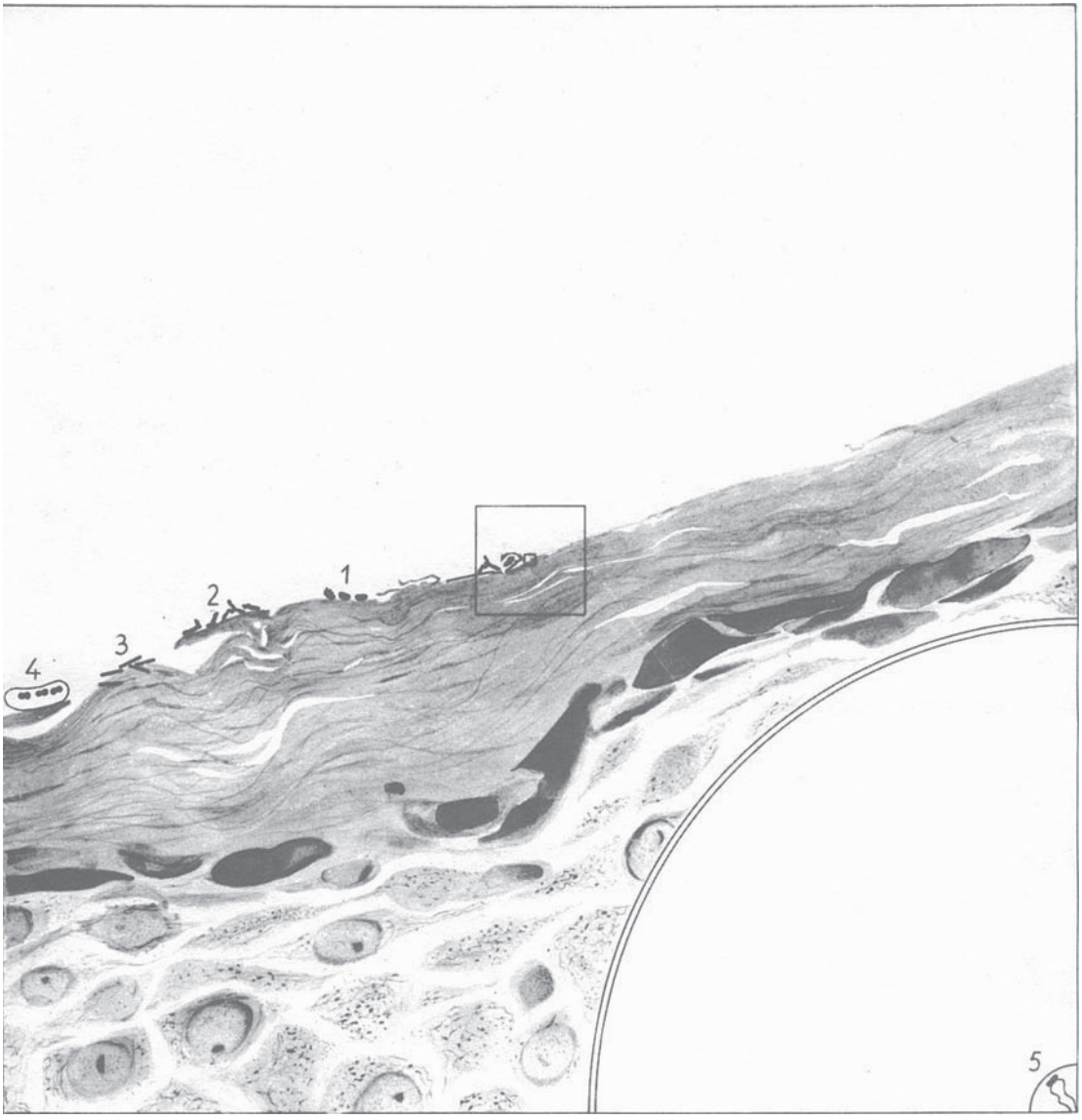


—1. We have now come down to 5 centimeters above the girl's hand, and with a magnifying glass we can distinguish the grooves in its skin. On it we notice some small organisms (1): water mites and bacteria. They got there, probably, when the girl put her hand in the water of a ditch nearby. In the right-hand bottom corner inside the quarter circle there is a bacterium, which however is so small that we can't see it. In the cut we see a section of the epidermis. In a real cut in a finger not all the detail shown here could be distinguished, but it is interesting to include it. The malaria mosquito is clearly visible: its large compound eyes (2), feelers (3), and jaws (4); also its proboscis (5), with which it is busy stinging the poor child. We see the flexible sheath (6) bent in a curve as it touches the skin.

1 cm. in picture = 0.1 cm. = 10^{-1} cm. = 1 mm. Scale = 10:1 (Enlarged 10 times)

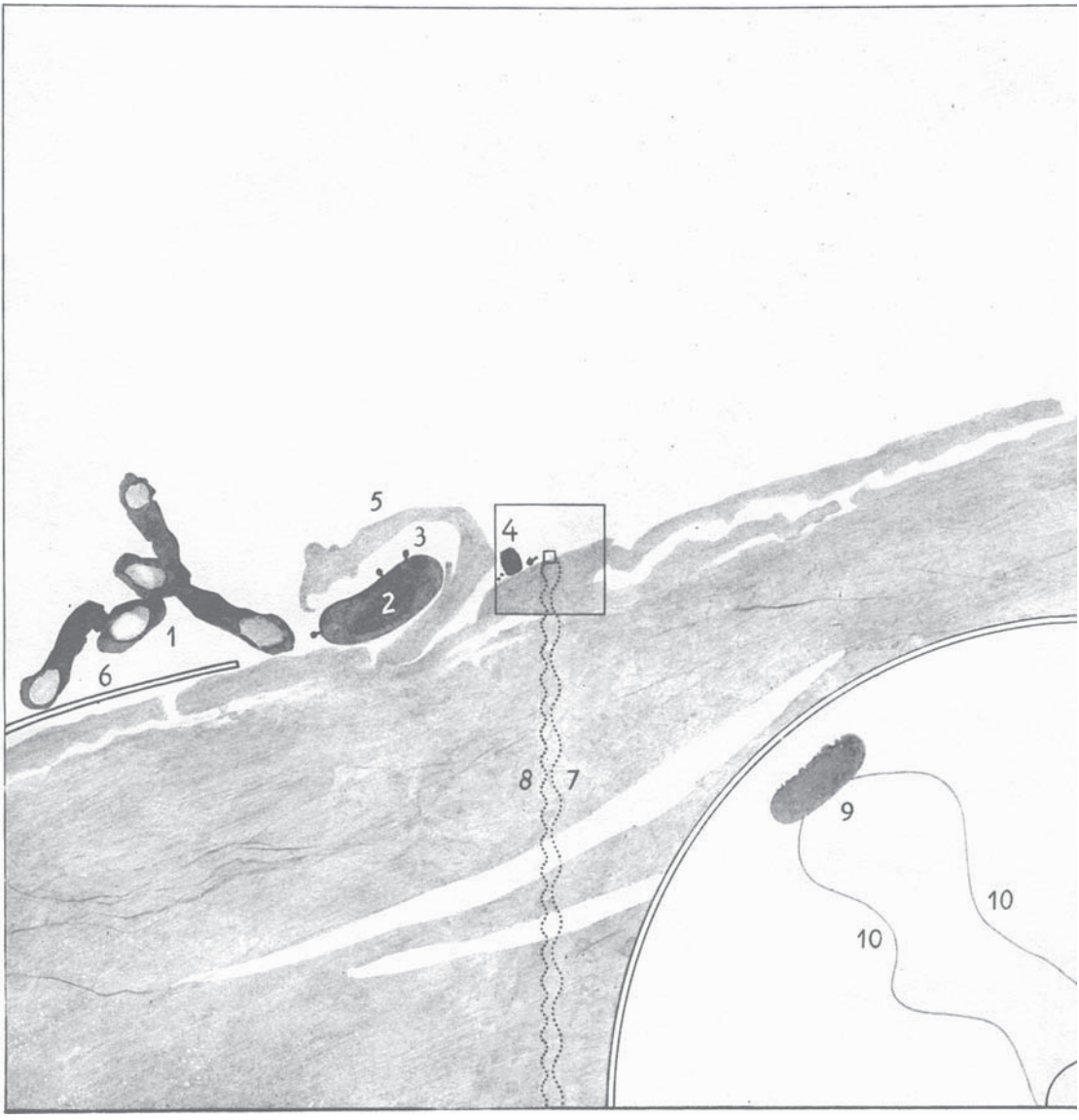
–2. To see this picture, taken from a height of only 5 millimeters, we should need a microscope. Again there is a member of the animal kingdom visible: one of the water mites we saw on the previous drawing, a cyclops (1). This is again not the most likely thing to happen, that it would lie thus comfortably with its feelers over the edge of the cut in the girl's finger, but it could happen! In the section of the skin we notice the horny keratin layer (2) on top. Under it is the Malpighian layer (3) with its numerous cells and the orifice of a sweat duct (4). Under that lies the corium (5) with its nerve papillae (6), small blood vessels (7), and fat cells (8). We see how the mosquito's proboscis (9) sticks into the skin. In the smaller of the two quarter circles in the righthand bottom corner we can now just see the bacterium (10).

 1 cm. in picture = 0.01 cm. = 10^{-2} cm. Scale = 100:1 = 10^{2}



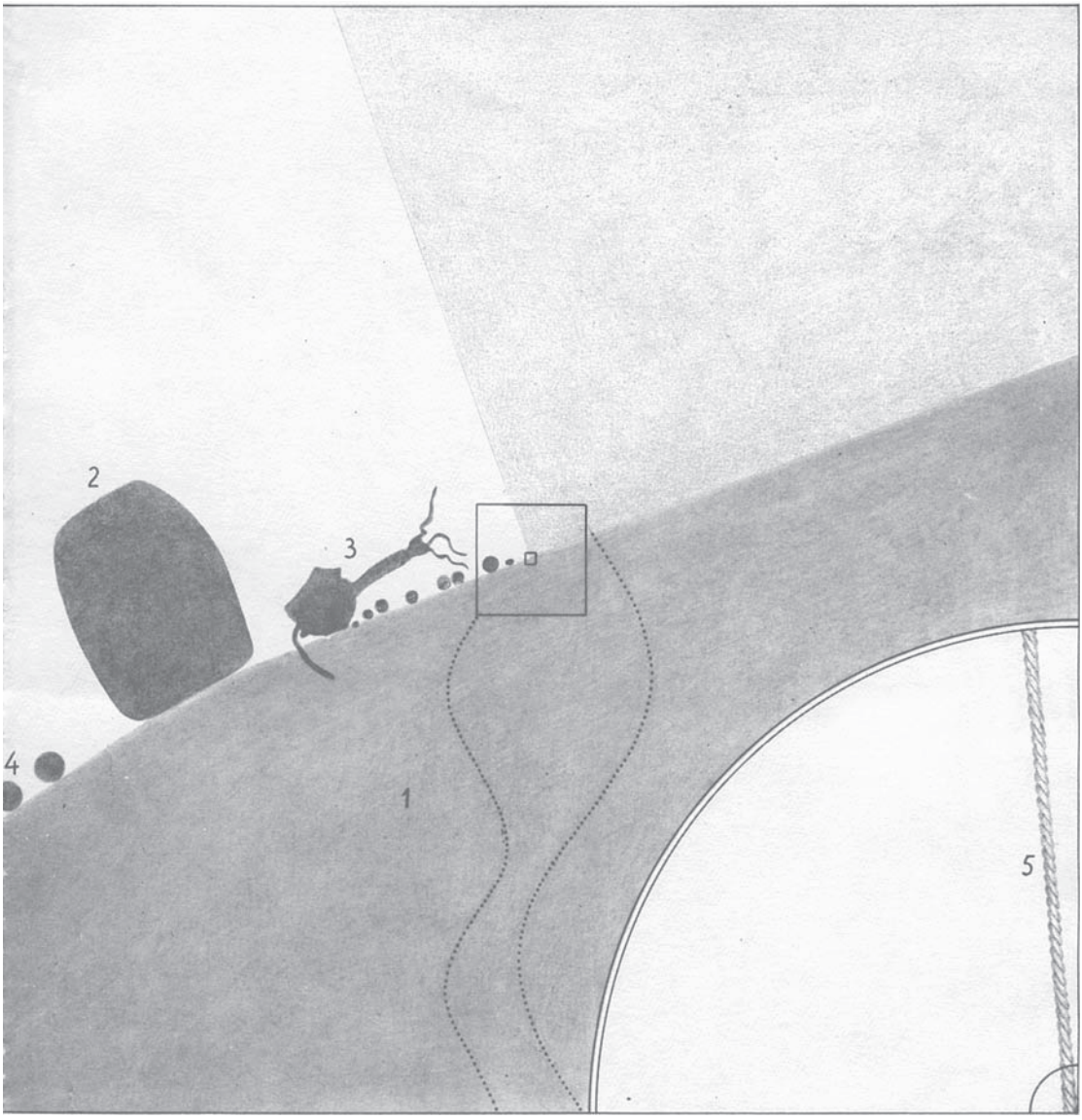
–3. The height from where we are supposed to be looking has now been reduced to 0.5 millimeters or 500 microns. This is the last domain of scale in which an impression of color can be gotten by the human eye. The living creatures here are bacteria. We see some on the girl's hand: colon bacilli (1) and diphtheria bacteria (2), tubercle bacilli (3), and pneumonia bacteria (4). The bacterium in the inset in the lower right corner can now be recognized as a typhoid bacillus (5), such as humans may "carry" unknowingly for a long time. Its flagella (by which it moves) are clearly shown. We shall magnify it separately in an inset at the same place in the following pictures. This means that what is shown in the small quarter circle will each time be magnified 10 times, so that it will fit into the large quarter circle in the next picture.

1 cm. in picture = 10^{-3} cm. Scale = 1,000:1 = 10^{3}



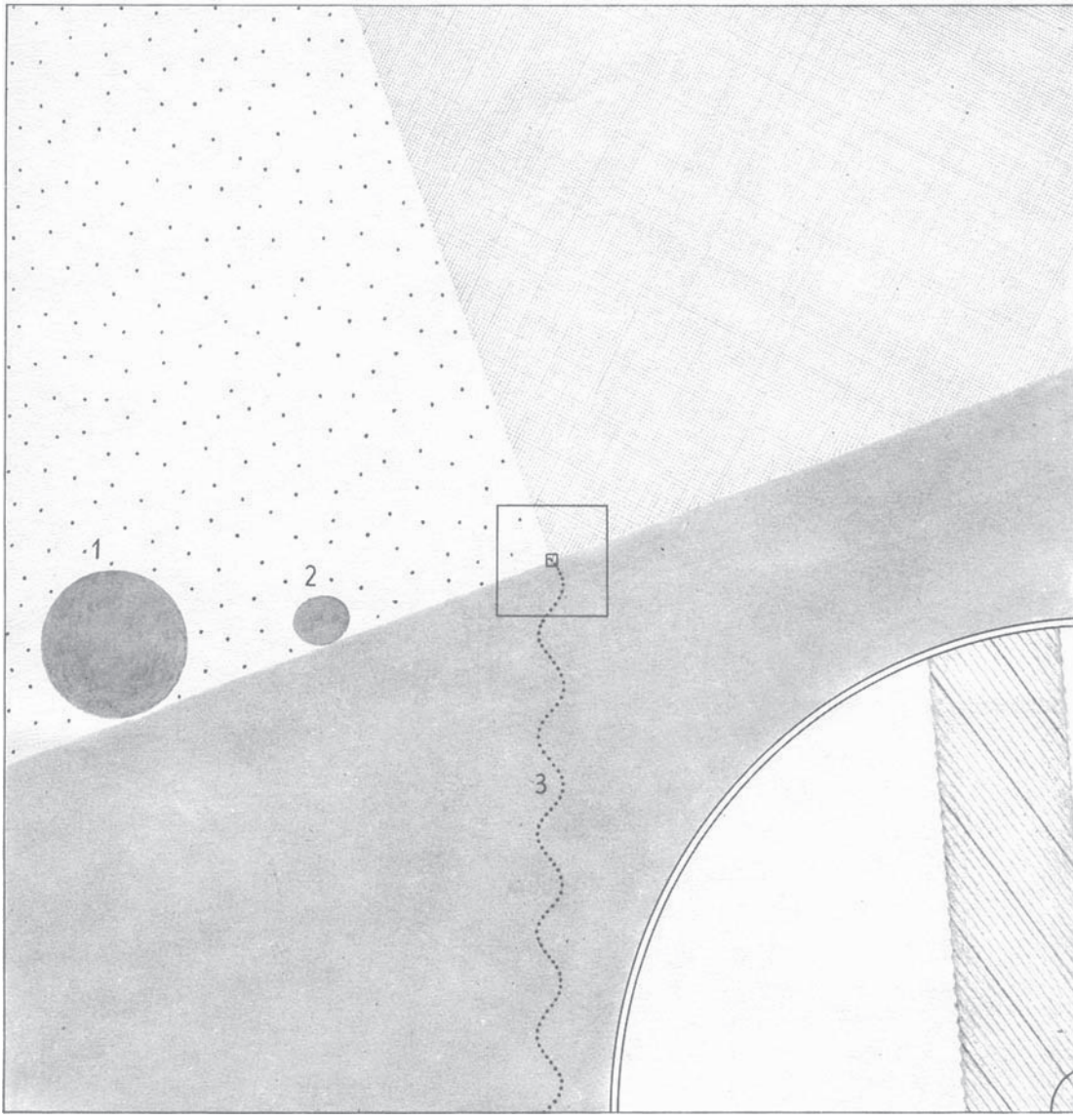
—4. The electron microscope helps us to get an idea of the shapes of some of the living creatures. We see a diphtheria bacillus (1) and a colon bacillus (2), which itself is being attacked by bacteriophages (3), as well as a smallpox virus (4). We see how keratin of the skin is curling up (5) before falling off. Some gold leaf (6) left on the girl's hand, possibly from book binding, demonstrates its extreme thinness; in fact this gold leaf is so thin that you could use it to cut a bacterium, such as is depicted near it, in two, if only you could hit it. The visible rays from the sun are symbolically represented by two sinusoids (waves) with the wave lengths of red (7) and violet (8) light. The inset shows the typhoid bacillus (9) with its flagella (10). The salt crystal's height on this scale would be 5 meters.

 1 cm. in picture = 10^{-4} cm. = 1 micron Scale = 10,000:1 = 10^4



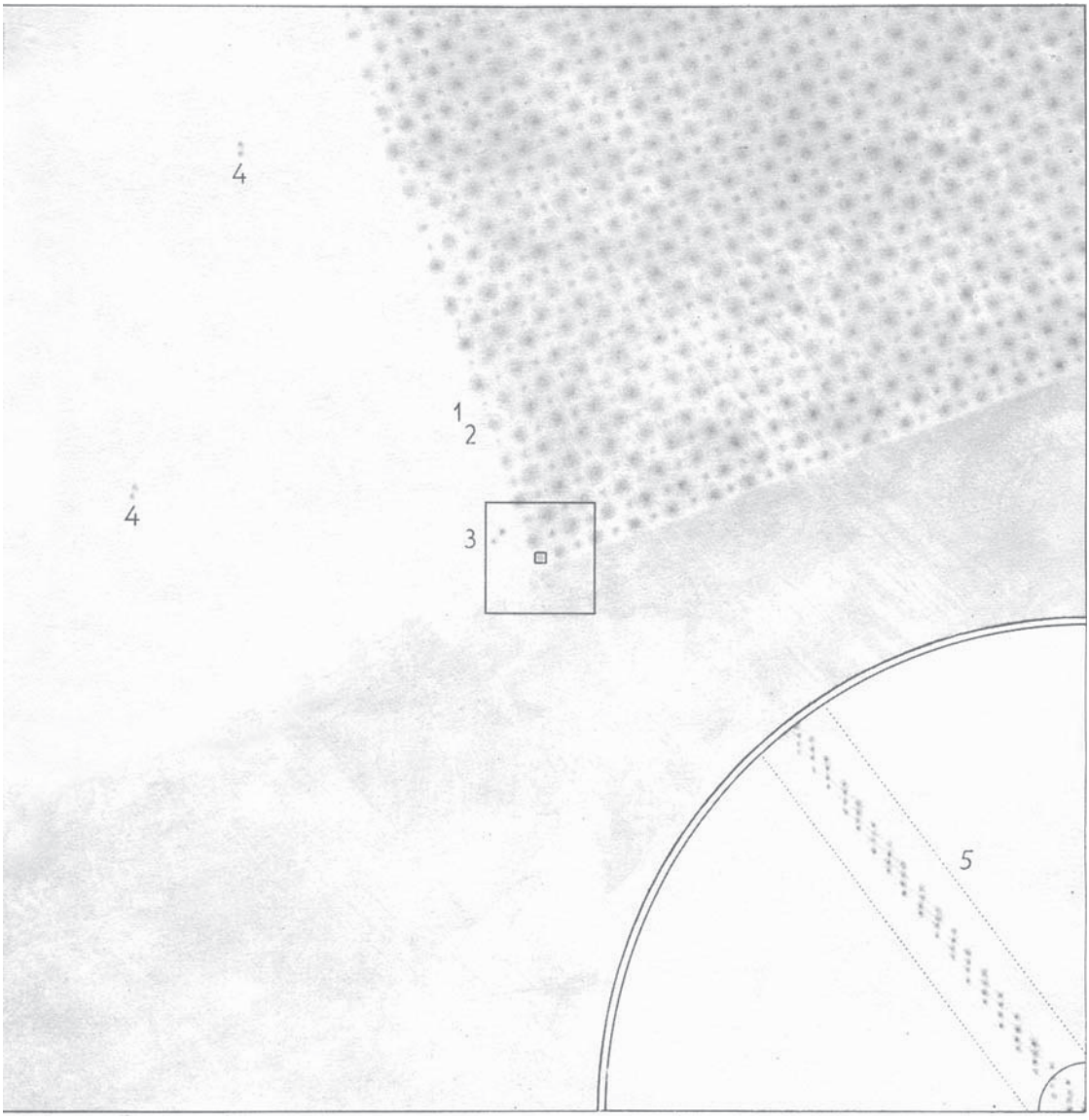
—5. On the upper layer of keratin (1) a number of viruses are crowded together, as they often actually are on the skin. One of the larger ones is smallpox (2). A bacteriophage (3) of medium size as we saw in the previous drawing is shown here very distinctly from an electron-microscopic observation—just to give its size and shape, for it would not be likely to lie here by itself! Many molecules could be shown on this scale. Some starch molecules (4) are drawn. The inset shows the helical structure of the flagellum (5) as seen in the electron microscope. The flagellum clearly is composed of three strands wound into what looks like a cord. Magnification is here 100,000 times, about the maximum that can be reached with the electron microscope. The height of the salt crystal on this scale would be 50 meters.

1 cm. in picture = 10^{-5} cm. = 0.1 micron Scale = 100,000:1 = 10^{5}



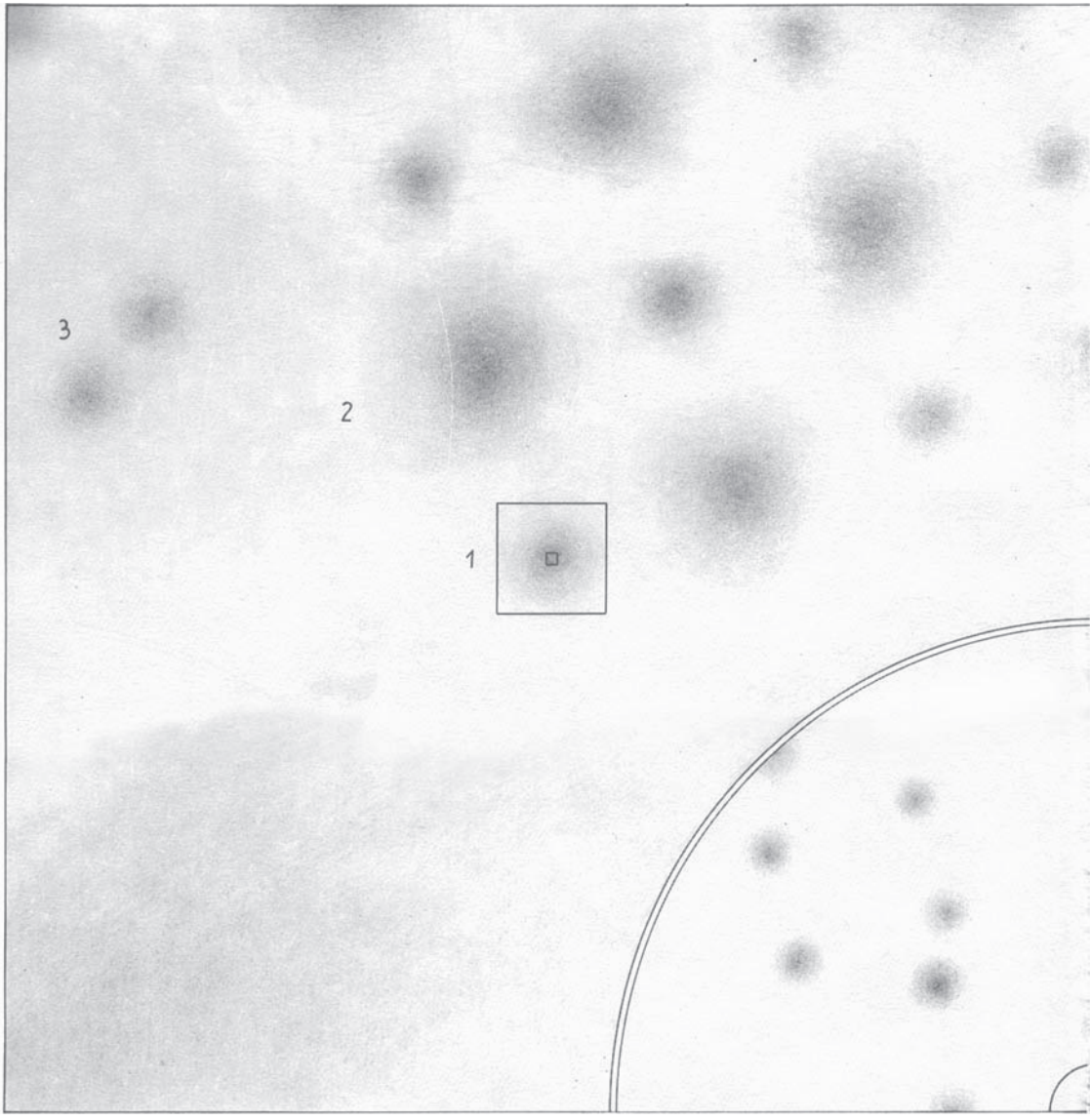
–6. This scale has a magnification of a million. The electron microscope therefore can no longer give us clear images, for at most it can magnify 100,000 times. A more schematic image is therefore unavoidable, that is, a diagram rather than a photographic enlargement. Yet we know that there would still be living creatures. We show the infantile paralysis virus (1), already visible in –5, and one of hoof and mouth disease (2). The latter is about the smallest now known. Apart from the viruses shown there exist several with shapes sharply different from these wholly or nearly spherical forms. The sinusoid (3) shown is of an ultraviolet ray. The dots in the upper left quadrant indicate molecules of the air. The inset has the flagellum composed of three strands as already shown in –5. The height of the salt crystal on this scale would be 500 meters.

 1 cm. in picture = 10^{-6} cm. = 0.01 micron Scale = 1,000,000:1 = 10^{6}



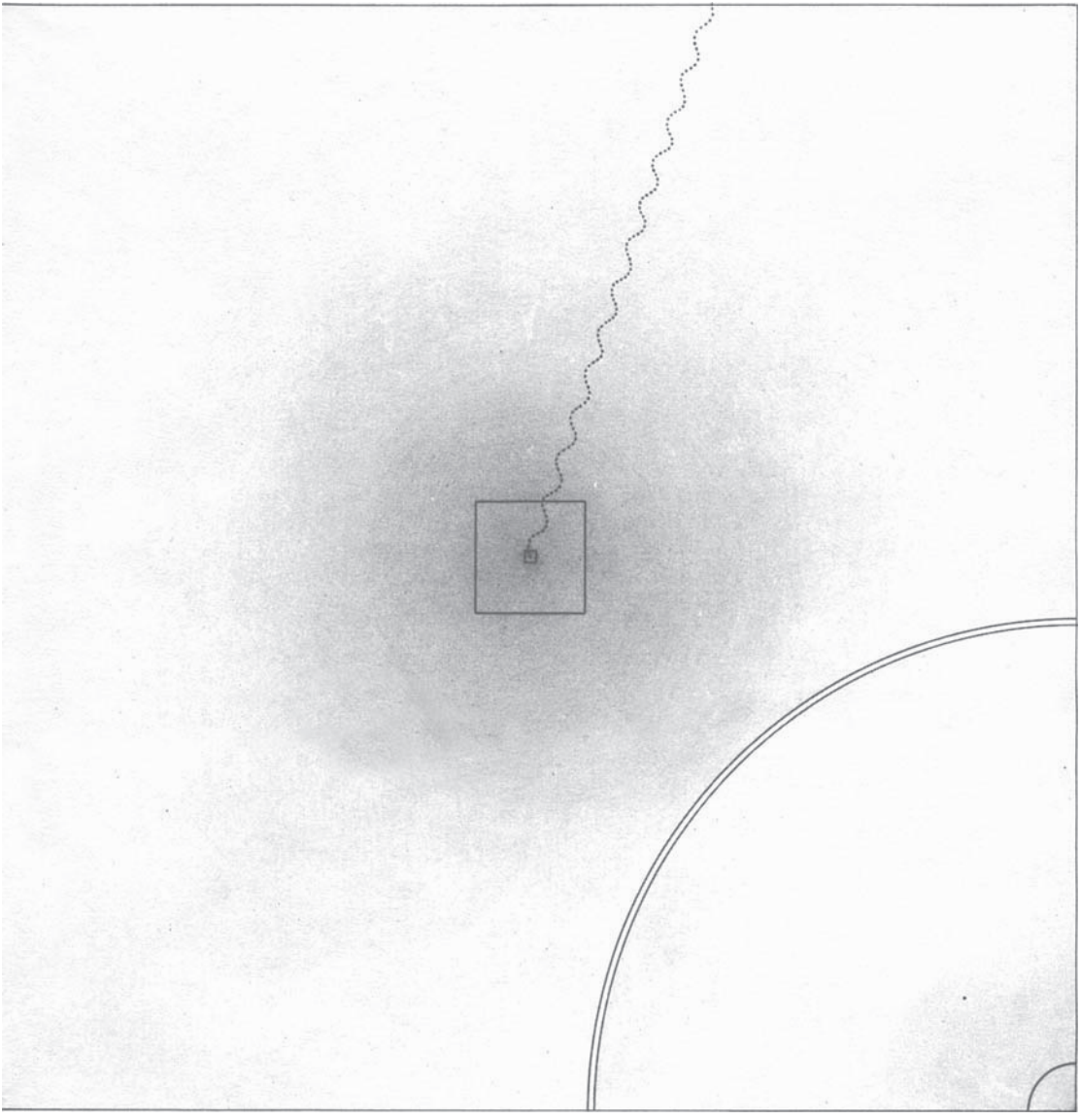
—7. Magnification here is ten million times, and the structure of the salt crystal can be shown. Distances between the successive layers of sodium (1) and chlorine (2) atoms in the lattice of the crystal are known, though its height would be 5 kilometers on this scale. To the left oxygen (3) and nitrogen (4) molecules are moving about as air at average distances indicated. Nitrogen molecules are more than 3 times as numerous as oxygen. In the inset a schematic sketch is given of just one strand of the flagellum, and even so only the hydrogen atoms on the near side are indicated. Otherwise the representation would become unintelligible, as the other atoms behind them are not placed in regular rows as they are in the salt crystal. Total width of the protein molecule including the amino acids which are bound to the strand is indicated (5).

1 cm. in picture = 10^{-7} cm. = 0.001 micron Scale = 10,000,000:1 = 10^{7}



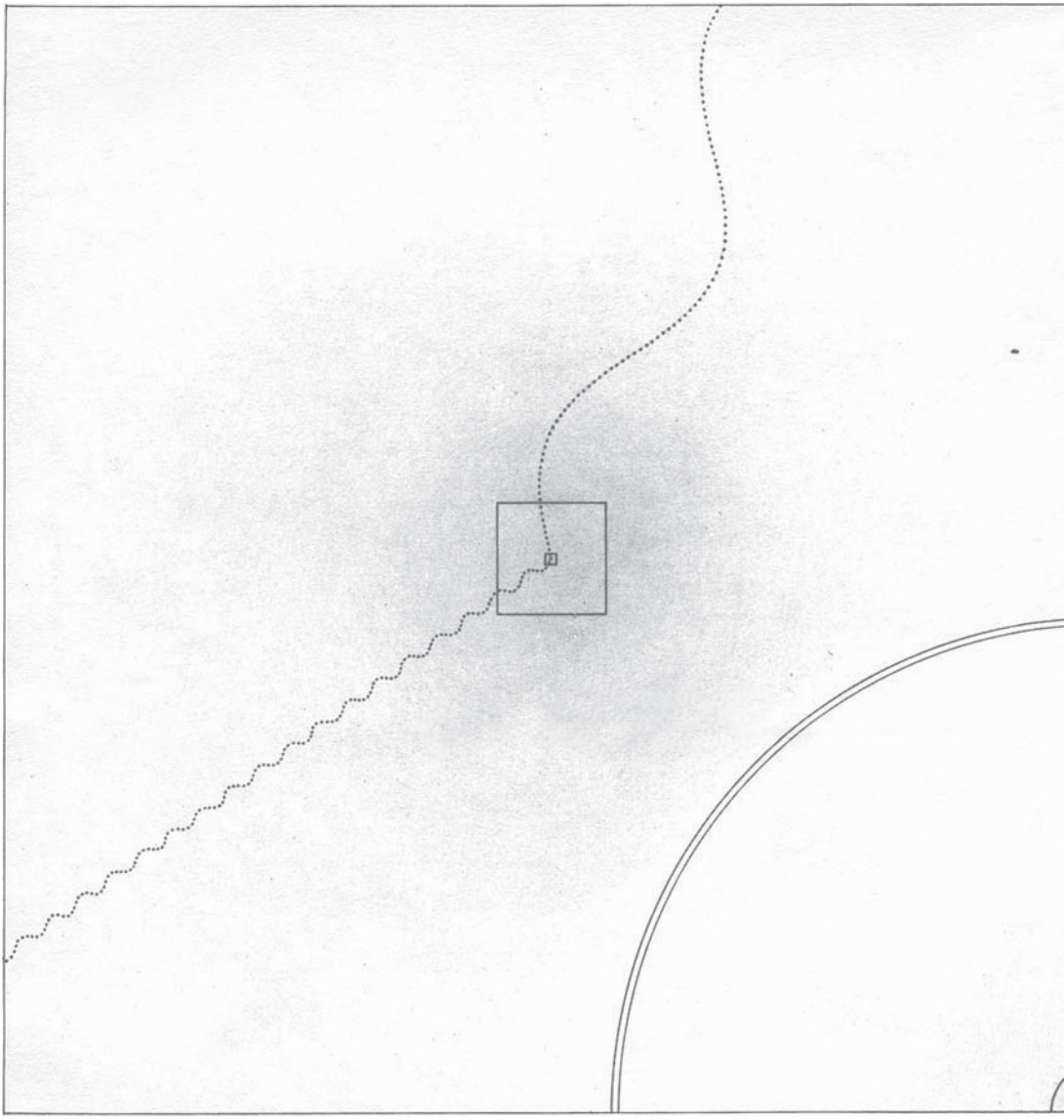
—8. The sodium (1) and chlorine (2) atoms of the salt crystal are clearly indicated. The shading here and in later pictures has only a symbolic value: a darker gray only means that the probability is greater that an electron will be found there than in a place that is more lightly shaded. As to the oxygen molecules (3) moving in the air, their average speed at a temperature of 10° Centigrade (= 50° Fahrenheit) would be 470 meters per second (= 1,000 miles per hour) in reality. *In the image* that speed would be 10^8 times greater, that is, more than 100 times the speed of light! In the inset the helical structure of the flagellum which could be recognized in –7 can no longer be seen, as again only hydrogen atoms are indicated, and all other atoms behind them (oxygen, carbon, and nitrogen) are left out. In the corner is one-quarter of a hydrogen atom.

 1 cm. in picture = 10^{-8} cm. = 1A (angstrom unit) Scale = 100,000,000:1 = 10^8



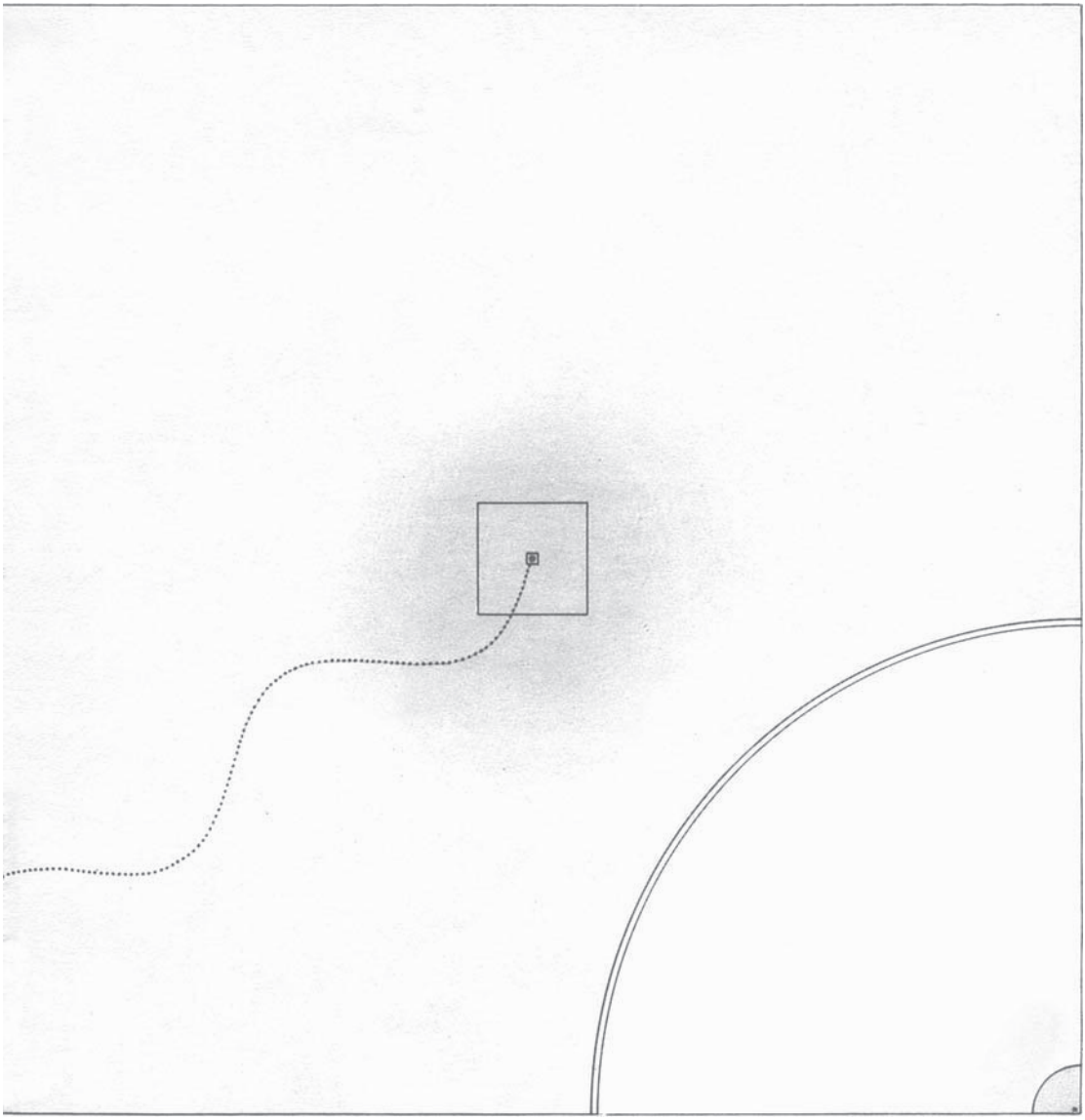
–9. Again in this picture darkness of tone denotes the probability that an electron will be found in a certain place. As the sodium atom is here drawn at a 10 times larger scale, the area depicted in it is only 1/100th that of #–8. The probability that an electron will be found there will be that much smaller and the shading in consequence is made lighter. The same holds for the hydrogen atom in the inset. The nucleus of the sodium atom is in the center. Its size on this scale is only 7 microns. Twelve electrons are whirling around this nucleus at speeds of about 1,000 kilometers per second in reality, or a thousand million times more on this imagined magnified image. The sinusoid drawn shows the wave length of the finest X rays on this scale. In the inset a quarter of a hydrogen atom is visible.

1 cm. in picture = 10^{-9} cm. = 0.1 A Scale = 1,000,000,000:1 = 10^{9}

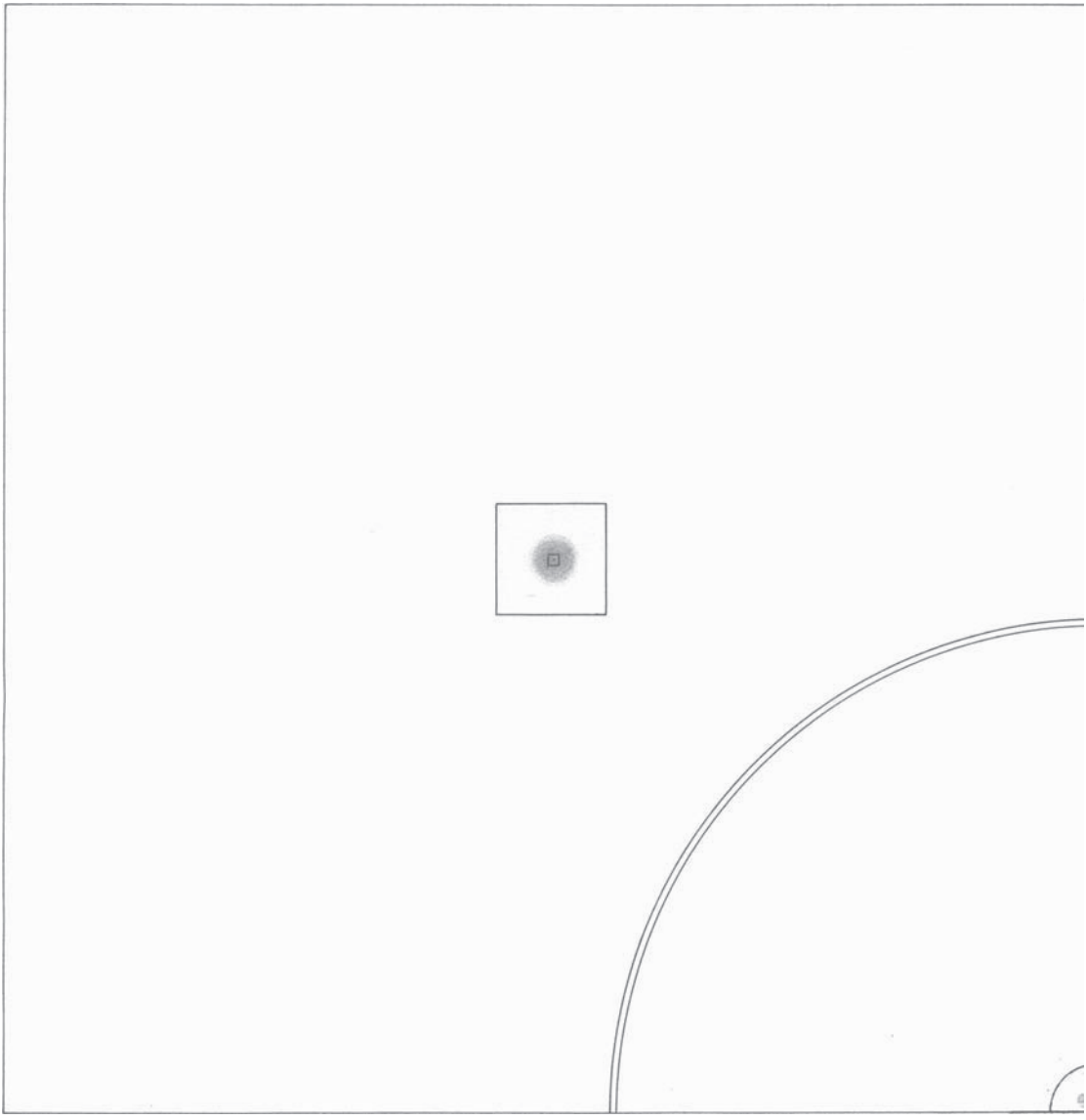


—10. It will be noticed that the tone that symbolizes the probable presence of an electron is again a lighter gray than that of the previous drawing, because the actual area depicted in the square is here again reduced to 1/100th. The sinusoid coming from the left shows the wave length of a typical gamma ray (wave length here 5 millimeters) such as is emitted from a radium-dial watch. The girl of picture 1 would on this scale have a length of about 15 million kilometers! The salt crystal would now be more than 3,000 kilometers high. The sodium nucleus would be 0.0333 millimeter, the hydrogen nucleus (a proton) 0.01 millimeter.

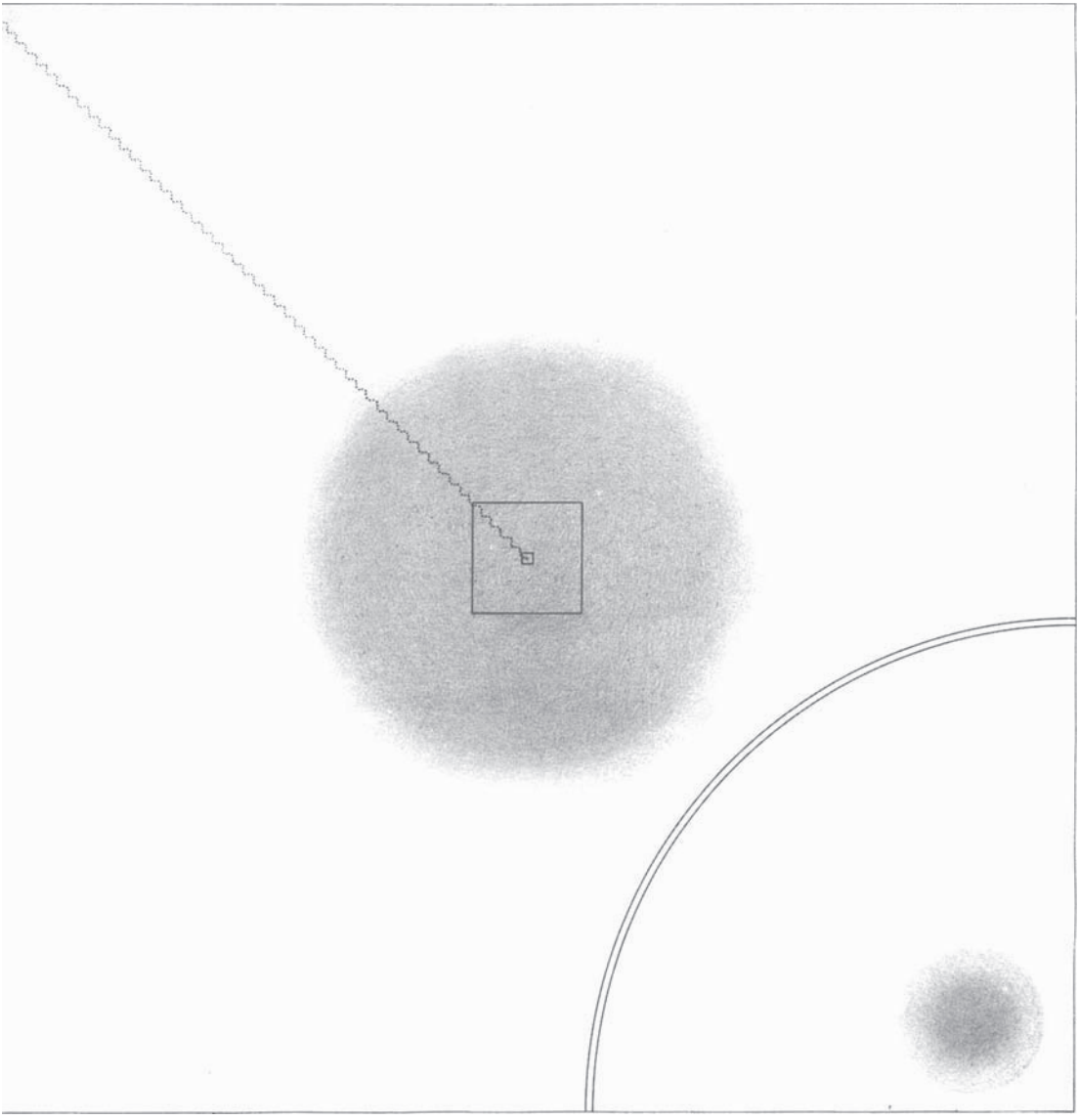
 1 cm. in picture = 10^{-10} cm. = 0.01 A Scale = 10,000,000,000:1 = 10^{10}



−11. This is already the third jump we have made since we saw the atom from the outside in −8 and we are still in the seemingly endless emptiness of the inside. The chance of our meeting an electron has again become a hundred times smaller. The color in consequence is again a lighter gray. The wave length of the gamma ray has increased to 5 centimeters. The grain of salt which was only half a millimeter when we saw it in actual size on the girl's hand has now become an unthinkably huge cube with sides of more than 50,000 kilometers. The nucleus of the sodium atom is 0.7 millimeters and of hydrogen 0.2 millimeters.



–12. Now the nucleus of sodium has become of appreciable size, and also in the inset the nucleus of the hydrogen atom (a proton) is clearly "visible." As was pointed out in –4, there is no question of the objects themselves being "visible," as we are dealing here with dimensions which are a hundred million times smaller than the wave lengths of light. Light functioned only up to that drawing. So did color, which could play an appreciable role in only 14 domains of scale (#10 to –3); 11 to 26 could give no more than white spots on a black background.



–13. In this final picture we see the nucleus of the sodium atom. We cannot even guess how the 12 protons and 11 neutrons in it are placed. This nucleus is not painted an even gray; its edge is of a somewhat lighter tone which gradually merges into the darker hue in the center. The meaning of this difference of tone is again different from that in drawings –7 to –11. Here a darker gray denotes greater density of electric charge. As a new element there is a gamma ray, full of astonishingly penetrating power, coming in from the left. Its wave length is only a millionth of an angstrom unit, which itself is a hundred millionth of a centimeter! Looking back on the whole series of 40 pictures we find that in only 10 of them (3 to –6) is life known to exist. In other scales there may, however, be forms of life we do not yet know.

1 cm. in picture = 10^{-13} cm. = 0.00001 A Scale = 10 million million:1 = 10^{13}

And so our journey ends at the nucleus of the atom, that mysterious, utterly small, and incredibly powerful center of energy which only recently has unveiled some of its mighty secrets to mankind. Whereas at the end of our first journey we stood in awe before the imposing greatness of the dimensions of the universe, and felt as nothing in comparison to their immensity, the conditions are now completely different. True, we feel as much awe and reverence when we attempt to think of the miracles of dynamic power that are hidden in these domains of the smallest existing entities, but our own dimensions are now indescribably colossal compared with what we see.

Thus on the scale of the last drawing, the height of the little girl would be about 15,000 million kilometers, that is, more than the diameter of the solar system! If we add the thought that man is beginning to control and use these limitless nuclear powers, it is clear that unthinkable possibilities are within his reach. When we thus think in cosmic terms, we realize that man, if he is to become really human, must combine in his being the greatest humility with the most careful and considerate use of the cosmic powers that are at his disposal.

The problem, however, is that primitive man at first tends to use the power put in his hands for himself, instead of spending his energy and life for the good of the whole growing human family, which has to live together in the limited space of our planet. It therefore is a matter of life and death for the whole of mankind that we learn to live together, caring for each other regardless of birth or upbringing. No difference of nationality, of race, creed, or conviction, age or sex may weaken our effort as human beings to live and work for the good of all.

It is therefore an urgent need that we all, children and grown ups alike, be educated in this spirit and toward this goal. Learning to live together in mutual respect and with the definite aim to further the happiness of all, without privilege for any, is a clear duty for mankind, and it is imperative that education shall be brought onto this plane.

In this education the development of a cosmic view is an important and necessary element; and to develop such a wide, all-embracing view, the expedition we have made in these "forty jumps through the universe" may help just a little. If so, let us hope that many will make it!

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Lancelot Hogben

1895–1975

Lancelot Hogben, British scientist and economist, was born in Portsmouth in 1895. He was the son of a clergyman. Educated at Cambridge, he has held university posts in England, Scotland, South Africa and Canada.

Hogben's interest in the problems of man in society dates from a very early age when he was introduced to the plays of George Bernard Shaw and to the socialist literature of the Fabian Society by a schoolmistress at the Tottenham County School. One of man's problems arises from his failure to understand the scientific language of his culture. To bridge the gap that has developed between the average man and his scientific environment, Hogben wrote *Science for the Citizen* and *Mathematics for the Million.* The following selection is taken from the latter work.

Hogben has written and lectured not only on mathematics but on zoology, social biology, natural history, sociology, economics, medical statistics, and probability. He has also written an illustrated history of 30,000 years of human visual communication, *From Cave Painting to Comic Strips.*

In *Mathematics, the Mirror of Civilization,* Hogben brings the zeal of a social reformer to the task of rescuing mathematics from the fate of becoming a priestcraft.

Since much of man's relation to man and nature has come to be treated in mathematical terms, it is dangerous to ignore the new language. We run the risk of leaving the power to control our political and material welfare in the hands of specialists. If these specialists have, as did the ancient Egyptian priests, a vested interest in mystify-

ing the people, an unhealthy situation develops. "No society," says Hogben, "is safe in the hands of its clever people." In our atomic age, Hogben's apprehensions seem particularly valid.

In contradistinction to most of the other authors represented in this volume, Hogben does not have much use for mathematics as a purely speculative activity. He is solidly planted in opposition to the view of mathematics that is usually associated with Plato.[1] Plato held that mathematics reflects absolute and eternal truths, but Hogben sees it as merely a useful language, with rules based on convenience, like ordinary grammar. In this respect, he has much in common with Poincaré.

But Poincaré, like Russell, Whitehead, and Forsyth,[2] argues for the study of mathematics as an esthetic experience which is undertaken for its own sake. To this, Hogben is opposed. His broad outline of the history of mathematics shows mathematical invention and discovery only as the result of man's effort to control his environment.

Many of Hogben's ideas are thus controversial. You may find yourself with him or against him. But if you are baffled and discouraged by the whole world of mathematics, Hogben is heartening. He flays with caustic wit those who have brought you to your present condition. They have concealed from you, he says, the story of the human origin of mathematics. It is this story that he tells.

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[1] See *The Republic,* Book VII, in *Great Books of the Western World.*

[2] See the selections from the writings of these authors in this volume.

Mathematics, the Mirror of Civilization

There is a story about Diderot, the Encyclopaedist and materialist, a foremost figure in the intellectual awakening which immediately preceded the French Revolution. Diderot was staying at the Russian court, where his elegant flippancy was entertaining the nobility. Fearing that the faith of her retainers was at stake, the Tsaritsa commissioned Euler, the most distinguished mathematician of the time, to debate with Diderot in public. Diderot was informed that a mathematician had established a proof of the existence of God. He was summoned to court without being told the name of his opponent. Before the assembled court, Euler accosted him with the following pronouncement, which was uttered with due gravity: $\frac{a + b^n}{n} = x$, *donc Dieu existe répondez!"* Algebra was Arabic to Diderot. Unfortunately he did not realize that was the trouble. Had he realized that algebra is just a language in which we describe the *sizes* of things in contrast to the ordinary languages which we use to describe the *sorts* of things in the world, he would have asked Euler to translate the first half of the sentence into French.[1] Translated freely into English, it may be rendered: "A number x can be got by first adding a number a to a number b multiplied by itself a certain number of times, and then dividing the whole by the number of b's multiplied together. So God exists after all. What have you got to say now?" If Diderot had asked Euler to illustrate the first part of his remark for the clearer understanding of the Russian court, Euler might have replied that x is 3 when a is 1 and b is 2 and n is 3, or that x is 21 when a is 3 and b is 3 and n is 4, and so forth. Euler's troubles would have begun when the court wanted to know how the second part of the sentence follows from the first part. Like many of us, Diderot had stagefright when confronted with a sentence in size language. He left the court abruptly amid the titters of the

1. For a critical evaluation of this version of the Euler-Diderot anecdote, which incorrectly portrays Diderot as a mathematical illiterate, see A. M. Wilson, *Diderot* (1957), p. 91 [Ed.].

assembly, confined himself to his chambers, demanded a safe conduct, and promptly returned to France.

Though he could not know it, Diderot had the last laugh before the court of history. The clericalism which Diderot fought was overthrown, and though it has never lacked the services of an eminent mathematician, the supernaturalism which Euler defended has been in retreat ever since. One eminent contemporary astronomer in his Gifford Lectures tells us that Dirac has discovered *p* and *q* numbers. *Donc Dieu existe*. Another distinguished astronomer pauses, while he entertains us with astonishing calculations about the distance of the stars, to award M. le grand Architecte an honorary degree in mathematics. There were excellent precedents long before the times of Euler and Diderot. For the first mathematicians were the priestly calendar makers who calculated the onset of the seasons. The Egyptian temples were equipped with Nilometers with which the priests made painstaking records of the rising and falling of the sacred river. With these they could predict the flooding of the Nile with great accuracy. Their papyri show that they possessed a language of measurement very different from the pretentious phraseology with which they fobbed off their prophecies on the laity. The masses could not see the connection between prophecy and reality, because the Nilometers communicated with the river by underground channels, skilfully concealed from the eye of the people. The priests of Egypt used one language when they wrote in the proceedings of a learned society and another language when they gave an interview to the "sob sisters" of the Sunday press.

In the ancient world writing and reading were still a mystery and a craft. The plain man could not decipher the Rhind papyrus in which the scribe Ahmes wrote down the laws of measuring things. Civilized societies in the twentieth century have democratized the reading and writing of *sort language*. Consequently the plain man can understand scientific discoveries if they do not involve complicated measurements. He knows something about evolution. The priestly accounts of the creation have fallen into discredit. So mysticism has to take refuge in the atom. The atom is a safe place not because it is small, but because you have to do complicated measurements and use underground channels to find your way there. These underground channels are concealed from the eye of the people because the plain man has not been taught to read and write *size language*. Three centuries ago, when priests conducted their services in Latin, Protestant reformers founded grammar schools so that people could read the open Bible. The time has now come for another

Reformation. People must learn to read and write the language of measurement so that they can understand the open bible of modern science.

In the time of Diderot the lives and happiness of individuals might still depend on holding the correct beliefs about religion. To-day the lives and happiness of people depend more than most of us realize upon the correct interpretation of public statistics which are kept by government offices. When a committee of experts announce that the average man can live on his unemployment allowance, or the average child is getting sufficient milk, the mere mention of an average or the citation of a list of figures is enough to paralyse intelligent criticism. In reality half or more than half the population may not be getting enough to live on when the *average* man or child has enough. The majority of people living to-day in civilized countries cannot read and write freely in size language, just as the majority of people living in the times of Wycliff and Luther were ignorant of Latin in which religious controversy was carried on. The modern Diderot has got to learn the language of size in self-defence, because no society is safe in the hands of its clever people.

Long before clever people started reading and writing the ordinary languages in which we describe different sorts of things, other people who were not so terribly clever had learnt to talk. The plain man of to-day, that is to say, the reader or the writer of this book, has a great advantage over the audiences who listened to the priestly oracles of the ancient world. Though we may not read or write it, we have all learned to talk in *size language*. If we were asked what distinguishes the men of to-day, the men of the machine age, from the men who lived before the American or French Revolution, we might give many answers. Very few would give the answer that Burke gave. About forty years after the incident we have been discussing, Burke wrote a vitriolic denunciation of the social revolution heralded by the Encyclopaedists. With this difference that Burke wrote elegant, sonorous, and commanding prose, many passages in it recall familiar descriptions of current events in Russia, as they are reflected in the dented mirror of the daily press. In one of the most resonant and also the silliest passages of his reflections, Burke pronounces an eloquent obituary on the *ancien régime*. What raises his anger to white heat is not that Europe will become a continent of shopkeepers. It is that Europe will become a continent of calculators. "The Age of Chivalry is gone. That of sophists, economists, and *calculators* has succeeded, and the glory of Europe is extinguished for ever. . . ."

The first men who dwelt in cities were *talking* animals. The man of the

Machine Age is a *calculating* animal. We live in a welter of figures: cookery recipes, railway time-tables, unemployment aggregates, fines, taxes, war debts, overtime schedules, speed limits, bowling averages, betting odds, billiard scores, calories, babies' weights, clinical temperatures, rainfall, hours of sunshine, motoring records, power indices, gas-meter readings, bank rates, freight rates, death rates, discount, interest, lotteries, wave-lengths, and tire pressures. Every night, when he winds up his watch, the modern man adjusts a scientific instrument of a precision and delicacy unimaginable to the most cunning artificers of Alexandria in its prime. So much is commonplace. What escapes our notice is that in doing these things we have learnt to use devices which presented tremendous difficulties to the most brilliant mathematicians of antiquity. Ratios, limits, acceleration are not remote abstractions, dimly apprehended by the solitary genius. They are photographed upon every page of our existence. In the course of the adventure upon which we are going to embark we shall constantly find that we have no difficulty in answering questions which tortured the minds of very clever mathematicians in ancient times. This is not because you and I are very clever people. It is because we inherit a social culture which has suffered the impact of material forces foreign to the intellectual life of the ancient world. The most brilliant intellect is a prisoner within its own social inheritance.

An illustration will help to make this quite definite at the outset. The Eleatic philosopher Zeno set all his contemporaries guessing by propounding a series of conundrums, of which the one most often quoted is the paradox of Achilles and the tortoise. Here is the problem about which the inventors of school geometry argued till they had speaker's throat and writer's cramp. Achilles runs a race with the tortoise. He runs ten times as fast as the tortoise. The tortoise has 100 yards' start. Now, says Zeno, Achilles runs 100 yards and reaches the place where the tortoise started. Meanwhile the tortoise has gone a tenth as far as Achilles, and is therefore 10 yards ahead of Achilles. Achilles runs this 10 yards. Meanwhile the tortoise has run a tenth as far as Achilles, and is therefore 1 yard in front of him. Achilles runs this 1 yard. Meanwhile the tortoise has run a tenth of a yard and is therefore a tenth of a yard in front of Achilles. Achilles runs this tenth of a yard. Meanwhile the tortoise goes a tenth of a tenth of a yard. He is now a hundredth of a yard in front of Achilles. When Achilles has caught up this hundredth of a yard, the tortoise is a thousandth of a yard in front. So, argued Zeno, Achilles is always getting nearer the tortoise, but can never quite catch him up.

You must not imagine that Zeno and all the wise men who argued the

point failed to recognize that Achilles really did get past the tortoise. What troubled them was, where is the catch? You may have been asking the same question. The important point is that you did not ask it for the same reason which prompted them. What is worrying you is why they thought up funny little riddles of that sort. Indeed, what you are really concerned with is a *historical* problem. I am going to show you in a minute that the problem is not one which presents any *mathematical* difficulty to you. You know how to translate it into size language, because you inherit a social culture which is separated from theirs by the collapse of two great civilizations and by two great social revolutions. The difficulty of the ancients was not a historical difficulty. It was a mathematical difficulty. They had not evolved a size language into which this problem could be freely translated.

The Greeks were not accustomed to speed limits and passenger-luggage allowances. They found any problem involving division very much more difficult than a problem involving multiplication. They had no way of doing division to any order of accuracy, because they relied for calculation on the mechanical aid of the counting frame or abacus. They could not do sums on paper. For all these and other reasons which we shall meet again and again, the Greek mathematician was unable to see something that we see without taking the trouble to worry about whether we see it or not. If we go on piling up bigger and bigger quantities, the pile goes on growing more rapidly without any end as long as we go on adding more. If we can go on adding larger and larger quantities indefinitely without coming to a stop, it seemed to Zeno's contemporaries that we ought to be able to go on adding smaller and still smaller quantities indefinitely without reaching a limit. They thought that in one case the pile goes on for ever, growing more rapidly, and in the other it goes on for ever, growing more slowly. There was nothing in their number language to suggest that when the engine slows beyond a certain point, it chokes off.

To see this clearly we will first put down in numbers the distance which the tortoise traverses at different stages of the race after Achilles starts. As we have described it above, the tortoise moves 10 yards in stage 1, 1 yard in stage 2, one-tenth of a yard in stage 3, one-hundredth of a yard in stage 4, etc. Suppose we had a number language like the Greeks and Romans, or the Hebrews, who used letters of the alphabet. Using the one that is familiar to us because it is still used for clocks, graveyards, and law-courts, we might write the total of all the distances the tortoise ran before Achilles caught him up like this:

$$X + I + \frac{I}{X} + \frac{I}{C} + \frac{I}{M} \text{ and so on.}$$

We have put "and so on" because the ancient peoples got into great difficulties when they had to handle numbers more than a few thousands. Apart from the fact that we have left the tail of the series to your imagination (and do not forget that the tail is most of the animal if it goes on for ever), notice another disadvantage about this script. There is absolutely nothing to suggest to you how the distances at each stage of the race are connected with one another. To-day we have a number vocabulary which makes this relation perfectly evident when we write it down as:

$$10 + 1 + \frac{1}{10} + \frac{1}{100} + \frac{1}{1{,}000} + \frac{1}{10{,}000} + \frac{1}{100{,}000} + \frac{1}{1{,}000{,}000} \text{ and so on.}$$

In this case we put "and so on" to save ourselves trouble, not because we have not the right number-words. These number-words were borrowed from the Hindus, who learnt to write number language after Zeno and Euclid had gone to their graves. A social revolution, the Protestant Reformation, gave us schools which made this number language the common property of mankind. A second social upheaval, the French Revolution, taught us to use a reformed spelling. Thanks to the Education Acts of the nineteenth century, this reformed spelling is part of the common fund of knowledge shared by almost every sane individual in the English-speaking world. Let us write the last total, using this reformed spelling, which we call decimal notation. That is to say:

$$10 + 1 + 0{\cdot}1 + 0{\cdot}01 + 0{\cdot}001 + 0{\cdot}0001 + 0{\cdot}00001 + 0{\cdot}000001$$
and so on.

We have only to use the reformed spelling to remind ourselves that this can be put in a more snappy form:

$$11{\cdot}111111 \text{ etc.,}$$

or still better:

$$11{\cdot}\dot{1}.$$

We recognize the fraction 0.i as a quantity that is less than $\frac{2}{10}$ and more than $\frac{1}{10}$. If we have not forgotten the arithmetic we learnt at school, we may even remember that 0.i corresponds with the fraction $\frac{1}{9}$. This means that the longer we make the sum, 0.1+0.01+0.001, etc., the nearer it gets to $\frac{1}{9}$, and it never grows bigger than $\frac{1}{9}$. The total of all the yards the tortoise moves till there is no distance between himself and Achilles makes up just $11\frac{1}{9}$ yards, and no more.

You will now begin to see what was meant by saying that the riddle presents no mathematical difficulty to you. You have a number language constructed so that it can take into account a possibility which mathematicians describe by a very impressive name. They call it the convergence of an infinite series to a limiting value. Put in plain words, this only means that, if you go on piling up smaller and smaller quantities as long as you can, you *may* get a pile of which the size is not made measurably larger by adding any more. The immense difficulty which the mathematicians of the ancient world experienced when they dealt with a process of division carried on indefinitely, or with what modern mathematicians call infinite series, limits, transcendental numbers, irrational quantities, and so forth, provides an example of a great social truth borne out by the whole history of human knowledge. Fruitful intellectual activity of the cleverest people draws its strength from the common knowledge which all of us share. Beyond a certain point clever people can never transcend the limitations of the social culture they inherit. When clever people pride themselves on their own isolation, we may well wonder whether they are very clever after all. Our studies in mathematics are going to show us that whenever the culture of a people loses contact with the common life of mankind and becomes exclusively the plaything of a leisure class, it is becoming a priestcraft. It is destined to end, as does all priestcraft, in superstition. To be proud of intellectual isolation from the common life of mankind and to be disdainful of the great social task of education is as stupid as it is wicked. It is the end of progress in knowledge. History shows that superstitions are not manufactured by the plain man. They are invented by neurotic intellectuals with too little to do. The mathematician and the plain man each need one another. Maybe the Western world is about to be plunged irrevocably into barbarism. If it escapes this fate, the men and women of the leisure state which is now within our grasp will regard the democratization of mathematics as a decisive step in the advance of civilization.

In such a time as ours the danger of retreat into barbarism is very real. We may apply to mathematics the words in which Cobbett explained the uses of grammar to the working-men of his own day when there was no public system of free schools. In the first of his letters on English grammar for a working boy, Cobbett wrote these words: "But, to the acquiring of this branch of knowledge, my dear son, there is one motive, which, though it ought, at all times, to be strongly felt, ought, at the present time, to be so felt in an extraordinary degree. I mean that desire which every man, and especially every young man, should entertain to be able to assert with effect the rights and liberties of his country. When you come

to read the history of those Laws of England by which the freedom of the people has been secured . . . you will find that tyranny has no enemy so formidable as the pen. And, while you will see with exultation the long-imprisoned, the heavily-fined, the banished William Prynne, returning to liberty, borne by the people from Southampton to London, over a road strewed with flowers: then accusing, bringing to trial and to the block, the tyrants from whose hands he and his country had unjustly and cruelly suffered; while your heart and the heart of every young man in the kingdom will bound with joy at the spectacle, you ought all to bear in mind, that, without a knowledge of grammar, Mr. Prynne could never have performed any of those acts by which his name has been thus preserved, and which have caused his name to be held in honour."

To-day economic tyranny has no more powerful friend than the calculating prodigy. Without a knowledge of mathematics, the grammar of size and order, we cannot plan the rational society in which there will be leisure for all and poverty for none. If we are inclined to be a little afraid of the prospect, our first step towards understanding this grammar is to realize that the reasons which repel many people from studying it are not at all discreditable. As mathematics has been taught and expounded in schools no effort is made to show its social history, its significance in our own social lives, the immense dependence of civilized mankind upon it. Neither as children nor as adults are we told how the knowledge of this grammar has been used again and again throughout history to assist in the liberation of mankind from superstition. We are not shown how it may be used by us to defend the liberties of the people. Let us see why this is so.

The educational system of north-western Europe was largely moulded by three independent factors in the period of the Reformation. One was linguistic in the ordinary sense. To weaken the power of the Church as an economic overlord it was necessary to destroy the influence of the Church on the imagination of the people. The Protestant Reformers appealed to the recognized authority of scripture to show that the priestly practices were innovations. They had to make the scriptures an open book. The invention of printing was the mechanical instrument which destroyed the intellectual power of the Pope. Instruction in Latin and Greek was a corollary of the doctrine of the open Bible. This prompted the great educational innovation of John Knox and abetted the more parsimonious founding of grammar schools in England. The ideological front against popery and the wealthy monasteries strengthened its strategic position by new translations and critical inspection of the scriptural texts. That is one

reason why classical scholarship occupied a place of high honour in the educational system of the middle classes.

The language of size owes its position in Western education to two different social influences. While revolt against the authority of the Church was gathering force, and before the reformed doctrine had begun to have a wide appeal for the merchants and craftsmen of the medieval boroughs, the mercantile needs of the Hanse had already led to the founding of special schools in Germany for the teaching of the new arithmetic which Europe had borrowed from the Arabs. An astonishing proportion of the books printed in the three years after the first press was set up were commercial arithmetics. Luther vindicated the four merchant gospels of addition, subtraction, multiplication, and division with astute political sagacity when he announced the outlandish doctrine that every boy should be taught to calculate. The grammar of numbers was chained down to commercial uses before people could foresee the vast variety of ways in which it was about to invade man's social life.

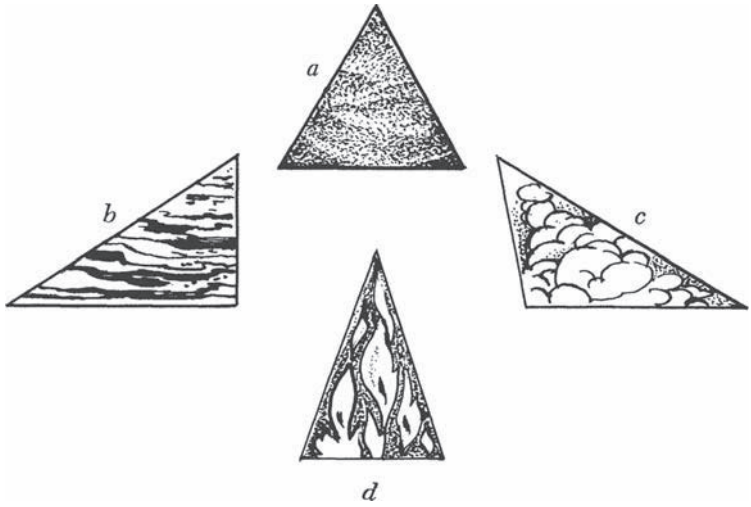
Geometry, already divorced from the art of calculation, did not enter into Western education by the same route. Apart from the stimulus which the study of dead languages received from the manufacture of Bibles, classical pursuits were encouraged because the political theories of the Greek philosophers were congenial to the merchants who were aspiring to a limited urban democracy. The appeal of the city-state democracy to the imagination of the wealthier bourgeois lasted till after the French Revolution, when it was laid to rest in the familiar funeral urns of mural decoration. The leisure class of the Greek city-states played with geometry as people play with crossword puzzles and chess to-day. Plato taught that geometry was the highest exercise to which human leisure could be devoted. So geometry became included in European education as a part of classical scholarship, without any clear connection with the contemporary reality of measuring Drake's "world encompassed." Those who taught Euclid did not understand its social use, and generations of schoolboys have studied Euclid without being told how a later geometry, which grew out of Euclid's teaching in the busy life of Alexandria, made it possible to measure the size of the world. Those measurements blew up the pagan pantheon of star gods and blazed the trail for the great navigations. The revelation of how much of the surface of our world was still unexplored was the solid ground for what we call the faith of Columbus.

Plato's exaltation of mathematics as an august and mysterious ritual had its roots in dark superstitions which troubled, and fanciful puerilities

which entranced, people who were living through the childhood of civilization, when even the cleverest people could not clearly distinguish the difference between saying that 13 is a "prime" number and saying that 13 is an unlucky number. His influence on education has spread a veil of mystery over mathematics and helped to preserve the queer freemasonry of the Pythagorean brotherhoods, whose members were put to death for revealing mathematical secrets now printed in school-books. It reflects no discredit on anybody if this veil of mystery makes the subject distasteful. Plato's great achievement was to invent a religion which satisfies the emotional needs of people who are out of harmony with their social environment, and just too intelligent or too individualistic to seek sanctuary in the cruder forms of animism. The curiosity of the men who first speculated about atoms, studied the properties of the lodestone, watched the result of rubbing amber, dissected animals, and catalogued plants in the three centuries before Aristotle wrote his epitaph on Greek science, had banished personalities from natural and familiar objects. Plato placed animism beyond the reach of experimental exposure by inventing a world of "universals." This world of universals was the world as God knows it, the "real" world of which our own is but the shadow. In this "real" world symbols of speech and number are invested with the magic which departed from the bodies of beasts and the trunks of trees as soon as they were dissected and described.

The *Timaeus* is a fascinating anthology of the queer perversities to which this magic of symbolism could be pushed. Real earth, as opposed to the solid earth on which we build houses, is an equilateral triangle. Real water, as opposed to what is sometimes regarded as a beverage, is a right-angled triangle. Real fire, as opposed to fire against which you insure, is an isosceles triangle. Real air, as opposed to the air which you pump into a tire, is a scalene triangle [see drawing]. Lest you should find this hard to credit, read how Plato turned the geometry of the sphere into a magical explanation of man's origin. God, he tells us, "imitating the spherical shape of the universe, enclosed the two divine courses in a spherical body, that, namely, which we now term the head." In order that the head "might not tumble about among the deep and high places of the earth, but might be able to get out of the one and over the other," it was provided with "the body to be a vehicle and means of locomotion, which consequently had length and was furnished with four limbs extended and jointed. . . ." This supremacy of the head is very flattering to intellectuals who have no practical problems to occupy them. So it is not surprising that Plato's peculiar metaphysics retained its influence on education after his daring project for a planned society ceased to be thought a suitable

doctrine for young people to study. An educational system which was based on Plato's teaching is apt to entrust the teaching of mathematics to people who put the head before the stomach, and who would tumble about the deep and high places of the earth if they had to teach another subject. Naturally this repels healthy people for whom symbols are merely the tools of organized social experience, and attracts those who use symbols to escape from our shadow world in which men battle for the little truth they can secure into a "real" world in which truth seems to be self-evident.



Plato Took Measurement Out of Geometry and Put Magic in Its Place

The real world of Plato was a world of form from which matter was banished.

(a) *An equilateral triangle* (*i.e. one of which all three sides are equal*) *is the elemental earth form.*

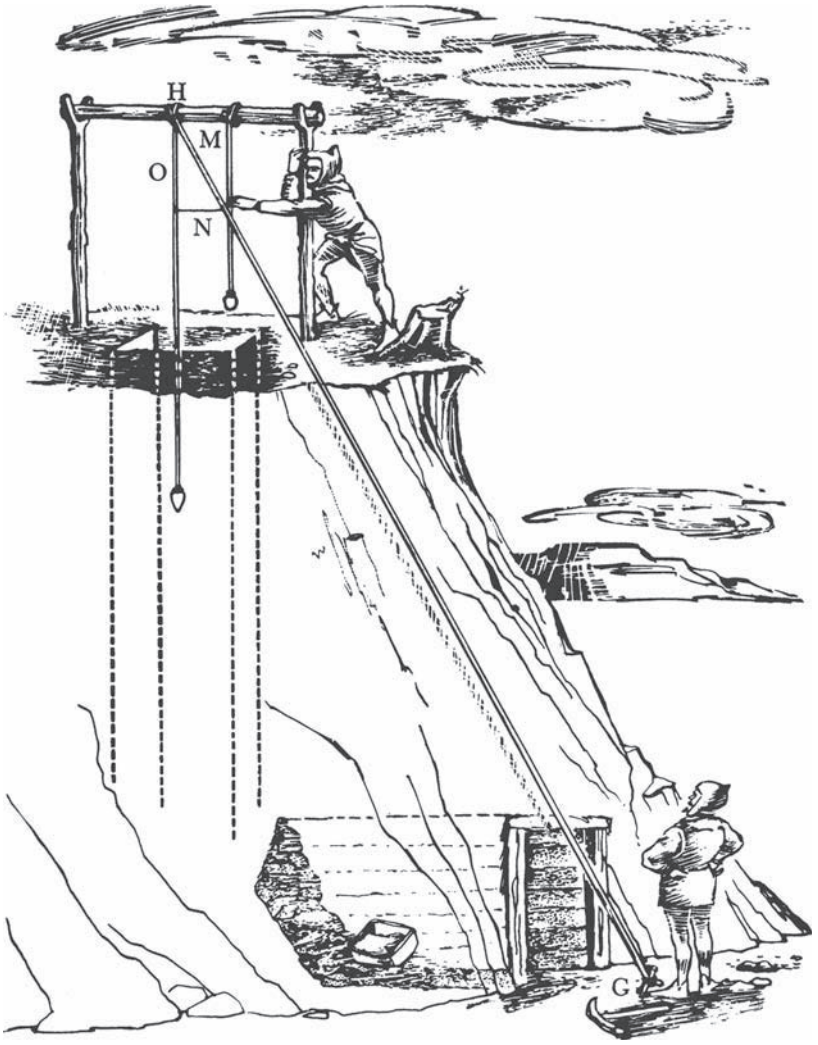
(b) *A right-angled triangle is the spirit of water.* (*To find spirit in water is the most advanced kind of magic.*)

(c) *A scalene triangle with no equal sides is the spirit of the air.*

(d) *An isosceles triangle* (*i.e. one of which only two sides are equal*) *is the elemental fire.*

(*If you do not know these names, note their meaning. You may meet them again. You have been warned.*)

The fact that mathematicians are often like this may be why they are so inclined to keep the high mysteries of their Pythagorean brotherhood to themselves. To ordinary people, the perfection of their "real" world savours of unreality. The world in which ordinary people live is a world of struggle and failure, trial and error. In the mathematical world everything is obvious–once you have got used to it. What is rarely explained to us



Mathematics in Everyday Life

This figure is taken from Agricola's famous sixteenth-century treatise on mining technology. At that time the miners were the aristocrats of labour, and the book called attention to a host of new scientific problems which had been neglected in the slave civilizations of antiquity, when there was little co-operation between theoretical speculation and practical experience. Having measured the distance HG which is the length of the stretched rope, you can get the distance you have to bore horizontally to reach the shaft, or the depth to which the shaft must be sunk, if you want to reach the horizontal boring. You will see easily with a scale diagram that the ratio of the horizontal cutting to the measured distance HG is the ratio of the two measurable distances N:M. Likewise the ratio of the shaft depth to HG is 0:M. . . .

is that it may have taken the human race a thousand years to see that one step in a mathematical argument is "obvious." How the Nilometer works is obvious to you if you are a priest in the temple. If you are outside the temple, it can only become obvious through tracing out the subterranean channel which connects the temple with the river of man's social experience. Educational methods which are mixed up with priestcraft and magic have contrived to keep the rising and falling, the perpetual movement of the river from our scrutiny. So they have hidden from us the romance of what might be the greatest saga of man's struggle with the elements. Plato, in whose school our teachers have grown up, did not approve of making observations and applying mathematics to arrange them and co-ordinate them. In one of the dialogues he makes Socrates, his master, use words which might equally well apply to many of the text-books of mechanics which are still used. "The starry heavens which we behold is wrought upon a visible ground and therefore, although the fairest and most perfect of visible things, must necessarily be deemed inferior far to the true motions of absolute swiftness and absolute intelligence. . . . These are to be apprehended by reason and intelligence but not by sight. . . . The spangled heavens should be used as a pattern and with a view to that higher knowledge. But the astronomer will never imagine that the proportions of night to day . . . or of the stars to these and to one another can also be eternal . . . and it is equally *absurd to take so much pains in investigating their exact truth. . . . In astronomy as in geometry we should employ problems, and let the heavens alone,* if we would approach the subject in the right way and so make the natural gift of reason to be of any use."

This book will narrate how the grammar of measurement and counting has evolved under the pressure of man's changing social achievements, how in successive stages it has been held in check by the barriers of custom, how it has been used in charting a universe which can be commanded when its laws are obeyed, but can never be propitiated by ceremonial and sacrifice. As the outline of the story develops, one difficulty which many people experience will become less formidable. The expert in mathematics is essentially a technician. So his chief concern in teaching is to make other technicians. Mathematical books are largely packed with exercises which are designed to give proficiency in workmanship. This makes us discouraged because of the immense territory which we have to traverse before we can get insight into the kind of mathematics which is used in modern science and social statistics. The fact is that modern mathematics does not borrow so very much from

antiquity. To be sure, every useful development in mathematics rests on the historical foundation of some earlier branch. At the same time every new branch liquidates the usefulness of clumsier tools which preceded it. Although algebra, trigonometry, the use of graphs, the calculus all depend on the rules of Greek geometry, scarcely more than a dozen from the two hundred propositions of Euclid's elements are essential to help us in understanding how to use them. The remainder are complicated ways of doing things which can be done more simply when we know later branches of mathematics. For the mathematical technician these complications may provide a useful discipline. The person who wants to understand the place of mathematics in modern civilization is merely distracted and disheartened by them. What follows is for those who have been already disheartened and distracted, and have consequently forgotten what they may have learned already or fail to see the meaning or usefulness of what they remember. So we shall begin at the very beginning.

Two views are commonly held about mathematics. One comes from Plato. This is that mathematical statements represent eternal truths. Plato's doctrine was used by the German philosopher, Kant, as a stick with which to beat the materialists of his time, when revolutionary writings like those of Diderot were challenging priestcraft. Kant thought that the principles of geometry were eternal, and that they were totally independent of our sense organs. It happened that Kant wrote just before biologists discovered that we have a sense organ, part of what is called the internal ear, sensitive to the pull of gravitation. Since that discovery, the significance of which was first fully recognized by the German physicist, Ernst Mach, the geometry which Kant knew has been brought down to earth by Einstein. It no longer dwells in the sky where Plato put it. We know that geometrical statements when applied to the real world are only approximate truths. The theory of relativity has been very unsettling to mathematicians, and it has now become a fashion to say that mathematics is only a game. Of course, this does not tell us anything about mathematics. It only tells us something about the cultural limitations of some mathematicians. When a man says that mathematics is a game, he is making a private statement. He is telling us something about himself, his own attitude to mathematics. He is not telling us anything about the public meaning of a mathematical statement.

If mathematics is a game, there is no reason why people should play it if they do not want to. With football, it belongs to those amusements without which life would be endurable. The view which we shall explore

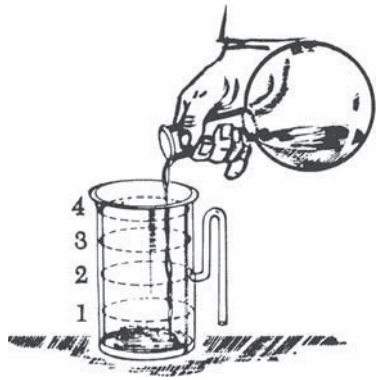
is that mathematics is the language of size, and that it is an essential part of the equipment of an intelligent citizen to understand this language. If the rules of mathematics are rules of grammar, there is no stupidity involved when we fail to see that a mathematical truth is obvious. The rules of ordinary grammar are not obvious. They have to be learnt. They are not eternal truths. They are conveniences without whose aid truths about the sorts of things in the world cannot be communicated from one person to another. In Cobbett's memorable words, Mr. Prynne would not have been able to impeach Archbishop Laud if his command of grammar had been insufficient to make himself understood. So it is with mathematics, the grammar of size. The rules of mathematics are rules to be learnt. If they are formidable, they are formidable because they are unfamiliar when you first meet them–like gerunds or nominative absolutes. They are also formidable because in all languages there are so many rules and words to memorize before we can read newspapers or pick up radio news from foreign stations. Everybody knows that being able to chatter in several foreign languages is not a sign of great social intelligence. Neither is being able to chatter in the language of size. Real social intelligence lies in the use of a language, in applying the right words in the right context. It is important to know the language of size, because entrusting the laws of human society, social statistics, population, man's hereditary make-up, the balance of trade to the isolated mathematician without checking his conclusions is like letting a committee of philologists manufacture the truths of human, animal, or plant anatomy from the resources of their own imaginations.

You will often hear people say that nothing is more certain than that two and two make four. The statement that two and two make four is not a mathematical statement. The mathematical statement to which people refer, correctly stated, is as follows:

$$2 + 2 = 4.$$

This can be translated: "to 2 add 2 to get 4." This is not necessarily a statement of something which always happens in the real world. The illustration [on page 18] shows that in the real world you do not always find that you have 4 when you have added 2 to 2. To say $2 + 2 = 4$ merely illustrates the meaning of the verb "add" when it is used to translate the mathematical verb "+". To say that $2 + 2 = 4$ is a true statement is just a grammatical convention about the verb "+" and the nouns "2" and "4." In English grammar it is true in the same sense to say that the plural of "mouse" is "mice," or, if you prefer it, "add mouse to

mouse to get mice." In English grammar it is untrue to say that the plural of "house" is "hice." Saying "2 + 2 = 2" is false in precisely the same sense. A slight change in the meaning of the word "add," as used to translate "+," makes it a perfectly correct statement about the apparatus [in the figure below]. Such changes of meaning are confusing. The object of grammar is to control the freedom of words so that there is no congestion of the intellectual traffic. As a statement about the real world, saying that



In the real world you do not always find that you have got four *when you add* two *and* two. *Try filling this with water. Its laws of "addition" would be:*

$$1 +. 1 = 2$$
$$1 +. 2 = 3$$
$$1 +. 3 = 2$$
$$2 +. 2 = 2 \text{ etc.}$$

The dot is put in to show that the kind of addition used here is not the kind of addition (+ *without a dot*) *which applies to a vessel which cannot leak, and is so large that it cannot be filled.*

the British houses of Parliament are in Glasgow, is a plain lie. As a statement of grammar, it is a true example of how the plural of "house" is formed. If a British Radical member said that the Hice of Parliament were treating the unemployed of Glasgow with shameless frivolity, he might convey a profound and important truth about the real world to a few bright people. As a statement of grammar, it would be false. Many would miss the point and wonder whether he were certifiable. Unlike Mr. Prynne, who understood grammar, he would fail to advance the liberties of the people.

We must not be surprised if we find that the rules of mathematics are not always a perfect description of how we measure the distance of a star, or count heads in a population. The rules of English grammar are a

very imperfect description of how English is used. The people who formulated them were preoccupied with translating the Bible and other classical texts. So they were over-anxious to find exact equivalents for the peculiarities of Greek and Latin. They were like the first zoologists who used words for the limbs and organs of the human body when describing the peculiar anatomy of the insect. The English grammar taught in English schools is rather primitive zoology. Also it is essentially a description of the habits of speech prevailing in the English professional class, from which writers of books on grammar are drawn. When the American from New England says "gotten," he is using what was the correct past participle of the strong verb "to get" in *Mayflower* times. When the English country labourer says "we be going," he is correctly using one of the three original verbs which have been used to make the roots of the modern mixed verb "to be." When he says "yourn," he is using one of two once equally admissible and equally fashionable forms introduced by analogy about the time when Chaucer wrote the *Canterbury Tales*. To say that "are" and "yours" are grammatically correct is merely to say that we have agreed to adopt the habits of the more prosperous townspeople. When Mr. Shaw is dead, and hence a topic for grammarians, we shall say that "dont" is the correct way to write "do not." Almost certainly we shall soon admit "it is me" as correct grammar. The rules of mathematical grammar also change. In modern vector analysis the rules for using "+" are not the rules we learned at school.

If we can unearth milestones of man's social pilgrimage in the language of everyday life, it is much more easy to do so when we study the grammar of mathematics. The language in which people describe the different *sorts* of things there are in the world is vastly more primitive and more conservative than the *size* languages which have been multiplied to cope with the increasing precision of man's control over nature. In the world which is open to public inspection, the world of inorganic and organic nature, man was not compelled to enlarge the scope of language to describe any new *sorts* of phenomena between 2000 B.C. and the researches of Faraday and Hertz, the father of radio. Even electric and magnetic attractions were recognized as a special sort of thing before there were any historians in the world. In the seventh century B.C. Thales recorded the attraction of small particles to a piece of amber (Greek "electron") when rubbed. The Chinese already knew about the lodestone or natural magnet. Since about 1000 B.C., when some men broke away from picture writing or script like the Chinese which associates sounds

with picture symbols, and first began to use an alphabet based purely on how words sound, there has only been one conspicuous invention introduced for describing the qualities of things in the world. This was made by biologists in the eighteenth century, when the confusion existing in the old herbals of medicinal plants forced them to invent an international language in which no confusion is possible. The clear description of the immense variety of organic beings has been made possible by the deliberate introduction of unfamiliar words. These words, like *Bellis perennis,* the common daisy, or *Pulex irritans,* the common flea, are taken from dead languages. Any meaning for which the biologist has no use lies buried in a social context forgotten long ago. In much the same way the North Europeans had borrowed their alphabet of sound symbols from the picture scripts, and buried the associations of distracting metaphors in the symbols used by the more sophisticated people of the ancient world.

The language of mathematics differs from that of everyday life, because it is essentially a rationally planned language. The languages of size have no place for private sentiment, either of the individual or of the nation. They are international languages like the binomial nomenclature of natural history. In dealing with the immense complexity of his social life man has not yet begun to apply inventiveness to the rational planning of ordinary language when describing different kinds of institutions and human behaviour. The language of everyday life is clogged with sentiment, and the science of human nature has not advanced so far that we can describe individual sentiment in a clear way. So constructive thought about human society is hampered by the same conservatism as embarrassed the earlier naturalists. Nowadays people do not differ about what sort of animal is meant by cimex or pediculus, because these words are only used by people who use them in one way. They still can and often do mean a lot of different things when they say that a mattress is infested with bugs or lice. The study of man's social life has not yet brought forth a Linnaeus. So an argument about the "withering away of the state" may disclose a difference about the use of the dictionary when no real difference about the use of the policeman is involved. Curiously enough, people who are most sensible about the need for planning other social amenities in a reasonable way are often slow to see the need for creating a rational and international language.

The technique of measurement and counting has followed the caravans and galleys of the great trade routes. It has developed very slowly. At least four thousand years intervened between the time when men could calculate when the next eclipse would occur and the time when men

could calculate how much iron is present in the sun. Between the first recorded observations of electricity produced by friction and the measurement of the attraction of an electrified body two thousand years intervened. Perhaps a longer period separates the knowledge of magnetic iron (or lodestone) and the measurement of magnetic force. Classifying things according to size has been a much harder task than recognizing the different sorts of things there are. It has been more closely related to man's social achievements than to his biological equipment. Our eyes and ears can recognize different sorts of things at a great distance. To measure things at a distance, man has had to make new sense organs for himself, like the astrolabe, the telescope, and the microphone. He has made scales which reveal differences of weight to which our hands are quite insensitive. At each stage in the evolution of the tools of measurement man has refined the tools of size language. As human inventiveness has turned from the counting of flocks and seasons to the building of temples, from the building of temples to the steering of ships into chartless seas, from seafaring plunder to machines driven by the forces of dead matter, new languages of size have sprung up in succession. Civilizations have risen and fallen. At each stage a more primitive, less sophisticated culture breaks through the barriers of custom thought, brings fresh rules to the grammar of measurement, bearing within itself the limitation of further growth and the inevitability that it will be superseded in its turn. The history of mathematics is the mirror of civilization.

The beginnings of a size language are to be found in the priestly civilizations of Egypt and Sumeria. From these ancient civilizations we see the first-fruits of secular knowledge radiated along the inland trade routes to China and pushing out into and beyond the Mediterranean, where the Semitic peoples are sending forth ships to trade in tin and dyes. The more primitive northern invaders of Greece and Asia Minor collect and absorb the secrets of the pyramid makers in cities where a priestly caste is not yet established. As the Greeks become prosperous, geometry becomes a plaything. Greek thought itself becomes corrupted with the star worship of the ancient world. At the very point when it seems almost inevitable that geometry will make way for a new language, it ceases to develop further. The scene shifts to Alexandria, the greatest centre of shipping and the mechanical arts in the ancient world. Men are thinking about how much of the world remains to be explored. Geometry is applied to the measurement of the heavens. Trigonometry takes its place. The size of the earth, the distance of the sun and moon are measured. The star gods are degraded. In the intellectual life of Alexandria, the factory

of world religions, the old syncretism has lost its credibility. It may still welcome a god beyond the sky. It is losing faith in the gods within the sky.

In Alexandria, where the new language of star measurement has its beginnings, men are thinking about numbers unimaginably large compared with the numbers which the Greek intellect could grasp. Anaxagoras had shocked the court of Pericles by declaring that the sun was as immense as the mainland of Greece. Now Greece itself had sunk into insignificance beside the world of which Eratosthenes and Poseidonius had measured the circumference. The world itself sank into insignificance beside the sun as Aristarchus had measured it. Ere the dark night of monkish superstition engulfed the great cosmopolis of antiquity, men were groping for new means of calculation. The bars of the counting frame had become the bars of a cage in which the intellectual life of Alexandria was imprisoned. Men like Diophantus and Theon were using geometrical diagrams to devise crude recipes for calculation. They had almost invented the third new language of algebra. That they did not succeed was the nemesis of the social culture they inherited. In the East the Hindus had started from a much lower level. Without the incubus of an old-established vocabulary of number, they had fashioned new symbols which lent themselves to simple calculation without mechanical aids. The Moslem civilization which swept across the southern domain of the Roman Empire brought together the technique of measurement, as it had evolved in the hands of the Greeks and the Alexandrians, adding the new instrument for handling numbers which was developed through the invention of the Hindu number symbols. In the hands of Arabic mathematicians like Omar Khayyām, the main features of a language of calculation took shape. We still call it by the Arabic name, algebra. We owe algebra and the pattern of modern European poetry to a non-Aryan people who would be excluded from the vote in the Union of South Africa.

Along the trade routes this new arithmetic is brought into Europe by Jewish scholars from the Moorish universities of Spain and by gentile merchants trading with the Levant, some of them patronized by nobles whose outlook had been unintentionally broadened by the Crusades. Europe stands on the threshold of the great navigations. Seafarers are carrying Jewish astronomers who can use the star almanacs which Arab scholarship had prepared. The merchants are becoming rich. More than ever the world is thinking in large numbers. The new arithmetic or "algorithm" sponsors an amazing device which was prompted by the need

for more accurate tables of star measurement for use in seafaring. Logarithms were among the cultural first-fruits of the great navigations. Mathematicians are thinking in maps, in latitude and longitude. A new kind of geometry (what we call graphs in everyday speech) was an inevitable consequence. This new geometry of Descartes contains something which Greek geometry had left out. In the leisurely world of antiquity there were no clocks. In the bustling world of the great navigations mechanical clocks are displacing the ancient ceremonial function of the priesthood as timekeepers. A geometry which could represent time and a religion in which there were no saints' days are emerging from the same social context. From this geometry of time a group of men who were studying the mechanics of the pendulum-clock and making fresh discoveries about the motion of the planets devise a new size language to measure motion. To-day we call it "the" calculus.

For the present this crude outline of the history of mathematics as a mirror of civilization, interlocking with man's common culture, his inventions, his economic arrangements, his religious beliefs, may be left at the stage which had been reached when Newton died. What has happened since has been largely the filling of gaps, the sharpening of instruments already devised. Here and there are indications of a new sort of mathematics. We see a hint of it in social statistics and the study of the atom. We begin to see possibilities of new languages of size transcending those we now use, as the calculus of movement gathered into itself all that had gone before.

The foregoing consists of Chapter I
from Hogben's MATHEMATICS FOR THE MILLION.

Andrew Russell Forsyth

1858–1942

Every now and then a mathematician is called upon to justify his craft to nonmathematicians. The occasion may be an address delivered before some learned body (learned in other fields), or it may be an informal after-dinner conversation. In either case the usual approach is to show how useful mathematics is. Too often, however, this consists essentially in pointing out that everyone needs to do sums at some time in his life. It remains for the gifted teacher to try to define what he considers to be the mathematical way of thinking, and to describe precisely the nature of the relationship between mathematics and the other sciences. Forsyth was such a teacher.

Andrew Russell Forsyth, Scottish mathematician, was born in Glasgow in 1858. After studying at University College in Liverpool and at Trinity College in Cambridge, he became a professor of mathematics, lecturing at Trinity College, Cambridge, and at the Imperial College of Science and Technology in London. He was a creative mathematician in the field of pure mathematics, and wrote widely on the subject of differential equations. In addition to his own contributions to mathematics, Forsyth stimulated interest in the work of other mathematicians. He died in 1942.

Mathematics, in Life and Thought, delivered as a lecture in 1928, is an example of Forsyth's ability to excite interest in a subject usually regarded with either awe or dislike. Much of it is devoted to a description of the mental processes which led Newton from the observation of the falling apple to the theory of universal gravitation. Though such a description in nonmathematical terms requires considerable simplification, it is an interesting account of the facts then

available to Newton, and the puzzles that he had to solve in order to arrive at his theory. In placing Newton's work in its historical context as the culmination of investigations by Copernicus, Galileo, and Kepler, and followed by radical modifications by Einstein, Forsyth illustrates the nonstatic nature of scientific theory. The last word is never said.

After mentioning the many areas in which mathematics serves in the market place, Forsyth makes a special plea for mathematics as a pure science. In many cases scientific theories can come into being only because the forms in which they can be expressed have been created by mathematicians years or even centuries before anyone foresaw their possible usefulness.

Mathematics, in Life and Thought

There is an ancient adage, certainly as old as the naturalist Pliny, who perished in the famous eruption of Vesuvius, that "a shoemaker should not look above his last." The wisdom of the adage is always being ignored. The newspapers give evidence of the neglect in their daily spate of ingenuous letters. Every publishing season adds to the evidence by the recurring deluge of new books which seem no nearer an end now than they were in the days of the troubled preacher who, like many another student, found much study a weariness of the flesh. The neglect is not unknown even in the range of occasional lecturers of the strictest academic credentials. Physicists, whose main concern has been with the inanimate matter of the universe, have been heard to pontificate on the origins of life and its continuity after death. Men of science will discourse on philosophy with no more success and no more clarity than are achieved by Beatrice in Dante's *Divina Commedia*. Philosophers, in all the precision of metaphysics, will enunciate canons for the progress of observational science. Nay, theologians have been known to formulate fundamental principles which, as being the eternal verities, are the unchanging limits of scientific attainment. Even the citizen in the bus will settle the policy of a nation, though his knowledge of an issue at stake could be written on a picture postcard, leaving plenty of space for the picture. So let me, very respectfully, for once be the obedient shoemaker of the adage, not look above my last, and offer you a sample of my own wares.

The subject of mathematics, to some aspects of which my lecture will invite your attention, is regarded variously: sometimes with respect, rising through awe to wonder; sometimes with dislike, degenerating through repulsion to hatred. Occasionally it is regarded as a key, even as the guide, to trustworthy knowledge; sometimes as the dismal process of

calculations to be performed by hired computers. In any event, why take it as the matter of a lecture? For there are at least two diverging views as to the nature of such a performance. One view is that the lecture should give a tabloid summary of what is hidden in books that are not read: yet, in the case of my choice, who wants a summary of what seems the infinitely arid and the absolutely incomprehensible, as so obviously appears whenever a mathematical book is opened? Another view is that the lecture should give what is not to be found in any of the books, so that the exposition of novelties shall induce, in a sympathetic listener, the frame of mind that is willing to acquire fuller knowledge through patient labour. On this view the listener must indeed be sympathetic, very willing to provide the patient labour for the acquisition of mathematical knowledge: for he will find, as Euclid told a bored and discontented pupil in words that have lived for more than two thousand years, "There is no royal road to learning."

My purpose differs from both of these implied aims. It is to invite you to note one or two of the uses, some simple, some recondite, of mathematics, and, by noting them, to attempt an appreciation of the issues which are forced into daily discussion and daily action.

For the ordinary course of affairs a great English divine declared that "probability is the very guide of life." Usually certainty is lacking: and probability can be taken as the only reasonable guide amid an occasional maze of possibilities. Yet, when sifted and analysed, this probability often reduces itself to a more or less mathematical (chiefly, I fear, less mathematical) measure of moral and material advantages to follow. The spirit of mathematics, if not its method, dominates the sifting analysis: we can sometimes regret that the method is lacking. Let me offer a couple of illustrations.

Some of you may remember a legend of wide circulation in 1914 before the Great War was many weeks old: how a force of 80,000 Russians had been landed in the north of England, transported from the north-east coast to Portsmouth, and thence shipped to France. The moral support of those Russians was a comforting belief at the moment. There had been days, only a human generation earlier, when everything Russian had been anathema to patriotic Englishmen: but those days were past. Though we might be martially arrogant enough to feel that we did not need the help, it still was good to think that we had it: so comforting that the news was accepted without question. Retired military men in clubs, an unfailing source of trustworthy wisdom, were supposed to know it: the unverified

gossip of the smoking-room gathered confidence in statement as it spread: the good news was believed. I was staying on the Dorsetshire coast at the time: and during a week-end a visitor brought information from a London club that the stationmaster at Dorchester had seen the Russians pass through his station in the train. My mathematical scepticism was roused: my informant, by successive queries mildly posed, was induced to estimate the number of men in a compartment, the number of compartments in a carriage, the number of carriages in a train even in a period of emergency, and the consequent number of trains needed to convey the said 80,000 Russians. When, on the basis of his own estimates, he informed me (correctly) that over one hundred trains would be required for the transport, I asked him whether the Dorchester stationmaster had seen over one hundred trains pass through his station. His answer was blank silence: for him, as for me, the Russians vanished into thin air—a little salutary arithmetic had dissipated a hopelessly false legend that was fostering false confidence. Probability had not been the guide of my informant's judgment.

I suppose that, in Swansea as in other communities, considerable industry is devoted by eager optimists to competitions anticipating the results of football matches. Newspapers (all of them prudent enough to insure against loss in the venture) vie with one another in offering large sums of money for merely filling up slips of paper: in those slips entries are to be made estimating the result for each one of a dozen matches, a win, or a draw, or a loss, for a specified side. To the person who anticipates all the twelve results correctly, a large sum of money is paid. So the competitors, eager for wealth but niggardly in constructive labour, spend long periods in hatching their prophetic guesses. It is not a game: it is not a business; it is a gamble. I sometimes wonder whether the competitors have the faintest idea of the minuteness of the chance of individual success in the competition, if it can be dignified by such a title. There are more than four thousand different ways of getting every guess wrong; there are more ways of getting eight guesses wrong and the other four right than there are of getting any other distribution; there are more than half a million ways of having one or more errors in the selection: there is only one way of getting them all right. Need I say more? To this fatuous occupation, Bishop Butler might have hesitated before declaring probability to be the very guide of life.

Let us pass to consider matters somewhat more serious and more precise.

A copious definition of mathematics can be given by describing it as the craft of counting as in the arithmetic of daily life, as the craft of measuring as in the original needs of surveying and engineering, as the craft of observing and noting as in the early days of astronomy. When the simple processes of counting, of measuring, and of recording observations are pursued systematically, it is found that the repetition of some particular issue requires the particular Repetition of some unchanging and appropriate process–a rule is evolved: the rules aggregate into a science. Moreover, there arises the necessity for some discrimination between the nebulous inspiration of a guess, which in our graver moods we call an "idea," and the comparative certainty of a systematic inference, which those graver moods dignify with the title of a "theory." As a mere fact, speculations and ideas may be almost as old as the hills: laborious methods can lead to a theory which, new to-day, may be discarded or be confirmed tomorrow in the light of fuller knowledge.

Again let me offer a couple of illustrations, more academic than imaginary Russians or a gambling quest for an unearned increment. One shall be from astronomy, the other from the structure of matter or (as the old Latin poet Lucretius styled it) the nature of things.

Systematic astronomy had its establishment in observations as accurate as time and patience and simple instruments would allow. A marvellous collection of facts, relating to such abstruse phenomena as the sequence of eclipses of the sun and of the moon, was made by the ancient Chaldeans. Later the Greeks, whose passion for geometry was almost a rule of life, began to describe the heavens geometrically as they saw and we see the heavens. The natural, the almost inevitable, consequence was that, because the Greek observers described accurately what they saw, they made the earth the centre of the universe. (Here let me say that these old Greek descriptions remain as accurate as man could make them: where we part company from the Greeks is in the assumption, obvious but untrue, that the phenomena require the earth to be the centre of all things.) Yet nearly three centuries before the Christian era the Greek philosopher, Aristarchus of Samos, was an early astronomical heretic– he groped towards a heliocentric theory of the universe: with him it was a speculation, an idea, based upon an inference that the sun is seven times as large as the earth, at a time when there was little knowledge of the size of the earth and less of the size of the sun. His speculation remained in the region of fancy: the traditional trust in Aristotle maintained the acceptance of the old geocentric theory; there were not enough facts to achieve the tragedy of killing a theory. In their

turn the theologians of the West, conservative as are all orders of organized priesthood, made the geocentric theory an article of orthodox faith: and for centuries the universe, thus theocratic in matters outside religion and faith, could be described only in the vocabulary of the schoolmen in theology. A Catholic monk, Copernicus, opened the path to a change of estimate, though the innocent dedication of his book to the Pope saved his name from contumely: had he lived, it might not have saved him from the fate of Galilei. Gradually, almost painfully, methods systematized from facts killed the old theory: and the inspired guess of Aristarchus passed from the range of happy surmise into a knowledge of the solar system of which even the most exuberant imagination had not dared to dream.

My second illustration is taken from a more speculative range of thought—more speculative because less openly amenable to observation and to experiment. Many of you doubtless are familiar with the recent predominance of the word "atom" in scientific discussions. There was a time, even now easily recalled, when the use of the word was an implicit declaration that finality had been attained: human knowledge could not penetrate the indivisible. In the interval, a school of mathematical physicists has devoted itself to the study of the atom: its apostles have concluded that, mathematically, an atom is a universe in itself, a sort of solar system with recurrent revolutions of its members that can be subjected to calculation. Different atoms, in present speculation, are different universes which, under the compulsion of electric bombardment, may lose some of their constituents and, in doing so, become a changed universe. But mark the history. The atom was the irresoluble element by which Democritus, four centuries before the Christian era, explained the phenomena of matter to one of the most critical nations of thinkers the world has known: the atom became the explanation of animate, as well as of inanimate, nature. The culmination of that ancient theory came in the doctrine of Epicurus; and its fine exposition by Lucretius is nearly two thousand years old. In varying forms, with changing adaptations, it was tried, was found wanting, was driven from pillar to post, until it seemed to have reached a secure haven in chemistry. Where is the atomic theory now? Thirty years ago chemists were shocked by the resolution of the atom, the absolutely irresoluble element; now the more elusive electron has taken the field. The scientific world is in pursuit of the electron: Sir Ernest Rutherford is battering the atom by an electric attack under staggering voltage; and the negative electrons thus violently expelled from the domain of the positive nucleus are realizing the speculative

guess made, centuries ago, by Hipparchus, that atoms could lose portions of themselves and thereby change their essence. Sir Joseph Thomson, the brilliant master of Rutherford, goes further than his pupil and suggests that the electron itself is a universe, perhaps another mathematical solar system; and only two short months ago the distinguished son of Sir Joseph Thomson was able, as the result of investigations, to compare the size of the electron and that of the atom, neither of which has been seen by man. Physical speculation is outrunning its mathematics: but, as so often before, the return to mathematics is ever made as soon as there are facts amenable to calculation. The facts remain, and the calculations based on the facts remain. Theories spring up and flourish while they conform to the facts and the calculations: they wilt, when new facts come that demand requirements which the theories cannot supply. It resembles the historic cult in the Arician grove: an old theory of yesterday is forsaken for a new one of to-day, itself to be forsaken to-morrow, like

> The priest who slew the slayer
> And shall himself be slain.

What part does the science of mathematics play in all this scientific tornado? And, indeed, what does the science include, and what may it claim to achieve? Broadly speaking, as soon as any progressive subject attains a stage where its phenomena admit of some kind of measurement, then and there the science of calculation can begin to deal with the measurements: thereafter the subject can be assisted by mathematics. Calculations can predict some results that must ensue from combinations of facts, and so can render some experiments superfluous. Calculations can even anticipate experiment and observation: such has been the case with Hamilton's conical refraction in optics and with the electric waves which first emerged from the mathematical labours of Maxwell and Hertz. Calculations can utilize facts in nonexperimental fashion and produce results that lay concealed. But no calculation can produce results that do not belong to the range of the subject-matter: thus astrology, and alchemy, and necromancy, bound to be scientific failures, were and are successful frauds owing to the undying gullibility of human nature in its wistful yearning for the unknown and the unattainable.

Briefly, the science of mathematics cannot be a substitute for essential experiment: but it can show how experiments and observations, duly systematized, can be elucidated so as to discriminate between what is principle and what is detailed consequence of principle. Sometimes it can lead, though its guidance is unrecognized, to simple devices which

economize labour to an extent almost beyond credibility. Thus some of you know the slide-rule by practice; many of you will know it by name; but I am not sure that every student, or even every professor, would be prepared to furnish a reasoned statement justifying the various processes for which that admirable instrument is used. Yet it can be regarded as a compendium of logarithms, without tables and without any necessity for calculation: and logarithms are but a means of turning abstruse multiplication into simple addition and abstruse division into simple subtraction. Again, your Russian peasant usually is illiterate: but he will make out his invoice for wool, or furs, or timber, or corn and rye, as accurately as your western clerk by surprisingly simple means that mark a limit of his attainments. He can multiply by the number two, but no other number; he can divide by the number two, but by no other number; and he can perform simple addition. By these three operations he effects all that he needs for business transactions, and he effects it accurately. But he could not give you one word of explanation of a process which to him has become a habit; and if you explained the mathematical argument that justifies his action, he could not understand one word of the explanation. Does his process strike you as wonderful? It is no more wonderful, it is less wonderful, than the process employed by the smallest shopkeeper. Your Welsh shopkeeper calculates in what mathematicians call the scale of four for farthings, in the scale of twelve for pence, in the scale of twenty for shillings; he adds and he multiplies in the scale of ten. But he knows nothing of numerical scales; and probably he would not understand a word of reasoned explanation of such scales. The Russian peasant actually calculates, in essence though not in obvious form, in the scale of two: and some kind though unknown genius, in a dim and distant past, has turned the simple mathematics of the scale of two into the Russian peasant's process of arithmetic.

And if such is the fact in simple matters, you need not be surprised if the science of mathematics is used to high economic purpose where, at some stage, its calculations are obtrusively significant. Another couple of examples will justify such a statement.

At the present time, parts of the country are soon to be covered with a vast network of wires, stretching from pier to pier, for the transmission of electric power from central stations to relatively remote places where the power cannot be generated and cannot otherwise be obtained or concentrated. All sorts of complicated questions of an engineering kind arise, as fundamental in their way as questions connected with the construction of

a liner to cross the Atlantic or a bridge to span the Ganges: questions of stress, of strain, of strength to face unknown but imaginable conditions which may become grimly real; and the answers are the results of mathematical calculations. These calculations are made in an office, but they do not remain in the office: they are utilized to indicate critical tests and to adapt given possibilities for the making of those tests in a variety of external conditions. Not until all the tests are satisfied would the engineers be justified in proceeding to their work: and engineers know, and can imagine, better than all others concerned, how much superfluous labour has been saved by the mathematical calculations.

There were days when the telegraph, overhead or submarine, was at once a new toy and a new mystery. Once the springs of action were known, their doings were regularized by instruments devised on a mathematical basis. Systematic processes were thus possible: their mathematical basis was worked out by Lord Kelvin (then Professor William Thomson) especially for submarine cables; and through his double genius for mathematics and for engineering applications of mathematics, the telegraph took its place in the routine of daily life. Now it is so ordinary, almost so stale and so old-fashioned, as to seem on the verge of supersession. For you are surrounded by wireless telegraphy at every turn; the beginnings of telephotography are being made whereby you may see in your evening paper a transmitted photograph of some event occurring only a few hours earlier perhaps some thousands of miles away. Does it ever occur to jaded satisfaction to inquire how so much has come into ordinary life which even in our grandfathers' age would have been declared impossible or fanciful? The story is not long, though the labour has been multitudinous.

Probably any historian of modern electrical science would be prepared to acknowledge Faraday's researches as the beginning of a new epoch. Great as was his genius, and valuable as were those researches, Faraday left them largely as a treasury of rich results, fundamental in bearing, capable of ordered development from their experimental stage and wisely formulated laws, but still undeveloped. Then another genius with another bent, Maxwell the mathematician, regarded the quantitative results obtained by Faraday as the material for systematic mathematical analysis; and the monument of his life is his ordered mathematical exposition of a new mathematical theory of electricity and magnetism founded on the Faraday results. But, as so often has been the fact in the movements of human knowledge, when once the accurate scientific observations received their systematic treatment by mathematics, interesting possibil-

ities were revealed that hitherto had not even been surmised; and one immediate consequence of Maxwell's work was his creation of an electromagnetic theory of light, through the identification of a relation between certain electrical constants and the speed of the transmission of light. The notion of waves and vibrations now entered boldly into the discussion. Another mathematical genius, Hertz, developed the consequences of the Maxwell theory and, by his calculations, obtained inferences in advance of observed results. The constructive genius of engineers–Marconi is a typical and outstanding example–was fired to new efforts in practical application. Soon there was the initial sending of messages through space (call it the ether, if you choose, but do not suppose that a name implies knowledge) from one land to another, from land to ocean and ocean to land: last Sunday's armistice service in Trafalgar Square in London was heard in New Zealand. Let me leave you in the middle of sounds, which may come from a studio near at hand or a continental orchestra perhaps in Rome or Madrid: and in all your surprise and happiness do not entirely forget that, throughout the development, the science of mathematics has played, is playing, and will continue to play, its significant part in every endeavour. Electrical engineering is not wholly electrical, in practice or in theory: its successes are achieved not solely through its machinery, however elaborate. Behind all its progress, as part of the reasoning mind of it all, there labours the science of mathematics as an angel of human thought.

Perhaps it is in astronomy that the most picturesque instances of the use of mathematics have occurred. You all have read of the fall of an apple in a Norfolk garden: how that fall made Newton ponder: and how the scribes (sparing us details perhaps not always known to them) tell us that Newton thence discovered the theory of gravitation. Will you be indulgent if, with only a fragment of calculation and confessedly for an ulterior purpose, I attempt to give you an outline of the process of thought which led to that theory?

Without going back to the beginnings of dynamical science, it will be sufficient to recall one of the experimental observations of Galilei, now almost commonplace enough to be ignored; then novel enough to startle old conceptions, ultimately to destroy some dogmas of theological (I do not say religious) belief, and to recast human ideas of the cosmic universe. He inferred that a dropped stone fell straight down, that is, towards the centre of the earth, because the descent, wherever tried, is always straight down. He also inferred that, in its movement, the stone fell

four times as far in the first two seconds as it did in the first, nine times as far in the first three seconds as it did in the first: and so on for the succession of seconds from the beginning: the distance fallen in any number of seconds is measured by the result of taking that number and multiplying it by itself, "squaring it," as we mathematicians call the calculation. But this only gives a comparative measure among different periods: something more is wanted in order to state what we popularly call an exact measure. Such a statement demands a knowledge of the exact distance that the stone would fall in a specified time; for example, the exact distance the stone would fall in five seconds from the beginning of its movement. He had noted observations also which answered the demand: the result of calculations (always there is calculation) showed that there is a number, very slightly larger than sixteen (but let me call it sixteen for brevity of statement), which is of crucial importance. Return now to the measure of the distance through which the stone falls. We saw that the distance is, first of all, measured by a number which is the square of the number of seconds (the number of seconds multiplied by itself). We take that square number, which gives the first and the sort of relative estimate of the fall, and we multiply that square number by the crucial number sixteen, no matter what the square number may have been. The product–what a schoolboy calls the "answer"–is the exact distance through which the stone has fallen in the specified time, when the distance is measured in English feet. Thus in three seconds the distance would be 144 ft.: for the square of three (that is, three multiplied by three) is 9, and the result of multiplying 9 by the crucial number 16 is 144. In five seconds the fall would be 400 ft.: for the square of five (that is, five multiplied by five) is 25, and the result of multiplying 25 by the crucial number 16 is 400. And so on. Let me ask you to remember that the fall of the stone is measured by the square of the number of seconds in the duration of the fall: above all, to remember that there is a crucial number sixteen.

Now an explanation of the movements of the planets was being attained, though very gradually. The Copernican opinion, that they moved round the sun as a fixed body, was making its way, because the more it was tested the more continually did it accord with facts. The observations of Tycho Brahe had been reduced to systematic results by the industry of Kepler, who found that planets move almost in circles, actually in oval curves (mathematicians call them ellipses), with the sun in the supreme position at the focus: and these ovals differ from circles only very slightly. But that discovery of Kepler's was only descriptive,

corresponding to the description of a stone as falling straight down: it was no sort of measure of the movement of a planet. Such a measure came, once more, from Kepler's labours: he established two great inferences, laws as they are called. One law was concerned with the constant rate of speed round the sun, as measured by the area swept out by an imagined line drawn from the sun to the planet, thus giving one sort of measure. The other law was concerned with a relation between the size of the oval described by the planet round the sun, and the time which the planet required to effect one complete revolution round the sun: thus giving a second sort of measure. Knowledge had passed out of the describing stage into the measuring stage.

The genius of Newton comes upon the scene. According to the chronicles in summary, he saw an apple fall: it made him think of the moon; and thought led him to the theory of universal gravitation. Perhaps the sequence of ideas, a falling apple, a steady moon, and an abstract theory, does not seem very coherent; and it sounds like an extract from *Alice in Wonderland* to be told that the abstract theory can account for the fall of the apple and the steadiness of the moon. Yet it is true, and the explanation comes in this wise.

The Galilei stone and the Newton apple both fall straight down, that is, to the centre of the earth, supposed to be a globe: that qualitative result happens wherever the fall takes place; it is reasonable to suppose that the fall is due to the earth. There had been another discovery of Galilei's which, at first, had shocked even intellectual belief: stones of different weights and kinds and sizes fall through the same height in the same time; and so it is reasonable to suppose that, in the fall of a stone, the earth is the principal agent, perhaps the only agent, that leads to the fall of any stone anywhere through any height. It is true that the distances which can actually be observed for falling stones are ludicrously small compared with the size of the earth; and the crucial number seems to be a lonely fact, unrelated to anything except a falling stone, unexplained, so far inexplicable. But everything connected with the observation and with the calculations remains unaffected if a hypothesis be propounded under which the earth attracts the stone and is the sole cause of its fall: and there is no other observation, reserved in a background, to render that hypothesis open to objection.

Next, the moon goes round the earth steadily: so far as that movement is concerned, the moon can be declared (always descriptively, and with sufficient accuracy) to move round the earth in a circle with a steady

speed. But the stone falls straight to the earth, always with an increasing speed; the moon moves round the earth, always with a steady speed; what earthly connection can there be between the two movements? It is here that the hypothetical attracting faculty of the earth enters, through another discovery which had been made by Galilei and formulated precisely by Newton. Under this law a movable body, if subjected to no influence of any kind, and if it moves at all, will only move in a straight line, and only at an unchanging speed in that line; and variation from the straightness of path, or variation of speed even in a straight path, can be effected only by outside influence. Our falling stone moves in a straight path downwards, but with an ever-gathering speed; this change of speed is due to some influence: all falling stones make in a direction towards the very centre of the earth; can the influence, affecting the speed, be due to the earth attracting the stone down to itself? Our moon does not move in a straight line; the deviation from straightness must be due to some influence; we must, for the moment, leave the uniform speed out of count, for the law makes no declaration concerning uniform speed not along a straight line. Can this influence upon the moon be due to the earth for ever attracting the moon out of the straight line which would be an uninfluenced path, drawing the moon to itself, with just enough influence to keep it at a steadily unchanging distance from itself? On the hypothesis of an attracting quality in the earth, the said quality must explain the deviation of the moon from a straight path, while it can explain the changing speed of the falling stone. The hypothesis must be tested; it is not to be declared true because it has not been disproved.

Critical tests are ready in the observed facts and in the inferences from the facts. But how are the facts to be used? Simply and solely by the application of mathematics, never constructed in this direction by any man before Newton, now the possession of any reasonably capable mathematical undergraduate.

Remember that we have the crucial number, sixteen, for Galilei's falling stone: let us now pay some attention to the moon. As the moon moves steadily in a circle round the earth, in a period of 29 ½ days roughly, and as the distance of the moon from the earth otherwise is known to be approximately sixty times the radius of the earth, the steady speed of the moon in her circle is easily calculated: the inferred estimate will, of course, be based upon the estimated size of the radius of the earth. An entirely different calculation gives our estimate of the pull to be exercised upon the moon, to drag her regularly and always into the circle away from the straight line which would be her path if there were no influence. Had

there been no influence she would have gone along a straight line, for ever moving away from the earth farther and farther: as things are, she remains at a steady distance that on the average remains unchanged. Consequently the difference, say at the end of one second, between her actual distance from the earth and what would have been her distance had she moved along a straight line, is the distance through which, during that second, the supposed effective influence would have pulled her. That distance is a measure of the influence: but how is the influence to be estimated?

The estimate manifestly cannot come in the same way as for the falling stone. For the stone, only a few hundred feet at the utmost came to account. The moon is 240,000 miles away from the earth and remains at that distance. An assumption that the measure of the attracting influence of the earth is the same for all stones falling upon its surface causes no mental hesitation: the few hundred feet, which are the utmost traversed by a stone, are such a triviality in magnitude compared with the four-thousand-mile radius of the earth that there is no real opportunity for modification of the influence of the earth. But what is to be the assumption made for an attracted moon, if it is attracted? In thought we have to go far to reach the moon: we may as well be bold, go out boldly in thought into the vast space of the solar system, and use the knowledge provided by the Kepler laws which, be it noted, are not hypotheses but are the systematic expression of observed facts.

An easy mathematical calculation indicates the character of the supposed terrestrial influence which does no more than keep the moon going round in a circle at an unchanging distance, but does not bring the moon any nearer as it brings a stone nearer. This calculation uses the Kepler law establishing the relation between the size of a planetary path and the time of revolution along the whole path, and the result of the calculation is to show that the attracting influence of the earth, if it is to be the controlling cause of the movement, must decrease as the square of the number which represents the distance of the attracted body from the centre of the earth. The distance of the moon from the earth is, roughly, sixty times the radius of the earth; and the square of the number 60 is 3,600. Therefore, according to the result of the calculation, the attracting influence of the earth at the distant moon is only one 3,600th part of its attracting influence upon a stone falling at its surface.

Now we know that the earth's influence is the same for all falling stones and, ultimately, is measured by the crucial number sixteen. We want to know whether the earth's attracting influence, if any, upon the moon can

be the same in kind as upon the falling stone, while, of course, its magnitude will be diminished in proper proportion owing to the difference in distance. Let us denote the crucial number, connected solely with the attracting power of the earth, by the symbol *x,* so dear to mathematicians. For a falling stone at the surface of the earth this number *x* is known to be sixteen. If our hypothesis, that the earth's attracting influence is the sole cause dominating the movement of the moon, can be justified, the number at the distance of the moon would be $\frac{1}{3600}\ x$, just as *x* is sixteen at the surface of the earth. We therefore have to calculate this number $\frac{1}{3600}\ x$ for the moon, in the same way as 16 is the calculated number for the stone. When it has been found for the moon, we at once have the value of *x* by a simple operation; and this value of *x* is as crucial for the moon's motion under our hypothesis as is the number 16 for the falling stone. If this crucial number *x* for the moon is inferred from the calculation to be the same as the crucial number 16 for the falling stone, the hypothesis concerning the attracting influence of the earth is so far justified. If it is not, the moon sails on, serenely unexplained. The crucial number for the moon must be found.

Here, Newton was at the crisis of his investigation. He had his facts: there were the established laws, expressing accumulations of observations: there were the old measurements in the accepted units, the foot as the precise unit for distance in the case of the falling stone, the radius of the earth to be expressed in miles as a less precise unit in estimating the distance of the moon. Newton was now to test his theory in the furnace of fact. Everything depended upon the crucial number *x*: would it come out, for the moon, the same as it was for the stone, the critical sixteen?

When this crucial number *x* first emerged from Newton's calculations about the moon, it turned out to amount to something very slightly less than fourteen–let us call it fourteen, as approximately as the critical sixteen. Certainly the *x* had been found to be the number sixteen for the stone, which was as surely sixteen as human observation could make it. The theory was not established as a working hypothesis. Unless unknown and apparently undiscoverable errors had crept in, of such a kind as to vitiate the calculation, the theory could not be maintained. Something must be wrong somewhere: hardly imaginable in the facts or in the data; perhaps–a reluctant perhaps–in the assumption that the earth was the attracting influence upon the stone and the moon. At that stage there was nothing to be done by a mind and a temperament such as were Newton's: he kept silence, consigned his soul not to perdition but to patience, and proceeded to ponder over other riddles of the physical universe.

Now what is the secret of the situation? It is implied in what has already been said, as though it were a clue in a crossword puzzle. The calculations involved, through the moon's distance, an estimate of the radius of the earth in miles; and in Newton's day the mile, a geographical or nautical mile, was the sixtieth part of a degree. The calculations involved, through the distances traversed by the stone, the adoption of the foot as the unit. The two different units of length had to be brought into relation. We, of course, take 5,280 feet as equivalent to a mile; so did Newton. But that mile of 5,280 feet is not a geographical mile, the sixtieth part of a degree of latitude; the geographical mile survives solely in one usage, the maritime knot of 6,080 feet, and Newton did not know the fact. A correct estimate had, it is true, been published some thirty years earlier by a London schoolmaster based upon his own observations during a holiday tramp from London to York; but in the Stuart days of the first Charles, England was more concerned with political turmoil than with a pedagogue's estimate of a mile, and the schoolmaster's contribution to knowledge remained unnoticed and unknown.

Some thirteen years passed in silence for Newton. In 1679 a friend told him of a recent French research in geodesy which gave a corrected estimate of the length of a degree of latitude: still, of course, the sixty geographical miles, but a little over sixty-nine of the customary civic miles of 5,280 feet. Thus one datum in Newton's calculation had been wrong: he had used a wrong number, 60, instead of a right number, 69. In the light of this new knowledge Newton returned to his old calculations: the use of the more accurate measure of the radius of the earth brought out the crucial number x for the moon to be in exact and complete agreement with the crucial number 16 for a falling stone. His hypothesis concerning the attracting influence of the earth was verified. It became a trustworthy working hypothesis which, in due course of its development, though then he knew it not, was to achieve a revolution in thought as regards the human knowledge of the physical cosmos.

But his mathematical triumph was only the beginning of new mathematical work. Suddenly there loomed before him a portentous difficulty. All his calculations had treated the moon, the earth, the sun, as points–points which, in Euclid's definition familiar to Newton, had no parts and no magnitude: an earth of no magnitude; a sun of no magnitude; truly portentous assumptions! To Newton's mind a fresh difficulty was only a fresh problem to be solved: and, here, he made another mathematical discovery which was of supreme importance for his theory. The moon, the earth, the sun, the planets, all of them round bodies, are very nearly

spherical in shape; and Newton's fresh discovery was that the complete attraction of a sphere on an outside body was the same, in all respects, as if the whole of the matter were condensed at the centre. In fact, his mathematics showed that he could regard the moon, the earth, the sun, as attracting points. The difficulty disappeared: the theory could stand. Now he could go forward, to test the theory further by further extension: the result was his theory of universal gravitation according to which every particle of matter in the universe attracts every other particle according to a definite law: the attraction was measured by dividing one fixed number by a number which represented the square of the distance between the attracting particles. He worked out the theory in detail, under this law; the calculated results everywhere agreed with the observed phenomena; and the result was the publication, in 1687, of his *Mathematical Principles of Natural Philosophy,* one of the great books of the world. It was an achievement made through mathematics by a mathematician. It has been confirmed and amplified since Newton's day by generations of mathematicians of all the ages and all climes: by means of it, and still using their mathematics, they have made predictions that are daily verified in the movement of the planets; they have predicted the return of comets, they discovered a new planet, and, passing from fact as commonplace as the creation of the Nautical Almanac to the shadowy realms of high speculation, they measure the bounds of the universe, assign a limit in the past to its evolution from chaos, nay, they will even assign a limit to its future–a very remote limit, happily for our sense of ease–when it may subside into an exhausted extinction. Personally, I prefer fact to speculation.

Behind my account of the emergence of the theory of universal gravitation, there stands a purpose of warning rather than edification. Often in recent years you will have heard the name of Einstein: the journals and newspapers appeared to palpitate with excitement over his discovery, which was very real and of real importance: but there always was, and there remains, a grave dearth of comprehensible explanation as to the gist of his discovery. The writers found the word relativity: it used to bear a philosophical significance mainly connected with a doctrine that existence and observation are not independent of the living and observing mind. The association with the physical universe was rather nebulous in explanation: that mattered little; was not Einstein's important (but dimly understood) discovery connected with relativity? So, imitating the image-makers at Ephesus in the days of the apostle Paul, the expositors

proclaimed that "Great is relativity." Here are the facts, so far as they are concerned with the theory of gravitation.

That theory of gravitation was found to embrace all astronomical observations. By the assumption of that theory as a working basis, Halley in 1706 had predicted the periodic return of a particular comet: it duly verified the prediction in 1758, in 1835, in 1910; and its next coming is due only fifty-eight years hence. By the assumption of that theory Adams and Leverrier, independently, through a vast mathematical calculation applied to some seeming irregularities of the planet Uranus, discovered the existence of a still more distant planet Neptune, never observed before the discovery made in their studies. The mathematical genius of Laplace had set the phenomena of the astronomical heavens in mathematical order. Everything was settled into its place, or almost everything. There remained one or two minute somethings. When the most elaborate calculations had been completed, there remained a little unexplained fluctuation in the movement of the moon, so often accused of fickleness by the poets; and one planet, fitly named after Mercury, the not overrighteous messenger of the gods in classical mythology, was found to be acting in a manner inconsistent with strict mathematical propriety. The vagaries of Mercury were very slight: its orbit is far more tilted than that of any other planet, and is more swiftly traversed than that of any other planet; but the vagaries could not be explained by tilt or speed, and their source (that is, the cause of the difference between what is actually seen and what calculation led astronomers to expect) could not be discovered. The irregularities made no difference to daily life: they made no other difference to astronomical life: but there they were. Nature would not change so as to conform to man's explanation, so man's explanation must be examined in order to be brought into conformity with nature. The accuracy of the calculations could not humanly be challenged, for they obeyed every test that human reason could devise. Perhaps there was something, an extremely tiny something somewhere (for, remember, the deviations are extremely slight), something wrong in the fundamental assumptions upon which the calculations were based. And here is an illustration of the difference between practice and thought: "to stop that nonsense" an engineer would have driven a rivet, would have inserted a guiding slot, would have added a tightening chain round the dome of St. Paul's. But rivets and slots and chains are devastations in thought, not remedies: so the fundamental assumptions must be revised. It had been assumed that the solar system is fixed, absolutely fixed, in the universe: is that dogma true? Even if it is not true, the alternative of a wandering solar

system would hardly explain the minute domestic vagaries of one rather insignificant member. It had been assumed that the measurement of the same thing, in varying circumstances and at diverse times, made as accurate as human skill can achieve, and corrected for every incidental error that human skill can detect, is always the same, whatever be the time and the place of the thing measured and the measurement made. The dogma seems an obvious inference from what we are pleased to call common sense: like so many obvious things, it cannot be proved and it cannot be submitted to adequate test: in fact, common sense continues to call it obvious. But how if it be not true? Your standard of measurement, used to measure a magnitude in passing time and on a moving body, would change in the same way (if at all) as the measured magnitude, and you could not detect the change, if there be change: and, in that case, your measures would no longer be absolute: they would be relative, perhaps to time, perhaps to place or change of place, perhaps to the way of change. Nothing remains absolute: yet that was a fundamental assumption, stated explicitly, in the Newtonian philosophy.

Now this notion of relativity is not new: it did not come into scientific thought with Einstein: it was not unknown to Newton himself: and men have pondered over it often in the last fifty years. But there is the customary difficulty: an idea may come into the range of thought: how can it be garbed in expression, for discussion, for calculation? You will remember the wisdom of a character in George Eliot's *Theophrastus Such,* "There's some as thinks one thing: there's some as thinks another thing: but my opinion's different." Men, charging themselves with the formulation of relativity, have devised various modes of its mathematical expression; and, so far as concerns astronomy, there is not the unanimity of expression which, if there, would be a rudimentary recommendation. It was the work of Einstein which was the first to explain—or, at any rate, to account for—the behaviour of Mercury: and therefore it is to Einstein that the glory rightly accrues. The method of Einstein, however, is not the sole one that gives an explanation; for the mathematical methods of other men have also led to that result, after Einstein. But neither the method of Einstein nor the method of any other mathematician has yet succeeded in explaining the slight caprice of the moon.

How far the popular expositors had made themselves acquainted with the investigations in all accessible issues, before some of them tried to make our flesh creep with their pronouncement upon the passing of gravitation, might be the curious quest of some doubting scientific Thomas Didymus. But of one thing we may be reasonably sure: neither in

that theory, nor in any other living theory, has the last word been said. For the last words of all are the epitaph on a tomb: and the Newtonian theory is still alive sufficiently to provide man with a working hypothesis of the natural universe in which he lives.

Before I close, there are two inferences which I would appeal to you not to draw from my lecture. It is not the fact that the services of mathematics are restricted to the subjects that have been selected for mention or illustration. It is not the fact that the science of mathematics exists or thrives, solely or mainly in order to find or to further applications in other sciences.

The range of human activities, within which mathematics and the ideas of mathematics are called upon or are utilized for service, is so vast and so varied that I can do no more, at this stage, than mention the names of some of the regions where the science of mathematics is active. Enough has been said on the score of astronomy. In engineering of every type, ranging from the ancient ship of the sea to the modern ship of the air, in your buildings, in your bridges, in your tunnels, its help is indispensable. Is it an occupation so sedate as book-keeping, say by double entry? That process is but an iterated application of the use of the plus and minus signs of algebra, though the book-keeper is not usually aware of the fact. Is it a science so relatively modern as physical chemistry? Much of that science is based upon the mathematical expression of some of the laws of change in physical nature. Is it a science which apparently is so far remote from the usual conception of mathematics as is physiology, the science of the processes of living organisms? That human science is examining the phenomena of the activities of such organisms, is expressing quantitatively those activities, is dealing mathematically with those quantitative expressions: there are the researches on the expenditure of muscular energy, the researches on industrial fatigue. Did not a sectional president startle the British Association the other day by hinting (though without adequate justification) that a distinguished physiologist, trained as a mathematician and using his knowledge, was on the verge of discovering the mystery of life itself? Is it the spotting of invisible guns on a far-flung battlefield? My friend and former colleague, your worthy professor of mathematics in this College, could tell you of the combined efforts of mathematicians and physicists who, by means of instruments and calculations connected with the properties of sound, were able to devise means of approximate location. And those same properties were used, in connection with mathematical instruments constructed for the purpose, to

detect, from the surface of the sea, not merely the fact, but the direction of approach, of a hostile submarine. The citations of utility could be continued almost without limit: only one other subject will be indicated. If there is anything that appeals to the average inhabitant of these islands and is a frequent topic of unfruitful conversation, it is the weather: and a feature of our morning newspaper is the forecast issued by the Meteorological Office. But the occupants of that office are not like the ancient soothsayers, waiting for inspiration from gifts tendered and from sacrifices rendered. They collect scattered information, co-ordinate that information by settled mathematical processes, draw their mathematical diagrams to represent that co-ordinated information, and, inferring tendencies from movements indicated by their diagrams, issue their calculated forecast.

All these—there are more that crowd into the mind—may be an adequate recital showing how essential and how extensive is the service rendered by the rather silent science of mathematics to the practical life of mankind.

Most of all, I would not wish to have you possessed by the notion that the pursuit of mathematics by human thought must be justified by its utility for practical uses in life. Such a justification would, it is true, require the inclusion of mathematics in the scheme of any university where technical studies are deemed important; and in the growing prosperity of your University College, the more generously you open your technical courses to mathematics, even in their utilitarian aspect, the more will the professional students ultimately benefit. But having paid tribute to the demands of the market-place, let me speak for mathematics as a pure science of progressive knowledge, worthy to claim the devotion of the finest intellects to its pursuit, worthy to challenge the respect of man towards the world of learning. One of the high ideals of mankind through all the ages, and in all civilizations, has inspired the search for more knowledge wherever it can be found or be attained. Ever since man has attempted to acquire ordered knowledge, the science that deals with number and deals with form has been pursued for its own sake because, thereby, the human spirit can find unending satisfaction and unending occupation. And the creations of mathematical science have been the glory of the nations. We may recall the lost dominion of Babylon, we may think of her hanging gardens as, in their time, a wonder of the world; we may sigh over her pomp and her luxury, gone like a dream in the visions of the night; but the contributions of her Chaldean priests to astronomy survive to this day. Greece has an immortal name from her art, from her

literature, from her philosophy: her rival schools of Plato and of Aristotle still dominate the Western world; but her fame is no less immortal by her bequest of geometry and of number, two of the purest theories ever devised by the human mind. We may hold Semitic science in low regard: but Arabic learning kept science alive when the rest of the intellectual world was torpid; it created algebra as the marvellous extension of the Greek arithmetic, and gave us the very digits we use and the scale of ten, so familiar to us as to seem part of our existence: we can pay our mental homage of remembrance to those ancient Arabs in southern Spain. What the modern peoples have thus inherited they have amplified beyond recognition; and the nations of the West–France, Germany, Italy, America across the ocean, our own people–have lived in an unending life-giving rivalry in the creation of mathematical knowledge, sought for its own sake, its domain as boundless as human thought itself.

For there is progress still in mathematical science; there will always be progress of increasing knowledge in a world that is not dead. Results have been achieved by the noble army of great spirits of the past, and their achievements are the possession of the living. But those very achievements are the stimulus to the living that they, in their turn, shall endeavour to advance knowledge. And this pursuit is to be made by the living spirits for the sake of new knowledge, not for the sake of new glory, not for the sake of new benefit. If utility should come, well and good: but we need trouble no more about immediate utility as an aim than the Greeks troubled about the utility of their conic sections or Newton troubled about the utility of the gravitation theory. So here, amid this community in a centre of commercial activity, in this home of high learning which has been established for the betterment of men and women as human citizens, let me plead, if pleading be needed, for the highest consideration to be given to the pursuit of pure knowledge as well as technical training, not neglecting mathematics, once called the Queen of the Sciences. The wind bloweth where it listeth, and the spirit of knowledge does not follow the quest for wealth and power; but the creation of new knowledge makes for the high repute of a nation, alike in the days when its influence is dominant and in the more distant days when its doings shall have been recorded on the scroll of time.

Alfred North Whitehead

1861–1947

Alfred North Whitehead, one of the most outstanding philosophers of recent times, was born in Ramsgate, England, in 1861. He was the son of the Reverend Alfred W. Whitehead, who was then headmaster of a private school. The educational and religious atmosphere of his home, the participation of his family in community affairs, and the surrounding countryside, rich in historical relics, all exerted a permanent influence on the younger Whitehead. He had a deep sense of the past, and a secure feeling of being at home in the world.

In 1880 Whitehead entered Trinity College, Cambridge, where he remained as student and Fellow until 1910. Then, for thirteen years, he was at the Imperial College of Science and Technology in Kensington. In 1924, rather than accept retirement because of old age, he moved to America and became professor of philosophy at Harvard. It was there that he was able to give the fullest expression to his own philosophy. He once remarked: "From twenty on I was interested in philosophy, religion, logic and history. Harvard gave me a chance to express myself." During this time he wrote *Science and the Modern World, Process and Reality,* and *Adventures in Ideas*. He was senior member of Harvard's Society of Fellows until his death in 1947.

The first phase of Whitehead's intellectual development was devoted to logic and mathematics. During this period, he wrote *A Treatise on Universal Algebra* and, together with Bertrand Russell, *Principia Mathematica*. This second work, which undertakes to establish the logical foundations of mathematics, has been called one of the greatest contributions to logic since Aristotle. The *Principia,* like that of Isaac Newton, set the fashion for decades to come, so that research in symbolic language became a major branch of

mathematics. This program of "logicalizing" all of mathematics took ten years and ran into three volumes. The patience of investigation required is illustrated by the fact that the proof of the proposition $1 + 1 = 2$, which appears as Theorem 110.643, is not given until page 83 of the second volume.

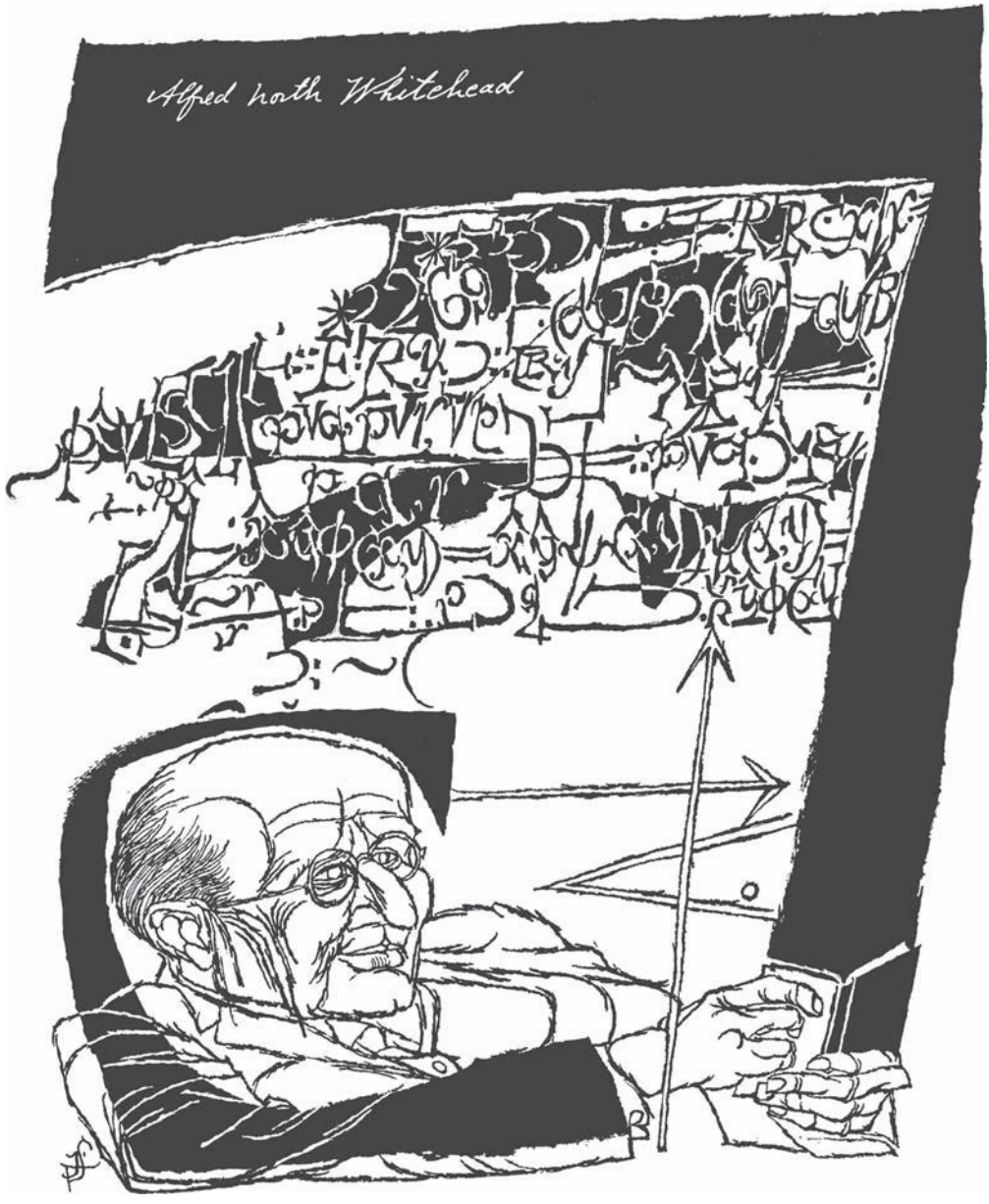
In his second phase of development, Whitehead turned to the philosophy of science. He wrote *Enquiry Concerning the Principles of Natural Knowledge, The Concept of Nature, The Principles of Relativity,* and *Introduction to Mathematics,* a classic popularization of the subject. The following selection, "On Mathematical Method," is taken from this last work. Here Whitehead examines the fundamental ideas that form the foundations of mathematics rather than the technical processes by which problems are actually solved.

Whitehead once said: "It is a profoundly erroneous truism, repeated by copybooks and by eminent people when they are making speeches, that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them." In mathematics, "not thinking of what we are doing" is, Whitehead points out, the essence of abstraction, the importance of which lies in the fact that it is only by abstracting that we can form ideas of the universe.

Whitehead illustrates how abstraction leads to new ways of thinking, so that facts and relationships hitherto unknown come to light. The invention of variables, possible only after the invention of algebra, led to the formulation of laws about things that change. With the concept of variability, and using the method of abstraction, Newton was able to establish the law of gravity.

Whitehead defends the unworldly quality of mathematical inquiry, saying that "the really profound changes in human life all have their ultimate origin in knowledge pursued for its own sake."

Notes from the artist: "Strong contrasts were used in the portrait of Whitehead. . . . Bold blacks and open whites frame the picture, while within it calculations from his Principia Mathematica*–twisted into semiabstract forms–dance above the head of Whitehead, who is seen in an attitude of quiet concentration."*


Alfred North Whitehead

Abstract theorizing led Faraday to important discoveries in electricity. It took practical ability to develop the modern uses of electricity, but, to Whitehead, a world dominated by practical men is symbolized in the fate of Archimedes as told by Plutarch.

On the Nature of a Calculus examines the way in which tools for abstracting are forged. Such a tool is called a calculus. It is the art of manipulating signs according to certain fixed rules. Arithmetic is a calculus; so are algebra and trigonometry. The branch of mathematics invented by Newton and Leibniz was considered so important that it was called *the* calculus.

The most significant thing about these tools is that after they have been invented they seem to lead a life of their own. A mathematician often feels that he is in the position of simply watching them to see what they will do. If we can imagine one set of tools making another set of tools, we have a picture of the growth of mathematics. "Device is piled upon device," says Whitehead. But he rejects the idea that mathematics can become completely divorced from the world of things. A calculus may consist of symbols that stand for other symbols, but, if it is not to be frivolous, it must ultimately refer to some reality.

The rarefied atmosphere of Abstract Thought is not an outer space reserved for professional mathematicians. If you have learned to add two and five without asking "Two and five what?" you already have both feet off the ground–higher than you think. You are now air-borne. The rest is just a matter of gaining altitude.

On Mathematical Method
from *An Introduction to Mathematics*

THE ABSTRACT NATURE OF MATHEMATICS

The study of mathematics is apt to commence in disappointment. The important applications of the science, the theoretical interest of its ideas, and the logical rigour of its methods, all generate the expectation of a speedy introduction to processes of interest. We are told that by its aid the stars are weighed and the billions of molecules in a drop of water are counted. Yet, like the ghost of Hamlet's father, this great science eludes the efforts of our mental weapons to grasp it—" 'Tis here, 'tis there, 'tis gone"—and what we do see does not suggest the same excuse for illusiveness as sufficed for the ghost, that it is too noble for our gross methods. "A show of violence," if ever excusable, may surely be "offered" to the trivial results which occupy the pages of some elementary mathematical treatises.

The reason for this failure of the science to live up to its reputation is that its fundamental ideas are not explained to the student disentangled from the technical procedure which has been invented to facilitate their exact presentation in particular instances. Accordingly, the unfortunate learner finds himself struggling to acquire a knowledge of a mass of details which are not illuminated by any general conception. Without a doubt, technical facility is a first requisite for valuable mental activity: we shall fail to appreciate the rhythm of Milton, or the passion of Shelley, so long as we find it necessary to spell the words and are not quite certain of the forms of the individual letters. In this sense there is no royal road to learning. But it is equally an error to confine attention to technical processes, excluding consideration of general ideas. Here lies the road to pedantry.

The object of the following chapters is not to teach mathematics, but to enable students from the very beginning of their course to know what the science is about, and why it is necessarily the foundation of exact thought as applied to natural phenomena. All allusion in what follows to detailed deductions in any part of the science will be inserted merely for the purpose of example, and care will be taken to make the general argument comprehensible, even if here and there some technical process or symbol which the reader does not understand is cited for the purpose of illustration.

The first acquaintance which most people have with mathematics is through arithmetic. That two and two make four is usually taken as the type of a simple mathematical proposition which everyone will have heard of. Arithmetic, therefore, will be a good subject to consider in order to discover, if possible, the most obvious characteristic of the science. Now, the first noticeable fact about arithmetic is that it applies to everything, to tastes and to sounds, to apples and to angels, to the ideas of the mind and to the bones of the body. The nature of the things is perfectly indifferent, of all things it is true that two and two make four. Thus we write down as the leading characteristic of mathematics that it deals with properties and ideas which are applicable to things just because they are things, and apart from any particular feelings, or emotions, or sensations, in any way connected with them. This is what is meant by calling mathematics an abstract science.

The result which we have reached deserves attention. It is natural to think that an abstract science cannot be of much importance in the affairs of human life, because it has omitted from its consideration everything of real interest. It will be remembered that Swift, in his description of Gulliver's voyage to Laputa, is of two minds on this point. He describes the mathematicians of that country as silly and useless dreamers, whose attention has to be awakened by flappers. Also, the mathematical tailor measures his height by a quadrant, and deduces his other dimensions by a rule and compasses, producing a suit of very ill-fitting clothes. On the other hand, the mathematicians of Laputa, by their marvellous invention of the magnetic island floating in the air, ruled the country and maintained their ascendancy over their subjects. Swift, indeed, lived at a time peculiarly unsuited for gibes at contemporary mathematicians. Newton's *Principia* had just been written, one of the great forces which have transformed the modern world. Swift might just as well have laughed at an earthquake.

But a mere list of the achievements of mathematics is an unsatisfactory

way of arriving at an idea of its importance. It is worth-while to spend a little thought in getting at the root reason why mathematics, because of its very abstractness, must always remain one of the most important topics for thought. Let us try to make clear to ourselves why explanations of the order of events necessarily tend to become mathematical.

Consider how all events are interconnected. When we see the lightning, we listen for the thunder; when we hear the wind, we look for the waves on the sea; in the chill autumn, the leaves fall. Everywhere order reigns, so that when some circumstances have been noted we can foresee that others will also be present. The progress of science consists in observing these interconnections and in showing with a patient ingenuity that the events of this ever-shifting world are but examples of a few general connections or relations called laws. To see what is general in what is particular and what is permanent in what is transitory is the aim of scientific thought. In the eye of science, the fall of an apple, the motion of a planet round a sun, and the clinging of the atmosphere to the earth are all seen as examples of the law of gravity. This possibility of disentangling the most complex evanescent circumstances into various examples of permanent laws is the controlling idea of modern thought.

Now let us think of the sort of laws which we want in order completely to realize this scientific ideal. Our knowledge of the particular facts of the world around us is gained from our sensations. We see, and hear, and taste, and smell, and feel hot and cold, and push, and rub, and ache, and tingle. These are just our own personal sensations: my toothache cannot be your toothache, and my sight cannot be your sight. But we ascribe the origin of these sensations to relations between the things which form the external world. Thus the dentist extracts not the toothache but the tooth. And not only so, we also endeavour to imagine the world as one connected set of things which underlies all the perceptions of all people. There is not one world of things for my sensations and another for yours, but one world in which we both exist. It is the same tooth both for dentist and patient. Also we hear and we touch the same world as we see.

It is easy, therefore, to understand that we want to describe the connections between these external things in some way which does not depend on any particular sensations, nor even on all the sensations of any particular person. The laws satisfied by the course of events in the world of external things are to be described, if possible, in a neutral universal fashion, the same for blind men as for deaf men, and the same for beings with faculties beyond our ken as for normal human beings.

But when we have put aside our immediate sensations, the most serv-

iceable part–from its clearness, definiteness, and universality–of what is left is composed of our general ideas of the abstract formal properties of things; in fact, the abstract mathematical ideas mentioned above. Thus it comes about that, step by step, and not realizing the full meaning of the process, mankind has been led to search for a mathematical description of the properties of the universe, because in this way only can a general idea of the course of events be formed, freed from reference to particular persons or to particular types of sensation. For example, it might be asked at dinner: "What was it which underlay my sensation of sight, yours of touch, and his of taste and smell?" the answer being "an apple." But in its final analysis, science seeks to describe an apple in terms of the positions and motions of molecules, a description which ignores me and you and him, and also ignores sight and touch and taste and smell. Thus mathematical ideas, because they are abstract, supply just what is wanted for a scientific description of the course of events.

This point has usually been misunderstood, from being thought of in too narrow a way. Pythagoras had a glimpse of it when he proclaimed that number was the source of all things. In modern times the belief that the ultimate explanation of all things was to be found in Newtonian mechanics was an adumbration of the truth that all science as it grows towards perfection becomes mathematical in its ideas.

VARIABLES

Mathematics as a science commenced when first someone, probably a Greek, proved propositions about *any* things or about *some* things, without specification of definite particular things. These propositions were first enunciated by the Greeks for geometry; and, accordingly, geometry was the great Greek mathematical science. After the rise of geometry centuries passed away before algebra made a really effective start, despite some faint anticipations by the later Greek mathematicians.

The ideas of *any* and of *some* are introduced into algebra by the use of letters, instead of the definite numbers of arithmetic. Thus, instead of saying that $2 + 3 = 3 + 2$, in algebra we generalize and say that, if x and y stand for *any* two numbers, then $x + y = y + x$. Again, in the place of saying that $3 > 2$, we generalize and say that if x be *any* number there exists *some* number (or numbers) y such that $y > x$. We may remark in passing that this latter assumption–for when put in its strict ultimate form it is an assumption–is of vital importance, both to philosophy and to mathematics; for by it the notion of infinity is introduced. Perhaps it required

the introduction of the arabic numerals, by which the use of letters as standing for definite numbers has been completely discarded in mathematics, in order to suggest to mathematicians the technical convenience of the use of letters for the ideas of *any* number and *some* number. The Romans would have stated the number of the year in which this is written in the form MDCCCCX, whereas we write it 1910, thus leaving the letters for the other usage. But this is merely a speculation. After the rise of algebra the differential calculus was invented by Newton and Leibniz, and then a pause in the progress of the philosophy of mathematical thought occurred so far as these notions are concerned; and it was not till within the last few years that it has been realized how fundamental *any* and *some* are to the very nature of mathematics, with the result of opening out still further subjects for mathematical exploration.

Let us now make some simple algebraic statements, with the object of understanding exactly how these fundamental ideas occur.

(1) For *any* number x, $x + 2 = 2 + x$;
(2) For *some* number x, $x + 2 = 3$;
(3) For *some* number x, $x + 2 > 3$.

The first point to notice is the possibilities contained in the meaning of *some,* as here used. Since $x + 2 = 2 + x$ for any number x, it is true for *some* number x. Thus, as here used, *any* implies *some* and *some* does not exclude *any*. Again, in the second example, there is, in fact, only one number x, such as $x + 2 = 3$, namely only the number 1. Thus the *some* may be that one number only. But in the third example, any number x which is greater than 1 gives $x + 2 > 3$. Hence there are an infinite number of numbers which answer to the *some* number in this case. Thus *some* may be anything between *any* and *one only,* including both these limiting cases.

It is natural to supersede the statements (2) and (3) by the questions:

(2′) For what number x is $x + 2 = 3$;
(3′) For what numbers x is $x + 2 > 3$.

Considering (2′), $x + 2 = 3$ is an equation, and it is easy to see that its solution is $x = 3 - 2 = 1$. When we have asked the question implied in the statement of the equation $x + 2 = 3$, x is called the unknown. The object of the solution of the equation is the determination of the unknown. Equations are of great importance in mathematics, and it seems as though (2′) exemplified a much more thoroughgoing and fundamental idea than the original statement (2). This, however, is a complete mistake. The idea

of the undetermined "variable" as occurring in the use of "some" or "any" is the really important one in mathematics; that of the "unknown" in an equation, which is to be solved as quickly as possible, is only of subordinate use, though of course it is very important. One of the causes of the apparent triviality of much of elementary algebra is the preoccupation of the text-books with the solution of equations. The same remark applies to the solution of the inequality (3′) as compared to the original statement (3).

But the majority of interesting formulae, especially when the idea of *some* is present, involve more than one variable. For example, the consideration of the pairs of numbers x and y (fractional or integral) which satisfy $x + y = 1$ involves the idea of two correlated variables, x and y. When two variables are present the same two main types of statement occur. For example, (1) for *any* pair of numbers, x and y, $x + y = y + x$, and (2) for *some* pairs of numbers, x and y, $x + y = 1$.

The second type of statement invites consideration of the aggregate of pairs of numbers which are bound together by some fixed relation–in the case given, by the relation $x + y = 1$. One use of formulae of the first type, true for *any* pair of numbers, is that by them formulae of the second type can be thrown into an indefinite number of equivalent forms. For example, the relation $x + y = 1$ is equivalent to the relations

$$y + x = 1,\ (x - y) + 2y = 1,\ 6x + 6y = 6,$$

and so on. Thus a skilful mathematician uses that equivalent form of the relation under consideration which is most convenient for his immediate purpose.

It is not in general true that, when a pair of terms satisfy some fixed relation, if one of the terms is given the other is also definitely determined. For example, when x and y satisfy $y^2 = x$, if $x = 4$, y can be ± 2, thus, for any positive value of x there are alternative values for y. Also in the relation $x + y > 1$, when either x or y is given, an indefinite number of values remain open for the other.

Again there is another important point to be noticed. If we restrict ourselves to positive numbers, integral or fractional, in considering the relation $x + y = 1$, then, if either x or y be greater than 1, there is no positive number which the other can assume so as to satisfy the relation. Thus the "field" of the relation for x is restricted to numbers less than 1, and similarly for the "field" open to y. Again, consider integral numbers only, positive or negative, and take the relation $y^2 = x$, satisfied by pairs of such numbers. Then whatever integral value is given to y, x can assume one cor-

responding integral value. So the "field" for y is unrestricted among these positive or negative integers. But the "field" for x is restricted in two ways. In the first place x must be positive, and in the second place, since y is to be integral, x must be a perfect square. Accordingly, the "field" of x is restricted to the set of integers 1^2, 2^2, 3^2, 4^2, and so on, *i.e.,* to 1, 4, 9, 16, and so on.

The study of the general properties of a relation between pairs of numbers is much facilitated by the use of a diagram constructed as follows:

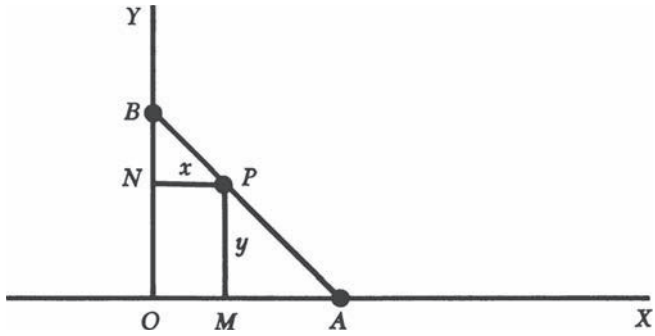


Fig. 1

Draw two lines OX and OY at right angles; let any number x be represented by x units (in any scale) of length along OX, any number y by y units (in any scale) of length along OY. Thus if OM, along OX, be x units in length, and ON, along OY, be y units in length, by completing the parallelogram $OMPN$ we find a point P which corresponds to the pair of numbers x and y. To each point there corresponds one pair of numbers, and to each pair of numbers there corresponds one point. The pair of numbers are called the co-ordinates of the point. Then the points whose co-ordinates satisfy some fixed relation can be indicated in a convenient way, by drawing a line, if they all lie on a line, or by shading an area if they are all points in the area. If the relation can be represented by an equation such as $x + y = 1$, or $y^2 = x$, then the points lie on a line, which is straight in the former case and curved in the latter. For example, considering only positive numbers, the points whose co-ordinates satisfy $x + y = 1$ lie on the straight line AB in Fig. 1, where $OA = 1$ and $OB = 1$. Thus this segment of the straight line AB gives a pictorial representation of the properties of the relation under the restriction to positive numbers.

Another example of a relation between two variables is afforded by considering the variations in the pressure and volume of a given mass of some gaseous substance—such as air or coal-gas or steam—at a constant

temperature. Let v be the number of cubic feet in its volume and p its pressure in lb. weight per square inch. Then the law, known as Boyle's law, expressing the relation between p and v as both vary, is that the product pv is constant, always supposing that the temperature does not alter. Let us suppose, for example, that the quantity of the gas and its other circumstances are such that we can put $pv = 1$ (the exact number on the right-hand side of the equation makes no essential difference).

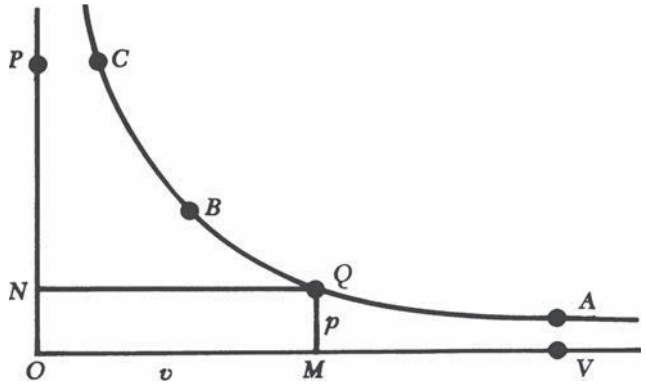


Fig. 2

Then in Fig. 2 we take two lines, *OV* and *OP,* at right angles and draw *OM* along *OV* to represent v units of volume, and *ON* along *OP* to represent p units of pressure. Then the point Q, which is found by completing the parallelogram *OMQN,* represents the state of the gas when its volume is v cubic feet and its pressure is p lb. weight per square inch. If the circumstances of the portion of gas considered are such that $pv = 1$, then all these points Q which correspond to any possible state of this portion of gas must lie on the curved line *ABC,* which includes all points for which p and v are positive, and $pv = 1$. Thus this curved line gives a pictorial representation of the relation holding between the volume and the pressure. When the pressure is very big the corresponding point Q must be near *C,* or even beyond *C* on the undrawn part of the curve; then the volume will be very small. When the volume is big Q will be near to *A,* or beyond *A;* and then the pressure will be small. Notice that an engineer or a physicist may want to know the particular pressure corresponding to some definitely assigned volume. Then we have the case of determining the *unknown* p when v is a known number. But this is only in particular cases. In considering generally the properties of the gas and how it will behave, he has to have in his mind the general form of the whole

curve *ABC* and its general properties. In other words the really fundamental idea is that of the pair of *variables* satisfying the relation $pv = 1$. This example illustrates how the idea of *variables* is fundamental, both in the applications as well as in the theory of mathematics.

METHODS OF APPLICATION

The way in which the idea of variables satisfying a relation occurs in the applications of mathematics is worth thought, and by devoting some time to it we shall clear up our thoughts on the whole subject.

Let us start with the simplest of examples: Suppose that building costs 1*s*. per cubic foot and that 20*s*. make £1. Then in all the complex circumstances which attend the building of a new house, amid all the various sensations and emotions of the owner, the architect, the builder, the workmen, and the onlookers as the house has grown to completion, this fixed correlation is by the law assumed to hold between the cubic content and the cost to the owner, namely that if x be the number of cubic feet, and £y the cost, then $20y = x$. This correlation of x and y is assumed to be true for the building of any house by any owner. Also, the volume of the house and the cost are not supposed to have been perceived or apprehended by any particular sensation or faculty, or by any particular man. They are stated in an abstract general way, with complete indifference to the owner's state of mind when he has to pay the bill.

Now think a bit further as to what all this means. The building of a house is a complicated set of circumstances. It is impossible to begin to apply the law, or to test it, unless amid the general course of events it is possible to recognize a definite set of occurrences as forming a particular instance of the building of a house. In short, we must know a house when we see it, and must recognize the events which belong to its building. Then amidst these events, thus isolated in idea from the rest of nature, the two elements of the cost and cubic content must be determinable; and when they are both determined, if the law be true, they satisfy the general formula

$$20y = x.$$

But is the law true? Anyone who has had much to do with building will know that we have here put the cost rather high. It is only for an expensive type of house that it will work out at this price. This brings out another point which must be made clear. While we are making mathematical calculations connected with the formula $20y = x$, it is indifferent

to us whether the law be true or false. In fact, the very meanings assigned to x and y, as being a number of cubic feet and a number of pounds sterling, are indifferent. During the mathematical investigation we are, in fact, merely considering the properties of this correlation between a pair of variable numbers x and y. Our results will apply equally well, if we interpret y to mean a number of fishermen and x the number of fish caught, so that the assumed law is that on the average each fisherman catches twenty fish. The mathematical certainty of the investigation only attaches to the results considered as giving properties of the correlation $20y = x$ between the variable pair of numbers x and y. There is no mathematical certainty whatever about the cost of the actual building of any house. The law is not quite true and the result it gives will not be quite accurate. In fact, it may well be hopelessly wrong.

Now all this no doubt seems very obvious. But in truth with more complicated instances there is no more common error than to assume that, because prolonged and accurate mathematical calculations have been made, the application of the result to some fact of nature is absolutely certain. The conclusion of no argument can be more certain than the assumptions from which it starts. All mathematical calculations about the course of nature must start from some assumed law of nature, such, for instance, as the assumed law of the cost of building stated above. Accordingly, however accurately we have calculated that some event must occur, the doubt always remains–Is the law true? If the law states a precise result, almost certainly it is not precisely accurate; and thus even at the best the result, precisely as calculated, is not likely to occur. But then we have no faculty capable of observation with ideal precision, so, after all, our inaccurate laws may be good enough.

We will now turn to an actual case, that of Newton and the law of gravity. This law states that any two bodies attract one another with a force proportional to the product of their masses, and inversely proportional to the square of the distance between them. Thus if m and M are the masses of the two bodies, reckoned in lbs. say, and d miles is the distance between them, the force on either body, due to the attraction of the other and directed towards it, is proportional to $\frac{mM}{d^2}$; thus this force can be written as equal to $\frac{kmM}{d^2}$, where k is a definite number depending on the absolute magnitude of this attraction and also on the scale by which we choose to measure forces. It is easy to see that, if we wish to reckon in

terms of forces such as the weight of a mass of 1 lb., the number which k represents must be extremely small; for when m and M and d are each put equal to 1, $\frac{kmM}{d^2}$ becomes the gravitational attraction of two equal masses of 1 lb. at the distance of one mile, and this is quite inappreciable.

However, we have now got our formula for the force of attraction. If we call this force F, it is $F = k\frac{mM}{d^2}$, giving the correlation between the variables F, m, M, and d. We all know the story of how it was found out. Newton, it states, was sitting in an orchard and watched the fall of an apple, and then the law of universal gravitation burst upon his mind. It may be that the final formulation of the law occurred to him in an orchard, as well as elsewhere—and he must have been somewhere. But for our purposes it is more instructive to dwell upon the vast amount of preparatory thought, the product of many minds and many centuries, which was necessary before this exact law could be formulated. In the first place, the mathematical habit of mind and the mathematical procedure explained in the previous two chapters had to be generated; otherwise Newton could never have thought of a formula representing the force between *any* two masses at *any* distance. Again, what are the meanings of the terms employed, Force, Mass, Distance? Take the easiest of these terms, Distance. It seems very obvious to us to conceive all material things as forming a definite geometrical whole, such that the distances of the various parts are measurable in terms of some unit length, such as a mile or a yard. This is almost the first aspect of a material structure which occurs to us. It is the gradual outcome of the study of geometry and of the theory of measurement. Even now, in certain cases, other modes of thought are convenient. In a mountainous country distances are often reckoned in hours. But leaving distance, the other terms, Force and Mass, are much more obscure. The exact comprehension of the ideas which Newton meant to convey by these words was of slow growth, and, indeed, Newton himself was the first man who had thoroughly mastered the true general principles of Dynamics.

Throughout the middle ages, under the influence of Aristotle, the science was entirely misconceived. Newton had the advantage of coming after a series of great men, notably Galileo, in Italy, who in the previous two centuries had reconstructed the science and had invented the right way of thinking about it. He completed their work. Then, finally, having the ideas of force, mass, and distance, clear and distinct in his mind, and

realizing their importance and their relevance to the fall of an apple and the motions of the planets, he hit upon the law of gravitation and proved it to be the formula always satisfied in these various motions.

The vital point in the application of mathematical formulae is to have clear ideas and a correct estimate of their relevance to the phenomena under observation. No less than ourselves, our remote ancestors were impressed with the importance of natural phenomena and with the desirability of taking energetic measures to regulate the sequence of events. Under the influence of irrelevant ideas they executed elaborate religious ceremonies to aid the birth of the new moon, and performed sacrifices to save the sun during the crisis of an eclipse. There is no reason to believe that they were more stupid than we are. But at that epoch there had not been opportunity for the slow accumulation of clear and relevant ideas.

The sort of way in which physical sciences grow into a form capable of treatment by mathematical methods is illustrated by the history of the gradual growth of the science of electro-magnetism. Thunderstorms are events on a grand scale, arousing terror in men and even animals. From the earliest times they must have been objects of wild and fantastic hypotheses, though it may be doubted whether our modern scientific discoveries in connection with electricity are not more astonishing than any of the magical explanations of savages. The Greeks knew that amber (Greek, electron) when rubbed would attract light and dry bodies. In A.D. 1600, Dr. Gilbert, of Colchester, published the first work on the subject in which any scientific method is followed. He made a list of substances possessing properties similar to those of amber; he must also have the credit of connecting, however vaguely, electric and magnetic phenomena. At the end of the seventeenth and throughout the eighteenth century knowledge advanced. Electrical machines were made, sparks were obtained from them; and the Leyden jar was invented, by which these effects could be intensified. Some organized knowledge was being obtained; but still no relevant mathematical ideas had been found out. Franklin, in the year 1752, sent a kite into the clouds and proved that thunderstorms were electrical.

Meanwhile from the earliest epoch (2634 B.C.) the Chinese had utilized the characteristic property of the compass needle, but do not seem to have connected it with any theoretical ideas. The really profound changes in human life all have their ultimate origin in knowledge pursued for its own sake. The use of the compass was not introduced into Europe till the end of the twelfth century A.D., more than 3,000 years after its first use in China. The importance which the science of electro-magnetism has since assumed in every department of human life is not

due to the superior practical bias of Europeans, but to the fact that in the West electrical and magnetic phenomena were studied by men who were dominated by abstract theoretic interests.

The discovery of the electric current is due to two Italians, Galvani in 1780, and Volta in 1792. This great invention opened a new series of phenomena for investigation. The scientific world had now three separate, though allied, groups of occurrences on hand–the effects of "statical" electricity arising from frictional electrical machines, the magnetic phenomena, and the effects due to electric currents. From the end of the eighteenth century onwards, these three lines of investigation were quickly interconnected and the modern science of electro-magnetism was constructed which now threatens to transform human life.

Mathematical ideas now appear. During the decade 1780 to 1789, Coulomb, a Frenchman, proved that magnetic poles attract or repel each other, in proportion to the inverse square of their distances, and also that the same law holds for electric charges–laws curiously analogous to that of gravitation. In 1820, Öersted, a Dane, discovered that electric currents exert a force on magnets, and almost immediately afterwards the mathematical law of the force was correctly formulated by Ampère, a Frenchman, who also proved that two electric currents exerted forces on each other.

> The experimental investigation by which Ampère established the law of the mechanical action between electric currents is one of the most brilliant achievements in science. The whole, theory and experiment, seems as if it had leaped full grown and full armed, from the brain of the 'Newton of Electricity.' It is perfect in form, and unassailable in accuracy, and it is summed up in a formula from which all the phenomena may be deduced, and which must always remain the cardinal formula of electrodynamics.

The momentous laws of induction between currents and between currents and magnets were discovered by Michael Faraday in 1831–32. Faraday was asked: "What is the use of this discovery?" He answered: "What is the use of a child–it grows to be a man." Faraday's child has grown to be a man and is now the basis of all the modern applications of electricity. Faraday also reorganized the whole theoretical conception of the science. His ideas, which had not been fully understood by the scientific world, were extended and put into a directly mathematical form by Clerk Maxwell in 1873. As a result of his mathematical investigations, Maxwell recognized that, under certain conditions, electrical vibrations ought to be propagated. He at once suggested that the vibrations which form light are electrical. This suggestion has since been verified, so that now the

whole theory of light is nothing but a branch of the great science of electricity. Also Hertz, a German, in 1888, following on Maxwell's ideas, succeeded in producing electric vibrations by direct electrical methods. His experiments are the basis of our wireless telegraphy.

In more recent years even more fundamental discoveries have been made, and the science continues to grow in theoretic importance and in practical interest. This rapid sketch of its progress illustrates how, by the gradual introduction of the relevant theoretic ideas, suggested by experiment and themselves suggesting fresh experiments, a whole mass of isolated and even trivial phenomena are welded together into one coherent science, in which the results of abstract mathematical deductions, starting from a few simple assumed laws, supply the explanation to the complex tangle of the course of events.

Finally, passing beyond the particular sciences of electro-magnetism and light, we can generalize our point of view still further, and direct our attention to the growth of mathematical physics considered as one great chapter of scientific thought. In the first place, what in the barest outlines is the story of its growth?

It did not begin as one science, or as the product of one band of men. The Chaldean shepherds watched the skies, the agents of government in Mesopotamia and Egypt measured the land, priests and philosophers brooded on the general nature of all things. The vast mass of the operations of nature appeared due to mysterious unfathomable forces. "The wind bloweth where it listeth" expresses accurately the blank ignorance then existing of any stable rules followed in detail by the succession of phenomena. In broad outline, then as now, a regularity of events was patent. But no minute tracing of their interconnection was possible, and there was no knowledge how even to set about to construct such a science.

Detached speculations, a few happy or unhappy shots at the nature of things, formed the utmost which could be produced.

Meanwhile land surveys had produced geometry, and the observations of the heavens disclosed the exact regularity of the solar system. Some of the later Greeks, such as Archimedes, had just views on the elementary phenomena of hydrostatics and optics. Indeed, Archimedes, who combined a genius for mathematics with a physical insight, must rank with Newton, who lived nearly two thousand years later, as one of the founders of mathematical physics. He lived at Syracuse, the great Greek city of Sicily. When the Romans besieged the town (in 212 to 210 B.C.), he is said to have burned their ships by concentrating on them, by means of mirrors, the sun's rays. The story is highly improbable, but is good evi-

dence of the reputation which he had gained among his contemporaries for his knowledge of optics. At the end of this siege he was killed. According to one account given by Plutarch, in his life of Marcellus, he was found by a Roman soldier absorbed in the study of a geometrical diagram which he had traced on the sandy floor of his room. He did not immediately obey the orders of his captor, and so was killed. For the credit of the Roman generals it must be said that the soldiers had orders to spare him. The internal evidence for the other famous story of him is very strong; for the discovery attributed to him is one eminently worthy of his genius for mathematical and physical research. Luckily, it is simple enough to be explained here in detail. It is one of the best easy examples of the method of application of mathematical ideas to physics.

Hiero, King of Syracuse, had sent a quantity of gold to some goldsmith to form the material of a crown. He suspected that the craftsman had abstracted some of the gold and had supplied its place by alloying the remainder with some baser metal. Hiero sent the crown to Archimedes and asked him to test it. In these days an indefinite number of chemical tests would be available. But then Archimedes had to think out the matter afresh. The solution flashed upon him as he lay in his bath. He

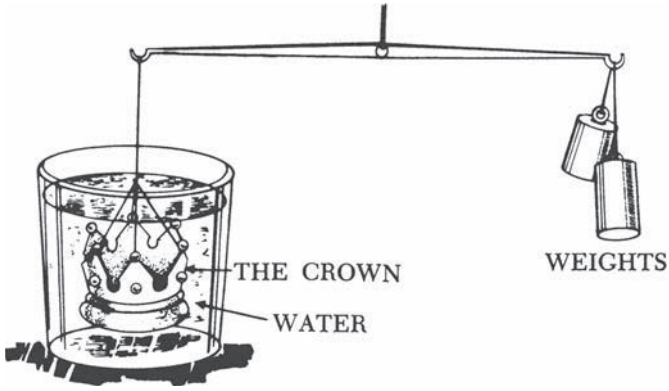


Fig. 3

jumped up and ran through the streets to the palace, shouting *Eureka! Eureka!* (I have found it, I have found it). This day, if we knew which it was, ought to be celebrated as the birthday of mathematical physics; the science came of age when Newton sat in his orchard. Archimedes had in truth made a great discovery. He saw that a body when immersed in water is pressed upwards by the surrounding water with a resultant force equal to the weight of the water it displaces. This law can be proved

theoretically from the mathematical principles of hydrostatics and can also be verified experimentally. Hence, if W lb. be the weight of the crown, as weighed in air, and w lb. be the weight of the water which it displaces when completely immersed, $W - w$ would be the extra upward force necessary to sustain the crown as it hung in water.

Now, this upward force can easily be ascertained by weighing the body as it hangs in water, as shown in Fig. 3. If the weights in the right-hand scale come to F lb., then the apparent weight of the crown in water is F lb.; and we thus have

$$F = W - w$$

and thus

$$w = W - F,$$

and

$$\frac{W}{w} = \frac{W}{W - F} \qquad (A)$$

where W and F are determined by the easy, and fairly precise, operation of weighing. Hence, by equation *(A)*, $\frac{W}{w}$ is known. $\frac{W}{w}$ But is the ratio of the weight of the crown to the weight of an equal volume of water. This ratio is the same for any lump of metal of the same material: it is now called the specific gravity of the material, and depends only on the intrinsic nature of the substance and not on its shape or quantity. Thus to test if the crown were of gold, Archimedes had only to take a lump of indisputably pure gold and find its specific gravity by the same process. If the two specific gravities agreed, the crown was pure; if they disagreed, it was debased.

This argument has been given at length, because not only is it the first precise example of the application of mathematical ideas to physics, but also because it is a perfect and simple example of what must be the method and spirit of the science for all time.

The death of Archimedes by the hands of a Roman soldier is symbolical of a world change of the first magnitude: the theoretical Greeks, with their love of abstract science, were superseded in the leadership of the European world by the practical Romans. Lord Beaconsfield, in one of his novels, has defined a practical man as a man who practises the errors of his forefathers. The Romans were a great race, but they were cursed with the sterility which waits upon practicality. They did not improve upon the knowledge of their forefathers, and all their advances were confined to the minor technical details of engineering. They were not dreamers enough to arrive at new points of view, which could give a more fundamental control over the forces of nature. No Roman lost his

life because he was absorbed in the contemplation of a mathematical diagram.

The foregoing consists of Chapters I–III
from Whitehead's AN INTRODUCTION TO MATHEMATICS.

On the Nature of a Calculus

1. *Signs*

Words, spoken or written, and the symbols of Mathematics are alike signs. Signs have been analysed into (α) suggestive signs, (β) expressive signs, (γ) substitutive signs.

A suggestive sign is the most rudimentary possible, and need not be dwelt upon here. An obvious example of one is a knot tied in a handkerchief to remind the owner of some duty to be performed.

In the use of expressive signs the attention is not fixed on the sign itself but on what it expresses; that is to say, it is fixed on the meaning conveyed by the sign. Ordinary language consists of groups of expressive signs, its primary object being to draw attention to the meaning of the words employed. Language, no doubt, in its secondary uses has some of the characteristics of a system of substitutive signs. It remedies the inability of the imagination to bring readily before the mind the whole extent of complex ideas by associating these ideas with familiar sounds or marks; and it is not always necessary for the attention to dwell on the complete meaning while using these symbols. But with all this allowance it remains true that language when challenged by criticism refers us to the meaning and not to the natural or conventional properties of its symbols for an explanation of its processes.

A substitutive sign is such that in thought it takes the place of that for which it is substituted. A counter in a game may be such a sign: at the end of the game the counters lost or won may be interpreted in the form of money, but till then it may be convenient for attention to be concentrated on the counters and not on their signification. The signs of a Mathematical Calculus are substitutive signs.

The difference between words and substitutive signs has been stated

thus, "a word is an instrument for thinking about the meaning which it expresses; a substitute sign is a means of not thinking about the meaning which it symbolizes." [1] The use of substitutive signs in reasoning is to economize thought.

2. *Definition of a Calculus*. In order that reasoning may be conducted by means of substitutive signs, it is necessary that rules be given for the manipulation of the signs. The rules should be such that the final state of the signs after a series of operations according to rule denotes, when the signs are interpreted in terms of the things for which they are substituted, a proposition true for the things represented by the signs.

The art of the manipulation of substitutive signs according to fixed rules, and of the deduction therefrom of true propositions is a Calculus.

We may therefore define a sign used in a Calculus as "an arbitrary mark, having a fixed interpretation, and susceptible of combination with other signs in subjection to fixed laws dependent upon their mutual interpretation." [2]

The interpretation of any sign used in a series of operations must be fixed in the sense of being the same throughout, but in a certain sense it may be ambiguous. For instance in ordinary Algebra a letter x may be used in a series of operations, and x may be defined to be any algebraical quantity, without further specification of the special quantity chosen. Such a sign denotes any one of an assigned class with certain unambiguously defined characteristics. In the same series of operations the sign must always denote the same member of the class; but as far as any explicit definitions are concerned any member will do.

When once the rules for the manipulation of the signs of a calculus are known, the art of their practical manipulation can be studied apart from any attention to the meaning to be assigned to the signs. It is obvious that we can take any marks we like and manipulate them according to any rules we choose to assign. It is also equally obvious that in general such occupations must be frivolous. They possess a serious scientific value when there is a similarity of type of the signs and of the rules of manipulation to those of some calculus in which the marks used are substitutive signs for things and relations of things. The comparative study of the various forms produced by variation of rules throws light on the principles of the calculus. Furthermore the knowledge thus gained gives facility in the invention of some significant calculus designed to facilitate reasoning with respect to some given subject.

1. Cf. Stout, "Thought and Language," *Mind,* April, 1891.
2. Boole, *Laws of Thought,* Ch. II.

It enters therefore into the definition of a calculus properly so called that the marks used in it are substitutive signs. But when a set of marks and the rules for their arrangements and rearrangements are analogous to those of a significant calculus so that the study of the allowable forms of their arrangements throws light on that of the calculus, or when the marks and their rules of arrangement are such as appear likely to receive an interpretation as substitutive signs or to facilitate the invention of a true calculus, then the art of arranging such marks may be called–by an extension of the term–an uninterpreted calculus. The study of such a calculus is of scientific value. The marks used in it will be called signs or symbols as are those of a true calculus, thus tacitly suggesting that there is some unknown interpretation which could be given to the calculus.

3. *Equivalence.* It is necessary to note the form in which propositions occur in a calculus. Such a form may well be highly artificial from some points of view, and may yet state the propositions in a convenient form for the eliciting of deductions. Furthermore it is not necessary to assert that the form is a general form into which all judgments can be put by the aid of some torture. It is sufficient to observe that it is a form of wide application.

In a calculus of the type here considered propositions take the form of assertions of equivalence. One thing or fact, which may be complex and involve an interrelated group of things or a succession of facts, is asserted to be equivalent in some sense or other to another thing or fact.

Accordingly the sign = is taken to denote that the signs or groups of signs on either side of it are equivalent, and therefore symbolize things which are so far equivalent. When two groups of symbols are connected by this sign, it is to be understood that one group may be substituted for the other group whenever either occurs in the calculus under conditions for which the assertion of equivalence holds good.

The idea of equivalence requires some explanation. Two things are equivalent when for some purpose they can be used indifferently. Thus the equivalence of distinct things implies a certain defined purpose in view, a certain limitation of thought or of action. Then within this limited field no distinction of property exists between the two things.

As an instance of the limitation of the field of equivalence consider an ordinary algebraical equation, $f(x, y) = 0$. Then in finding $\frac{dy}{dx}$ by the formula, $\frac{dy}{dx} = -\frac{\partial f}{\partial x}\Big/\frac{\partial f}{\partial y}$, we may not substitute 0 for f on the right-hand side

of the last equation, though the equivalence of the two symbols has been asserted in the first equation, the reason being that the limitations under which $f = 0$ has been asserted are violated when f undergoes partial differentiation.

The idea of equivalence must be carefully distinguished from that of mere identity. No investigations which proceed by the aid of propositions merely asserting identities such as *A* is *A,* can ever result in anything but barren identities. Equivalence on the other hand implies non-identity as its general case. Identity may be conceived as a special limiting case of equivalence. For instance in arithmetic we write, $2 + 3 = 3 + 2$. This means that, in so far as the total number of objects mentioned, $2 + 3$ and $3 + 2$ come to the same number, namely 5. But $2 + 3$ and $3 + 2$ are not identical; the order of the symbols is different in the two combinations, and this difference of order directs different processes of thought. The importance of the equation arises from its assertion that these different processes of thought are identical as far as the total number of things thought of is concerned.

From this arithmetical point of view it is tempting to define equivalent things as being merely different ways of thinking of the same thing as it exists in the external world. Thus there is a certain aggregate, say of 5 things, which is thought of in different ways, as $2 + 3$ and as $3 + 2$. A sufficient objection to this definition is that the man who shall succeed in stating intelligibly the distinction between himself and the rest of the world will have solved the central problem of philosophy. As there is no universally accepted solution of this problem, it is obviously undesirable to assume this distinction as the basis of mathematical reasoning.

Thus from another point of view all things which for any purpose can be conceived as equivalent form the extension (in the logical sense) of some universal conception. And conversely the collection of objects which together form the extension of some universal conception can for some purpose be treated as equivalent. So $b = b'$ can be interpreted as symbolizing the fact that the two individual things b and b' are two individual cases of the same general conception *B*. For instance if b stand for $2 + 3$ and b' for $3 + 2$, both b and b' are individual instances of the general conception of a group of five things.

The sign $=$ as used in a calculus must be discriminated from the logical copula "is." Two things b and b' are connected in a calculus by the sign $=$, so that $b = b'$, when both b and b' possess the attribute *B*. But we may not translate this into the standard logical form, b is b'. On the contrary, we say, b is *B,* and b' is *B;* and we may not translate these

standard forms of formal logic into the symbolic form, $b = B$, $b' = B$; at least we may not do so, if the sign = is to have the meaning which is assigned to it in a calculus.

It is to be observed that the proposition asserted by the equation, $b = b'$, consists of two elements; which for the sake of distinctness we will name, and will call respectively the "truism" and the "paradox." The truism is the partial identity of both b and b', their common B-ness. The paradox is the distinction between b and b', so that b is one thing and b' is another thing: and these things, as being different, must have in some relation diverse properties. In assertions of equivalence as contained in a calculus the truism is passed over with the slightest possible attention, the main stress being laid on the paradox. Thus in the equation $2 + 3 = 3 + 2$, the fact that both sides represent a common five-ness of number is not even mentioned explicitly. The sole direct statement is that the two *different* things $3 + 2$ and $2 + 3$ are in point of number equivalent.

The reason for this unequal distribution of attention is easy to understand. In order to discover new propositions asserting equivalence it is requisite to discover easy marks or tests of equivalent things. These tests are discovered by a careful discussion of the truism, of the common B-ness of b and b'. But when once such tests have been elaborated, we may drop all thought of the essential nature of the attribute B, and simply apply the superficial test to b and b' in order to verify $b = b'$. Thus in order to verify that thirty-seven times fifty-six is equal to fifty-six times thirty-seven, we may use the entirely superficial test applicable to this case that the same factors are mentioned as multiplied, though in different order.

This discussion leads us at once to comprehend the essence of a calculus of substitutive signs. The signs are by convention to be considered equivalent when certain conditions hold. And these conditions when interpreted imply the fulfilment of the tests of equivalence.

Thus in the discussion of the laws of a calculus stress is laid on the truism, in the development of the consequences on the paradox.

4. *Operations.* Judgments of equivalence can be founded on direct perception, as when it is judged by direct perception that two different pieces of stuff match in colour. But the judgment may be founded on a knowledge of the respective derivations of the things judged to be equivalent from other things respectively either identical or equivalent. It is this process of derivation which is the special province of a calculus. The derivation of a thing p from things $a, b, c, \ldots$, can also be conceived

as an operation on the things *a, b, c, . . . ,* which produces the thing *p*. The idea of derivation includes that of a series of phenomenal occurrences. Thus two pieces of stuff may be judged to match in colour because they were dyed in the same dipping, or were cut from the same piece of stuff. But the idea is more general than that of phenomenal sequence of events: it includes purely logical activities of the mind, as when it is judged that an aggregate of five things has been presented to the mind by two aggregates of three things and of two things respectively. Another example of derivation is that of two propositions *a* and *b* which are both derived by strict deductive reasoning from the same propositions *c, d,* and *e*. The two propositions are either both proved or both unproved according as *c, d,* and *e* are granted or disputed. Thus *a* and *b* are so far equivalent. In other words *a* and *b* may be considered as the equivalent results of two operations on *c, d* and *e*.

The words operation, combination, derivation, and synthesis will be used to express the same general idea, of which each word suggests a somewhat specialized form. This general idea may be defined thus: A thing *a* will be said to result from an operation on other things, *c, d, e,* etc., when *a* is presented to the mind as the result of the presentations of *c, d* and *e,* etc. under certain conditions; and these conditions are phenomenal events or mental activities which it is convenient to separate in idea into a group by themselves and to consider as defining the nature of the operation which is performed on *c, d, e,* etc.

Furthermore the fact that *c, d, e,* etc. are capable of undergoing a certain operation involving them all will be considered as constituting a relation between *c, d, e,* etc.

Also the fact that *c* is capable of undergoing an operation of a certain general kind will be considered as a property of *c*. Any additional specialization of the kind of operation or of the nature of the result will be considered as a mode of that property.

5. *Substitutive Schemes*. Let *a, a′,* etc., *b, b′,* etc., ...*z, z′,* etc., denote any set of objects considered in relation to some common property which is symbolized by the use of the italic alphabet of letters. The common property may not be possessed in the same mode by different members of the set. Their equivalence, or identity in relation to this property, is symbolized by a literal identity. Thus the fact that the things *a* and *m′* are both symbolized by letters from the italic alphabet is here a sign that the things have some property in common, and the fact that the letters *a* and *m′* are different letters is a sign that the two things possess this

common property in different modes. On the other hand the two things a and a' possess the common property in the same mode, and as far as this property is concerned they are equivalent. Let the sign = express equivalence in relation to this property, then $a = a'$, and $m = m'$.

Let a set of things such as that described above, considered in relation to their possession of a common property in equivalent or in non-equivalent modes, be called a *scheme* of things; and let the common property of which the possession by any object marks that object as belonging to the scheme be called the *determining property of the scheme*. Thus objects belonging to the same scheme are equivalent if they possess the determining property in the same mode.

Now relations must exist between non-equivalent things of the scheme which depend on the differences between the modes in which they possess the determining property of the scheme. In consequence of these relations from things $a, b, c,$ etc. of the scheme another thing m of the scheme can be derived by certain operations. The equivalence, $m = m'$, will exist between m and m', if m and m' are derived from other things of the scheme by operations which only differ in certain assigned modes. The modes in which processes of derivation of equivalent things m and m' from other things of the scheme can differ without destroying the equivalence of m and m' will be called the *characteristics* of the scheme.

Now it may happen that two schemes of things—with of course different determining properties—have the same characteristics. Also it may be possible to establish an unambiguous correspondence between the things of the two schemes, so that if $a, a', b,$ etc., belong to one scheme and $\alpha, \alpha', \beta,$ etc., belong to the other, then a corresponds to α, a' to α', b to β and so on. The essential rule of the correspondence is that if in one scheme two things, say a and a', are equivalent, then in the other scheme their corresponding things α and α' are equivalent. Accordingly to any process of derivation in the italic alphabet by which m is derived from $a, b,$ etc. there must correspond a process of derivation in the Greek alphabet by which μ is derived from $\alpha, \beta,$ etc.

In such a case instead of reasoning with respect to the properties of one scheme in order to deduce equivalences, we may substitute the other scheme, or conversely; and then transpose at the end of the argument. This device of reasoning, which is almost universal in mathematics, we will call the method of substitutive schemes, or more briefly, the method of substitution.

These substituted things belonging to another scheme are nothing else than substitutive signs. For in the use of substituted schemes we cease to

think of the original scheme. The rule of reasoning is to confine thought to those properties, previously determined, which are shared in common with the original scheme, and to interpret the results from one set of things into the other at the end of the argument.

An instance of this process of reasoning by substitution is to be found in the theory of quantity. Quantities are measured by their ratio to an arbitrarily assumed quantity of the same kind, called the unit. Any set of quantities of one kind can be represented by a corresponding set of quantities of any other kind merely in so far as their numerical ratios to their unit are concerned. For the representative set have only to bear the same ratios to their unit as do the original set to their unit.

6. *Conventional Schemes.* The use of a calculus of substitutive signs in reasoning can now be explained.

Besides using substitutive schemes with naturally suitable properties, we may by convention assign to arbitrary marks laws of equivalence which are identical with the laws of equivalence of the originals about which we desire to reason. The set of marks may then be considered as a scheme of things with properties assigned by convention. The determining property of the scheme is that the marks are of certain assigned sorts arranged in certain types of sequence. The characteristics of the scheme are the conventional laws by which certain arrangements of the marks in sequence on paper are to be taken as equivalent. As long as the marks are treated as mutually determined by their conventional properties, reasoning concerning the marks will hold good concerning the originals for which the marks are substitutive signs. For instance in the employment of the marks $x, y, +$, the equation, $x + y = y + x$, asserts that a certain union on paper of x and y possesses the conventional quality that the order of x and y is indifferent. Therefore any union of two things with a result independent of any precedence of one thing before the other possesses so far properties identical with those of the union above set down between x and y. Not only can the reasoning be transferred from the originals to the substitutive signs, but the imaginative thought itself can in a large measure be avoided. For whereas combinations of the original things are possible only in thought and by an act of the imagination, the combinations of the conventional substitutive signs of a calculus are physically made on paper. The mind has simply to attend to the rules for transformation and to use its experience and imagination to suggest likely methods of procedure. The rest is merely physical actual interchange of the signs instead of thought about the originals.

A calculus avoids the necessity of inference and replaces it by an ex-

ternal demonstration, where inference and external demonstration are to be taken in the senses assigned to them by F. H. Bradley.[3] In this connection a demonstration is to be defined as a process of combining a complex of facts, the data, into a whole so that some new fact is evident. Inference is an ideal combination or construction within the mind of the reasoner which results in the intuitive evidence of a new fact or relation between the data. But in the use of a calculus this process of combination is externally performed by the combination of the concrete symbols, with the result of a new fact respecting the symbols which arises for sensuous perception.[4] When this new fact is treated as a symbol carrying a meaning, it is found to mean the fact which would have been intuitively evident in the process of inference.

7. *Uninterpretable Forms.* The logical difficulty involved in the use of a calculus only partially interpretable can now be explained. The discussion of this great problem in its application to the special case of $(-1)^{\frac{1}{2}}$ engaged the attention of the leading mathematicians of the first half of this century, and led to the development on the one hand of the Theory of Functions of a Complex Variable, and on the other hand of the science here called Universal Algebra.

The difficulty is this: the symbol $(-1)^{\frac{1}{2}}$ is absolutely without meaning when it is endeavoured to interpret it as a number; but algebraic transformations which involve the use of complex quantities of the form $a + bi$, where a and b are numbers and i stands for the above symbol, yield propositions which do relate purely to number. As a matter of fact the propositions thus discovered were found to be true propositions. The method therefore was trusted, before any explanation was forthcoming why algebraic reasoning which had no intelligible interpretation in arithmetic should give true arithmetical results.

The difficulty was solved by observing that Algebra does not depend on Arithmetic for the validity of its laws of transformation. If there were such a dependence, it is obvious that as soon as algebraic expressions are arithmetically unintelligible all laws respecting them must lose their validity. But the laws of Algebra, though suggested by Arithmetic, do not depend on it. They depend entirely on the convention by which it is stated that certain modes of grouping the symbols are to be considered as

3. Cf. Bradley, *Principles of Logic,* Bk II. Pt I. Ch. III.
4. Cf. C. S. Peirce, *Amer. Journ. of Math.* Vol. VII. p. 182: "As for algebra, the very idea of the art is that it presents formulae which can be manipulated, and that by observing the effects of such manipulation we find properties not otherwise to be discovered."

identical. This assigns certain properties to the marks which form the symbols of Algebra. The laws regulating the manipulation of the algebraic symbols are identical with those of Arithmetic. It follows that no algebraic theorem can ever contradict any result which could be arrived at by Arithmetic; for the reasoning in both cases merely applies the same general laws to different classes of things. If an algebraic theorem is interpretable in Arithmetic, the corresponding arithmetical theorem is therefore true. In short when once Algebra is conceived as an independent science dealing with the relations of certain marks conditioned by the observance of certain conventional laws, the difficulty vanishes. If the laws be identical, the theorems of the one science can only give results conditioned by the laws which also hold good for the other science; and therefore these results, when interpretable, are true.

It will be observed that the explanation of the legitimacy of the use of a partially interpretable calculus does not depend upon the fact that in another field of thought the calculus is entirely interpretable. The discovery of an interpretation undoubtedly gave the clue by means of which the true solution was arrived at. For the fact that the processes of the calculus were interpretable in a science so independent of Arithmetic as is Geometry at once showed that the laws of the calculus might have been defined in reference to geometrical processes. But it was a paradox to assert that a science like Algebra, which had been studied for centuries without reference to Geometry, was after all dependent upon Geometry for its first principles. The step to the true explanation was then easily taken.

But the importance of the assistance given to the study of Algebra by the discovery of a complete interpretation of its processes cannot be overestimated. It is natural to think of the substitutive set of things as assisting the study of the properties of the originals. Especially is this the case with a calculus of which the interest almost entirely depends upon its relation to the originals. But it must be remembered that conversely the originals give immense aid to the study of the substitutive things or symbols.

The whole of Mathematics consists in the organization of a series of aids to the imagination in the process of reasoning; and for this purpose device is piled upon device. No sooner has a substitutive scheme been devised to assist in the investigation of any originals, than the imagination begins to use the originals to assist in the investigation of the substitutive scheme. In some connections it would be better to abandon the conception of originals studied by the aid of substitutive schemes, and

to conceive of two sets of interrelated things studied together, each scheme exemplifying the operation of the same general laws. The discovery therefore of the geometrical representation of the algebraical complex quantity, though unessential to the logic of Algebra, has been quite essential to the modern developments of the science.

The foregoing consists of Chapter I
from Whitehead's A TREATISE ON UNIVERSAL ALGEBRA.

Bertrand Russell

1872–1970

Russell began worrying about the foundations of mathematics at the age of eleven. He was studying Euclid at that time and was disappointed to learn that he was expected to accept some things without proof. It seemed a little slipshod to him. He wanted everything proved. He never lost this desire for clarity and certainty; it led him to attempt to establish the logical basis for all mathematics.

Bertrand Russell, British philosopher and mathematician, was born at Trelleck, in Monmouthshire, in 1872. Both of his parents died before he was four years old and he was brought up by his grandmother, Countess Russell. A woman of strong religious beliefs, she instilled in Russell the ideas that he must be of service to mankind and that he should always have the courage to follow his own conscience. Russell was profoundly influenced by his grandmother. Although he rejected her religious teachings at an early age, he used his immense talent in humane and liberal causes for over half a century. He publicly and courageously committed himself on many controversial issues; more than once this meant going to prison.

Russell was tutored at home until he was eighteen. Then he entered Cambridge. Until this time his life had been rather solitary, but now a new world opened. At Cambridge he found a group of contemporaries with whom he could have endless discussions on everything. The mental adventure began. It ended only upon his death in 1970. On his eightieth birthday Russell recommended, for longevity, a "habit of hilarious Olympian controversy."

One of the most productive and brilliant thinkers of our age, Russell expressed himself vividly on many aspects of our culture–education, politics, history, manners, morals, war, and peace. A

partial list of his writings includes: *Mysticism and Logic, and Other Essays* (1918), *Introduction to Mathematical Philosophy* (1919), *An Outline of Philosophy* (1927), *Marriage and Morals* (1929), *The Scientific Outlook* (1931), *An Inquiry into Meaning and Truth* (1940), *History of Western Philosophy* (1945), and, in collaboration with Alfred North Whitehead, *Principia Mathematica* (1910–13). He won the Nobel Prize for literature in 1950.

Logic is central in Russell's philosophy. His views on many things changed profoundly in the course of his life, but these changes all proceeded from successively deeper applications of his logical method. This method dates from the year 1900, which Russell called the most important year of his intellectual life. It was then, at the International Congress of Philosophy in Paris, which Russell attended with Whitehead, that Giuseppe Peano introduced a method for reasoning in symbols. Russell saw that it could extend the region of mathematical precision backward into areas that hitherto had been given over to vague speculation. The project of deducing mathematics from logic also appealed to Whitehead, and they began a remarkable intellectual collaboration. The result is the famous *Principia Mathematica.*

The first two of the following three selections are taken from *Mysticism and Logic.* In *The Study of Mathematics,* mathematics is conceived as a purely formal science. It is not derived from experience. And therein, for Russell, lies its beauty. Life can be a pretty muddled affair, "but the world of pure reason knows no compromise, no practical limitations, no barrier to the creative activity. . . ." Russell takes a critical look at educational methods that become so bogged down acquiring the first elements of the subject that the goal is never reached, or even glimpsed. This goal is Plato's world of "divine necessity," the world of purely intellectual

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Notes from the artist: ". . . a 'ball of yarn' technique—with a liberal sprinkling of mathematical formulas—was employed to express the restlessness and the constant searching and probing that is so much a part of the character of Russell. The quotation is from Human Knowledge.*"*

Bertrand
Russell
The relation of physical laws to experience is not altogether simple. Broadly speaking, laws can be disproved by experience, but not proved by it.

activity. Russell's passionate belief in it is contagious. He does not actually lead you inside the temple (he comes out on the steps to talk to you), but he leaves no doubt that the temple is there.

In *Mathematics and the Metaphysicians,* Russell makes the assertion that mathematics is the same thing as formal logic, as founded by Aristotle. But modern logic has gone beyond Aristotle; it has become symbolic. Words have been replaced by symbols that have no reference to the world of things. Why has this been so important in examining the foundations of mathematics? The answer seems paradoxical. Symbolism is useful because it makes things difficult (but only in the beginning).

Suspend your common sense when you read this article. You will be asked to believe that there is no such thing as the next moment; that when a thing moves, it is not in a state of motion; that there are just as many even numbers as there are numbers altogether; that the number of days in all time is no greater than the number of years. Russell intends to take the mystery out of mathematics. He does not hesitate to use shock treatment.

Traditional mathematics suffered a crisis in the nineteenth century. A vast superstructure of knowledge had been erected without sufficient thought of the foundation. Cracks appeared, hasty repairs were made, but repairs were really not enough. What was needed was a complete reconstruction of the foundation. The following selection is part of this project.

Definition of Number is taken from *Introduction to Mathematical Philosophy,* written during World War I. Russell was in jail when he wrote it. He had been imprisoned for several months because he had written a pamphlet accusing the American Army of "intimidating strikes at home." This was regarded as likely to impair the relationship between Great Britain and America. (The governor of the prison was required to read the manuscript for possible seditious tendencies.)

A definition of an idea usually expresses the idea in concepts which are more familiar to us. When the idea is as familiar as "number," what we say in explanation of it is likely to seem stranger than the thing itself. Thus, a definition of number might seem at first glance to be an arduous and needless task. The predicament of the centipede who was getting along very well until asked which leg came after which seems applicable. However, there is a reason for

presenting the familiar in unfamiliar terms. It puts us at a distance from something which, otherwise, is too close to be seen.

The habit of mind that is developed in defining the obvious will stand you in very good stead when you enter the world of abstract thought. Your definitions will be your only landmarks.

The Study of Mathematics

In regard to every form of human activity it is necessary that the question should be asked from time to time, What is its purpose and ideal? In what way does it contribute to the beauty of human existence? As respects those pursuits which contribute only remotely, by providing the mechanism of life, it is well to be reminded that not the mere fact of living is to be desired, but the art of living in the contemplation of great things. Still more in regard to those avocations which have no end outside themselves, which are to be justified, if at all, as actually adding to the sum of the world's permanent possessions, it is necessary to keep alive a knowledge of their aims, a clear prefiguring vision of the temple in which creative imagination is to be embodied.

The fulfilment of this need, in what concerns the studies forming the material upon which custom has decided to train the youthful mind, is indeed sadly remote—so remote as to make the mere statement of such a claim appear preposterous. Great men, fully alive to the beauty of the contemplations to whose service their lives are devoted, desiring that others may share in their joys, persuade mankind to impart to the successive generations the mechanical knowledge without which it is impossible to cross the threshold. Dry pedants possess themselves of the privilege of instilling this knowledge: they forget that it is to serve but as a key to open the doors of the temple; though they spend their lives on the steps leading up to those sacred doors, they turn their backs upon the temple so resolutely that its very existence is forgotten, and the eager youth, who would press forward to be initiated to its domes and arches, is bidden to turn back and count the steps.

Mathematics, perhaps more even than the study of Greece and Rome, has suffered from this oblivion of its due place in civilization. Although tradition has decreed that the great bulk of educated men shall know at least the elements of the subject, the reasons for which the tradition arose are forgotten, buried beneath a great rubbish-heap of pedantries and

trivialities. To those who inquire as to the purpose of mathematics, the usual answer will be that it facilitates the making of machines, the travelling from place to place, and the victory over foreign nations, whether in war or commerce. If it be objected that these ends—all of which are of doubtful value—are not furthered by the merely elementary study imposed upon those who do not become expert mathematicians, the reply, it is true, will probably be that mathematics trains the reasoning faculties. Yet the very men who make this reply are, for the most part, unwilling to abandon the teaching of definite fallacies, known to be such, and instinctively rejected by the unsophisticated mind of every intelligent learner. And the reasoning faculty itself is generally conceived, by those who urge its cultivation, as merely a means for the avoidance of pitfalls and a help in the discovery of rules for the guidance of practical life. All these are undeniably important achievements to the credit of mathematics; yet it is none of these that entitles mathematics to a place in every liberal education. Plato, we know, regarded the contemplation of mathematical truths as worthy of the Deity; and Plato realized, more perhaps than any other single man, what those elements are in human life which merit a place in heaven. There is in mathematics, he says, "something which is *necessary* and cannot be set aside . . . and, if I mistake not, of divine necessity; for as to the human necessities of which the Many talk in this connection, nothing can be more ridiculous than such an application of the words. *Cleinias*. And what are these necessities of knowledge, Stranger, which are divine and not human? *Athenian*. Those things without some use or knowledge of which a man cannot become a God to the world, nor a spirit, nor yet a hero, nor able earnestly to think and care for man." [1] Such was Plato's judgment of mathematics; but the mathematicians do not read Plato, while those who read him know no mathematics, and regard his opinion upon this question as merely a curious aberration.

Mathematics, rightly viewed, possesses not only truth, but supreme beauty—a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. The true spirit of delight, the exaltation, the sense of being more than man, which is the touchstone of the highest excellence, is to be found in mathematics as surely as in poetry. What is best in mathematics deserves not merely to be learnt as a task, but to be assimilated as a part of daily thought, and brought again and again before the mind with ever-renewed encouragement.

1. This passage was pointed out to me by Professor Gilbert Murray.

Real life is, to most men, a long second-best, a perpetual compromise between the ideal and the possible; but the world of pure reason knows no compromise, no practical limitations, no barrier to the creative activity embodying in splendid edifices the passionate aspiration after the perfect from which all great work springs. Remote from human passions, remote even from the pitiful facts of nature, the generations have gradually created an ordered cosmos, where pure thought can dwell as in its natural home, and where one, at least, of our nobler impulses can escape from the dreary exile of the actual world.

So little, however, have mathematicians aimed at beauty, that hardly anything in their work has had this conscious purpose. Much, owing to irrepressible instincts, which were better than avowed beliefs, has been moulded by an unconscious taste; but much also has been spoilt by false notions of what was fitting. The characteristic excellence of mathematics is only to be found where the reasoning is rigidly logical: the rules of logic are to mathematics what those of structure are to architecture. In the most beautiful work, a chain of argument is presented in which every link is important on its own account, in which there is an air of ease and lucidity throughout, and the premises achieve more than would have been thought possible, by means which appear natural and inevitable. Literature embodies what is general in particular circumstances whose universal significance shines through their individual dress; but mathematics endeavours to present whatever is most general in its purity, without any irrelevant trappings.

How should the teaching of mathematics be conducted so as to communicate to the learner as much as possible of this high ideal? Here experience must, in a great measure, be our guide, but some maxims may result from our consideration of the ultimate purpose to be achieved.

One of the chief ends served by mathematics, when rightly taught, is to awaken the learner's belief in reason, his confidence in the truth of what has been demonstrated, and in the value of demonstration. This purpose is not served by existing instruction; but it is easy to see ways in which it might be served. At present, in what concerns arithmetic, the boy or girl is given a set of rules, which present themselves as neither true nor false, but as merely the will of the teacher, the way in which, for some unfathomable reason, the teacher prefers to have the game played. To some degree, in a study of such definite practical utility, this is no doubt unavoidable; but as soon as possible, the reasons of rules should be set forth by whatever means most readily appeal to the childish mind. In geometry, instead of the tedious apparatus of fallacious proofs for ob-

vious truisms which constitutes the beginning of Euclid, the learner should be allowed at first to assume the truth of everything obvious, and should be instructed in the demonstrations of theorems which are at once startling and easily verifiable by actual drawing, such as those in which it is shown that three or more lines meet in a point. In this way belief is generated; it is seen that reasoning may lead to startling conclusions, which nevertheless the facts will verify; and thus the instinctive distrust of whatever is abstract or rational is gradually overcome. Where theorems are difficult, they should be first taught as exercises in geometrical drawing, until the figure has become thoroughly familiar; it will then be an agreeable advance to be taught the logical connections of the various lines or circles that occur. It is desirable also that the figure illustrating a theorem should be drawn in all possible cases and shapes, that so the abstract relations with which geometry is concerned may of themselves emerge as the residue of similarity amid such great apparent diversity. In this way the abstract demonstrations should form but a small part of the instruction, and should be given when, by familiarity with concrete illustrations, they have come to be felt as the natural embodiment of visible fact. In this early stage proofs should not be given with pedantic fullness; definitely fallacious methods, such as that of superposition, should be rigidly excluded from the first, but where, without such methods, the proof would be very difficult, the result should be rendered acceptable by arguments and illustrations which are explicitly contrasted with demonstrations.

In the beginning of algebra, even the most intelligent child finds, as a rule, very great difficulty. The use of letters is a mystery, which seems to have no purpose except mystification. It is almost impossible, at first, not to think that every letter stands for some particular number, if only the teacher would reveal *what* number it stands for. The fact is that in algebra the mind is first taught to consider general truths, truths which are not asserted to hold only of this or that particular thing, but of any one of a whole group of things. It is in the power of understanding and discovering such truths that the mastery of the intellect over the whole world of things actual and possible resides; and ability to deal with the general as such is one of the gifts that a mathematical education should bestow. But how little, as a rule, is the teacher of algebra able to explain the chasm which divides it from arithmetic, and how little is the learner assisted in his groping efforts at comprehension! Usually the method that has been adopted in arithmetic is continued: rules are set forth, with no adequate explanation of their grounds; the pupil learns to use

the rules blindly, and presently, when he is able to obtain the answer that the teacher desires, he feels that he has mastered the difficulties of the subject. But of inner comprehension of the processes employed he has probably acquired almost nothing.

When algebra has been learnt, all goes smoothly until we reach those studies in which the notion of infinity is employed–the infinitesimal calculus and the whole of higher mathematics. The solution of the difficulties which formerly surrounded the mathematical infinite is probably the greatest achievement of which our own age has to boast. Since the beginnings of Greek thought these difficulties have been known; in every age the finest intellects have vainly endeavoured to answer the apparently unanswerable questions that had been asked by Zeno the Eleatic. At last Georg Cantor has found the answer, and has conquered for the intellect a new and vast province which had been given over to Chaos and old Night. It was assumed as self-evident, until Cantor and Dedekind established the opposite, that if, from any collection of things, some were taken away, the number of things left must always be less than the original number of things. This assumption, as a matter of fact, holds only of finite collections; and the rejection of it, where the infinite is concerned, has been shown to remove all the difficulties that had hitherto baffled human reason in this matter, and to render possible the creation of an exact science of the infinite. This stupendous fact ought to produce a revolution in the higher teaching of mathematics; it has itself added immeasurably to the educational value of the subject, and it has at last given the means of treating with logical precision many studies which, until lately, were wrapped in fallacy and obscurity. By those who were educated on the old lines, the new work is considered to be appallingly difficult, abstruse, and obscure; and it must be confessed that the discoverer, as is so often the case, has hardly himself emerged from the mists which the light of his intellect is dispelling. But inherently, the new doctrine of the infinite, to all candid and inquiring minds, has facilitated the mastery of higher mathematics; for hitherto, it has been necessary to learn, by a long process of sophistication, to give assent to arguments which, on first acquaintance, were rightly judged to be confused and erroneous. So far from producing a fearless belief in reason, a bold rejection of whatever failed to fulfil the strictest requirements of logic, a mathematical training, during the past two centuries, encouraged the belief that many things, which a rigid inquiry would reject as fallacious, must yet be accepted because they work in what the mathematician calls "practice." By this means, a timid, compromising spirit, or else a sacer-

dotal belief in mysteries not intelligible to the profane, has been bred where reason alone should have ruled. All this it is now time to sweep away; let those who wish to penetrate into the arcana of mathematics be taught at once the true theory in all its logical purity, and in the concatenation established by the very essence of the entities concerned.

If we are considering mathematics as an end in itself, and not as a technical training for engineers, it is very desirable to preserve the purity and strictness of its reasoning. Accordingly those who have attained a sufficient familiarity with its easier portions should be led backward from propositions to which they have assented as self-evident to more and more fundamental principles from which what had previously appeared as premises can be deduced. They should be taught—what the theory of infinity very aptly illustrates—that many propositions seem self-evident to the untrained mind which, nevertheless, a nearer scrutiny shows to be false. By this means they will be led to a sceptical inquiry into first principles, an examination of the foundations upon which the whole edifice of reasoning is built, or, to take perhaps a more fitting metaphor, the great trunk from which the spreading branches spring. At this stage, it is well to study afresh the elementary portions of mathematics, asking no longer merely whether a given proposition is true, but also how it grows out of the central principles of logic. Questions of this nature can now be answered with a precision and certainty which were formerly quite impossible; and in the chains of reasoning that the answer requires the unity of all mathematical studies at last unfolds itself.

In the great majority of mathematical text-books there is a total lack of unity in method and of systematic development of a central theme. Propositions of very diverse kinds are proved by whatever means are thought most easily intelligible, and much space is devoted to mere curiosities which in no way contribute to the main argument. But in the greatest works, unity and inevitability are felt as in the unfolding of a drama; in the premisses a subject is proposed for consideration, and in every subsequent step some definite advance is made towards mastery of its nature. The love of system, of interconnection, which is perhaps the inmost essence of the intellectual impulse, can find free play in mathematics as nowhere else. The learner who feels this impulse must not be repelled by an array of meaningless examples or distracted by amusing oddities, but must be encouraged to dwell upon central principles, to become familiar with the structure of the various subjects which are put before him, to travel easily over the steps of the more important deductions. In this way a good tone of mind is cultivated, and selective atten-

tion is taught to dwell by preference upon what is weighty and essential.

When the separate studies into which mathematics is divided have each been viewed as a logical whole, as a natural growth from the propositions which constitute their principles, the learner will be able to understand the fundamental science which unifies and systematizes the whole of deductive reasoning. This is symbolic logic–a study which, though it owes its inception to Aristotle, is yet, in its wider developments, a product, almost wholly, of the nineteenth century, and is indeed, in the present day, still growing with great rapidity. The true method of discovery in symbolic logic, and probably also the best method for introducing the study to a learner acquainted with other parts of mathematics, is the analysis of actual examples of deductive reasoning, with a view to the discovery of the principles employed. These principles, for the most part, are so embedded in our ratiocinative instincts that they are employed quite unconsciously, and can be dragged to light only by much patient effort. But when at last they have been found, they are seen to be few in number, and to be the sole source of everything in pure mathematics. The discovery that all mathematics follows inevitably from a small collection of fundamental laws is one which immeasurably enhances the intellectual beauty of the whole; to those who have been oppressed by the fragmentary and incomplete nature of most existing chains of deduction this discovery comes with all the overwhelming force of a revelation; like a palace emerging from the autumn mist as the traveller ascends an Italian hill-side, the stately storeys of the mathematical edifice appear in their due order and proportion, with a new perfection in every part.

Until symbolic logic had acquired its present development, the principles upon which mathematics depends were always supposed to be philosophical, and discoverable only by the uncertain, unprogressive methods hitherto employed by philosophers. So long as this was thought, mathematics seemed to be not autonomous, but dependent upon a study which had quite other methods than its own. Moreover, since the nature of the postulates from which arithmetic, analysis, and geometry are to be deduced was wrapped in all the traditional obscurities of metaphysical discussion, the edifice built upon such dubious foundations began to be viewed as no better than a castle in the air. In this respect, the discovery that the true principles are as much a part of mathematics as any of their consequences has very greatly increased the intellectual satisfaction to be obtained. This satisfaction ought not to be refused to learners capable of enjoying it, for it is of a kind to increase our respect for human powers and our knowledge of the beauties belonging to the abstract world.

Philosophers have commonly held that the laws of logic, which underlie mathematics, are laws of thought, laws regulating the operations of our minds. By this opinion the true dignity of reason is very greatly lowered; it ceases to be an investigation into the very heart and immutable essence of all things actual and possible, becoming, instead, an inquiry into something more or less human and subject to our limitations. The contemplation of what is non-human, the discovery that our minds are capable of dealing with material not created by them, above all, the realization that beauty belongs to the outer world as to the inner are the chief means of overcoming the terrible sense of impotence, of weakness, of exile amid hostile powers, which is too apt to result from acknowledging the all but omnipotence of alien forces. To reconcile us, by the exhibition of its awful beauty, to the reign of Fate—which is merely the literary personification of these forces—is the task of tragedy. But mathematics takes us still further from what is human, into the region of absolute necessity, to which not only the actual world, but every possible world, must conform; and even here it builds a habitation, or rather finds a habitation eternally standing, where our ideals are fully satisfied and our best hopes are not thwarted. It is only when we thoroughly understand the entire independence of ourselves, which belongs to this world that reason finds, that we can adequately realize the profound importance of its beauty.

Not only is mathematics independent of us and our thoughts, but in another sense we and the whole universe of existing things are independent of mathematics. The apprehension of this purely ideal character is indispensable, if we are to understand rightly the place of mathematics as one among the arts. It was formerly supposed that pure reason could decide, in some respects, as to the nature of the actual world: geometry, at least, was thought to deal with the space in which we live. But we now know that pure mathematics can never pronounce upon questions of actual existence: the world of reason, in a sense, controls the world of fact, but it is not at any point creative of fact, and in the application of its results to the world in time and space, its certainty and precision are lost among approximations and working hypotheses. The objects considered by mathematicians have, in the past, been mainly of a kind suggested by phenomena; but from such restrictions the abstract imagination should be wholly free. A reciprocal liberty must thus be accorded: reason cannot dictate to the world of facts, but the facts cannot restrict reason's privilege of dealing with whatever objects its love of beauty may cause to seem worthy of consideration. Here, as elsewhere, we build up our

own ideals out of the fragments to be found in the world; and in the end it is hard to say whether the result is a creation or a discovery.

It is very desirable, in instruction, not merely to persuade the student of the accuracy of important theorems, but to persuade him in the way which itself has, of all possible ways, the most beauty. The true interest of a demonstration is not, as traditional modes of exposition suggest, concentrated wholly in the result; where this does occur, it must be viewed as a defect, to be remedied, if possible, by so generalizing the steps of the proof that each becomes important in and for itself. An argument which serves only to prove a conclusion is like a story subordinated to some moral which it is meant to teach: for aesthetic perfection no part of the whole should be merely a means. A certain practical spirit, a desire for rapid progress, for conquest of new realms, is responsible for the undue emphasis upon results which prevails in mathematical instruction. The better way is to propose some theme for consideration–in geometry, a figure having important properties; in analysis, a function of which the study is illuminating, and so on. Whenever proofs depend upon some only of the marks by which we define the object to be studied, these marks should be isolated and investigated on their own account. For it is a defect, in an argument, to employ more premisses than the conclusion demands: what mathematicians call elegance results from employing only the essential principles in virtue of which the thesis is true. It is a merit in Euclid that he advances as far as he is able to go without employing the axiom of parallels–not, as is often said, because this axiom is inherently objectionable, but because, in mathematics, every new axiom diminishes the generality of the resulting theorems, and the greatest possible generality is before all things to be sought.

Of the effects of mathematics outside its own sphere more has been written than on the subject of its own proper ideal. The effect upon philosophy has, in the past, been most notable, but most varied; in the seventeenth century, idealism and rationalism, in the eighteenth, materialism and sensationalism, seemed equally its offspring. Of the effect which it is likely to have in the future it would be very rash to say much; but in one respect a good result appears probable. Against that kind of scepticism which abandons the pursuit of ideals because the road is arduous and the goal not certainly attainable, mathematics, within its own sphere, is a complete answer. Too often it is said that there is no absolute truth, but only opinion and private judgment; that each of us is conditioned, in his view of the world, by his own peculiarities, his own taste and bias; that

there is no external kingdom of truth to which, by patience and discipline, we may at last obtain admittance, but only truth for me, for you, for every separate person. By this habit of mind one of the chief ends of human effort is denied, and the supreme virtue of candour, of fearless acknowledgment of what is, disappears from our moral vision. Of such scepticism mathematics is a perpetual reproof; for its edifice of truths stands unshakeable and inexpugnable to all the weapons of doubting cynicism.

The effects of mathematics upon practical life, though they should not be regarded as the motive of our studies, may be used to answer a doubt to which the solitary student must always be liable. In a world so full of evil and suffering, retirement into the cloister of contemplation, to the enjoyment of delights which, however noble, must always be for the few only, cannot but appear as a somewhat selfish refusal to share the burden imposed upon others by accidents in which justice plays no part. Have any of us the right, we ask, to withdraw from present evils, to leave our fellow-men unaided, while we live a life which, though arduous and austere, is yet plainly good in its own nature? When these questions arise, the true answer is, no doubt, that some must keep alive the sacred fire, some must preserve, in every generation, the haunting vision which shadows forth the goal of so much striving. But when, as must sometimes occur, this answer seems too cold, when we are almost maddened by the spectacle of sorrows to which we bring no help, then we may reflect that indirectly the mathematician often does more for human happiness than any of his more practically active contemporaries. The history of science abundantly proves that a body of abstract propositions—even if, as in the case of conic sections, it remains two thousand years without effect upon daily life—may yet, at any moment, be used to cause a revolution in the habitual thoughts and occupations of every citizen. The use of steam and electricity—to take striking instances—is rendered possible only by mathematics. In the results of abstract thought the world possesses a capital of which the employment in enriching the common round has no hitherto discoverable limits. Nor does experience give any means of deciding what parts of mathematics will be found useful. Utility, therefore, can be only a consolation in moments of discouragement, not a guide in directing our studies.

For the health of the moral life, for ennobling the tone of an age or a nation, the austerer virtues have a strange power, exceeding the power of those not informed and purified by thought. Of these austerer virtues the

love of truth is the chief, and in mathematics, more than elsewhere, the love of truth may find encouragement for waning faith. Every great study is not only an end in itself, but also a means of creating and sustaining a lofty habit of mind; and this purpose should be kept always in view throughout the teaching and learning of mathematics.

Mathematics and the Metaphysicians

The nineteenth century, which prided itself upon the invention of steam and evolution, might have derived a more legitimate title to fame from the discovery of pure mathematics. This science, like most others, was baptised long before it was born; and thus we find writers before the nineteenth century alluding to what they called pure mathematics. But if they had been asked what this subject was, they would only have been able to say that it consisted of Arithmetic, Algebra, Geometry, and so on. As to what these studies had in common, and as to what distinguished them from applied mathematics, our ancestors were completely in the dark.

Pure mathematics was discovered by Boole, in a work which he called the *Laws of Thought* (1854). This work abounds in asseverations that it is not mathematical, the fact being that Boole was too modest to suppose his book the first ever written on mathematics. He was also mistaken in supposing that he was dealing with the laws of thought: the question how people actually think was quite irrelevant to him, and if his book had really contained the laws of thought, it was curious that no one should ever have thought in such a way before. His book was in fact concerned with formal logic, and this is the same thing as mathematics.

Pure mathematics consists entirely of assertions to the effect that, if such and such a proposition is true of *anything,* then such and such another proposition is true of that thing. It is essential not to discuss whether the first proposition is really true, and not to mention what the anything is, of which it is supposed to be true. Both these points would belong to applied mathematics. We start, in pure mathematics, from certain rules of inference, by which we can infer that *if* one proposition is true, then so is some other proposition. These rules of inference constitute the major part of the principles of formal logic. We then take any hypothesis that seems amusing, and deduce its consequences. *If* our

hypothesis is about *anything,* and not about some one or more particular things, then our deductions constitute mathematics. Thus mathematics may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true. People who have been puzzled by the beginnings of mathematics will, I hope, find comfort in this definition, and will probably agree that it is accurate.

As one of the chief triumphs of modern mathematics consists in having discovered what mathematics really is, a few more words on this subject may not be amiss. It is common to start any branch of mathematics–for instance, Geometry–with a certain number of primitive ideas, supposed incapable of definition, and a certain number of primitive propositions or axioms, supposed incapable of proof. Now the fact is that, though there are indefinables and indemonstrables in every branch of applied mathematics, there are none in pure mathematics except such as belong to general logic. Logic, broadly speaking, is distinguished by the fact that its propositions can be put into a form in which they apply to anything whatever. All pure mathematics–Arithmetic, Analysis, and Geometry–is built up by combinations of the primitive ideas of logic, and its propositions are deduced from the general axioms of logic, such as the syllogism and the other rules of inference. And this is no longer a dream or an aspiration. On the contrary, over the greater and more difficult part of the domain of mathematics, it has been already accomplished; in the few remaining cases, there is no special difficulty, and it is now being rapidly achieved. Philosophers have disputed for ages whether such deduction was possible; mathematicians have sat down and made the deduction. For the philosophers there is now nothing left but graceful acknowledgments.

The subject of formal logic, which has thus at last shown itself to be identical with mathematics, was, as every one knows, invented by Aristotle, and formed the chief study (other than theology) of the Middle Ages. But Aristotle never got beyond the syllogism, which is a very small part of the subject, and the schoolmen never got beyond Aristotle. If any proof were required of our superiority to the mediaeval doctors, it might be found in this. Throughout the Middle Ages, almost all the best intellects devoted themselves to formal logic, whereas in the nineteenth century only an infinitesimal proportion of the world's thought went into this subject. Nevertheless, in each decade since 1850 more has been done to advance the subject than in the whole period from Aristotle to Leibniz. People have discovered how to make reasoning symbolic, as it is in Algebra, so that deductions are effected by mathematical rules. They have

discovered many rules besides the syllogism, and a new branch of logic, called the Logic of Relatives,[1] has been invented to deal with topics that wholly surpassed the powers of the old logic, though they form the chief contents of mathematics.

It is not easy for the lay mind to realize the importance of symbolism in discussing the foundations of mathematics, and the explanation may perhaps seem strangely paradoxical. The fact is that symbolism is useful because it makes things difficult. (This is not true of the advanced parts of mathematics, but only of the beginnings.) What we wish to know is, what can be deduced from what. Now, in the beginnings, everything is self-evident; and it is very hard to see whether one self-evident proposition follows from another or not. Obviousness is always the enemy to correctness. Hence we invent some new and difficult symbolism, in which nothing seems obvious. Then we set up certain rules for operating on the symbols, and the whole thing becomes mechanical. In this way we find out what must be taken as premiss and what can be demonstrated or defined. For instance, the whole of Arithmetic and Algebra has been shown to require three indefinable notions and five indemonstrable propositions. But without a symbolism it would have been very hard to find this out. It is so obvious that two and two are four, that we can hardly make ourselves sufficiently sceptical to doubt whether it can be proved. And the same holds in other cases where self-evident things are to be proved.

But the proof of self-evident propositions may seem, to the uninitiated, a somewhat frivolous occupation. To this we might reply that it is often by no means self-evident that one obvious proposition follows from another obvious proposition; so that we are really discovering new truths when we prove what is evident by a method which is not evident. But a more interesting retort is that, since people have tried to prove obvious propositions, they have found that many of them are false. Self-evidence is often a mere will-o'-the-wisp, which is sure to lead us astray if we take it as our guide. For instance, nothing is plainer than that a whole always has more terms than a part, or that a number is increased by adding one to it. But these propositions are now known to be usually false. Most numbers are infinite, and if a number is infinite you may add ones to it as long as you like without disturbing it in the least. One of the merits of a proof is that it instils a certain doubt as to the result proved; and when what is obvious can be proved in some cases, but not in others, it becomes possible to suppose that in these other cases it is false.

1. This subject is due in the main to Mr. C. S. Peirce.

The great master of the art of formal reasoning, among the men of our own day, is an Italian, Professor Peano, of the University of Turin.[2] He has reduced the greater part of mathematics (and he or his followers will, in time, have reduced the whole) to strict symbolic form, in which there are no words at all. In the ordinary mathematical books, there are no doubt fewer words than most readers would wish. Still, little phrases occur, such as *therefore, let us assume, consider,* or *hence it follows.* All these, however, are a concession, and are swept away by Professor Peano. For instance, if we wish to learn the whole of Arithmetic, Algebra, the Calculus, and indeed all that is usually called pure mathematics (except Geometry), we must start with a dictionary of three words. One symbol stands for *zero,* another for *number,* and a third for *next after.* What these ideas mean, it is necessary to know if you wish to become an arithmetician. But after symbols have been invented for these three ideas, not another word is required in the whole development. All future symbols are symbolically explained by means of these three. Even these three can be explained by means of the notions of *relation* and *class;* but this requires the Logic of Relations, which Professor Peano has never taken up. It must be admitted that what a mathematician has to know to begin with is not much. There are at most a dozen notions out of which all the notions in all pure mathematics (including Geometry) are compounded. Professor Peano, who is assisted by a very able school of young Italian disciples, has shown how this may be done; and although the method which he has invented is capable of being carried a good deal further than he has carried it, the honour of the pioneer must belong to him.

Two hundred years ago, Leibniz foresaw the science which Peano has perfected, and endeavoured to create it. He was prevented from succeeding by respect for the authority of Aristotle, whom he could not believe guilty of definite, formal fallacies; but the subject which he desired to create now exists, in spite of the patronizing contempt with which his schemes have been treated by all superior persons. From this "Universal Characteristic," as he called it, he hoped for a solution of all problems, and an end to all disputes. "If controversies were to arise," he says, "there would be no more need of disputation between two philosophers than between two accountants. For it would suffice to take their pens in their hands, to sit down to their desks, and to say to each other (with a friend as witness, if they liked), 'Let us calculate.' " This optimism has now appeared to be somewhat excessive; there still are problems whose

2. I ought to have added Frege, but his writings were unknown to me when this article was written. [Note added in 1917.]

solution is doubtful, and disputes which calculation cannot decide. But over an enormous field of what was formerly controversial, Leibniz's dream has become sober fact. In the whole philosophy of mathematics, which used to be at least as full of doubt as any other part of philosophy, order and certainty have replaced the confusion and hesitation which formerly reigned. Philosophers, of course, have not yet discovered this fact, and continue to write on such subjects in the old way. But mathematicians, at least in Italy, have now the power of treating the principles of mathematics in an exact and masterly manner, by means of which the certainty of mathematics extends also to mathematical philosophy. Hence many of the topics which used to be placed among the great mysteries—for example, the natures of infinity, of continuity, of space, time and motion—are now no longer in any degree open to doubt or discussion. Those who wish to know the nature of these things need only read the works of such men as Peano or Georg Cantor; they will there find exact and indubitable expositions of all these quondam mysteries.

In this capricious world, nothing is more capricious than posthumous fame. One of the most notable examples of posterity's lack of judgment is the Eleatic Zeno. This man, who may be regarded as the founder of the philosophy of infinity, appears in Plato's Parmenides in the privileged position of instructor to Socrates. He invented four arguments, all immeasurably subtle and profound, to prove that motion is impossible, that Achilles can never overtake the tortoise, and that an arrow in flight is really at rest. After being refuted by Aristotle, and by every subsequent philosopher from that day to our own, these arguments were reinstated, and made the basis of a mathematical renaissance, by a German professor, who probably never dreamed of any connection between himself and Zeno. Weierstrass,[3] by strictly banishing from mathematics the use of infinitesimals, has at last shown that we live in an unchanging world, and that the arrow in its flight is truly at rest. Zeno's only error lay in inferring (if he did infer) that, because there is no such thing as a state of change, therefore the world is in the same state at any one time as at any other. This is a consequence which by no means follows; and in this respect, the German mathematician is more constructive than the ingenious Greek. Weierstrass has been able, by embodying his views in mathematics, where familiarity with truth eliminates the vulgar prejudices of common sense, to invest Zeno's paradoxes with the respectable air of platitudes; and if the result is less delightful to the lover of reason than Zeno's

3. Professor of mathematics in the University of Berlin. He died in 1897.

bold defiance, it is at any rate more calculated to appease the mass of academic mankind.

Zeno was concerned, as a matter of fact, with three problems, each presented by motion, but each more abstract than motion, and capable of a purely arithmetical treatment. These are the problems of the infinitesimal, the infinite, and continuity. To state clearly the difficulties involved was to accomplish perhaps the hardest part of the philosopher's task. This was done by Zeno. From him to our own day, the finest intellects of each generation in turn attacked the problems, but achieved, broadly speaking, nothing. In our own time, however, three men–Weierstrass, Dedekind, and Cantor–have not merely advanced the three problems, but have completely solved them. The solutions, for those acquainted with mathematics, are so clear as to leave no longer the slightest doubt or difficulty. This achievement is probably the greatest of which our age has to boast; and I know of no age (except perhaps the golden age of Greece) which has a more convincing proof to offer of the transcendent genius of its great men. Of the three problems, that of the infinitesimal was solved by Weierstrass; the solution of the other two was begun by Dedekind, and definitively accomplished by Cantor.

The infinitesimal played formerly a great part in mathematics. It was introduced by the Greeks, who regarded a circle as differing infinitesimally from a polygon with a very large number of very small equal sides. It gradually grew in importance, until, when Leibniz invented the Infinitesimal Calculus, it seemed to become the fundamental notion of all higher mathematics. Carryle tells, in his *Frederick the Great,* how Leibniz used to discourse to Queen Sophia Charlotte of Prussia concerning the infinitely little, and how she would reply that on that subject she needed no instruction–the behaviour of courtiers had made her thoroughly familiar with it. But philosophers and mathematicians–who for the most part had less acquaintance with courts–continued to discuss this topic, though without making any advance. The Calculus required continuity, and continuity was supposed to require the infinitely little; but nobody could discover what the infinitely little might be. It was plainly not quite zero, because a sufficiently large number of infinitesimals, added together, were seen to make up a finite whole. But nobody could point out any fraction which was not zero, and yet not finite. Thus there was a deadlock. But at last Weierstrass discovered that the infinitesimal was not needed at all, and that everything could be accomplished without it. Thus there was no longer any need to suppose that there was such a thing. Nowadays, therefore, mathematicians are more dignified than

Leibniz: instead of talking about the infinitely small, they talk about the infinitely great–a subject which, however appropriate to monarchs, seems, unfortunately, to interest them even less than the infinitely little interested the monarchs to whom Leibniz discoursed.

The banishment of the infinitesimal has all sorts of odd consequences, to which one has to become gradually accustomed. For example, there is no such thing as the next moment. The interval between one moment and the next would have to be infinitesimal, since, if we take two moments with a finite interval between them, there are always other moments in the interval. Thus if there are to be no infinitesimals, no two moments are quite consecutive, but there are always other moments between any two. Hence there must be an infinite number of moments between any two; because if there were a finite number one would be nearest the first of the two moments, and therefore next to it. This might be thought to be a difficulty; but, as a matter of fact, it is here that the philosophy of the infinite comes in, and makes all straight.

The same sort of thing happens in space. If any piece of matter be cut in two, and then each part be halved, and so on, the bits will become smaller and smaller, and can theoretically be made as small as we please. However small they may be, they can still be cut up and made smaller still. But they will always have *some* finite size, however small they may be. We never reach the infinitesimal in this way, and no finite number of divisions will bring us to points. Nevertheless there *are* points, only these are not to be reached by successive divisions. Here again, the philosophy of the infinite shows us how this is possible, and why points are not infinitesimal lengths.

As regards motion and change, we get similarly curious results. People used to think that when a thing changes, it must be in a state of change, and that when a thing moves, it is in a state of motion. This is now known to be a mistake. When a body moves, all that can be said is that it is in one place at one time and in another at another. We must not say that it will be in a neighbouring place at the next instant, since there is no next instant. Philosophers often tell us that when a body is in motion, it changes its position within the instant. To this view Zeno long ago made the fatal retort that every body always is where it is; but a retort so simple and brief was not of the kind to which philosophers are accustomed to give weight, and they have continued down to our own day to repeat the same phrases which roused the Eleatic's destructive ardour. It was only recently that it became possible to explain motion in detail in accordance with Zeno's platitude, and in opposition to the philosopher's

paradox. We may now at last indulge the comfortable belief that a body in motion is just as truly where it is as a body at rest. Motion consists merely in the fact that bodies are sometimes in one place and sometimes in another, and that they are at intermediate places at intermediate times. Only those who have waded through the quagmire of philosophic speculation on this subject can realize what a liberation from antique prejudices is involved in this simple and straightforward commonplace.

The philosophy of the infinitesimal, as we have just seen, is mainly negative. People used to believe in it, and now they have found out their mistake. The philosophy of the infinite, on the other hand, is wholly positive. It was formerly supposed that infinite numbers, and the mathematical infinite generally, were self-contradictory. But as it was obvious that there were infinities—for example, the number of numbers—the contradictions of infinity seemed unavoidable, and philosophy seemed to have wandered into a cul-de-sac. This difficulty led to Kant's antinomies, and hence, more or less indirectly, to much of Hegel's dialectic method. Almost all current philosophy is upset by the fact (of which very few philosophers are as yet aware) that all the ancient and respectable contradictions in the notion of the infinite have been once for all disposed of. The method by which this has been done is most interesting and instructive. In the first place, though people had talked glibly about infinity ever since the beginnings of Greek thought, nobody had ever thought of asking, What is infinity? If any philosopher had been asked for a definition of infinity, he might have produced some unintelligible rigmarole, but he would certainly not have been able to give a definition that had any meaning at all. Twenty years ago, roughly speaking, Dedekind and Cantor asked this question, and, what is more remarkable, they answered it. They found, that is to say, a perfectly precise definition of an infinite number or an infinite collection of things. This was the first and perhaps the greatest step. It then remained to examine the supposed contradictions in this notion. Here Cantor proceeded in the only proper way. He took pairs of contradictory propositions, in which both sides of the contradiction would be usually regarded as demonstrable, and he strictly examined the supposed proofs. He found that all proofs adverse to infinity involved a certain principle, at first sight obviously true, but destructive, in its consequences, of almost all mathematics. The proofs favourable to infinity, on the other hand, involved no principle that had evil consequences. It thus appeared that common sense had allowed itself to be taken in by a specious maxim, and that, when once this maxim was rejected, all went well.

The maxim in question is that, if one collection is part of another, the one which is a part has fewer terms than the one of which it is a part. This maxim is true of finite numbers. For example, Englishmen are only some among Europeans, and there are fewer Englishmen than Europeans. But when we come to infinite numbers, this is no longer true. This breakdown of the maxim gives us the precise definition of infinity. A collection of terms is infinite when it contains as parts other collections which have just as many terms as it has. If you can take away some of the terms of a collection without diminishing the number of terms, then there are an infinite number of terms in the collection. For example, there are just as many even numbers as there are numbers altogether, since every number can be doubled. This may be seen by putting odd and even numbers together in one row, and even numbers alone in a row below:

1, 2, 3, 4, 5, *ad infinitum.*
2, 4, 6, 8, 10, *ad infinitum.*

There are obviously just as many numbers in the row below as in the row above, because there is one below for each one above. This property, which was formerly thought to be a contradiction, is now transformed into a harmless definition of infinity, and shows, in the above case, that the number of finite numbers is infinite.

But the uninitiated may wonder how it is possible to deal with a number which cannot be counted. It is impossible to count up *all* the numbers, one by one, because, however many we may count, there are always more to follow. The fact is that counting is a very vulgar and elementary way of finding out how many terms there are in a collection. And in any case, counting gives us what mathematicians call the *ordinal* number of our terms; that is to say, it arranges our terms in an order or series, and its result tells us what type of series results from this arrangement. In other words, it is impossible to count things without counting some first and others afterwards, so that counting always has to do with order. Now when there are only a finite number of terms, we can count them in any order we like; but when there are an infinite number, what corresponds to counting will give us quite different results according to the way in which we carry out the operation. Thus the ordinal number, which results from what, in a general sense, may be called counting, depends not only upon how many terms we have, but also (where the number of terms is infinite) upon the way in which the terms are arranged.

The fundamental infinite numbers are not ordinal, but are what is

called *cardinal*. They are not obtained by putting our terms in order and counting them, but by a different method, which tells us, to begin with, whether two collections have the same number of terms, or, if not, which is the greater.[4] It does not tell us, in the way in which counting does, *what* number of terms a collection has; but if we define a number as the number of terms in such and such a collection, then this method enables us to discover whether some other collection that may be mentioned has more or fewer terms. An illustration will show how this is done. If there existed some country in which, for one reason or another, it was impossible to take a census, but in which it was known that every man had a wife and every woman a husband, then (provided polygamy was not a national institution) we should know, without counting, that there were exactly as many men as there were women in that country, neither more nor less. This method can be applied generally. If there is some relation which, like marriage, connects the things in one collection each with one of the things in another collection, and vice versa, then the two collections have the same number of terms. This was the way in which we found that there are as many even numbers as there are numbers. Every number can be doubled, and every even number can be halved, and each process gives just one number corresponding to the one that is doubled or halved. And in this way we can find any number of collections each of which has just as many terms as there are finite numbers. If every term of a collection can be hooked on to a number, and all the finite numbers are used once, and only once, in the process, then our collection must have just as many terms as there are finite numbers. This is the general method by which the numbers of infinite collections are defined.

But it must not be supposed that all infinite numbers are equal. On the contrary, there are infinitely more infinite numbers than finite ones. There are more ways of arranging the finite numbers in different types of series than there are finite numbers. There are probably more points in space and more moments in time than there are finite numbers. There are exactly as many fractions as whole numbers, although there are an infinite number of fractions between any two whole numbers. But there are more irrational numbers than there are whole numbers or fractions. There are probably exactly as many points in space as there are irrational numbers, and exactly as many points on a line a millionth of an inch long as in the whole of infinite space. There is a greatest of all infinite numbers, which is the number of things altogether, of every sort and kind.

4. Although some infinite numbers are greater than some others, it cannot be proved that of any two infinite numbers one must be the greater. [Note added in 1917.]

It is obvious that there cannot be a greater number than this, because, if everything has been taken, there is nothing left to add. Cantor has a proof that there is no greatest number, and if this proof were valid, the contradictions of infinity would reappear in a sublimated form. But in this one point, the master has been guilty of a very subtle fallacy, which I hope to explain in some future work.[5]

We can now understand why Zeno believed that Achilles cannot overtake the tortoise and why as a matter of fact he can overtake it. We shall see that all the people who disagreed with Zeno had no right to do so, because they all accepted premisses from which his conclusion followed. The argument is this: Let Achilles and the tortoise start along a road at the same time, the tortoise (as is only fair) being allowed a handicap. Let Achilles go twice as fast as the tortoise, or ten times or a hundred times as fast. Then he will never reach the tortoise. For at every moment the tortoise is somewhere and Achilles is somewhere; and neither is ever twice in the same place while the race is going on. Thus the tortoise goes to just as many places as Achilles does, because each is in one place at one moment, and in another at any other moment. But if Achilles were to catch up with the tortoise, the places where the tortoise would have been would be only part of the places where Achilles would have been. Here, we must suppose, Zeno appealed to the maxim that the whole has more terms than the part.[6] Thus if Achilles were to overtake the tortoise, he would have been in more places than the tortoise; but we saw that he must, in any period, be in exactly as many places as the tortoise. Hence we infer that he can never catch the tortoise. This argument is strictly correct, if we allow the axiom that the whole has more terms than the part. As the conclusion is absurd, the axiom must be rejected, and then all goes well. But there is no good word to be said for the philosophers of the past two thousand years and more, who have all allowed the axiom and denied the conclusion.

The retention of this axiom leads to absolute contradictions, while its rejection leads only to oddities. Some of these oddities, it must be confessed, are very odd. One of them, which I call the paradox of Tristram

5. Cantor was not guilty of a fallacy on this point. His proof that there is no greatest number is valid. The solution of the puzzle is complicated and depends upon the theory of types, which is explained in *Principia Mathematica,* Vol. I (Cambridge University Press, 1910). [Note added in 1917.]

6. This must not be regarded as a historically correct account of what Zeno actually had in mind. It is a new argument for his conclusion, not the argument which influenced him. On this point, see e.g. C. D. Broad, "Note on Achilles and the Tortoise," *Mind,* N.S., Vol. XXII, pp. 318–19. Much valuable work on the interpretation of Zeno has been done since this article was written. [Note added in 1917.]

Shandy, is the converse of the Achilles, and shows that the tortoise, if you give him time, will go just as far as Achilles. Tristram Shandy, as we know, employed two years in chronicling the first two days of his life, and lamented that, at this rate, material would accumulate faster than he could deal with it, so that, as years went by, he would be farther and farther from the end of his history. Now I maintain that if he had lived for ever, and had not wearied of his task, then, even if his life had continued as eventfully as it began, no part of his biography would have remained unwritten. For consider: the hundredth day will be described in the hundredth year, the thousandth in the thousandth year, and so on. Whatever day we may choose as so far on that he cannot hope to reach it, that day will be described in the corresponding year. Thus any day that may be mentioned will be written up sooner or later, and therefore no part of the biography will remain permanently unwritten. This paradoxical but perfectly true proposition depends upon the fact that the number of days in all time is no greater than the number of years.

Thus on the subject of infinity it is impossible to avoid conclusions which at first sight appear paradoxical, and this is the reason why so many philosophers have supposed that there were inherent contradictions in the infinite. But a little practice enables one to grasp the true principles of Cantor's doctrine, and to acquire new and better instincts as to the true and the false. The oddities then become no odder than the people at the antipodes, who used to be thought impossible because they would find it so inconvenient to stand on their heads.

The solution of the problems concerning infinity has enabled Cantor to solve also the problems of continuity. Of this, as of infinity, he has given a perfectly precise definition, and has shown that there are no contradictions in the notion so defined. But this subject is so technical that it is impossible to give any account of it here.

The notion of continuity depends upon that of *order,* since continuity is merely a particular type of order. Mathematics has, in modern times, brought order into greater and greater prominence. In former days, it was supposed (and philosophers are still apt to suppose) that quantity was the fundamental notion of mathematics. But nowadays, quantity is banished altogether, except from one little corner of Geometry, while order more and more reigns supreme. The investigation of different kinds of series and their relations is now a very large part of mathematics, and it has been found that this investigation can be conducted without any reference to quantity, and, for the most part, without any reference to number. All types of series are capable of formal definition, and their

properties can be deduced from the principles of symbolic logic by means of the Algebra of Relatives. The notion of a limit, which is fundamental in the greater part of higher mathematics, used to be defined by means of quantity, as a term to which the terms of some series approximate as nearly as we please. But nowadays the limit is defined quite differently, and the series which it limits may not approximate to it at all. This improvement also is due to Cantor, and it is one which has revolutionized mathematics. Only order is now relevant to limits. Thus, for instance, the smallest of the infinite integers is the limit of the finite integers, though all finite integers are at an infinite distance from it. The study of different types of series is a general subject of which the study of ordinal numbers (mentioned above) is a special and very interesting branch. But the unavoidable technicalities of this subject render it impossible to explain to any but professed mathematicians.

Geometry, like Arithmetic, has been subsumed, in recent times, under the general study of order. It was formerly supposed that Geometry was the study of the nature of the space in which we live, and accordingly it was urged, by those who held that what exists can only be known empirically, that Geometry should really be regarded as belonging to applied mathematics. But it has gradually appeared, by the increase of non-Euclidean systems, that Geometry throws no more light upon the nature of space than Arithmetic throws upon the population of the United States. Geometry is a whole collection of deductive sciences based on a corresponding collection of sets of axioms. One set of axioms is Euclid's; other equally good sets of axioms lead to other results. Whether Euclid's axioms are true is a question as to which the pure mathematician is indifferent; and, what is more, it is a question which it is theoretically impossible to answer with certainty in the affirmative. It might possibly be shown, by very careful measurements, that Euclid's axioms are false; but no measurements could ever assure us (owing to the errors of observation) that they are exactly true. Thus the geometer leaves to the man of science to decide, as best he may, what axioms are most nearly true in the actual world. The geometer takes any set of axioms that seem interesting, and deduces their consequences. What defines Geometry, in this sense, is that the axioms must give rise to a series of more than one dimension. And it is thus that Geometry becomes a department in the study of order.

In Geometry, as in other parts of mathematics, Peano and his disciples have done work of the very greatest merit as regards principles. Formerly, it was held by philosophers and mathematicians alike that the

proofs in Geometry depended on the figure; nowadays, this is known to be false. In the best books there are no figures at all. The reasoning proceeds by the strict rules of formal logic from a set of axioms laid down to begin with. If a figure is used, all sorts of things seem obviously to follow, which no formal reasoning can prove from the explicit axioms, and which, as a matter of fact, are only accepted because they are obvious. By banishing the figure, it becomes possible to discover *all* the axioms that are needed; and in this way all sorts of possibilities, which would have otherwise remained undetected, are brought to light.

One great advance, from the point of view of correctness, has been made by introducing points as they are required, and not starting, as was formerly done, by assuming the whole of space. This method is due partly to Peano, partly to another Italian named Fano. To those unaccustomed to it, it has an air of somewhat wilful pedantry. In this way, we begin with the following axioms: (1) There is a class of entities called *points*. (2) There is at least one point. (3) If *a* be a point, there is at least one other point besides *a*. Then we bring in the straight line joining two points, and begin again with (4), namely, on the straight line joining *a* and *b,* there is at least one other point besides *a* and *b*. (5) There is at least one point not on the line *ab*. And so we go on, till we have the means of obtaining as many points as we require. But the word *space,* as Peano humorously remarks, is one for which Geometry has no use at all.

The rigid methods employed by modern geometers have deposed Euclid from his pinnacle of correctness. It was thought, until recent times, that, as Sir Henry Savile remarked in 1621, there were only two blemishes in Euclid, the theory of parallels and the theory of proportion. It is now known that these are almost the only points in which Euclid is free from blemish. Countless errors are involved in his first eight propositions. That is to say, not only is it doubtful whether his axioms are true, which is a comparatively trivial matter, but it is certain that his propositions do not follow from the axioms which he enunciates. A vastly greater number of axioms, which Euclid unconsciously employs, are required for the proof of his propositions. Even in the first proposition of all, where he constructs an equilateral triangle on a given base, he uses two circles which are assumed to intersect. But no explicit axiom assures us that they do so, and in some kinds of spaces they do not always intersect. It is quite doubtful whether our space belongs to one of these kinds or not. Thus Euclid fails entirely to prove his point in the very first proposition. As he is certainly not an easy author, and is terribly long-winded, he has no longer any but a historical interest. Under these circumstances,

it is nothing less than a scandal that he should still be taught to boys in England.[7] A book should have either intelligibility or correctness; to combine the two is impossible, but to lack both is to be unworthy of such a place as Euclid has occupied in education.

The most remarkable result of modern methods in mathematics is the importance of symbolic logic and of rigid formalism. Mathematicians, under the influence of Weierstrass, have shown in modern times a care for accuracy, and an aversion to slipshod reasoning, such as had not been known among them previously since the time of the Greeks. The great inventions of the seventeenth century—Analytical Geometry and the Infinitesimal Calculus—were so fruitful in new results that mathematicians had neither time nor inclination to examine their foundations. Philosophers, who should have taken up the task, had too little mathematical ability to invent the new branches of mathematics which have now been found necessary for any adequate discussion. Thus mathematicians were only awakened from their "dogmatic slumbers" when Weierstrass and his followers showed that many of their most cherished propositions are in general false. Macaulay, contrasting the certainty of mathematics with the uncertainty of philosophy, asks who ever heard of a reaction against Taylor's theorem? If he had lived now, he himself might have heard of such a reaction, for this is precisely one of the theorems which modern investigations have overthrown. Such rude shocks to mathematical faith have produced that love of formalism which appears, to those who are ignorant of its motive, to be mere outrageous pedantry.

The proof that all pure mathematics, including Geometry, is nothing but formal logic, is a fatal blow to the Kantian philosophy. Kant, rightly perceiving that Euclid's propositions could not be deduced from Euclid's axioms without the help of the figures, invented a theory of knowledge to account for this fact; and it accounted so successfully that, when the fact is shown to be a mere defect in Euclid, and not a result of the nature of geometrical reasoning, Kant's theory also has to be abandoned. The whole doctrine of *a priori* intuitions, by which Kant explained the possibility of pure mathematics, is wholly inapplicable to mathematics in its present form. The Aristotelian doctrines of the schoolmen come nearer in spirit to the doctrines which modern mathematics inspire; but the schoolmen were hampered by the fact that their formal logic was very defective, and that the philosophical logic based upon the syllogism

7. Since the above was written, he has ceased to be used as a text-book. But I fear many of the books now used are so bad that the change is no great improvement. [Note added in 1917.]

showed a corresponding narrowness. What is now required is to give the greatest possible development to mathematical logic, to allow to the full the importance of relations, and then to found upon this secure basis a new philosophical logic, which may hope to borrow some of the exactitude and certainty of its mathematical foundation. If this can be successfully accomplished, there is every reason to hope that the near future will be as great an epoch in pure philosophy as the immediate past has been in the principles of mathematics. Great triumphs inspire great hopes; and pure thought may achieve, within our generation, such results as will place our time, in this respect, on a level with the greatest age of Greece.[8]

8. The greatest age of Greece was brought to an end by the Peloponnesian War. [Note added in 1917.]

The foregoing consists of Chapters IV and V
from Russell's MYSTICISM AND LOGIC, AND OTHER ESSAYS.

Definition of Number

The question "What is a number?" is one which has been often asked, but has only been correctly answered in our own time. The answer was given by Frege in 1884, in his *Grundlagen der Arithmetik*. Although this book is quite short, not difficult, and of the very highest importance, it attracted almost no attention, and the definition of number which it contains remained practically unknown until it was rediscovered by the present author in 1901.

In seeking a definition of number, the first thing to be clear about is what we may call the grammar of our inquiry. Many philosophers, when attempting to define number, are really setting to work to define plurality, which is quite a different thing. *Number* is what is characteristic of numbers, as *man* is what is characteristic of men. A plurality is not an instance of number, but of some particular number. A trio of men, for example, is an instance of the number 3, and the number 3 is an instance of number; but the trio is not an instance of number. This point may seem elementary and scarcely worth mentioning; yet it has proved too subtle for the philosophers, with few exceptions.

A particular number is not identical with any collection of terms having that number: the number 3 is not identical with the trio consisting of Brown, Jones, and Robinson. The number 3 is something which all trios have in common, and which distinguishes them from other collections. A number is something that characterizes certain collections, namely, those that have that number.

Instead of speaking of a "collection," we shall as a rule speak of a "class," or sometimes a "set." Other words used in mathematics for the same thing are "aggregate" and "manifold." We shall have much to say later on about classes. For the present, we will say as little as possible. But there are some remarks that must be made immediately.

A class or collection may be defined in two ways that at first sight seem quite distinct. We may enumerate its members, as when we say,

"The collection I mean is Brown, Jones, and Robinson." Or we may mention a defining property, as when we speak of "mankind" or "the inhabitants of London." The definition which enumerates is called a definition by "extension," and the one which mentions a defining property is called a definition by "intension." Of these two kinds of definition, the one by intension is logically more fundamental. This is shown by two considerations: (1) that the extensional definition can always be reduced to an intensional one; (2) that the intensional one often cannot even theoretically be reduced to the extensional one. Each of these points needs a word of explanation.

(1) Brown, Jones, and Robinson all of them possess a certain property which is possessed by nothing else in the whole universe, namely, the property of being either Brown or Jones or Robinson. This property can be used to give a definition by intension of the class consisting of Brown and Jones and Robinson. Consider such a formula as "*x* is Brown or *x* is Jones or *x* is Robinson." This formula will be true for just three *x*'s, namely, Brown and Jones and Robinson. In this respect it resembles a cubic equation with its three roots. It may be taken as assigning a property common to the members of the class consisting of these three men, and peculiar to them. A similar treatment can obviously be applied to any other class given in extension.

(2) It is obvious that in practice we can often know a great deal about a class without being able to enumerate its members. No one man could actually enumerate all men, or even all the inhabitants of London, yet a great deal is known about each of these classes. This is enough to show that definition by extension is not *necessary* to knowledge about a class. But when we come to consider infinite classes, we find that enumeration is not even theoretically possible for beings who only live for a finite time. We cannot enumerate all the natural numbers: they are 0, 1, 2, 3, *and so on*. At some point we must content ourselves with "and so on." We cannot enumerate all fractions or all irrational numbers, or all of any other infinite collection. Thus our knowledge in regard to all such collections can only be derived from a definition by intension.

These remarks are relevant, when we are seeking the definition of number, in three different ways. In the first place, numbers themselves form an infinite collection, and cannot therefore be defined by enumeration. In the second place, the collections having a given number of terms themselves presumably form an infinite collection: it is to be presumed, for example, that there are an infinite collection of trios in the world, for if this were not the case the total number of things in the world

would be finite, which, though possible, seems unlikely. In the third place, we wish to define "number" in such a way that infinite numbers may be possible; thus we must be able to speak of the number of terms in an infinite collection, and such a collection must be defined by intension, *i.e.,* by a property common to all its members and peculiar to them.

For many purposes, a class and a defining characteristic of it are practically interchangeable. The vital difference between the two consists in the fact that there is only one class having a given set of members, whereas there are always many different characteristics by which a given class may be defined. Men may be defined as featherless bipeds, or as rational animals, or (more correctly) by the traits by which Swift delineates the Yahoos. It is this fact that a defining characteristic is never unique which makes classes useful; otherwise we could be content with the properties common and peculiar to their members. Any one of these properties can be used in place of the class whenever uniqueness is not important.

Returning now to the definition of number, it is clear that number is a way of bringing together certain collections, namely, those that have a given number of terms. We can suppose all couples in one bundle, all trios in another, and so on. In this way we obtain various bundles of collections, each bundle consisting of all the collections that have a certain number of terms. Each bundle is a class whose members are collections, *i.e.,* classes; thus each is a class of classes. The bundle consisting of all couples, for example, is a class of classes: each couple is a class with two members, and the whole bundle of couples is a class with an infinite number of members, each of which is a class of two members.

How shall we decide whether two collections are to belong to the same bundle? The answer that suggests itself is: "Find out how many members each has, and put them in the same bundle if they have the same number of members." But this presupposes that we have defined numbers, and that we know how to discover how many terms a collection has. We are so used to the operation of counting that such a presupposition might easily pass unnoticed. In fact, however, counting, though familiar, is logically a very complex operation; moreover it is only available, as a means of discovering how many terms a collection has, when the collection is finite. Our definition of number must not assume in advance that all numbers are finite; and we cannot in any case, without a vicious circle, use counting to define numbers, because numbers are used in counting. We need, therefore, some other method of deciding when two collections have the same number of terms.

In actual fact, it is simpler logically to find out whether two collections

have the same number of terms than it is to define what that number is. An illustration will make this clear. If there were no polygamy or polyandry anywhere in the world, it is clear that the number of husbands living at any moment would be exactly the same as the number of wives. We do not need a census to assure us of this, nor do we need to know what is the actual number of husbands and of wives. We know the number must be the same in both collections, because each husband has one wife and each wife has one husband. The relation of husband and wife is what is called "one-one."

A relation is said to be "one-one" when, if x has the relation in question to y, no other term x' has the same relation to y, and x does not have the same relation to any term y' other than y. When only the first of these two conditions is fulfilled, the relation is called "one-many"; when only the second is fulfilled, it is called "many-one." It should be observed that the number 1 is not used in these definitions.

In Christian countries, the relation of husband to wife is one-one; in Mohammedan countries it is one-many; in Tibet it is many-one. The relation of father to son is one-many; that of son to father is many-one, but that of eldest son to father is one-one. If n is any number, the relation of n to $n + 1$ is one-one; so is the relation of n to $2n$ or to $3n$. When we are considering only positive numbers, the relation of n to n^2 is one-one; but when negative numbers are admitted, it becomes two-one, since n and $-n$ have the same square. These instances should suffice to make clear the notions of one-one, one-many, and many-one relations, which play a great part in the principles of mathematics, not only in relation to the definition of numbers, but in many other connections.

Two classes are said to be "similar" when there is a one-one relation which correlates the terms of the one class each with one term of the other class, in the same manner in which the relation of marriage correlates husbands with wives. A few preliminary definitions will help us to state this definition more precisely. The class of those terms that have a given relation to something or other is called the *domain* of that relation: thus fathers are the domain of the relation of father to child, husbands are the domain of the relation of husband to wife, wives are the domain of the relation of wife to husband, and husbands and wives together are the domain of the relation of marriage. The relation of wife to husband is called the *converse* of the relation of husband to wife. Similarly *less* is the converse of *greater, later* is the converse of *earlier,* and so on. Generally, the converse of a given relation is that relation which holds between y and x whenever the given relation holds between x and y. The

converse domain of a relation is the domain of its converse: thus the class of wives is the converse domain of the relation of husband to wife. We may now state our definition of similarity as follows:

One class is said to be "similar" to another when there is a one-one relation of which the one class is the domain, while the other is the converse domain.

It is easy to prove (1) that every class is similar to itself, (2) that if a class α is similar to a class β, then β is similar to α, (3) that if α is similar to β and β to γ, then α is similar to γ. A relation is said to be *reflexive* when it possesses the first of these properties, *symmetrical* when it possesses the second, and *transitive* when it possesses the third. It is obvious that a relation which is symmetrical and transitive must be reflexive throughout its domain. Relations which possess these properties are an important kind, and it is worth while to note that similarity is one of this kind of relations.

It is obvious to common sense that two finite classes have the same number of terms if they are similar, but not otherwise. The act of counting consists in establishing a one-one correlation between the set of objects counted and the natural numbers (excluding 0) that are used up in the process. Accordingly common sense concludes that there are as many objects in the set to be counted as there are numbers up to the last number used in the counting. And we also know that, so long as we confine ourselves to finite numbers, there are just n numbers from 1 up to n. Hence it follows that the last number used in counting a collection is the number of terms in the collection, provided the collection is finite. But this result, besides being only applicable to finite collections, depends upon and assumes the fact that two classes which are similar have the same number of terms; for what we do when we count (say) 10 objects is to show that the set of these objects is similar to the set of numbers 1 to 10. The notion of similarity is logically presupposed in the operation of counting, and is logically simpler though less familiar. In counting, it is necessary to take the objects counted in a certain order, as first, second, third, etc., but order is not of the essence of number: it is an irrelevant addition, an unnecessary complication from the logical point of view. The notion of similarity does not demand an order: for example, we saw that the number of husbands is the same as the number of wives, without having to establish an order of precedence among them. The notion of similarity also does not require that the classes which are similar should be finite. Take, for example, the natural numbers (excluding 0) on the one hand, and the fractions which have 1 for their numerator on the

other hand: it is obvious that we can correlate 2 with ½, 3 with ⅓, and so on, thus proving that the two classes are similar.

We may thus use the notion of "similarity" to decide when two collections are to belong to the same bundle, in the sense in which we were asking this question earlier in this chapter. We want to make one bundle containing the class that has no members: this will be for the number 0. Then we want a bundle of all the classes that have one member: this will be for the number 1. Then, for the number 2, we want a bundle consisting of all couples; then one of all trios; and so on. Given any collection, we can define the bundle it is to belong to as being the class of all those collections that are "similar" to it. It is very easy to see that if (for example) a collection has three members, the class of all those collections that are similar to it will be the class of trios. And whatever number of terms a collection may have, those collections that are "similar" to it will have the same number of terms. We may take this as a *definition* of "having the same number of terms." It is obvious that it gives results conformable to usage so long as we confine ourselves to finite collections.

So far we have not suggested anything in the slightest degree paradoxical. But when we come to the actual definition of numbers we cannot avoid what must at first sight seem a paradox, though this impression will soon wear off. We naturally think that the class of couples (for example) is something different from the number 2. But there is no doubt about the class of couples: it is indubitable and not difficult to define, whereas the number 2, in any other sense, is a metaphysical entity about which we can never feel sure that it exists or that we have tracked it down. It is therefore more prudent to content ourselves with the class of couples, which we are sure of, than to hunt for a problematical number 2 which must always remain elusive. Accordingly we set up the following definition:

The number of a class is the class of all those classes that are similar to it.

Thus the number of a couple will *be* the class of all couples. In fact, the class of all couples will *be* the number 2, according to our definition. At the expense of a little oddity, this definition secures definiteness and indubitableness; and it is not difficult to prove that numbers so defined have all the properties that we expect numbers to have.

We may now go on to define numbers in general as any one of the bundles into which similarity collects classes. A number will be a set of classes such as that any two are similar to each other, and none outside the set are similar to any inside the set. In other words, a number (in

general) is any collection which is the number of one of its members; or, more simply still:

A number is anything which is the number of some class.

Such a definition has a verbal appearance of being circular, but in fact it is not. We define "the number of a given class" without using the notion of number in general; therefore we may define number in general in terms of "the number of a given class" without committing any logical error.

Definitions of this sort are in fact very common. The class of fathers, for example, would have to be defined by first defining what it is to be the father of somebody; then the class of fathers will be all those who are somebody's father. Similarly if we want to define square numbers (say), we must first define what we mean by saying that one number is the square of another, and then define square numbers as those that are the squares of other numbers. This kind of procedure is very common, and it is important to realize that it is legitimate and even often necessary.

The foregoing consists of Chapter II
from Russell's INTRODUCTION TO MATHEMATICAL PHILOSOPHY.

Edward Kasner

1878–1955

James R. Newman

1907–1966

Edward Kasner, born in New York City in 1878, was educated at the College of the City of New York, and at Columbia and Göttingen Universities. He was on the teaching staff at Columbia from 1900 until his retirement in 1949. In addition, he lectured at the New School for Social Research from 1938 until 1951. He died in 1955.

Kasner's specialty was higher geometry. On this subject he wrote *Geometry upon a Quadric Surface, The Problems of Geometry,* and *Differential Geometric Aspects of Dynamics*. He also wrote *Einstein's Theory of Gravitation.* (He was called "one of the twelve men who understood Einstein.")

Interested in the simplification of mathematical terminology, Kasner introduced such phrases and words as snowflake curve, anti-snowflake curve, googol, and googolplex.

Kasner was widely known for his skill as a teacher. His humor, fertile imagination, and exceptional ability as a lecturer made his courses among the most popular at Columbia. But his audience extended beyond college students; he also liked to give lectures on infinity, topology, and other difficult matters to children of kindergarten age. It was his theory that the way to interest children in mathematics was to begin at the top, and only gradually work down to the elementary concepts.

All of his students remembered their instruction under Professor Kasner as an intellectual delight. James Newman, who attended several of Kasner's courses as a graduate student, attributed his own interest in mathematics to this teacher.

James R. Newman was born in 1907 in New York City. He attended Columbia University, graduating from the School of Law.

He served with several government agencies and helped write the key bill that placed atomic development under civilian control. A writer as well as a lawyer, Newman was an editor of *Scientific American* and *New Republic.*

Newman's interest in mathematics began when he discovered that there was much in the study of philosophy that could not be understood without some mathematical knowledge. He did not regard himself as an original, creative mathematician. His contribution to mathematics has been to serve as guide and interpreter in a too-little traveled land.

In 1956 Newman published a four-volume anthology, *The World of Mathematics.* This work is a collection of writings about mathematics and mathematicians appealing to a wide range of tastes and capacities. It became a best seller.

With his teacher Edward Kasner, Newman collaborated on *Mathematics and the Imagination*, from which the following selections are taken.

New Names for Old discusses new words that have been added to mathematical language. New ideas and new ways of looking at old ideas need new forms of expression. Most of these terms are familiar but are given special meaning in mathematical usage. In discussing these special meanings, the authors give a short tour of modern mathematics.

Two words for large numbers, googol and googolplex, prepare the reader for a glimpse into the mathematical land that lies beyond intuition and beyond imagination. This is the realm of the infinite. The difference between an immensely large number and infinity is not a quantitative difference, it is qualitative. At infinity, you are not just farther out—you are in a different country. And this country shares no border with your ordinary concept of mathematics.

The second piece, *Beyond the Googol*, makes the leap that carries you beyond all sense experience. It begins by clarifying the idea of counting. This requires a precise definition of number.[1] The everyday understanding of number is not sufficient for the task ahead. You are going to count that which would seem to be uncountable—the infinitely large.

[1] For additional writings on the concept of number, see Russell, pp. 84–117, and Dantzig, pp. 165–189, Vol. 9, in this set.

The problems of the infinite have always been challenging. They have given rise to such paradoxical notions as "motion is impossible" and "Achilles will never be able to overtake the tortoise." Aristotle and others failed to dispose of these paradoxes. Has modern mathematics succeeded? The answer is startling. It carries you far beyond your power to imagine. You will need an adventurous spirit. Ignore your "common sense" but hold fast to logic.

New Names for Old

For out of olde feldes, as men seith,
Cometh al this newe corn fro yeer to yere;
And out of olde bokes, in good feith,
Cometh al this newe science that men lere.

—*Chaucer*

Every once in a while there is house cleaning in mathematics. Some old names are discarded, some dusted off and refurbished; new theories, new additions to the household are assigned a place and name. So what our title really means is new *words* in mathematics; not new names, but new words, new terms which have in part come to represent new concepts and a reappraisal of old ones in more or less recent mathematics. There are surely plenty of words already in mathematics as well as in other subjects. Indeed, there are so many words that it is even easier than it used to be to speak a great deal and say nothing. It is mostly through words strung together like beads in a necklace that half the population of the world has been induced to believe mad things and to sanctify mad deeds. Frank Vizetelly, the great lexicographer, estimated that there are 800,000 words in use in the English language. But mathematicians, generally quite modest, are not satisfied with these 800,000; let us give them a few more.

We can get along without new names until, as we advance in science, we acquire new ideas and new forms. A peculiar thing about mathematics is that it does not use so many long and hard names as the other sciences. Besides, it is more conservative than the other sciences in that it clings tenaciously to old words. The terms used by Euclid in his *Elements* are current in geometry today. But an Ionian physicist would find the terminology of modern physics, to put it colloquially, pure Greek. In chemistry, substances no more complicated than sugar, starch, or alcohol have names like these: Methylpropenylenedihydroxycinnamenylacrylic

acid, or, 0-anhydrosulfaminobenzoine, or, protocatechuicaldehydemethylene. It would be inconvenient if we had to use such terms in everyday conversation. Who could imagine even the aristocrat of science at the breakfast table asking, "Please pass the O-anhydrosulfaminobenzoic acid," when all he wanted was sugar for his coffee? Biology also has some tantalizing tongue twisters. The purpose of these long words is not to frighten the exoteric, but to describe with scientific curtness what the literary man would take half a page to express.

In mathematics there are many easy words like "group," "family," "ring," "simple curve," "limit," etc. But these ordinary words are sometimes given a very peculiar and technical meaning. In fact, here is a booby-prize definition of mathematics: *Mathematics is the science which uses easy words for hard ideas.* In this it differs from any other science. There are 500,000 known species of insects and every one has a long Latin name. In mathematics we are more modest. We talk about "fields," "groups," "families," "spaces," although much more meaning is attached to these words than ordinary conversation implies. As its use becomes more and more technical, nobody can guess the mathematical meaning of a word any more than one could guess that a "drug store" is a place where they sell ice-cream sodas and umbrellas. No one could guess the meaning of the word "group" as it is used in mathematics. Yet it is so important that whole courses are given on the theory of "groups," and hundreds of books are written about it.

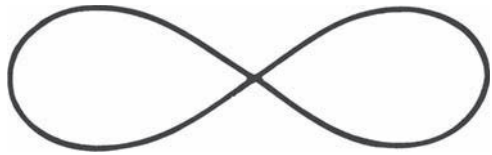
Because mathematicians get along with common words, many amusing ambiguities arise. For instance, the word "function" probably expresses the most important idea in the whole history of mathematics. Yet, most people hearing it would think of a "function" as meaning an evening social affair, while others, less socially minded, would think of their livers. The word "function" has at least a dozen meanings, but few people suspect the mathematical one. The mathematical meaning (which we shall elaborate upon later) is expressed most simply by a *table.* Such a table gives the relation between two variable quantities when the value of one variable quantity is determined by the value of the other. Thus, one variable quantity may express the years from 1800 to 1938, and the other, the number of men in the United States wearing handle-bar mustaches; or one variable may express in decibels the amount of noise made by a political speaker, and the other, the blood pressure units of his listeners. You could probably never guess the meaning of the word "ring" as it has been used in mathematics. It was introduced into the newer algebra within the last twenty years. The theory of rings is much more recent than

the theory of groups. It is now found in most of the new books on algebra, and has nothing to do with either matrimony or bells.

Other ordinary words used in mathematics in a peculiar sense are "domain," "integration," "differentiation." The uninitiated would not be able to guess what they represent; only mathematicians would know about them. The word "transcendental" in mathematics has not the meaning it has in philosophy. A mathematician would say: The number π, equal to 3.14159 . . . , is transcendental, because it is not the root of any algebraic equation with integer coefficients.

Transcendental is a very exalted name for a small number, but it was coined when it was thought that transcendental numbers were as rare as quintuplets. The work of Georg Cantor in the realm of the infinite has since proved that of all the numbers in mathematics, the transcendental ones are the most common, or, to use the word in a slightly different sense, the least transcendental. We shall talk of this later when we speak of another famous transcendental number, e, the base of the natural logarithms. Immanuel Kant's "transcendental epistemology" is what most educated people might think of when the word transcendental is used, but in that sense it has nothing to do with mathematics. Again, take the word "evolution," used in mathematics to denote the process most of us learned in elementary school, and promptly forgot, of extracting square roots, cube roots, etc. Spencer, in his philosophy, defines evolution as "an integration of matter, and a dissipation of motion from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity," etc. But that, fortunately, has nothing to do with mathematical evolution either. Even in Tennessee, one may extract square roots without running afoul of the law.

As we see, mathematics uses simple words for complicated ideas. An example of a simple word used in a complicated way is the word "simple." "Simple curve" and "simple group" represent important ideas in higher mathematics.



The above is not a simple curve. A simple curve is a closed curve which does not cross itself and may look like the figure on page 124. There are many important theorems about such figures that make the word worth while. Later, we are going to talk about a queer kind of mathematics

called "rubber-sheet geometry," and will have much more to say about simple curves and nonsimple ones. A French mathematician, Jordan, gave the fundamental theorem: every simple curve has one inside and one outside. That is, every simple curve divides the plane into two regions, one inside the curve, and one outside.

There are some groups in mathematics that are "simple" groups. The definition of "simple group" is really so hard that it cannot be given here. If we wanted to get a clear idea of what a simple group was, we should probably have to spend a long time looking into a great many books, and then, without an extensive mathematical background, we should probably miss the point. First of all, we should have to define the concept "group." Then we should have to give a definition of subgroups, and then of self-conjugate subgroups, and then we should be able to tell what a simple group is. A simple group is simply a group without any self-conjugate subgroups–simple, is it not?

Mathematics is often erroneously referred to as the science of common sense. Actually, it may transcend common sense and go beyond either imagination or intuition. It has become a very strange and perhaps frightening subject from the ordinary point of view, but anyone who penetrates into it will find a veritable fairyland, a fairyland which is strange, but makes sense, if not common sense. From the ordinary point of view mathematics deals with strange things. We shall show you that occasionally it does deal with strange things, but mostly it deals with familiar things in a strange way. If you look at yourself in an ordinary mirror, regardless of your physical attributes, you may find yourself amusing, but not strange; a subway ride to Coney Island, and a glance at yourself in one of the distorting mirrors will convince you that from another point of view you may be strange as well as amusing. It is largely a matter of what you are accustomed to. A Russian peasant came to Moscow for the first time and went to see the sights. He went to the zoo and saw the giraffes. You may find a moral in his reaction as plainly as in the fables of La Fontaine. "Look," he said, "at what the Bolsheviks have

done to our horses." That is what modern mathematics has done to simple geometry and to simple arithmetic.

There are other words and expressions, not so familiar, which have been invented even more recently. Take, for instance, the word "turbine." Of course, that is already used in engineering, but it is an entirely new word in geometry. The mathematical name applies to a certain diagram. (Geometry, whatever others may think, is the study of different shapes,

Turbines

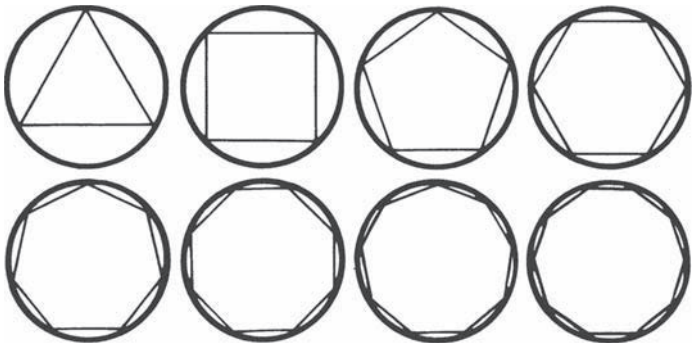
many of them very beautiful, having harmony, grace and symmetry. Of course, there are also fat books written on abstract geometry, and abstract space in which neither a diagram nor a shape appears. This is a very important branch of mathematics, but it is not the geometry studied by the Egyptians and the Greeks. Most of us, if we can play chess at all, are content to play it on a board with wooden chess pieces; but there are some who play the game blindfolded and without touching the board. It might be a fair analogy to say that abstract geometry is like blindfold chess–it is a game played without concrete objects.) Above you see a picture of a turbine, in fact, two of them.

A turbine consists of an infinite number of "elements" filled in continuously. An element is not merely a point; it is a point with an associated direction–like an iron filing. A turbine is composed of an infinite number of these elements, arranged in a peculiar way: the points must be arranged on a perfect circle, and the inclination of the iron filings must be at the same angle to the circle throughout. There are thus an infinite number of elements of equal inclination to the various tangents of the circle. In the special case where the angle between the direction of the element and the direction of the tangent is zero, what would happen? The turbine would be a circle. In other words, the theory of turbines is a generalization of the theory of the circle. If the angle is ninety degrees, the elements point toward the center of the circle. In that special case we have a normal turbine (see left-hand diagram).

There is a geometry of turbines, instead of a geometry of circles. It is a rather technical branch of mathematics which concerns itself with working out continuous groups of transformations connected with differential equations and differential geometry. The geometry connected with the turbine bears the rather odd name of "turns and slides."

The circle is one of the oldest figures in mathematics. The straight line is the simplest line, but the circle is the simplest nonstraight curve. It is often regarded as the limit of a polygon with an infinite number of sides. You can see for yourself that as a series of polygons is inscribed in a circle with each polygon having more sides than its predecessor, each polygon gets to look more and more like a circle.

The Greeks were already familiar with the idea that as a regular polygon increases in the number of its sides, it differs less and less from the circle in which it is inscribed. Indeed, it may well be that in the eyes of an

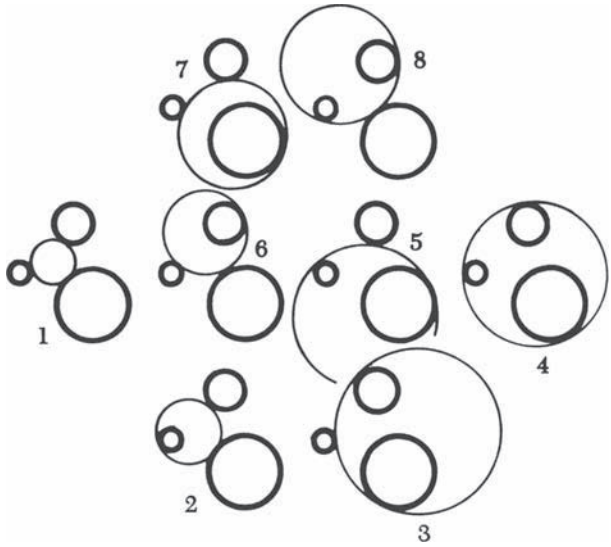


The circle as the limit of inscribed polygons

omniscient creature, the circle would look like a polygon with an infinite number of straight sides. However, in the absence of complete omniscience, we shall continue to regard a circle as being a nonstraight curve. There are some interesting generalizations of the circle when it is viewed in this way. There is, for example, the concept denoted by the word "cycle," which was introduced by a French mathematician, Laguerre. A cycle is a circle with an arrow on it, like this:

If you took the same circle and put an arrow on it in the opposite direction, it would become a different cycle.

The Greeks were specialists in the art of posing problems which neither they nor succeeding generations of mathematicians have ever been able to solve. The three most famous of these problems—the squaring of the circle, the duplication of the cube, and the trisection of an angle—we shall discuss later. Many well-meaning, self-appointed, and self-anointed mathematicians, and a motley assortment of lunatics and cranks, knowing neither history nor mathematics, supply an abundant crop of "solutions"



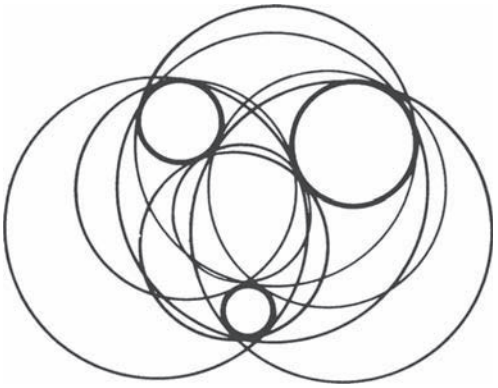
The eight solutions of the problem of Apollonius.
Each lightly drawn circle is in contact with three heavily drawn ones.

of these insoluble problems each year. However, some of the classical problems of antiquity have been solved. For example, the theory of cycles was used by Laguerre in solving the problem of Apollonius: given three fixed circles, to find a circle that touches them all. It turns out to be a matter of elementary high school geometry, although it involves ingenuity, and any brilliant high school student could work it out. It has eight answers, as shown in the diagram above.

They can all be constructed with ruler and compass, and many methods of solution have been found. Given three *circles*, there will be eight circles touching all of them. Given three *cycles*, however, there will be only one clockwise cycle that touches them all. (Two cycles are said to touch each other only if their arrows agree in direction at the point of contact.) Thus, by using the idea of cycles, we have one definite answer instead of eight. Laguerre made the idea of cycles the basis of an elegant theory.

Another variation of the circle introduced by the eminent American

mathematician C. J. Keyser is obtained by taking a circle and removing one point.[1] This creates a serious change in conception. Keyser calls it "a pathocircle" (from pathological circle). He has used it in discussing the logic of axioms.



The eight solutions of Appolonius merged into one diagram

We have made yet another change in the concept of circle, which introduces another word and a new diagram. Take a circle and instead of leaving one point out, simply emphasize one point as the initial point. This is to be called a "clock." It has been used in the theory of polygenic functions. "Polygenic" is a word recently introduced into the theory of complex functions–about 1927. There was an important word, "monogenic," introduced in the nineteenth century by the famous French mathematician Augustin Cauchy, and used in the classical theory of functions. It is used to denote functions that have a single derivative at a point, as in the differential calculus. But most functions, in the complex domain, have an infinite number of derivatives at a point. If a function is not monogenic, it can never be bigenic, or trigenic. Either the derivative has one value or an infinite number of values–either monogenic or polygenic, nothing intermediate. Monogenic means one rate of growth. Polygenic means many rates of growth. The complete derivative of a polygenic function is represented by a congruence (a double infinity) of clocks, all with different starting points, but with the same uniform rate of

1. This is a diagram which the reader will have to imagine, for it is beyond the capacity of any printer to make a circle with one point omitted. A point, having no dimensions, will, like many of the persons on the Lord High Executioner's list, never be missed. So the circle with one point missing is purely conceptual, not an idea which can be pictured.

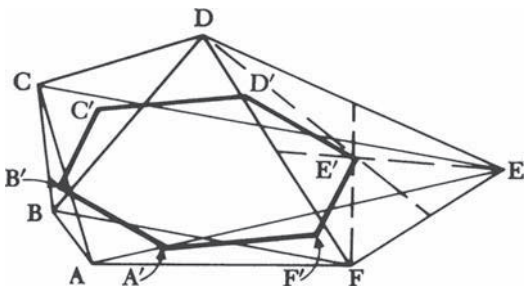
rotation. It would be useless to attempt to give a simplified explanation of these concepts. (The neophyte will have to bear with us over a few intervals like this for the sake of the more experienced mathematical reader.)

The parhexagon

The going has been rather hard in the last paragraph, and if a few of the polygenic seas have swept you overboard, we shall throw you a hexagonal life preserver. We may consider a very simple word that has been introduced in elementary geometry to indicate a certain kind of hexagon. The word on which to fix your attention is "parhexagon." An ordinary hexagon has six arbitrary sides. A parhexagon is that kind of hexagon in which any side is both equal and parallel to the side opposite to it (as in the figure above).

If the opposite sides of a quadrilateral are equal and parallel, it is called a parallelogram. By the same reasoning that we use for the word parhexagon, a parallelogram might have been called a parquadrilateral.

Here is an example of a theorem about the parhexagon: take any irregular hexagon, not necessarily a parhexagon, ABCDEF. Draw the diagonals AC, BD, CE, DF, EA, and FB, forming the six triangles, ABC, BCD, CDE, DEF, EFA, and FAB. Find the six centers of gravity, A′, B′, C′, D′, E′, and F′ of these triangles. (The center of gravity of a



ABCDEF *is an irregular hexagon.*
A′B′C′D′E′F′ *is a parhexagon.*

triangle is the point at which the triangle would balance if it were cut out of cardboard and supported only at that point; it coincides with the point of intersection of the medians.) Draw A′B′, B′C′, C′D′, D′E′, E′F′, and F′A′. Then the new inner hexagon A′B′C′D′E′F′ will always be a parhexagon.

The word radical, favorite call to arms among Republicans, Democrats, Communists, Socialists, Nazis, Fascists, Trotskyites, etc., has a less hortatory and bellicose character in mathematics. For one thing, everybody knows its meaning: *i.e.*, square root, cube root, fourth root, fifth root, etc. Combining a word previously defined with this one, we might say that the extraction of a root is the evolution of a radical. The square root of 9 is 3; the square root of 10 is greater than 3, and the most famous and the simplest of all square roots, the first incommensurable number discovered by the Greeks, the square root of 2, is 1.414. . . . There are also composite radicals–expressions like $\sqrt{7}+\sqrt[5]{10}$. The symbol for a radical is not the hammer and sickle, but a sign three or four centuries old, and the idea of the mathematical radical is even older than that. The concept of the "hyperradical," or "ultraradical," which means something higher than a radical, but lower than a transcendental, is of recent origin. It has a symbol which we shall see in a moment. First, we must say a few words about radicals in general. There are certain numbers and functions in mathematics which are not expressible in the language of radicals and which are generally not well understood. Many ideas for which there are no concrete or diagrammatic representations are difficult to explain. Most people find it impossible to think without words; it is necessary to give them a word and a symbol to pin their attention. Hyperradical or ultraradical, for which hitherto there have been neither words, nor symbols, fall into this category.

We first meet these ultraradicals, not in Mexico City, but in trying to solve equations of the fifth degree. The Egyptians solved equations of the first degree perhaps 4,000 years ago. That is, they found that the solution of the equation $ax + b = 0$, which is represented in geometry by a straight line, is $x = \frac{-b}{a}$. The quadratic equation $ax^2 + bx + c = 0$ was solved by the Hindus and the Arabs with the formula $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$.

The various conic sections, the circle, the ellipse, the parabola, and the hyperbola, are the geometric pictures of quadratic equations in two variables.

Then in the sixteenth century the Italians solved the equations of third and fourth degree, obtaining long formulas involving cube roots and square roots. So that by the year 1550, a few years before Shakespeare was born, the equation of the first, second, third, and fourth degrees had been solved. Then there was a delay of 250 years, because mathematicians

were struggling with the equation of the fifth degree—the general quintic. Finally, at the beginning of the nineteenth century, Ruffini and Abel showed that equations of the fifth degree could not be solved with radicals. The general quintic is thus not like the general quadratic, cubic or biquadratic. Nevertheless, it presents a problem in algebra which theoretically can be solved by algebraic operations. Only, these operations are so hard that they cannot be expressed by the symbols for radicals. These new higher things are named "ultraradicals," and they too have their special symbols.

A portrait of two ultraradicals

With such symbols combined with radicals, we can solve equations of the fifth degree. For example, the solution of $x^5 + x = a$ may be written $x = \sqrt{a}$ or $x = \sqrt{a}$. The usefulness of the special symbol and name is apparent. Without them the solution of the quintic equation could not be compactly expressed.

We may now give a few ideas somewhat easier than those with which we have thus far occupied ourselves. These ideas were presented some time ago to a number of children in kindergarten. It was amazing how well they understood everything that was said to them. Indeed, it is a fair inference that kindergarten children can enjoy lectures on graduate mathematics as long as the mathematical concepts are clearly presented.

It was raining and the children were asked how many raindrops would fall on New York. The highest answer was 100. They had never counted higher than 100 and what they meant to imply when they used that number was merely something very, very big—as big as they could imagine. They were asked how many raindrops hit the roof, and how many hit New York, and how many single raindrops hit all of New York in 24 hours. They soon got a notion of the bigness of these numbers even though they did not know the symbols for them. They were certain in a little while that the number of raindrops was a great deal bigger than a hundred. They were asked to think of the number of grains of sand on the beach at Coney Island and decided that the number of grains of sand and the number of raindrops were about the same. But the important thing is that they realized that the number was *finite*, *not infinite*. In this respect they showed their distinct superiority over many scientists who to this day use the word infinite when they mean some big number, like a billion billion.

Counting, something such scientists evidently do not realize, is a precise operation.[2] It may be wonderful but there is nothing vague or mysterious about it. If you count something, the answer you get is either perfect or all wrong; there is no half way. It is very much like catching a train. You either catch it or you miss it, and if you miss it by a split second you might as well have come a week late. There is a famous quotation which illustrates this:

> Oh, the little more, and how much it is!
> And the little less, and what worlds away!

A big number is big, but it is definite and it is finite. Of course in poetry, the finite ends with about three thousand; any greater number is infinite. In many poems, the poet will talk to you about the infinite number of stars. But, if ever there was a hyperbole, this is it, for nobody, not even the poet, has ever seen more than three thousand stars on a clear night, without the aid of a telescope.

With the Hottentots, infinity begins at three.[3] Ask a Hottentot how many cows he owns, and if he has more than three he'll say "many." The number of raindrops falling on New York is also "many." It is a large finite number, but nowhere near infinity.

Now here is the name of a very large number: "Googol."[4] Most people would say, "A googol is so large that you cannot name it or talk about it; it is so large that it is infinite." Therefore, we shall talk about it, explain exactly what it is, and show that it belongs to the very same family as the number 1.

A googol is this number which one of the children in the kindergarten wrote on the blackboard: 1000000000000000000000000000000000000000 0000000000000000000000000000000000000000000000000000000000000.

The definition of a googol is: 1 followed by a hundred zeros. It was decided, after careful mathematical researches in the kindergarten, that the number of raindrops falling on New York in 24 hours, or even in a year or in a century, is much less than a googol. Indeed, the googol is a number just larger than the largest numbers that are used in physics or astronomy. All those numbers require less than a hundred zeros. This

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2. No one would say that 1 + 1 is "about equal to 2." It is just as silly to say that a billion billion is not a finite number, simply because it is big. Any number which can be named, or conceived of in terms of the integers is finite. *Infinite means something quite different*, as we shall see in the chapter on the googol.
3. Although, in all fairness, it must be pointed out that some of the tribes of the Belgian Congo can count to a million and beyond.
4. Not even approximately a Russian author.

information is, of course, available to everyone, but seems to be a great secret in many scientific quarters.

A very distinguished scientific publication recently came forth with the revelation that the number of snow crystals necessary to form the ice age was a billion to the billionth power. This is very startling and also very silly. A billion to the billionth power looks like this: $1000000000^{1000000000}$. A more reasonable estimate and a somewhat smaller number would be 10^{30}. As a matter of fact, it has been estimated that if the entire universe, which you will concede is a trifle larger than the earth, were filled with protons and electrons, so that no vacant space remained, the total number of protons and electrons would be 10^{110} (*i.e.*, 1 with 110 zeros after it). Unfortunately, as soon as people talk about large numbers, they run amuck. They seem to be under the impression that since zero equals nothing, they can add as many zeros to a number as they please with practically no serious consequences. We shall have to be a little more careful than that in talking about big numbers.

To return to Coney Island, the number of grains of sand on the beach is about 10^{20}, or more descriptively, 100000000000000000000. That is a large number, but not as large as the number mentioned by the divorcee in a recent divorce suit who had telephoned that she loved the man "a million billion billion times and eight times around the world." It was the largest number that she could conceive of, and shows the kind of thing that may be hatched in a love nest.

Though people do a great deal of talking, the total output since the beginning of gabble to the present day, including all baby talk, love songs, and Congressional debates, totals about 10^{16}. This is ten million billion. Contrary to popular belief, this is a larger number of words than is spoken at the average afternoon bridge.

A great deal of the veneration for the authority of the printed word would vanish if one were to calculate the number of words which have been printed since the Gutenberg Bible appeared. It is a number somewhat larger than 10^{16}. A recent popular historical novel alone accounts for the printing of several hundred billion words.

The largest number seen in finance (though new records are in the making) represents the amount of money in circulation in Germany at the peak of the inflation. It was less than a googol–merely 496, 585, 346, 000, 000, 000, 000. A distinguished economist vouches for the accuracy of this figure. The number of marks in circulation was very nearly equal to the number of grains of sand on Coney Island beach.

The number of atoms of oxygen in the average thimble is a good deal

larger. It would be represented by perhaps 100000000000000000000 00000. The number of electrons, in size exceedingly smaller than the atoms, is much more enormous. The number of electrons which pass through the filament of an ordinary fifty-watt electric lamp in a minute equals the number of drops of water that flow over Niagara Falls in a century.

One may also calculate the number of electrons, not only in the average room, but over the whole earth, and out through the stars, the Milky Way, and all the nebulae. The reason for giving all these examples of very large numbers is to emphasize the fact that no matter how large the collection to be counted, a finite number will do the trick. We will have occasion later on to speak of infinite collections, but those encountered in nature, though sometimes very large, are all definitely finite. A celebrated scientist recently stated in all seriousness that he believed that the number of pores (through which leaves breathe) of all the leaves, of all the trees in all the world, would certainly be infinite. Needless to say, he was not a mathematician. The number of electrons in a single leaf is much bigger than the number of pores of all the leaves of all the trees of all the world. And still the number of all the electrons in the entire universe can be found by means of the physics of Einstein. It is a good deal less than a googol–perhaps one with seventy-nine zeros, 10^{79}, as estimated by Eddington.

Words of wisdom are spoken by children at least as often as by scientists. The name "googol" was invented by a child (Dr. Kasner's nine-year-old nephew) who was asked to think up a name for a very big number, namely, 1 with a hundred zeros after it. He was very certain that this number was not infinite, and therefore equally certain that it had to have a name. At the same time that he suggested "googol" he gave a name for a still larger number: "Googolplex." A googolplex is much larger than a googol, but is still finite, as the inventor of the name was quick to point out. It was first suggested that a googolplex should be 1, followed by writing zeros until you got tired. This is a description of what would happen if one actually tried to write a googolplex, but different people get tired at different times and it would never do to have Camera a better mathematician than Dr. Einstein, simply because he had more endurance. The googolplex then, is a specific finite number, with so many zeros after the 1 that the number of zeros is a googol. A googolplex is much bigger than a googol, much bigger even than a googol times a googol. A googol times a googol would be 1 with 200 zeros, whereas a googolplex is 1 with a googol of zeros. You will get some idea of the size of this very large

but finite number from the fact that there would not be enough room to write it, if you went to the farthest star, touring all the nebulae and putting down zeros every inch of the way.

One might not believe that such a large number would ever really have any application; but one who felt that way would not be a mathematician. A number as large as the googolplex might be of real use in problems of combination. This would be the type of problem in which it might come up scientifically:

Consider this book which is made up of carbon and nitrogen and of other elements. The answer to the question, "How many atoms are there in this book?" would certainly be a finite number, even less than a googol. Now imagine that the book is held suspended by a string, the end of which you are holding. How long will it be necessary to wait before the book will jump up into your hand? Could it conceivably ever happen? One answer might be "No, it will never happen without some external force causing it to do so." But that is not correct. The right answer is that it will almost *certainly* happen *sometime* in less than a googolplex of years–perhaps tomorrow.

The explanation of this answer can be found in physical chemistry, statistical mechanics, the kinetic theory of gases, and the theory of probability. We cannot dispose of all these subjects in a few lines, but we will try. Molecules are always moving. Absolute rest of molecules would mean absolute zero degrees of temperature, and absolute zero degrees of temperature is not only nonexistent, but impossible to obtain. All the molecules of the surrounding air bombard the book. At present the bombardment from above and below is nearly the same and gravity keeps the book down. It is necessary to wait for the favorable moment when there happens to be an enormous number of molecules bombarding the book from below and very few from above. Then gravity will be overcome and the book will rise. It would be somewhat like the effect known in physics as the Brownian movement, which describes the behavior of small particles in a liquid as they dance about under the impact of molecules. It would be analogous to the Brownian movement on a vast scale.

But the probability that this will happen in the near future or, for that matter, on any specific occasion that we might mention, is between $\frac{1}{\text{googol}}$ and $\frac{1}{\text{googolplex}}$. To be reasonably sure that the book will rise, we should have to wait between a googol and a googolplex of years.

When working with electrons or with problems of combination like the

one of the book, we need larger numbers than are usually talked about. It is for that reason that names like googol and googolplex, though they may appear to be mere jokes, have a real value. The names help to fix in our minds the fact that we are still dealing with finite numbers. To repeat, a googol is 10^{100}; a googolplex is 10 to the googol power, which may be written $10^{10^{100}} = 10^{\text{googol}}$.

We have seen that the number of years that one would have to wait to see the miracle of the rising book would be less than a googolplex. In that number of years the earth may well have become a frozen planet as dead as the moon, or perhaps splintered to a number of meteors and comets. The real miracle is not that the book will rise, but that with the aid of mathematics, we can project ourselves into the future and predict with accuracy *when* it will probably rise, *i.e.*, some time between today and the year googolplex.

We have mentioned quite a few new names in mathematics—new names for old and new ideas. There is one more new name which it is proper to mention in conclusion. Watson Davis, the popular science reporter, has given us the name "mathescope." With the aid of the magnificent new microscopes and telescopes, man, midway between the stars and the atoms, has come a little closer to both. The mathescope is not a physical instrument; it is a purely intellectual instrument, the ever-increasing insight which mathematics gives into the fairyland which lies beyond intuition and beyond imagination. Mathematicians, unlike philosophers, say nothing about ultimate truth, but patiently, like the makers of the great microscopes, and the great telescopes, they grind their lenses. In this book, we shall let you see through the newer and greater lenses which the mathematicians have ground. Be prepared for strange sights through the mathescope!

Beyond the Googol

If you do not expect the unexpected, you will not find it;
for it is hard to be sought out, and difficult.

–Heraclitus

Mathematics may well be a science of austere logical propositions in precise canonical form, but in its countless applications it serves as a tool and a language, the language of description, of number and size. It describes with economy and elegance the elliptic orbits of the planets as readily as the shape and dimensions of this page or a cornfield. The whirling dance of the electron can be seen by no one; the most powerful telescopes can reveal only a meager bit of the distant stars and nebulae and the cold far corners of space. But with the aid of mathematics and the imagination the very small, the very large–all things may be brought within man's domain.

To count is to talk the language of number. To count to a googol, or to count to ten is part of the same process; the googol is simply harder to pronounce. The essential thing to realize is that the googol and ten are kin, like the giant stars and the electron. Arithmetic–this counting language–makes the whole world kin, both in space and in time.

To grasp the meaning and importance of mathematics, to appreciate its beauty and its value, arithmetic must first be understood, for mostly, since its beginning, mathematics has been arithmetic in simple or elaborate attire. Arithmetic has been the queen and the handmaiden of the sciences from the days of the astrologers of Chaldea and the high priests of Egypt to the present days of relativity, quanta, and the adding machine. Historians may dispute the meaning of ancient papyri, theologians may wrangle over the exegesis of Scripture, philosophers may debate over

Pythagorean doctrine, but all will concede that the numbers in the papyri, in the Scriptures and in the writings of Pythagoras are the same as the numbers of today. As arithmetic, mathematics has helped man to cast horoscopes, to make calendars, to predict the risings of the Nile, to measure fields and the height of the Pyramids, to measure the speed of a stone as it fell from a tower in Pisa, the speed of an apple as it fell from a tree in Woolsthorpe, to weigh the stars and the atoms, to mark the passage of time, to find the curvature of space. And although mathematics is also the calculus, the theory of probability, the matrix algebra, the science of the infinite, it is still the art of counting.

Everyone who will read this book can count, and yet, what is counting? The dictionary definitions are about as helpful as Johnson's definition of a net: "A series of reticulated interstices." *Learning to compare is learning to count.* Numbers come much later; they are an artificiality, an abstraction. Counting, matching, comparing are almost as indigenous to man as his fingers. Without the faculty of comparing, and without his fingers, it is unlikely that he would have arrived at numbers.

One who knows nothing of the formal processes of counting is still able to compare two classes of objects, to determine which is the greater, which the less. Without knowing anything about numbers, one may ascertain whether two classes have the same number of elements; for example, barring prior mishaps, it is easy to show that we have the same number of fingers on both hands by simply matching finger with finger on each hand.

To describe the process of matching, which underlies counting, mathematicians use a picturesque name. They call it putting classes into a "one-to-one reciprocal correspondence" with each other. Indeed, that is all there is to the art of counting as practiced by primitive peoples, by us, or by Einstein. A few examples may serve to make this clear.

In a monogamous country it is unnecessary to count both the husbands and the wives in order to ascertain the number of married people. If allowances are made for the few gay Lotharios who do not conform to either custom or statute, it is sufficient to count either the husbands or the wives. There are just as many in one class as in the other. The correspondence between the two classes is one-to-one.

There are more useful illustrations. Many people are gathered in a large hall where seats are to be provided. The question is, are there enough chairs to go around? It would be quite a job to count both the people and the chairs, and in this case unnecessary. In kindergarten children play a

game called "Going to Jerusalem"; in a room full of children and chairs there is always one less chair than the number of children. At a signal, each child runs for a chair. The child left standing is "out." A chair is removed and the game continues. Here is the solution to our problem. It is only necessary to ask everyone in the hall to be seated. If everyone sits down and no chairs are left vacant, it is evident that there are as many chairs as people. In other words, without actually knowing the number of chairs or people, one does know that the number is the same. The two classes—chairs and people—have been shown to be equal in number by a one-to-one correspondence. To each person corresponds a chair, to each chair, a person.

In counting any class of objects, it is this method alone which is employed. One class contains the things to be counted; the other class is always at hand. It is the class of integers, or "natural numbers," which for convenience we regard as being given in serial order: 1, 2, 3, 4, 5, 6, 7. . . . Matching in one-to-one correspondence the elements of the first class with the integers, we experience a common, but none the less wonderful phenomenon—the last integer necessary to complete the pairings denotes *how many* elements there are.

In clarifying the idea of counting, we made the unwarranted assumption that the concept of number was understood by everyone. The number concept may seem intuitively clear, but a precise definition is required. While the definition may seem worse than the disease, it is not as difficult as appears at first glance. Read it carefully and you will find that it is both explicit and economical.

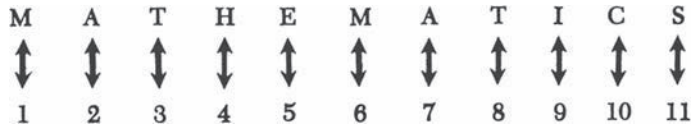
Given a class *C* containing certain elements, it is possible to find other classes, such that the elements of each may be matched one to one with the elements of *C*. (Each of these classes is thus called "equivalent to *C*.") All such classes, including *C*, whatever the character of their elements, share one property in common: all of them have the same *cardinal number*, which is called the *cardinal number* of the class *C*.[1]

The cardinal number of the class *C* is thus seen to be the *symbol* representing the set of all classes that can be put into one-to-one correspondence with *C*. For example, the number 5 is simply the name, or

1. We distinguish cardinal from *ordinal numbers*, which denote the relation of an element in a class to the others, with reference to some system of order. Thus, we speak of the *first* Pharaoh of Egypt, or of the *fourth* integer, in their customary order, or of the *third* day of the week, etc. These are examples of ordinals.

symbol, attached to the set of all the classes, each of which can be put into one-to-one correspondence with the fingers of one hand.

Hereafter we may refer without ambiguity to the number of elements in a class as the cardinal number of that class or, briefly, as "its cardinality." The question, "How many letters are there in the word *mathematics?"* is the same as the question, "What is the cardinality of the class whose elements are the letters in the word *mathematics?"* Employing the method of one-to-one correspondence, the following graphic device answers the question, and illustrates the method:



It must now be evident that this method is neither strange nor esoteric; it was not invented by mathematicians to make something natural and easy seem unnatural and hard. It is the method employed when we count our change or our chickens; it is the proper method for counting any class, no matter how large, from ten to a googolplex–and beyond.

Soon we shall speak of the "beyond" when we turn to classes which are not finite. Indeed, we shall try *to measure our measuring class*–the integers. One-to-one correspondence should, therefore, be thoroughly understood, for an amazing revelation awaits us: Infinite classes can also be counted, and by the very same means. But before we try to count them, let us practice on some very big numbers–big, but not infinite.

"Googol" is already in our vocabulary: It is a big number–one, with a hundred zeros after it. Even bigger is the googolplex: 1 with a googol zeros after it. Most numbers encountered in the description of nature are much smaller, though a few are larger.

Enormous numbers occur frequently in modern science. Sir Arthur Eddington claims that there are, not approximately, but exactly $136 \cdot 2^{256}$ protons,[2] and an equal number of electrons, in the universe. Though not easy to visualize, this number, as a symbol on paper, takes up little room. Not quite as large as the googol, it is completely dwarfed by the googolplex. None the less, Eddington's number, the googol, and the googolplex are finite.

2. Let no one suppose that Sir Arthur has counted them. But he does have a theory to justify his claim. Anyone with a better theory may challenge Sir Arthur, for who can be referee? Here is his number written out: 15,747,724,136,275,002,577,605,-653,961,181,555,468,044,717,914,527,116,709,366,231,425,076,185,631,031,296–accurate, he says, to the last digit.

A veritable giant is Skewes' number, even bigger than a googolplex. It gives information about the distribution of primes and looks like this:

$$10^{10^{10^{34}}}$$

Or, for example, the total possible number of moves in a game of chess is:

$$10^{10^{50}}$$

And speaking of chess, as the eminent English mathematician G. H. Hardy pointed out–if we imagine the entire universe as a chessboard, and the protons in it as chessmen, and if we agree to call any interchange in the position of two protons a "move" in this cosmic game, then the total number of possible moves, of all odd coincidences, would be Skewes' number:

$$10^{10^{10^{34}}}$$

No doubt most people believe that such numbers are part of the marvelous advance of science, and that a few generations ago, to say nothing of centuries back, no one in dream or fancy could have conceived of them.

There is some truth in that idea. For one thing, the ancient cumbersome methods of mathematical notation made the writing of big numbers difficult, if not actually impossible. For another, the average citizen of today encounters such huge sums, representing armament expenditures and stellar distances, that he is quite conversant with, and immune to, big numbers.

But there were clever people in ancient times. Poets in every age may have sung of the stars as infinite in number, when all they saw was, perhaps, three thousand. But to Archimedes, a number as large as a googol, or even larger, was not disconcerting. He says as much in an introductory passage in *The Sand Reckoner*, realizing that a number is not infinite merely because it is enormous.

> There are some, King Gelon, who think that the number of the sand is infinite in multitude; and I mean by the sand, not only that which exists about Syracuse and the rest of Sicily, but also that which is found in every region whether inhabited or uninhabited. Again there are some who, without regarding it as infinite, yet think that no number has been named which is great enough to exceed its multitude. And it is clear that they who hold this view, if they imagined a mass made up of sand in other respects as large as the mass of the earth, including in it all the

> seas and the hollows of the earth filled up to a height equal to that of the highest of the mountains, would be many times further still from recognizing that any number could be expressed which exceeded the multitude of the sand so taken. But I will try to show you by means of geometrical proofs, which you will be able to follow, that, of the numbers named by me and given in the work which I sent to Zeuxippus, some exceed not only the number of the mass of sand equal in magnitude to the earth filled up in the way described, but also that of a mass equal in magnitude to the universe.

The Greeks had very definite ideas about the infinite. Just as we are indebted to them for much of our wit and our learning, so are we indebted to them for much of our sophistication about the infinite. Indeed, had we always retained their clear-sightedness, many of the problems and paradoxes connected with the infinite would never have arisen.

Above everything, we must realize that "very big" and "infinite" are entirely different.[3] By using the method of one-to-one correspondence, the protons and electrons in the universe can theoretically be counted as easily as the buttons on a vest. Sufficient and more than sufficient for that task, or for the task of counting any finite collection, are the integers. But measuring the *totality of integers* is another problem. To measure such a class demands a lofty viewpoint. Besides being, as the German mathematician Kronecker thought, the work of God, which requires courage to appraise, the class of integers is infinite–which is a great deal more inconvenient. It is worse than heresy to measure our own endless measuring rod!

The problems of the infinite have challenged man's mind and have fired his imagination as no other single problem in the history of thought. The infinite appears both strange and familiar, at times beyond our grasp, at times natural and easy to understand. In conquering it, man broke the fetters that bound him to earth. All his faculties were required for this conquest–his reasoning powers, his poetic fancy, his desire to know.

To establish the science of the infinite involves the principle of *mathematical induction*. This principle affirms the power of reasoning by recurrence. It typifies almost all mathematical thinking, all that we do when we construct complex aggregates out of simple elements. It is, as

3. There is no point where the very big starts to merge into the infinite. You may write a number as big as you please; it will be no nearer the infinite than the number 1 or the number 7. Make sure that you keep this distinction very clear and you will have mastered many of the subtleties of the transfinite.

Poincaré remarked, "at once necessary to the mathematician and irreducible to logic." His statement of the principle is: "If a property be true of the number one, and if we establish that it is true of $n + 1$,[4] provided it be of n, it will be true of all the whole numbers." Mathematical induction is not derived from experience, rather is it an inherent, intuitive, almost instinctive property of the mind. "*What we have once done we can do again.*"

If we can construct numbers to ten, to a million, to a googol, we are led to believe that there is no stopping, no end. Convinced of this, we need not go on forever; the mind grasps that which it has never experienced–the infinite itself. Without any sense of discontinuity, without transgressing the canons of logic, the mathematician and philosopher have bridged in one stroke the gulf between the finite and the infinite. The mathematics of the infinite is a sheer affirmation of the inherent power of reasoning by recurrence.

In the sense that "infinite" means "without end, without bound," simply "not finite," probably everyone understands its meaning. No difficulty arises where no precise definition is required. Nevertheless, in spite of the famous epigram that mathematics is the science in which we do not know what we are talking about, at least we shall have to agree to talk about the same thing. Apparently, even those of scientific temper can argue bitterly to the point of mutual vilification on subjects ranging from Marxism and dialectical materialism to group theory and the uncertainty principle, only to find, on the verge of exhaustion and collapse, that they are on the same side of the fence. Such arguments are generally the results of vague terminology; to assume that everyone is familiar with the precise mathematical definition of "infinite" is to build a new Tower of Babel.

Before undertaking a definition, we might do well to glance backwards to see how mathematicians and philosophers of other times dealt with the problem.

The infinite has a double aspect–the infinitely large, and the infinitely small. Repeated arguments and demonstrations, of apparently apodictic force, were advanced, overwhelmed, and once more resuscitated to prove or disprove its existence. Few of the arguments were ever refuted–each was buried under an avalanche of others. The happy result was that the problem never became any clearer.[5]

The warfare began in antiquity with the paradoxes of Zeno; it has never

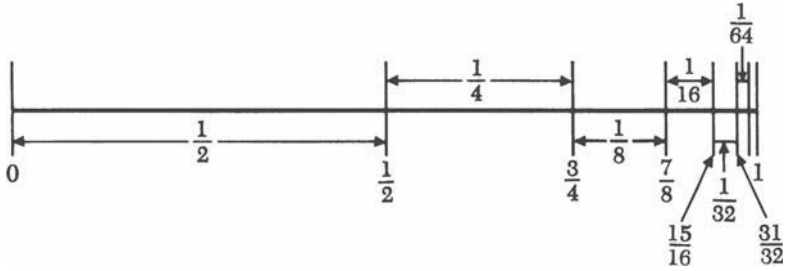
4. Where n is any integer.

5. No one has written more brilliantly or more wittily on this subject than Bertrand Russell. See particularly his essays in the volume *Mysticism and Logic.*

ceased. Fine points were debated with a fervor worthy of the earliest Christian martyrs, but without a tenth part of the acumen of medieval theologians. Today, some mathematicians think the infinite has been reduced to a state of vassalage. Others are still wondering what it is.

Zeno's puzzles may help to bring the problem into sharper focus. Zeno of Elea, it will be recalled, said some disquieting things about motion, with reference to an arrow, Achilles, and a tortoise. This strange company was employed on behalf of the tenet of Eleatic philosophy—that all motion is an illusion. It has been suggested, probably by "baffled critics," that "Zeno had his tongue in cheek when he made his puzzles." Regardless of motive, they are immeasurably subtle, and perhaps still defy solution.[6]

One paradox—the Dichotomy—states that it is impossible to cover any given distance. The argument: First, half the distance must be traversed, then half of the remaining distance, then again half of what remains, and so on. It follows that some portion of the distance to be covered always remains, and therefore motion is impossible! A solution of this paradox reads:



The successive distances to be covered form an infinite geometric series:

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \cdots$$

each term of which is half of the one before. Although this series has an infinite number of terms, its sum is *finite* and equals 1. Herein, it is said, lies the flaw of the Dichotomy. Zeno assumed that any totality composed of an infinite number of parts must, itself, be infinite, whereas we have just seen an infinite number of elements which make up the finite totality—1.

6. To be sure, a variety of explanations have been given for the paradoxes. In the last analysis, the explanations for the riddles rest upon the interpretation of the foundations of mathematics. Mathematicians like Brouwer, who reject the infinite, would probably not accept any of the solutions given.

The paradox of the tortoise states that Achilles, running to overtake the tortoise, must first reach the place where it started:–but the tortoise has already departed. This comedy, however, is repeated indefinitely. As Achilles arrives at each new point in the race, the tortoise having been there, has already left. Achilles is as unlikely to catch him as a rider on a carrousel the rider ahead.

Finally: the arrow in flight must be moving every instant of time. But at every instant it must be *somewhere* in space. However, if the arrow must always be in some one place, it cannot at every instant also be in transit, for to be in transit is to be *nowhere*.

Aristotle and lesser saints in almost every age tried to demolish these paradoxes, but not very creditably. Three German professors succeeded where the saints had failed. At the end of the nineteenth century, it seemed that Bolzano, Weierstrass and Cantor had laid the infinite to rest, and Zeno's paradoxes as well.

The modern method of disposing of the paradoxes is not to dismiss them as mere sophisms unworthy of serious attention. The history of mathematics, in fact, recounts a poetic vindication of Zeno's stand. Zeno was, at one time, as Bertrand Russell has said, "A notable victim of posterity's lack of judgment." That wrong has been righted. In disposing of the infinitely small, Weierstrass showed that the moving arrow *is* really always at rest, and that we live in Zeno's changeless world. The work of Georg Cantor, which we shall soon encounter, showed that if we are to believe that Achilles *can* catch the tortoise, we shall have to be prepared to swallow a bigger paradox than any Zeno ever conceived of: THE WHOLE IS NO GREATER THAN MANY OF ITS PARTS!

The infinitely small had been a nuisance for more than two thousand years. At best, the innumerable opinions it evoked deserved the laconic verdict of Scotch juries: "Not proven." Until Weierstrass appeared, the total advance was a confirmation of Zeno's argument against motion. Even the jokes were better. Leibniz, according to Carlyle, made the mistake of trying to explain the infinitesimal to a Queen–Sophie Charlotte of Prussia. She informed him that the behavior of her courtiers made her so familiar with the infinitely small, that she needed no mathematical tutor to explain it. But philosophers and mathematicians, according to Russell, "having less acquaintance with the courts, continued to discuss this topic, though without making any advance."

Berkeley, with the subtlety and humor necessary for an Irish bishop, made some pointed attacks on the infinitesimal, during the adolescent period of the calculus, that had the very best, sharp-witted, scholastic

sting. One could perhaps speak, if only with poetic fervor, of the infinitely large, but what, pray, was the infinitely small? The Greeks, with less than their customary sagacity, introduced it in regarding a circle as differing infinitesimally from a polygon with a large number of equal sides. Leibniz used it as the bricks for the infinitesimal calculus. Still, no one knew what it was. The infinitesimal had wondrous properties. It was not zero, yet smaller than any quantity. It could be assigned no quantity or size, yet a sizable number of infinitesimals made a very definite quantity. Unable to discover its nature, happily able to dispense with it, Weierstrass interred it alongside of the phlogiston and other once-cherished errors.

The infinitely large offered more stubborn resistance. Whatever it is, it is a doughty weed. The subject of reams of nonsense, sacred and profane, it was first discussed fully, logically, and without benefit of clergy-like prejudices by Bernhard Bolzano. *Die Paradoxien des Unendlichen*, a remarkable little volume, appeared posthumously in 1851. Like the work of another Austrian priest, Gregor Mendel, whose distinguished treatise on the principles of heredity escaped oblivion only by chance, this important book, charmingly written, made no great impression on Bolzano's contemporaries. It is the creation of a clear, forceful, penetrating intelligence. For the first time in twenty centuries the infinite was treated as a problem in science, and not as a problem in theology.

Both Cantor and Dedekind are indebted to Bolzano for the foundations of the mathematical treatment of the infinite. Among the many paradoxes he gathered and explained, one, dating from Galileo, illustrates a typical source of confusion:

Construct a square–*ABCD*. About the point *A* as center, with one side as radius, describe a quarter-circle, intersecting the square at *B* and *D*. Draw *PR* parallel to *AD*, cutting *AB* at *P*, *CD* at *R*, the diagonal *AC* at *N*, and the quarter-circle at *M*.

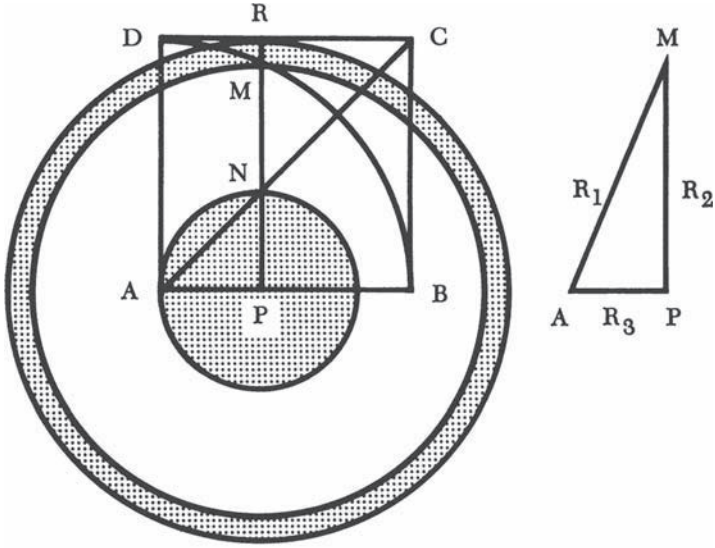
By a well-known geometrical theorem, it can be shown that if *PN*, *PM* and *PR* are radii, the following relationship exists:

$$\pi\overline{PN}^2 = \pi\overline{PR}^2 - \pi\overline{PM}^2 \qquad (1)$$

Permit *PR* to approach *AD*. Then the circle with *PN* as radius becomes smaller, and the ring between the circles with *PM* and *PR* as radii becomes correspondingly smaller. Finally, when *PR* becomes identical with *AD*, the radius *PN* vanishes, leaving the point *A*, while the ring between the two circles *PM* and *PR* contracts into one periphery with *AD* as radius. From equation (1) it may be concluded that the *point A* takes

up as much area as the *circumference* of the circle with *AD* as radius.

Bolzano realized that there is only an *appearance* of a paradox. The two classes of points, one composed of a single member, the point *A*, the other of the points in the circumference of the circle with *AB* as radius, take up



Extract triangle APM *from the figure.*
It is not hard to see that its three sides equal respectively the radii of the three circles.

Thus

$$R_1^2 - R_2^2 = R_3^2$$

or,

$$\pi R_1^2 - \pi R_2^2 = \pi R_3^2$$

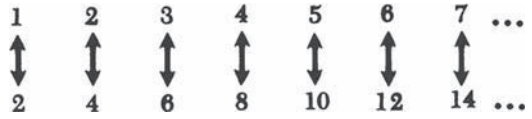
or, the two shaded areas are equal.

exactly the same amount of area. The area of both is zero! The paradox springs from the erroneous conception that the number of points in a given configuration is an indication of the area which it occupies. Points, finite or infinite in number, have no dimensions and can therefore occupy no area.

Through the centuries such paradoxes had piled up. Born of the union of vague ideas and vague philosophical reflections, they were nurtured on sloppy thinking. Bolzano cleared away most of the muddle, preparing the way for Cantor. It is to Cantor that the mathematics of the infinitely large owes its coming of age.

Georg Cantor was born in St. Petersburg in 1845, six years before Bolzano's book appeared. Though born in Russia, he lived the greater part of his life in Germany, where he taught at the University of Halle. While Weierstrass was busy disposing of the infinitesimal, Cantor set himself the apparently more formidable task at the other pole. The infinitely small might be laughed out of existence, but who dared laugh at the infinitely large? Certainly not Cantor! Theological curiosity prompted his task, but the mathematical interest came to subsume every other.

In dealing with the science of the infinite, Cantor realized that the first requisite was to define terms. His definition of "infinite class" which we shall paraphrase, rests upon a paradox. AN INFINITE CLASS HAS THE UNIQUE PROPERTY THAT THE WHOLE IS NO GREATER THAN SOME OF ITS PARTS. That statement is as essential for the mathematics of the infinite as THE WHOLE IS GREATER THAN ANY OF ITS PARTS is for finite arithmetic. When we recall that two classes are equal if their elements can be put into one-to-one correspondence, the latter statement becomes obvious. Zeno would not have challenged it, in spite of his scepticism about the obvious. But what is obvious for the finite is false for the infinite; our extensive experience with finite classes is misleading. Since, for example, the class of men and the class of mathematicians are both finite, anyone realizing that some men are not mathematicians would correctly conclude that the class of men is the larger of the two. He might also conclude that the number of integers, even and odd, is greater than the number of even integers. But we see from the following pairing that he would be mistaken:

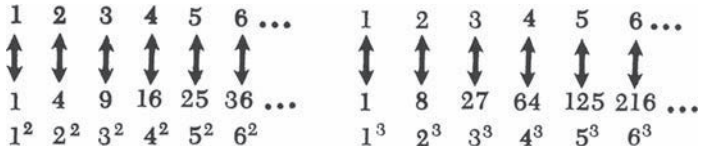


Under every integer, odd or even, we may write its double–an even integer. That is, we place each of the elements of the class of all the integers, odd and even, into a one-to-one correspondence with the elements of the class composed solely of even integers. This process may be continued to the googolplex and beyond.

Now, the class of integers is infinite. No integer, no matter how great, can describe its cardinality (or numerosity). Yet, since it is possible to establish a one-to-one correspondence between the class of even numbers and the class of integers, we have succeeded in counting the class of even numbers just as we count a finite collection. The two classes being perfectly matched, we must conclude that they have the same cardinality.

That their cardinality is the same we *know*, just as we knew that the chairs and the people in the hall were equal in number when every chair was occupied and no one was left standing. Thus, we arrive at the fundamental paradox of all infinite classes:—There exist component parts of an infinite class which are just as great as the class itself. THE WHOLE IS NO GREATER THAN SOME OF ITS PARTS!

The class composed of the even integers *is thinned out* as compared with the class of all integers, but evidently "thinning out" has not the slightest effect on its cardinality. Moreover, there is almost no limit to the number of times this process can be repeated. For instance, there are as many square numbers and cube numbers as there are integers. The appropriate pairings are:



Indeed, from any denumerable class there can always be removed a denumerably infinite number of denumerably infinite classes without affecting the cardinality of the original class.

Infinite classes which can be put into one-to-one correspondence with the integers, and thus "counted," Cantor called *countable*, or *denumerably infinite*. Since all finite sets are countable, and we can assign to each one a number, it is natural to try to extend this notion and assign to the class of all integers a number representing its cardinality. Yet, it is obvious from our description of "infinite class" that no ordinary integer would be adequate to describe the cardinality of the whole class of integers. In effect, it would be asking a snake to swallow itself entirely. Thus, the first of the transfinite numbers was created to describe the cardinality of countable infinite classes. Etymologically old, mathematically new, ℵ (aleph), the first letter of the Hebrew alphabet, was suggested. However, Cantor finally decided to use the compound symbol $\aleph_0$ (Aleph-Null). If asked, "How many integers are there?" it would be correct to reply, "There are $\aleph_0$ integers."

Because he suspected that there were other transfinite numbers, in fact an infinite number of transfinites, and the cardinality of the integers the smallest, Cantor affixed to the first ℵ a small zero as subscript. The cardinality of a denumerably infinite class is therefore referred to as $\aleph_0$ (Aleph-

Null). The anticipated transfinite numbers form a hierarchy of alephs: $\aleph_0$, $\aleph_1$, $\aleph_2$, $\aleph_3$ . . .

All this may seem very strange, and it is quite excusable for the reader by now to be thoroughly bewildered. Yet, if you have followed the previous reasoning step by step, and will go to the trouble of rereading, you will see that nothing which has been said is repugnant to straight thinking. Having established what is meant by counting in the finite domain, and what is meant by number, we decided to extend the counting process to infinite classes. As for our right to follow such a procedure, we have the same right, for example, as those who decided that man had crawled on the surface of the earth long enough and that it was about time for him to fly. It is our right to venture forth in the world of ideas as it is our right to extend our horizons in the physical universe. One restraint alone is laid upon us in these adventures of ideas: that we abide by the rules of logic.

Upon extending the counting process it was evident at once that no finite number could adequately describe an infinite class. If any number of ordinary arithmetic describes the cardinality of a class, that class must be finite, even though there were not enough ink or enough space or enough time to write the number out. We shall then require an entirely new kind of number, nowhere to be found in finite arithmetic, to describe the cardinality of an infinite class. Accordingly, the totality of integers was assigned the cardinality "aleph." Suspecting that there were *other* infinite classes with a cardinality *greater* than that of the totality of integers, we supposed a whole hierarchy of alephs, of which the cardinal number of the totality of integers was named Aleph-Null to indicate it was the smallest of the transfinites.

Having had an interlude in the form of a summary, let us turn once more to scrutinize the alephs, to find if, upon closer acquaintance, they may not become easier to understand.

The arithmetic of the alephs bears little resemblance to that of the finite integers. The immodest behavior of $\aleph_0$ is typical.

A simple problem in addition looks like this:

$$\begin{aligned} \aleph_0 + 1 &= \aleph_0 \\ \aleph_0 + \text{googol} &= \aleph_0 \\ \aleph_0 + \aleph_0 &= \aleph_0 \end{aligned}$$

The multiplication table would be easy to teach, easier to learn:

$$1 \times \aleph_0 = \aleph_0$$
$$2 \times \aleph_0 = \aleph_0$$
$$3 \times \aleph_0 = \aleph_0$$
$$n \times \aleph_0 = \aleph_0$$

where n represents any finite number.
Also,

$$(\aleph_0)^2 = \aleph_0 \times \aleph_0 = \aleph_0$$

And thus,

$$(\aleph_0)^n = \aleph_0$$

when n is a finite integer.

There seems to be no variation of the theme; the monotony appears inescapable. But it is all very deceptive and treacherous. We go along obtaining the same result, no matter what we do to $\aleph_0$, when suddenly we try:

$$(\aleph_0)^{\aleph_0}$$

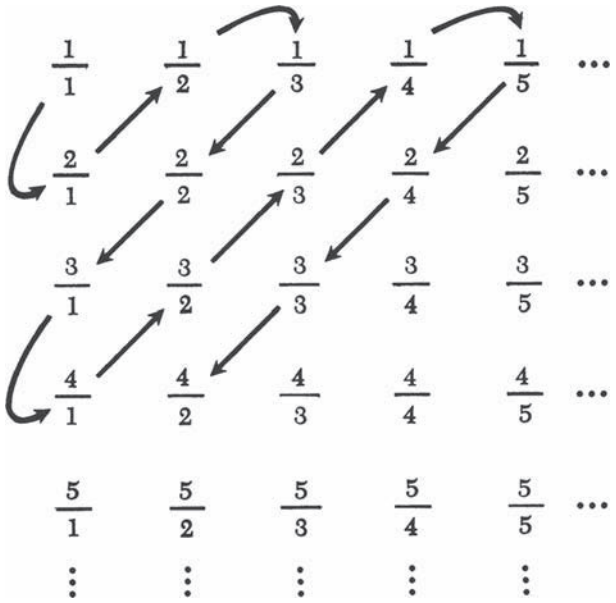
This operation, at last, creates a new transfinite. But before considering it, there is more to be said about countable classes.

Common sense says that there are many more fractions than integers, for between any two integers there is an infinite number of fractions. Alas—common sense is amidst alien corn in the land of the infinite. Cantor discovered a simple but elegant proof that the rational fractions form a denumerably infinite sequence equivalent to the class of integers. Whence, this sequence must have the same cardinality.[7]

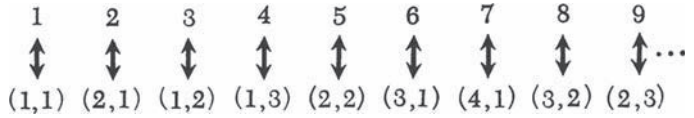
The set of all rational fractions is arranged, not in order of increasing

7. It has been suggested that at this point the tired reader puts the book down with a sigh—and goes to the movies. We can only offer in mitigation that this proof, like the one which follows on the noncountability of the real numbers, is tough and no bones about it. You may grit your teeth and try to get what you can out of them, or conveniently omit them. The essential thing to come away with is that Cantor found that the rational fractions are countable but that the set of real numbers is not. Thus, in spite of what common sense tells you, there are no more fractions than there are integers and there are more real numbers between 0 and 1 than there are elements in the whole class of integers.

magnitude, but in order of ascending numerators and denominators in an array:



Since each fraction may be written as a pair of integers, *i.e.*, $\frac{3}{4}$ as (3,4), the familiar one-to-one correspondence with the integers may be effected. This is illustrated in the above array by the arrows.



Cantor also found, by means of a proof (too technical to concern us here) based on the "height" of algebraic equations, that the class of all algebraic numbers, numbers which are the solutions of algebraic equations with integer coefficients, of the form:

$$a_0x^n + a_1x^{n-1} + \ldots + a_{n-1}x + a_n = 0$$

is denumerably infinite.

But Cantor felt that there were other transfinites, that there were classes which were not countable, which could not be put into one-to-one correspondence with the integers. And one of his greatest triumphs came when he succeeded in showing that there are classes with a cardinality greater than $\aleph_0$.

The class of real numbers composed of the rational and irrational

numbers [8] is such a class. It contains those irrationals which are algebraic as well as those which are not. The latter are called *transcendental numbers.*[9]

Two important transcendental numbers were known to exist in Cantor's time: π, the ratio of the circumference of a circle to its diameter, and e, the base of the natural logarithms. Little more was known about the class of transcendentals: it was an enigma. What Cantor had to prove, in order to show that the class of real numbers was nondenumerable (*i.e.*, too big to be counted by the class of integers), was the unlikely fact that the class of transcendentals was nondenumerable. Since the rational and the algebraic numbers were known to be denumerable, and the sum of any denumerable number of denumerable classes is also a denumerable class, the sole remaining class which could make the totality of real numbers nondenumerable was the class of transcendentals.

He was able to devise such a proof. If it can be shown that the class of real numbers between 0 and 1 is nondenumerable, it will follow a fortiori that all the real numbers are nondenumerable. Employing a device often used in advanced mathematics, the *reductio ad absurdum*, Cantor assumed that to be true which he suspected was false, and then showed that this assumption led to a contradiction. He assumed that the real numbers between 0 and 1 were countable and could, therefore, be paired with the integers. Having proved that this assumption led to a contradiction, it followed that its opposite, namely, that the real numbers could *not* be paired with the integers (and were therefore not countable), was true.

To count the real numbers betwen 0 and 1, it is required that they all be expressed in a uniform way and a method of writing them down in order be devised so that they can be paired one to one with the integers. The first requirement can be fulfilled, for it is possible to express every real number as a nonterminating decimal. Thus, for example: [10]

$$\frac{1}{3} = .3333 \ldots \qquad \frac{3}{14} = .214285714285 \ldots$$

$$\frac{1}{9} = .1111111 \ldots \qquad \frac{\sqrt{2}}{2} = \frac{1.414 \ldots}{2} = .707 \ldots$$

Now, the second requirement confronts us. *How shall we make the*

8. Irrational numbers are numbers which *cannot* be expressed as rational fractions. For Example, $\sqrt{2}$, $\sqrt{3}$, e, π. The class of real numbers is made up of rationals like 1, 2, 3, $\frac{1}{4}$, $\frac{17}{32}$, and irrationals as above.

9. A transcendental number is one which is not the root of an algebraic equation with integer coefficients.

10. Any terminating decimal, such as .4, has a nonterminating form .3999 . . .

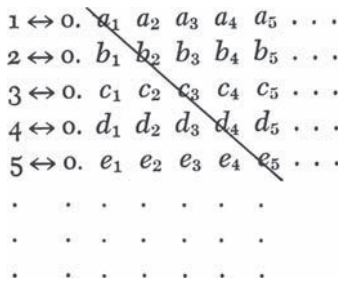
pairings? What system may be devised to ensure the appearance of *every* decimal? We did find a method for ensuring the appearance of every rational fraction. Of course, we could not actually write them all, any more than we could actually write all the integers; but the method of increasing numerators and denominators was so explicit that, if we had had an infinite time in which to do it, we could actually have set down all the fractions and have been certain that we had not omitted any. Or, to put it another way: It was always certain and determinate after a fraction had been paired with an integer, what the next fraction would be, and the next, and the next, and so on.

On the other hand, when a real number, expressed as a nonterminating decimal, is paired with an integer, what method is there for determining what the next decimal in order should be? You have only to ask yourself, which shall be the *first* of the nonterminating decimals to pair with the integer 1, and you have an inkling of the difficulty of the problem. Cantor however *assumed* that such a pairing does exist, without attempting to give its explicit form. His scheme was: With the integer 1 pair the decimal $.a_1a_2a_3\ldots$, with the integer 2, $.b_1b_2b_3\ldots$, etc. Each of the letters represents a digit of the nonterminating decimal in which it appears. The determinate array of pairing between the decimals and the integers would then be:

$$
\begin{array}{llllllll}
1 \leftrightarrow 0. & a_1 & a_2 & a_3 & a_4 & a_5 & \ldots \\
2 \leftrightarrow 0. & b_1 & b_2 & b_3 & b_4 & b_5 & \ldots \\
3 \leftrightarrow 0. & c_1 & c_2 & c_3 & c_4 & c_5 & \ldots \\
4 \leftrightarrow 0. & d_1 & d_2 & d_3 & d_4 & d_5 & \ldots \\
\cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot
\end{array}
$$

That was Cantor's array. But at once it was evident that it glaringly exhibited the very contradiction for which he had been seeking. And in this defeat lay his triumph. For no matter *how* the decimals are arranged, by whatever system, by whatever scheme, it is always possible to construct an infinity of others which are not present in the array. The point is worth repeating: having contrived a general form for an array which we believed would include *every* decimal, we find, in spite of all our efforts, that *some* decimals are bound to be omitted. This, Cantor showed by his famous "diagonal proof." The conditions for determining a decimal omitted from the array are simple. It must differ from the first decimal in the array in its first place, from the second decimal in the array

in its second place, from the third decimal in its third place, and so on. But then, *it must differ from every decimal in the entire array in* at least one place. If (as illustrated in the figure) we draw a diagonal line through our model array and write a new decimal, each digit of which shall differ from every digit intercepted by the diagonal, this new decimal cannot be found in the array.



The new decimal may be written:

$$0.\ a_1\ a_2\ a_3\ a_4\ a_5\ \ldots;$$

where α_1 differs from a_1, α_2 differs from b_2, α_3 from c_3, α_4 from d_4, α_5 from e_5, etc. Accordingly, it will differ from each decimal in at least one place, from the nth decimal in at least its nth place. This proves conclusively that there is no way of including all the decimals in any possible array, no way of pairing them off with the integers. Therefore, as Cantor set out to prove:

1. The class of transcendental numbers is not only infinite, but also not countable, *i.e.*, nondenumerably infinite.
2. The real numbers between 0 and 1 are infinite and not countable.
3. A fortiori, the class of all real numbers is nondenumerable.

To the noncountable class of real numbers, Cantor assigned a new transfinite cardinal. It was one of the alephs, but which one remains unsolved to this day. It is suspected that this transfinite, called the "cardinal of the continuum," which is represented by c or C, is identical with $\aleph_1$. But a proof acceptable to most mathematicians has yet to be devised.

The arithmetic of C is much the same as that of $\aleph_0$. The multiplication table has the same dependable monotone quality. But when C is combined with $\aleph_0$, it swallows it completely. Thus:

$$C + \aleph_0 = C \qquad C - \aleph_0 = C$$
$$C \times \aleph_0 = C \text{ and even } C \times C = C$$

Again, we hope for a variation of the theme when we come to the process of involution. Yet, for the moment, we are disappointed, for $C^{\aleph_0} = C$. But just as $(\aleph_0)^{\aleph_0}$ does not equal $\aleph_0$, so C^c does not equal C.

We are now in a position to solve our earlier problem in involution, for actually Cantor found that $(\aleph_0)^{\aleph_0} = C$. Likewise C^c gives rise to a new transfinite, greater than C. This transfinite represents the cardinality of the class of all one-valued functions. It is also one of the $\aleph$'s, but again, which one is unknown. It is often designated by the letter F.[11] In general, the process of involution, when repeated, continues to generate higher transfinites.

Just as the integers served as a measuring rod for classes with the cardinality $\aleph_0$, the class of real numbers serves as a measuring rod for classes with the cardinality C. Indeed, there are classes of geometric elements which can be measured in no other way except by the class of real numbers.

From the geometric notion of a point, the idea is evolved that on any given line segment there are an infinite number of points. The points on a line segment are also, as mathematicians say, "everywhere dense." This means that between any two points there is an infinitude of others. The concept of two immediately adjoining points is, therefore, meaningless. This property of being "everywhere dense," constitutes one of the essential characteristics of a *continuum*. Cantor, in referring to the "cardinality of the continuum," recognized that it applies alike to the class of real numbers and the class of points on a line segment. Both are everywhere dense, and both have the same cardinality, C. In other words, it is possible to pair the points on a line segment with the real numbers.

Classes with the cardinality C possess a property similar to classes with the cardinality $\aleph_0$: they may be thinned out without in any way affecting their cardinality. In this connection, we see in very striking fashion another illustration of the principle of transfinite arithmetic, that the whole is no greater than many of its parts. For instance, it can be proved that there are as many points on a line one foot long as there are on a line one yard long. The line segment AB in the figure below is [about] three times as long as the line $A'B'$. Nevertheless, it is possible to put the class of all points on the segment AB into a one-to-one correspondence with the class of points on the segment $A'B'$.

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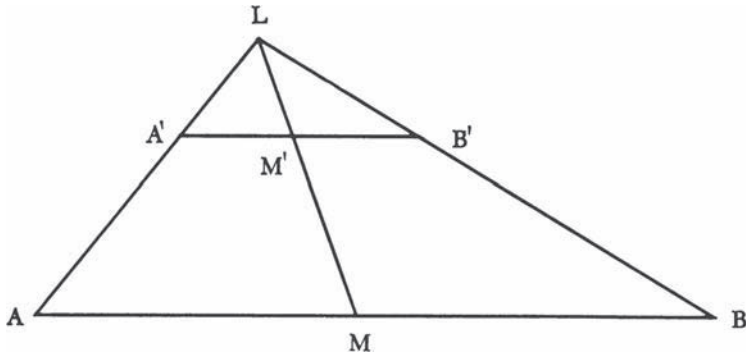
11. A simple geometric interpretation of the class of all one-valued functions F is the following: With each point of a line segment, associate a color of the spectrum. The class F is then composed of all possible combinations of colors and points that can be conceived.



Let *L* be the intersection of the lines *AA′* and *BB′*. If then to any point *M* of *AB,* there corresponds a point *M′* of *A′B′,* which is on the line *LM,* we have established the desired correspondence between the class of points on *A′B′* and those on *AB*. It is easy to see intuitively and to prove geometrically that this is always possible, and that, therefore, the cardinality of the two classes of points is the same. Thus, since *A′B′* is smaller than *AB,* it may be considered a proper part of *AB,* and we have again established that an infinite class may contain as proper parts, subclasses equivalent to it.

There are more startling examples in geometry which illustrate the power of the continuum. Although the statement that a line one inch in length contains as many points as a line stretching around the equator, or as a line stretching from the earth to the most distant stars, is startling enough, it is fantastic to think that a line segment one-millionth of an inch long has as many points as there are in all three-dimensional space in the entire universe. Nevertheless, this is true. Once the principles of Cantor's theory of transfinites is understood, such statements cease to sound like the extravagances of a mathematical madman. The oddities, as Russell has said, "then become no odder than the people at the antipodes who used to be thought impossible because they would find it so inconvenient to stand on their heads." Even conceding that the treatment of the infinite is a form of mathematical madness, one is forced to admit, as does the Duke in *Measure for Measure:*

> If she be mad–as I believe no other–
> Her madness hath the oddest frame of sense,
> Such a dependency of thing on thing,
> As e'er I heard in madness.

Until now we have deliberately avoided a definition of "infinite class."

But at last our equipment makes it possible to do so. We have seen that an infinite class, whether its cardinality is $\aleph_0$, C, or greater, can be thinned out in a countless variety of ways, without affecting its cardinality. In short, the whole is no greater than many of its parts. Now, this property does not belong to finite classes at all; it belongs only to infinite classes. Hence, it is a unique method of determining whether a class is finite or infinite. Thus, our definition reads: *An infinite class is one which can be put into one-to-one reciprocal correspondence with a proper subset of itself.*

Equipped with this definition and the few ideas we have gleaned we may re-examine some of the paradoxes of Zeno. That of Achilles and the tortoise may be expressed as follows: Achilles and the tortoise, running the same course, must each occupy the same number of distinct positions during their race. However, if Achilles is to catch his more leisurely and determined opponent, he will have to occupy *more* positions than the tortoise, in the same elapsed period of time. Since this is manifestly impossible, you may put your money on the tortoise.

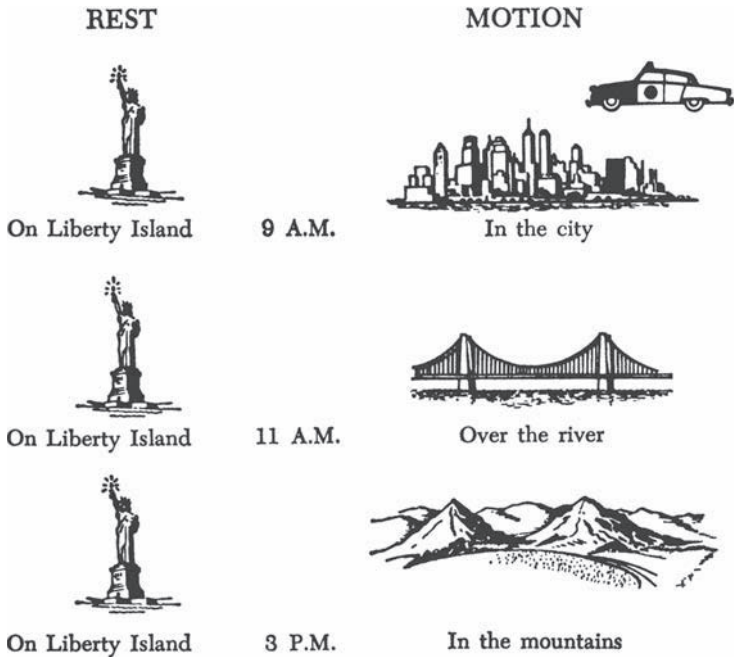
But don't be too hasty. There are better ways of saving money than merely counting change. In fact, you had best bet on Achilles after all, for he is likely to win the race. Even though we may not have realized it, we have just finished proving that he could overtake the tortoise by showing that a line a millionth of an inch long has just as many points as a line stretching from the earth to the farthest star. In other words, the points on the tiny line segment can be placed into one-to-one correspondence with the points on the great line, for there is no relation between the number of points on a line and its length. But this reveals the error in thinking that Achilles cannot catch the tortoise. The statement that Achilles must occupy as many distinct positions as the tortoise is correct. So is the statement that he must travel a greater distance than the tortoise in the same time. The only incorrect statement is the inference that since he must occupy the same number of positions as the tortoise he cannot travel further while doing so. Even though the classes of points on each line, which correspond to the several positions of both Achilles and the tortoise are equivalent, the line representing the path of Achilles is much longer than that representing the path of the tortoise. Achilles may travel much further than the tortoise without successively touching more points.

The solution of the paradox involving the arrow in flight requires a word about another type of continuum. It is convenient and certainly familiar to regard time as a continuum. The time continuum has the same

properties as the space continuum: the successive instants in any elapsed portion of time, just as the points on a line, may be put into one-to-one correspondence with the class of real numbers; between any two instants of time an infinity of others may be interpolated; time also has the mathematical property mentioned before—it is everywhere dense.

Zeno's argument stated that at every instant of time the arrow was somewhere, in some place or position, and therefore, could not at any instant be in motion. Although the statement that the arrow had at every moment to be in some place is true, the conclusion that, therefore, it could not be moving is absurd. Our natural tendency to accept this absurdity as true springs from our firm conviction that motion is entirely different from rest. We are not confused about the position of a body when it is at rest—we feel there is no mystery about the state of rest. We should feel the same when we consider a body in motion.

When a body is at rest, it is in one position at one instant of time and at a later instant it is still in the same position. When a body is in motion, there is a one-to-one correspondence between every instant of time and



At the times shown,
the Statue of Liberty is at the point shown,
while the taxi's passengers see the different scenes shown at the right.

every new position. To make this clear we may construct two tables: One will describe a body at rest, the other, a body in motion. The "rest" table will tell the life history and the life geography of the Statue of Liberty, while the "motion" table will describe the odyssey of an automobile.

The tables indicate that to every instant of time there corresponds a position of the Statue of Liberty and of the taxi. There is a one-to-one space-time correspondence for rest as well as for motion.

No paradox is concealed in the puzzle of the arrow when we look at our table. Indeed, it would be strange if there were gaps in the table; if it were impossible, at any instant, to determine exactly what the position of the arrow is.

Most of us would swear by the existence of motion, but we are not accustomed to think of it as something which makes an object occupy different positions at different instants of time. We are apt to think that motion endows an object with the strange property of being continually nowhere. Impeded by the limitations of our senses which prevent us from perceiving that an object in motion simply occupies one position after another and does so rather quickly, we foster an illusion about the nature of motion and weave it into a fairy tale. Mathematics helps us to analyze and clarify what we perceive, to a point where we are forced to acknowledge, if we no longer wish to be guided by fairy tales, that we live either in Mr. Russell's changeless world or in a world where motion is but a form of rest. The story of motion is the same as the story of rest. It is the same story told at a quicker tempo. The story of rest is: "It is here." The story of motion is: "It is here, it is there." Because, in this respect, it resembles Hamlet's father's ghost is no reason to doubt its existence. Most of our beliefs are chained to less substantial phantoms. Motion is perhaps not easy for our senses to grasp, but with the aid of mathematics, its essence may first be properly understood.

At the beginning of the twentieth century it was generally conceded that Cantor's work had clarified the concept of the infinite so that it could be talked of and treated like any other respectable mathematical concept. The controversy which arises wherever mathematical philosophers meet, on paper, or in person, shows that this was a mistaken view. In its simplest terms this controversy, so far as it concerns the infinite, centers about the questions: Does the infinite exist? Is there such a thing as an infinite class? Such questions can have little meaning unless the term mathematical "existence" is first explained.

In his famous "Agony in Eight Fits," Lewis Carroll hunted the snark. Nobody was acquainted with the snark or knew much about it except that it existed and that it was best to keep away from a boojum. The infinite may be a boojum, too, but its existence in any form is a matter of considerable doubt. Boojum or garden variety, the infinite certainly does not exist in the same sense that we say, "There are fish in the sea." For that matter, the statement, "There is a number called 7," refers to something which has a different existence from the fish in the sea. "Existence" in the mathematical sense is wholly different from the existence of objects in the physical world. A billiard ball may have as one of its properties, in addition to whiteness, roundness, hardness, etc., a relation of circumference to diameter involving the number π. We may agree that the billiard ball and π both exist; we must also agree that the billiard ball and π lead different kinds of lives.

There have been as many views on the problem of existence since Euclid and Aristotle as there have been philosophers. In modern times, the various schools of mathematical philosophy, the Logistic school, Formalists, and Intuitionists, have all disputed the somewhat less than glassy essence of mathematical being. All these disputes are beyond our ken, our scope, or our intention. A stranger company even than the tortoise, Achilles, and the arrow, have defended the existence of infinite classes—defended it in the same sense that they would defend the existence of the number 7. The Formalists, who think mathematics is a meaningless game, but play it with no less gusto, and the Logistic school, which considers that mathematics is a branch of logic—both have taken Cantor's part and have defended the alephs. The defense rests on the notion of self-consistency. "Existence" is a metaphysical expression tied up with notions of being and other bugaboos worse even than boojums. But the expression, "self-consistent proposition" sounds like the language of logic and has its odor of sanctity. A proposition which is not self-contradictory is, according to the Logistic school, a true existence statement. From this standpoint the greater part of Cantor's mathematics of the infinite is unassailable.

New problems and new paradoxes, however, have been discovered arising out of parts of Cantor's structure because of certain difficulties already inherent in classical logic. They center about the use of the word "all." The paradoxes encountered in ordinary parlance, such as "All generalities are false including this one," constitute a real problem in the foundations of logic, just as did the Epimenides paradox whence they sprang. In the Epimenides, a Cretan is made to say that all Cretans are

liars, which, if true, makes the speaker a liar for telling the truth. To dispose of this type of paradox the Logistic school invented a "Theory of Types." The theory of types and the axiom of reducibility on which it is based must be accepted as axioms to avoid paradoxes of this kind. In order to accomplish this a reform of classical logic is required which has already been undertaken. Like most reforms it is not wholly satisfactory–even to the reformers–but by means of their theory of types the last vestige of inconsistency has been driven out of the house that Cantor built. The theory of transfinites may still be so much nonsense to many mathematicians, but it is certainly consistent. The serious charge Henri Poincaré expressed in his aphorism, *La logistique n'est plus stérile: elle engendre la contradiction* [Logic is sterile no longer: it is engendering contradiction], has been successfully rebutted by the logistic doctrine so far as the infinite is concerned.

To Cantor's alephs then, we may ascribe the same existence as to the number 7. An existence statement free from self-contradiction may be made relative to either. For that matter, there is no valid reason to trust in the finite any more than in the infinite. It is as permissible to discard the infinite as it is to reject the impressions of one's senses. It is neither more, nor less scientific to do so. In the final analysis, this is a matter of faith and taste, but *not* on a par with rejecting the belief in Santa Claus. Infinite classes, judged by finite standards, generate paradoxes much more absurd and a great deal less pleasing than the belief in Santa Claus; but when they are judged by the appropriate standards, they lose their odd appearance, behave as predictably as any finite integer.

At last in its proper setting, the infinite has assumed a respectable place next to the finite, just as real and just as dependable, even though wholly different in character. Whatever the infinite may be, it is no longer a purple cow.

The foregoing consists of Chapters I and II
from Kasner and Newman's MATHEMATICS AND THE IMAGINATION.

Tobias Dantzig

1884–1956

Tobias Dantzig was born in Russia in 1884. As a young man he studied in Paris under several great French mathematicians, among them Henri Poincaré. At an early age he decided that mathematics should be acquired by study of the works of the masters. This conviction led him to pursue his studies back through the medieval ages to the Greeks and their discoveries in science.

Dantzig went to the United States in 1910. After taking his doctorate at the University of Indiana, he taught at Columbia and at the University of Maryland. At various times he served as mathematical consultant for industry. This acquaintance with industrial problems gave him a lifelong interest in the applications of mathematics. After his retirement from university teaching, he continued to write and to give courses in the history of mathematics. He died in 1956.

A lover of stories, Dantzig never forgot a tale. This vast reservoir was put to good use in the classroom and in his writings. He was intensely interested in mathematicians as people, and his writings are spiced with colorful anecdotes about famous scientific personalities. Among his works are *The Story of Geometry*, *Aspects of Science*, *The Bequest of the Greeks*, and *Number: The Language of Science.*

The last-named book was praised by Albert Einstein as the best book on the evolution of mathematics that had come into his hands. This work broke a new path. It was the first attempt to bring mathematics to the public in a manner suited to the mathematically untrained. The following two selections are taken from this pioneering effort. They both deal with the evolution of the number concept.

Fingerprints shows man at a very early stage in his attempt to gain understanding and power over the world. Whatever is counted is somehow captured, as in a net. When primitive man fashioned this net, its design was almost inevitably determined by the fact that he had ten fingers. Before he had words or written symbols for numbers, he possessed on his own hands the tools for counting. Through the ages the net has become larger and more intricate. It has been cast beyond the world into the universe. But it still carries the imprint of man's physical make-up. We count by tens.

"Has the concept [of number] been born of experience, or has experience merely served to render explicit what was already latent in the primitive mind?" Dantzig asks a question on which there is a long history of speculation. Various and conflicting answers are found in the writings of Plato, Aristotle, Kant, Russell, and James.

The Empty Column is the story of how mathematics was stymied for centuries for want of a symbol–our modern zero. Everyday calculations remained in the hands of the experts long after commerce and industry cried out for an arithmetic that could be understood by everyone.

Why did this notation come so late? Alfred North Whitehead says: "The point about zero is that we do not need to use it in the operations of daily life. No one goes out to buy zero fish. It is in a way the most civilized of all the cardinals, and its use is only forced on us by the needs of cultivated modes of thought."

To this story of the growth of our modern number system, Dantzig brings a lively sense of the human qualities involved. "It is not a story of brilliant achievement, heroic deeds, or noble sacrifice. It is a story of blind stumbling and chance discovery, of groping in the dark and refusing to admit the light. It is a story replete with obscurantism and prejudice, of sound judgment often eclipsed by loyalty to tradition, and of reason long held subservient to custom. In short, it is a human story."

Fingerprints

1.

Man, even in the lower stages of development, possesses a faculty which, for want of a better name, I shall call *number sense*. This faculty permits him to recognize that something has changed in a small collection when, without his direct knowledge, an object has been removed from or added to the collection.

Number sense should not be confused with counting, which is probably of a much later vintage, and involves, as we shall see, a rather intricate mental process. Counting, so far as we know, is an attribute exclusively human, whereas some brute species seem to possess a rudimentary number sense akin to our own. At least, such is the opinion of competent observers of animal behavior, and the theory is supported by a weighty mass of evidence.

Many birds, for instance, possess such a number sense. If a nest contains four eggs one can safely be taken, but when two are removed the bird generally deserts. In some unaccountable way the bird can distinguish two from three. But this faculty is by no means confined to birds. In fact the most striking instance we know is that of the insect called the "solitary wasp." The mother wasp lays her eggs in individual cells and provides each egg with a number of live caterpillars on which the young feed when hatched. Now, the number of victims is remarkably constant for a given species of wasp: some species provide 5, others 12, others again as high as 24 caterpillars per cell. But most remarkable is the case of the *Genus Eumenus*, a variety in which the male is much smaller than the female. In some mysterious way the mother knows whether the egg will produce a male or a female grub and apportions the quantity of food accordingly; she does not change the species or size of the prey, but if the egg is male she supplies it with five victims, if female with ten.

Finger Symbols from a Manual Published in 1520

The regularity in the action of the wasp and the fact that this action is connected with a fundamental function in the life of the insect make this last case less convincing than the one which follows. Here the action of the bird seems to border on the conscious:

A squire was determined to shoot a crow which made its nest in the watchtower of his estate. Repeatedly he had tried to surprise the bird, but in vain: at the approach of man the crow would leave its nest. From a distant tree it would watchfully wait until the man had left the tower and then return to its nest. One day the squire hit upon a ruse: two men entered the tower, one remained within, the other came out and went on. But the bird was not deceived: it kept away until the man within came out. The experiment was repeated on the succeeding days with two, three, then four men, yet without success. Finally, five men were sent: as before, all entered the tower, and one remained while the other four came out and went away. Here the crow lost count. Unable to distinguish between four and five it promptly returned to its nest.

2. Two arguments may be raised against such evidence. The first is that the species possessing such a number sense are exceedingly few, that no such faculty has been found among mammals, and that even the monkeys seem to lack it. The second argument is that in all known cases the number sense of animals is so limited in scope as to be ignored.

Now the first point is well taken. It is indeed a remarkable fact that the faculty of perceiving number, in one form or another, seems to be confined to some insects and birds and to men. Observation and experiments on dogs, horses and other domestic animals have failed to reveal any number sense.

As to the second argument, it is of little value, because the scope of the human number sense is also quite limited. In every practical case where civilized man is called upon to discern number, he is consciously or unconsciously aiding his direct number sense with such artifices as symmetric pattern reading, mental grouping or counting. *Counting* especially has become such an integral part of our mental equipment that psychological tests on our number perception are fraught with great difficulties. Nevertheless some progress has been made; carefully conducted experiments lead to the inevitable conclusion that the direct *visual* number sense of the average civilized man rarely extends beyond four, and that the *tactile* sense is still more limited in scope.

Anthropological studies on primitive peoples corroborate these results

to a remarkable degree. They reveal that those savages *who have not reached the stage of finger counting* are almost completely deprived of all perception of number. Such is the case among numerous tribes in Australia, the South Sea Islands, South America, and Africa. Curr, who has made an extensive study of primitive Australia, holds that but few of the natives are able to discern four, and that no Australian in his wild state can perceive seven. The Bushmen of South Africa have no number words beyond *one*, *two* and *many*, and these words are so inarticulate that it may be doubted whether the natives attach a clear meaning to them.

We have no reasons to believe and many reasons to doubt that our own remote ancestors were better equipped, since practically all European languages bear traces of such early limitations. The English *thrice*, just like the Latin *ter*, has the double meaning: three times, and many. There is a plausible connection between the Latin *tres,* three, and *trans*, beyond; the same can be said regarding the French *très*, very, and *trois*, three.

The genesis of number is hidden behind the impenetrable veil of countless prehistoric ages. Has the concept been born of experience, or has experience merely served to render explicit what was already latent in the primitive mind? Here is a fascinating subject for metaphysical speculation, but for this very reason beyond the scope of this study.

If we are to judge of the development of our own remote ancestors by the mental state of contemporary tribes we cannot escape the conclusion that the beginnings were extremely modest. A rudimentary number sense, not greater in scope than that possessed by birds, was the nucleus from which the number concept grew. And there is little doubt that, left to this direct number perception, man would have advanced no further in the art of reckoning than the birds did. But through a series of remarkable circumstances man has learned to aid his exceedingly limited perception of number by an artifice which was destined to exert a tremendous influence on his future life. This artifice is counting, and it is to *counting* that we owe the extraordinary progress which we have made in expressing our universe in terms of number.

3. There are primitive languages which have words for every color of the rainbow but have no word for color; there are others which have all number words but no word for number. The same is true of other conceptions. The English language is very rich in native expressions for particular types of collections: *flock*, *herd*, *set*, *lot* and *bunch* apply to

special cases; yet the words *collection* and *aggregate* are of foreign extraction.

The concrete preceded the abstract. "It must have required many ages to discover," says Bertrand Russell, "that a brace of pheasants and a couple of days were both instances of the number two." To this day we have quite a few ways of expressing the idea *two*: pair, couple, set, team, twin, brace, etc., etc.

A striking example of this extreme concreteness of the early number concept is the Thimshian language of a British Columbia tribe. There we find seven distinct sets of number words: one for flat objects and animals; one for round objects and time; one for counting men; one for long objects and trees; one for canoes; one for measures; one for counting when no definite object is referred to. The last is probably a later development; the others must be relics of the earliest days when the tribesmen had not yet learned to count.

It is counting that consolidated the concrete and therefore heterogeneous notion of plurality, so characteristic of primitive man, into the *homogeneous abstract number concept*, which made mathematics possible.

4. Yet, strange though it may seem, it is possible to arrive at a logical, clear-cut number concept without bringing in the artifices of counting.

We enter a hall. Before us are two collections: the seats of the auditorium, and the audience. *Without counting* we can ascertain whether the two collections are equal and, if not equal, which is the greater. For if every seat is taken and no man is standing, *we know without counting* that the two collections are equal. If every seat is taken and some in the audience are standing, *we know without counting* that there are more people than seats.

We derive this knowledge through a process which dominates all mathematics and which has received the name of *one-to-one correspondence*. It consists in assigning to every object of one collection an object of the other, the process being continued until one of the collections, or both, are exhausted.

The number technique of many primitive peoples is confined to just such a matching or tallying. They keep the record of their herds and armies by means of notches cut in a tree or pebbles gathered in a pile. That our own ancestors were adept in such methods is evidenced by the etymology of the words *tally* and *calculate*, of which the first comes from the Latin *talea*, cutting, and the second from the Latin *calculus,* pebble.

It would seem at first that the process of correspondence gives only a means for comparing two collections, but is incapable of creating number in the absolute sense of the word. Yet the transition from relative number to absolute is not difficult. It is necessary only to create *model collections*, each typifying a possible collection. Estimating any given collection is then reduced to the selection among the available models of one which can be matched with the given collection member by member.

Primitive man finds such models in his immediate environment: the wings of a bird may symbolize the number two, clover-leaves three, the legs of an animal four, the fingers on his own hand five. Evidence of this origin of number words can be found in many a primitive language. Of course, once the number word has been created and adopted, it becomes as good a model as the object it originally represented. The necessity of discriminating between the name of the borrowed object and the number symbol itself would naturally tend to bring about a change in sound, until in the course of time the very connection between the two is lost to memory. As man learns to rely more and more on his language, the sounds supersede the images for which they stood, and the originally concrete models take the abstract form of number words. Memory and habit lend concreteness to these abstract forms, and so mere words become measures of plurality.

5. The concept I just described is called *cardinal* number. The cardinal number rests on the principle of correspondence: it implies *no counting*. To create a counting process it is not enough to have a motley array of models, comprehensive though this latter may be. We must devise a number *system:* our set of models must be arranged in an ordered sequence, a sequence which progresses in the sense of growing magnitude, the *natural sequence:* one, two, three. . . . Once this system is created, *counting a collection* means assigning to every member a term in the natural sequence in *ordered succession* until the collection is exhausted. The term of the natural sequence assigned to the *last* member of the collection is called the *ordinal number* of the collection.

The ordinal system may take the concrete form of a rosary, but this, of course, is not essential. The *ordinal* system acquires existence when the first few number words have been committed to memory in their *ordered succession*, and a phonetic scheme has been devised to pass from any larger number to its *successor*.

We have learned to pass with such facility from cardinal to ordinal

number that the two aspects appear to us as one. To determine the plurality of a collection, *i.e.*, its cardinal number, we do not bother any more to find a model collection with which we can match it—we *count* it. And to the fact that we have learned to identify the two aspects of number is due our progress in mathematics. For whereas in practice we are really interested in the cardinal number, this latter is incapable of creating an arithmetic. The operations of arithmetic are based on the tacit assumption that *we can always pass from any number to its successor*, and this is the essence of the ordinal concept.

And so matching by itself is incapable of creating an art of reckoning. Without our ability to arrange things in ordered succession little progress could have been made. Correspondence and succession, the two principles which permeate all mathematics—nay, all realms of exact thought—are woven into the very fabric of our number system.

6. It is natural to inquire at this point whether this subtle distinction between cardinal and ordinal number had any part in the early history of the number concept. One is tempted to surmise that the cardinal number, based on matching only, preceded the ordinal number, which requires both matching and ordering. Yet the most careful investigations into primitive culture and philology fail to reveal any such precedence. Wherever any number technique exists at all, both aspects of number are found.

But, also, wherever a counting technique, worthy of the name, exists at all, *finger counting* has been found to either precede it or accompany it. And in his fingers man possesses a device which permits him to pass imperceptibly from cardinal to ordinal number. Should he want to indicate that a certain collection contains four objects he will raise or turn down four fingers *simultaneously;* should he want to count the same collection he will raise or turn down these fingers *in succession.* In the first case he is using his fingers as a cardinal model, in the second as an ordinal system. Unmistakable traces of this origin of counting are found in practically every primitive language. In most of these tongues the number "five" is expressed by "hand," the number "ten" by "two hands," or sometimes by "man." Furthermore, in many primitive languages the number words up to four are identical with the names given to the four fingers.

The more civilized languages underwent a process of attrition which obliterated the original meaning of the words. Yet here too "fingerprints" are not lacking. Compare the Sanskrit *panca*, five, with the related

Persian *pentcha*, hand; the Russian *piat*, five, with *piast*, the outstretched hand.

It is to his articulate ten fingers that man owes his success in calculation. It is these fingers which have taught him to count and thus extend the scope of number indefinitely. Without this device the number technique of man could not have advanced far beyond the rudimentary number sense. And it is reasonable to conjecture that without our fingers the development of number, and consequently that of the exact sciences, to which we owe our material and intellectual progress, would have been hopelessly dwarfed.

7. And yet, except that our children still learn to count on their fingers and that we ourselves sometimes resort to it as a gesture of emphasis, finger counting is a lost art among modern civilized people. The advent of writing, simplified numeration, and universal schooling have rendered the art obsolete and superfluous. Under the circumstances it is only natural for us to underestimate the role that finger counting has played in the history of reckoning. Only a few hundred years ago finger counting was such a widespread custom in Western Europe that no manual of arithmetic was complete unless it gave full instructions in the method. (See figure on page 166.)

The art of using his fingers in counting and in performing the simple operations of arithmetic was then one of the accomplishments of an educated man. The greatest ingenuity was displayed in devising rules for adding and multiplying numbers on one's fingers. Thus, to this day, the peasant of central France (Auvergne) uses a curious method for multiplying numbers above 5. If he wishes to multiply 9×8, he bends down 4 fingers on his left hand (4 being the excess of 9 over 5), and 3 fingers on his right hand ($8 - 5 = 3$). Then the number of the bentdown fingers gives him the tens of the result ($4 + 3 = 7$), while the product of the unbent fingers gives him the units ($1 \times 2 = 2$).

Artifices of the same nature have been observed in widely separated places, such as Bessarabia, Serbia and Syria. Their striking similarity and the fact that these countries were all at one time parts of the great Roman Empire lead one to suspect the Roman origin of these devices. Yet, it may be maintained with equal plausibility that these methods evolved independently, similar conditions bringing about similar results.

Even today the greater portion of humanity is counting on fingers: to primitive man, we must remember, this is the only means of performing the simple calculations of his daily life.

8. How old is our number language? It is impossible to indicate the exact period in which number words originated, yet there is unmistakable evidence that it preceded written history by many thousands of years. One fact we have mentioned already: all traces of the original meaning of the number words in European languages, with the possible exception of *five*, are lost. And this is the more remarkable, since, as a rule, number words possess an extraordinary stability. While time has wrought radical changes in all other aspects we find that the number vocabulary has been practically unaffected. In fact this stability is utilized by philologists to trace kinships between apparently remote language groups. The reader is invited to examine the table at the end of the chapter where the number words of the standard Indo-European languages are compared.

Why is it then that in spite of this stability no trace of the original meaning is found? A plausible conjecture is that while number words have remained unchanged since the days when they originated, the names of the concrete objects from which the number words were borrowed have undergone a complete metamorphosis.

9. As to the structure of the number language, philological researches disclose an almost universal uniformity. Everywhere the ten fingers of man have left their permanent imprint.

Indeed, there is no mistaking the influence of our ten fingers on the "selection" of the base of our number system. In all Indo-European languages, as well as Semitic, Mongolian, and most primitive languages, the base of numeration is ten, *i.e.*, there are independent number words up to ten, beyond which some compounding principle is used until 100 is reached. All these languages have independent words for 100 and 1000, and some languages for even higher decimal units. There are apparent exceptions, such as the English *eleven* and *twelve*, or the German *elf* and *zwölf*, but these have been traced to *ein-lif* and *zwo-lif; lif* being old German for *ten.*

It is true that in addition to the decimal system, two other bases are reasonably widespread, but their character confirms to a remarkable degree the *anthropomorphic* nature of our counting scheme. These two other systems are the quinary, base 5, and the vigesimal, base 20.

In the *quinary* system there are independent number words up to *five*, and the compounding begins thereafter. (See table on pages 176 and 177.) It evidently originated among people who had the habit of counting on one hand. But why should man confine himself to one hand? A plausible explanation is that primitive man rarely goes about unarmed. If he wants

to count, he tucks his weapon under his arm, the left arm as a rule, and counts on his left hand, using his right hand as check-off. This may explain why the left hand is almost universally used by right-handed people for counting.

Many languages still bear the traces of a quinary system, and it is reasonable to believe that some decimal systems passed through the quinary stage. Some philologists claim that even the Indo-European number languages are of a quinary origin. They point to the Greek word *pempazein*, to count by fives, and also to the unquestionably quinary character of the Roman numerals. However, there is no other evidence of this sort, and it is much more probable that our group of languages passed through a preliminary *vigesimal stage*.

This latter probably originated among the primitive tribes who counted on their toes as well as on their fingers. A most striking example of such a system is that used by the Maya Indians of Central America. Of the same general character was the system of the ancient Aztecs. The day of the Aztecs was divided into 20 hours; a division of the army contained 8000 soldiers ($8000 = 20 \times 20 \times 20$).

While pure vigesimal systems are rare, there are numerous languages where the decimal and the vigesimal systems have merged. We have the English *score*, *twoscore*, and *threescore;* the French *vingt* (20) and *quatre-vingt* (4×20). The old French used this form still more frequently; a hospital in Paris originally built for 300 blind veterans bears the quaint name of *Quinze-Vingt* (Fifteenscore); the name *Onze-Vingt* (Elevenscore) was given to a corps of police sergeants comprising 220 men.

10. There exists among the most primitive tribes of Australia and Africa a system of numeration which has neither 5, 10, nor 20 for base. It is a *binary* system, *i.e*., of base two. These savages have not yet reached finger counting. They have independent numbers for one and two, and composite numbers up to six. Beyond six everything is denoted by "heap."

Curr, whom we have already quoted in connection with the Australian tribes, claims that most of these count by pairs. So strong, indeed, is this habit of the native that he will rarely notice that two pins have been removed from a row of seven; he will, however, become immediately aware if one pin is missing. His sense of *parity* is stronger than his number sense.

Curiously enough, this most primitive of bases had an eminent advocate in relatively recent times in no less a person than Leibnitz. A binary

numeration requires but two symbols, 0 and 1, by means of which all other numbers are expressed, as shown in the following table:

Decimal	1	2	3	4	5	6	7	8
Binary	1	10	11	100	101	110	111	1000
Decimal	9	10	11	12	13	14	15	16
Binary	1001	1010	1011	1100	1101	1110	1111	10000

The advantages of the *base two* are economy of symbols and tremendous simplicity in operations. It must be remembered that every system requires that tables of addition and multiplication be committed to memory. For the binary system these reduce to $1 + 1 = 10$ and $1 \times 1 = 1$; whereas for the decimal, each table has 100 entries. Yet this advantage is more than offset by lack of compactness: thus the decimal number $4096 = 2^{12}$ would be expressed in the binary system by 1,000,000,000,000.

It is the mystic elegance of the binary system that made Leibnitz exclaim: *Omnibus ex nihil ducendis sufficit unum.* (One suffices to derive all out of nothing.) Says Laplace:

> Leibnitz saw in his binary arithmetic the image of Creation. . . . He imagined that Unity represented God, and Zero the void; that the Supreme Being drew all beings from the void, just as unity and zero express all numbers in his system of numeration. This conception was so pleasing to Leibnitz that he communicated it to the Jesuit, Grimaldi, president of the Chinese tribunal for mathematics, in the hope that this emblem of creation would convert the Emperor of China, who was very fond of the sciences. I mention this merely to show how the prejudices of childhood may cloud the vision even of the greatest men!

11. It is interesting to speculate what turn the history of culture would have taken if instead of flexible fingers man had had just two "inarticulate" stumps. If any system of numeration could at all have developed under such circumstances, it would have probably been of the binary type.

That mankind adopted the decimal system is a *physiological accident.* Those who see the hand of Providence in everything will have to admit that Providence is a poor mathematician. For outside its physiological merit the decimal base has little to commend itself. Almost any other base, with the possible exception of *nine*, would have done as well and probably better.

Indeed, if the choice of a base were left to a group of experts, we should probably witness a conflict between the practical man, who would

insist on a base with the greatest number of divisors, such as *twelve*, and the mathematician, who would want a prime number, such as *seven* or *eleven*, for a base. As a matter of fact, late in the eighteenth century the great naturalist Buffon proposed that the duodecimal system (base 12) be universally adopted. He pointed to the fact that 12 has 4 divisors, while 10 has only 2, and maintained that throughout the ages this inadequacy of our decimal system had been so keenly felt that, in spite of 10 being the universal base, most measures had 12 secondary units.

On the other hand the great mathematician Lagrange claimed that a prime base is far more advantageous. He pointed to the fact that with a prime base every systematic fraction would be irreducible and would therefore represent the number in a unique way. In our present numeration, for instance, the decimal fraction .36 stands really for many fractions: $^{36}/_{100}$, $^{18}/_{50}$, and $^{9}/_{25}$. . . . Such an ambiguity would be considerably lessened if a prime base, such as eleven, were adopted.

But whether the enlightened group to whom we would entrust the selection of the base decided on a prime or a composite base, we may rest assured that the number *ten* would not even be considered, for it is neither prime nor has it a sufficient number of divisors.

In our own age, when calculating devices have largely supplanted mental arithmetic, nobody would take either proposal seriously. The advantages gained are so slight, and the tradition of counting by tens so firm, that the challenge seems ridiculous.

From the standpoint of the history of culture a change of base, even if practicable, would be highly undesirable. As long as man counts by tens, his ten fingers will remind him of the human origin of this most important phase of his mental life. So may the decimal system stand as a living monument to the proposition: *Man is the measure of all things.*

Number Words of Some Indo-European Languages Showing the Extraordinary Stability of Number Words

	Sanskrit	Ancient Greek	Latin	German	English	French	Russian
1	eka	en	unus	eins	one	un	odyn
2	dva	duo	duo	zwei	two	deux	dva
3	tri	tri	tres	drei	three	trois	tri
4	catur	tetra	quatuor	vier	four	quatre	chetyre
5	panca	pente	quinque	fünf	five	cinq	piat
6	sas	hex	sex	sechs	six	six	shest
7	sapta	hepta	septem	sieben	seven	sept	sem
8	asta	octo	octo	acht	eight	huit	vosem
9	nava	ennea	novem	neun	nine	neuf	deviat
10	daca	deca	decem	zehn	ten	dix	desiat
100	cata	ecaton	centum	hundert	hundred	cent	sto
1000	sehastre	xilia	mille	tausend	thousand	mille	tysiaca

A Typical Quinary System: The Api Language of the New Hebrides

	Word	Meaning
1	tai	
2	lua	
3	tolu	
4	vari	
5	luna	hand
6	otai	other one
7	olua	" two
8	otolu	" three
9	ovair	" four
10	lua luna	two hands

A Typical Vigesimal System: The Maya Language of Central America

1	hun	1
20	kal	20
20^2	bak	400
20^3	pic	8000
20^4	calab	160,000
20^5	kinchel	3,200,000
20^6	alce	64,000,000

A Typical Binary System: A Western Tribe of Torres Straits

1	urapun
2	okosa
3	okosa-urapun
4	okosa-okosa
5	okosa-okosa-urapun
6	okosa-okosa-okosa

The Empty Column

1.

s I am writing these lines there rings in my ears the old refrain:

> Reading, 'Riting, 'Rithmetic,
> Taught to the tune of a hickory-stick!

In this chapter I propose to tell the story of one of three R's, the one, which, though oldest, came hardest to mankind.

It is not a story of brilliant achievement, heroic deeds, or noble sacrifice. It is a story of blind stumbling and chance discovery, of groping in the dark and refusing to admit the light. It is a story replete with obscurantism and prejudice, of sound judgment often eclipsed by loyalty to tradition, and of reason long held subservient to custom. In short, it is a human story.

2. Written numeration is probably as old as private property. There is little doubt that it originated in man's desire to keep a record of his flocks and other goods. Notches on a stick or tree, scratches on stones and rocks, marks in clay—these are the earliest forms of this endeavor to record numbers by written symbols. Archaeological researches trace such records to times immemorial, as they are found in the caves of prehistoric man in Europe, Africa and Asia. Numeration is at least as old as written language, and there is evidence that it preceded it. Perhaps, even, the recording of numbers had suggested the recording of sounds.

The oldest records indicating the systematic use of written numerals are those of the ancient Sumerians and Egyptians. They are all traced back to about the same epoch, around 3500 B.C. When we examine them we are struck with the great similarity in the principles used. There is, of course, the possibility that there was communication between these peoples in spite of the distances that separated them. However, it is

more likely that they developed their numerations along the lines of least resistance, *i.e.*, that their numerations were but an outgrowth of the natural process of tallying. (See figure, page 180.)

Indeed, whether it be the cuneiform numerals of the ancient Babylonians, the hieroglyphics of the Egyptian papyri, or the queer figures of the early Chinese records, we find everywhere a distinctly *cardinal* principle. Each numeral up to nine is merely a collection of strokes. The same principle is used beyond nine, units of a higher class, such as tens, hundreds, etc., being represented by special symbols.

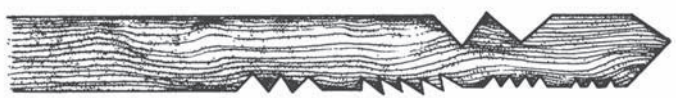
3. The English tally stick, of obscure but probably very ancient origin, also bears this unquestionably cardinal character. A schematic picture of the tally is shown in the accompanying figure. The small notches each represent a pound sterling, the larger ones 10 pounds, 100 pounds, etc.

It is curious that the English tally persisted for many centuries after the introduction of modern numeration made its use ridiculously obsolete. In fact it was responsible for an important episode in the history of Parliament. Charles Dickens described this episode with inimitable sarcasm in an address on administrative reform, which he delivered a few years after the incident occurred.

> Ages ago a savage mode of keeping accounts on notched sticks was introduced into the Court of Exchequer and the accounts were kept much as Robinson Crusoe kept his calendar on the desert island. A multitude of accountants, bookkeepers, and actuaries were born and died. . . . Still official routine inclined to those notched sticks as if they were pillars of the Constitution, and still the Exchequer accounts continued to be kept on certain splints of elm-wood called *tallies*. In the reign of George III an inquiry was made by some revolutionary spirit whether, pens, ink and paper, slates and pencils being in existence, this obstinate adherence to an obsolete custom ought to be continued, and whether a change ought not be effected. All the red tape in the country grew redder at the bare mention of this bold and original conception, and it took until 1826 to get these sticks abolished. In 1834 it was found that there was a considerable accumulation of them; and the question then arose, what was to be done with such worn-out, worm-eaten, rotten old bits of wood? The sticks were housed in Westminster, and it would naturally occur to any intelligent person that nothing could be easier than to allow them to be carried away for firewood by the miserable people who lived in that neighbourhood. However, they never had been useful, and official routine required that they should never be, and so the order went out that they were to be privately and confidentially burned. It came to pass that

	1	2	3	4	5	9	10	12	23	60	100	1000	10000
SUMERIAN 3400 B.C.	𒁹	𒁹𒁹	𒁹𒁹𒁹	𒐈	𒐉	𒐊𒁹	𒌋	𒌋𒐈	𒌋𒐉𒁹	𒌋𒌋𒌋	𒁹𒁾	𒌋𒁹𒁾	𒌋𒌋𒁹𒁾
HIEROGLYPHICS 3400 B.C.	𓏺	𓏺𓏺	𓏺𓏺𓏺	𓏺𓏺𓏺𓏺	𓏺𓏺𓏺𓏺𓏺	𓏺𓏺𓏺𓏺𓏺𓏺𓏺𓏺𓏺	𓎆	𓎆𓏺𓏺	𓎆𓎆𓏺𓏺𓏺	𓎆𓎆𓎆𓎆𓎆𓎆	𓍢	𓆼	𓆐
GREEK	α′	β′	γ′	δ′	ε′	θ′	ι′	ι′β′	κ′γ′	ξ′	ρ′	,α	,ι

ANCIENT NUMERATIONS



SCHEMATIC DRAWING OF ENGLISH TALLY STICK

> they were burned in a stove in the House of Lords. The stove, overgorged with these preposterous sticks, set fire to the panelling; the panelling set fire to the House of Commons; the two houses were reduced to ashes; architects were called in to build others; and we are now in the second million of the cost thereof.

4. As opposed to this purely cardinal character of the earliest records there is the ordinal numeration, in which the numbers are represented by the letters of an alphabet in their spoken succession.

The earliest evidence of this principle is that of the Phoenician numeration. It probably arose from the urge for compactness brought about by the complexities of a growing commerce. The Phoenician origin of both the Hebrew and the Greek numeration is unquestionable: the Phoenician system was adopted bodily, together with the alphabet, and even the sounds of the letters were retained.

On the other hand, the Roman numeration, which has survived to this day, shows a marked return to the earlier cardinal methods. Yet Greek influence is shown in the literal symbols adopted for certain units, such as X for ten, C for hundred, M for thousand. But the substitution of letters for the more picturesque symbols of the Chaldeans or the Egyptians does not constitute a departure from principle.

5. The evolution of the numerations of antiquity found its final expression in the ordinal system of the Greeks and the cardinal system of Rome. Which of the two was superior? The question would have significance if the only object of a numeration were a compact recording of quantity. But this is not the main issue. A far more important question is: how well is the system adapted to arithmetical operations, and what ease does it lend to calculations?

In this respect there is hardly any choice between the two methods: neither was capable of creating an arithmetic which could be used by a man of average intelligence. This is why, from the beginning of history until the advent of our modern *positional* numeration, so little progress was made in the art of reckoning.

Not that there were no attempts to devise rules for operating on these numerals. How difficult these rules were can be gleaned from the great awe in which all reckoning was held in these days. A man skilled in the art was regarded as endowed with almost supernatural powers. This may explain why arithmetic from time immemorial was so assiduously cultivated by the priesthood. . . . Not only was this [relation of early mathematics to religious rites and mysteries] true of the ancient Orient, where

science was built around religion, but even the enlightened Greeks never completely freed themselves from this mysticism of number and form.

And to a certain extent this awe persists to this day. The average man identifies mathematical ability with quickness in figures. "So you are a mathematician? Why, then you have no trouble with your income-tax return!" What mathematician has not at least once in his career been so addressed? There is, perhaps, unconscious irony in these words, for are not most professional mathematicians spared all trouble incident to excessive income?

6. There is a story of a German merchant of the fifteenth century, which I have not succeeded in authenticating, but it is so characteristic of the situation then existing that I cannot resist the temptation of telling it. It appears that the merchant had a son to whom he desired to give an advanced commercial education. He appealed to a prominent professor of a university for advice as to where he should send his son. The reply was that if the mathematical curriculum of the young man was to be confined to adding and subtracting, he perhaps could obtain the instruction in a German university; but the art of multiplying and dividing, he continued, had been greatly developed in Italy, which in his opinion was the only country where such advanced instruction could be obtained.

As a matter of fact, multiplication and division as practiced in those days had little in common with the modern operations bearing the same names. Multiplication, for instance, was a succession of *duplations*, which was the name given to the doubling of a number. In the same way division was reduced to *mediation*, *i.e.*, "halving" a number. A clearer insight into the status of reckoning in the Middle Ages can be obtained from an example. Using modern notations:

Today	Thirteenth century
46	$46 \times 2 = 92$
13	$46 \times 4 = 92 \times 2 = 184$
138	$46 \times 8 = 184 \times 2 = 368$
46	$368 + 184 + 46 = 598$
598	

We begin to understand why humanity so obstinately clung to such devices as the abacus or even the tally. Computations which a child can now perform required then the services of a specialist, and what is now

only a matter of a few minutes meant in the twelfth century days of elaborate work.

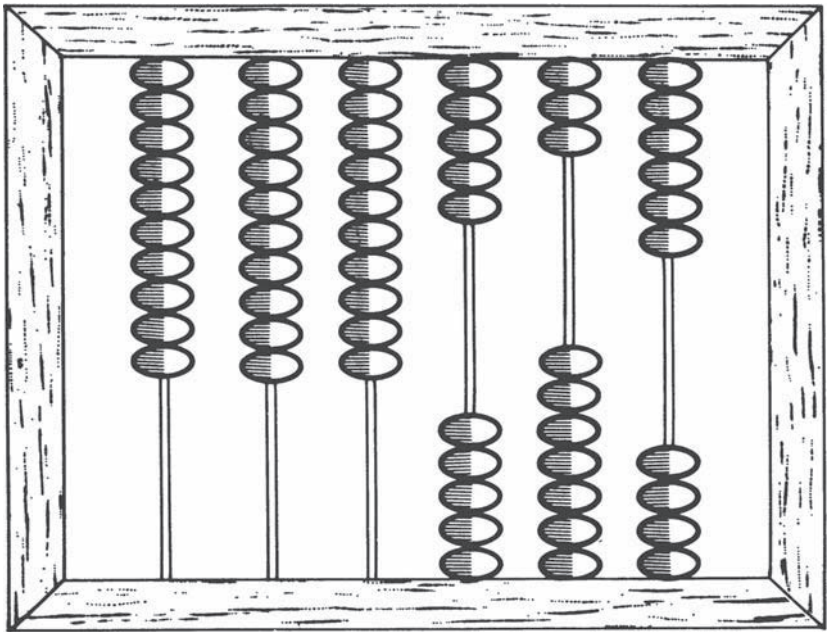
The greatly increased facility with which the average man today manipulates number has been often taken as proof of the growth of the human intellect. The truth of the matter is that the difficulties then experienced were inherent in the numeration in use, a numeration not susceptible to simple, clear-cut rules. The discovery of the modern positional numeration did away with these obstacles and made arithmetic accessible even to the dullest mind.

7. The growing complexities of life, industry and commerce, of landed property and slave-holding, of taxation and military organization—all called for calculations more or less intricate, but beyond the scope of the finger technique. The rigid, unwieldy numeration was incapable of meeting the demand. How did man, in the five thousand years of his civilized existence which preceded modern numeration, counter these difficulties?

The answer is that from the very outset he had to resort to mechanical devices which vary in form with place and age but are all the same in principle. The scheme can be typified by the curious method of counting an army which has been found in Madagascar. The soldiers are made to file through a narrow passage, and one pebble is dropped for each. When 10 pebbles are counted, a pebble is cast into another pile representing tens, and the counting continues. When 10 pebbles are amassed in the second pile, a pebble is cast into a third pile representing hundreds, and so on until all the soldiers have been accounted for.

From this there is but one step to the *counting board* or *abacus* which in one form or another has been found in practically every country where a counting technique exists. The abacus in its general form consists of a flat board divided into a series of parallel columns, each column representing a distinct decimal class, such as units, tens, hundreds, etc. The board is provided with a set of counters which are used to indicate the number of units in each class. For instance, to represent 574 on the abacus, 4 counters are put on the last column, 7 counters on the next to the last and 5 on the third to the last column. (See figure on page 184.)

The many counting boards known differ merely in the construction of the columns and in the type of counters used. The Greek and Roman types had loose counters, while the Chinese Suan-Pan of today has perforated balls sliding on slender bamboo rods. The Russian Szczety, like the Chinese variety, consists of a wooden frame on which is mounted a



A Schematic Drawing of a Counting Board

series of wire rods with sliding buttons for counters. Finally, it is more than probable that the ancient Hindu dust board was also an abacus in principle, the part of the counters here being played by erasable marks written on sand.

The origin of the word abacus is not certain. Some trace it to the Semitic *abac*, dust; others believe that it came from the Greek *abax*, slab. The instrument was widely used in Greece, and we find references to it in Herodotus and Polybius. The latter, commenting on the court of Philip II of Macedonia in his *Historia*, makes this suggestive statement:

> Like counters on the abacus which at the pleasure of the calculator may at one moment be worth a talent and the next moment a chalcus, so are the courtiers at their King's nod at one moment at the height of prosperity and at the next objects of human pity.

To this day the counting board is in daily use in the rural districts of Russia and throughout China, where it persists in open competition with modern calculating devices. But in Western Europe and America the abacus survived as a mere curiosity which few people have seen except in pictures. Few realize how extensively the abacus was used in their own countries only a few hundred years ago, where after a fashion it man-

aged to meet the difficulties which were beyond the power of a clumsy numeration.

8. One who reflects upon the history of reckoning up to the invention of the principle of position is struck by the paucity of achievement. This long period of nearly five thousand years saw the fall and rise of many a civilization, each leaving behind it a heritage of literature, art, philosophy and religion. But what was the net achievement in the field of reckoning, the earliest art practiced by man? An inflexible numeration so crude as to make progress well-nigh impossible, and a calculating device so limited in scope that even elementary calculations called for the services of an expert. And what is more, man used these devices for thousands of years without making a single worthwhile improvement in the instrument, without contributing a single important idea to the system!

This criticism may sound severe; after all it is not fair to judge the achievements of a remote age by the standards of our own time of accelerated progress and feverish activity. Yet, even when compared with the slow growth of ideas during the Dark Ages, the history of reckoning presents a peculiar picture of desolate stagnation.

When viewed in this light, the achievement of the unknown Hindu who sometime in the first centuries of our era discovered the principle of position assumes the proportions of a world event. Not only did this principle constitute a radical departure in method, but we know now that without it no progress in arithmetic was possible. And yet the principle is so simple that today the dullest schoolboy has no difficulty in grasping it. In a measure, it is suggested by the very structure of our number language. Indeed, it would appear that the first attempt to translate the action of the counting board into the language of numerals ought to have resulted in the discovery of the principle of position.

Particularly puzzling to us is the fact that the great mathematicians of classical Greece did not stumble on it. Is it that the Greeks had such a marked contempt for applied science, leaving even the instruction of their children to the slaves? But if so, how is it that the nation which gave us geometry and carried this science so far did not create even a rudimentary algebra? Is it not equally strange that algebra, that cornerstone of modern mathematics, also originated in India and at about the same time when positional numeration did?

9. A close examination of the anatomy of our modern numeration may shed light on these questions. The principle of position consists in giving

the numeral a value which depends not only on the member of the natural sequence it represents, but also on the position it occupies with respect to the other symbols of the group. Thus, the same digit 2 has different meanings in the three numbers 342, 725, 269: in the first case it stands for two; in the second for twenty; in the third for two hundred. As a matter of fact 342 is just an abbreviation for three hundred plus four tens plus two units.

But that is precisely the scheme of the counting board, where 342 is represented by

And, as I said before, it would seem that it is sufficient to translate this scheme into the language of numerals to obtain substantially what we have today.

True! But there is one difficulty. Any attempt to make a permanent record of a counting-board operation would meet the obstacle that such an entry as ≡ = may represent any one of several numbers: 32, 302, 320, 3,002, and 3,020 among others. In order to avoid this ambiguity it is essential to have some method of representing the gaps, *i.e.*, what is needed is a *symbol for an empty column.*

We see therefore that no progress was possible until a symbol was invented for an *empty* class, a symbol for *nothing*, our modern *zero.* The concrete mind of the ancient Greeks could not conceive the void as a number, let alone endow the void with a symbol.

And neither did the unknown Hindu see in zero the symbol of nothing. The Indian term for zero was *sunya*, which meant "empty" or "blank," but had no connotation of "void" or "nothing." And so, from all appearances, the discovery of zero was an accident brought about by an attempt to make an unambiguous permanent record of a counting-board operation.

10. How the Indian *sunya* became the zero of today constitutes one of the most interesting chapters in the history of culture. When the Arabs of the tenth century adopted the Indian numeration, they translated the Indian *sunya* by their own, *sifr*, which meant "empty" in Arabic. When the Indo-Arabic numeration was first introduced into Italy, *sifr* was latinized into *zephirum.* This happened at the beginning of the thirteenth century, and in the course of the next hundred years the word underwent a series of changes which culminated in the Italian *zero.*

About the same time Jordanus Nemerarius was introducing the Arabic

system into Germany. He kept the Arabic word, changing it slightly to *cifra*. That for some time in the learned circles of Europe the word *cifra* and its derivatives denoted zero is shown by the fact that the great Gauss, the last of the mathematicians of the nineteenth century who wrote in Latin, still used *cifra* in this sense. In the English language the word *cifra* has become *cipher* and has retained its original meaning of zero.

The attitude of the common people toward this new numeration is reflected in the fact that soon after its introduction into Europe, the word *cifra* was used as a secret sign; but this connotation was altogether lost in the succeeding centuries. The verb *decipher* remains as a monument of these early days.

The next stage in this development saw the new art of reckoning spread more widely. It is significant that the essential part played by zero in this new system did not escape the notice of the masses. Indeed, they identified the whole system with its most striking feature, the *cifra*, and this explains how this word in its different forms, *ziffer, chiffre,* etc., came to receive the meaning of numeral, which it has in Europe today.

This double meaning, the popular *cifra* standing for numeral and the *cifra* of the learned signifying zero, caused considerable confusion. In vain did scholars attempt to revive the original meaning of the word: the popular meaning had taken deep root. The learned had to yield to popular usage, and the matter was eventually settled by adopting the Italian zero in the sense in which it is used today.

The same interest attaches to the word *algorithm*. As the term is used today, it applies to any mathematical procedure consisting of an indefinite number of steps, each step applying to the result of the one preceding it. But between the tenth and fifteenth centuries *algorithm* was synonymous with positional numeration. We now know that the word is merely a corruption of Al Kworesmi, the name of the Arabian mathematician of the ninth century whose book (in Latin translation) was the first work on this subject to reach Western Europe.

11. Today, when positional numeration has become a part of our daily life, it seems that the superiority of this method, the compactness of its notation, the ease and elegance it introduced in calculations, should have assured the rapid and sweeping acceptance of it. In reality, the transition, far from being immediate, extended over long centuries. The struggle between the Abacists, who defended the old traditions, and the Algorists, who advocated the reform, lasted from the eleventh to the fifteenth century and went through all the usual stages of obscurantism and reac-

tion. In some places Arabic numerals were banned from official documents; in others, the art was prohibited altogether. And, as usual, prohibition did not succeed in abolishing, but merely served to spread bootlegging, ample evidence of which is found in the thirteenth-century archives of Italy, where, it appears, merchants were using the Arabic numerals as a sort of secret code.

Yet, for a while reaction succeeded in arresting the progress and in hampering the development of the new system. Indeed, little of essential value or of lasting influence was contributed to the art of reckoning in these transition centuries. Only the outward appearance of the numerals went through a series of changes; not, however, from any desire for improvement, but because the manuals of these days were handwritten. In fact, the numerals did not assume a stable form until the introduction of printing. It can be added parenthetically that so great was the stabilizing influence of printing that the numerals of today have essentially the same appearance as those of the fifteenth century.

12. As to the final victory of the Algorists, no definite date can be set. We do know that at the beginning of the sixteenth century the supremacy of the new numeration was incontestable. Since then progress was unhampered, so that in the course of the next hundred years all the rules of operations, both on integers and on common and decimal fractions, reached practically the same scope and form in which they are taught today in our schools.

Another century, and the Abacists and all they stood for were so completely forgotten that various peoples of Europe began each to regard the positional numeration as its own national achievement. So, for instance, early in the nineteenth century we find that Arabic numerals were called in Germany *Deutsche* with a view to differentiating them from the Roman, which were recognized as of foreign origin.

As to the abacus itself, no traces of it are found in Western Europe during the eighteenth century. Its reappearance early in the nineteenth century occurred under very curious circumstances. The mathematician Poncelet, a general under Napoleon, was captured in the Russian campaign and spent many years in Russia as a prisoner of war. Upon returning to France he brought, among other curios, a Russian abacus. For many years to come, this importation of Poncelet's was regarded as a great curiosity of "barbaric" origin. Such examples of national amnesia abound in the history of culture. How many educated people even today know that only four hundred years ago finger counting was the average

man's only means of calculating, while the counting board was accessible only to the professional calculators of the time?

13. Conceived in all probability as the symbol for an empty column on a counting board, the Indian *sunya* was destined to become the turning point in a development without which the progress of modern science, industry, or commerce is inconceivable. And the influence of this great discovery was by no means confined to arithmetic. By paving the way to a generalized number concept, it played just as fundamental a role in practically every branch of mathematics. In the history of culture the discovery of zero will always stand out as one of the greatest single achievements of the human race.

A great discovery! Yes. But, like so many other early discoveries, which have profoundly affected the life of the race–not the reward of painstaking research, but a gift from blind chance.

The foregoing two selections consist of Chapters I and II from Dantzig's NUMBER: THE LANGUAGE OF SCIENCE.

Leonhard Euler

1707–1783

The story of mathematics during the eighteenth century is centered upon Leonhard Euler. He was the most prolific mathematical author of all time. It has been estimated that sixty to eighty large quarto volumes would be needed for his collected work. Not all of it, however, has stood the meticulous inspection of this century. Armed with the powerful tools invented by Descartes, Newton, and Leibniz, mathematicians of Euler's day were busy and optimistic, unhampered by the wary self-criticism of modern times.

Euler was born in 1707, at Basel in Switzerland. He received the degree of Master of Arts from the University of Basel at the age of seventeen. Three years later he was invited to join the Academy at St. Petersburg (Leningrad).

In those days mathematicians were frequently connected with a royal court. Euler held such posts successively under Catherine I of Russia, Frederick the Great of Prussia, and Catherine the Great of Russia. Royal patronage was not always predictable, but esteem for learning crossed national lines. When a Russian army invaded Germany in 1760 and pillaged a farm belonging to Euler, his losses were immediately made good by the Russian Empress.

Notes from the artist: "A portrait of Euler against a background comprising three of his mathematical conclusions. At the top is his discovery of the formula expressing the relationship of e, π, *and* i, *followed by eight, and part of the ninth, of the Eulerian numbers. Opposite his profile is a suggestion of a 'magic' square of the order of ten, representing an arrangement of numerical relationships that Euler believed could not exist. . . . He was not disproved until 1959."*

LEONHARD
EULER

Euler enriched mathematics in every department. He is considered one of the founders of modern analysis. Although his energy was as remarkable as his genius, he overtaxed himself. His last years were spent in total blindness. Despite this handicap he continued his labors, aided by his powerful memory. His productivity continued until his death in 1783.

Topology (*geometria situs*) has been called rubber-sheet geometry. It examines geometric properties that are unaffected when we stretch or twist or otherwise change an object's size and shape. Euler's memoir on the Königsberg bridges is one of the foundation stones of this branch of mathematics. *The Seven Bridges of Königsberg* resulted from what might be called mathematical recreation. But the small amusement of the Königsberg townsfolk disclosed an important scientific principle to Euler.

It is interesting to notice the importance of the symbols used in solving this problem. The symbols themselves suggest relationships between the bridges and the land areas that are not apparent from inspection of the picture. N. R. Campbell has written of this aspect of mathematical analysis.

Mathematical puzzles often lead to important discoveries, but they need no excuse beyond intellectual delight. You may want to stop at the end of paragraph fifteen and try to discover for yourself the simplification mentioned by Euler.

The Seven Bridges of Königsberg

1.

The branch of geometry that deals with magnitudes has been zealously studied throughout the past, but there is another branch that has been almost unknown up to now; Leibniz spoke of it first, calling it the "geometry of position" (*geometria situs*). This branch of geometry deals with relations dependent on position alone, and investigates the properties of position; it does not take magnitudes into consideration, nor does it involve calculation with quantities. But as yet no satisfactory definition has been given of the problems that belong to this geometry of position or of the method to be used in solving them. Recently there was announced a problem that, while it certainly seemed to belong to geometry, was nevertheless so designed that it did not call for the determination of a magnitude, nor could it be solved by quantitative calculation; consequently I did not hesitate to assign it to the geometry of position, especially since the solution required only the consideration of position, calculation being of no use. In this paper I shall give an account of the method that I discovered for solving this type of problem, which may serve as an example of the geometry of position.

2. The problem, which I understand is quite well known, is stated as follows: In the town of Königsberg in Prussia there is an island A, called "Kneiphof," with the two branches of the river (Pregel) flowing around it, as shown in Fig. 1. There are seven bridges, a, b, c, d, e, f and g, crossing the two branches. The question is whether a person can plan a walk in such a way that he will cross each of these bridges once but not more than once. I was told that while some denied the possibility of doing this and others were in doubt, there were none who maintained that it was actually possible. On the basis of the above I formulated the fol-

lowing very general problem for myself: Given any configuration of the river and the branches into which it may divide, as well as any number of bridges, to determine whether or not it is possible to cross each bridge exactly once.

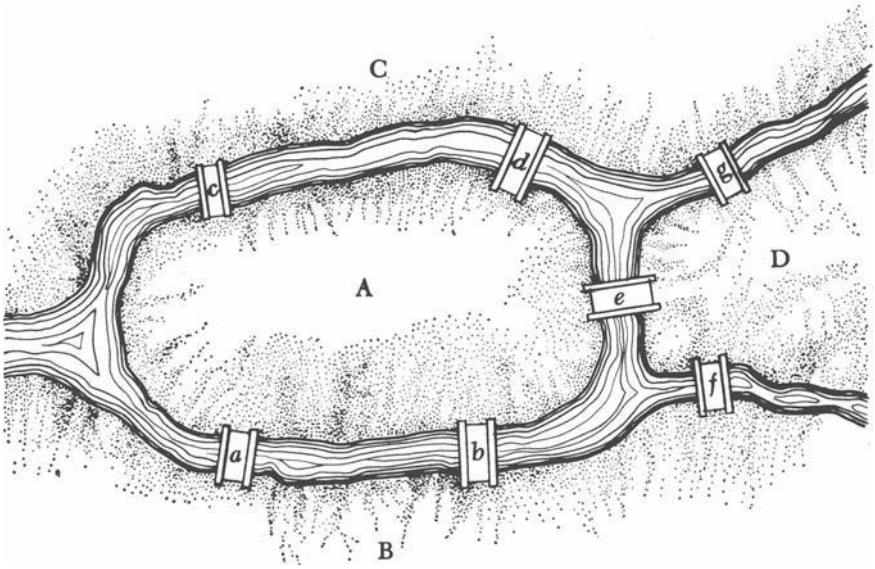


Fig. 1

3. The particular problem of the seven bridges of Königsberg could be solved by carefully tabulating all possible paths, thereby ascertaining by inspection which of them, if any, met the requirement. This method of solution, however, is too tedious and too difficult because of the large number of possible combinations, and in other problems where many more bridges are involved it could not be used at all. When the analysis is undertaken in the manner just described it yields a great many details that are irrelevant to the problem; undoubtedly this is the reason the method is so onerous. Hence I discarded it and searched for another more restricted in its scope; namely, a method which would show only whether a journey satisfying the prescribed condition could in the first instance be discovered; such an approach, I believed, would be much simpler.

4. My entire method rests on the appropriate and convenient way in which I denote the crossing of bridges, in that I use capital letters, A, B, C, D, to designate the various land areas that are separated from one another by the river. Thus when a person goes from area A to area B

across bridge a or b, I denote this crossing by the letters AB, the first of which designates the area whence he came, the second the area where he arrives after crossing the bridge. If the traveller then crosses from B over bridge f into D, this crossing is denoted by the letters BD; the two crossings AB and BD performed in succession I denote simply by the three letters ABD, since the middle letter B designates the area into which the first crossing leads as well as the area out of which the second crossing leads.

5. Similarly, if the traveller proceeds from D across bridge g into C, I designate these three successive crossings by the four letters ABDC. These four letters signify that the traveller who was originally in A crossed over into B, then to D, and finally to C; and since these areas are separated from one another by the river the traveller must necessarily have crossed three bridges. The crossing of four bridges will be represented by five letters, and if the traveller crosses an arbitrary number of bridges his journey will be described by a number of letters that is one greater than the number of bridges. For example, eight letters are needed to denote the crossing of seven bridges.

6. With this method I pay no attention to which bridges are used; that is to say, if the crossing from one area to another can be made by way of several bridges it makes no difference which one is used, so long as it leads to the desired area. Thus if a route could be laid out over the seven Königsberg bridges so that each bridge were crossed once and only once, we would be able to describe this route by using eight letters, and in this series of letters the combination AB (or BA) would have to occur twice, since there are two bridges a and b, connecting the regions A and B; similarly the combination AC would occur twice, while the combinations AD, BD, and CD would each occur once.

7. Our question is now reduced to whether from the four letters A, B, C, and D a series of eight letters can be formed in which all the combinations just mentioned occur the required number of times. Before making the effort, however, of trying to find such an arrangement we do well to consider whether its existence is even theoretically possible or not. For if it could be shown that such an arrangement is in fact impossible, then the effort expended on finding it would be wasted. Therefore I have sought for a rule that would determine without difficulty as regards this and all similar questions whether the required arrangement of letters is feasible.

8. For the purpose of finding such a rule I take a single region A into which an arbitrary number of bridges, a, b, c, d, etc., leads (Fig. 2).

Of these bridges I first consider only a. If the traveller crosses this bridge he must either have been in A before crossing or have reached A after crossing, so that according to the above method of denotation the letter A will appear exactly once. If there are three bridges, a, b, c, leading

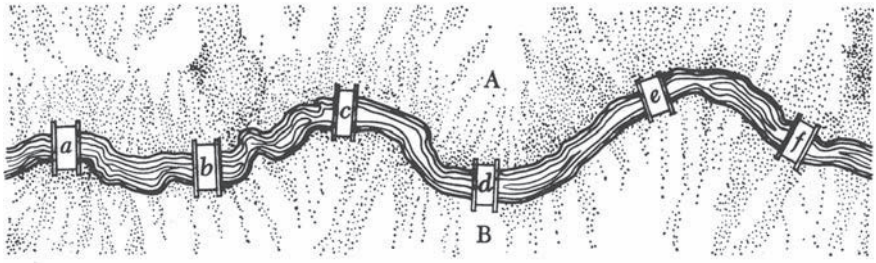


Fig. 2

to A and the traveller crosses all three, then the letter A will occur twice in the expression for his route, whether it begins at A or not. And if there are five bridges leading to A the expression for a route that crosses them all will contain the letter A three times. If the number of bridges is odd, increase it by one, and take half the sum; the quotient represents the number of times the letter A appears.

9. Let us now return to the Königsberg problem (Fig. 1). Since there are five bridges, a, b, c, d, e, leading to (and from) island A, the letter A must occur three times in the expression describing the route. The letter B must occur twice, since three bridges lead to B; similarly D and C must each occur twice. That is to say, the series of eight letters that represents the crossing of the seven bridges must contain A three times and B, C, and D each twice; but this is quite impossible with a series of eight letters. Thus it is apparent that a crossing of the seven bridges of Königsberg in the manner required cannot be effected.

10. Using this method we are always able, whenever the number of bridges leading to a particular region is odd, to determine whether it is possible, in a journey, to cross each bridge exactly once. Such a route exists if the number of bridges plus one is equal to the sum of the numbers that indicate how often each individual letter must occur. On the other hand, if this sum is greater than the number of bridges plus one, as it is in our example, then the desired route cannot be constructed. The rule that I gave (section 8) for determining from the number of bridges that lead to A how often the letter A will occur in the route description is independent of whether these bridges all come from a single region B, as in Fig. 2, or from several regions, because I am considering only the

region A, and attempting to determine how often the letter A must occur.

11. When the number of bridges leading to A is even, we must take into account whether the route begins in A or not. For example, if there are two bridges that lead to A and the route starts from A, then the letter A will occur twice, once to indicate the departure from A by one of the bridges and a second time to indicate the return to A by the other bridge. However, if the traveller starts his journey in another region, the letter A will occur only once, since by my method of description the single occurrence of A indicates an entrance into as well as a departure from A.

12. Suppose, as in our case, there are four bridges leading into the region A, and the route is to begin at A. The letter A will then occur three times in the expression for the whole route, while if the journey had started in another region, A would occur only twice. With six bridges leading to A the letter A will occur four times if A is the starting point, otherwise only three times. In general, if the number of bridges is even, the number of occurrences of the letter A, when the starting region is not A, will be half the number of the bridges; one more than half, when the route starts from A.

13. Every route must, of course, start in some one region, thus from the number of bridges that lead to each region I determine the number of times that the corresponding letter will occur in the expression for the entire route as follows: When the number of the bridges is odd I increase it by one and divide by two; when the number is even I simply divide it by two. Then if the sum of the resulting numbers is equal to the actual number of bridges plus one, the journey can be accomplished, though it must start in a region approached by an odd number of bridges. But if the sum is one less than the number of bridges plus one, the journey is feasible if its starting point is a region approached by an even number of bridges, for in that case the sum is again increased by one.

14. My procedure for determining whether in any given system of rivers and bridges it is possible to cross each bridge exactly once is as follows: 1. First I designate the individual regions separated from one another by the water as A, B, C, etc. 2. I take the total number of bridges, increase it by one, and write the resulting number uppermost. 3. Under this number I write the letters A, B, C, etc., and opposite each of these I note the number of bridges that lead to that particular region. 4. I place an asterisk next the letters that have even numbers opposite them. 5. Opposite each even number I write the half of that number and opposite each odd number I write half of the sum formed by that number plus one. 6. I add up the last column of numbers. If the sum is one less

than, or equal to, the number written at the top, I conclude that the required journey can be made. But it must be noted that when the sum is one less than the number at the top, the route must start from a region marked with an asterisk. And in the other case, when these two numbers are equal, it must start from a region that does not have an asterisk.

For the Königsberg problem I would set up the tabulation as follows:

Number of bridges 7, giving 8 (= 7 + 1) bridges

A,	5	3
B,	3	2
C,	3	2
D,	3	2

The last column now adds up to more than 8, and hence the required journey cannot be made.

15. Let us take an example of two islands, with four rivers forming the surrounding water, as shown in Fig. 3. Fifteen bridges, marked a, b, c, d,

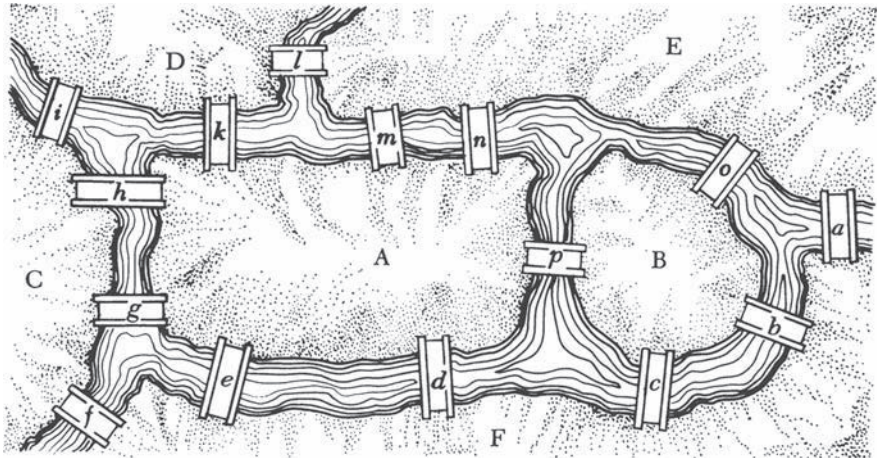


Fig. 3

etc., cross the water around the islands and the adjoining rivers; the question is whether a journey can be arranged that will pass over all the bridges, but not over any of them more than once. 1. I begin by marking all the regions that are separated from one another by the water with the letters A, B, C, D, E, F–there are six of them. 2. I take the number of bridges–15–add one and write this number–16–uppermost. 3. I write the letters A, B, C, etc., in a column and opposite each letter I write the number of bridges connecting with that region, *e.g.*, 8 bridges for A, 4 for B, etc. 4. The letters that have even numbers opposite them

I mark with an asterisk. 5. In a third column I write the half of each corresponding even number, or, if the number is odd, I add one to it, and put down half the sum. 6. Finally I add the numbers in the third column and get 16 as the sum. This is the same as the number 16 that

		16
A*,	8	4
B*,	4	2
C*,	4	2
D,	3	2
E,	5	3
F*,	6	3
		16

appears above, and hence it follows that the journey can be effected if it begins in regions D or E, whose symbols have no asterisk. The following expression represents such a route:

EaFbBcFdAeFfCgAhCiDkAmEnApBoElD.

Here I have also indicated, by small letters between the capitals, which bridges are crossed.

16. By this method we can easily determine, even in cases of considerable complexity, whether a single crossing of each of the bridges in sequence is actually possible. But I should now like to give another and much simpler method, which follows quite easily from the preceding, after a few preliminary remarks. In the first place, I note that the sum of all the numbers of bridges to each region, that are written down in the second column opposite the letters A, B, C, etc., is necessarily double the actual number of bridges. The reason is that in the tabulation of the bridges leading to the various regions each bridge is counted twice, once for each of the two regions that it connects.

17. From this observation it follows that the sum of the numbers in the second column must be an even number, since half of it represents the actual number of bridges. Hence it is impossible for exactly one of these numbers (indicating how many bridges connect with each region) to be odd, or, for that matter, three or five, etc. In other words, if *any* of the numbers opposite the letters A, B, C, etc., are odd, an even number of them must be odd. In the Königsberg problem, for instance, all four of the numbers opposite the letters A, B, C, D were odd, as explained in section 14, while in the example just given (section 15) only two of the numbers were odd, namely those opposite D and E.

18. Since the sum of the numbers opposite A, B, C, etc., is double the number of bridges, it is clear that if this sum is increased by two and then divided by 2 the result will be the number written at the top. When all the numbers in the second column are even, and the half of each is written down in the third column, the total of this column will be one less than the number at the top. In that case it will always be possible to cross all the bridges. For in whatever region the journey begins, there will be an even number of bridges leading to it, which is the requirement. In the Königsberg problem we could, for instance, arrange matters so that each bridge is crossed twice, which is equivalent to dividing each bridge into two, whence the number of bridges leading to each region would be even.

19. Further, when only two of the numbers opposite the letters are odd, and the others even, the required route is possible provided it begins in a region approached by an odd number of bridges. We take half of each even number, and likewise half of each odd number after adding one, as our procedure requires; the sum of these halves will then be one greater than the number of bridges, and hence equal to the number written at the top.

Similarly, where four, six, or eight, etc., of the numbers in the second column are odd it is evident that the sum of the numbers in the third column will be one, two, three, etc., greater than the top number, as the case may be, and hence the desired journey is impossible.

20. Thus for any configuration that may arise the easiest way of determining whether a single crossing of all the bridges is possible is to apply the following rules:

If there are more than two regions which are approached by an odd number of bridges, no route satisfying the required conditions can be found.

If, however, there are only two regions with an odd number of approach bridges, the required journey can be completed provided it originates in one of the regions.

If, finally, there is no region with an odd number of approach bridges, the required journey can be effected, no matter where it begins.

These rules solve completely the problem initially proposed.

21. After we have determined that a route actually exists we are left with the question how to find it. To this end the following rule will serve: Wherever possible we mentally eliminate any two bridges that connect the same two regions; this usually reduces the number of bridges considerably. Then–and this should not be difficult–we proceed to trace the

required route across the remaining bridges. The pattern of this route, once we have found it, will not be substantially affected by the restoration of the bridges which were first eliminated from consideration–as a little thought will show; therefore I do not think I need say more about finding the routes themselves.

Norman Robert Campbell

1880–1949

Norman Robert Campbell was a British physicist and philosopher of science. Born in 1880, he was educated at Eton and at Trinity College, Cambridge. While his researches in physics were highly regarded by his fellow-specialists, he is best known to the general public for his skill in popularizing science. For many years he gave freely of his time to adult education groups. Always clear and original, he had the ability to provoke thoughtful consideration of basic ideas. When he died in 1949 he had published nine books and some eighty-nine research papers.

The selections below are taken from Campbell's book, *What is Science?*, published in 1921. It is part of the effort that has been made in this century to define our mathematical concepts. Further investigations into the idea of number will be found in this volume, in selections from Tobias Dantzig, Bertrand Russell, and the joint work of Edward Kasner and James R. Newman.

For the scientist who undertakes to explain his field to the layman, it is not enough to know the subject thoroughly–he must also be able to imagine what it is like *not* to know the subject. This is especially difficult when what is being examined is the origin of an idea so familiar that its absence is almost unthinkable. In *Measurement*, Campbell surmounts this difficulty by erasing the idea. He provides a clean slate in the form of a pre-numeral measuring system. Then our present-day use of numerals for the process of measuring is shown as a fairly recent invention of the human mind.

The distinction that Campbell makes between "numeral" and "number" is very important. The first is a symbol for the second,

which is a property. Numerals can be added, subtracted, and manipulated in other ways without regard to what properties these numerals represent. As the numerals themselves fall into patterns, it is often valuable to ask whether or not a new pattern is a picture of something that exists in the material world. It is the discovery of these new pictures that makes measurement of such importance to science.

The use of numerals in measurement leads, in the second article, to an examination of numerical laws and the further uses of mathematics in science. And here we see the mathematician as artist. His sense of form, neatness, and beauty tells him when an arrangement of symbols looks good. Feeling that such an attractive array of scrawls should have some counterpart in the physical world, he often finds that they do, and a new scientific law is discovered. Henri Poincaré has written on this aesthetic sense which all great mathematicians have, but has confessed that he could not explain it.

In his repeated wonder that the world conforms to such a great extent to our ideas, Campbell sees logic as something that is inborn in the human mind. Ideas arrived at by intellectual activity may be logically true, but they must be tested by experiment before they can be accepted as descriptions of the way the world actually works.

Campbell is not writing for the mathematician here. He is conscientiously nontechnical. He does more than describe some applications of mathematics to science: he leads you into thinking *about* thinking.

Measurement

Every one knows that measurement is a very important part of many sciences; they know too, that many sciences are "mathematical" and can only be apprehended completely by those versed in mathematics. But very few people could explain exactly how measurement enters into science, why it enters into some and not in others, why it is so important, what mathematics is and why it is so intimately connected with measurement and with the sciences in which measurement is involved. . . . I propose to attempt some answer to these questions. Any answer to these questions that can be attempted here will not, of course, enable anyone to start immediately the study of one of the mathematical sciences in the hope of understanding it completely. But if he can be convinced that even in the most abstruse parts of those sciences there is something that he can comprehend and appreciate without the smallest knowledge of mathematics, something may be done towards extending the range of the sciences that are open to the layman.

What Is Measurement? Measurement is one of the notions which modern science has taken over from common sense. Measurement does not appear as part of common sense until a comparatively high stage of civilization is reached; and even the common-sense conception has changed and developed enormously in historic times. When I say that measurement belongs to common sense, I only mean that it is something with which every civilized person to-day is entirely familiar. It may be defined, in general, as the assignment of numbers to represent properties. If we say that the time is 3 o'clock, that the price of coal is 56 shillings a ton, and that we have just bought 2 tons of it–in all such cases we are using numbers to convey important information about the "properties" of the day, of coal in general, of the coal in our cellar, or so on; and our statement depends somehow upon measurement.

The first point I want to notice is that it is only some properties and not all that can be thus represented by numbers. If I am buying a sack of

potatoes I may ask what it weighs and what it costs; to those questions I shall expect a number in answer; it weighs 56 lbs. and costs 5 shillings. But I may also ask of what variety the potatoes are, and whether they are good cookers; to those questions I shall not expect a number in answer. The dealer may possibly call the variety "No. 11" in somebody's catalogue; but even if he does, I shall feel that such use of a number is not real measurement, and is not of the same kind as the use in connection with weight or cost. What is the difference? Why are some properties measurable and others not? Those are the questions I want to discuss. And I will outline the answer immediately in order that the reader may see at what the subsequent discussion is aiming. The difference is this. Suppose I have two sacks of potatoes which are identical in weight, cost, variety, and cooking qualities; and that I pour the two sacks into one so that there is now only one sack of potatoes. This sack will differ from the two original sacks in weight and cost (the measurable properties), but will not differ from them in variety and cooking qualities (the properties that are not measurable). The measurable properties of a body are those which are changed by the combination of similar bodies; the non-measurable properties are those that are not changed. We shall see that this definition is rather too crude, but it will serve for the present.

Numbers. In order to see why this difference is so important we must inquire more closely into the meaning of "number." And at the outset we must note that confusion is apt to arise because that word is used to denote two perfectly different things. It sometimes means a mere name or word or symbol, and it sometimes means a property of an object. Thus, besides the properties which have been mentioned, the sack of potatoes has another definite property, namely the number of potatoes in it, and the number is as much a property of the object which we call a sack of potatoes as its weight or its cost. This property can be (and must be) "represented by a number" just as the weight can be; for instance, it might be represented by 200. But this "200" is not itself a property of the sack; it is a mere mark on the paper for which would be substituted, if I was speaking instead of writing, a spoken sound; it is a name or symbol for the property. When we say that measurement is the representation of properties by "numbers," we mean that it is the representation of properties, other than number, by the symbols which are always used to represent number. Moreover, there is a separate word for these symbols; they are called "numerals." We shall always use that word in future and confine "number" to the meaning of the property which is always represented by numerals.

These considerations are not mere quibbling over words; they bring out clearly an important point, namely, that the measurable properties of an object must resemble in some special way the property number, since they can be fitly represented by the same symbols; they must have some quality common with number. We must proceed to ask what this common quality is, and the best way to begin is to examine the property number rather more closely.

The number of a sack of potatoes, or, as it is more usually expressed, the number of potatoes contained in it, is ascertained by the process of counting. Counting is inseparably connected in our minds to-day with numerals, but the process can be, and at an earlier stage of civilization was, carried on without them. Without any use of numerals I can determine whether the number of one sack of potatoes is equal to that of another. For this purpose I take a potato from one sack, mark it in some way to distinguish it from the rest (*e.g.* by putting it into a box), and then perform a similar operation on a potato from the other sack. I then repeat this double operation continually until I have exhausted the potatoes from one sack. If the operation which exhausts the potatoes from one sack exhausts also the potatoes from the other, then I know that the sacks had the same number of potatoes; if not, then the sack which is not exhausted had a larger number of potatoes than the other.

The Rules for Counting. This process could be applied equally well if the objects counted against each other were not of the same nature. The potatoes in a sack can be counted, not only against another collection of potatoes, but also against the men in a regiment or against the days in the year. The "mark," which is used for distinguishing the objects in the process of counting, may have to be altered to suit the objects counted, but some other suitable mark could be found which would enable the process to be carried out. If, having never heard of counting before, we applied the process to all kinds of different objects, we should soon discover certain rules which would enable us to abbreviate and simplify the process considerably. These rules appear to us to-day so obvious as to be hardly worth stating, but as they are undoubtedly employed in modern methods of counting, we must notice them here. The first is that if two sets of objects, when counted against a third set, are found to have the same number as that third set, then, when counted against each other they will be found to have the same number. This rule enables us to determine whether two sets of objects have the same number without bringing them together; if I want to find out whether the number of potatoes in the sack I propose to buy is the same as that in a sack I have at home, I

need not bring my sack to the shop; I can count the potatoes at the shop against some third collection, take this collection home, and count it against my potatoes. Accordingly the discovery of this first rule immediately suggests the use of portable collections which can be counted, first against one collection and then against another, in order to ascertain whether these two have the same number.

The value of this suggestion is increased greatly by the discovery of a second rule. It is that by starting with a single object and continually adding to it another single object, we can build up a series of collections of which one will have the same number as any other collection whatsoever. This rule helps us in two ways. First, since it states that it is possible to make a standard series of collections one of which will have the same number as any other collection, it suggests that it might be well to count collections, not against each other, but against a standard series of collections. If we could carry this standard series about with us, we could always ascertain whether any one collection had the same number as any other by observing whether the member of the standard series which had the same number as the first had also the same number as the second. Next, it shows us how to make such a standard series with the least possible cumbrousness. If we had to have a totally different collection for each member of the standard series, the whole series would be impossibly cumbrous; but our rule shows that the earlier members of the series (that is those with the smaller number) may be all parts of the later members. Suppose we have a collection of objects, each distinguishable from each other, and agree to take one of these objects as the first member of the series; this object together with some other as the next member; these objects with yet another as the next member; and so on. Then we shall obtain, according to our rule, a series, some member of which has the same number as any other collection we want to count, and yet the number of objects, in all the members of the standard series taken together, will not be greater than that of the largest collection we want to count.

And, of course, this is the process actually adopted. For the successive members of the standard series compounded in this way, primitive man chose, as portable, distinguishable objects, his fingers and toes. Civilized man invented numerals for the same purpose. Numerals are simply distinguishable objects out of which we build our standard series of collections by adding them in turn to previous members of the series. The first member of our standard series is 1, the next 1, 2, the next 1, 2, 3 and so on. We count other collections against these members of the standard

series and so ascertain whether or no two collections so counted have the same number. By an ingenious convention we describe which member of the series has the same number as a collection counted against it by quoting simply the last numeral in that member; we describe the fact that the collection of the days of the week has the same number as the collection 1, 2, 3, 4, 5, 6, 7, by saying "that the number" of the days of the week is 7. But when we say that what we really mean, and what is really important, is that this collection has the same number as the collection of numerals (taken in the standard order) which ends in 7 and the same number as any other collection which also has the same number as the collection of numerals which ends in 7.[1]

The two rules that have been mentioned are necessary to explain what we mean by "the number" of a collection and how we ascertain that number. There is a third rule which is of great importance in the use of numbers. We often want to know what is the number of a collection which is formed by combining two other collections of which the numbers are known, or, as it is usually called, adding the two collections. For instance we may ask what is the number of the collection made by adding a collection of 2 objects to a collection of 3 objects. We all know the answer, 5. It can be found by arguing thus: The first collection can be counted against the numerals 1, 2; the second against the numerals 1, 2, 3. But the numerals 1, 2, 3, 1, 2, a collection formed by adding the two first collections, can be counted against 1, 2, 3, 4, 5. Therefore the number of the combined collection is 5. However, a little examination will show that in reaching this conclusion we have made use of another rule, namely that if two collections A and *a*, have the same number, and two other collections B and *b*, have the same number, then the collection formed by adding A to B has the same number as that formed by adding *a* to *b;* in other words, equals added to equals produce equal sums. This is a third rule about numbers and counting; it is quite as important as the other two rules; all three are so obvious to us to-day that we never think about them, but they must have been definitely discovered at some time

1. Numerals have also an immense advantage over fingers and toes as objects of which the standard series may be formed, in that the series can be extended indefinitely by a simple rule which automatically gives names to any new numerals that may be required. Even if we have never hitherto had reason to carry the series beyond (say) 131679 in order to count all the collections we have met with, when we do meet at last with a larger collection, we know at once that the objects we must add to our standard series are 131680, 131681, and so on. This is a triumph of conventional nomenclature, much more satisfactory than the old convention that when we have exhausted our fingers we must begin on our toes, but it is not essentially different.

in the history of mankind, and without them all, our habitual use of numbers would be impossible.

What Properties Are Measurable? And now, after this discussion of number, we can return to the other measurable properties of objects which, like number, can be represented by numerals. We can now say more definitely what is the characteristic of these properties which makes them measurable. It is that there are rules true of these properties, closely analogous to the rules on which the use of number depends. If a property is to be measurable it must be such that (1) two objects which are the same in respect of that property as some third object are the same as each other; (2) by adding objects successively we must be able to make a standard series one member of which will be the same in respect of the property as any other object we want to measure; (3) equals added to equals produce equal sums. In order to make a property measurable we must find some method of judging equality and of adding objects, such that these rules are true.

Let me explain what is meant by using as an example the measurable property, weight.

Weight is measured by the balance. Two bodies are judged to have the same weight if, when they are placed in opposite pans, neither tends to sink; and two bodies are added in respect of weight when they are both placed on the same pan of the balance. With these definitions of equality and addition, it is found that the three rules are obeyed. (1) If the body A balances the body B, and B balances C, then A balances C. (2) By placing a body in one pan and continually adding it to others, collections can be built up which will balance any other body placed in the other pan. (3) If the body A balances the body B, and C balances D, then A and C in the same pan will balance B and D in the other pan. To make the matter yet clearer let us take another measurable property, length. Two straight rods are judged equal in length, if they can be placed so that both ends of one are contiguous to both ends of the other; they are added in respect of length, when they are placed with one end of one contiguous with one end of the other, while the two form a single straight rod. Here again we find the three rules fulfilled. Bodies which are equal in length to the same body are equal in length to each other. By adding successively rods to each other, a rod can be built up which is equal to any other rod. And equal rods added to equal rods produce equal rods. Length is therefore a measurable property.

It is because these rules are true that measurement of these properties is useful and possible; it is these rules that make the measurable prop-

erties so similar to numbers, that it is possible and useful to represent them by numerals the primary purpose of which is to represent numbers. It is because of them that it is possible to find one, and only one numeral, which will fitly represent each property; and it is because of them, that these numerals, when they are found, tell us something useful about the properties. One such use arises in the combination of bodies possessing the properties. We may want to know how the property varies when bodies possessing it are added in the way characteristic of measurement. When we have assigned numerals to represent the property we shall know that the body with the property 2 added to that with the property 3 will have the same property as that with the property 5, or as the combination of the bodies with properties 4 and 1. This is not the place to examine exactly how these conclusions are shown to be universally valid; but they are valid only because the three rules are true.

The Laws of Measurement. But what is the nature of these rules? They are laws established by definite experiment. The word "rule" has been used hitherto, because it is not quite certain whether they are truly laws in their application to number; but they certainly are laws in their application to other measurable properties, such as weight or length. The fact that the rules are true can be, and must be, determined by experiment in the same way as the fact that any other laws are true. Perhaps it may have appeared to the reader that the rules must be true; that it requires no experiment to determine that bodies which balance the same body will balance each other; and that it is inconceivable that this rule should not be true. But I think he will change his opinion if it is pointed out that the rule is actually true only in certain conditions; for instance, it is only true if the balance is a good one, and has arms of equal length and pans of equal weight. If the arms were unequal, the rule would not be found to be true unless it were carefully prescribed in which pan the bodies were placed during the judgment of equality. Again, the rules would not be true of the property length, unless the rods were straight and were rigid. In implying that the balance is good, and the rods straight and rigid, we have implied definite laws which must be true if the properties are to be measurable, namely that it is possible to make a perfect balance, and that there are rods which are straight and rigid. These are experimental laws; they could not be known apart from definite experiment and observation of the external world; they are not self-evident.

Accordingly the process of discovering that a property is measurable in the way that has been described, and setting up a process for measur-

ing it, is one that rests entirely upon experimental inquiry. It is a part, and a most important part, of experimental science. Whenever a new branch of physics is opened up (for, as has been said, physics is the science that deals with such processes of measurement), the first step is always to find some process for measuring the new properties that are investigated; and it is not until this problem has been solved, that any great progress can be made along the branch. Its solution demands the discovery of new laws. We can actually trace the development of new measurable properties in this way in the history of science. Before the dawn of definite history, laws had been discovered which made measurable some of the properties employed by modern science. History practically begins with the Greeks, but before their time the properties, weight, length, volume, and area had been found to be measurable; the establishment of the necessary laws had probably occurred in the great period of Babylonian and Egyptian civilization. The Greeks, largely in the person of Archimedes, found how to measure force by establishing the laws of the lever, and other mechanical systems. Again from the earliest era, there have been rough methods of measuring periods of time,[2] but a true method, really obeying the three rules, was not discovered till the seventeenth century; it arose out of Galileo's laws of the pendulum. Modern science has added greatly to the list of measurable properties; the science of electricity is based on the discovery, by Cavendish and Coulomb, of the law necessary to measure an electric charge; on the laws, discovered by Öersted and Ampère, necessary to measure an electric current; and on the laws, discovered by Ohm and Kirchhoff, necessary to measure electrical resistance. And the discovery of similar laws has made possible the development of other branches of physics.

But, it may be asked, has there ever been a failure to discover the necessary laws? The answer is that there are certainly many properties which are not measurable in the sense that we have been discussing; there are more properties, definitely recognized by science, that are not so measurable than are so measurable. But, as will appear presently, the very nature of these properties makes it impossible that they should be measured in this way. For the only properties to which this kind of measurement seems conceivably applicable, are those which fulfil the condition stated provisionally on p. 205; they must be such that the combina-

2. By a period of time I mean the thing that is measured when we say that it took us 3 hours to do so-and-so. This is a different "time" from that which is measured when we say it is 3 o'clock. The difference is rather abstruse and cannot be discussed here; but it may be mentioned that the "measurement" involved in "3 o'clock" is more like that discussed later in the chapter.

tion of objects possessing the property increases that property. For this is the fundamental significance of the property number; it is something that is increased by addition; any property which does not agree with number in this matter cannot be very closely related to number and cannot possibly be measured by the scheme that has been described. But it will be seen that fulfilment of this condition only makes rule (2) true; it is at least conceivable that a property might obey rule (2) and not rules (1) and (3). Does that ever happen, or can we always find methods of addition and of judging equality such that, if rule (2) is true, the laws are such that rules (1) and (3) are also true? In the vast majority of cases we can find such methods and such laws; and it is a very remarkable fact that we can; it is only one more instance of the way in which nature kindly falls in with our ideas of what ought to be. But I think there is one case in which the necessary methods and laws have not yet been found and are not likely to be found. It is a very difficult matter concerning which even expert physicists might differ, and so no discussion of it can be entered on here. But it is mentioned in order to impress the reader with the fact that measurement does depend upon experimental laws; that it does depend upon the facts of the external world; and that it is not wholly within our power to determine whether we will or will not measure a certain property. That is the feature of measurement which it is really important to grasp for a proper understanding of science.

Multiplication. Before we pass to another kind of measurement reference must be made to a matter which space does not allow to be discussed completely. In stating the rules that were necessary in order that weight should be measurable (p. 209), it was said that a collection having the same weight as any given body could be made by adding other bodies to that first selected. Now this statement is not strictly true; it is only true if the body first selected has a smaller weight than any other body it is desired to weigh; and even if this condition is fulfilled, it is not true if the bodies added successively to the collection are of the same weight as that first selected. Thus if my first body weighs 1 lb., I cannot by adding to it make a collection which weighs less than 1 lb., and by adding bodies which each weigh 1 lb., I cannot make a collection which has the same weight as a body weighing (say) 2½ lb.

These facts, to which there is no true analogy in connection with number, force us to recognize "fractions." A considerable complication is thereby introduced, and the reader must accept my assurance that they can all be solved by simple developments of the process of measurement that has been sketched. But for a future purpose it is necessary to notice

very briefly the processes of the multiplication and division of magnitudes on which the significance of fractions depends.

Suppose I have a collection of bodies, each of which has the same weight 3, the number of bodies in the collection being 4. I may ask what is the weight of the whole collection. The answer is given of course by multiplying 3 by 4, and we all know now that the result of that operation is 12. That fact, and all the other facts summed up in the multiplication table which we learn at school, can be proved from the rules on which weighing depend together with facts determined by counting numerals. But the point I want to make is that multiplication represents a definite experimental operation, namely the combination into a single collection, placed on one pan of the balance, of a set of bodies, all of the same weight, the number of those bodies being known. Division arises directly out of multiplication. In place of asking what will be the weight of a collection formed of a given number of bodies all of the same weight, we ask what must be the weight of each of a collection of bodies, having a given number, when the whole collection has a given weight. *E.g.*, what must each body weigh in order that the whole collection of 4 bodies weighs 12? The answer is obtained by dividing 12 by 4. That answer is obtained, partly from the multiplication table, partly by inventing new numerals which we call fractions; but once again division corresponds to a definite experimental operation and has its primary significance because it corresponds to that operation. This is this conclusion that we shall use in the sequel. But it is worth while noting that the fractions which we obtain by this method of addition overcome the difficulty from which this paragraph started. If we make all possible fractions of our original weight (*i.e.*, all possible bodies, such that some number of them formed into a single collection have the same weight as the original body), then, by adding together suitable collections of these fractions, we can make up a collection which will have the same weight as any body whatever that we desire to weigh. This result is an experimental fact which could not have been predicted without experimental inquiry. And the result is true, not only for the measurable property weight, but for all properties measurable by the process that is applicable to weight. Once more we see how much simpler and more conveniently things turn out than we have really any right to expect; measurement would have been a much more complex business if the law that has just been stated were not always true.

Derived Measurement. Measurement, it was said on p. 204, is the assignment of numbers (or, as we say now, numerals) to represent proper-

ties. We have now considered one way in which this assignment is made, and have brought to light the laws which must be true if this way is to be possible. And it is the fundamental way. We are now going to consider some other ways in which numerals are assigned to represent properties; but it is important to insist at the outset, and to remember throughout, that these other ways are wholly dependent upon the fundamental process, which we have just been discussing, and must be so dependent if the numerals are to represent "real properties" and to tell us something scientifically significant about the bodies to which they are attached. This statement is confirmed by history; all properties measured in the definitely pre-scientific era were measured (or at least measurable) by the fundamental process; that is true of weight, length, volume, area and periods of time. The dependent measurement, which we are now about to consider, is a product of definitely and consciously scientific investigation, although the actual discovery may, in a few cases, be lost in the mists of the past.

The property which we shall take as an example of this dependent or, as it will be termed, derived measurement, is *density*. Every one has some idea of what density means and realizes, vaguely at least, why we say that iron is denser than wood or mercury than water; and most people probably know how density is measured, and what is meant when it is said that the density of iron is 8 times that of wood, and the density of mercury 13½ times that of water. But they will feel also that there is something more scientific and less purely common-sense about the measurement of density than about the measurement of weight; as a matter of fact the discovery of the measurement of density certainly falls within the historic period and probably may be attributed to Archimedes (about 250 B.C.). And a little reflection will convince them that there is something essentially different in the two processes.

For what we mean when we say a body has a weight 2 is that a body of the same weight can be made by combining 2 bodies of the weight 1; that is the fundamental meaning of weight; it is what makes weight physically important and, as we have just seen, makes it measurable. But when we say that mercury has a density 13½ we do *not* mean that a body of the same density can be prepared by combining 13½ bodies of the density 1 (water). For, if we did mean that, the statement would not be true. However many pieces of water we take, all of the same density, we cannot produce a body with any different density. Combine water with water as we will, the resulting body has the density of water. And this, a little reflection will show, is part of the fundamental meaning

of density; density is something that is characteristic of all pieces of water, large and small. The density of water, a "quality" of it, is something fundamentally independent of and in contrast with the weight of water, the "quantity" of it.

But the feature of density, from which it derives its importance, makes it totally impossible to measure density by the fundamental process discussed earlier in the chapter. How then do we measure it? Before we answer that question, it will be well to put another. As was insisted before, if measurement is really to mean anything, there must be some important resemblance between the property measured, on the one hand, and the numerals assigned to represent it, on the other. In fundamental measurement, this resemblance (or the most important part of it) arises from the fact that the property is susceptible to addition following the same rules as that of number, with which numerals are so closely associated. That resemblance fails here. What resemblance is left?

Measurement and Order. There is left a resemblance in respect of "order." The numerals are characterized, in virtue of their use to represent numbers, by a definite order; they are conventionally arranged in a series in which the sequence is determined: "2" follows "1" and is before "3"; "3" follows "2" and is before "4" and so on. This characteristic order of numerals is applied usefully for many purposes in modern life; we "number" the pages of a book or the houses of a street, not in order to know the number of pages in the book or of houses in the street–nobody but the printer or the rate-surveyor cares about that–but in order to be able to find any given page or house easily. If we want p. 201 and the book opens casually at p. 153 we know in which direction to turn the pages.[3] Order then is characteristic of numerals; it is also characteristic of the properties represented by numerals in the manner we are considering now. This is our feature which makes the "measurement" significant. Thus, in our example, bodies have a natural order of density which is independent of actual measurement. We might define the words "denser" or "less dense" as applied to liquids (and the definition could easily be extended to solids) by saying that the liquid A is denser than B, and B less dense than A, if a substance can be found which will float in A but not in B. And, if we made the attempt, we should find that by use of this definition we could place all liquids in a definite order, such that each

3. Numerals are also used to represent objects, such as soldiers or telephones, which have no natural order. They are used here because they provide an *inexhaustible* series of names, in virtue of the ingenious device by which new numerals can always be invented when the old ones have been used up.

member of the series was denser than the preceding and less dense than the following member. We might then assign to the first liquid the density 1, to the second 2, and so on; and we should then have assigned numerals in a way which would be physically significant and indicate definite physical facts. The fact that A was represented by 2 and B by 7 would mean that there was some solid body which would float in B, but not in A. We should have achieved something that might fairly be called measurement.

Here again it is important to notice that the possibility of such measurement depends upon definite laws; we could not have predicted beforehand that such an arrangement of liquids was possible unless we knew these laws. One law involved is this: If B is denser than A, and C denser than B, then C is denser than A. That sounds like a truism; but it is not. According to our definition it implies that the following statement is always true: If a body X floats in B and sinks in A, then if another body Y sinks in B it will also sink in A. That is a statement of facts; nothing but experiment could prove that it is true; it is a law. And if it were not true, we could not arrange liquids naturally in a definite order. For the test with X would prove that B was denser than A, while the test with Y (floating in A, but sinking in B) would prove that A was denser than B. Are we then to put A before or after B in the order of density? We should not know. The order would be indeterminate and, whether we assigned a higher or a lower numeral to A than to B, the assignment would represent no definite physical fact: it would be arbitrary.

In order to show that the difficulty might occur, and that it is an experimental law that it does not occur, an instance in which a similar difficulty has actually occurred may be quoted. An attempt has been made to define the "hardness" of a body by saying that A is harder than B if A will scratch B. Thus diamond will scratch glass, glass iron, iron lead, lead chalk, and chalk butter; so that the definition leads to the order of hardness: diamond, glass, iron, lead, chalk, butter. But if there is to be a definite order, it must be true in all cases that if A is harder than B and B than C, then A is harder than C; in other words, if A will scratch B and B C, then A will scratch C. But it is found experimentally that there are exceptions to this rule, when we try to include all bodies within it and not only such simple examples as have been quoted. Accordingly the definition does not lead to a definite order of hardness and does not permit the measurement of hardness.

There are other laws of the same kind that have to be true if the order is to be definite and the measurement significant; but they will not be

given in detail. One of them the reader may discover for himself, if he will consider the property colour. Colour is not a property measurable in the way we are considering, and for this reason. If we take all reds (say) of a given shade, we can arrange them definitely in an order of lightness and darkness; but no colour other than red will fall in this order. On the other hand, we might possibly take all shades and arrange them in order of redness–pure red, orange, yellow, and so on; but in this order there would be no room for reds of different lightness. Colours cannot be arranged in a single order, and it is for this reason that colour is not measurable as is density.

Numerical Laws. But though arrangement in this manner in an order and the assignment of numerals in the order of the properties are to some extent measurement and represent something physically significant, there is still a large arbitrary element involved. If the properties A, B, C, D, are naturally arranged in that order, then in assigning numerals to represent the properties I must *not* assign to A 10, to B 3, to C 25, to D 18; for if I did so the order of the numerals would not be that of the properties. But I have an endless number of alternatives left; I might put A 1, B 2, C 3, D 4; or A 10, B 100, C 1,000, D 10,000; or A 3, B 9, C 27, D 81; and so on. In the true and fundamental measurement of the first part of the chapter there was no such latitude. When I had fixed the numeral to be assigned to one property, there was no choice at all of the numerals to be assigned to the others; they were all fixed. Can I remove this latitude here too and find a way of fixing definitely what numeral is to be assigned to represent each property?

In some cases, I can; and one of these cases is density. The procedure is this. I find that by combining the numerals representing other properties of the bodies, which can be measured definitely according to the fundamental process, I can obtain a numeral for each body, and that these numerals lie in the order of the property I want to measure. If I take these numerals as representing the property, then I still get numerals in the right order, but the numeral for each property is definitely fixed. An example will be clearer than this general statement. In the case of density, I find that if I measure the weight and the volume of a body (both measurable by the fundamental process and therefore definitely fixed), and I divide the weight by the volume, then the numerals thus obtained for different bodies lie in the order of their densities, as density was defined on pp. 215–216. Thus I find that 1 gallon of water weighs 10 lb., but 1 gallon of mercury weighs 135 lb.; the weight divided by the volume for water is 10, for mercury is 135; 135 is greater than 10; accordingly, if the

method is correct, mercury should be denser than water and any body which sinks in mercury should sink in water. And that is actually found to be true. If therefore I take as the measure of the density of a substance, its weight divided by its volume, then I get a number which is definitely fixed,[4] and the order of which represents the order of density. I have arrived at a method of measurement which is as definitely fixed as the fundamental process and yet conveys adequately the physically significant facts about order.

The invention of this process of measurement for properties not suited for fundamental measurement is a very notable achievement of deliberate scientific investigation. The process was not invented by common sense; it was certainly invented in the historic period, but it was not until the middle of the eighteenth century that its use became widespread.[5] Today it is one of the most powerful weapons of scientific investigation; and it is because so many of the properties of importance to other sciences are measured in this way that physics, the science to which this process belongs, is so largely the basis of other sciences. But it may appear exceedingly obvious to the reader, and he may wonder why the invention was delayed so long. He may say that the notion of density, in the sense that a given volume of the denser substance weighs more than the same volume of the less dense, is the fundamental notion; it is what we mean when we speak of one substance being denser (or in popular language "heavier") than another; and that all that has been discovered in this instance is that the denser body, in this sense, is also denser in the sense of pp. 215–216. This in itself would be a very noteworthy discovery, but the reader who raises such an objection has overlooked a yet more noteworthy discovery that is involved.

For we have observed that it is one of the most characteristic features of density that it is the same for all bodies, large and small, made of the same substance. It is this feature which makes it impossible to measure it by the fundamental process. The new process will be satisfactory only if it preserves this feature. If we are going to represent density by the weight divided by the volume, the density of all bodies made of the same sub-

4. Except in so far as I may change the units in which I measure weights and volume. I should get a different number if I measured the volume in pints and the weight in tons. But this latitude in the choice of units introduces a complication which it will be better to leave out of account here. There is no reason why we should not agree once and for all to use the same units; and if we did that the complication would not arise.

5. I think that until the eighteenth century only two properties were measured in this way which were not measurable by the fundamental process, namely density and constant acceleration.

stance will be the same, as it should be, only if for all of them the weight divided by the density is the same, that is to say, in rather more technical language, if the weight is proportional to the density. In adopting the new process for measuring density and assigning numerals to represent it in a significant manner, we are, in fact, assuming that, for portions of the same substance, whether they are large or small, the weight is proportional to the volume. If we take a larger portion of the same substance and thereby double the weight, we must find, if the process of measurement is to be a success, that we also double the volume; and this law must be true for all substances to which the conception of density is applicable at all.

Of course every one knows that this relation is actually true; it is so familiar that we are apt to forget that it is an experimental truth that was discovered relatively late in the history of civilization, which easily might not be true. Perhaps it is difficult to-day to conceive that when we take "more" of a substance (meaning thereby a greater volume) the weight should not increase, but it is quite easy to conceive that the weight should not increase proportionally to the volume; and yet it is upon strict proportionality that the measurement of density actually depends. If the weight had not been proportional to the volume, it might still have been possible to measure density, so long as there was some fixed numerical relation between weight and volume. It is this idea of a fixed numerical relation, or, as we shall call it henceforward, a numerical law, that is the basis of the "derived" process of measurement that we are considering; and the process is of such importance to science because it is so intimately connected with such numerical laws. The recognition of such laws is the foundation of modern physics.

The Importance of Measurement. For why is the process of measurement of such vital importance; why are we so concerned to assign numerals to represent properties. One reason doubtless is that such assignment enables us to distinguish easily and minutely between different but similar properties. It enables us to distinguish between the density of lead and iron far more simply and accurately than we could do by saying that lead is rather denser than iron, but not nearly so dense as gold—and so on. But for that purpose the "arbitrary" measurement of density, depending simply on the arrangements of the substances in their order (pp. 215–216), would serve equally well. The true answer to our question is seen by remembering . . . that the terms between which laws express relationships are themselves based on laws and represent collections of other terms related by laws. When we measure a property, either by the funda-

mental process or by the derived process, the numeral which we assign to represent it is assigned as the result of experimental laws; the assignment implies laws. And therefore, in accordance with our principle, we should expect to find that other laws could be discovered relating the numerals so assigned to each other or to something else; while if we assigned numerals arbitrarily without reference to laws and implying no laws, then we should not find other laws involving these numerals. This expectation is abundantly fulfilled, and nowhere is there a clearer example of the fact that the terms involved in laws themselves imply laws. When we can measure a property truly, as we can volume (by the fundamental process) or density (by the derived process) then we are always able to find laws in which these properties are involved; we find, *e.g.*, the law that volume is proportional to weight or that density determines, in a certain precise fashion, the sinking or floating of bodies. But when we cannot measure it truly, then we do not find a law. An example is provided by the property "hardness" (p. 216); the difficulties met with in arranging bodies in order of hardness have been overcome; but we still do not know of any way of measuring, by the derived process, the property hardness; we know of no numerical law which leads to a numeral which always follows the order of hardness. And so, as we expect, we do not know any accurate and general laws relating hardness to other properties. It is because true measurement is essential to the discovery of laws that it is of such vital importance to science.

One final remark should be made before we pass on. In this chapter there has been much insistence on the distinction between fundamental measurement (such as is applicable to weight) and derived measurement (such as is applicable to density). And the distinction is supremely important, because it is the first kind of measurement which alone makes the second possible. But the reader who, when he studies some science in detail, tries, as he should, to discover which of the two processes is involved in the measurement of the various properties characteristic of that science, may occasionally find difficulty in answering the question. It should be pointed out, therefore, that it is quite possible for a property to be measurable by both processes. For all properties measurable by the fundamental process must have a definite order; for the physical property, number, to which they are so similar, has an order—the order of "more" or "less." This order of number is reflected in the order of the numerals used to represent number. But if it is to be measurable by the derived process, it must also be such that it is also a "constant" in a numerical law—a term that is just going to be explained in the next chapter. There is nothing in

the nature of fundamental measurement to show that a property to which it is applicable may not fulfil this condition also; and sometimes the condition is fulfilled, and then the property is measurable either by the fundamental or the derived process. However, it must be remembered that the properties involved in the numerical law must be such that they are fundamentally measurable; for otherwise the law could not be established. The neglect of this condition is apt to lead to confusion; but with this bare hint the matter must be left.

Numerical Laws and the Use of Mathematics in Science

In the previous chapter we concluded that density was a measurable property because there is a fixed numerical relation, asserted by a "numerical law," between the weight of a substance and its volume. In this chapter we shall examine more closely the idea of a numerical law, and discover how it leads to such exceedingly important developments.

Let us first ask exactly what we do when we are trying to discover a numerical law, such as that between weight and volume. We take various portions of a substance, measure their weights and their volumes, and put down the result in two parallel columns in our notebook. Thus I may find these results:

Table I

Weight	Volume		Weight	Volume
1	7		4	28
2	14		10	70
3	21		29	203

I now try to find some fixed relation between the corresponding numbers in the two columns; and I shall succeed in that attempt if I can find some rule whereby, starting with the number in one column, I can arrive at the corresponding number in the other. If I find such a rule–and if the rule holds good for all the further measurements that I may make–then I have discovered a numerical law.

In the example we have taken the rule is easy to find. I have only to divide the numbers in the second column by 7 in order to arrive at those in the first, or multiply those in the first by 7 in order to arrive at those in the second. That is a definite rule which I can always apply whatever the numbers are; it is a rule which might always be true, but need not always be true; whether or no it is true is a matter for experiment to decide. So much is obvious; but now I want to ask a further and important question.

How did we ever come to discover this rule; what suggested to us to try division or multiplication by 7: and what is the precise significance of division and multiplication in this connection?

The Source of Numerical Relations. The answer to the first part of this question is given by the discussion on p. 213. Division and multiplication are operations of importance in the counting of objects; in such counting the relation between 21, 7, 3 (the third of which results from the division of the first by the second) corresponds to a definite relation between the things counted; it implies that if I divide the 21 objects into 7 groups, each containing the same number of objects, then the number of objects in each of the 7 groups is 3. By examining such relations through the experimental process of counting we arrive at the multiplication (or division) table. This table, when it is completed, states a long series of relations between numerals, each of which corresponds to an experimental fact; the numerals represent physical properties (numbers) and in any given relation (*e.g.,* $7 \times 3 = 21$) each numeral represents a different property. But when we have got the multiplication table, a statement of relations between numerals, we can regard it, and do usually regard it, *simply* as a statement of relations between numerals; we can think about it without any regard to what those numerals represented when we were drawing up the table. And if any other numerals are presented to our notice, it is possible and legitimate to ask whether these numerals, whatever they may represent, are in fact related as are the numerals in the multiplication table. In particular, when we are seeking a numerical relation between the columns of Table I, we may inquire, and it is natural for us to inquire, whether by means of the multiplication we can find a rule which will enable us to arrive at the numeral in the second column starting from that in the first.

That explains why it is so natural to us to try division when we are seeking a relation between numbers. But it does not answer the second part of the question; for in the numerical law that we are considering, the relation between the things represented by the numerals is *not* that which we have just noticed between things counted. When we say that, by dividing the volume by 7, we can arrive at the weight, we do *not* mean that the weight *is* the volume of each of the things at which we arrive by dividing the substance into 7 portions, each having the same volume. For a weight can never *be* a volume, any more than a soldier can *be* a number; it can only be represented by the same numeral as a volume, as a soldier can be represented by a numeral which also represents a number.

The distinction is rather subtle, but if the reader is to understand what

follows, he must grasp it. The relation which we have found between weight and volume is a pure numerical relation; it is suggested by the relation between actual things, namely collections which we count; but it is not that relation. The difference may be expressed again by means of the distinction between numbers and numerals. The relation between actual things counted is a relation between the numbers—which are physical properties—of those things; the relation between weight and volume is a relation between numerals, the numerals that are used to represent those properties. The physical relation in the second case is not between numbers at all, but between weight and volume which are properties quite different from numbers; it appears very similar to that between numbers only because we use numerals, originally invented to represent numbers, to represent other properties. The relation stated by a numerical law is a relation between numerals, and only between numerals, though the idea that there may be such a relation has been suggested to us by the study of the physical property, number.

If we understand this, we shall see what a very remarkable thing it is that there should be numerical laws at all, and shall see why the idea of such a law arose comparatively late in the history of science. For even when we know the relations between numbers, there is no reason to believe that there must be any relations of the same kind between the numerals which are used to represent, not only numbers, but also other properties. Until we actually tried, there was no reason to think that it must be possible to find at all numerical laws, stating numerical relations such as those of division and multiplication. The fact that there are such relations is a new fact, and ought to be surprising. As has been said so often, it does frequently turn out that suggestions made simply by our habits of mind are actually true; and it is because they are so often true that science is interesting. But every time they are true there is reason for wonder and astonishment.

And there is a further consequence yet more deserving of our attention at present. If we realize that the numerical relations in numerical laws, though suggested by relations between numbers, are not those relations, we shall be prepared to find also numerical relations which are not even suggested by relations between numbers, but only by relations between numerals. Let me take an example. Consider the pairs of numerals (1, 1), (2, 4), (3, 9), (4, 16) . . . Our present familiarity with numerals enables us to see at once what is the relation between each pair; it is that the second numeral of the pair is arrived at by multiplying the first numeral *by itself;* 1 is equal to 1×1, 4 to 2×2, 9 to 3×3; and so on. But, if the reader will consider the matter, he will see that the multiplication

of a number (the physical property of an object) by itself does not correspond to any simple relation between the things counted; by the mere examination of counted objects, we should never be led to consider such an operation at all. It is suggested to us only because we have drawn up our multiplication table and have reached the idea of multiplying one *numeral* by another, irrespective of what is represented by that numeral. We know what is the result of multiplying 3×3, when the two 3's represent different numbers and the multiplication corresponds to a physical operation on things counted; it occurs to us that the multiplication of 3 by *itself*, when the two 3's represent the same thing, although it does not correspond to a physical relation, may yet correspond to the numerical relation in a numerical law. And we find once more that this suggestion turns out to be true; there are numerical laws in which this numerical relation is found. Thus if we measure (1) the time during which a body starting from rest has been falling (2) the distance through which it has fallen during that time, we should get in our notebook parallel columns like this:

Table II

Time	Distance	Time	Distance
1	1	4	16
2	4	5	25
3	9	6	36

The numerals in the second column are arrived at by multiplying those in the first by themselves; in technical language, the second column is the "square" of the first.

Another example. In place of dividing one column by some fixed number in order to get the other, we may use the multiplication table to divide some fixed number (*e.g.*, 1) by that column. Then we should get the table

1	1.00	3	0.33
2	0.50	4	0.25
		5	0.20

and so on. Here, again, is a pure numerical operation which does not correspond to any simple physical relation upon numbers; there is no collection simply related to another collection in such a way that the number of the first is equal to that obtained by dividing 1 by the number of the second. (Indeed, as we have seen that fractions have no application to number, and since this rule must lead to fractions, there cannot be such a relation.) And yet once more we find that this numerical relation does occur in a numerical law. If the first column represented the pressure

on a given amount of gas, the second would represent the volume of that gas.

So far, all the relations we have considered were derived directly from the multiplication table. But an extension of the process that we are tracing leads to relations which cannot be derived directly and thus carries us further from the original suggestions indicated by mere counting. Let us return to Table II, and consider what would happen if we found for the numerals in the second column values intermediate between those given. Suppose we measured the distance first and found 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15 . . . ; what does the rule lead us to expect for the corresponding entries in the first column, the values of the time. The answer will be given if in the multiplication table we can find numerals which, when multiplied by themselves, give 2, 3, 5 . . . But a search will reveal that there are no such numerals. We can find numerals which, when multiplied by themselves give very nearly 2, 3, 5 . . . ; for instance, 1.41, 1.73, 2.24 give 1.9881, 2.9929, 5.0166, and we could find numerals which would come even closer to those desired. And that is really all we want, for our measurements are never perfectly accurate, and if we can get numerals which agree very nearly with our rule, that is all that we can expect. But the search for such numerals would be a very long and tedious business; it would involve our drawing up an enormously complicated multiplication table, including not only whole numbers but also fractions with many decimal places. And so the question arises if we cannot find some simpler rule for obtaining quickly the number which multiplied by itself will come as close as we please to 2, 3, 4 . . . Well, we can; the rule is given in every textbook of arithmetic; it need not be given here. The point which interests us is that, just as the simple multiplication of two numerals suggested a new process, namely the multiplication of a numeral by itself, so this new process suggests in its turn many other and more complicated processes. To each of these new processes corresponds a new rule for relating numerals and for arriving at one starting from another; and to each new rule may correspond a numerical law. We thus get many fresh forms of numerical law suggested, and some of them will be found to represent actual experiments.

This process for extending arithmetical operations beyond the simple division and multiplication from which we start; the consequent invention of new rules for relating numerals and deriving one from another; and the study of the rules, when they are invented—all this is a purely intellectual process. It does not depend on experiment at all; experiment enters

only when we inquire whether there is an actual experimental law stating one of the invented numerical relations between measured properties. The process is, in fact, part of mathematics, not of experimental science; and one of the reasons why mathematics is useful to science is that it suggests possible new forms for numerical laws. Of course the examples that have been given are extremely elementary, and the actual mathematics of to-day has diverged very widely from such simple considerations; but the invention of such rules leads, logically if not historically, to one of the great branches of modern mathematics, the theory of functions. (When two numbers are related as in our tables, they are technically said to be "functions" of each other.) It has been developed by mathematicians to satisfy their own intellectual needs, their sense of logical neatness and of form; but though great tracts of it have no bearing whatever upon experimental science, it still remains remarkable how often relations developed by the mathematician for his own purposes prove in the end to have direct and immediate application to the experimental facts of science.

Numerical Laws and Derived Measurement. In this discussion there has been overlooked temporarily the feature of numerical laws which, in the previous chapter, we decided gave rise to their importance, namely, that they made possible systems of derived measurement. In the first law, taken as an example (Table I), the rule by which the numerals in the second column were derived from those in the first involved a numeral 7, which was not a member of those columns, but an additional number applicable equally to all members of the columns. This constant numeral, characteristic of the rule asserted by the numerical law, represented a property of the system investigated and permitted a derived measurement of that system. But in Table II, there is no such constant numeral; the rule for obtaining the second from the first column is simply that the numerals in the first column are to be multiplied by themselves; no other numeral is involved. But this simplicity is really misleading; we should not, except by a mere "fluke," ever get such a table as Table II as a result of our measurements. The reason is this. Suppose that, in obtaining Table II, we have measured the time in seconds and the distance fallen in feet; and that we now propose to write down the result of exactly the same measurements, measuring the time in minutes and the distances in yards. Then the numerals in the first column, representing exactly the same observations, would all be divided by 60 and those in the second would all be divided by 3; the observation which was represented before

by 60 in the first column would now be represented by 1; and the number in the second column represented before by 3 would now be represented by 1. If I now apply the rule to the two columns I shall find it will not work; the second is *not* the first multiplied by itself. But there will be a new rule, as the reader may see for himself; it will be that the second column is the same as the first, when the first is (1) multiplied by itself, and (2) the result multiplied by 1,200. And if we measured the time and the distance in some other units (say hours and miles), we should again have to amend our rule, but it would only differ from the former rule in the substitution for 1,200 of some other numeral. If we choose our units in yet a third way, we should get a third rule, and this time the constant numeral might be 1. We should have exactly Table II; but we should get that table exactly only because we had chosen our units of time and distance in a particular way.

These considerations are quite general. Whatever the numerical law, the rule involved in it will be changed by changing the unit in which we measure the properties represented by the two columns; but the change will only consist in the substitution of one constant numeral for another. If we chance to choose the units in some particular way, that constant numeral may turn out to be 1 and so will disappear from sight. But it will always be there. There must be associated with every numerical law, involving a rule for arriving at the numerals in one column from those in the other, some constant numeral which is applicable to all members of the column alike. And this constant may always, as in the case of density, be the measure of some property to which derived measurement is applicable. Every numerical law therefore–this is the conclusion to be enforced–may give rise to a system of derived measurement; and as a matter of fact all important numerical laws do actually so give rise.

Calculation. But though the establishment of system of derived measurement is one use of numerical laws, they have also another use, which is even more important. They permit *calculation.* This is an extremely important conception which deserves our close attention.

Calculation is the process of combining two or more numerical laws in such a way as to produce a third numerical law. The simplest form of it may be illustrated by the following example. We know the following two laws which, in rather different forms, have been quoted before: (1) the weight of a given volume of any substance is proportional to its density; (2) the density of a gas is proportional to the pressure upon it. From these two laws we can deduce the third law: the weight of a given

volume of any gas is proportional to the pressure upon it. That conclusion seems to follow directly without any need for further experiments. Accordingly we appear to have arrived at a fresh numerical law without adducing any fresh experimental evidence. But is that possible? All our previous inquiry leads us to believe that laws, whether numerical or other, can only be proved by experimental inquiry and that the proof of a new law without new experimental evidence is impossible. How are we to reconcile the two conclusions? When we have answered that question we shall understand what is the importance of calculation for science.

Let us first note that it is possible, without violating the conclusions already reached, to deduce *something* from a numerical law by a process of mere thought without new experiment. For instance, from the law that the density of iron is 7, I can deduce that a portion of it which has a volume 1 will have a weight 7. But this deduction is merely stating in new terms what was asserted by the original law; when I said that the density of iron was 7, I meant (among other things) that a volume 1 had a weight 7; if I had not meant that I should never have asserted the law. The "deduction" is nothing but a translation of the law (or of part of it) into different language, and is of no greater scientific importance than a translation from (say) English into French. One kind of translation, like the other, may have useful results, but it is not the kind of useful result that is obtained from calculation. Pure deduction never achieves anything but this kind of translation; it never leads to anything new. But the calculation taken as an example does lead to something new. Neither when I asserted the first law, nor when I asserted the second did I mean what is asserted by the third; I might have asserted the first without knowing the second and the second without knowing the first (for I might have known what the density of a gas was under different conditions without knowing precisely how it is measured); and I might have asserted either of them, without knowing the third. The third law is not merely an expression in different words of something known before; it is a new addition to knowledge.

But we have added to knowledge only because we have introduced an assertion which was not contained in the two original statements. The deduction depends on the fact that if one thing (A) is proportional to another thing (B) and if B is proportional to a third thing (C), then A is proportional to C. This proposition was not contained in the original statements. But, the reader may reply, it *was* so contained, because it is involved in the very meaning of "proportional"; when we say that A is pro-

portional to B, we mean to imply the fact which has just been stated. Now that is perfectly true if we are thinking of the mathematical meaning of "proportional," but it is not true if we are thinking of the physical meaning. The proposition which we have really used in making our deduction is this: If weight is proportional (in the mathematical sense) to density, when weight is varied by taking different substances, then it is also proportional to density when weight is varied by compressing more of the same substance into the same volume. That is a statement which experiment alone can prove, and it is because we have in fact assumed that experimental statement that we have been able to "deduce" a new piece of experimental knowledge. It is involved in the original statements only if, when it is said that density is proportional to pressure, it is implied that it has been ascertained by experiment that the law of density is true, and that there is a constant density of a gas, however compressed, given by dividing the weight by the volume.

The conclusion I want to draw is this. When we appear to arrive at new scientific knowledge by mere deduction from previous knowledge, we are always assuming some experimental fact which is not clearly involved in the original statements. What we usually assume is that some law is true in circumstances rather more general than those we have considered hitherto. Of course the assumption may be quite legitimate, for the great value of laws is that they are applicable to circumstances more general than those of the experiments on which they are based; but we can never be perfectly sure that it is legitimate until we try. Calculation, then, when it appears to add anything to our knowledge, is always slightly precarious; like theory, it suggests strongly that some law may be true, rather than proves definitely that some law must be true.

So far we have spoken of calculation as if it were merely deduction; we have not referred to the fact that calculation always involves a special type of deduction, namely mathematical deduction. For there are, of course, forms of deduction which are not mathematical. All argument is based, or should be based, upon the logical processes which are called deduction; and most of us are prepared to argue, however slight our mathematical attainments. I do not propose to discuss here generally what are the distinctive characteristics of mathematical argument; for an exposition of that matter the reader should turn to works in which mathematicians expound their own study.[1] I want only to consider why it is that

1. See, for example, the essays in this volume by Alfred North Whitehead, Henri Poincaré, A. R. Forsyth, and Lancelot Hogben.

this kind of deduction has such a special significance for science. And, stated briefly, the reason is this. The assumption, mentioned in the last paragraph, which is introduced in the process of deduction, is usually suggested by the form of the deduction and by the ideas naturally associated with it. (Thus, in the example we took, the assumption is suggested by the proposition quoted about proportionality which is the idea especially associated by the form of the deduction). The assumptions thus suggested by mathematical deduction are almost invariably found to be actually true. It is this fact which gives to mathematical deduction its special significance for science.

The Newtonian Assumption. Again an example is necessary and we will take one which brings us close to the actual use of mathematics in science. Let us return to Table II which gives the relation between the time for which a body has fallen and the distance through which it has fallen. The falling body, like all moving bodies, has a "velocity." By the velocity of a body we mean the distance that it moves in a given time, and we measure the velocity by dividing that distance by that time (as we measure density by dividing the weight by the volume). But this way of measuring velocity gives a definite result only when the velocity is constant, that is to say, when the distance travelled is proportional to the time and the distance travelled in any given time is always the same (compare what was said about density on pp. 217–218). This condition is not fulfilled in our example; the distance fallen in the first second is 1, in the next 3, in the third 5, in the next 7—and so on. We usually express that fact by saying that the velocity increases as the body falls; but we ought really to ask ourselves whether there is such a thing as velocity in this case and whether, therefore, the statement can mean anything. For what is the velocity of the body at the end of the 3rd second—*i.e.* at the time called 3. We might say that it is to be found by taking the distance travelled in the second before 3, which is 5, or in the second after 3, which is 7, or in the second of which the instant "3" is the middle (from 2½ to 3½), which turns out to be 6. Or again we might say it is to be found by taking *half* the distance travelled in the two seconds of which "3" is the middle (from 2 to 4) which is again 6. We get different values for the velocity according to which of these alternatives we adopt. There are doubtless good reasons in this example for choosing the alternative 6, for two ways (and really many more than two ways, all of them plausible) lead to the same result. But if we took a more complicated relation between time and distance than that of Table II, we should find that these two ways gave different results, and that neither of them were obviously more plausible than any

alternative. Do then we mean anything by velocity in such cases and, if so, what do we mean?

It is here that mathematics can help us. By simply thinking about the matter Newton, the greatest of mathematicians, devised a rule by which he suggested that velocity might be measured in all such cases.[2] It is a rule applicable to every kind of relation between time and distance that actually occurs; and it gives the "plausible" result whenever that relation is so simple that one rule is more plausible than another. Moreover it is a very pretty and ingenious rule; it is based on ideas which are themselves attractive and in every way it appeals to the aesthetic sense of the mathematician. It enables us, when we know the relation between time and distance, to measure uniquely and certainly the velocity at every instant, in however complicated a way the velocity may be changing. It is therefore strongly suggested that we take as the velocity the value obtained according to this rule.

But can there be any question whether we are right or wrong to take that value; can experiment show that we ought to take one value rather than another? Yes, it can; and in this way. When the velocity is constant and we can measure it without ambiguity, then we can establish laws between that velocity and certain properties of the moving body. Thus, if we allow a moving steel ball to impinge on a lead block, it will make a dent in it determined by its velocity; and when we have established by observations of this kind a relation between the velocity and the size of the dent, we can obviously use the size of the dent to measure the velocity. Suppose now our falling body is a steel ball, and we allow it to impinge on a lead block after falling through different distances; we shall find that its velocity, estimated by the size of the dent, agrees exactly with the velocity estimated by Newton's rule, and not with that estimated by any other rule (so long, of course, as the other rule does not give the same result as Newton's). That, I hope the reader will agree, is a very definite proof that Newton's rule is right.

On this account only Newton's rule would be very important, but it has a wider and much more important application. So far we have expressed the rule as giving the velocity at any instant when the relation between time and distance is known; but the problem might be reversed. We might know the velocity at any instant and want to find out how far the body has moved in any given time. If the velocity were the same at all instants, the

2. I purposely refrain from giving the rule, not because it is really hard to explain, but because I want to make clear that what is important is to have *some* rule, not any particular rule.

problem would be easy; the distance would be the velocity multiplied by the time. But if it is not the same, the right answer is by no means easy to obtain; in fact the only way of obtaining it is by the use of Newton's rule. The form of that rule makes it easy to reverse it and, instead of obtaining the velocity from the distance, to obtain the distance from the velocity; but until that rule was given, the problem could not have been solved; it would have baffled the wisest philosophers of Greece. Now this particular problem is not of any very great importance, for it would be easier to measure by experiment the distance moved than to measure the velocity and calculate the distance. But there are closely analogous cases—one of which we shall notice immediately—in which the position will be reversed. Let us therefore ask what is the assumption which, in accordance with the conclusion reached on p. 230, must be introduced, if the solution of the problem is to give new experimental knowledge.

We have seen that the problem could be solved easily if the velocity were constant; what we are asking, is how it is to be solved if the velocity does not remain constant. If we examined the rule by which the solution is obtained, we should find that it involves the assumption that the effect upon the distance travelled of a certain velocity at a given instant of time is the same as it would be if the body had at that instant the same *constant* velocity. We know how far the body would travel at that instant if the velocity were constant, and the assumption tells us that it will travel at that instant the same distance although the velocity is not constant. To obtain the whole distance travelled in any given time, we have to add up the distances travelled at the instants of which that time is made up; the reversed Newtonian rule gives a simple and direct method for adding up these distances, and thus solves the problem. It should be noted that the assumption is one that cannot possibly be proved by experiment; we are assuming that something would happen if things were not what they actually are; and experiment can only tell us about things as they are. Accordingly calculation of this kind must, in all strictness, always be confirmed by experiment before it is certain. But as a matter of fact, the assumption is one of which we are almost more certain than we are of any experiment. It is characteristic, not only of the particular example that we have been considering, but of the whole structure of modern mathematical physics which has arisen out of the work of Newton. We should never think it really necessary to-day to confirm by experiment the results of calculation based on that assumption; indeed if experiment and calculation did not agree, we should always maintain that the former and not the latter was wrong. But the assumption is there, and it is primarily

suggested by the aesthetic sense of the mathematician, not dictated by the facts of the external world. Its certainty is yet one more striking instance of the conformity of the external world with our desires.

And now let us glance at an example in which such calculation becomes of real importance. Let us take a pendulum, consisting of a heavy bob at the end of a pivoted rod, draw it aside and then let it swing. We ask how it will swing, what positions the bob will occupy at various times after it is started. Our calculation proceeds from two known laws. (1) We know how the force on the pendulum varies with its position. That we can find out by actual experiments. We hang a weight by a string over a pulley, attach the other end of the string to the bob, and notice how far the bob is pulled aside by various weights hanging at the end of the string. We thus get a numerical law between the force and the angle which the rod of the pendulum makes with the vertical. (2) We know how a body will move under a constant force. It will move in accordance with Table II, the distance travelled being proportional to the "square" of the time during which the force acts. Now we introduce the Newtonian assumption. We know the force in each position; we know how it would move in that position if the force on it were constant; actually it is not constant, but we assume that the motion will be the same as it would be if, in that position, the force were constant. With that assumption, the general Newtonian rule (of which the application to velocity is only a special instance) enables us to sum up the effects of the motions in the different positions, and thus to arrive at the desired relation between the time and the positions successively occupied by the pendulum. The whole of the calculation which plays so large a part in modern science is nothing but an elaboration of that simple example.

MATHEMATICAL THEORIES

We have now examined two of the applications of mathematics to science. Both of them depend on the fact that relations which appeal to the sense of the mathematician by their neatness and simplicity are found to be important in the external world of experiment. The relations between numerals which he suggests are found to occur in numerical laws, and the assumptions which are suggested by his arguments are found to be true. We have finally to notice a yet more striking example of the same fact, and one which is much more difficult to explain to the layman.

This last application is in formulating theories. . . . A theory, to be valuable, must have two features. It must be such that laws can be predicted from it and such that it explains these laws by introducing some analogy based on laws more familiar than those to be explained. In recent developments of physics, theories have been developed which conform to the first of these conditions but not to the second. In place of the analogy with familiar laws, there appears the new principle of mathematical simplicity. These theories explain the laws, as do the older theories, by replacing less acceptable by more acceptable ideas; but the greater acceptability of the ideas introduced by the theories is not derived from an analogy with familiar laws, but simply from the strong appeal they make to the mathematician's sense of form.

I do not feel confident that I can explain the matter further to those who have not some knowledge of both physics and mathematics, but I must try. The laws on the analogy with which theories of the older type are based were often (in physics, usually) numerical laws, such laws for example as that of the falling body. Now numerical laws, since they involve mathematical relations, are usually expressed, not in words, but in the symbols in which, as every one knows, mathematicians express their ideas and their arguments. I have been careful to avoid these symbols; until this page there is hardly an "x" or a "y" in the book. And I have done so because experience shows that they frighten people; they make them think that something very difficult is involved. But really, of course, symbols make things easier; it is conceivable that some superhuman intellect might be able to study mathematics, and even to advance it, expressing all his thoughts in words. Actually, the wonderful symbolism mathematics has invented makes such efforts unnecessary; [symbols] make the processes of reasoning quite easy to follow. They are actually inseparable from mathematics; they make exceedingly difficult arguments easy to follow by means of simple rules for juggling with these symbols–interchanging their order, replacing one by another, and so on. The consequence is that the expert mathematician has a sense about symbols, as symbols; he looks at a page covered with what, to anyone else, are unintelligible scrawls of ink, and he immediately realizes whether the argument expressed by them is such as is likely to satisfy his sense of form; whether the argument will be "neat" and the results "pretty." (I can't tell you what those terms mean, any more than I can tell you what I mean when I say that a picture is beautiful.)

Now sometimes, but not always, simple folk can understand what he

means; let me try an example. Suppose you found a page with the following marks on it–never mind if they mean anything:

$$\mathrm{i} = \frac{\mathrm{d}\gamma}{\mathrm{dy}} - \frac{\mathrm{d}\beta}{\mathrm{dz}} \qquad \frac{\mathrm{dX}}{\mathrm{dt}} = \frac{\mathrm{d}\gamma}{\mathrm{dy}} - \frac{\mathrm{d}\beta}{\mathrm{dz}}$$

$$\mathrm{j} = \frac{\mathrm{d}\alpha}{\mathrm{dz}} - \frac{\mathrm{d}\gamma}{\mathrm{dx}} \qquad \frac{\mathrm{dY}}{\mathrm{dt}} = \frac{\mathrm{d}\alpha}{\mathrm{dz}} - \frac{\mathrm{d}\gamma}{\mathrm{dx}}$$

$$\mathrm{k} = \frac{\mathrm{d}\beta}{\mathrm{dx}} - \frac{\mathrm{d}\alpha}{\mathrm{dy}} \qquad \frac{\mathrm{dZ}}{\mathrm{dt}} = \frac{\mathrm{d}\beta}{\mathrm{dx}} - \frac{\mathrm{d}\alpha}{\mathrm{dy}}$$

$$\frac{\mathrm{d}\alpha}{\mathrm{dt}} = \frac{\mathrm{dY}}{\mathrm{dz}} - \frac{\mathrm{dZ}}{\mathrm{dy}} \qquad \frac{\mathrm{d}\alpha}{\mathrm{dt}} = \frac{\mathrm{dY}}{\mathrm{dz}} - \frac{\mathrm{dZ}}{\mathrm{dy}}$$

$$\frac{\mathrm{d}\beta}{\mathrm{dt}} = \frac{\mathrm{dZ}}{\mathrm{dx}} - \frac{\mathrm{dX}}{\mathrm{dz}} \qquad \frac{\mathrm{d}\beta}{\mathrm{dt}} = \frac{\mathrm{dZ}}{\mathrm{dx}} - \frac{\mathrm{dX}}{\mathrm{dz}}$$

$$\frac{\mathrm{d}\gamma}{\mathrm{dt}} = \frac{\mathrm{dX}}{\mathrm{dy}} - \frac{\mathrm{dY}}{\mathrm{dx}} \qquad \frac{\mathrm{d}\gamma}{\mathrm{dt}} = \frac{\mathrm{dX}}{\mathrm{dy}} - \frac{\mathrm{dY}}{\mathrm{dx}}$$

I think you would see that the set of symbols on the right side are "prettier" in some sense than those on the left; they are more symmetrical. Well, the great physicist James Clerk Maxwell, about 1870, thought so too; and by substituting the symbols on the right side for those on the left, he founded modern physics, and, among other practical results, made wireless telegraphy possible.

It sounds incredible; and I must try to explain a little more. The symbols on the left side represent two well-known electrical laws: Ampère's Law and Faraday's Law; or rather a theory suggested by an analogy with those laws. The symbols i, j, k represent in those laws an electric current. For these symbols Maxwell substituted $\frac{\mathrm{dX}}{\mathrm{dt}}\ \frac{\mathrm{dY}}{\mathrm{dt}}\ \frac{\mathrm{dZ}}{\mathrm{dt}}$; that substitution was roughly equivalent to saying that an electric current was related to the things represented by X, Y, Z, t (never mind what they are) in a way nobody had ever thought of before; it was equivalent to saying that so long as X, Y, Z, t were related in a certain way, there might be an electric current in circumstances in which nobody had believed that an electric current could flow. As a matter of fact, such a current would be one flowing in an absolutely empty space without any material conductor along which it might flow, and such a current was previously thought to be impossible. But Maxwell's feeling for symbolism suggested to him that there might be such a current, and when he worked out the consequences of

supposing that there were such currents (not currents perceptible in the ordinary way, but theoretical currents, as molecules are theoretical hard particles), he arrived at the unexpected result that an alteration in an electric current in one place would be reproduced at another far distant from it by waves travelling from one to the other through absolutely empty space between. Hertz actually produced and detected such waves; and Marconi made them a commercial article.

That is the best attempt I can make at explaining the matter. It is one more illustration of the marvellous power of pure thought, aiming only at the satisfaction of intellectual desires, to control the external world. Since Maxwell's time, there have been many equally wonderful theories, the form of which is suggested by nothing but the mathematician's sense for symbols. The latest are those of Sommerfeld, based [on] the ideas of Niels Bohr, and of Einstein. Every one has heard of the latter, but the former (which concerns the constitution of the atom) is quite as marvellous. But of these I could not give, even if space allowed, even such an explanation as I have attempted for Maxwell's. And the reason is this: A theory by itself means nothing experimental; . . . it is only when something is deduced from it that it is brought within the range of our material senses. Now in Maxwell's theory, the symbols, in the alteration of which the characteristic feature of the theory depends, are retained through the deduction and appear in the law which is compared with experiment. Accordingly it is possible to give some idea of what these symbols mean in terms of things experimentally observed. But in Sommerfeld's or Einstein's theory the symbols, which are necessarily involved in the assumption which differentiates their theories from others, disappear during the deduction; they leave a mark on the other symbols which remain and alter the relation between them; but the symbols on the relations of which the whole theory hangs do not appear at all in any law deduced from the theory. It is quite impossible to give any idea of what they mean in terms of experiment.[3] Probably some of my readers will have read the very interesting and ingenious attempts to "explain Einstein" which have been published, and will feel that they really have a grasp of the matter. Personally I doubt it; the only way to understand what Einstein did is to look at the symbols in which his theory must ultimately be expressed and to realize that it was reasons of symbolic form, and such reasons alone,

3. The same is true really of the exposition of the Newtonian assumption attempted on p. 233. It is strictly impossible to state exactly what is the assumption discussed there without using symbols. The acute reader will have guessed already that on that page I felt myself skating on very thin ice.

which led him to arrange the symbols in the way he did and in no other.

But now I have waded into such deep water that it is time to retrace my steps and return to the safe shore of the affairs of practical life.

The foregoing two selections are Chapters VI & VII from Campbell's WHAT IS SCIENCE?

William Kingdon Clifford

1845–1879

William Kingdon Clifford was born at Exeter, England, in 1845. He studied at King's College, London, and then at Trinity College, Cambridge, where he was a brilliant student. He was elected a fellow of Trinity but gave up the position, in 1871, to become professor of mathematics at University College, London. While still a student he began to produce original mathematical papers, and he later made important contributions to mathematics. He was primarily a geometer, treating especially the problems of the new non-Euclidean geometries, but his thought ranged over all mathematical questions.

He was also much concerned to understand, and to make others understand, the basic ideas which underlie all science, and he gave many popular lectures in which he discussed these matters in a lucid, witty, and eloquent style. Though many eminent nineteenth-century scientists gave popular lectures—among them Faraday, Helmholtz, T. H. Huxley, and Tyndall, all of whom are represented in these volumes—it is possible that Clifford took the task more seriously than any of them. At any rate, his popular lectures, though they do not avoid all difficulties, are as entertaining and also enlightening as those of any of his contemporaries.

Clifford published several books before he died of pulmonary tuberculosis in Madeira on March 3, 1879, when he was only 35 years old. In the last year or two before his death he was engaged in writing a book to be called *The First Principles of the Mathematical Sciences Explained to the Non-Mathematical*. He did not have time to finish the work. It was published six years after his death, edited by Karl Pearson, under the title *The Common Sense*

of the Exact Sciences. Clifford chose the new title a few days before he died.

Clifford's mathematical interests lay chiefly in geometry, which underwent disturbing and exciting changes in the nineteenth century. For more than two thousand years the system perfected by Euclid had been accepted as a true description of geometric relations in space. But this position was undermined by the investigations of several outstanding mathematicians. Among them were Clifford, Lobachevski, and Riemann.

The Postulates of the Science of Space deals with what Euclid left unsaid. When Euclid listed his basic premises, he made some assumptions about space that he did not state. He was probably unaware that he was making them. Our intuition seems to tell us that all parts of space are exactly alike, and that space is continuous. But is it "true"? It is reasonable to suppose that, like most of us, even the mighty Euclid never thought of asking that question. As a matter of fact, it is in the very nature of a postulate that we do not ask if it is true. It is merely some statement that we agree to accept without proof. The postulates may be any that we please, provided only that they do not lead to flat contradictions.

In contrast to Bertrand Russell, Clifford does not question the logic of Euclid's geometry. But, he suggests, other geometries deduced from postulates differing from those framed by Euclid–especially his parallel postulates–are not only logically sound, but might turn out to be better descriptions of space. Lobachevski knocked the "eternal truth" out of geometry. Clifford compares him to Copernicus, who revolutionized astronomy.

The development of several geometries, each consistent within itself, but each contradictory to all others, offered the makings of a first-class battle. The battle was fought, and it ended. No one lost–or won. In a state of coexistence, each has found important applications in science. One famous example is Einstein's non-Euclidean universe, based on Riemann's geometry.

Notes from the artist: ". . . recalling that Clifford was described as 'above all and before all a geometer,' an early Cubist technique, after the manner of Picasso and Braque, was used in this portrait of the bearded mathematician."

W. K.
Clifford

Does any geometry present a picture of the way things really are? That, says Clifford, can only be tested by observation. And our tools for observing are limited. "The geometer of today knows nothing about the nature of actually existing space at an infinite distance; he knows nothing about the properties of this present space in a past or future eternity."

Clifford's writings in science, mathematics, and philosophy are both profound and clear. In *The Postulates of the Science of Space* his gift for making difficult ideas understandable is applied to that most delicate task—examining what we have always taken for granted.

The Postulates of the Science of Space

In my first lecture I said that, out of the pictures which are all that we can really see, we imagine a world of solid things; and that this world is constructed so as to fulfil a certain code of rules, some called axioms, and some called definitions, and some called postulates, and some assumed in the course of demonstration, but all laid down in one form or another in Euclid's *Elements of Geometry*. It is this code of rules that we have to consider to-day. I do not, however, propose to take this book that I have mentioned, and to examine one after another the rules as Euclid has laid them down or unconsciously assumed them; notwithstanding that many things might be said in favour of such a course. This book has been for nearly twenty-two centuries the encouragement and guide of that scientific thought which is one thing with the progress of man from a worse to a better state. The encouragement; for it contained a body of knowledge that was really known and could be relied on, and that moreover was growing in extent and application. For even at the time this book was written–shortly after the foundation of the Alexandrian Museum–Mathematic was no longer the merely ideal science of the Platonic school, but had started on her career of conquest over the whole world of Phenomena. The guide; for the aim of every scientific student of every subject was to bring his knowledge of that subject into a form as perfect as that which geometry had attained. Far up on the great mountain of Truth, which all the sciences hope to scale, the foremost of that sacred sisterhood was seen, beckoning to the rest to follow her. And hence she was called, in the dialect of the Pythagoreans, "the purifier of the reasonable soul." Being thus in itself at once the inspiration and the aspiration of scientific thought, this book of Euclid's has had a history as chequered as that of human progress itself. It embodied and systematized the truest results of the search after truth that was made by Greek,

Egyptian, and Hindu. It presided for nearly eight centuries over that promise of light and right that was made by the civilized Aryan races on the Mediterranean shores; that promise, whose abeyance for nearly as long an interval is so full of warning and of sadness for ourselves. It went into exile along with the intellectual activity and the goodness of Europe. It was taught, and commented upon, and illustrated, and supplemented, by Arab and Nestorian, in the Universities of Bagdad and of Cordova. From these it was brought back into barbaric Europe by terrified students who dared tell hardly any other thing of what they had learned among the Saracens. Translated from Arabic into Latin, it passed into the schools of Europe, spun out with additional cases for every possible variation of the figure, and bristling with words which had sounded to Greek ears like the babbling of birds in a hedge. At length the Greek text appeared and was translated; and, like other Greek authors, Euclid became an authority. There had not yet arisen in Europe "that fruitful faculty," as Mr. Winwood Reade calls it, "with which kindred spirits contemplate each other's works; which not only takes, but gives; which produces from whatever it receives; which embraces to wrestle, and wrestles to embrace." Yet it was coming; and though that criticism of first principles which Aristotle and Ptolemy and Galen underwent waited longer in Euclid's case than in theirs, it came for him at last. What Vesalius was to Galen, what Copernicus was to Ptolemy, that was Lobachevski to Euclid. There is, indeed, a somewhat instructive parallel between the last two cases. Copernicus and Lobachevski were both of Slavic origin. Each of them has brought about a revolution in scientific ideas so great that it can only be compared with that wrought by the other. And the reason of the transcendent importance of these two changes is that they are changes in the conception of the Cosmos. Before the time of Copernicus, men knew all about the Universe. They could tell you in the schools, pat off by heart, all that it was, and what it had been, and what it would be. There was the flat earth, with the blue vault of heaven resting on it like the dome of a cathedral, and the bright cold stars stuck into it; while the sun and planets moved in crystal spheres between. Or, among the better informed, the earth was a globe in the centre of the universe, heaven a sphere concentric with it; intermediate machinery as before. At any rate, if there was anything beyond heaven, it was a void space that needed no further description. The history of all this could be traced back to a certain definite time, when it began; behind that was a changeless eternity that needed no further history. Its future could be predicted in general terms as far forward as a certain epoch, about the precise determination of which there were, indeed, differences

among the learned. But after that would come again a changeless eternity, which was fully accounted for and described. But in any case the Universe was a known thing. Now the enormous effect of the Copernican system, and of the astronomical discoveries that have followed it, is that, in place of this knowledge of a little, which was called knowledge of the Universe, of Eternity and Immensity, we have now got knowledge of a great deal more; but we only call it the knowledge of Here and Now. We can tell a great deal about the solar system; but, after all, it is our house, and not the city. We can tell something about the star-system to which our sun belongs; but, after all, it is our star-system, and not the Universe. We are talking about Here with the consciousness of a There beyond it, which we may know some time, but do not at all know now. And though the nebular hypothesis tells us a great deal about the history of the solar system, and traces it back for a period compared with which the old measure of the duration of the Universe from beginning to end is not a second to a century, yet we do not call this the history of eternity. We may put it all together and call it Now, with the consciousness of a Then before it, in which things were happening that may have left records; but we have not yet read them. This, then, was the change effected by Copernicus in the idea of the Universe. But there was left another to be made. For the laws of space and motion, that we are presently going to examine, implied an infinite space and an infinite duration, about whose properties as space and time everything was accurately known. The very constitution of those parts of it which are at an infinite distance from us, "geometry upon the plane at infinity," is just as well known, if the Euclidean assumptions are true, as the geometry of any portion of this room. In this infinite and thoroughly well-known space the Universe is situated during at least some portion of an infinite and thoroughly well-known time. So that here we have real knowledge of something at least that concerns the Cosmos; something that is true throughout the Immensities and the Eternities. That something Lobachevski and his successors have taken away. The geometer of to-day knows nothing about the nature of actually existing space at an infinite distance; he knows nothing about the properties of this present space in a past or a future eternity. He knows, indeed, that the laws assumed by Euclid are true with an accuracy that no direct experiment can approach, not only in this place where we are, but in places at a distance from us that no astronomer has conceived; but he knows this as of Here and Now; beyond his range is a There and Then of which he knows nothing at present, but may ultimately come to know more. So, you see, there is a real parallel between the work of Copernicus and his successors on the

one hand, and the work of Lobachevski and his successors on the other. In both of these the knowledge of Immensity and Eternity is replaced by knowledge of Here and Now. And in virtue of these two revolutions the idea of the Universe, the Macrocosm, the All, as subject of human knowledge, and therefore of human interest, has fallen to pieces.

It will now, I think, be clear to you why it will not do to take for our present consideration the postulates of geometry as Euclid has laid them down. While they were all certainly true, there might be substituted for them some other group of equivalent propositions; and the choice of the particular set of statements that should be used as the groundwork of the science was to a certain extent arbitrary, being only guided by convenience of exposition. But from the moment that the actual truth of these assumptions becomes doubtful, they fall of themselves into a necessary order and classification; for we then begin to see which of them may be true independently of the others. And for the purpose of criticizing the evidence for them, it is essential that this natural order should be taken; for I think you will see presently that any other order would bring hopeless confusion into the discussion.

Space is divided into parts in many ways. If we consider any material thing, space is at once divided into the part where that thing is and the part where it is not. The water in this glass, for example, makes a distinction between the space where it is and the space where it is not. Now, in order to get from one of these to the other you must cross the *surface* of the water; this surface is the boundary of the space where the water is which separates it from the space where it is not. Every *thing,* considered as occupying a portion of space, has a surface which separates the space where it is from the space where it is not. But, again, a surface may be divided into parts in various ways. Part of the surface of this water is against the air, and part is against the glass. If you travel over the surface from one of these parts to the other, you have to cross the *line* which divides them; it is this circular edge where water, air, and glass meet. Every part of a surface is separated from the other parts by a line which bounds it. But now suppose, further, that this glass had been so constructed that the part towards you was blue and the part towards me was white, as it is now. Then this line, dividing two parts of the surface of the water, would itself be divided into two parts; there would be a part where it was against the blue glass, and a part where it was against the white glass. If you travel in thought along that line, so as to get from one of these two parts to the other, you have to cross a *point* which separates them, and is the boundary between them. Every part of a line is separated

from the other parts by points which bound it. So we may say altogether–

The boundary of a solid (*i.e.*, of a part of space) is a surface.

The boundary of a part of a surface is a line.

The boundaries of a part of a line are points.

And we are only settling the meanings in which words are to be used. But here we may make an observation which is true of all space that we are acquainted with: it is that the process ends here. There are no parts of a point which are separated from one another by the next link in the series. This is also indicated by the reverse process.

For I shall now suppose this point–the last thing that we got to–to move round the tumbler so as to trace out the line, or edge, where air, water, and glass meet. In this way I get a series of points, one after another; a series of such a nature that, starting from any one of them, only two changes are possible that will keep it within the series: it must go forwards or it must go backwards, and each of these is perfectly definite. The line may then be regarded as an aggregate of points. Now let us imagine, further, a change to take place in this line, which is nearly a circle. Let us suppose it to contract towards the centre of the circle, until it becomes indefinitely small, and disappears. In so doing it will trace out the upper surface of the water, the part of the surface where it is in contact with the air. In this way we shall get a series of circles one after another–a series of such a nature that, starting from any one of them, only two changes are possible that will keep it within the series: it must expand or it must contract. This series, therefore, of circles, is just similar to the series of points that make one circle; and just as the line is regarded as an aggregate of points, so we may regard this surface as an aggregate of lines. But this surface is also in another sense an aggregate of points, in being an aggregate of aggregates of points. But, starting from a point in the surface, more than two changes are possible that will keep it within the surface, for it may move in any direction. The surface, then, is an aggregate of points of a different kind from the line. We speak of the line as a point-aggregate of one dimension, because, starting from one point, there are only two possible directions of change; so that the line can be traced out in one motion. In the same way, a surface is a line-aggregate of one dimension, because it can be traced out by one motion of the line; but it is a point-aggregate of two dimensions, because, in order to build it up of points, we have first to aggregate points into a line, and then lines into a surface. It requires two motions of a point to trace it out.

Lastly, let us suppose this upper surface of the water to move downwards, remaining always horizontal till it becomes the under surface. In so doing it will trace out the part of space occupied by the water. We shall thus get a series of surfaces one after another, precisely analogous to the series of points which make a line, and the series of lines which make a surface. The piece of solid space is an aggregate of surfaces, and an aggregate of the same kind as the line is of points; it is a surface-aggregate of one dimension. But at the same time it is a line-aggregate of two dimensions, and a point-aggregate of three dimensions. For if you consider a particular line which has gone to make this solid, a circle partly contracted and part of the way down, there are more than two opposite changes which it can undergo. For it can ascend or descend, or expand or contract, or do both together in any proportion. It has just as great a variety of changes as a point in a surface. And the piece of space is called a point-aggregate of three dimensions, because it takes three distinct motions to get it from a point. We must first aggregate points into a line, then lines into a surface, then surfaces into a solid.

At this step it is clear, again, that the process must stop in all the space we know of. For it is not possible to move that piece of space in such a way as to change every point in it. When we moved our line or our surface, the new line or surface contained no point whatever that was in the old one; we started with one aggregate of points, and by moving it we got an entirely new aggregate, all the points of which were new. But this cannot be done with the solid; so that the process is at an end. We arrive, then, at the result that *space is of three dimensions*.

Is this, then, one of the postulates of the science of space? No; it is not. The science of space, as we have it, deals with relations of distance existing in a certain space of three dimensions, but it does not at all require us to assume that no relations of distance are possible in aggregates of more than three dimensions. The fact that there are only three dimensions does regulate the number of books that we write, and the parts of the subject that we study: but it is not itself a postulate of the science. We investigate a certain space of three dimensions, on the hypothesis that it has certain elementary properties; and it is the assumptions of these elementary properties that are the real postulates of the science of space. To these I now proceed.

The first of them is concerned with *points*, and with the relation of space to them. We spoke of a line as an aggregate of points. Now there are two kinds of aggregates, which are called respectively continuous and discrete. If you consider this line, the boundary of part of the surface of

the water, you will find yourself believing that between any two points of it you can put more points of division, and between any two of these more again, and so on; and you do not believe there can be any end to the process. We may express that by saying you believe that between any two points of the line there is an infinite number of other points. But now here is an aggregate of marbles, which, regarded as an aggregate, has many characters of resemblance with the aggregate of points. It is a series of marbles, one after another; and if we take into account the relations of nextness or contiguity which they possess, then there are only two changes possible from one of them as we travel along the series: we must go to the next in front, or to the next behind. But yet it is not true that between any two of them here is an infinite number of other marbles; between these two, for example, there are only three. There, then, is a distinction at once between the two kinds of aggregates. But there is another, which was pointed out by Aristotle in his *Physics* and made the basis of a definition of continuity. I have here a row of two different kinds of marbles, some white and some black. This aggregate is divided into two parts, as we formerly supposed the line to be. In the case of the line the boundary between the two parts is a point which is the element of which the line is an aggregate. In this case before us, a marble is the element; but here we cannot say that the boundary between the two parts is a marble. The boundary of the white parts is a white marble, and the boundary of the black parts is a black marble; these two adjacent parts have different boundaries. Similarly, if instead of arranging my marbles in a series, I spread them out on a surface, I may have this aggregate divided into two portions–a white portion and a black portion; but the boundary of the white portion is a row of white marbles, and the boundary of the black portion is a row of black marbles. And lastly, if I made a heap of white marbles, and put black marbles on the top of them, I should have a discrete aggregate of three dimensions divided into two parts: the boundary of the white part would be a layer of white marbles, and the boundary of the black part would be a layer of black marbles. In all these cases of discrete aggregates, when they are divided into two parts, the two adjacent parts have different boundaries. But if you come to consider an aggregate that you believe to be continuous, you will see that you think of two adjacent parts as having the *same* boundary. What is the boundary between water and air here? Is it water? No; for there would still have to be a boundary to divide that water from the air. For the same reason it cannot be air. I do not want you at present to think of the actual physical facts by the aid of any molecular theories; I want you only to think of

what appears to be, in order to understand clearly a conception that we all have. Suppose the things actually in contact. If, however much we magnified them, they still appeared to be thoroughly homogeneous, the water filling up a certain space, the air an adjacent space; if this held good indefinitely through all degrees of conceivable magnifying, then we could not say that the surface of the water was a layer of water and the surface of air a layer of air; we should have to say that the same surface was the surface of both of them, and was itself neither one nor the other—that this surface occupied *no* space at all. Accordingly, Aristotle defined the continuous as that of which two adjacent parts have the same boundary; and the discontinuous or discrete as that of which two adjacent parts have direct boundaries.

Now the first postulate of the science of space is that space is a continuous aggregate of points, and not a discrete aggregate. And this postulate—which I shall call the postulate of continuity—is really involved in those three of the six postulates of Euclid for which Robert Simson has retained the name of postulate. You will see, on a little reflection, that a discrete aggregate of points could not be so arranged that any two of them should be relatively situated to one another in exactly the same manner, so that any two points might be joined by a straight line which should always bear the same definite relation to them. And the same difficulty occurs in regard to the other two postulates. But perhaps the most conclusive way of showing that this postulate is really assumed by Euclid is to adduce the proposition he proves, that every finite straight line may be bisected. Now this could not be the case if it consisted of an odd number of separate points. As the first of the postulates of the science of space, then, we must reckon this postulate of Continuity; according to which two adjacent portions of space, or of a surface, or of a line, have the *same* boundary, viz., a surface, a line, or a point; and between every two points on a line there is an infinite number of intermediate points.

The next postulate is that of Elementary Flatness. You know that if you get hold of a small piece of a very large circle, it seems to you nearly straight. So, if you were to take any curved line, and magnify it very much, confining your attention to a small piece of it, that piece would seem straighter to you than the curve did before it was magnified. At least, you can easily conceive a curve possessing this property, that the more you magnify it, the straighter it gets. Such a curve would possess the property of elementary flatness. In the same way, if you perceive a portion of the surface of a very large sphere, such as the earth, it appears to you to be flat. If, then, you take a sphere of say a foot diameter, and magnify it more and more, you will find that the more you magnify it the

flatter it gets. And you may easily suppose that this process would go on indefinitely; that the curvature would become less and less the more the surface was magnified. Any curved surface which is such that the more you magnify it the flatter it gets, is said to possess the property of elementary flatness. But if every succeeding power of our imaginary microscope disclosed new wrinkles and inequalities without end, then we should say that the surface did not possess the property of elementary flatness.

But how am I to explain how solid space can have this property of elementary flatness? Shall I leave it as a mere analogy, and say that it is the same kind of property as this of the curve and surface, only in three dimensions instead of one or two? I think I can get a little nearer to it than that; at all events I will try.

If we start to go out from a point on a surface, there is a certain choice of directions in which we may go. These directions make certain angles with one another. We may suppose a certain direction to start with, and then gradually alter that by turning it round the point: we find thus a single series of directions in which we may start from the point. According to our first postulate, it is a continuous series of directions. Now when I speak of a direction from the point, I mean a direction of starting; I say nothing about the subsequent path. Two different paths may have the same direction at starting; in this case they will touch at the point; and there is an obvious difference between two paths which touch and two paths which meet and form an angle. Here, then, is an aggregate of directions, and they can be changed into one another. Moreover, the changes by which they pass into one another have magnitude, they constitute distance-relations; and the amount of change necessary to turn one of them into another is called the angle between them. It is involved in this postulate that we are considering, that angles can be compared in respect of magnitude. But this is not all. If we go on changing a direction of start, it will, after a certain amount of turning, come round into itself again, and be the same direction. On every surface which has the property of elementary flatness, the amount of turning necessary to take a direction all round into its first position is the same for all points of the surface. I will now show you a surface which at one point of it has not this property. I take this circle of paper from which a sector has been cut out, and bend it round so as to join the edges; in this way I form a surface which is called a *cone*. Now on all points of this surface but one, the law of elementary flatness holds good. At the vertex of the cone, however, notwithstanding that there is an aggregate of directions in which you may start, such that by continuously changing one of them you may get it round into its original position, yet the whole amount of change necessary to effect this is

not the same at the vertex as it is at any other point of the surface. And this you can see at once when I unroll it; for only part of the directions in the plane have been included in the cone. At this point of the cone, then, it does not possess the property of elementary flatness; and no amount of magnifying would ever make a cone seem flat at its vertex.

To apply this to solid space, we must notice that here also there is a choice of directions in which you may go out from any point; but it is a much greater choice than a surface gives you. Whereas in a surface the aggregate of directions is only of one dimension, in solid space it is of two dimensions. But here also there are distance-relations, and the aggregate of directions may be divided into parts which have quantity. For example, the directions which start from the vertex of this cone are divided into those which go inside the cone, and those which go outside the cone. The part of the aggregate which is inside the cone is called a solid angle. Now in those spaces of three dimensions which have the property of elementary flatness, the whole amount of solid angle round one point is equal to the whole amount round another point. Although the space need not be exactly similar to itself in all parts, yet the aggregate of directions round one point is exactly similar to the aggregate of directions round another point, if the space has the property of elementary flatness.

How does Euclid assume this postulate of Elementary Flatness? In his fourth postulate he has expressed it so simply and clearly that you will wonder how anybody could make all this fuss. He says, "All right angles are equal."

Why could I not have adopted this at once, and saved a great deal of trouble? Because it assumes the knowledge of a surface possessing the property of elementary flatness in all its points. Unless such a surface is first made out to exist, and the definition of a right angle is restricted to lines drawn upon it—for there is no necessity for the word *straight* in that definition—the postulate in Euclid's form is obviously not true. I can make two lines cross at the vertex of a cone so that the four adjacent angles shall be equal, and yet not one of them equal to a right angle.

I pass on to the third postulate of the science of space—the postulate of Superposition. According to this postulate a body can be moved about in space without altering its size or shape. This seems obvious enough, but it is worth while to examine a little closely into the meaning of it. We must define what we mean by size and by shape. When we say that a body can be moved about without altering its size, we mean that it can be so moved as to keep unaltered the length of all the lines in it. This postulate there-

fore involves that lines can be compared in respect of magnitude, or that they have a length independent of position; precisely as the former one involved the comparison of angular magnitudes. And when we say that a body can be moved about without altering its shape, we mean that it can be so moved as to keep unaltered all the angles in it. It is not necessary to make mention of the motion of a body, although that is the easiest way of expressing and of conceiving this postulate; but we may, if we like, express it entirely in terms which belong to space, and that we should do in this way. Suppose a figure to have been constructed in some portion of space; say that a triangle has been drawn whose sides are the shortest distances between its angular points. Then if in any other portion of space two points are taken whose shortest distance is equal to a side of the triangle, and at one of them an angle is made equal to one of the angles adjacent to that side, and a line of shortest distance drawn equal to the corresponding side of the original triangle, the distance from the extremity of this to the other of the two points will be equal to the third side of the original triangle, and the two will be equal in all respects; or generally, if a figure has been constructed anywhere, another figure, with all its lines and all its angles equal to the corresponding lines and angles of the first, can be constructed anywhere else. Now this is exactly what is meant by the principle of superposition employed by Euclid to prove the proposition that I have just mentioned. And we may state it again in this short form—all parts of space are exactly alike.

But this postulate carries with it a most important consequence. It enables us to make a pair of most fundamental definitions—those of the plane and of the straight line. In order to explain how these come out of it when it is granted, and how they cannot be made when it is not granted, I must here say something more about the nature of the postulate itself, which might otherwise have been left until we come to criticize it.

We have stated the postulate as referring to solid space. But a similar property may exist in surfaces. Here, for instance, is part of the surface of a sphere. If I draw any figure I like upon this, I can suppose it to be moved about in any way upon the sphere, without alteration of its size or shape. If a figure has been drawn on any part of the surface of a sphere, a figure equal to it in all respects may be drawn on any other part of the surface. Now I say that this property belongs to the surface itself, is a part of its own internal economy, and does not depend in any way upon its relation to space of three dimensions. For I can pull it about and bend it in all manner of ways, so as altogether to alter its relation to solid space; and yet, if I do not stretch it or tear it, I make no difference whatever in

the length of any lines upon it, or in the size of any angles upon it.[1] I do not in any way alter the figures drawn upon it, or the possibility of drawing figures upon it, *so far as their relations with the surface itself are concerned*. This property of the surface, then, could be ascertained by people who lived entirely in it, and were absolutely ignorant of a third dimension. As a point-aggregate of two dimensions, it has in itself properties determining the distance-relations of the points upon it, which are absolutely independent of the existence of any points which are not upon it.

Now here is a surface which has not that property. You observe that it is not of the same shape all over, and that some parts of it are more curved than other parts. If you drew a figure upon this surface, and then tried to move it about, you would find that it was impossible to do so without altering the size and shape of the figure. Some parts of it would have to expand, some to contract, the lengths of the lines could not all be kept the same, the angles would not hit off together. And this property of the surface—that its parts are different from one another—is a property of the surface itself, a part of its internal economy, absolutely independent of any relations it may have with space outside of it. For, as with the other one, I can pull it about in all sorts of ways, and, so long as I do not stretch it or tear it, I make no alteration in the length of lines drawn upon it or in the size of the angles.

Here, then, is an intrinsic difference between these two surfaces, as surfaces. They are both point-aggregates of two dimensions; but the points in them have certain relations of distance (distance measured always *on* the surface), and these relations of distance are not the same in one case as they are in the other.

The supposed people living in the surface and having no idea of a third dimension might, without suspecting that third dimension at all, make a very accurate determination of the nature of their *locus in quo*. If the people who lived on the surface of the sphere were to measure the angles of a triangle, they would find them to exceed two right angles by a quantity proportional to the area of the triangle. This excess of the angles above two right angles, being divided by the area of the triangle, would be found to give exactly the same quotient at all parts of the sphere. That

1. This figure was made of linen, starched upon a spherical surface, and taken off when dry. That mentioned in the next paragraph was similarly stretched upon the irregular surface of the head of a bust. For durability these models should be made of two thicknesses of linen starched together in such a way that the fibres of one bisect the angles between the fibres of the other, and the edge should be bound by a thin slip of paper. They will then retain their curvature unaltered for a long time.

quotient is called the curvature of the surface; and we say that a sphere is a surface of uniform curvature. But if the people living on this irregular surface were to do the same thing, they would not find quite the same result. The sum of the angles would, indeed, differ from two right angles, but sometimes in excess, and sometimes in defect, according to the part of the surface where they were. And though for small triangles in any one neighbourhood the excess or defect would be nearly proportional to the area of the triangle, yet the quotient obtained by dividing this excess or defect by the area of the triangle would vary from one part of the surface to another. In other words, the curvature of this surface varies from point to point; it is sometimes positive, sometimes negative, sometimes nothing at all.

But now comes the important difference. When I speak of a triangle, what do I suppose the sides of that triangle to be?

If I take two points near enough together upon a surface, and stretch a string between them, that string will take up a certain definite position upon the surface, marking the line of shortest distance from one point to the other. Such a line is called a geodesic line. It is a line determined by the intrinsic properties of the surface, and not by its relations with external space. The line would still be the shortest line, however the surface were pulled about without stretching or tearing. A geodesic line may be *produced*, when a piece of it is given; for we may take one of the points, and, keeping the string stretched, make it go round in a sort of circle until the other end has turned through two right angles. The new position will then be a prolongation of the same geodesic line.

In speaking of a triangle, then, I meant a triangle whose sides are geodesic lines. But in the case of a spherical surface—or, more generally, of a surface of constant curvature—these geodesic lines have another and most important property. They are *straight*, so far as the surface is concerned. On this surface a figure may be moved about without altering its size or shape. It is possible, therefore, to draw a line which shall be of the same shape all along and on both sides. That is to say, if you take a piece of the surface on one side of such a line, you may slide it all along the line and it will fit; and you may turn it round and apply it to the other side, and it will fit there also. This is Leibnitz's definition of a straight line, and, you see, it has no meaning except in the case of a surface of constant curvature, a surface all parts of which are alike.

Now let us consider the corresponding things in solid space. In this also we may have geodesic lines; namely, lines formed by stretching a string between two points. But we may also have geodesic surfaces; and

they are produced in this manner. Suppose we have a point on a surface, and this surface possesses the property of elementary flatness. Then among all the directions of starting from the point, there are some which start *in the surface*, and do not make an angle with it. Let all these be prolonged into geodesics; then we may imagine one of these geodesics to travel round and coincide with all the others in turn. In so doing it will trace out a surface which is called a geodesic surface. Now in the particular case where a space of three dimensions has the property of superposition, or is all over alike, these geodesic surfaces are *planes*. That is to say, since the space is all over alike, these surfaces are also of the same shape all over and on both sides; which is Leibnitz's definition of a plane. If you take a piece of space on one side of such a plane, partly bounded by the plane, you may slide it all over the plane, and it will fit; and you may turn it round and apply it to the other side, and it will fit there also. Now it is clear that this definition will have no meaning unless the third postulate be granted. So we may say that when the postulate of Superposition is true, then there are planes and straight lines; and they are defined as being of the same shape throughout and on both sides.

It is found that the whole geometry of a space of three dimensions is known when we know the curvature of three geodesic surfaces at every point. The third postulate requires that the curvature of all geodesic surfaces should be everywhere equal to the same quantity.

I pass to the fourth postulate, which I call the postulate of Similarity. According to this postulate, any figure may be magnified or diminished in any degree without altering its shape. If any figure has been constructed in one part of space, it may be reconstructed to any scale whatever in any other part of space, so that no one of the angles shall be altered though all the lengths of lines will of course be altered. This seems to be a sufficiently obvious induction from experience; for we have all frequently seen different sizes of the same shape; and it has the advantage of embodying the fifth and sixth of Euclid's postulates in a single principle, which bears a great resemblance in form to that of Superposition, and may be used in the same manner. It is easy to show that it involves the two postulates of Euclid: "Two straight lines cannot enclose a space," and "Lines in one plane which never meet make equal angles with every other line."

This fourth postulate is equivalent to the assumption that the constant curvature of the geodesic surfaces is zero; or the third and fourth may be put together, and we shall then say that the three curvatures of space are all of them zero at every point.

The supposition made by Lobachevski was that the three first postulates were true, but not the fourth. Of the two Euclidean postulates included in this, he admitted one, viz., that two straight lines cannot enclose a space, or that two lines which once diverge go on diverging for ever. But he left out the postulate about parallels, which may be stated in this form. If through a point outside of a straight line there be drawn another, indefinitely produced both ways; and if we turn this second one round so as to make the point of intersection travel along the first line, then at the very instant that this point of intersection disappears at one end it will reappear at the other, and there is only one position in which the lines do not intersect. Lobachevski supposed, instead, that there was a finite angle through which the second line must be turned after the point of intersection had disappeared at one end, before it reappeared at the other. For all positions of the second line within this angle there is then no intersection. In the two limiting positions, when the lines have just done meeting at one end, and when they are just going to meet at the other, they are called parallel; so that two lines can be drawn through a fixed point parallel to a given straight line. The angle between these two depends in a certain way upon the distance of the point from the line. The sum of the angles of a triangle is less than two right angles by a quantity proportional to the area of the triangle. The whole of this geometry is worked out in the style of Euclid, and the most interesting conclusions are arrived at; particularly in the theory of solid space, in which a surface turns up which is not plane relatively to that space, but which, for purposes of drawing figures upon it, is identical with the Euclidean plane.

It was Riemann, however, who first accomplished the task of analysing all the assumptions of geometry, and showing which of them were independent. This very disentangling and separation of them is sufficient to deprive them for the geometer of their exactness and necessity; for the process by which it is effected consists in showing the possibility of conceiving these suppositions one by one to be untrue; whereby it is clearly made out how much is supposed. But it may be worth while to state formally the case for and against them.

When it is maintained that we know these postulates to be universally true, in virtue of certain deliverances of our consciousness, it is implied that these deliverances could not exist, except upon the supposition that the postulates are true. If it can be shown, then, from experience that our consciousness would tell us exactly the same things if the postulates are not true, the ground of their validity will be taken away. But this is a very easy thing to show.

That same faculty which tells you that space is continuous tells you that this water is continuous, and that the motion perceived in a wheel of life is continuous. Now we happen to know that if we could magnify this water as much again as the best microscopes can magnify it, we should perceive its granular structure. And what happens in a wheel of life is discovered by stopping the machine. Even apart, then, from our knowledge of the way nerves act in carrying messages, it appears that we have no means of knowing anything more about an aggregate than that it is too fine grained for us to perceive its discontinuity, if it has any.

Nor can we, in general, receive a conception as positive knowledge which is itself founded merely upon inaction. For the conception of a continuous thing is of that which looks just the same however much you magnify it. We may conceive the magnifying to go on to a certain extent without change, and then, as it were, leave it going on, without taking the trouble to doubt about the changes that may ensue.

In regard to the second postulate, we have merely to point to the example of polished surfaces. The smoothest surface that can be made is the one most completely covered with the minutest ruts and furrows. Yet geometrical constructions can be made with extreme accuracy upon such a surface, on the supposition that it is an exact plane. If, therefore, the sharp points, edges, and furrows of space are only small enough, there will be nothing to hinder our conviction of its elementary flatness. It has even been remarked by Riemann that we must not shrink from this supposition if it is found useful in explaining physical phenomena.

The first two postulates may therefore be doubted on the side of the very small. We may put the third and fourth together, and doubt them on the side of the very great. For if the property of elementary flatness exist on the average, the deviations from it being, as we have supposed, too small to be perceived, then, whatever were the true nature of space, we should have exactly the conceptions of it which we now have, if only the regions we can get at were small in comparison with the areas of curvature. If we suppose the curvature to vary in an irregular manner, the effect of it might be very considerable in a triangle formed by the nearest fixed stars; but if we suppose it approximately uniform to the limit of telescopic reach, it will be restricted to very much narrower limits. I cannot perhaps do better than conclude by describing to you as well as I can what is the nature of things on the supposition that the curvature of all space is nearly uniform and positive.

In this case the Universe, as known, becomes again a valid conception;

for the extent of space is a finite number of cubic miles.[2] And this comes about in a curious way. If you were to start in any direction whatever, and move in that direction in a perfect straight line according to the definition of Leibnitz; after travelling a most prodigious distance, to which the parallactic unit–200,000 times the diameter of the earth's orbit–would be only a few steps, you would arrive at–this place. Only, if you had started upwards, you would appear from below. Now, one of two things would be true. Either, when you had got half-way on your journey, you came to a place that is opposite to this, and which you must have gone through, whatever direction you started in; or else all paths you could have taken diverge entirely from each other till they meet again at this place. In the former case, every two straight lines in a plane meet in two points, in the latter they meet only in one. Upon this supposition of a positive curvature, the whole of geometry is far more complete and interesting; the principle of duality, instead of half breaking down over metric relations, applies to all propositions without exception. In fact, I do not mind confessing that I personally have often found relief from the dreary infinities of homaloidal space in the consoling hope that, after all, this other may be the true state of things.

2. The assumptions here made about the *Zusammenhang* [continuity] of space are the simplest ones, but even the finite extent does not follow necessarily from uniform positive curvature, as Riemann seems to have supposed.

Henri Poincaré

1854–1912

Jules Henri Poincaré, the son of a physician, and a cousin of the President of France during World War I, was born at Nancy, France, in 1854. He studied at the École Polytechnique and at the School of Mines. After receiving a degree in mathematical sciences in 1879 from the University of Paris, he lectured for two years at Caen. He became *maître de conférence* in mathematical analysis at the University of Paris in 1881, and in 1886 he was promoted to professor of mathematical physics and the calculus of probabilities.

Henri Poincaré, the greatest mathematician of his time, conformed to the popular idea of a mathematical genius. Timid, frail, and precocious, he spent his childhood in a scholarly household that was frequented by philosophers and scientists. He early displayed a remarkable mathematical aptitude, but he drew geometrical diagrams so badly that he failed the drawing test in the entrance examinations for the École Polytechnique. In maturity, he was short, stooped, near-sighted, and absent-minded. Although he claimed that his memory was not good enough to make him a good chess player, it was fabulous in matters of great complexity.

His contribution to scientific writing is enormous. He wrote more than thirty books on mathematical physics and astronomy, nearly five hundred memoirs on mathematics, two books of popular essays,

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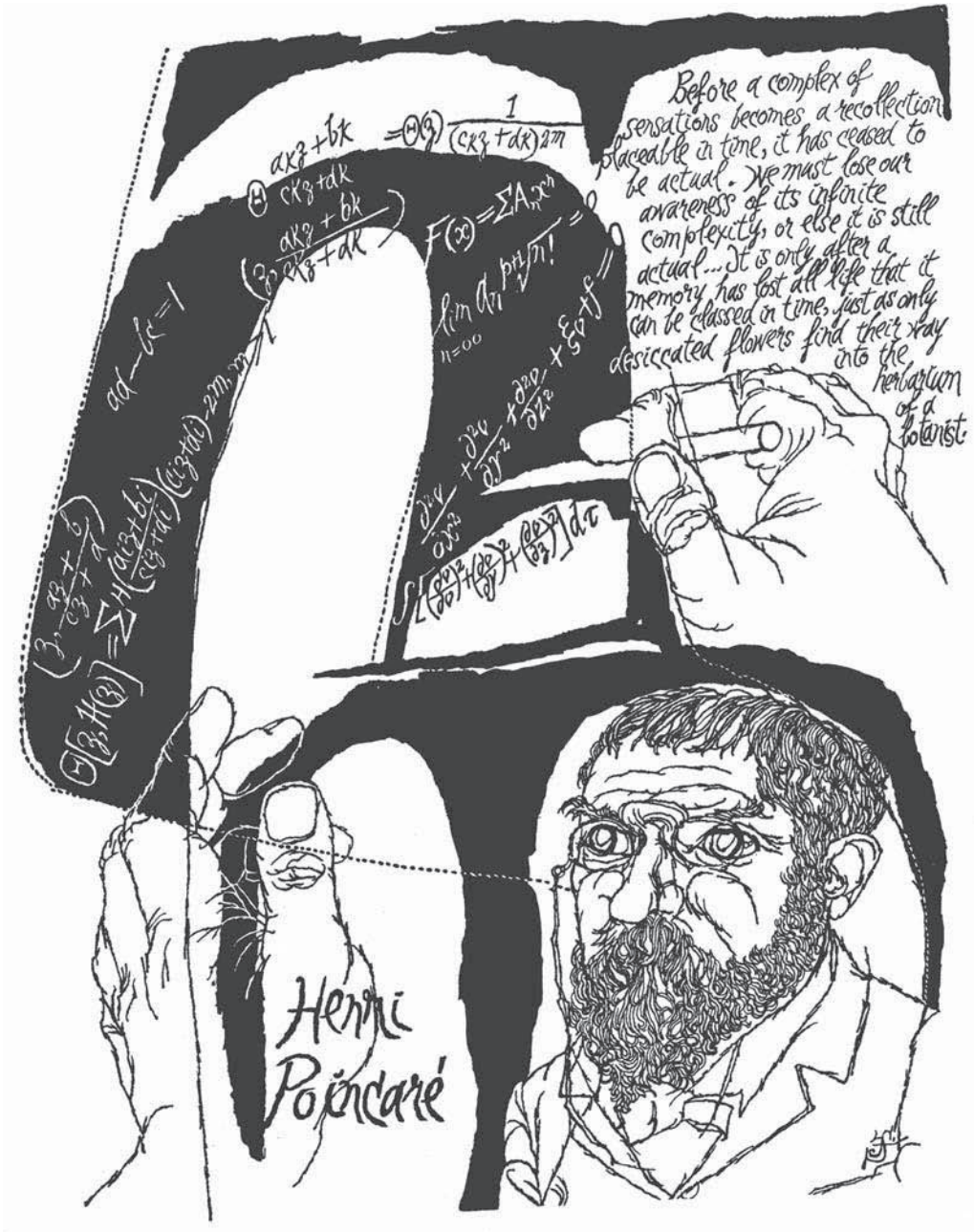
Notes from the artist: "The portrait of Poincaré is placed against a semiabstract background showing the execution of some of his equations and formulas. The quotation from On Measuring Time *reflects Poincaré's thoughts about rhythm and duration."*


Before a complex of sensations becomes a recollection placeable in time, it has ceased to be actual. We must lose our awareness of its infinite complexity, or else it is still actual... It is only after a memory has lost all life that it can be classed in time, just as only desiccated flowers find their way into the herbarium of a botanist.
Henri Poincaré

and three books on the philosophy of science. His work falls into three main divisions: pure mathematics, astronomy, and physics. His most important work is in pure analytical mathematics.

Poincaré won many honors and prizes and was elected to membership in the most distinguished scientific bodies, being appointed to the Academy of Science at the early age of thirty-two. The literary quality of his popular and philosophical essays was recognized by the French Academy. Because of the breadth of his mathematical knowledge he has been called the "last universalist." He died at Paris on July 17, 1912.

Among the great creative mathematicians, Poincaré is noted for his philosophical breadth and lucid style. In *Science and Hypothesis* and *Science and Method*, from which the present selections are taken, the most technical and difficult topics are brought within the reach of the intelligent nonmathematical reader—or almost. Poincaré's intuitive power was immense. His insights, you will find, come fast and thick, and it would be ungrateful to complain if you do not understand every one. If your rich uncle writes you a check for an amount greater than you can handle at the moment, you simply put the balance aside for another day.

The first two selections present Poincaré's original ideas about the relation of geometry, on the one hand, and physical space and physics, on the other. It had been noted for centuries that Euclid's fifth axiom was not self-evident and could not be proved. This was regarded as an unfortunate flaw, but it led in the nineteenth century to a very important generalization of geometry. Bolyai, Lobachevski, and Riemann developed non-Euclidian geometry, of which Euclidian geometry proved to be a limiting case. In Lobachevski's geometry, the sum of the angles of a triangle was less than two right angles, in Riemann's the sum was greater. In Euclidian geometry the sum was equal to two right angles, which is a limiting case of "greater than" and "less than" two right angles—one possibility in an infinity of possibilities.

The starting point of this great generalization of geometry, however, was Euclid's axiom of parallels, which states, in effect, that through a given point only *one* line can be drawn parallel to a line on the same plane. Riemannian geometry said *none*, and Lobachevskian geometry said *an infinite number*. These three geometries,

then, were very different. Many theorems which held for one would not hold for the others; yet there were common theorems, too. For example, "the base angles of an isosceles triangle are equal" and "two lines which are parallel to a third are parallel to each other" are common to both the Lobachevskian and the Euclidian geometries. On the other hand, "the area of a circle is πr^2" is valid only in one geometry—the Euclidian.

But how can these new geometries be true if the Euclidian geometry is? How can they be self-consistent? They are consistent if there is no contradiction among their theorems. But since all the infinity of possible theorems have not been deduced, how do we know that some contradiction will not turn up in the future? Poincaré points out that since a limiting case of both the Lobachevskian and the Riemannian geometries is equivalent to a branch of ordinary Euclidian geometry, neither can be regarded as inconsistent—unless Euclid is also inconsistent! The same conclusion is reached by the dictionary of terms given on pp. 268–269, whereby Lobachevskian theorems can be translated into Euclidian theorems.

The question which of the geometries is true still impends. Poincaré's answer was that "one geometry can not be more true than another; it can only be *more convenient*." The most convenient is the Euclidian: it is simplest in itself, in the sense that plane trigonometry is simpler than spherical trigonometry, and it also accords best with the properties of the physical objects that we see, handle, and measure.

Little need be said of the second and third selections. They speak for themselves and almost read themselves. One thing that may occur to you in reading the chapter on mathematical discovery, though Poincaré does not spell it out, is that the creative mind is not one that simply has more new and important ideas. It is a mind that simply has *more ideas* and works faster in eliminating the uninteresting ones. Secondly, the new ideas would never be discovered if the mathematician were not always looking for "elegant" short cuts—shorter proofs and simplifications.

A good memory is necessary, of course, and also careful analysis which clarifies the problem. The originality of Poincaré's theory of discovery is the role which he assigns to the unconscious, and the interplay between conscious and "unconscious work." The solution to a problem may come suddenly, after the mathematician has given up hope and has turned to altogether unrelated activities.

You will see how Poincaré explains what seems to be a "sudden illumination" that comes to the mathematician when he has forgotten all about the problem and is thinking of other things. You might consider an additional explanation. Could it be that when the mathematician or we ourselves are trying to solve a problem, certain inhibitions develop which block the door to the correct answer, and that while engaging in other activities these inhibitions are relaxed? This would be what the psychologists call "disinhibition."

Poincaré was close to the spirit and all the developments of physical science of his time. He was too close to interpret "chance" as sheer absence of a cause. What evidence is there that things occur without a cause? And that what has a cause can always, in principle, be predicted? Nor could he be attracted by the view of some of the Enlightenment philosophers that all events–however trifling–have a cause, chance events being merely those whose causes we do not yet know.

The latter view is unsatisfactory. Chance is not the realm of ignorance. The motion of the molecules of a gas is random and fortuitous, yet we can predict what they are going to do *en masse* when the gas is heated. We can determine precisely the pressure which they will exert. Similarly, the actuarian cannot know *what* individuals will die next year, but he can predict *how many* will. It is not out of ignorance that insurance companies make money. Statistical laws are of course exceedingly important in science.

The question that has come before the stagelights since Poincaré wrote is whether the final form of scientific laws is to be statistical or causal. Poincaré apparently looked forward to the possibility of advancing beyond statistical laws to causal laws relating to the particles or individuals. But this was before the development of the quantum theory and recent theories of the structure of the atom. As a result of these developments, some of the greatest authorities believe that there is real indeterminacy in nature and that basic laws must remain statistical. What Poincaré would say if he were alive today is an interesting speculation.

Space

THE NON-EUCLIDEAN GEOMETRIES

Every conclusion supposes premises; these premises themselves either are self-evident and need no demonstration, or can be established only by relying upon other propositions, and since we cannot go back thus to infinity, every deductive science, and in particular geometry, must rest on a certain number of undemonstrable axioms. All treatises on geometry begin, therefore, by the enunciation of these axioms. But among these there is a distinction to be made: Some, for example, "Things which are equal to the same thing are equal to one another," are not propositions of geometry, but propositions of analysis. I regard them as analytic judgments a priori, and shall not concern myself with them.

But I must lay stress upon other axioms which are peculiar to geometry. Most treatises enunciate three of these explicitly: (1) Through two points can pass only one straight line. (2) The straight line is the shortest path from one point to another. (3) Through a given point there is not more than one parallel to a given straight line.

Although generally a proof of the second of these axioms is omitted, it would be possible to deduce it from the other two and from those, much more numerous, which are implicitly admitted without enunciating them, as I shall explain further on.

It was long sought in vain to demonstrate likewise the third axiom, known as Euclid's postulate. What vast effort has been wasted in this chimeric hope is truly unimaginable. Finally, in the first quarter of the nineteenth century, and almost at the same time, a Hungarian and a Russian, Bolyai and Lobachevski, established irrefutably that this demonstration is impossible; they have almost rid us of inventors of geometries "sans postulatum"; since then the Académie des Sciences receives only about one or two new demonstrations a year. The question was not exhausted; it soon made a great stride by the publication of Riemann's cele-

brated memoir entitled: *Ueber die Hypothesen welche der Geometrie zu Grunde liegen*. This paper has inspired most of the recent works of which I shall speak further on, and among which it is proper to cite those of Beltrami and of Helmholtz.

The Bolyai-Lobachevski Geometry. If it were possible to deduce Euclid's postulate from the other axioms, it is evident that in denying the postulate and admitting the other axioms, we should be led to contradictory consequences; it would therefore be impossible to base on such premises a coherent geometry.

Now this is precisely what Lobachevski did.

He assumes at the start that: *Through a given point can be drawn two parallels to a given straight line*.

And he retains besides all Euclid's other axioms. From these hypotheses he deduces a series of theorems among which it is impossible to find any contradiction, and he constructs a geometry whose faultless logic is inferior in nothing to that of the Euclidean geometry. The theorems are, of course, very different from those to which we are accustomed, and they cannot fail to be at first a little disconcerting. Thus the sum of the angles of a triangle is always less than two right angles, and the difference between this sum and two right angles is proportional to the surface of the triangle. It is impossible to construct a figure similar to a given figure but of different dimensions. If we divide a circumference into n equal parts, and draw tangents at the points of division, these n tangents will form a polygon if the radius of the circle is small enough; but if this radius is sufficiently great they will not meet.

It is useless to multiply these examples; Lobachevski's propositions have no relation to those of Euclid, but they are not less logically bound one to another.

Riemann's Geometry. Imagine a world uniquely peopled by beings of no thickness (height); and suppose these "infinitely flat" animals are all in the same plane and cannot get out. Admit besides that this world is sufficiently far from others to be free from their influence. While we are making hypotheses, it costs us no more to endow these beings with reason and believe them capable of creating a geometry. In that case, they will certainly attribute to space only two dimensions.

But suppose now that these imaginary animals, while remaining without thickness, have the form of a spherical, and not of a plane, figure, and are all on the same sphere without power to get off. What geometry will they construct? First it is clear they will attribute to space only two dimensions; what will play for them the role of the straight line will be the shortest path from one point to another on the sphere, that is to say,

an arc of a great circle; in a word, their geometry will be the spherical geometry.

What they will call space will be this sphere on which they must stay, and on which happen all the phenomena they can know. Their space will therefore be *unbounded* since on a sphere one can always go forward without ever being stopped, and yet it will be *finite;* one can never find the end of it, but one can make a tour of it.

Well, Riemann's geometry is spherical geometry extended to three dimensions. To construct it, the German mathematician had to throw overboard, not only Euclid's postulate, but also the first axiom: *Only one straight line can pass through two points.*

On a sphere, through two given points we can draw *in general* only one great circle (which, as we have just seen, would play the role of the straight line for our imaginary beings); but there is an exception: if the two given points are diametrically opposite, an infinity of great circles can be drawn through them.

In the same way, in Riemann's geometry (at least in one of its forms), through two points will pass in general only a single straight line; but there are exceptional cases where through two points an infinity of straight lines can pass.

There is a sort of opposition between Riemann's geometry and that of Lobachevski.

Thus the sum of the angles of a triangle is: equal to two right angles in Euclid's geometry; less than two right angles in that of Lobachevski; greater than two right angles in that of Riemann.

The number of straight lines through a given point that can be drawn coplanar to a given straight line, but nowhere meeting it, is equal: to one in Euclid's geometry; to zero in that of Riemann; to infinity in that of Lobachevski.

Add that Riemann's space is finite, although unbounded, in the sense given above to these two words.

The Surfaces of Constant Curvature. One objection still remained possible. The theorems of Lobachevski and of Riemann present no contradiction; but however numerous the consequences these two geometers have drawn from their hypotheses, they must have stopped before exhausting them, since their number would be infinite; who can say then that if they had pushed their deductions farther they would not have eventually reached some contradiction?

This difficulty does not exist for Riemann's geometry, provided it is limited to two dimensions; in fact, as we have seen, two-dimensional Riemannian geometry does not differ from spherical geometry, which is

only a branch of ordinary geometry, and consequently is beyond all discussion.

Beltrami, in correlating likewise Lobachevski's two-dimensional geometry with a branch of ordinary geometry, has equally refuted the objection so far as it is concerned. Here is how he accomplished it. Consider any figure on a surface. Imagine this figure traced on a flexible and inextensible canvas applied over this surface in such a way that when the canvas is displaced and deformed the various lines of this figure can change their form without changing their length. In general, this flexible and inextensible figure cannot be displaced without leaving the surface; but there are certain particular surfaces for which such a movement would be possible; these are the surfaces of constant curvature.

If we resume the comparison made above and imagine beings without thickness living on one of these surfaces, they will regard as possible the motion of a figure all of whose lines remain constant in length. On the contrary, such a movement would appear absurd to animals without thickness living on a surface of variable curvature.

These surfaces of constant curvature are of two sorts: Some are of *positive curvature*, and can be deformed so as to be applied over a sphere. The geometry of these surfaces reduces itself therefore to the spherical geometry, which is that of Riemann.

The others are of *negative curvature*. Beltrami has shown that the geometry of these surfaces is none other than that of Lobachevski. The two-dimensional geometries of Riemann and Lobachevski are thus correlated to the Euclidean geometry.

Interpretation of Non-Euclidean Geometries. So vanishes the objection so far as two-dimensional geometries are concerned.

It would be easy to extend Beltrami's reasoning to three-dimensional geometries. The minds that space of four dimensions does not repel will see no difficulty in it, but they are few. I prefer therefore to proceed otherwise.

Consider a certain plane, which I shall call the fundamental plane, and construct a sort of dictionary, by making correspond each to each a double series of terms written in two columns, just as correspond in the ordinary dictionaries the words of two languages whose significance is the same:

Space: Portion of space situated above the fundamental plane.

Plane: Sphere cutting the fundamental plane orthogonally.

Straight line: Circle cutting the fundamental plane orthogonally.

Sphere: Sphere.

Circle: Circle.
Angle: Angle.
Distance between two points: Logarithm of the cross ratio of these two points and the intersections of the fundamental plane with a circle passing through these two points and cutting it orthogonally. Etc., etc.

Now take Lobachevski's theorems and translate them with the aid of this dictionary as we translate a German text with the aid of a German-English dictionary. *We shall thus obtain theorems of the ordinary geometry*. For example, that theorem of Lobachevski: "the sum of the angles of a triangle is less than two right angles" is translated thus: "If a curvilinear triangle has for sides circle-arcs which prolonged would cut orthogonally the fundamental plane, the sum of the angles of this curvilinear triangle will be less than two right angles." Thus, however far the consequences of Lobachevski's hypotheses are pushed, they will never lead to a contradiction. In fact, if two of Lobachevski's theorems were contradictory, it would be the same with the translations of these two theorems, made by the aid of our dictionary, but these translations are theorems of ordinary geometry and no one doubts that the ordinary geometry is free from contradiction. Whence comes this certainty and is it justified? That is a question I cannot treat here because it would require to be enlarged upon, but which is very interesting and I think not insoluble.

Nothing remains then of the objection above formulated. This is not all. Lobachevski's geometry, susceptible of a concrete interpretation, ceases to be a vain logical exercise and is capable of applications; I have not the time to speak here of these applications, nor of the aid that Klein and I have gotten from them for the integration of linear differential equations.

This interpretation moreover is not unique, and several dictionaries analogous to the preceding could be constructed, which would enable us by a simple "translation" to transform Lobachevski's theorems into theorems of ordinary geometry.

The Implicit Axioms. Are the axioms explicitly enunciated in our treatises the sole foundations of geometry? We may be assured of the contrary by noticing that after they are successively abandoned there are still left over some propositions common to the theories of Euclid, Lobachevski and Riemann. These propositions must rest on premises the geometers admit without enunciation. It is interesting to try to disentangle them from the classic demonstrations.

[John] Stuart Mill has claimed that every definition contains an axiom,

because in defining one affirms implicitly the existence of the object defined. This is going much too far; it is rare that in mathematics a definition is given without its being followed by the demonstration of the existence of the object defined, and when this is dispensed with it is generally because the reader can easily supply it. It must not be forgotten that the word existence has not the same sense when it refers to a mathematical entity and when it is a question of a material object. A mathematical entity exists, provided its definition implies no contradiction, either in itself, or with the propositions already admitted.

But if Stuart Mill's observation cannot be applied to all definitions, it is none the less just for some of them. The plane is sometimes defined as follows: The plane is a surface such that the straight line which joins any two of its points is wholly on this surface. This definition manifestly hides a new axiom; it is true we might change it, and that would be preferable, but then we should have to enunciate the axiom explicitly.

Other definitions would suggest reflections not less important. Such, for example, is that of the equality of two figures; two figures are equal when they can be superposed; to superpose them one must be displaced until it coincides with the other; but how shall it be displaced? If we should ask this, no doubt we should be told that it must be done without altering the shape and as a rigid solid. The vicious circle would then be evident.

In fact this definition defines nothing; it would have no meaning for a being living in a world where there were only fluids. If it seems clear to us, that is because we are used to the properties of natural solids which do not differ much from those of the ideal solids, all of whose dimensions are invariable.

Yet, imperfect as it may be, this definition implies an axiom.

The possibility of the motion of a rigid figure is not a self-evident truth, or at least it is so only in the fashion of Euclid's postulate and not as an analytic judgment a priori would be. Moreover, in studying the definitions and the demonstrations of geometry, we see that one is obliged to admit without proof not only the possibility of this motion, but some of its properties besides.

This is at once seen from the definition of the straight line. Many defective definitions have been given, but the true one is that which is implied in all the demonstrations where the straight line enters: "It may happen that the motion of a rigid figure is such that all the points of a line belonging to this figure remain motionless while all the points situated outside of this line move. Such a line will be called a straight

line." We have designedly, in this enunciation, separated the definition from the axiom it implies.

Many demonstrations, such as those of the cases of the equality of triangles, of the possibility of dropping a perpendicular from a point to a straight line, presume propositions which are not enunciated, for they require the admission that it is possible to transport a figure in a certain way in space.

The Fourth Geometry. Among these implicit axioms, there is one which seems to me to merit some attention, because when it is abandoned a fourth geometry can be constructed as coherent as those of Euclid, Lobachevski and Riemann.

To prove that a perpendicular may always be erected at a point *A* to a straight line *AB*, we consider a straight line *AC* movable around the point *A* and initially coincident with the fixed straight line *AB;* and we make it turn about the point A until it comes into the prolongation of *AB*.

Thus two propositions are presupposed: First, that such a rotation is possible, and next that it may be continued until the two straight lines come into the prolongation one of the other. If the first point is admitted and the second rejected, we are led to a series of theorems even stranger than those of Lobachevski and Riemann, but equally exempt from contradiction. I shall cite only one of these theorems and that not the most singular: *A real straight line may be perpendicular to itself*.

Lie's Theorem. The number of axioms implicitly introduced in the classic demonstrations is greater than necessary, and it would be interesting to reduce it to a minimum. It may first be asked whether this reduction is possible, whether the number of necessary axioms and that of imaginable geometries are not infinite.

A theorem of Sophus Lie dominates this whole discussion. It may be thus enunciated: Suppose the following premises are admitted: (1) Space has *n* dimensions. (2) The motion of a rigid figure is possible. (3) It requires *p* conditions to determine the position of this figure in space.

The number of geometries compatible with these premises will be limited. I may even add that if *n* is given, a superior limit can be assigned to *p*. If, therefore, the possibility of motion is admitted, there can be invented only a finite (and even a rather small) number of three-dimensional geometries.

Riemann's Geometries. Yet this result seems contradicted by Riemann, for this savant constructs an infinity of different geometries, and that to which his name is ordinarily given is only a particular case. All depends,

he says, on how the length of a curve is defined. Now, there is an infinity of ways of defining this length, and each of them may be the starting point of a new geometry.

That is perfectly true, but most of these definitions are incompatible with the motion of a rigid figure, which in the theorem of Lie is supposed possible. These geometries of Riemann, in many ways so interesting, could never therefore be other than purely analytic and would not lend themselves to demonstrations analogous to those of Euclid.

On the Nature of Axioms. Most mathematicians regard Lobachevski's geometry only as a mere logical curiosity; some of them, however, have gone farther. Since several geometries are possible, is it certain ours is the true one? Experience no doubt teaches us that the sum of the angles of a triangle is equal to two right angles; but this is because the triangles we deal with are too little; the difference, according to Lobachevski, is proportional to the surface of the triangle; will it not perhaps become sensible when we shall operate on larger triangles or when our measurements shall become more precise? The Euclidean geometry would thus be only a provisional geometry.

To discuss this opinion, we should first ask ourselves what is the nature of the geometric axioms.

Are they synthetic a priori judgments, as Kant said? They would then impose themselves upon us with such force that we could not conceive the contrary proposition, nor build upon it a theoretic edifice. There would be no non-Euclidean geometry.

To be convinced of it take a veritable synthetic a priori judgment, the following, for instance, of which we have seen the preponderant role in the first chapter: *If a theorem is true for the number* 1, *and if it has been proved that it is true of* $n + 1$ *provided it is true of n, it will be true of all the positive whole numbers*.

Then try to escape from that and, denying this proposition, try to found a false arithmetic analogous to non-Euclidean geometry—it cannot be done; one would even be tempted at first blush to regard these judgments as analytic. Moreover, resuming our fiction of animals without thickness, we can hardly admit that these beings, if their minds are like ours, would adopt the Euclidean geometry which would be contradicted by all their experience. Should we therefore conclude that the axioms of geometry are experimental verities? But we do not experiment on ideal straight lines or circles; it can only be done on material objects. On what then could be based experiments which should serve as foundation for geometry? The answer is easy.

We have seen above that we constantly reason as if the geometric figures behaved like solids. What geometry would borrow from experience would therefore be the properties of these bodies. The properties of light and its rectilinear propagation have also given rise to some of the propositions of geometry, and in particular these of projective geometry, so that from this point of view one would be tempted to say that metric geometry is the study of solids, and projective, that of light. But a difficulty remains, and it is insurmountable. If geometry were an experimental science, it would not be an exact science, it would be subject to a continual revision. Nay, it would from this very day be convicted of error, since we know that there is no rigorously rigid solid.

The axioms of geometry therefore are neither synthetic a priori judgments nor experimental facts. They are *conventions;* our choice among all possible conventions is *guided* by experimental facts; but it remains *free* and is limited only by the necessity of avoiding all contradiction. Thus it is that the postulates can remain *rigorously* true even though the experimental laws which have determined their adoption are only approximative. In other words, *the axioms of geometry* (I do not speak of those of arithmetic) *are merely disguised definitions.*

Then what are we to think of that question: Is the Euclidean geometry true? It has no meaning. As well ask whether the metric system is true and the old measures false; whether Cartesian co-ordinates are true and polar co-ordinates false. One geometry cannot be more true than another; it can only be *more convenient.*

Now, Euclidean geometry is, and will remain, the most convenient: (1) because it is the simplest; and it is so not only in consequence of our mental habits, or of I know not what direct intuition that we may have of Euclidean space; it is the simplest in itself, just as a polynomial of the first degree is simpler than one of the second; the formulas of spherical trigonometry are more complicated than those of plane trigonometry, and they would still appear so to an analyst ignorant of their geometric signification; (2) because it accords sufficiently well with the properties of natural solids, those bodies which our hands and our eyes compare and with which we make our instruments of measure.

SPACE AND GEOMETRY

Let us begin by a little paradox. Beings with minds like ours, and having the same senses as we, but without previous education, would receive from a suitably chosen external world impressions such that they

would be led to construct a geometry other than that of Euclid and to localize the phenomena of that external world in a non-Euclidean space, or even in a space of four dimensions.

As for us, whose education has been accomplished by our actual world, if we were suddenly transported into this new world, we should have no difficulty in referring its phenomena to our Euclidean space. Conversely, if these beings were transported into our environment, they would be led to relate our phenomena to non-Euclidean space. Nay more; with a little effort we likewise could do it. A person who should devote his existence to it might perhaps attain to a realization of the fourth dimension.

Geometric Space and Perceptual Space. It is often said the images of external objects are localized in space, even that they cannot be formed except on this condition. It is also said that this space, which serves thus as a ready prepared *frame* for our sensations and our representations, is identical with that of the geometers, of which it possesses all the properties.

To all the good minds who think thus, the preceding statement must have appeared quite extraordinary. But let us see whether they are not subject to an illusion that a more profound analysis would dissipate. What, first of all, are the properties of space, properly so called? I mean of that space which is the object of geometry and which I shall call *geometric space*. The following are some of the most essential: (1) It is continuous. (2) It is infinite. (3) It has three dimensions. (4) It is homogeneous, that is to say, all its points are identical one with another. (5) It is isotropic, that is to say, all the straight lines which pass through the same point are identical one with another.

Compare it now to the frame of our representations and our sensations, which I may call *perceptual space*.

Visual Space. Consider first a purely visual impression, due to an image formed on the bottom of the retina. A cursory analysis shows us this image as continuous, but as possessing only two dimensions; this already distinguishes from geometric space what we may call *pure visual space*. Besides, this image is enclosed in a limited frame.

Finally, there is another difference not less important: *this pure visual space is not homogeneous*. All the points of the retina, aside from the images which may there be formed, do not play the same role. The yellow spot can in no way be regarded as identical with a point on the border of the retina. In fact, not only does the same object produce there much more vivid impressions, but in every *limited* frame the point occupying the center of the frame will never appear as equivalent to a point near one

of the borders. No doubt a more profound analysis would show us that this continuity of visual space and its two dimensions are only an illusion; it would separate it therefore still more from geometric space, but we shall not dwell on this remark.

Sight, however, enables us to judge of distances and consequently to perceive a third dimension. But everyone knows that this perception of the third dimension reduces itself to the sensation of the effort at accommodation it is necessary to make, and to that of the convergence which must be given to the two eyes, to perceive an object distinctly. These are muscular sensations altogether different from the visual sensations which have given us the notion of the first two dimensions. The third dimension therefore will not appear to us as playing the same role as the other two. What may be called *complete visual space* is therefore not an isotropic space. It has, it is true, precisely three dimensions, which means that the elements of our visual sensations (those at least which combine to form the notion of extension) will be completely defined when three of them are known; to use the language of mathematics, they will be functions of three independent variables.

But examine the matter a little more closely. The third dimension is revealed to us in two different ways: by the effort of accommodation and by the convergence of the eyes. No doubt these two indications are always concordant, there is a constant relation between them, or, in mathematical terms, the two variables which measure these two muscular sensations do not appear to us as independent; or again, to avoid an appeal to mathematical notions already rather refined, we may go back to the language of the preceding chapter and enunciate the same fact as follows: If two sensations of convergence, A and B, are indistinguishable, the two sensations of accommodation, A' and B', which respectively accompany them, will be equally indistinguishable.

But here we have, so to speak, an experimental fact; a priori nothing prevents our supposing the contrary, and if the contrary takes place, if these two muscular sensations vary independently of one another, we shall have to take account of one more independent variable, and "complete visual space" will appear to us as a physical continuum of four dimensions. We have here even, I will add, a fact of *external* experience. Nothing prevents our supposing that a being with a mind like ours, having the same sense organs that we have, may be placed in a world where light would only reach him after having traversed reflecting media of complicated form. The two indications which serve us in judging distances would cease to be connected by a constant relation. A being who should

achieve in such a world the education of his senses would no doubt attribute four dimensions to complete visual space.

Tactile Space and Motor Space. "Tactile space" is still more complicated than visual space and farther removed from geometric space. It is superfluous to repeat for touch the discussion I have given for sight.

But apart from the data of sight and touch, there are other sensations which contribute as much and more than they to the genesis of the notion of space. These are known to everyone; they accompany all our movements, and are usually called muscular sensations. The corresponding frame constitutes what may be called *motor space*. Each muscle gives rise to a special sensation capable of augmenting or of diminishing, so that the totality of our muscular sensations will depend upon as many variables as we have muscles. From this point of view, *motor space would have as many dimensions as we have muscles.*

I know it will be said that if the muscular sensations contribute to form the notion of space, it is because we have the sense of the *direction* of each movement and that it makes an integrant part of the sensation. If this were so, if a muscular sensation could not arise except accompanied by this geometric sense of direction, geometric space would indeed be a form imposed upon our sensibility. But I perceive nothing at all of this when I analyze my sensations.

What I do see is that the sensations which correspond to movements in the same direction are connected in my mind by a mere *association of ideas*. It is to this association that what we call "the sense of direction" is reducible. This feeling therefore cannot be found in a single sensation. This association is extremely complex, for the contraction of the same muscle may correspond, according to the position of the limbs, to movements of very different direction. Besides, it is evidently acquired; it is, like all associations of ideas, the result of a *habit;* this habit itself results from very numerous *experiences;* without any doubt, if the education of our senses had been accomplished in a different environment, where we should have been subjected to different impressions, contrary habits would have arisen and our muscular sensations would have been associated according to other laws.

Characteristics of Perceptual Space. Thus perceptual space, under its triple form, visual, tactile and motor, is essentially different from geometric space. It is neither homogeneous, nor isotropic; one cannot even say that it has three dimensions.

It is often said that we "project" into geometric space the objects of our external perception; that we "localize" them. Has this a meaning, and if

so, what? Does it mean that we *represent* to ourselves external objects in geometric space?

Our representations are only the reproduction of our sensations; they can therefore be ranged only in the same frame as these, that is to say, in perceptual space. It is as impossible for us to represent to ourselves external bodies in geometric space as it is for a painter to paint on a plane canvas objects with their three dimensions.

Perceptual space is only an image of geometric space, an image altered in shape by a sort of perspective, and we can represent to ourselves objects only by bringing them under the laws of this perspective. Therefore we do not *represent* to ourselves external bodies in geometric space, but we *reason* on these bodies as if they were situated in geometric space.

When it is said then that we "localize" such and such an object at such and such a point of space, what does it mean? *It simply means that we represent to ourselves the movements it would be necessary to make to reach that object;* and one may not say that to represent to oneself these movements, it is necessary to project the movements themselves in space and that the notion of space must, consequently, pre-exist.

When I say that we represent to ourselves these movements, I mean only that we represent to ourselves the muscular sensations which accompany them and which have no geometric character whatever, which consequently do not at all imply the pre-existence of the notion of space.

Change of State and Change of Position. But, it will be said, if the idea of geometric space is not imposed upon our mind, and if, on the other hand, none of our sensations can furnish it, how could it have come into existence? This is what we have now to examine, and it will take some time, but I can summarize in a few words the attempt at explanation that I am about to develop.

None of our sensations, isolated, could have conducted us to the idea of space; we are led to it only in studying the laws, according to which these sensations succeed each other. We see first that our impressions are subject to change; but among the changes we ascertain we are soon led to make a distinction. At one time we say that the objects which cause these impressions have changed state, at another time that they have changed position, that they have only been displaced. Whether an object changes its state or merely its position, this is always translated for us in the same manner: *by a modification in an aggregate of impressions.*

How then could we have been led to distinguish between the two? It is easy to account for. If there has only been a change of position, we can

restore the primitive aggregate of impressions by making movements which replace us opposite the mobile object in the same *relative* situation. We thus *correct* the modification that happened and we re-establish the initial state by an inverse modification. If it is a question of sight, for example, and if an object changes its place before our eye, we can "follow it with the eye" and maintain its image on the same point of the retina by appropriate movements of the eyeball. These movements we are conscious of because they are voluntary and because they are accompanied by muscular sensations, but that does not mean that we represent them to ourselves in geometric space. So what characterizes change of position, what distinguishes it from change of state, is that it can always be corrected in this way.

It may therefore happen that we pass from the totality of impressions *A* to the totality *B* in two different ways: (1) involuntarily and without experiencing muscular sensations; this happens when it is the object which changes place; (2) voluntarily and with muscular sensations; this happens when the object is motionless, but we move so that the object has relative motion with reference to us. If this be so, the passage from the totality *A* to the totality *B* is only a change of position.

It follows from this that sight and touch could not have given us the notion of space without the aid of the "muscular sense." Not only could this notion not be derived from a single sensation or even *from a series of sensations*, but what is more, an *immobile* being could never have acquired it, since, not being able to *correct* by his movements the effects of the changes of position of exterior objects, he would have had no reason whatever to distinguish them from changes of state. Just as little could he have acquired it if his motions had not been voluntary or were unaccompanied by any sensations.

Conditions of Compensation. How is a like compensation possible, of such sort that two changes, otherwise independent of each other, reciprocally correct each other?

A mind already familiar with geometry would reason as follows: Evidently, if there is to be compensation, the various parts of the external object, on the one hand, and the various sense organs, on the other hand, must be in the same *relative* position after the double change. And, for that to be the case, the various parts of the external object must likewise have retained in reference to each other the same relative position, and the same must be true of the various parts of our body in regard to each other. In other words, the external object, in the first change, must be displaced as is a rigid solid, and so must it be with the whole of our

body in the second change which corrects the first. Under these conditions, compensation may take place.

But we who as yet know nothing of geometry, since for us the notion of space is not yet formed, we cannot reason thus, we cannot foresee a priori whether compensation is possible. But experience teaches us that it sometimes happens, and it is from this experimental fact that we start to distinguish changes of state from changes of position.

Solid Bodies and Geometry. Among surrounding objects there are some which frequently undergo displacements susceptible of being thus corrected by a correlative movement of our own body; these are the *solid bodies*. The other objects, whose form is variable, only exceptionally undergo like displacements (change of position without change of form). When a body changes its place *and its shape*, we can no longer, by appropriate movements, bring back our sense organs into the same *relative* situation with regard to this body; consequently we can no longer re-establish the primitive totality of impressions.

It is only later, and as a consequence of new experiences, that we learn how to decompose the bodies of variable form into smaller elements, such that each is displaced almost in accordance with the same laws as solid bodies. Thus we distinguish "deformations" from other changes of state; in these deformations, each element undergoes a mere change of position, which can be corrected, but the modification undergone by the aggregate is more profound and is no longer susceptible of correction by a correlative movement. Such a notion is already very complex and must have been relatively late in appearing; moreover it could not have arisen if the observation of solid bodies had not already taught us to distinguish changes of position. *Therefore, if there were no solid bodies in nature, there would be no geometry.*

Another remark also deserves a moment's attention. Suppose a solid body to occupy successively the positions α and β; in its first position, it will produce on us the totality of impressions A, and in its second position the totality of impressions B. Let there be now a second solid body, having qualities entirely different from the first, for example, a different color. Suppose it to pass from the position α, where it gives us the totality of impressions A', to the position β, where it gives the totality of impressions B'. In general, the totality A will have nothing in common with the totality A', nor the totality B with the totality B'. The transition from the totality A to the totality B and that from the totality A' to the totality B' are therefore two changes which *in themselves* have in general nothing in common.

And yet we regard these two changes both as displacements and, furthermore, we consider them as the *same* displacement. How can that be? It is simply because they can both be corrected by the *same* correlative movement of our body. "Correlative movement" therefore constitutes the *sole connection* between two phenomena which otherwise we never should have dreamed of likening.

On the other hand, our body, thanks to the number of its articulations and muscles, may make a multitude of different movements; but all are not capable of "correcting" a modification of external objects; only those will be capable of it in which our whole body, or at least all those of our sense organs which come into play, are displaced as a whole, that is, without their relative positions varying, or in the fashion of a solid body.

To summarize:

(1) We are led at first to distinguish two categories of phenomena: some, involuntary, unaccompanied by muscular sensations, are attributed by us to external objects; these are external changes; others, opposite in character and attributed by us to the movements of our own body, are internal changes. (2) We notice that certain changes of each of these categories may be corrected by a correlative change of the other category. (3) We distinguish among external changes those which have thus a correlative in the other category; these we call displacements; and just so among the internal changes, we distinguish those which have a correlative in the first category.

Thus are defined, thanks to this reciprocity, a particular class of phenomena which we call displacements. *The laws of these phenomena constitute the object of geometry.*

Law of Homogeneity. The first of these laws is the law of homogeneity.

Suppose that, by an external change α, we pass from the totality of impressions A to the totality B, then that this change α is corrected by a correlative voluntary movement β, so that we are brought back to the totality A. Suppose now that another external change α' makes us pass anew from the totality A to the totality B. Experience teaches us that this change α' is, like α, susceptible of being corrected by a correlative voluntary movement β' and that this movement β' corresponds to the same muscular sensations as the movement β which corrected α. This fact is usually enunciated by saying that *space is homogeneous and isotropic.*

It may also be said that a movement which has once been produced may be repeated a second and a third time, and so on, without its properties varying. In the first chapter, where we discussed the nature of mathematical reasoning, we saw the importance which must be attributed to

the possibility of repeating indefinitely the same operation. It is from this repetition that mathematical reasoning gets its power; it is, therefore, thanks to the law of homogeneity that it has a hold on the geometric facts. For completeness, to the law of homogeneity should be added a multitude of other analogous laws, into the details of which I do not wish to enter, but which mathematicians sum up in a word by saying that displacements form "a group."

The Non-Euclidean World. If geometric space were a frame imposed on *each* of our representations, considered individually, it would be impossible to represent to ourselves an image stripped of this frame, and we could change nothing of our geometry. But this is not the case; geometry is only the résumé of the laws according to which these images succeed each other. Nothing then prevents us from imagining a series of representations, similar in all points to our ordinary representations, but succeeding one another according to laws different from those to which we are accustomed. We can conceive then that beings who received their education in an environment where these laws were thus upset might have a geometry very different from ours.

Suppose, for example, a world enclosed in a great sphere and subject to the following laws: The temperature is not uniform; it is greatest at the center, and diminishes in proportion to the distance from the center, to sink to absolute zero when the sphere is reached in which this world is enclosed. To specify still more precisely the law in accordance with which this temperature varies: Let R be the radius of the limiting sphere; let r be the distance of the point considered from the center of this sphere. The absolute temperature shall be proportional to $R^2 - r^2$. I shall further suppose that, in this world, all bodies have the same coefficient of dilatation, so that the length of any rule is proportional to its absolute temperature. Finally, I shall suppose that a body transported from one point to another of different temperature is put immediately into thermal equilibrium with its new environment. Nothing in these hypotheses is contradictory or unimaginable.

A movable object will then become smaller and smaller in proportion as it approaches the limit-sphere. Note first that, though this world is limited from the point of view of our ordinary geometry, it will appear infinite to its inhabitants. In fact, when these try to approach the limit-sphere, they cool off and become smaller and smaller. Therefore the steps they take are also smaller and smaller, so that they can never reach the limiting sphere.

If, for us, geometry is only the study of the laws according to which

rigid solids move, for these imaginary beings it will be the study of the laws of motion of solids *distorted by the differences of temperature* just spoken of. No doubt, in our world, natural solids likewise undergo variations of form and volume due to warming or cooling. But we neglect these variations in laying the foundations of geometry, because, besides their being very slight, they are irregular and consequently seem to us accidental. In our hypothetical world, this would no longer be the case, and these variations would follow regular and very simple laws. Moreover, the various solid pieces of which the bodies of its inhabitants would be composed would undergo the same variations of form and volume.

I will make still another hypothesis; I will suppose light traverses media diversely refractive and such that the index of refraction is inversely proportional to $R^2 - r^2$. It is easy to see that, under these conditions, the rays of light would not be rectilinear, but circular.

To justify what precedes, it remains for me to show that certain changes in the position of external objects can be *corrected* by correlative movements of the sentient beings inhabiting this imaginary world, and that in such a way as to restore the primitive aggregate of impressions experienced by these sentient beings.

Suppose in fact that an object is displaced, undergoing deformation, not as a rigid solid, but as a solid subjected to unequal dilatations in exact conformity to the law of temperature above supposed. Permit me for brevity to call such a movement a *non-Euclidean displacement.* If a sentient being happens to be in the neighborhood, his impressions will be modified by the displacement of the object, but he can re-establish them by moving in a suitable manner. It suffices if finally the aggregate of the object and the sentient being, considered as forming a single body, has undergone one of those particular displacements I have just called non-Euclidean. This is possible if it be supposed that the limbs of these beings dilate according to the same law as the other bodies of the world they inhabit.

Although from the point of view of our ordinary geometry there is a deformation of the bodies in this displacement and their various parts are no longer in the same relative position, nevertheless we shall see that the impressions of the sentient being have once more become the same. In fact, though the mutual distances of the various parts may have varied, yet the parts originally in contact are again in contact. Therefore the tactile impressions have not changed. On the other hand, taking into account the hypothesis made above in regard to the refraction and the curvature of the rays of light, the visual impressions will also have remained the same.

These imaginary beings will therefore like ourselves be led to classify the phenomena they witness and to distinguish among them the "changes of position" susceptible of correction by a correlative voluntary movement. If they construct a geometry, it will not be, as ours is, the study of the movements of our rigid solids; it will be the study of the changes of position which they will thus have distinguished and which are none other than the "non-Euclidean displacements"; *it will be non-Euclidean geometry*. Thus beings like ourselves, educated in such a world, would not have the same geometry as ours.

The World of Four Dimensions. We can represent to ourselves a four-dimensional world just as well as a non-Euclidean.

The sense of sight, even with a single eye, together with the muscular sensations relative to the movements of the eyeball, would suffice to teach us space of three dimensions. The images of external objects are painted on the retina, which is a two-dimensional canvas; they are *perspectives*. But, as eye and objects are movable, we see in succession various perspectives of the same body, taken from different points of view. At the same time, we find that the transition from one perspective to another is often accompanied by muscular sensations. If the transition from the perspective A to the perspective B, and that from the perspective A' to the perspective B' are accompanied by the same muscular sensations, we liken them one to the other as operations of the same nature.

Studying then the laws according to which these operations combine, we recognize that they form a group, which has the same structure as that of the movements of rigid solids. Now, we have seen that it is from the properties of this group we have derived the notion of geometric space and that of three dimensions. We understand thus how the idea of a space of three dimensions could take birth from the pageant of these perspectives, though each of them is of only two dimensions, since *they follow one another according to certain laws*.

Well, just as the perspective of a three-dimensional figure can be made on a plane, we can make that of a four-dimensional figure on a picture of three (or of two) dimensions. To a geometer this is only child's play. We can even take of the same figure several perspectives from several different points of view. We can easily represent to ourselves these perspectives, since they are of only three dimensions.

Imagine that the various perspectives of the same object succeed one another, and that the transition from one to the other is accompanied by muscular sensations. We shall of course consider two of these transitions as two operations of the same nature when they are associated with the same muscular sensations. Nothing then prevents us from imagining that

these operations combine according to any law we choose, for example, so as to form a group with the same structure as that of the movements of a rigid solid of four dimensions. Here there is nothing unpicturable, and yet these sensations are precisely those which would be felt by a being possessed of a two-dimensional retina who could move in space of four dimensions. In this sense we may say the fourth dimension is imaginable.

Conclusions. We see that experience plays an indispensable role in the genesis of geometry; but it would be an error thence to conclude that geometry is, even in part, an experimental science. If it were experimental, it would be only approximative and provisional. And what rough approximation!

Geometry would be only the study of the movements of solids; but in reality it is not occupied with natural solids, it has for object certain ideal solids, absolutely rigid, which are only a simplified and very remote image of natural solids. The notion of these ideal solids is drawn from all parts of our mind, and experience is only an occasion which induces us to bring it forth from them.

The object of geometry is the study of a particular "group"; but the general group concept pre-exists, at least potentially, in our minds. It is imposed on us, not as form of our sense, but as form of our understanding. Only, from among all the possible groups, that must be chosen which will be, so to speak, the *standard* to which we shall refer natural phenomena. Experience guides us in this choice without forcing it upon us; it tells us not which is the truest geometry, but which is the most *convenient*.

Notice that I have been able to describe the fantastic worlds above imagined *without ceasing to employ the language of ordinary geometry*. And, in fact, we should not have to change it if transported thither. Beings educated there would doubtless find it more convenient to create a geometry different from ours, and better adapted to their impressions. As for us, in face of the *same* impressions, it is certain that we should find it more convenient not to change our habits.

EXPERIENCE AND GEOMETRY

1. Already in the preceding pages I have several times tried to show that the principles of geometry are not experimental facts and that in particular Euclid's postulate cannot be proven experimentally. However decisive appear to me the reasons already given, I believe I should emphasize this point because here a false idea is profoundly rooted in many minds.

2. If we construct a material circle, measure its radius and circum-

ference, and see if the ratio of these two lengths is equal to π, what shall we have done? We shall have made an experiment on the properties of the matter with which we constructed this *round thing*, and of that of which the measure used was made.

3. *Geometry and Astronomy*. The question has also been put in another way. If Lobachevski's geometry is true, the parallax of a very distant star will be finite; if Riemann's is true, it will be negative. These are results which seem within the reach of experiment, and there have been hopes that astronomical observations might enable us to decide between the three geometries.

But in astronomy "straight line" means simply "path of a ray of light." If therefore negative parallaxes were found, or if it were demonstrated that all parallaxes are superior to a certain limit, two courses would be open to us: we might either renounce Euclidean geometry, or else modify the laws of optics and suppose that light does not travel rigorously in a straight line. It is needless to add that all the world would regard the latter solution as the more advantageous. The Euclidean geometry has, therefore, nothing to fear from fresh experiments.

4. Is the position tenable that certain phenomena, possible in Euclidean space, would be impossible in non-Euclidean space, so that experience, in establishing these phenomena, would directly contradict the non-Euclidean hypothesis? For my part I think no such question can be put. To my mind it is precisely equivalent to the following, whose absurdity is patent to all eyes: are there lengths expressible in meters and centimeters, but which cannot be measured in fathoms, feet and inches, so that experience, in ascertaining the existence of these lengths, would directly contradict the hypothesis that there are fathoms divided into six feet?

Examine the question more closely. I suppose that the straight line possesses in Euclidean space any two properties which I shall call *A* and *B;* that in non-Euclidean space it still possesses the property *A*, but no longer has the property *B;* finally I suppose that in both Euclidean and non-Euclidean space the straight line is the only line having the property *A*. If this were so, experience would be capable of deciding between the hypothesis of Euclid and that of Lobachevski. It would be ascertained that a definite concrete object, accessible to experiment, for example, a pencil of rays of light, possesses the property *A;* we should conclude that it is rectilinear, and then investigate whether or not it has the property *B*.

But *this is not so;* no property exists which, like this property *A,* can be an absolute criterion enabling us to recognize the straight line and to

distinguish it from every other line. Shall we say, for instance: "The following is such a property: the straight line is a line such that a figure of which this line forms a part can be moved without the mutual distances of its points varying and so that all points of this line remain fixed"?

This, in fact, is a property which, in Euclidean or non-Euclidean space, belongs to the straight line and belongs only to it. But how shall we ascertain experimentally whether it belongs to this or that concrete object? It will be necessary to measure distances, and how shall one know that any concrete magnitude which I have measured with my material instrument really represents the abstract distance? We have only pushed back the difficulty. In reality the property just enunciated is not a property of the straight line alone, it is a property of the straight line and distance. For it to serve as absolute criterion, we should have to be able to establish not only that it does not also belong to a line other than the straight line and to distance, but in addition that it does not belong to a line other than the straight line and to a magnitude other than distance. Now this is not true. It is therefore impossible to imagine a concrete experiment which can be interpreted in the Euclidean system and not in the Lobachevskian system, so that I may conclude: No experience will ever be in contradiction to Euclid's postulate; nor, on the other hand, will any experience ever contradict the postulate of Lobachevski.

5. But it is not enough that the Euclidean (or non-Euclidean) geometry can never be directly contradicted by experience. Might it not happen that it can accord with experience only by violating the principle of sufficient reason or that of the relativity of space?

I will explain myself: Consider any material system; we shall have to regard, on the one hand, "the state" of the various bodies of this system (for instance, their temperature, their electric potential, etc.), and, on the other hand, their position in space; and among the data which enable us to define this position we shall, moreover, distinguish the mutual distances of these bodies, which define their relative positions, from the conditions which define the absolute position of the system and its absolute orientation in space.

The laws of the phenomena which will happen in this system will depend on the state of these bodies and their mutual distances; but, because of the relativity and passivity of space, they will not depend on the absolute position and orientation of the system. In other words, the state of the bodies and their mutual distances at any instant will depend solely on the state of these same bodies and on their mutual distances at the initial instant, but will not at all depend on the absolute initial position

of the system or on its absolute initial orientation. This is what for brevity I shall call *the law of relativity*.

Hitherto I have spoken as a Euclidean geometer. As I have said, an experience, whatever it be, admits of an interpretation on the Euclidean hypothesis; but it admits of one equally on the non-Euclidean hypothesis. Well, we have made a series of experiments; we have interpreted them on the Euclidean hypothesis, and we have recognized that these experiments thus interpreted do not violate this "law of relativity."

We now interpret them on the non-Euclidean hypothesis: this is always possible; only the non-Euclidean distances of our different bodies in this new interpretation will not generally be the same as the Euclidean distances in the primitive interpretation.

Will our experiments, interpreted in this new manner, still be in accord with our "law of relativity"? And if there were not this accord, should we not have also the right to say experience had proven the falsity of the non-Euclidean geometry? It is easy to see that this is an idle fear; in fact, to apply the law of relativity in all rigor, it must be applied to the entire universe. For if only a part of this universe were considered, and if the absolute position of this part happened to vary, the distances to the other bodies of the universe would likewise vary, their influence on the part of the universe considered would consequently augment or diminish, which might modify the laws of the phenomena happening there.

But if our system is the entire universe, experience is powerless to give information about its absolute position and orientation in space. All that our instruments, however perfected they may be, can tell us will be the state of the various parts of the universe and their mutual distances.

So our law of relativity may be thus enunciated: The readings we shall be able to make on our instruments at any instant will depend only on the readings we could have made on these same instruments at the initial instant. Now such an enunciation is independent of every interpretation of experimental facts. If the law is true in the Euclidean interpretation, it will also be true in the non-Euclidean interpretation.

Allow me here a short digression. I have spoken above of the data which define the position of the various bodies of the system; I should likewise have spoken of those which define their velocities; I should then have had to distinguish the velocities with which the mutual distances of the different bodies vary; and, on the other hand, the velocities of translation and rotation of the system, that is to say, the velocities with which its absolute position and orientation vary.

To fully satisfy the mind, the law of relativity should be expressible

thus: The state of bodies and their mutual distances at any instant, as well as the velocities with which these distances vary at this same instant, will depend only on the state of those bodies and their mutual distances at the initial instant, and the velocities with which these distances vary at this initial instant, but they will not depend either upon the absolute initial position of the system, or upon its absolute orientation, or upon the velocities with which this absolute position and orientation varied at the initial instant.

Unhappily the law thus enunciated is not in accord with experiments, at least as they are ordinarily interpreted. Suppose a man be transported to a planet whose heavens were always covered with a thick curtain of clouds, so that he could never see the other stars; on that planet he would live as if it were isolated in space. Yet this man could become aware that it turned, either by measuring its oblateness (done ordinarily by the aid of astronomic observations, but capable of being done by purely geodetic means), or by repeating the experiment of Foucault's pendulum. The absolute rotation of this planet could therefore be made evident.

That is a fact which shocks the philosopher, but which the physicist is compelled to accept. We know that from this fact Newton inferred the existence of absolute space; I myself am quite unable to adopt this view. . . . For the moment it is not my intention to enter upon this difficulty. Therefore I must resign myself, in the enunciation of the law of relativity, to including velocities of every kind among the data which define the state of the bodies. However that may be, this difficulty is the same for Euclid's geometry as for Lobachevski's; I therefore need not trouble myself with it, and have only mentioned it incidentally.

What is important is the conclusion: experiment cannot decide between Euclid and Lobachevski. To sum up, whichever way we look at it, it is impossible to discover in geometric empiricism a rational meaning.

6. Experiments only teach us the relations of bodies to one another; none of them bears or can bear on the relations of bodies with space, or on the mutual relations of different parts of space.

"Yes," you reply, "a single experiment is insufficient, because it gives me only a single equation with several unknowns; but when I shall have made enough experiments I shall have equations enough to calculate all my unknowns."

To know the height of the mainmast does not suffice for calculating the age of the captain. When you have measured every bit of wood in the ship you will have many equations, but you will know his age no better. All your measurements bearing only on your bits of wood can reveal to

you nothing except concerning these bits of wood. Just so your experiments, however numerous they may be, bearing only on the relations of bodies to one another, will reveal to us nothing about the mutual relations of the various parts of space.

7. Will you say that if the experiments bear on the bodies, they bear at least upon the geometric properties of the bodies? But, first, what do you understand by geometric properties of the bodies? I assume that it is a question of the relations of the bodies with space; these properties are therefore inaccessible to experiments which bear only on the relations of the bodies to one another. This alone would suffice to show that there can be no question of these properties.

Still let us begin by coming to an understanding about the sense of the phrase: geometric properties of bodies. When I say a body is composed of several parts, I assume that I do not enunciate therein a geometric property, and this would remain true even if I agreed to give the improper name of points to the smallest parts I consider. When I say that such a part of such a body is in contact with such a part of such another body, I enunciate a proposition which concerns the mutual relations of these two bodies and not their relations with space. I suppose you will grant me these are not geometric properties; at least I am sure you will grant me these properties are independent of all knowledge of metric geometry.

This presupposed, I imagine that we have a solid body formed of eight slender iron rods, *0A, 0B, 0C, 0D, 0E, 0F, 0G, 0H,* united at one of their extremities *0*. Let us besides have a second solid body, for example a bit of wood, to be marked with three little flecks of ink which I shall call α, β, γ. I further suppose it ascertained that $\alpha\beta\gamma$ may be brought into contact with *AG0* (I mean α with *A*, and at the same time β with *G* and γ with *0*), then that we may bring successively into contact $\alpha\beta\gamma$ with *BG0, CG0, DG0, EG0, FG0,* then with *AH0, BH0, CH0, DH0, EH0, FH0,* then $\alpha\gamma$ successively with *AB, BC, CD, DE, EF, FA*.

These are determinations we may make without having in advance any notion about form or about the metric properties of space. They in nowise bear on the "geometric properties of bodies." And these determinations will not be possible if the bodies experimented upon move in accordance with a group having the same structure as the Lobachevskian group (I mean according to the same laws as solid bodies in Lobachevski's geometry). They suffice therefore to prove that these bodies move in accordance with the Euclidean group, or at least that they do not move according to the Lobachevskian group.

That they are compatible with the Euclidean group is easy to see. For they could be made if the body $\alpha\beta\gamma$ was a rigid solid of our ordinary geometry presenting the form of a right-angled triangle, and if the points *ABCDEFGH* were the summits of a polyhedron formed of two regular hexagonal pyramids of our ordinary geometry, having for common base *ABCDEF* and for apices the one *G* and the other *H*.

Suppose now that in place of the preceding determination it is observed that as above $\alpha\beta\gamma$ can be successively applied to *AG0, BG0, CG0, DG0, EG0, AH0, BH0, CH0, DH0, EH0, FH0,* then that $\alpha\beta$ (and no longer $\alpha\gamma$) can be successively applied to *AB, BC, CD, DE, EF* and *FA*.

These are determinations which could be made if non-Euclidean geometry were true, if the bodies $\alpha\beta\gamma$ and *0ABCDEFGH* were rigid solids, and if the first were a right-angled triangle and the second a double regular hexagonal pyramid of suitable dimensions. Therefore these new determinations are not possible if the bodies move according to the Euclidean group; but they become so if it be supposed that the bodies move according to the Lobachevskian group. They would suffice, therefore (if one made them), to prove that the bodies in question do not move according to the Euclidean group.

Thus, without making any hypothesis about form, about the nature of space, about the relations of bodies to space, and without attributing to bodies any geometric property, I have made observations which have enabled me to show in one case that the bodies experimented upon move according to a group whose structure is Euclidean, in the other case that they move according to a group whose structure is Lobachevskian.

And one may not say that the first aggregate of determinations would constitute an experiment proving that space is Euclidean, and the second an experiment proving that space is non-Euclidean. In fact one could imagine (I say imagine) bodies moving so as to render possible the second series of determinations. And the proof is that the first mechanician met could construct such bodies if he cared to take the pains and make the outlay. You will not conclude from that, however, that space is non-Euclidean. Nay, since the ordinary solid bodies would continue to exist when the mechanician had constructed the strange bodies of which I have just spoken, it would be necessary to conclude that space is at the same time Euclidean and non-Euclidean.

Suppose, for example, that we have a great sphere of radius *R* and that the temperature decreases from the center to the surface of this sphere according to the law of which I have spoken in describing the non-Euclidean world. We might have bodies whose expansion would be neg-

ligible and which would act like ordinary rigid solids; and, on the other hand, bodies very dilatable and which would act like non-Euclidean solids. We might have two double pyramids *0ABCDEFGH* and *0′A′B′C′D′E′F′G′H′* and two triangles $\alpha\beta\gamma$ and $\alpha'\beta'\gamma'$. The first double pyramid might be rectilinear and the second curvilinear; the triangle $\alpha\beta\gamma$ might be made of inexpansible matter and the other of a very dilatable matter. It would then be possible to make the first observations with the double pyramid *0AH* and the triangle $\alpha\beta\gamma$, and the second with the double pyramid *0′A′H′* and the triangle $\alpha'\beta'\gamma'$. And then experiment would seem to prove first that the Euclidean geometry is true and then that it is false. *Experiments therefore have a bearing, not on space, but on bodies.*

SUPPLEMENT

8. To complete the matter, I ought to speak of a very delicate question, which would require long development; I shall confine myself to summarizing here what I have expounded in the *Revue de Métaphysique et de Morale* and in *The Monist.* When we say space has three dimensions, what do we mean?

We have seen the importance of those "internal changes" revealed to us by our muscular sensations. They may serve to characterize the various *attitudes* of our body. Take arbitrarily as origin one of these attitudes *A*. When we pass from this initial attitude to any other attitude *B*, we feel a series of muscular sensations, and this series *S* will define *B*. Observe, however, that we shall often regard two series *S* and *S′* as defining the same attitude *B* (since the initial and final attitudes *A* and *B* remaining the same, the intermediary attitudes and the corresponding sensations may differ). How then shall we recognize the equivalence of these two series? Because they may serve to compensate the same external change, or more generally because, when it is a question of compensating an external change, one of the series can be replaced by the other. Among these series, we have distinguished those which of themselves alone can compensate an external change, and which we have called "displacements." As we cannot discriminate between two displacements which are too close together, the totality of these displacements presents the characteristics of a physical continuum; experience teaches us that they are those of a physical continuum of six dimensions; but we do not yet know how many dimensions space itself has, we must first solve another question.

What is a point of space? Everybody thinks he knows, but that is an

illusion. What we see when we try to represent to ourselves a point of space is a black speck on white paper, a speck of chalk on a blackboard, always an object. The question should therefore be understood as follows: What do I mean when I say the object *B* is at the same point that the object *A* occupied just now? Or further, what criterion will enable me to apprehend this?

I mean that, *although I have not budged* (which my muscular sense tells me), my first finger which just now touched the object *A* touches at present the object *B*. I could have used other criteria; for instance another finger or the sense of sight. But the first criterion is sufficient; I know that if it answers yes, all the other criteria will give the same response. I know it *by experience*, I cannot know it a priori. For the same reason I say that touch cannot be exercised at a distance; this is another way of enunciating the same experimental fact. And if, on the contrary, I say that sight acts at a distance, it means that the criterion furnished by sight may respond yes while the others reply no. And in fact, the object although moved away may form its image at the same point of the retina. Sight responds yes, the object has remained at the same point and touch answers no, because my finger which just now touched the object at present touches it no longer. If experience had shown us that one finger may respond no when the other says yes, we should likewise say that touch acts at a distance.

In short, for each attitude of my body, my first finger determines a point, and this it is, and this alone, which defines a point of space. To each attitude corresponds thus a point; but it often happens that the same point corresponds to several different attitudes (in this case we say our finger has not budged, but the rest of the body has moved). We distinguish, therefore, among the changes of attitude those where the finger does not budge. How are we led thereto? It is because often we notice that in these changes the object which is in contact with the finger remains in contact with it.

Range, therefore, in the same class all the attitudes obtainable from each other by one of the changes we have thus distinguished. To all the attitudes of the class will correspond the same point of space. Therefore to each class will correspond a point and to each point a class. But one may say that what experience arrives at is not the point, it is this class of changes or, better, the corresponding class of muscular sensations. And when we say space has three dimensions, we simply mean that the totality of these classes appears to us with the characteristics of a physical continuum of three dimensions.

One might be tempted to conclude that it is experience which has taught us how many dimensions space has. But in reality here also our experiences have bearing, not on space, but on our body and its relations with the neighboring objects. Moreover they are excessively crude.

In our mind pre-existed the latent idea of a certain number of groups– those whose theory Lie has developed. Which group shall we choose, to make of it a sort of standard with which to compare natural phenomena? And, this group chosen, which of its sub-groups shall we take to characterize a point of space? Experience has guided us by showing us which choice best adapts itself to the properties of our body. But its role is limited to that.

ANCESTRAL EXPERIENCE

It has often been said that if individual experience could not create geometry the same is not true of ancestral experience. But what does that mean? Is it meant that we could not experimentally demonstrate Euclid's postulate, but that our ancestors have been able to do it? Not in the least. It is meant that by natural selection our mind has *adapted* itself to the conditions of the external world, that it has adopted the geometry *most advantageous* to the species: or in other words *the most convenient.* This is entirely in conformity with our conclusions; geometry is not true, it is advantageous.

The foregoing essay comprises Chapters III–V from Henri Poincaré's SCIENCE AND HYPOTHESIS, *translated by George B. Halsted.*

Mathematical Creation

The genesis of mathematical creation is a problem which should intensely interest the psychologist. It is the activity in which the human mind seems to take least from the outside world, in which it acts or seems to act only of itself and on itself, so that in studying the procedure of geometric thought we may hope to reach what is most essential in man's mind.

This has long been appreciated, and some time back the journal called *L'enseignement mathématique*, edited by Laisant and Fehr, began an investigation of the mental habits and methods of work of different mathematicians. I had finished the main outlines of this article when the results of that inquiry were published, so I have hardly been able to utilize them and shall confine myself to saying that the majority of witnesses confirm my conclusions; I do not say all, for when the appeal is to universal suffrage unanimity is not to be hoped.

A first fact should surprise us, or rather would surprise us if we were not so used to it. How does it happen there are people who do not understand mathematics? If mathematics invokes only the rules of logic, such as are accepted by all normal minds; if its evidence is based on principles common to all men, and that none could deny without being mad, how does it come about that so many persons are here refractory?

That not everyone can invent is nowise mysterious. That not everyone can retain a demonstration once learned may also pass. But that not everyone can understand mathematical reasoning when explained appears very surprising when we think of it. And yet those who can follow this reasoning only with difficulty are in the majority: that is undeniable, and will surely not be gainsaid by the experience of secondary-school teachers.

And further: how is error possible in mathematics? A sane mind should not be guilty of a logical fallacy, and yet there are very fine minds who do not trip in brief reasoning such as occurs in the ordinary doings of life,

and who are incapable of following or repeating without error the mathematical demonstrations which are longer, but which after all are only an accumulation of brief reasonings wholly analogous to those they make so easily. Need we add that mathematicians themselves are not infallible?

The answer seems to me evident. Imagine a long series of syllogisms, and that the conclusions of the first serve as premises of the following: we shall be able to catch each of these syllogisms, and it is not in passing from premises to conclusion that we are in danger of deceiving ourselves. But between the moment in which we first meet a proposition as conclusion of one syllogism, and that in which we re-encounter it as premise of another syllogism occasionally some time will elapse, several links of the chain will have unrolled; so it may happen that we have forgotten it, or worse, that we have forgotten its meaning. So it may happen that we replace it by a slightly different proposition, or that, while retaining the same enunciation, we attribute to it a slightly different meaning, and thus it is that we are exposed to error.

Often the mathematician uses a rule. Naturally he begins by demonstrating this rule; and at the time when this proof is fresh in his memory he understands perfectly its meaning and its bearing, and he is in no danger of changing it. But subsequently he trusts his memory and afterward only applies it in a mechanical way; and then if his memory fails him, he may apply it all wrong. Thus it is, to take a simple example, that we sometimes make slips in calculation because we have forgotten our multiplication table.

According to this, the special aptitude for mathematics would be due only to a very sure memory or to a prodigious force of attention. It would be a power like that of the whist player who remembers the cards played; or, to go up a step, like that of the chess player who can visualize a great number of combinations and hold them in his memory. Every good mathematician ought to be a good chess player, and inversely; likewise he should be a good computer. Of course that sometimes happens; thus Gauss was at the same time a geometer of genius and a very precocious and accurate computer.

But there are exceptions, or rather I err: I cannot call them exceptions without the exceptions being more than the rule. Gauss it is, on the contrary, who was an exception. As for myself, I must confess, I am absolutely incapable even of adding without mistakes. In the same way I should be but a poor chess player; I would perceive that by a certain play I should expose myself to a certain danger; I would pass in review several

other plays, rejecting them for other reasons, and then finally I should make the move first examined, having meantime forgotten the danger I had foreseen.

In a word, my memory is not bad, but it would be insufficient to make me a good chess player. Why then does it not fail me in a difficult piece of mathematical reasoning where most chess players would lose themselves? Evidently because it is guided by the general march of the reasoning. A mathematical demonstration is not a simple juxtaposition of syllogisms, it is syllogisms *placed in a certain order*, and the order in which these elements are placed is much more important than the elements themselves. If I have the feeling, the intuition, so to speak, of this order, so as to perceive at a glance the reasoning as a whole, I need no longer fear lest I forget one of the elements, for each of them will take its allotted place in the array, and that without any effort of memory on my part.

It seems to me then, in repeating a reasoning learned, that I could have invented it. This is often only an illusion; but even then, even if I am not so gifted as to create it by myself, I myself reinvent it in so far as I repeat it.

We know that this feeling, this intuition of mathematical order, that makes us divine hidden harmonies and relations, cannot be possessed by everyone. Some will not have either this delicate feeling so difficult to define, or a strength of memory and attention beyond the ordinary, and then they will be absolutely incapable of understanding higher mathematics. Such are the majority. Others will have this feeling only in a slight degree, but they will be gifted with an uncommon memory and a great power of attention. They will learn by heart the details one after another; they can understand mathematics and sometimes make applications, but they cannot create. Others, finally, will possess in a less or greater degree the special intuition referred to, and then not only can they understand mathematics even if their memory is nothing extraordinary, but they may become creators and try to invent with more or less success according as this intuition is more or less developed in them.

In fact, what is mathematical creation? It does not consist in making new combinations with mathematical entities already known. Anyone could do that, but the combinations so made would be infinite in number and most of them absolutely without interest. To create consists precisely in not making useless combinations and in making those which are useful and which are only a small minority. Invention is discernment, choice.

How to make this choice I have before explained; the mathematical

facts worthy of being studied are those which, by their analogy with other facts, are capable of leading us to the knowledge of a mathematical law just as experimental facts lead us to the knowledge of a physical law. They are those which reveal to us unsuspected kinship between other facts, long known, but wrongly believed to be strangers to one another.

Among chosen combinations the most fertile will often be those formed of elements drawn from domains which are far apart. Not that I mean as sufficing for invention the bringing together of objects as disparate as possible; most combinations so formed would be entirely sterile. But certain among them, very rare, are the most fruitful of all.

To invent, I have said, is to choose; but the word is perhaps not wholly exact. It makes one think of a purchaser before whom are displayed a large number of samples, and who examines them, one after the other, to make a choice. Here the samples would be so numerous that a whole lifetime would not suffice to examine them. This is not the actual state of things. The sterile combinations do not even present themselves to the mind of the inventor. Never in the field of his consciousness do combinations appear that are not really useful, except some that he rejects but which have to some extent the characteristics of useful combinations. All goes on as if the inventor were an examiner for the second degree who would only have to question the candidates who had passed a previous examination.

But what I have hitherto said is what may be observed or inferred in reading the writings of the geometers, reading reflectively.

It is time to penetrate deeper and to see what goes on in the very soul of the mathematician. For this, I believe, I can do best by recalling memories of my own. But I shall limit myself to telling how I wrote my first memoir on Fuchsian functions. I beg the reader's pardon; I am about to use some technical expressions, but they need not frighten him, for he is not obliged to understand them. I shall say, for example, that I have found the demonstration of such a theorem under such circumstances. This theorem will have a barbarous name, unfamiliar to many, but that is unimportant; what is of interest for the psychologist is not the theorem but the circumstances.

For fifteen days I strove to prove that there could not be any functions like those I have since called Fuchsian functions. I was then very ignorant; every day I seated myself at my work-table, stayed an hour or two, tried a great number of combinations and reached no results. One evening, contrary to my custom, I drank black coffee and could not sleep. Ideas rose in crowds; I felt them collide until pairs interlocked, so to

speak, making a stable combination. By the next morning I had established the existence of a class of Fuchsian functions, those which come from the hypergeometric series; I had only to write out the results, which took but a few hours.

Then I wanted to represent these functions by the quotient of two series; this idea was perfectly conscious and deliberate, the analogy with elliptic functions guided me. I asked myself what properties these series must have if they existed, and I succeeded without difficulty in forming the series I have called theta-Fuchsian.

Just at this time I left Caen, where I was then living, to go on a geological excursion under the auspices of the School of Mines. The changes of travel made me forget my mathematical work. Having reached Coutances, we entered an omnibus to go some place or other. At the moment when I put my foot on the step the idea came to me, without anything in my former thoughts seeming to have paved the way for it, that the transformations I had used to define the Fuchsian functions were identical with those of non-Euclidean geometry. I did not verify the idea; I should not have had time, as, upon taking my seat in the omnibus, I went on with a conversation already commenced, but I felt a perfect certainty. On my return to Caen, for conscience' sake I verified the result at my leisure.

Then I turned my attention to the study of some arithmetic questions apparently without much success and without a suspicion of any connection with my preceding researches. Disgusted with my failure, I went to spend a few days at the seaside, and thought of something else. One morning, walking on the bluff, the idea came to me, with just the same characteristics of brevity, suddenness and immediate certainty, that the arithmetic transformations of indeterminate ternary quadratic forms were identical with those of non-Euclidean geometry.

Returned to Caen, I meditated on this result and deduced the consequences. The example of quadratic forms showed me that there were Fuchsian groups other than those corresponding to the hypergeometric series; I saw that I could apply to them the theory of theta-Fuchsian series and that consequently there existed Fuchsian functions other than those from the hypergeometric series, the ones I then knew. Naturally I set myself to form all these functions. I made a systematic attack upon them and carried all the outworks one after another. There was one however that still held out, whose fall would involve that of the whole place. But all my efforts only served at first the better to show me the difficulty, which indeed was something. All this work was perfectly conscious.

Thereupon I left for Mont-Valérien, where I was to go through my military service; so I was very differently occupied. One day, going along the street, the solution of the difficulty which had stopped me suddenly appeared to me. I did not try to go deep into it immediately, and only after my service did I again take up the question. I had all the elements and had only to arrange them and put them together. So I wrote out my final memoir at a single stroke and without difficulty.

I shall limit myself to this single example; it is useless to multiply them. In regard to my other researches I would have to say analogous things, and the observations of other mathematicians given in *L'enseignement mathématique* would only confirm them.

Most striking at first is this appearance of sudden illumination, a manifest sign of long, unconscious prior work. The role of this unconscious work in mathematical invention appears to me incontestable, and traces of it would be found in other cases where it is less evident. Often when one works at a hard question, nothing good is accomplished at the first attack. Then one takes a rest, longer or shorter, and sits down anew to the work. During the first half-hour, as before, nothing is found, and then all of a sudden the decisive idea presents itself to the mind. It might be said that the conscious work has been more fruitful because it has been interrupted and the rest has given back to the mind its force and freshness. But it is more probable that this rest has been filled out with unconscious work and that the result of this work has afterwards revealed itself to the geometer just as in the cases I have cited; only the revelation, instead of coming during a walk or a journey, has happened during a period of conscious work, but independently of this work which plays at most a role of excitant, as if it were the goad stimulating the results already reached during rest, but remaining unconscious, to assume the conscious form.

There is another remark to be made about the conditions of this unconscious work: it is possible, and of a certainty it is only fruitful, if it is on the one hand preceded and on the other hand followed by a period of conscious work. These sudden inspirations (and the examples already cited sufficiently prove this) never happen except after some days of voluntary effort which has appeared absolutely fruitless and whence nothing good seems to have come, where the way taken seems totally astray. These efforts then have not been as sterile as one thinks; they have set agoing the unconscious machine and without them it would not have moved and would have produced nothing.

The need for the second period of conscious work, after the inspiration, is still easier to understand. It is necessary to put in shape the results of this inspiration, to deduce from them the immediate consequences, to

arrange them, to word the demonstrations, but above all is verification necessary. I have spoken of the feeling of absolute certitude accompanying the inspiration; in the cases cited this feeling was no deceiver, nor is it usually. But do not think this a rule without exception; often this feeling deceives us without being any the less vivid, and we only find it out when we seek to put on foot the demonstration. I have especially noticed this fact in regard to ideas coming to me in the morning or evening in bed while in a semi-hypnagogic state.

Such are the realities; now for the thoughts they force upon us. The unconscious, or, as we say, the subliminal self plays an important role in mathematical creation; this follows from what we have said. But usually the subliminal self is considered as purely automatic. Now we have seen that mathematical work is not simply mechanical, that it could not be done by a machine, however perfect. It is not merely a question of applying rules, of making the most combinations possible according to certain fixed laws. The combinations so obtained would be exceedingly numerous, useless and cumbersome. The true work of the inventor consists in choosing among these combinations so as to eliminate the useless ones or rather to avoid the trouble of making them, and the rules which must guide this choice are extremely fine and delicate. It is almost impossible to state them precisely; they are felt rather than formulated. Under these conditions, how imagine a sieve capable of applying them mechanically?

A first hypothesis now presents itself: the subliminal self is in no way inferior to the conscious self; it is not purely automatic; it is capable of discernment; it has tact, delicacy; it knows how to choose, to divine. What do I say? It knows better how to divine than the conscious self, since it succeeds where that has failed. In a word, is not the subliminal self superior to the conscious self? You recognize the full importance of this question. Boutroux in a recent lecture has shown how it came up on a very different occasion, and what consequences would follow an affirmative answer. (See also, by the same author, *Science et Religion*, pp. 313 ff.)

Is this affirmative answer forced upon us by the facts I have just given? I confess that, for my part, I should hate to accept it. Re-examine the facts then and see if they are not compatible with another explanation.

It is certain that the combinations which present themselves to the mind in a sort of sudden illumination, after an unconscious working somewhat prolonged, are generally useful and fertile combinations, which seem the result of a first impression. Does it follow that the subliminal self, having

divined by a delicate intuition that these combinations would be useful, has formed only these, or has it rather formed many others which were lacking in interest and have remained unconscious?

In this second way of looking at it, all the combinations would be formed in consequence of the automatism of the subliminal self, but only the interesting ones would break into the domain of consciousness. And this is still very mysterious. What is the cause that, among the thousand products of our unconscious activity, some are called to pass the threshold, while others remain below? Is it a simple chance which confers this privilege? Evidently not; among all the stimuli of our senses, for example, only the most intense fix our attention, unless it has been drawn to them by other causes. More generally the privileged unconscious phenomena, those susceptible of becoming conscious, are those which, directly or indirectly, affect most profoundly our emotional sensibility.

It may be surprising to see emotional sensibility invoked *à propos* of mathematical demonstrations which, it would seem, can interest only the intellect. This would be to forget the feeling of mathematical beauty, of the harmony of numbers and forms, of geometric elegance. This is a true esthetic feeling that all real mathematicians know, and surely it belongs to emotional sensibility.

Now, what are the mathematic entities to which we attribute this character of beauty and elegance, and which are capable of developing in us a sort of esthetic emotion? They are those whose elements are harmoniously disposed so that the mind without effort can embrace their totality while realizing the details. This harmony is at once a satisfaction of our esthetic needs and an aid to the mind, sustaining and guiding. And at the same time, in putting under our eyes a well-ordered whole, it makes us foresee a mathematical law. Now, as we have said above, the only mathematical facts worthy of fixing our attention and capable of being useful are those which can teach us a mathematical law. So that we reach the following conclusion: The useful combinations are precisely the most beautiful, I mean those best able to charm this special sensibility that all mathematicians know, but of which the profane are so ignorant as often to be tempted to smile at it.

What happens then? Among the great numbers of combinations blindly formed by the subliminal self, almost all are without interest and without utility; but just for that reason they are also without effect upon the esthetic sensibility. Consciousness will never know them; only certain ones are harmonious, and, consequently, at once useful and beautiful. They will be capable of touching this special sensibility of the geometer of

which I have just spoken, and which, once aroused, will call our attention to them, and thus give them occasion to become conscious.

This is only a hypothesis, and yet here is an observation which may confirm it: when a sudden illumination seizes upon the mind of the mathematician, it usually happens that it does not deceive him, but it also sometimes happens, as I have said, that it does not stand the test of verification; well, we almost always notice that this false idea, had it been true, would have gratified our natural feeling for mathematical elegance.

Thus it is this special esthetic sensibility which plays the role of the delicate sieve of which I spoke, and that sufficiently explains why the one lacking it will never be a real creator.

Yet all the difficulties have not disappeared. The conscious self is narrowly limited, and as for the subliminal self we know not its limitations, and this is why we are not too reluctant in supposing that it has been able in a short time to make more different combinations than the whole life of a conscious being could encompass. Yet these limitations exist. Is it likely that it is able to form all the possible combinations, whose number would frighten the imagination? Nevertheless that would seem necessary, because if it produces only a small part of these combinations, and if it makes them at random, there would be small chance that the *good*, the one we should choose, would be found among them.

Perhaps we ought to seek the explanation in that preliminary period of conscious work which always precedes all fruitful unconscious labor. Permit me a rough comparison. Figure the future elements of our combinations as something like the hooked atoms of Epicurus. During the complete repose of the mind, these atoms are motionless, they are, so to speak, hooked to the wall; so this complete rest may be indefinitely prolonged without the atoms meeting, and consequently without any combination between them.

On the other hand, during a period of apparent rest and unconscious work, certain of them are detached from the wall and put in motion. They flash in every direction through the space (I was about to say the room) where they are enclosed, as would, for example, a swarm of gnats or, if you prefer a more learned comparison, like the molecules of gas in the kinematic theory of gases. Then their mutual impacts may produce new combinations.

What is the role of the preliminary conscious work? It is evidently to mobilize certain of these atoms, to unhook them from the wall and put them in swing. We think we have done no good, because we have moved

these elements a thousand different ways in seeking to assemble them, and have found no satisfactory aggregate. But, after this shaking up imposed upon them by our will, these atoms do not return to their primitive rest. They freely continue their dance.

Now, our will did not choose them at random; it pursued a perfectly determined aim. The mobilized atoms are therefore not any atoms whatsoever; they are those from which we might reasonably expect the desired solution. Then the mobilized atoms undergo impacts which make them enter into combinations among themselves or with other atoms at rest which they struck against in their course. Again I beg pardon, my comparison is very rough, but I scarcely know how otherwise to make my thought understood.

However it may be, the only combinations that have a chance of forming are those where at least one of the elements is one of those atoms freely chosen by our will. Now, it is evidently among these that is found what I called the *good combination*. Perhaps this is a way of lessening the paradoxical in the original hypothesis.

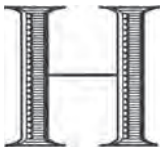
Another observation. It never happens that the unconscious work gives us the result of a somewhat long calculation *all made*, where we have only to apply fixed rules. We might think the wholly automatic subliminal self particularly apt for this sort of work, which is in a way exclusively mechanical. It seems that thinking in the evening upon the factors of a multiplication we might hope to find the product ready made upon our awakening, or again that an algebraic calculation, for example a verification, would be made unconsciously. Nothing of the sort, as observation proves. All one may hope from these inspirations, fruits of unconscious work, is a point of departure for such calculations. As for the calculations themselves, they must be made in the second period of conscious work, that which follows the inspiration, that in which one verifies the results of this inspiration and deduces their consequences. The rules of these calculations are strict and complicated. They require discipline, attention, will, and therefore consciousness. In the subliminal self, on the contrary, reigns what I should call liberty, if we might give this name to the simple absence of discipline and to the disorder born of chance. Only, this disorder itself permits unexpected combinations.

I shall make a last remark: when above I made certain personal observations, I spoke of a night of excitement when I worked in spite of myself. Such cases are frequent, and it is not necessary that the abnormal cerebral activity be caused by a physical excitant as in that I mentioned. It seems, in such cases, that one is present at his own unconscious work,

made partially perceptible to the over-excited consciousness, yet without having changed its nature. Then we vaguely comprehend what distinguishes the two mechanisms or, if you wish, the working methods of the two egos. And the psychologic observations I have been able thus to make seem to me to confirm in their general outlines the views I have given.

Surely they have need of it, for they are and remain in spite of all very hypothetical: the interest of the questions is so great that I do not repent of having submitted them to the reader.

Chance

 ow dare we speak of the laws of chance? Is not chance the antithesis of all law?" So says Bertrand at the beginning of his *Calcul des probabilités*. Probability is opposed to certitude; so it is what we do not know and consequently it seems what we could not calculate. Here is at least apparently a contradiction, and about it much has already been written.

And first, what is chance? The ancients distinguished between phenomena seemingly obeying harmonious laws, established once for all, and those which they attributed to chance; these were the ones unpredictable because rebellious to all law. In each domain the precise laws did not decide everything, they only drew limits between which chance might act. In this conception the word chance had a precise and objective meaning; what was chance for one was also chance for another and even for the gods.

But this conception is not ours today. We have become absolute determinists, and even those who want to reserve the rights of human free will let determinism reign undividedly in the inorganic world at least. Every phenomenon, however minute, has a cause; and a mind infinitely powerful, infinitely well informed about the laws of nature, could have foreseen it from the beginning of the centuries. If such a mind existed, we could not play with it at any game of chance; we should always lose.

In fact for it the word chance would not have any meaning, or rather there would be no chance. It is because of our weakness and our ignorance that the word has a meaning for us. And, even without going beyond our feeble humanity, what is chance for the ignorant is not chance for the scientist. Chance is only the measure of our ignorance. Fortuitous phenomena are, by definition, those whose laws we do not know.

But is this definition altogether satisfactory? When the first Chaldean shepherds followed with their eyes the movements of the stars, they knew

not as yet the laws of astronomy; would they have dreamed of saying that the stars move at random? If a modern physicist studies a new phenomenon, and if he discovers its law Tuesday, would he have said Monday that this phenomenon was fortuitous? Moreover, do we not often invoke what Bertrand calls the laws of chance, to predict a phenomenon? For example, in the kinetic theory of gases we obtain the known laws of Mariotte and of Gay-Lussac by means of the hypothesis that the velocities of the molecules of gas vary irregularly, that is to say at random. All physicists will agree that the observable laws would be much less simple if the velocities were ruled by any simple elementary law whatsoever, if the molecules were, as we say, *organized*, if they were subject to some discipline. It is due to chance, that is to say, to our ignorance, that we can draw our conclusions; and then if the word chance is simply synonymous with ignorance what does that mean? Must we therefore translate as follows?

"You ask me to predict for you the phenomena about to happen. If, unluckily, I knew the laws of these phenomena I could make the prediction only by inextricable calculations and would have to renounce attempting to answer you; but as I have the good fortune not to know them, I will answer you at once. And what is most surprising, my answer will be right."

So it must well be that chance is something other than the name we give our ignorance, that among phenomena whose causes are unknown to us we must distinguish fortuitous phenomena about which the calculus of probabilities will provisionally give information, from those which are not fortuitous and of which we can say nothing so long as we shall not have determined the laws governing them. For the fortuitous phenomena themselves, it is clear that the information given us by the calculus of probabilities will not cease to be true upon the day when these phenomena shall be better known.

The director of a life insurance company does not know when each of the insured will die, but he relies upon the calculus of probabilities and on the law of great numbers, and he is not deceived, since he distributes dividends to his stockholders. These dividends would not vanish if a very penetrating and very indiscreet physician should, after the policies were signed, reveal to the director the life chances of the insured. This doctor would dissipate the ignorance of the director, but he would have no influence on the dividends, which evidently are not an outcome of this ignorance.

To find a better definition of chance we must examine some of the facts which we agree to regard as fortuitous, and to which the calculus of probabilities seems to apply; we then shall investigate what are their common characteristics.

The first example we select is that of unstable equilibrium; if a cone rests upon its apex, we know well that it will fall, but we do not know toward what side; it seems to us chance alone will decide. If the cone were perfectly symmetric, if its axis were perfectly vertical, if it were acted upon by no force other than gravity, it would not fall at all. But the least defect in symmetry will make it lean slightly toward one side or the other, and if it leans, however little, it will fall altogether toward that side. Even if the symmetry were perfect, a very slight tremor, a breath of air could make it incline some seconds of arc; this will be enough to determine its fall and even the sense of its fall which will be that of the initial inclination.

A very slight cause, which escapes us, determines a considerable effect which we cannot help seeing, and then we say this effect is due to chance. If we could know exactly the laws of nature and the situation of the universe at the initial instant, we should be able to predict exactly the situation of this same universe at a subsequent instant. But even when the natural laws should have no further secret for us, we could know the initial situation only *approximately*. If that permits us to foresee the subsequent situation *with the same degree of approximation*, this is all we require, we say the phenomenon has been predicted, that it is ruled by laws. But this is not always the case; it may happen that slight differences in the initial conditions produce very great differences in the final phenomena; a slight error in the former would make an enormous error in the latter. Prediction becomes impossible and we have the fortuitous phenomenon.

Our second example will be very analogous to the first and we shall take it from meteorology. Why have the meteorologists such difficulty in predicting the weather with any certainty? Why do the rains, the tempests themselves seem to us to come by chance, so that many persons find it quite natural to pray for rain or shine, when they would think it ridiculous to pray for an eclipse? We see that great perturbations generally happen in regions where the atmosphere is in unstable equilibrium. The meteorologists are aware that this equilibrium is unstable, that a cyclone is arising somewhere; but where they cannot tell; one-tenth of a degree more or less at any point, and the cyclone bursts here and not there, and

spreads its ravages over countries it would have spared. This we could have foreseen if we had known that tenth of a degree, but the observations were neither sufficiently close nor sufficiently precise, and for this reason all seems due to the agency of chance. Here again we find the same contrast between a very slight cause, unappreciable to the observer, and important effects, which are sometimes tremendous disasters.

Let us pass to another example, the distribution of the minor planets on the zodiac. Their initial longitudes may have been any longitudes whatever; but their mean motions were different and they have revolved for so long a time that we may say they are now distributed *at random* along the zodiac. Very slight initial differences between their distances from the sun, or, what comes to the same thing, between their mean motions, have ended by giving enormous differences between their present longitudes. An excess of the thousandth of a second in the daily mean motion will give in fact a second in three years, a degree in ten thousand years, an entire circumference in three or four million years, and what is that to the time which has passed since the minor planets detached themselves from the nebula of Laplace? Again therefore we see a slight cause and a great effect; or better, slight differences in the cause and great differences in the effect.

The game of roulette does not take us as far as might seem from the preceding example. Assume a needle to be turned on a pivot over a dial divided into a hundred sectors alternately red and black. If it stops on a red sector I win; if not, I lose. Evidently all depends upon the initial impulse I give the needle. The needle will make, suppose, ten or twenty turns, but it will stop sooner or not so soon, according as I shall have pushed it more or less strongly. It suffices that the impulse vary only by a thousandth or a two thousandth to make the needle stop over a black sector or over the following red one. These are differences the muscular sense cannot distinguish and which elude even the most delicate instruments. So it is impossible for me to foresee what the needle I have started will do, and this is why my heart throbs and I hope everything from luck. The difference in the cause is imperceptible, and the difference in the effect is for me of the highest importance, since it means my whole stake.

Permit me, in this connection, a thought somewhat foreign to my subject. Some years ago a philosopher said that the future is determined by the past, but not the past by the future; or, in other words, from knowledge of the present we could deduce the future, but not the past;

because, said he, a cause can have only one effect, while the same effect might be produced by several different causes. It is clear no scientist can subscribe to this conclusion. The laws of nature bind the antecedent to the consequent in such a way that the antecedent is as well determined by the consequent as the consequent by the antecedent. But whence came the error of this philosopher? We know that in virtue of Carnot's principle physical phenomena are irreversible and the world tends toward uniformity. When two bodies of different temperature come in contact, the warmer gives up heat to the colder; so we may foresee that the temperature will equalize. But once equal, if asked about the anterior state, what can we answer? We might say that one was warm and the other cold, but not be able to divine which formerly was the warmer.

And yet in reality the temperatures will never reach perfect equality. The difference of the temperatures only tends asymptotically toward zero. There comes a moment when our thermometers are powerless to make it known. But if we had thermometers a thousand times, a hundred thousand times as sensitive, we should recognize that there still is a slight difference, and that one of the bodies remains a little warmer than the other, and so we could say this it is which formerly was much the warmer.

So then there are, contrary to what we found in the former examples, great differences in cause and slight differences in effect. Flammarion once imagined an observer going away from the earth with a velocity greater than that of light; for him time would have changed sign. History would be turned about, and Waterloo would precede Austerlitz. Well, for this observer, effects and causes would be inverted; unstable equilibrium would no longer be the exception. Because of the universal irreversibility, all would seem to him to come out of a sort of chaos in unstable equilibrium. All nature would appear to him delivered over to chance.

Now for other examples where we shall see somewhat different characteristics. Take first the kinetic theory of gases. How should we picture a receptacle filled with gas? Innumerable molecules, moving at high speeds, flash through this receptacle in every direction. At every instant they strike against its walls or each other, and these collisions happen under the most diverse conditions. What above all impresses us here is not the littleness of the causes, but their complexity, and yet the former element is still found here and plays an important role. If a molecule deviated right or left from its trajectory, by a very small quantity, comparable to the radius of action of the gaseous molecules, it

would avoid a collision or sustain it under different conditions, and that would vary the direction of its velocity after the impact, perhaps by ninety degrees or by a hundred and eighty degrees.

And this is not all; we have just seen that it is necessary to deflect the molecule before the clash by only an infinitesimal, to produce its deviation after the collision by a finite quantity. If then the molecule undergoes two successive shocks, it will suffice to deflect it before the first by an infinitesimal of the second order, for it to deviate after the first encounter by an infinitesimal of the first order, and after the second hit, by a finite quantity. And the molecule will not undergo merely two shocks; it will undergo a very great number per second. So that if the first shock has multiplied the deviation by a very large number A, after n shocks it will be multiplied by A^n. It will therefore become very great not merely because A is large, that is to say because little causes produce big effects, but because the exponent n is large, that is to say because the shocks are very numerous and the causes very complex.

Take a second example. Why do the drops of rain in a shower seem to be distributed at random? This is again because of the complexity of the causes which determine their formatiom. Ions are distributed in the atmosphere. For a long while they have been subjected to air currents constantly changing, they have been caught in very small whirlwinds, so that their final distribution has no longer any relation to their initial distribution. Suddenly the temperature falls, vapor condenses, and each of these ions becomes the center of a drop of rain. To know what will be the distribution of these drops and how many will fall on each paving stone, it would not be sufficient to know the initial situation of the ions, it would be necessary to compute the effect of a thousand little capricious air currents.

And again it is the same if we put grains of powder in suspension in water. The vase is ploughed by currents whose law we know not, we only know it is very complicated. At the end of a certain time the grains will be distributed at random, that is to say uniformly, in the vase; and this is due precisely to the complexity of these currents. If they obeyed some simple law, if for example the vase revolved and the currents circulated around the axis of the vase, describing circles, it would no longer be the same, since each grain would retain its initial altitude and its initial distance from the axis.

We should reach the same result in considering the mixing of two liquids or of two fine-grained powders. And to take a grosser example, this is also what happens when we shuffle playing cards. At each stroke the cards undergo a permutation (analogous to that studied in the theory of

substitutions). What will happen? The probability of a particular permutation (for example, that bringing to the nth place the card occupying the ϕ [n]th place before the permutation) depends upon the player's habits. But if this player shuffles the cards long enough, there will be a great number of successive permutations, and the resulting final order will no longer be governed by aught but chance; I mean to say that all possible orders will be equally probable. It is to the great number of successive permutations, that is to say to the complexity of the phenomenon, that this result is due.

A final word about the theory of errors. Here it is that the causes are complex and multiple. To how many snares is not the observer exposed, even with the best instrument! He should apply himself to finding out the largest and avoiding them. These are the ones giving birth to systematic errors. But when he has eliminated those, admitting that he succeeds, there remain many small ones which, their effects accumulating, may become dangerous. Thence come the accidental errors; and we attribute them to chance because their causes are too complicated and too numerous. Here again we have only little causes, but each of them would produce only a slight effect; it is by their union and their number that their effects become formidable.

We may take still a third point of view, less important than the first two and upon which I shall lay less stress. When we seek to foresee an event and examine its antecedents, we strive to search into the anterior situation. This could not be done for all parts of the universe and we are content to know what is passing in the neighborhood of the point where the event should occur, or what would appear to have some relation to it. An examination cannot be complete and we must know how to choose. But it may happen that we have passed by circumstances which at first sight seemed completely foreign to the foreseen happening, to which one would never have dreamed of attributing any influence and which nevertheless, contrary to all anticipation, come to play an important role.

A man passes in the street going to his business; some one knowing the business could have told why he started at such a time and went by such a street. On the roof works a tiler. The contractor employing him could in a certain measure foresee what he would do. But the passer-by scarcely thinks of the tiler, nor the tiler of him; they seem to belong to two worlds completely foreign to one another. And yet the tiler drops a tile which kills the man, and we do not hesitate to say this is chance.

Our weakness forbids our considering the entire universe and makes us

cut it up into slices. We try to do this as little artificially as possible. And yet it happens from time to time that two of these slices react upon each other. The effects of this mutual action then seem to us to be due to chance.

Is this a third way of conceiving chance? Not always; in fact most often we are carried back to the first or the second. Whenever two worlds usually foreign to one another come thus to react upon each other, the laws of this reaction must be very complex. On the other hand, a very slight change in the initial conditions of these two worlds would have been sufficient for the reaction not to have happened. How little was needed for the man to pass a second later or the tiler to drop his tile a second sooner.

All we have said still does not explain why chance obeys laws. Does the fact that the causes are slight or complex suffice for our foreseeing, if not their effects *in each case*, at least what their effects will be, *on the average*? To answer this question we had better take up again some of the examples already cited.

I shall begin with that of the roulette. I have said that the point where the needle will stop depends upon the initial push given it. What is the probability of this push having this or that value? I know nothing about it, but it is difficult for me not to suppose that this probability is represented by a continuous analytic function. The probability that the push is comprised between α and $\alpha + \epsilon$ will then be sensibly equal to the probability of its being comprised between $\alpha + \epsilon$ and $\alpha + 2\epsilon$, *provided* ϵ *be very small*. This is a property common to all analytic functions. Minute variations of the function are proportional to minute variations of the variable.

But we have assumed that an exceedingly slight variation of the push suffices to change the color of the sector over which the needle finally stops. From α to $\alpha + \epsilon$ it is red, from $\alpha + \epsilon$ to $\alpha + 2\epsilon$ it is black; the probability of each red sector is therefore the same as of the following black, and consequently the total probability of red equals the total probability of black.

The datum of the question is the analytic function representing the probability of a particular initial push. But the theorem remains true whatever be this datum, since it depends upon a property common to all analytic functions. From this it follows finally that we no longer need the datum.

What we have just said for the case of the roulette applies also to the example of the minor planets. The zodiac may be regarded as an immense

roulette on which have been tossed many little balls with different initial impulses varying according to some law. Their present distribution is uniform and independent of this law, for the same reason as in the preceding case. Thus we see why phenomena obey the laws of chance when slight differences in the causes suffice to bring on great differences in the effects. The probabilities of these slight differences may then be regarded as proportional to these differences themselves, just because these differences are minute, and the infinitesimal increments of a continuous function are proportional to those of the variable.

Take an entirely different example, where intervenes especially the complexity of the causes. Suppose a player shuffles a pack of cards. At each shuffle he changes the order of the cards, and he may change them in many ways. To simplify the exposition, consider only three cards. The cards which before the shuffle occupied respectively the places 123, may after the shuffle occupy the places

$$123,\ 231,\ 312,\ 321,\ 132,\ 213.$$

Each of these six hypotheses is possible and they have respectively for probabilities:

$$p_1,\ p_2,\ p_3,\ p_4,\ p_5,\ p_6.$$

The sum of these six numbers equals 1; but this is all we know of them; these six probabilities depend naturally upon the habits of the player which we do not know.

At the second shuffle and the following, this will recommence, and under the same conditions; I mean that p_4 for example represents always the probability that the three cards which occupied after the nth shuffle and before $n + 1$th the places 123, occupy the places 321 after the $n + 1$th shuffle. And this remains true whatever be the number n, since the habits of the player and his way of shuffling remain the same.

But if the number the shuffles is very great, the cards which before the first shuffle occupied the places 123 may, after the last shuffle, occupy the places

$$123,\ 231,\ 312,\ 321,\ 132,\ 213$$

and the probability of these six hypotheses will be sensibly the same and equal to 1/6; and this will be true whatever be the numbers $p_1 \ldots p_6$ which we do not know. The great number of shuffles, that is to say the complexity of the causes, has produced uniformity.

This would apply without change if there were more than three cards,

but even with three cards the demonstration would be complicated; let it suffice to give it for only two cards. Then we have only two possibilities 12, 21 with the probabilities p_1 and $p_2 = 1 - p_1$.

Suppose n shuffles and suppose I win one franc if the cards are finally in the initial order and lose one if they are finally inverted. Then, my mathematical expectation will be $(p_1 - p_2)^n$.

The difference $p_1 - p_2$ is certainly less than 1; so that if n is very great my expectation will be zero; we need not learn p_1 and p_2 to be aware that the game is equitable.

There would always be an exception if one of the numbers p_1 and p_2 was equal to 1 and the other naught. *Then it would not apply because our initial hypotheses would be too simple*.

What we have just seen applies not only to the mixing of cards, but to all mixings, to those of powders and of liquids, and even to those of the molecules of gases in the kinetic theory of gases.

To return to this theory, suppose for a moment a gas whose molecules cannot mutually clash, but may be deviated by hitting the insides of the vase wherein the gas is confined. If the form of the vase is sufficiently complex the distribution of the molecules and that of the velocities will not be long in becoming uniform. But this will not be so if the vase is spherical or if it has the shape of a cuboid. Why? Because in the first case the distance from the center to any trajectory will remain constant; in the second case this will be the absolute value of the angle of each trajectory with the faces of the cuboid.

So we see what should be understood by conditions *too simple;* they are those which conserve something, which leave an invariant remaining. Are the differential equations of the problem too simple for us to apply the laws of chance? This question would seem at first view to lack precise meaning; now we know what it means. They are too simple if they conserve something, if they admit a uniform integral. If something in the initial conditions remains unchanged, it is clear the final situation can no longer be independent of the initial situation.

We come finally to the theory of errors. We know not to what are due the accidental errors, and precisely because we do not know, we are aware they obey the law of Gauss. Such is the paradox. The explanation is nearly the same as in the preceding cases. We need know only one thing: that the errors are very numerous, that they are very slight, that each may be as well negative as positive. What is the curve of probability of each of them? We do not know; we only suppose it is symmetric. We prove then that the resultant error will follow Gauss's law, and this resulting law is

independent of the particular laws which we do not know. Here again the simplicity of the result is born of the very complexity of the data.

But we are not through with paradoxes. I have just recalled the figment of Flammarion, that of the man going quicker than light, for whom time changes sign. I said that for him all phenomena would seem due to chance. That is true from a certain point of view, and yet all these phenomena at a given moment would not be distributed in conformity with the laws of chance, since the distribution would be the same as for us, who, seeing them unfold harmoniously and without coming out of a primal chaos, do not regard them as ruled by chance.

What does that mean? For Lumen, Flammarion's man, slight causes seem to produce great effects; why do not things go on as for us when we think we see grand effects due to little causes? Would not the same reasoning be applicable in his case?

Let us return to the argument. When slight differences in the causes produce vast differences in the effects, why are these effects distributed according to the laws of chance? Suppose a difference of a millimeter in the cause produces a difference of a kilometer in the effect. If I win in case the effect corresponds to a kilometer bearing an even number, my probability of winning will be 1/2. Why? Because to make that, the cause must correspond to a millimeter with an even number. Now, according to all appearance, the probability of the cause varying between certain limits will be proportional to the distance apart of these limits, provided this distance be very small. If this hypothesis were not admitted there would no longer be any way of representing the probability by a continuous function.

What now will happen when great causes produce small effects? This is the case where we should not attribute the phenomenon to chance and where on the contrary Lumen would attribute it to chance. To a difference of a kilometer in the cause would correspond a difference of a millimeter in the effect. Would the probability of the cause being comprised between two limits n kilometers apart still be proportional to n? We have no reason to suppose so, since this distance, n kilometers, is great. But the probability that the effect lies between two limits n millimeters apart will be precisely the same, so it will not be proportional to n, even though this distance, n millimeters, be small. There is no way therefore of representing the law of probability of effects by a continuous curve. This curve, understand, may remain continuous in the *analytic* sense of the word; to *infinitesimal* variations of the abscissa will correspond infinitesimal varia-

tions of the ordinate. But *practically* it will not be continuous, since *very small* variations of the ordinate would not correspond to very small variations of the abscissa. It would become impossible to trace the curve with an ordinary pencil; that is what I mean.

So what must we conclude? Lumen has no right to say that the probability of the cause (*his* cause, our effect) should be represented necessarily by a continuous function. But then why have we this right? It is because this state of unstable equilibrium which we have been calling initial is itself only the final outcome of a long previous history. In the course of this history complex causes have worked a great while: they have contributed to produce the mixture of elements and they have tended to make everything uniform at least within a small region; they have rounded off the corners, smoothed down the hills and filled up the valleys. However capricious and irregular may have been the primitive curve given over to them, they have worked so much toward making it regular that finally they deliver over to us a continuous curve. And this is why we may in all confidence assume its continuity.

Lumen would not have the same reasons for such a conclusion. For him complex causes would not seem agents of equalization and regularity, but on the contrary would create only inequality and differentiation. He would see a world more and more varied come forth from a sort of primitive chaos. The changes he could observe would be for him unforeseen and impossible to foresee. They would seem to him due to some caprice or another; but this caprice would be quite different from our chance, since it would be opposed to all law, while our chance still has its laws. All these points call for lengthy explications, which perhaps would aid in the better comprehension of the irreversibility of the universe.

We have sought to define chance, and now it is proper to put a question. Has chance thus defined, in so far as this is possible, objectivity?

It may be questioned. I have spoken of very slight or very complex causes. But what is very little for one may be very big for another, and what seems very complex to one may seem simple to another. In part I have already answered by saying precisely in what cases differential equations become too simple for the laws of chance to remain applicable. But it is fitting to examine the matter a little more closely, because we may take still other points of view.

What means the phrase "very slight"? To understand it we need only go

back to what has already been said. A difference is very slight, an interval is very small, when within the limits of this interval the probability remains sensibly constant. And why may this probability be regarded as constant within a small interval? It is because we assume that the law of probability is represented by a continuous curve, continuous not only in the analytic sense, but *practically* continuous, as already explained. This means that it not only presents no absolute hiatus, but that it has neither salients nor re-entrants too acute or too accentuated.

And what gives us the right to make this hypothesis? We have already said it is because, since the beginning of the ages, there have always been complex causes ceaselessly acting in the same way and making the world tend toward uniformity without ever being able to turn back. These are the causes which little by little have flattened the salients and filled up the re-entrants, and this is why our probability curves now show only gentle undulations. In milliards of milliards of ages another step will have been made toward uniformity, and these undulations will be ten times as gentle; the radius of mean curvature of our curve will have become ten times as great. And then such a length as seems to us today not very small, since on our curve an arc of this length cannot be regarded as rectilineal, should on the contrary at that epoch be called very little, since the curvature will have become ten times less and an arc of this length may be sensibly identified with a sect.

Thus the phrase "very slight" remains relative; but it is not relative to such or such a man, it is relative to the actual state of the world. It will change its meaning when the world shall have become more uniform, when all things shall have blended still more. But then doubtless men can no longer live and must give place to other beings—should I say far smaller or far larger? So that our criterion, remaining true for all men, retains an objective sense.

And on the other hand what means the phrase "very complex"? I have already given one solution, but there are others. Complex causes we have said produce a blend more and more intimate, but after how long a time will this blend satisfy us? When will it have accumulated sufficient complexity? When shall we have sufficiently shuffled the cards? If we mix two powders, one blue, the other white, there comes a moment when the tint of the mixture seems to us uniform because of the feebleness of our senses; it will be uniform for the presbyope, forced to gaze from afar, before it will be so for the myope. And when it has become uniform for all eyes, we still could push back the limit by the use of instruments. There is no chance for any man ever to discern the infinite

variety which, if the kinetic theory is true, hides under the uniform appearance of a gas. And yet if we accept Gouy's ideas on the Brownian movement, does not the microscope seem on the point of showing us something analogous?

This new criterion is therefore relative like the first; and if it retains an objective character, it is because all men have approximately the same senses, the power of their instruments is limited, and besides they use them only exceptionally.

It is just the same in the moral sciences and particularly in history. The historian is obliged to make a choice among the events of the epoch he studies; he recounts only those which seem to him the most important. He therefore contents himself with relating the most momentous events of the sixteenth century, for example, as likewise the most remarkable facts of the seventeenth century. If the first suffice to explain the second, we say these conform to the laws of history. But if a great event of the seventeenth century should have for cause a small fact of the sixteenth century which no history reports, which all the world has neglected, then we say this event is due to chance. This word has therefore the same sense as in the physical sciences; it means that slight causes have produced great effects.

The greatest bit of chance is the birth of a great man. It is only by chance that meeting of two germinal cells, of different sex, containing precisely, each on its side, the mysterious elements whose mutual reaction must produce the genius. One will agree that these elements must be rare and that their meeting is still more rare. How slight a thing it would have required to deflect from its route the carrying spermatozoon. It would have sufficed to deflect it a tenth of a millimeter and Napoleon would not have been born and the destinies of a continent would have been changed. No example can better make us understand the veritable characteristics of chance.

One more word about the paradoxes brought out by the application of the calculus of probabilities to the moral sciences. It has been proven that no Chamber of Deputies will ever fail to contain a member of the opposition, or at least such an event would be so improbable that we might without fear wager the contrary, and bet a million against a sou.

Condorcet has striven to calculate how many jurors it would require to make a judicial error practically impossible. If we had used the results of this calculation, we should certainly have been exposed to the same

disappointments as in betting, on the faith of the calculus, that the opposition would never be without a representative.

The laws of chance do not apply to these questions. If justice be not always meted out to accord with the best reasons, it uses less than we think the method of Bridoye. This is perhaps to be regretted, for then the system of Condorcet would shield us from judicial errors.

What is the meaning of this? We are tempted to attribute facts of this nature to chance because their causes are obscure; but this is not true chance. The causes are unknown to us, it is true, and they are even complex; but they are not sufficiently so, since they conserve something. We have seen that this it is which distinguishes causes "too simple." When men are brought together they no longer decide at random and independently one of another; they influence one another. Multiplex causes come into action. They worry men, dragging them to right or left, but one thing there is they cannot destroy, this is their Panurge flock-of-sheep habits. And this is an invariant.

Difficulties are indeed involved in the application of the calculus of probabilities to the exact sciences. Why are the decimals of a table of logarithms, why are those of the number π distributed in accordance with the laws of chance? Elsewhere I have already studied the question in so far as it concerns logarithms, and there it is easy. It is clear that a slight difference of argument will give a slight difference of logarithm, but a great difference in the sixth decimal of the logarithm. Always we find again the same criterion.

But as for the number π, that presents more difficulties, and I have at the moment nothing worthwhile to say.

There would be many other questions to resolve, had I wished to attack them before solving that which I more specially set myself. When we reach a simple result, when we find for example a round number, we say that such a result cannot be due to chance, and we seek, for its explanation, a nonfortuitous cause. And in fact there is only a very slight probability that among 10,000 numbers chance will give a round number; for example, the number 10,000. This has only one chance in 10,000. But there is only one chance in 10,000 for the occurrence of any other one number; and yet this result will not astonish us, nor will it be hard for us to attribute it to chance; and that simply because it will be less striking.

Is this a simple illusion of ours, or are there cases where this way of thinking is legitimate? We must hope so, else were all science impossible.

When we wish to check a hypothesis, what do we do? We cannot verify all its consequences, since they would be infinite in number; we content ourselves with verifying certain ones and if we succeed we declare the hypothesis confirmed, because so much success could not be due to chance. And this is always at bottom the same reasoning.

I cannot completely justify it here, since it would take too much time; but I may at least say that we find ourselves confronted by two hypotheses, either a simple cause or that aggregate of complex causes we call chance. We find it natural to suppose that the first should produce a simple result, and then, if we find that simple result, the round number for example, it seems more likely to us to be attributable to the simple cause which must give it almost certainly, than to chance which could only give it once in 10,000 times. It will not be the same if we find a result which is not simple; chance, it is true, will not give this more than once in 10,000 times; but neither has the simple cause any more chance of producing it.

The foregoing essays are Chapters III and IV of Poincaré's SCIENCE AND METHOD.

Pierre Simon de Laplace

1749–1827

The French encyclopedists of the eighteenth century imagined that they were not far from a final explanation of the universe by physical and mechanical principles. Laplace is representative of that confident age which joyfully overestimated the scope of the new physico-mechanical ideas.

Pierre Simon de Laplace was born at Beaumont-en-Auge in Normandy in 1749. His father owned a small estate. At the University of Caen, which he entered at the age of sixteen, he soon demonstrated his mathematical abilities. He was only eighteen when he was appointed professor of mathematics at the École Militaire of Paris.

He rose rapidly. In 1773 he took up one of the outstanding problems which until then had resisted all attempts at solution in terms of Newtonian gravitation: the problem of why Jupiter's orbit appeared to be continually shrinking while Saturn's was continually expanding. Newton had feared that the planetary system would need divine intervention from time to time if it was to be preserved in anything like its present order. Laplace was able to show that this phenomenon was of periodic nature and could be expected to right itself every 929 years.

Laplace's monumental work on astronomical gravitation, *Celestial Mechanics*, was published in five volumes between 1799 and 1825. It is a work of formidable abstraction, obscure in style, with great gaps in the arguments bridged by the phrase "it is easy to see." Nor is it entirely honest writing. He deliberately omitted references to the work of others, presenting the labors of three generations of mathematicians as the fruit of his brain. Nevertheless, it is a triumphant work.

Laplace's contribution in the field of probability is unequaled by any other single investigator. *The Analytical Theory of Probabilities* (1812) described a calculus for assigning a "degree of rational belief" to propositions about chance events. "Belief" seems a startlingly unscientific notion in this context. We order our daily affairs in the firm belief that the sun will rise tomorrow, but it does not seem to be an idea to which a definite quantity could be assigned. But, belief can be measured, said Laplace, and he set up the calculus for doing so.

Although the concept of probability has become one of the fundamental notions of modern science, the experts are still not able to agree on its meaning. The classic definition, formulated by Laplace, has, to a large extent, been replaced by the "relative frequency" interpretation developed by Charles S. Peirce, as expounded in his essay *The Red and the Black*.

A Philosophical Essay on Probabilities is a nontechnical introduction to the laws of chance. In establishing the ten principles which form the calculus, Laplace deals with "hope" as easily as he does with tossed coins; the principles of probability affect every phase of human life. Everything can be measured. Laplace saw no technical bar to an intelligence which would be able to predict the course of the universe in minutest detail with infallible accuracy. His was not an age of intellectual humility.

Modern science is more modest. In some ways the universe is more mysterious than it has ever been. Nature is no longer examined solely in terms of motion and matter. Laplace's celestial machine established the stability of the universe for a very long time indeed, but not for the "eternal duration" that he claimed.[1] The eighteenth

[1] For various theories about the ultimate fate of the universe, see selections from Arthur Eddington, pp. 565–580, and Sir James Jeans, pp. 585–596, in Vol. 8 in this set.

Notes from the artist: ". . . an almost surrealist head study of Laplace, made up in part from the ancient symbols of the planets. The background is a facsimile of the constellations in the Northern Hemisphere as drawn by Albrecht Dürer in 1515."

Astrus Cilor
Ptolemeus Aegyptus
Virginis
Virginem
Virgo
Pierre Simon
Laplace

century was unique in the history of ideas. Never before nor since has man been so sure of his ability to comprehend all of nature.

Laplace died in 1827. He surrounded himself with astronomers, physicists, naturalists, and mathematicians during his last years. Busy and happy, he received distinguished visitors from all parts of the world. His scientific genius earned for him the title of "the Newton of France."

Laplace has been criticized for his infinite adaptability to changing political environments; his contemporaries cynically referred to his "suppleness." During the turbulent times of the French Revolution he kept his head–literally–and prospered. As his books entered into successive editions, the introductions were changed to fit the times. Laplace dedicated the 1812 edition of *The Analytical Theory of Probabilities* to "Napoleon the Great"; in the 1814 edition he suppressed this dedication and wrote "that the fall of empires which aspired to universal domination could be predicted with a very high probability by one versed in the calculus of chance."

Probability
from *A Philosophical Essay on Probabilities*

INTRODUCTION

This philosophical essay is the development of a lecture on probabilities which I delivered in 1795 to the normal schools whither I had been called, by a decree of the national convention, as professor of mathematics with Lagrange. I have recently published upon the same subject a work entitled *The Analytical Theory of Probabilities*. I present here without the aid of analysis the principles and general results of this theory, applying them to the most important questions of life, which are indeed for the most part only problems of probability. Strictly speaking it may even be said that nearly all our knowledge is problematical; and in the small number of things which we are able to know with certainty, even in the mathematical sciences themselves, the principal means for ascertaining truth–induction and analogy–are based on probabilities; so that the entire system of human knowledge is connected with the theory set forth in this essay. Doubtless it will be seen here with interest that in considering, even in the eternal principles of reason, justice, and humanity, only the favorable chances which are constantly attached to them, there is a great advantage in following these principles and serious inconvenience in departing from them: their chances, like those favorable to lotteries, always end by prevailing in the midst of the vacillations of hazard. I hope that the reflections given in this essay may merit the attention of philosophers and direct it to a subject so worthy of engaging their minds.

CONCERNING PROBABILITY

All events, even those which on account of their insignificance do not seem to follow the great laws of nature, are a result of it just as necessarily

as the revolutions of the sun. In ignorance of the ties which unite such events to the entire system of the universe, they have been made to depend upon final causes or upon hazard, according as they occur and are repeated with regularity, or appear without regard to order; but these imaginary causes have gradually receded with the widening bounds of knowledge and disappear entirely before sound philosophy, which sees in them only the expression of our ignorance of the true causes.

Present events are connected with preceding ones by a tie based upon the evident principle that a thing cannot occur without a cause which produces it. This axiom, known by the name of *the principle of sufficient reason*, extends even to actions which are considered indifferent; the freest will is unable without a determinative motive to give them birth; if we assume two positions with exactly similar circumstances and find that the will is active in the one and inactive in the other, we say that its choice is an effect without a cause. It is then, says Leibnitz, the blind chance of the Epicureans. The contrary opinion is an illusion of the mind, which, losing sight of the evasive reasons of the choice of the will in indifferent things, believes that choice is determined of itself and without motives.

We ought then to regard the present state of the universe as the effect of its anterior state and as the cause of the one which is to follow. Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it—an intelligence sufficiently vast to submit these data to analysis—it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present to its eyes. The human mind offers, in the perfection which it has been able to give to astronomy, a feeble idea of this intelligence. Its discoveries in mechanics and geometry, added to that of universal gravity, have enabled it to comprehend in the same analytical expressions the past and future states of the system of the world. Applying the same method to some other objects of its knowledge, it has succeeded in referring to general laws observed phenomena and in foreseeing those which given circumstances ought to produce. All these efforts in the search for truth tend to lead it back continually to the vast intelligence which we have just mentioned, but from which it will always remain infinitely removed. This tendency, peculiar to the human race, is that which renders it superior to animals; and their progress in this respect distinguishes nations and ages and constitutes their true glory.

Let us recall that formerly, and at no remote epoch, an unusual rain or

an extreme drought, a comet having in train a very long tail, the eclipses, the aurora borealis, and in general all the unusual phenomena were regarded as so many signs of celestial wrath. Heaven was invoked in order to avert their baneful influence. No one prayed to have the planets and the sun arrested in their courses: observation had soon made apparent the futility of such prayers. But as these phenomena, occurring and disappearing at long intervals, seemed to oppose the order of nature, it was supposed that Heaven, irritated by the crimes of the earth, had created them to announce its vengeance. Thus the long tail of the comet of 1456 spread terror through Europe, already thrown into consternation by the rapid successes of the Turks, who had just overthrown the Lower Empire. This star after four revolutions has excited among us a very different interest. The knowledge of the laws of the system of the world acquired in the interval had dissipated the fears begotten by the ignorance of the true relationship of man to the universe; and Halley, having recognized the identity of this comet with those of the years 1531, 1607, and 1682, announced its next return for the end of the year 1758 or the beginning of the year 1759. The learned world awaited with impatience this return which was to confirm one of the greatest discoveries that have been made in the sciences, and fulfill the prediction of Seneca when he said, in speaking of the revolutions of those stars which fall from an enormous height: "The day will come when, by study pursued through several ages, the things now concealed will appear with evidence; and posterity will be astonished that truths so clear had escaped us." Clairaut then undertook to submit to analysis the perturbations which the comet had experienced by the action of the two great planets, Jupiter and Saturn; after immense calculations he fixed its next passage at the perihelion toward the beginning of April, 1759, which was actually verified by observation. The regularity which astronomy shows us in the movements of the comets doubtless exists also in all phenomena.

The curve described by a simple molecule of air or vapor is regulated in a manner just as certain as the planetary orbits; the only difference between them is that which comes from our ignorance.

Probability is relative, in part to this ignorance, in part to our knowledge. We know that of three or a greater number of events a single one ought to occur; but nothing induces us to believe that one of them will occur rather than the others. In this state of indecision it is impossible for us to announce their occurrence with certainty. It is, however, probable that one of these events, chosen at will, will not occur because we see several cases equally possible which exclude its occurrence, while only a single one favors it.

The theory of chance consists in reducing all the events of the same kind to a certain number of cases equally possible, that is to say, to such as we may be equally undecided about in regard to their existence, and in determining the number of cases favorable to the event whose probability is sought. The ratio of this number to that of all the cases possible is the measure of this probability, which is thus simply a fraction whose numerator is the number of favorable cases and whose denominator is the number of all the cases possible.

The preceding notion of probability supposes that, in increasing in the same ratio the number of favorable cases and that of all the cases possible, the probability remains the same. In order to convince ourselves let us take two urns, A and B, the first containing four white and two black balls, and the second containing only two white balls and one black one. We may imagine the two black balls of the first urn attached by a thread which breaks at the moment when one of them is seized in order to be drawn out, and the four white balls thus forming two similar systems. All the chances which will favor the seizure of one of the balls of the black system will lead to a black ball. If we conceive now that the threads which unite the balls do not break at all, it is clear that the number of possible chances will not change any more than that of the chances favorable to the extraction of the black balls; but two balls will be drawn from the urn at the same time; the probability of drawing a black ball from the urn A will then be the same as at first. But then we have obviously the case of urn B with the single difference that the three balls of this last urn would be replaced by three systems of two balls invariably connected.

When all the cases are favorable to an event the probability changes to certainty and its expression becomes equal to unity. Upon this condition, certainty and probability are comparable, although there may be an essential difference between the two states of the mind when a truth is rigorously demonstrated to it, or when it still perceives a small source of error.

In things which are only probable the difference of the data, which each man has in regard to them, is one of the principal causes of the diversity of opinions which prevail in regard to the same objects. Let us suppose, for example, that we have three urns, A, B, C, one of which contains only black balls while the two others contain only white balls; a ball is to be drawn from the urn C and the probability is demanded that this ball will be black. If we do not know which of the three urns contains black balls only, so that there is no reason to believe that it is C rather than B or A, these three hypotheses will appear equally possible, and since a

black ball can be drawn only in the first hypothesis, the probability of drawing it is equal to one third. If it is known that the urn A contains white balls only, the indecision then extends only to the urns B and C, and the probability that the ball drawn from the urn C will be black is one half. Finally this probability changes to certainty if we are assured that the urns A and B contain white balls only.

It is thus that an incident related to a numerous assembly finds various degrees of credence, according to the extent of knowledge of the auditors. If the man who reports it is fully convinced of it and if, by his position and character, he inspires great confidence, his statement, however extraordinary it may be, will have for the auditors who lack information the same degree of probability as an ordinary statement made by the same man, and they will have entire faith in it. But if some one of them knows that the same incident is rejected by other equally trustworthy men, he will be in doubt and the incident will be discredited by the enlightened auditors, who will reject it whether it be in regard to facts well averred or the immutable laws of nature.

It is to the influence of the opinion of those whom the multitude judges best informed and to whom it has been accustomed to give its confidence in regard to the most important matters of life that the propagation of those errors is due which in times of ignorance have covered the face of the earth. Magic and astrology offer us two great examples. These errors inculcated in infancy, adopted without examination, and having for a basis only universal credence, have maintained themselves during a very long time; but at last the progress of science has destroyed them in the minds of enlightened men, whose opinion consequently has caused them to disappear even among the common people, through the power of imitation and habit which had so generally spread them abroad. This power, the richest resource of the moral world, establishes and conserves in a whole nation ideas entirely contrary to those which it upholds elsewhere with the same authority. What indulgence ought we not then to have for opinions different from ours, when this difference often depends only upon the various points of view where circumstances have placed us! Let us enlighten those whom we judge insufficiently instructed; but first let us examine critically our own opinions and weigh with impartiality their respective probabilities.

The difference of opinions depends, however, upon the manner in which the influence of known data is determined. The theory of probabilities holds to considerations so delicate that it is not surprising that with the same data two persons arrive at different results, es-

pecially in very complicated questions. Let us examine now the general principles of this theory.

THE GENERAL PRINCIPLES OF THE CALCULUS OF PROBABILITIES

First Principle. The first of these principles is the definition itself of probability, which, as has been seen, is the ratio of the number of favorable cases to that of all the cases possible.

Second Principle. But that supposes the various cases equally possible. If they are not so, we will determine first their respective possibilities, whose exact appreciation is one of the most delicate points of the theory of chance. Then the probability will be the sum of the possibilities of each favorable case. Let us illustrate this principle by an example.

Let us suppose that we throw into the air a large and very thin coin whose two large opposite faces, which we will call heads and tails, are perfectly similar. Let us find the probability of throwing heads at least one time in two throws. It is clear that four equally possible cases may arise, namely, heads at the first and at the second throw; heads at the first throw and tails at the second; tails at the first throw and heads at the second; finally, tails at both throws. The first three cases are favorable to the event whose probability is sought; consequently this probability is equal to 3/4; so that it is a bet of three to one that heads will be thrown at least once in two throws.

We can count at this game only three different cases, namely, heads at the first throw, which dispenses with throwing a second time; tails at the first throw and heads at the second; finally, tails at the first and at the second throw. This would reduce the probability to 2/3 if we should consider with d'Alembert these three cases as equally possible. But it is apparent that the probability of throwing heads at the first throw is 1/2, while that of the two other cases is 1/4, the first case being a simple event which corresponds to two events combined: heads at the first and at the second throw, and heads at the first throw, tails at the second. If we then, conforming to the second principle, add the possibility 1/2 of heads at the first throw to the possibility 1/4 of tails at the first throw and heads at the second, we shall have 3/4 for the probability sought, which agrees with what is found in the supposition when we play the two throws. This supposition does not change at all the chance of that one who bets on this event; it simply serves to reduce the various cases to the cases equally possible.

Third Principle. One of the most important points of the theory of probabilities and that which lends the most to illusions is the manner in which these probabilities increase or diminish by their mutual combination. If the events are independent of one another, the probability of their combined existence is the product of their respective probabilities. Thus the probability of throwing one ace with a single die is 1/6; that of throwing two aces in throwing two dice at the same time is 1/36. Each face of the one being able to combine with the six faces of the other, there are in fact thirty-six equally possible cases, among which one single case gives two aces. Generally the probability that a simple event in the same circumstances will occur consecutively a given number of times is equal to the probability of this simple event raised to the power indicated by this number. Having thus the successive powers of a fraction less than unity diminishing without ceasing, an event which depends upon a series of very great probabilities may become extremely improbable. Suppose then an incident be transmitted to us by twenty witnesses in such manner that the first has transmitted it to the second, the second to the third, and so on. Suppose again that the probability of each testimony be equal to the fraction 9/10; that of the incident resulting from the testimonies will be less than 1/8. We cannot better compare this diminution of the probability than with the extinction of the light of objects by the interposition of several pieces of glass. A relatively small number of pieces suffices to take away the view of an object that a single piece allows us to perceive in a distinct manner. The historians do not appear to have paid sufficient attention to this degradation of the probability of events when seen across a great number of successive generations; many historical events reputed as certain would be at least doubtful if they were submitted to this test.

In the purely mathematical sciences the most distant consequences participate in the certainty of the principle from which they are derived. In the applications of analysis to physics the results have all the certainty of facts or experiences. But in the moral sciences, where each inference is deduced from that which precedes it only in a probable manner, however probable these deductions may be, the chance of error increases with their number and ultimately surpasses the chance of truth in the consequences very remote from the principle.

Fourth Principle. When two events depend upon each other, the probability of the compound event is the product of the probability of the first event and the probability that, this event having occurred, the second will occur. Thus in the preceding case of the three urns A, B, C, of which two contain only white balls and one contains only black balls, the

probability of drawing a white ball from the urn C is 2/3, since of the three urns only two contain balls of that color. But when a white ball has been drawn from the urn C, the indecision relative to that one of the urns which contain only black balls extends only to the urns A and B; the probability of drawing a white ball from the urn B is 1/2; the product of 2/3 by 1/2, or 1/3, is then the probability of drawing two white balls at one time from the urns B and C.

We see by this example the influence of past events upon the probability of future events. For the probability of drawing a white ball from the urn B, which primarily is 2/3, becomes 1/2 when a white ball has been drawn from the urn C; it would change to certainty if a black ball had been drawn from the same urn. We will determine this influence by means of the following principle, which is a corollary of the preceding one.

Fifth Principle. If we calculate a priori the probability of the occurred event and the probability of an event composed of that one and a second one which is expected, the second probability divided by the first will be the probability of the event expected, drawn from the observed event.

Here is presented the question raised by some philosophers touching the influence of the past upon the probability of the future. Let us suppose at the play of heads and tails that heads has occurred oftener than tails. By this alone we shall be led to believe that in the constitution of the coin there is a secret cause which favors it. Thus in the conduct of life constant happiness is a proof of competency which should induce us to employ preferably happy persons. But if by the unreliability of circumstances we are constantly brought back to a state of absolute indecision, if, for example, we change the coin at each throw at the play of heads and tails, the past can shed no light upon the future and it would be absurd to take account of it.

Sixth Principle. Each of the causes to which an observed event may be attributed is indicated with just as much likelihood as there is probability that the event will take place, supposing the event to be constant. The probability of the existence of any one of these causes is then a fraction whose numerator is the probability of the event resulting from this cause and whose denominator is the sum of the similar probabilities relative to all the causes; if these various causes, considered a priori, are unequally probable, it is necessary, in place of the probability of the event resulting from each cause, to employ the product of this probability by the possibility of the cause itself. This is the fundamental principle of this branch of the analysis of chances which consists in passing from events to causes.

This principle gives the reason why we attribute regular events to a particular cause. Some philosophers have thought that these events are less possible than others and that at the play of heads and tails, for example, the combination in which heads occurs twenty successive times is less easy in its nature than those where heads and tails are mixed in an irregular manner. But this opinion supposes that past events have an influence on the possibility of future events, which is not at all admissible. The regular combinations occur more rarely only because they are less numerous. If we seek a cause wherever we perceive symmetry, it is not that we regard a symmetrical event as less possible than the others, but, since this event ought to be the effect of a regular cause or that of chance, the first of these suppositions is more probable than the second. On a table we see letters arranged in this order, *Constantinople*, and we judge that this arrangement is not the result of chance, not because it is less possible than the others, for if this word were not employed in any language we should not suspect it came from any particular cause, but this word being in use among us, it is incomparably more probable that some person has thus arranged the aforesaid letters than that this arrangement is due to chance.

This is the place to define the word *extraordinary*. We arrange in our thought all possible events in various classes; and we regard as *extraordinary* those classes which include a very small number. Thus at the play of heads and tails the occurrence of heads a hundred successive times appears to us extraordinary because of the almost infinite number of combinations which may occur in a hundred throws; and if we divide the combinations into regular series containing an order easy to comprehend, and into irregular series, the latter are incomparably more numerous. The drawing of a white ball from an urn which among a million balls contains only one of this color, the others being black, would appear to us likewise extraordinary, because we form only two classes of events relative to the two colors. But the drawing of the number 475813, for example, from an urn that contains a million numbers seems to us an ordinary event; because, comparing individually the numbers with one another without dividing them into classes, we have no reason to believe that one of them will appear sooner than the others.

From what precedes, we ought generally to conclude that the more extraordinary the event, the greater the need of its being supported by strong proofs. For those who attest it, being able to deceive or to have been deceived, these two causes are as much more probable as the reality of the event is less. We shall see this particularly when we come to speak of the probability of testimony.

Seventh Principle. The probability of a future event is the sum of the products of the probability of each cause, drawn from the event observed, by the probability that, this cause existing, the future event will occur. The following example will illustrate this principle.

Let us imagine an urn which contains only two balls, each of which may be either white or black. One of these balls is drawn and is put back into the urn before proceeding to a new draw. Suppose that in the first two draws white balls have been drawn; the probability of again drawing a white ball at the third draw is required.

Only two hypotheses can be made here: either one of the balls is white and the other black, or both are white. In the first hypothesis the probability of the event observed is 1/4; it is unity or certainty in the second. Thus in regarding these hypotheses as so many causes, we shall have for the sixth principle 1/5 and 4/5 for their respective probabilities. But if the first hypothesis occurs, the probability of drawing a white ball at the third draw is 1/2; it is equal to certainty in the second hypothesis; multiplying then the last probabilities by those of the corresponding hypotheses, the sum of the products, or 9/10, will be the probability of drawing a white ball at the third draw.

When the probability of a single event is unknown we may suppose it equal to any value from zero to unity. The probability of each of these hypotheses, drawn from the event observed, is, by the sixth principle, a fraction whose numerator is the probability of the event in this hypothesis and whose denominator is the sum of the similar probabilities relative to all the hypotheses. Thus the probability that the possibility of the event is comprised within given limits is the sum of the fractions comprised within these limits. Now if we multiply each fraction by the probability of the future event, determined in the corresponding hypothesis, the sum of the products relative to all the hypotheses will be, by the seventh principle, the probability of the future event drawn from the event observed. Thus we find that an event having occurred successively any number of times, the probability that it will happen again the next time is equal to this number increased by unity divided by the same number, increased by two units. Placing the most ancient epoch of history at five thousand years ago, or at 1826213 days, and the sun having risen constantly in the interval at each revolution of twenty-four hours, it is a bet of 1826214 to one that it will rise again tomorrow. But this number is incomparably greater for him who, recognizing in the totality of phenomena the principal regulator of days and seasons, sees that nothing at the present moment can arrest the course of it.

Buffon in his *Political Arithmetic* calculates differently the preceding probability. He supposes that it differs from unity only by a fraction whose numerator is unity and whose denominator is the number 2 raised to a power equal to the number of days which have elapsed since the epoch. But the true manner of relating past events with the probability of causes and of future events was unknown to this illustrious writer.

CONCERNING HOPE

The probability of events serves to determine the hope or the fear of persons interested in their existence. The word *hope* has various acceptations; it expresses generally the advantage of that one who expects a certain benefit in suppositions which are only probable. This advantage in the theory of chance is a product of the sum hoped for by the probability of obtaining it; it is the partial sum which ought to result when we do not wish to run the risks of the event in supposing that the division is made proportional to the probabilities. This division is the only equitable one when all strange circumstances are eliminated; because an equal degree of probability gives an equal right to the sum hoped for. We will call this advantage *mathematical hope*.

Eighth Principle. When the advantage depends on several events it is obtained by taking the sum of the products of the probability of each event by the benefit attached to its occurrence.

Let us apply this principle to some examples. Let us suppose that at the play of heads and tails Paul receives two francs if he throws heads at the first throw and five francs if he throws it only at the second. Multiplying two francs by the probability 1/2 of the first case, and five francs by the probability 1/4 of the second case, the sum of the products, or two and a quarter francs, will be Paul's advantage. It is the sum which he ought to give in advance to that one who has given him this advantage; for, in order to maintain the equality of the play, the throw ought to be equal to the advantage which it procures.

If Paul receives two francs by throwing heads at the first and five francs by throwing it at the second throw, whether he has thrown it or not at the first, the probability of throwing heads at the second throw being 1/2, multiplying two francs and five francs by 1/2 the sum of these products will give three and one half francs for Paul's advantage and consequently for his stake at the game.

Ninth Principle. In a series of probable events of which the ones produce a benefit and the others a loss, we shall have the advantage which

results from it by making a sum of the products of the probability of each favorable event by the benefit which it procures, and subtracting from this sum that of the products of the probability of each unfavorable event by the loss which is attached to it. If the second sum is greater than the first, the benefit becomes a loss and hope is changed to fear.

Consequently we ought always in the conduct of life to make the product of the benefit hoped for, by its probability, at least equal to the similar product relative to the loss. But it is necessary, in order to attain this, to appreciate exactly the advantages, the losses, and their respective probabilities. For this a great accuracy of mind, a delicate judgment, and a great experience in affairs is necessary; it is necessary to know how to guard one's self against prejudices, illusions of fear or hope, and erroneous ideas, ideas of fortune and happiness, with which the majority of people feed their self-love.

The application of the preceding principles to the following question has greatly exercised the geometricians. Paul plays at heads and tails with the condition of receiving two francs if he throws heads at the first throw, four francs if he throws it only at the second throw, eight francs if he throws it only at the third, and so on. His stake at the play ought to be, according to the eighth principle, equal to the number of throws, so that if the game continues to infinity the stake ought to be infinite. However, no reasonable man would wish to risk at this game even a small sum, for example five francs. Whence comes this difference between the result of calculation and the indication of common sense? We soon recognize that it amounts to this: that the moral advantage which a benefit procures for us is not proportional to this benefit and that it depends upon a thousand circumstances, often very difficult to define, but of which the most general and most important is that of fortune.

Indeed it is apparent that one franc has much greater value for him who possesses only a hundred than for a millionaire. We ought then to distinguish in the hoped-for benefit its absolute from its relative value. But the latter is regulated by the motives which make it desirable, whereas the first is independent of them. The general principle for appreciating this relative value cannot be given, but here is one proposed by Daniel Bernoulli which will serve in many cases.

Tenth Principle. The relative value of an infinitely small sum is equal to its absolute value divided by the total benefit of the person interested. This supposes that every one has a certain benefit whose value can never be estimated as zero. Indeed even that one who possesses nothing always

gives to the product of his labor and to his hopes a value at least equal to that which is absolutely necessary to sustain him.

If we apply analysis to the principle just propounded, we obtain the following rule: Let us designate by unity the part of the fortune of an individual, independent of his expectations. If we determine the different values that this fortune may have by virtue of these expectations and their probabilities, the product of these values raised respectively to the powers indicated by their probabilities will be the physical fortune which would procure for the individual the same moral advantage which he receives from the part of his fortune taken as unity and from his expectations; by subtracting unity from the product, the difference will be the increase of the physical fortune due to expectations: we will call this increase *moral hope*. It is easy to see that it coincides with mathematical hope when the fortune taken as unity becomes infinite in reference to the variations which it receives from the expectations. But when these variations are an appreciable part of this unity the two hopes may differ very materially among themselves.

This rule conduces to results conformable to the indications of common sense which can by this means be appreciated with some exactitude. Thus in the preceding question it is found that if the fortune of Paul is two hundred francs, he ought not reasonably to stake more than nine francs. The same rule leads us again to distribute the danger over several parts of a benefit expected rather than to expose the entire benefit to this danger. It results similarly that at the fairest game the loss is always greater than the gain. Let us suppose, for example, that a player having a fortune of one hundred francs risks fifty at the play of heads and tails; his fortune after his stake at the play will be reduced to eighty-seven francs, that is to say, this last sum would procure for the player the same moral advantage as the state of his fortune after the stake. The play is then disadvantageous even in the case where the stake is equal to the product of the sum hoped for, by its probability. We can judge by this of the immorality of games in which the sum hoped for is below this product. They subsist only by false reasonings and by the cupidity which they excite and which, leading the people to sacrifice their necessaries to chimerical hopes whose improbability they are not in condition to appreciate, are the source of an infinity of evils.

The disadvantage of games of chance, the advantage of not exposing to the same danger the whole benefit that is expected, and all the similar results indicated by common sense, subsist, whatever may be the function

of the physical fortune which for each individual expresses his moral fortune. It is enough that the proportion of the increase of this function to the increase of the physical fortune diminishes in the measure that the latter increases.

The foregoing consists of Chapters I–IV of Laplace's A PHILOSOPHICAL ESSAY ON PROBABILITIES, *translated by Frederick W. Truscott and Frederick L. Emory.*

Charles Sanders Peirce

1839–1914

Charles Sanders Peirce was born at Cambridge, Massachusetts, in 1839. He was the son of Benjamin Peirce, a Harvard professor and a leading mathematician. Peirce's early education, supervised by his father, was a strenuous experience. The elder Peirce was a forceful man and relentless in his determination to develop his son's mathematical talents. He sometimes kept the boy awake all night, training him in the "art of concentration" by playing rapid games of double rummy. When Charles began to read philosophers, his father would have him repeat their proofs and in a very few words would usually rip them apart and show them empty. This forced march to education gave young Peirce a wide background in experimental science, mathematics, logic, and philosophy, but it also may have contributed to his later unhappiness and chaotic personal life.

In Peirce's own words: "I insensibly put on a sort of swagger here, which is designed to say, 'You are a very good fellow in your way; who you are I don't know and I don't care, but I, you know, am Mr. Peirce, distinguished for my various scientific acquirements, but above all for the extreme modesty in which respect I challenge the world.'" This is a humorous self-portrait, but apt. Peirce really was a difficult man. He was unable to get along with others, careless about his appearance, impractical in money matters, forgetful, vain, and arrogant. He died in 1914 in poverty, unknown to the general public. Yet today he is recognized as one of the most influential thinkers this country has produced.

In 1861 Peirce joined the United States Coast Survey, in which post he remained for thirty years. He served as computer for the nautical almanac, made pendulum investigations, was in charge of

gravity research and wrote a number of scientific papers. This government post left him enough time to teach and to engage in private research in science, philosophy, and logic. His contributions to the science of logic are undisputed. Though not extensive, his writings in pure mathematics were original and prophetic. He published only one book in his lifetime, *Photometric Researches* (1878), but most of his scattered writings have been published posthumously in six volumes, *Collected Papers* (1931–35).

Peirce was the founder of pragmatism, the philosophy that was elaborated by William James [1] and John Dewey.[2] Dewey and James diverged from the original doctrine, but all three represent an interest in relating the abstract to the concrete.

Peirce was deeply concerned with the theory of meaning. The main purpose of his investigations was to explain the pragmatic meaning of general terms as they are used by scientists. The following excerpts from an essay entitled *How To Make Our Ideas Clear* are representative of his doctrine:

> Our idea of anything is our idea of its sensible effects. . . . What a thing means is simply what habit it involves. . . . There is no distinction of meaning so fine as to consist in anything but a possible difference of practice. . . . The final upshot of thinking is the exercise of volition. . . .

It has been said that pragmatism is a characteristically American movement in philosophy. Its emphasis is on "doing."

Peirce was one of the first proponents of the frequency interpretation of probability. It is in keeping with his whole philosophy that this interpretation agrees with our everyday "common sense" concept. It is also the interpretation most widely used in applied statistics and measurement, and in many branches of the theoretical sciences.

The Red and the Black, the selection which follows, is one of the most charming essays on probability ever written. The mathematician-philosopher arrives, by logic, at the conclusion that he is indeed his brother's keeper. While this is an unusual argument for an ethical principle, it is not the first time that the laws of probability have been

[1] See Vol. 10, pp. 39–87, in this set.
[2] See Vol. 10, pp. 92–213, in this set.

invoked to support what is essentially an article of religious belief. Pascal, too, once urged mankind to consider the following odds. "Let us weigh the gain and loss in wagering that God is," he wrote. "Let us estimate these two chances. If you gain, you gain all; if you lose, you lose nothing. Wager, then, without hesitation, that He is." [3]

[3] Compare *Great Books of the Western World.*

The Red and the Black

The theory of probabilities is simply the science of logic quantitatively treated. There are two conceivable certainties with reference to any hypothesis, the certainty of its truth and the certainty of its falsity. The numbers *one* and *zero* are appropriated, in this calculus, to marking these extremes of knowledge; while fractions having values intermediate between them indicate, as we may vaguely say, the degrees in which the evidence leans toward one or the other. The general problem of probabilities is, from a given state of facts, to determine the numerical probability of a possible fact. This is the same as to inquire how much the given facts are worth, considered as evidence to prove the possible fact. Thus the problem of probabilities is simply the general problem of logic.

Probability is a continuous quantity, so that great advantages may be expected from this mode of studying logic. Some writers have gone so far as to maintain that, by means of the calculus of chances, every solid inference may be represented by legitimate arithmetical operations upon the numbers given in the premises. If this be, indeed, true, the great problem of logic, how it is that the observation of one fact can give us knowledge of another independent fact, is reduced to a mere question of arithmetic. It seems proper to examine this pretension before undertaking any more recondite solution of the paradox.

But, unfortunately, writers on probabilities are not agreed in regard to this result. This branch of mathematics is the only one, I believe, in which good writers frequently get results entirely erroneous. In elementary geometry the reasoning is frequently fallacious, but erroneous conclusions are avoided; but it may be doubted if there is a single extensive treatise on probabilities in existence which does not contain solutions absolutely indefensible. This is partly owing to the want of any regular method of procedure; for the subject involves too many subtleties to make it easy to

put its problems into equations without such an aid. But, beyond this, the fundamental principles of its calculus are more or less in dispute. In regard to that class of questions to which it is chiefly applied for practical purposes, there is comparatively little doubt; but in regard to others to which it has been sought to extend it, opinion is somewhat unsettled.

This last class of difficulties can only be entirely overcome by making the idea of probability perfectly clear in our minds in the way set forth in our last paper.[1]

To get a clear idea of what we mean by probability, we have to consider what real and sensible difference there is between one degree of probability and another.

The character of probability belongs primarily, without doubt, to certain inferences. Locke explains it as follows: After remarking that the mathematician positively knows that the sum of the three angles of a triangle is equal to two right angles because he apprehends the geometrical proof, he thus continues: "But another man who never took the pains to observe the demonstration, hearing a mathematician, a man of credit, affirm the three angles of a triangle to be equal to two right ones, *assents* to it; *i.e.,* receives it for true. In which case the foundation of his assent is the probability of the thing, the proof being such as, for the most part, carries truth with it; the man on whose testimony he receives it not being wont to affirm anything contrary to, or besides his knowledge, especially in matters of this kind." The celebrated *Essay concerning Human Understanding* contains many passages which, like this one, make the first steps in profound analyses which are not further developed. It was shown in the first of these papers that the validity of an inference does not depend on any tendency of the mind to accept it, however strong such tendency may be; but consists in the real fact that, when premises like those of the argument in question are true, conclusions related to them like that of this argument are also true. It was remarked that in a logical mind an argument is always conceived as a member of a *genus* of arguments all constructed in the same way, and such that, when their premises are real facts, their conclusions are so also. If the argument is demonstrative, then this is always so; if it is only probable, then it is for the most part so. As Locke says, the probable argument is "*such as* for the most part carries truth with it."

1. [Peirce is here referring to his essay *How To Make Our Ideas Clear* (Ed.).]

According to this, that real and sensible difference between one degree of probability and another, in which the meaning of the distinction lies, is that in the frequent employment of two different modes of inference, one will carry truth with it oftener than the other. It is evident that this is the only difference there is in the existing fact. Having certain premises, a man draws a certain conclusion, and as far as this inference alone is concerned the only possible practical question is whether that conclusion is true or not, and between existence and nonexistence there is no middle term. "Being only is and nothing is altogether not," said Parmenides; and this is in strict accordance with the analysis of the conception of reality given in the last paper. For we found that the distinction of reality and fiction depends on the supposition that sufficient investigation would cause one opinion to be universally received and all others to be rejected. That presupposition, involved in the very conceptions of reality and figment, involves a complete sundering of the two. It is the heaven-and-hell idea in the domain of thought. But, in the long run, there is a real fact which corresponds to the idea of probability, and it is that a given mode of inference sometimes proves successful and sometimes not, and that in a ratio ultimately fixed. As we go on drawing inference after inference of the given kind, during the first ten or hundred cases the ratio of successes may be expected to show considerable fluctuations; but when we come into the thousands and millions, these fluctuations become less and less; and if we continue long enough, the ratio will approximate toward a fixed limit. We may, therefore, define the probability of a mode of argument as the proportion of cases in which it carries truth with it.

The inference from the premise, A, to the conclusion, B, depends, as we have seen, on the guiding principle that if a fact of the class A is true, a fact of the class B is true. The probability consists of the fraction whose numerator is the number of times in which both A and B are true, and whose denominator is the total number of times in which A is true, whether B is so or not. Instead of speaking of this as the probability of the inference, there is not the slightest objection to calling it the probability that if A happens, B happens. But to speak of the probability of the event B, without naming the condition, really has no meaning at all. It is true that when it is perfectly obvious what condition is meant, the ellipsis may be permitted. But we should avoid contracting the habit of using language in this way (universal as the habit is), because it gives rise to a vague way of thinking, as if the action of causation might either determine an event to happen or determine it not to happen, or leave it more or less free to happen or not, so as to give rise to an *inherent* chance

in regard to its occurrence. It is quite clear to me that some of the worst and most persistent errors in the use of the doctrine of chances have arisen from this vicious mode of expression.[2]

But there remains an important point to be cleared up. According to what has been said, the idea of probability essentially belongs to a kind of inference which is repeated indefinitely. An individual inference must be either true or false, and can show no effect of probability; and, therefore, in reference to a single case considered in itself, probability can have no meaning. Yet if a man had to choose between drawing a card from a pack containing twenty-five red cards and a black one, or from a pack containing twenty-five black cards and a red one, and if the drawing of a red card were destined to transport him to eternal felicity, and that of a black one to consign him to everlasting woe, it would be folly to deny that he ought to prefer the pack containing the larger portion of red cards, although, from the nature of the risk, it could not be repeated. It is not easy to reconcile this with our analysis of the conception of chance. But suppose he should choose the red pack, and should draw the wrong card, what consolation would he have? He might say that he had acted in accordance with reason, but that would only show that his reason was absolutely worthless. And if he should choose the right card, how could he regard it as anything but a happy accident? He could not say that if he had drawn from the other pack, he might have drawn the wrong one, because a hypothetical proposition such as, "if A, then B," means nothing with reference to a single case. Truth consists in the existence of a real fact corresponding to the true proposition. Corresponding to the proposition, "if A, then B," there may be the fact that *whenever* such an event as A happens such an event as B happens. But in the case supposed, which has no parallel as far as this man is concerned, there would be no real fact whose existence could give any truth to the statement that, if he had drawn from the other pack, he might have drawn a black card. Indeed, since the validity of an inference consists in the truth of the hypothetical proposition that *if* the premises be true the conclusion will also be true, and since the only real fact which can correspond to such a proposition is that whenever the antecedent is true the consequent is so also, it follows that there can be no sense in reasoning in an isolated case at all.

These considerations appear, at first sight, to dispose of the difficulty

2. The conception of probability here set forth is substantially that first developed by Mr. Venn, in his *Logic of Chance*. Of course, a vague apprehension of the idea had always existed, but the problem was to make it perfectly clear, and to him belongs the credit of first doing this.

mentioned. Yet the case of the other side is not yet exhausted. Although probability will probably manifest its effect in, say, a thousand risks, by a certain proportion between the numbers of successes and failures, yet this, as we have seen, is only to say that it certainly will, at length, do so. Now the number of risks, the number of probable inferences, which a man draws in his whole life, is a finite one, and he cannot be absolutely *certain* that the mean result will accord with the probabilities at all. Taking all his risks collectively, then, it cannot be certain that they will not fail, and his case does not differ, except in degree, from the one last supposed. It is an indubitable result of the theory of probabilities that every gambler, if he continues long enough, must ultimately be ruined. Suppose he tries the martingale, which some believe infallible, and which is, as I am informed, disallowed in the gambling houses. In this method of playing, he first bets say $1; if he loses it he bets $2; if he loses that he bets $4; if he loses that he bets $8; if he then gains he has lost $1 + 2 + 4 = 7$, and he has gained $1 more; and no matter how many bets he loses, the first one he gains will make him $1 richer than he was in the beginning. In that way, he will probably gain at first; but, at last, the time will come when the run of luck is so against him that he will not have money enough to double, and must, therefore, let his bet go. This will *probably* happen before he has won as much as he had in the first place, so that this run against him will leave him poorer than he began; some time or other it will be sure to happen. It is true that there is always a possibility of his winning any sum the bank can pay, and we thus come upon a celebrated paradox that, though he is certain to be ruined, the value of his expectation calculated according to the usual rules (which omit this consideration) is large. But, whether a gambler plays in this way or any other, the same thing is true, namely, that if he plays long enough he will be sure some time to have such a run against him as to exhaust his entire fortune. The same thing is true of an insurance company. Let the directors take the utmost pains to be independent of great conflagrations and pestilences, their actuaries can tell them that, according to the doctrine of chances, the time must come, at last, when their losses will bring them to a stop. They may tide over such a crisis by extraordinary means, but then they will start again in a weakened state, and the same thing will happen again all the sooner. An actuary might be inclined to deny this, because he knows that the expectation of his company is large, or perhaps (neglecting the interest upon money) is infinite. But calculations of expectations leave out of account the circumstance now under consideration, which reverses the whole thing. However, I must not be understood as saying that insurance is on this account unsound, more than other kinds of business.

All human affairs rest upon probabilities, and the same thing is true everywhere. If man were immortal he could be perfectly sure of seeing the day when everything in which he had trusted should betray his trust, and, in short, of coming eventually to hopeless misery. He would break down, at last, as every good fortune, as every dynasty, as every civilization does. In place of this we have death.

But what, without death, would happen to every man, with death must happen to some man. At the same time, death makes the number of our risks, of our inferences, finite, and so makes their mean result uncertain. The very idea of probability and of reasoning rests on the assumption that this number is indefinitely great. We are thus landed in the same difficulty as before, and I can see but one solution of it. It seems to me that we are driven to this, that logicality inexorably requires that our interests shall *not* be limited. They must not stop at our own fate, but must embrace the whole community. This community, again, must not be limited, but must extend to all races of beings with whom we can come into immediate or mediate intellectual relation. It must reach, however, vaguely, beyond this geological epoch, beyond all bounds. He who would not sacrifice his own soul to save the whole world, is, as it seems to me, illogical in all his inferences, collectively. Logic is rooted in the social principle.

To be logical men should not be selfish; and, in point of fact, they are not so selfish as they are thought. The willful prosecution of one's desires is a different thing from selfishness. The miser is not selfish; his money does him no good, and he cares for what shall become of it after his death. We are constantly speaking of *our* possessions on the Pacific, and of *our* destiny as a republic, where no personal interests are involved, in a way which shows that we have wider ones. We discuss with anxiety the possible exhaustion of coal in some hundreds of years, or the cooling-off of the sun in some millions, and show in the most popular of all religious tenets that we can conceive the possibility of a man's descending into hell for the salvation of his fellows.

Now, it is not necessary for logicality that a man should himself be capable of the heroism of self-sacrifice. It is sufficient that he should recognize the possibility of it, should perceive that only that man's inferences who has it are really logical, and should consequently regard his own as being only so far valid as they would be accepted by the hero. So far as he thus refers his inferences to that standard, he becomes identified with such a mind.

This makes logicality attainable enough. Sometimes we can personally attain to heroism. The soldier who runs to scale a wall knows that he will

probably be shot, but that is not all he cares for. He also knows that if all the regiment, with whom in feeling he identifies himself, rush forward at once, the fort will be taken. In other cases we can only imitate the virtue. The man whom we have supposed as having to draw from the two packs, who if he is not a logician will draw from the red pack from mere habit, will see, if he is logician enough, that he cannot be logical so long as he is concerned only with his own fate, but that that man who should care equally for what was to happen in all possible cases of the sort could act logically, and would draw from the pack with the most red cards, and thus, though incapable himself of such sublimity, our logician would imitate the effect of that man's courage in order to share his logicality.

But all this requires a conceived identification of one's interests with those of an unlimited community. Now there exist no reasons, and a later discussion will show that there can be no reasons, for thinking that the human race, or any intellectual race, will exist forever. On the other hand, there can be no reason against it;[3] and, fortunately, as the whole requirement is that we should have certain sentiments, there is nothing in the facts to forbid our having a *hope*, or calm and cheerful wish, that the community may last beyond any assignable date.

It may seem strange that I should put forward three sentiments, namely, interest in an indefinite community, recognition of the possibility of this interest being made supreme, and hope in the unlimited continuance of intellectual activity, as indispensable requirements of logic. Yet, when we consider that logic depends on a mere struggle to escape doubt, which, as it terminates in action, must begin in emotion, and that, furthermore, the only cause of our planting ourselves on reason is that other methods of escaping doubt fail on account of the social impulse, why should we wonder to find social sentiment presupposed in reasoning? As for the other two sentiments which I find necessary, they are so only as supports and accessories of that. It interests me to notice that these three sentiments seem to be pretty much the same as that famous trio of charity, faith, and hope, which, in the estimation of St. Paul, are the finest and greatest of spiritual gifts. Neither Old nor New Testament is a textbook of the logic of science, but the latter is certainly the highest existing authority in regard to the dispositions of heart which a man ought to have.

3. I do not here admit an absolutely unknowable. Evidence could show us what would probably be the case after any given lapse of time; and though a subsequent time might be assigned which that evidence might not cover, yet further evidence would cover it.

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John Erskine

1879–1951

If anyone can be called the "father" of the Great Books movement, it is John Erskine. It was he who organized the first Great Books discussion classes at Columbia University. He suggested such classes as early as 1916, but it was not until 1920 that they were first offered. Each student in these classes was required to read one great book each week and to meet for two hours with a group of twenty-five or thirty students to discuss it. The discussion groups also included two professors, whose role was not to lecture but to stimulate discussion. Among Erskine's original associates in the program were the co-editor of this set, Mortimer J. Adler, and Mark Van Doren.

John Erskine was born in New York City in 1879. He was educated at Columbia University, where he received his Ph.D. degree in 1903. He taught literature at Amherst College from 1903 to 1909 and then moved to Columbia, where he remained until his retirement in 1937. From the beginning of his career, he was dissatisfied with the prevailing methods of teaching literature. He was particularly distressed by the fact that most college students were almost completely ignorant of the great literature of the past. He proposed the idea of approaching great books as though they were recently published best sellers. This meant reading them straight through–without commentaries and without histories–and then meeting to discuss them. At first, his academic colleagues were strongly opposed to the idea, but eventually he was given permission to go ahead with it. The program was very successful, and it was later imitated by several other leading universities. In 1947 the Great Books Foundation was set up to foster discussion groups on a national scale, and in 1952 the fifty-four volume set of *Great Books of the Western World* was published–all of this the outgrowth of John Erskine's original idea.

Though he is well known for his role in the Great Books movement, Erskine is probably even more famous for his satirical retelling of classic myths. The first of these was *The Private Life of Helen of Troy,* published in 1925. It proved to be so popular that he followed it with modernized versions of the legends of Galahad, Adam and Eve, and Tristan and Isolde.

Erskine was also very much interested in music. He made his concert debut as a pianist when he was in his late forties. He went on to become president of the Juilliard School of Music from 1928 to 1937, and a member of the board of the Metropolitan Opera Association.

A prolific writer, Erskine wrote (in addition to the works already mentioned) several novels, scores of essays, lectures, poems, memoirs, and even opera librettos. He died in 1951.

Erskine points out in the following selection that for a number of reasons—a common language being probably the most important—the English have exerted a greater influence upon the United States than has any other people. The result is that Americans tend to see things in much the same light as the English do. However beneficial this influence may have been in general, John Erskine finds that, in at least one important respect, it has had a detrimental effect.

It is Erskine's view that the English have traditionally assumed that intelligence and morality are incompatible. A man is clever or he is virtuous, but he cannot be both. And since a choice must be made between the two, the English have consistently cultivated character at the expense of intelligence. They have readily excused stupid behavior, even if its consequences were disastrous, so long as it sprang from good motives.

Erskine regrets that this attitude spread from England to America, but he is encouraged by signs that intelligence is becoming less and less suspect. It is his opinion that intelligence and morality, far from

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Notes from the artist: "The portrait of Erskine is set against a background design of piano keys, suggesting his career as a musician. The Greek figure at the right recalls his novel The Private Life of Helen of Troy.*"*

John Erskine

being incompatible, are inseparable. All virtues are subject to "the discipline of intelligence," and men have a moral obligation "to find out as far as possible whether a given action leads to a good or a bad end."

Erskine's point of view in this essay closely parallels that of W. K. Clifford in *The Ethics of Belief*.[1] Both insist that knowledge is not something we can choose to have or not to have, according to our individual whim. They argue that since others are affected by our actions, we owe it to others to make certain (as far as possible) that they will not be harmed through our ignorance. It is our *duty* to be intelligent.

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[1] See Vol. 10, pp. 16–36, in this set.

The Moral Obligation to Be Intelligent

If a wise man should ask, What are the modern virtues? and should answer his own question by a summary of the things we admire; if he should discard as irrelevant the ideals which by tradition we profess, but which are not found outside of the tradition or the profession–ideals like meekness, humility, the renunciation of this world; if he should include only those excellences to which our hearts are daily given, and by which our conduct is motived, in such an inventory what virtues would he name?

This question is neither original nor very new. Our times await the reckoning up of our spiritual goods which is here suggested. We have at least this wisdom, that many of us are curious to know just what our virtues are. I wish I could offer myself as the wise man who brings the answer. But I raise this question merely to ask another–When the wise man brings his list of our genuine admirations, will intelligence be one of them? We might seem to be well within the old ideal of modesty if we claimed the virtue of intelligence. But before we claim the virtue, are we convinced that it is a virtue, not a peril?

The disposition to consider intelligence a peril is an old Anglo-Saxon inheritance. Our ancestors have celebrated this disposition in verse and prose. Splendid as our literature is, it has not voiced all the aspirations of humanity, nor could it be expected to voice an aspiration that has not characteristically belonged to the English race; the praise of intelligence is not one of its characteristic glories.

"Be good, sweet maid, and let who will be clever." Here is the startling alternative which to the English, alone among great nations, has not been startling but a matter of course. Here is the casual assumption that a choice must be made between goodness and intelligence; that stupidity is

first cousin to moral conduct, and cleverness the first step into mischief; that reason and God are not on good terms with each other; that the mind and the heart are minor buckets in the well of truth, inexorably balanced–full mind, starved heart–stout heart, weak head.

Kingsley's line is a convenient text, but to establish the point that English literature voices a traditional distrust of the mind we must go to the masters. In Shakespeare's plays there are some highly intelligent men, but they are either villains or tragic victims. To be as intelligent as Richard or Iago or Edmund seems to involve some break with goodness; to be as wise as Prospero seems to imply some Faust-like traffic with the forbidden world; to be as thoughtful as Hamlet seems to be too thoughtful to live. In Shakespeare the prizes of life go to such men as Bassanio, or Duke Orsino, or Florizel–men of good conduct and sound character, but of no particular intelligence. There might, indeed, appear to be one general exception to this sweeping statement: Shakespeare does concede intelligence as a fortunate possession to some of his heroines. But upon even a slight examination those ladies, like Portia, turn out to have been among Shakespeare's importations–their wit was part and parcel of the story he borrowed; or, like Viola, they are English types of humility, patience, and loyalty, such as we find in the old ballads, with a bit of euphuism added, a foreign cleverness of speech. After all, these are only a few of Shakespeare's heroines. Over against them are Ophelia, Juliet, Desdemona, Hero, Cordelia, Miranda, Perdita–lovable for other qualities than intellect–and in a sinister group, Lady Macbeth, Cleopatra, Goneril, intelligent and wicked.

In *Paradise Lost* Milton attributes intelligence of the highest order to the devil. That this is an Anglo-Saxon reading of the infernal character may be shown by a reference to the book of Job, where Satan is simply a troublesome body, and the great wisdom of the story is from the voice of God in the whirlwind. But Milton makes his Satan so thoughtful, so persistent and liberty-loving, so magnanimous, and God so illogical, so heartless and repressive, that many perfectly moral readers fear lest Milton, like the modern novelists, may have known good and evil, but could not tell them apart. It is disconcerting to intelligence that it should be God's angel who cautions Adam not to wander in the earth, nor inquire concerning heaven's causes and ends, and that it should be Satan meanwhile who questions and explores. By Milton's reckoning of intelligence the theologian and scientist today alike take after Satan.

If there were time, we might trace this valuation of intelligence through the English novel. We should see how often the writers distinguished

between intelligence and goodness, and have enlisted our affections for a kind of inexpert virtue. In Fielding or Scott, Thackeray or Dickens, the hero of the English novel is a well-meaning blunderer who in the last chapter is temporarily rescued by the grace of God from the mess he has made of his life. Unless he also dies in the last chapter, he will probably need rescue again. The dear woman whom the hero marries is, with a few notable exceptions, rather less intelligent than himself. When David Copperfield marries Agnes, his prospects of happiness, to the eyes of intelligence, look not very exhilarating. Agnes has more sense than Dora, but it is not even for that slight distinction that we must admire her; her great qualities are of the heart—patience, humility, faithfulness. These are the qualities also of Thackeray's good heroines, like Laura or Lady Castlewood. Beatrix Esmond and Becky Sharp, both highly intelligent, are of course a bad lot.

No less significant is the kind of emotion the English novelist invites towards his secondary or lower-class heroes—toward Mr. Boffin in *Our Mutual Friend,* for example, or Harry Foker in *Pendennis.* These characters amuse us, and we feel pleasantly superior to them, but we agree with the novelist that they are wholly admirable in their station. Yet if a Frenchman—let us say—Balzac—were presenting such types, he would make us feel, as in *Père Goriot* or *Eugénie Grandet,* not only admiration for the stable, loyal nature, but also deep pity that such goodness should be so tragically bound in unintelligence or vulgarity. This comparison of racial temperaments helps us to understand ourselves. We may continue the method at our leisure. What would Socrates have thought of Mr. Pickwick, or the Vicar of Wakefield, or David Copperfield, or Arthur Pendennis? For that matter, would he have felt admiration or pity for Colonel Newcome?

I hardly need confess that this is not an adequate account of English literature. Let me hasten to say that I know the reader is resenting this somewhat cavalier handling of the noble writers he loves. He probably is wondering how I can expect to increase his love of literature by such unsympathetic remarks. But just now I am not concerned about our love of literature; I take it for granted and use it as an instrument to prod us with. If we love Shakespeare and Milton and Scott and Dickens and Thackeray, and yet do not know what qualities their books hold out for our admiration, then—let me say it as delicately as possible—our admiration is not discriminating; and if we neither have discrimination nor are disturbed by our lack of it, then perhaps the wise man could not list in-

telligence among our virtues. Certainly it would be but a silly account of English literature to say only that it set little store by the things of the mind. I am aware that for the sake of my argument I have exaggerated, by insisting upon only one aspect of English literature. But our history betrays a peculiar warfare between character and intellect, such as to the Greek, for example, would have been incomprehensible. The great Englishman, like the most famous Greeks, had intelligence as well as character, and was at ease with them both. But whereas the notable Greek seems typical of his race, the notable Englishman usually seems an exception to his own people, and is often best appreciated in other lands. What is more singular—in spite of the happy combination in himself of character and intelligence, he often fails to recognize the value of that combination in his neighbors. When Shakespeare portrayed such amateurish statesmen as the Duke in *Measure for Measure,* Burleigh was guiding Elizabeth's empire, and Francis Bacon was soon to be King James's counselor. It was the young Milton who pictured the life of reason in *L'Allegro* and *Il Penseroso,* the most spiritual fruit of philosophy in *Comus;* and when he wrote his epic he was probably England's most notable example of that intellectual inquiry and independence which in his great poem he discouraged. There remain several well-known figures in our literary history who have both possessed and believed in intelligence—Byron and Shelley in what seems our own day, Edmund Spenser before Shakespeare's time. England has more or less neglected all three, but they must in fairness be counted to her credit. Some excuse might be offered for the neglect of Byron and Shelley by a nation that likes the proprieties; but the gentle Spenser, the noblest philosopher and most chivalrous gentleman in our literature, seems to be unread only because he demands a mind as well as a heart used to high things.

This will be sufficient qualification of any disparagement of English literature; no people and no literature can be great that are not intelligent, and England has produced not only statesmen and scientists of the first order, but also poets in whom the soul was fitly mated with a lofty intellect. But I am asking you to reconsider your reading in history and fiction, to reflect whether our race has usually thought highly of the intelligence by which it has been great; I suggest these nonintellectual aspects of our literature as commentary upon my question—and all this with the hope of pressing upon you the question as to what *you* think of intelligence.

Those of us who frankly prefer character to intelligence are therefore not without precedent. If we look beneath the history of the English

people, beneath the ideas expressed in our literature, we find in the temper of our remotest ancestors a certain bias which still prescribes our ethics and still prejudices us against the mind. The beginnings of our conscience can be geographically located. It began in the German forests, and it gave its allegiance not to the intellect but the will. Whether or not the severity of life in a hard climate raised the value of that persistence by which alone life could be preserved, the Germans as Tacitus knew them, and the Saxons as they landed in England, held as their chief virtue that will power which makes character. For craft or strategy they had no use; they were already a bulldog race; they liked fighting, and they liked best to settle the matter hand to hand. The admiration for brute force which naturally accompanied this ideal of self-reliance, drew with it as naturally a certain moral sanction. A man was as good as his word, and he was ready to back up his word with a blow. No German, Tacitus says, would enter into a treaty of public or private business without his sword in his hand. When this emphasis upon the will became a social emphasis, it gave the direction to ethical feeling. Honor lay in a man's integrity, in his willingness and ability to keep his word; therefore the man became more important than his word or deed. Words and deeds were then easily interpreted, not in terms of absolute good and evil, but in terms of the man behind them. The deeds of a bad man were bad; the deeds of a good man were good. Fielding wrote *Tom Jones* to show that a good man sometimes does a bad action, consciously or unconsciously, and a bad man sometimes does good, intentionally or unintentionally. From the fact that *Tom Jones* is still popularly supposed to be as wicked as it is coarse, we may judge that Fielding did not convert all his readers. Some progress certainly has been made; we do not insist that the more saintly of two surgeons shall operate on us for appendicitis. But as a race we seem as far as possible from realizing that an action can intelligently be called good only if it contributes to a good end; that it is the moral obligation of an intelligent creature to find out as far as possible whether a given action leads to a good or a bad end; and that any system of ethics that excuses him from that obligation is vicious. If I give you poison, meaning to give you wholesome food, I have—to say the least—not done a good act; and unless I intend to throw overboard all pretense to intelligence, I must feel some responsibility for that trifling neglect to find out whether what I gave you was food or poison.

Obvious as the matter is in this academic illustration, it ought to have been still more obvious in Matthew Arnold's famous plea for culture. The purpose of culture, he said, is "to make reason and the will of God

prevail." This formula he quoted from an Englishman. Differently stated, the purpose of culture, he said, is "to make an intelligent being yet more intelligent." This formula he borrowed from a Frenchman. The basis culture must have in character, the English resolution to make reason and the will of God prevail, Arnold took for granted; no man ever set a higher price on character—so far as character by itself will go. But he spent his life trying to sow a little suspicion that before we can make the will of God prevail we must find out what is the will of God.

I doubt if Arnold taught us much. He merely embarrassed us temporarily. Our race has often been so embarrassed when it has turned a sudden corner and come upon intelligence. Charles Kingsley himself, who would rather be good than clever—and had his wish—was temporarily embarrassed when in the consciousness of his own upright character he publicly called Newman a liar. Newman happened to be intelligent as well as good, and Kingsley's discomfiture is well known. But we discovered long ago how to evade the sudden embarrassments of intelligence. "Toll for the brave," sings the poet for those who went down in the *Royal George*. They were brave. But he might have sung, "Toll for the stupid." In order to clean the hull, brave Kempenfelt and his eight hundred heroes took the serious risk of laying the vessel well over on its side, while most of the crew were below. Having made the error, they all died bravely; and our memory passes easily over the lack of a virtue we never did think much of, and dwells on the English virtues of courage and discipline. So we forget the shocking blunder of the charge of the Light Brigade, and proudly sing the heroism of the victims. Lest we flatter ourselves that this trick of defense has departed with our fathers—this reading of stupidity in terms of the tragic courage that endures its results—let us reflect that recently, after full warning, we drove a ship at top speed through a field of icebergs. When we were thrilled to read how superbly those hundreds died, in the great English way, a man pointed out that they did indeed die in the English way, and that our pride was therefore ill-timed; that all that bravery was wasted; that the tragedy was in the shipwreck of intelligence. That discouraging person was an Irishman.

I have spoken of our social inheritance as though it were entirely English. Once more let me qualify my terms. Even those ancestors of ours who never left Great Britain were heirs of many civilizations—Roman, French, Italian, Greek. With each world-tide some love of pure intelligence was washed up on English shores, and enriched the soil, and here and there the old stock marveled at its own progeny. But to America,

much as we may sentimentally deplore it, England seems destined to be less and less the source of culture, of religion and learning. Our land assimilates all races; with every ship in the harbor our old English ways of thought must crowd a little closer to make room for a new tradition. If some of us do not greatly err, these newcomers are chiefly driving to the wall our inherited criticism of the intellect. As surely as the severe northern climate taught our forefathers the value of the will, the social conditions from which these new citizens have escaped have taught them the power of the mind. They differ from each other, but against the Anglo-Saxon they are confederated in a Greek love of knowledge, in a Greek assurance that sin and misery are the fruit of ignorance, and that to know is to achieve virtue. They join forces at once with that earlier arrival from Greece, the scientific spirit, which like all the immigrants has done our hard work and put up with our contempt. Between this rising host that follow intelligence, and the old camp that put their trust in a stout heart, a firm will, and a strong hand, the fight is on. Our college men will be in the thick of it. If they do not take sides, they will at least be battered in the scuffle. At this moment they are readily divided into those who wish to be men—whatever that means—and those who wish to be intelligent men, and those who, unconscious of blasphemy or humor, prefer not to be intelligent, but to do the will of God.

When we consider the nature of the problems to be solved in our day, it seems—to many of us, at least—that these un-English arrivals are correct, that intelligence is the virtue we particularly need. Courage and steadfastness we cannot do without, so long as two men dwell on the earth; but it is time to discriminate in our praise of these virtues. If you want to get out of prison, what you need is the key to the lock. If you cannot get that, have courage and steadfastness. Perhaps the modern world has got into a kind of prison, and what is needed is the key to the lock. If none of the old virtues exactly fits, why should it seem ignoble to admit it? England for centuries has got on better by sheer character than some other nations by sheer intelligence, but there is after all a relation between the kind of problem and the means we should select to solve it. Not all problems are solved by will power. When England overthrew Bonaparte, it was not his intelligence she overthrew; the contest involved other things besides intelligence, and she wore him out in the matter of physical endurance. The enemy that comes to her as a visible host or armada she can still close with and throttle; but when the foe arrives as an arrow that flieth by night, what avail the old sinews, the old stoutness of heart! We Americans face the same problems, and are too much inclined to oppose to them similar

obsolete armor. We make a moral issue of an economic or social question, because it seems ignoble to admit it is simply a question for intelligence. Like the medicine man, we use oratory and invoke our hereditary divinities, when the patient needs only a little quiet, or permission to get out of bed. We applaud those leaders who warm to their work—who, when they cannot open a door, threaten to kick it in. In the philosopher's words, we curse the obstacles of life as though they were devils. But they are not devils. They are obstacles.

Perhaps my question as to what you think of intelligence has been pushed far enough. But I cannot leave the subject without a confession of faith.

None of the reasons here suggested will explain the true worship of intelligence, whether we worship it as the scientific spirit, or as scholarship, or as any other reliance upon the mind. We really seek intelligence not for the answers it may suggest to the problems of life, but because we believe it is life, not for aid in making the will of God prevail, but because we believe it is the will of God. We love it as we love virtue, for its own sake, and we believe it is only virtue's other and more precise name. We believe that the virtues wait upon intelligence—literally wait, in the history of the race. Whatever is elemental in man—love, hunger, fear—has obeyed from the beginning the discipline of intelligence. We are told that to kill one's aging parents was once a demonstration of solicitude; about the same time men hungered for raw meat and feared the sun's eclipse. Filial love, hunger, and fear are still motives to conduct, but intelligence has directed them to other ends. If we no longer hang the thief or flog the schoolboy, it is not that we think less harshly of theft or laziness, but that intelligence has found a better persuasion to honesty and enterprise.

We believe that even in religion, in the most intimate room of the spirit, intelligence long ago proved itself the master virtue. Its inward office from the beginning was to decrease fear and increase opportunity; its outward effect was to rob the altar of its sacrifice and the priest of his mysteries. Little wonder that from the beginning the disinterestedness of the accredited custodians of all temples has been tested by the kind of welcome they gave to intelligence. How many hecatombs were offered on more shores than that of Aulis, by seamen waiting for a favorable wind, before intelligence found out a boat that could tack! The altar was deserted, the religion revised—fear of the uncontrollable changing into delight in the knowledge that is power. We contemplate with satisfaction the law by which in our long history one religion has driven out another, as one

hypothesis supplants another in astronomy or mathematics. The faith that needs the fewest altars, the hypothesis that leaves least unexplained, survives; and the intelligence that changes most fears into opportunity is most divine.

We believe this beneficent operation of intelligence was swerving not one degree from its ancient course when under the name of the scientific spirit it once more laid its influence upon religion. If the shock here seemed too violent, if the purpose of intelligence here seemed to be not revision but contradiction, it was only because religion was invited to digest an unusually large amount of intelligence all at once. Moreover, it is not certain that devout people were more shocked by Darwinism than the pious mariners were by the first boat that could tack. Perhaps the sacrifices were not abandoned all at once.

But the lover of intelligence must be patient with those who cannot readily share his passion. Some pangs the mind will inflict upon the heart. It is a mistake to think that men are united by elemental affections. Our affections divide us. We strike roots in immediate time and space, and fall in love with our locality, the customs and the language in which we were brought up. Intelligence unites us with mankind, by leading us in sympathy to other times, other places, other customs; but first the prejudiced roots of affection must be pulled up. These are the old pangs of intelligence, which still comes to set a man at variance against his father, saying, "He that loveth father or mother more than me, is not worthy of me."

Yet, if intelligence begins in a pang, it proceeds to a vision. Through measureless time its office has been to make of life an opportunity, to make goodness articulate, to make virtue a fact. In history at least, if not yet in the individual, Plato's faith has come true, that sin is but ignorance, and knowledge and virtue are one. But all that intelligence has accomplished dwindles in comparison with the vision it suggests and warrants. Beholding this long liberation of the human spirit, we foresee, in every new light of the mind, one unifying mind, wherein the human race shall know its destiny and proceed to it with satisfaction, as an idea moves to its proper conclusion; we conceive of intelligence at last as the infinite order, wherein man, when he enters it, shall find himself.

Meanwhile he continues to find his virtues by successive insights into his needs. Let us cultivate insight.

> O Wisdom of the Most High,
> That reachest from the beginning to the end,
> And dost order all things in strength and grace,
> Teach us now the way of understanding.

William Kingdon Clifford [1]

1845–1879

In free societies, it is commonly held that a man has the right to believe anything he wants, no matter how foolish those beliefs may be. It is only if he is led by his beliefs to act in an undesirable manner that society can interfere. Even then, society cannot force him to change his beliefs–it can only hinder him from acting upon them. Thus, a man is at perfect liberty to believe that women are not intelligent enough to vote, but he must not attempt to prevent any of them from going to the polls.

In *The Ethics of Belief,* W. K. Clifford argues that a man does *not* have the right to believe anything he wants. On the contrary, he has the right to believe only those things that he has carefully investigated, and for which he has found ample evidence. Says Clifford, "It is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence." Men must recognize that they have a *duty* to examine all of their beliefs and to reject those for which they cannot find adequate support. Society cannot force them to do this, however. They must become aware of it as a moral obligation.

Clifford attacks the assumption that beliefs can be kept separate from actions. Though a particular foolish belief may not have any immediate results, each belief, "however trifling and fragmentary it may seem. . .prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may someday explode into overt action."

Once he has established that there is a "duty of inquiry," Clifford goes on to consider some of the important questions which arise

[1] For a biography of W. K. Clifford, see Vol. 9, pp. 239–241, in this set.

when the process of inquiry has begun. How much should we depend on the authority of others? How can we determine who is an authority? Is tradition reliable? How far can we extend inferences from our own experience?

Clifford's essay recalls a famous passage in Plato's *Meno* in which Socrates distinguishes between right opinion and knowledge.[2] The man who has right opinion knows what is true but cannot give any reasons for it. The man who has knowledge not only knows what is true but can say *why* it is true. For Socrates it makes no difference whether actions are based upon right opinion or knowledge. The results will be the same. But for Clifford the difference is crucial. He insists that each man has a responsibility to make sure; that his actions are based upon knowledge and not upon what Socrates calls right opinion. The life of the man who will not accept that responsibility is "one long sin against mankind."

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[2] See *Great Books of the Western World.*

The Ethics of Belief

I. THE DUTY OF INQUIRY

ship-owner was about to send to sea an emigrant ship. He knew that she was old, and not over-well built at the first; that she had seen many seas and climes, and often had needed repairs. Doubts had been suggested to him that possibly she was not seaworthy. These doubts preyed upon his mind, and made him unhappy; he thought that perhaps he ought to have her thoroughly overhauled and refitted, even though this should put him to great expense. Before the ship sailed, however, he succeeded in overcoming these melancholy reflections. He said to himself that she had gone safely through so many voyages and weathered so many storms that it was idle to suppose she would not come safely home from this trip also. He would put his trust in Providence, which could hardly fail to protect all these unhappy families that were leaving their fatherland to seek for better times elsewhere. He would dismiss from his mind all ungenerous suspicions about the honesty of builders and contractors. In such ways he acquired a sincere and comfortable conviction that his vessel was thoroughly safe and seaworthy; he watched her departure with a light heart, and benevolent wishes for the success of the exiles in their strange new home that was to be; and he got his insurance money when she went down in mid-ocean and told no tales.

What shall we say of him? Surely this, that he was verily guilty of the death of those men. It is admitted that he did sincerely believe in the soundness of his ship; but the sincerity of his conviction can in no wise help him, because *he had no right to believe on such evidence as was before him.* He had acquired his belief not by honestly earning it in patient investigation, but by stifling his doubts. And although in the end he may have felt so sure about it that he could not think otherwise, yet inasmuch as he had knowingly and willingly worked himself into that frame of mind, he must be held responsible for it.

Let us alter the case a little, and suppose that the ship was not unsound after all; that she made her voyage safely, and many others after it. Will that diminish the guilt of her owner? Not one jot. When an action is once done, it is right or wrong for ever; no accidental failure of its good or evil fruits can possibly alter that. The man would not have been innocent, he would only have been not found out. The question of right or wrong has to do with the origin of his belief, not the matter of it; not what it was, but how he got it; not whether it turned out to be true or false, but whether he had a right to believe on such evidence as was before him.

There was once an island in which some of the inhabitants professed a religion teaching neither the doctrine of original sin nor that of eternal punishment. A suspicion got abroad that the professors of this religion had made use of unfair means to get their doctrines taught to children. They were accused of wresting the laws of their country in such a way as to remove children from the care of their natural and legal guardians; and even of stealing them away and keeping them concealed from their friends and relations. A certain number of men formed themselves into a society for the purpose of agitating the public about this matter. They published grave accusations against individual citizens of the highest position and character, and did all in their power to injure these citizens in the exercise of their professions. So great was the noise they made, that a commission was appointed to investigate the facts; but after the commission had carefully inquired into all the evidence that could be got, it appeared that the accused were innocent. Not only had they been accused on insufficient evidence, but the evidence of their innocence was such as the agitators might easily have obtained, if they had attempted a fair inquiry. After these disclosures the inhabitants of that country looked upon the members of the agitating society, not only as persons whose judgment was to be distrusted, but also as no longer to be counted honourable men. For although they had sincerely and conscientiously believed in the charges they had made, yet *they had no right to believe on such evidence as was before them.* Their sincere convictions, instead of being honestly earned by patient inquiring, were stolen by listening to the voice of prejudice and passion.

Let us vary this case also, and suppose, other things remaining as before, that a still more accurate investigation proved the accused to have been really guilty. Would this make any difference in the guilt of the accusers? Clearly not; the question is not whether their belief was true or false, but whether they entertained it on wrong grounds. They would no doubt say, "Now you see that we were right after all; next time perhaps

you will believe us." And they might be believed, but they would not thereby become honourable men. They would not be innocent, they would only be not found out. Every one of them, if he chose to examine himself *in foro conscientiae,* would know that he had acquired and nourished a belief, when he had no right to believe on such evidence as was before him; and therein he would know that he had done a wrong thing.

It may be said, however, that in both of these supposed cases it is not the belief which is judged to be wrong, but the action following upon it. The ship-owner might say, "I am perfectly certain that my ship is sound, but still I feel it my duty to have her examined, before trusting the lives of so many people to her." And it might be said to the agitator, "However convinced you were of the justice of your cause and the truth of your convictions, you ought not to have made a public attack upon any man's character until you had examined the evidence on both sides with the utmost patience and care."

In the first place, let us admit that, so far as it goes, this view of the case is right and necessary; right, because even when a man's belief is so fixed that he cannot think otherwise, he still has a choice in regard to the action suggested by it, and so cannot escape the duty of investigating on the ground of the strength of his convictions; and necessary, because those who are not yet capable of controlling their feelings and thoughts must have a plain rule dealing with overt acts.

But this being premised as necessary, it becomes clear that it is not sufficient, and that our previous judgment is required to supplement it. For it is not possible so to sever the belief from the action it suggests as to condemn the one without condemning the other. No man holding a strong belief on one side of a question, or even wishing to hold a belief on one side, can investigate it with such fairness and completeness as if he were really in doubt and unbiased; so that the existence of a belief not founded on fair inquiry unfits a man for the performance of this necessary duty.

Nor is that truly a belief at all which has not some influence upon the actions of him who holds it. He who truly believes that which prompts him to an action has looked upon the action to lust after it, he has committed it already in his heart If a belief is not realized immediately in open deeds, it is stored up for the guidance of the future. It goes to make a part of that aggregate of beliefs which is the link between sensation and action at every moment of all our lives, and which is so organized and compacted together that no part of it can be isolated from the rest, but every new addition modifies the structure of the whole. No real belief, however trifling and fragmentary it may seem, is ever truly insignificant; it

prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may some day explode into overt action, and leave its stamp upon our character for ever.

And no one man's belief is in any case a private matter which concerns himself alone. Our lives are guided by that general conception of the course of things which has been created by society for social purposes. Our words, our phrases, our forms and processes and modes of thought, are common property, fashioned and perfected from age to age; an heirloom which every succeeding generation inherits as a precious deposit and a sacred trust to be handed on to the next one, not unchanged but enlarged and purified, with some clear marks of its proper handiwork. Into this, for good or ill, is woven every belief of every man who has speech of his fellows. An awful privilege, and an awful responsibility, that we should help to create the world in which posterity will live.

In the two supposed cases which have been considered, it has been judged wrong to believe on insufficient evidence, or to nourish belief by suppressing doubts and avoiding investigation. The reason of this judgment is not far to seek: it is that in both these cases the belief held by one man was of great importance to other men. But forasmuch as no belief held by one man, however seemingly trivial the belief, and however obscure the believer, is ever actually insignificant or without its effect on the fate of mankind, we have no choice but to extend our judgment to all cases of belief whatever. Belief, that sacred faculty which prompts the decisions of our will, and knits into harmonious working all the compacted energies of our being, is ours not for ourselves, but for humanity. It is rightly used on truths which have been established by long experience and waiting toil, and which have stood in the fierce light of free and fearless questioning. Then it helps to bind men together, and to strengthen and direct their common action. It is desecrated when given to unproved and unquestioned statements, for the solace and private pleasure of the believer; to add a tinsel splendour to the plain straight road of our life and display a bright mirage beyond it; or even to drown the common sorrows of our kind by a self-deception which allows them not only to cast down, but also to degrade us. Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away.

It is not only the leader of men, statesman, philosopher, or poet, that owes this bounden duty to mankind. Every rustic who delivers in the

village alehouse his slow, infrequent sentences, may help to kill or keep alive the fatal superstitions which clog his race. Every hard-worked wife of an artisan may transmit to her children beliefs which shall knit society together, or rend it in pieces. No simplicity of mind, no obscurity of station, can escape the universal duty of questioning all that we believe.

It is true that this duty is a hard one, and the doubt which comes out of it is often a very bitter thing. It leaves us bare and powerless where we thought that we were safe and strong. To know all about anything is to know how to deal with it under all circumstances. We feel much happier and more secure when we think we know precisely what to do, no matter what happens, than when we have lost our way and do not know where to turn. And if we have supposed ourselves to know all about anything, and to be capable of doing what is fit in regard to it, we naturally do not like to find that we are really ignorant and powerless, that we have to begin again at the beginning, and try to learn what the thing is and how it is to be dealt with—if indeed anything can be learnt about it. It is the sense of power attached to a sense of knowledge that makes men desirous of believing, and afraid of doubting.

This sense of power is the highest and best of pleasures when the belief on which it is founded is a true belief, and has been fairly earned by investigation. For then we may justly feel that it is common property, and holds good for others as well as for ourselves. Then we may be glad, not that *I* have learned secrets by which I am safer and stronger, but that *we men* have got mastery over more of the world; and we shall be strong, not for ourselves, but in the name of man and in his strength. But if the belief has been accepted on insufficient evidence, the pleasure is a stolen one. Not only does it deceive ourselves by giving us a sense of power which we do not really possess, but it is sinful, because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence, which may shortly master our own body and then spread to the rest of the town. What would be thought of one who, for the sake of a sweet fruit, should deliberately run the risk of bringing a plague upon his family and his neighbours?

And, as in other such cases, it is not the risk only which has to be considered; for a bad action is always bad at the time when it is done, no matter what happens afterwards. Every time we let ourselves believe for unworthy reasons, we weaken our powers of self-control, of doubting, of judicially and fairly weighing evidence. We all suffer severely enough from the maintenance and support of false beliefs and the fatally wrong actions which they lead to, and the evil born when one such belief is

entertained is great and wide. But a greater and wider evil arises when the credulous character is maintained and supported, when a habit of believing for unworthy reasons is fostered and made permanent. If I steal money from any person, there may be no harm done by the mere transfer of possession; he may not feel the loss, or it may prevent him from using the money badly. But I cannot help doing this great wrong towards man, that I make myself dishonest. What hurts society is not that it should lose its property, but that it should become a den of thieves; for then it must cease to be society. This is why we ought not to do evil that good may come; for at any rate this great evil has come, that we have done evil and are made wicked thereby. In like manner, if I let myself believe anything on insufficient evidence, there may be no great harm done by the mere belief; it may be true after all, or I may never have occasion to exhibit it in outward acts. But I cannot help doing this great wrong towards man, that I make myself credulous. The danger to society is not merely that it should believe wrong things, though that is great enough; but that it should become credulous, and lose the habit of testing things and inquiring into them; for then it must sink back into savagery.

The harm which is done by credulity in a man is not confined to the fostering of a credulous character in others, and consequent support of false beliefs. Habitual want of care about what I believe leads to habitual want of care in others about the truth of what is told to me. Men speak the truth to one another when each reveres the truth in his own mind and in the other's mind; but how shall my friend revere the truth in my mind when I myself am careless about it, when I believe things because I want to believe them, and because they are comforting and pleasant? Will he not learn to cry, "Peace," to me, when there is no peace? By such a course I shall surround myself with a thick atmosphere of falsehood and fraud, and in that I must live. It may matter little to me, in my cloud-castle of sweet illusions and darling lies; but it matters much to man that I have made my neighbours ready to deceive. The credulous man is father to the liar and the cheat; he lives in the bosom of this his family, and it is no marvel if he should become even as they are. So closely are our duties knit together, that whoso shall keep the whole law, and yet offend in one point, he is guilty of all.

To sum up: it is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence.

If a man, holding a belief which he was taught in childhood or persuaded of afterwards, keeps down and pushes away any doubts which arise about it in his mind, purposely avoids the reading of books and the

company of men that call in question or discuss it, and regards as impious those questions which cannot easily be asked without disturbing it—the life of that man is one long sin against mankind.

If this judgment seems harsh when applied to those simple souls who have never known better, who have been brought up from the cradle with a horror of doubt, and taught that their eternal welfare depends on *what* they believe, then it leads to the very serious question, *Who hath made Israel to sin?*

It may be permitted me to fortify this judgment with the sentence of Milton [1]—

> A man may be a heretic in the truth; and if he believe things only because his pastor says so, or the assembly so determine, without knowing other reason, though his belief be true, yet the very truth he holds becomes his heresy.

And with this famous aphorism of Coleridge [2]—

> He who begins by loving Christianity better than Truth, will proceed by loving his own sect or Church better than Christianity, and end in loving himself better than all.

Inquiry into the evidence of a doctrine is not to be made once for all, and then taken as finally settled. It is never lawful to stifle a doubt; for either it can be honestly answered by means of the inquiry already made, or else it proves that the inquiry was not complete.

"But," says one, "I am a busy man; I have no time for the long course of study which would be necessary to make me in any degree a competent judge of certain questions, or even able to understand the nature of the arguments." Then he should have no time to believe.

II. THE WEIGHT OF AUTHORITY

Are we then to become universal sceptics, doubting everything, afraid always to put one foot before the other until we have personally tested the firmness of the road? Are we to deprive ourselves of the help and guidance of that vast body of knowledge which is daily growing upon the world, because neither we nor any other one person can possibly test a hundredth part of it by immediate experiment or observation, and because it would not be completely proved if we did? Shall we steal and tell lies because we have had no personal experience wide enough to justify the belief that it is wrong to do so?

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1. *Areopagitica*.
2. *Aids to Reflection*.

There is no practical danger that such consequences will ever follow from scrupulous care and self-control in the matter of belief. Those men who have most nearly done their duty in this respect have found that certain great principles, and these most fitted for the guidance of life, have stood out more and more clearly in proportion to the care and honesty with which they were tested, and have acquired in this way a practical certainty. The beliefs about right and wrong which guide our actions in dealing with men in society, and the beliefs about physical nature which guide our actions in dealing with animate and inanimate bodies, these never suffer from investigation; they can take care of themselves, without being propped up by "acts of faith," the clamour of paid advocates, or the suppression of contrary evidence. Moreover there are many cases in which it is our duty to act upon probabilities, although the evidence is not such as to justify present belief; because it is precisely by such action, and by observation of its fruits, that evidence is got which may justify future belief. So that we have no reason to fear lest a habit of conscientious inquiry should paralyse the actions of our daily life.

But because it is not enough to say, "It is wrong to believe on unworthy evidence," without saying also what evidence is worthy, we shall now go on to inquire under what circumstances it is lawful to believe on the testimony of others; and then, further, we shall inquire more generally when and why we may believe that which goes beyond our own experience, or even beyond the experience of mankind.

In what cases, then, let us ask in the first place, is the testimony of a man unworthy of belief? He may say that which is untrue either knowingly or unknowingly. In the first case he is lying, and his moral character is to blame; in the second case he is ignorant or mistaken, and it is only his knowledge or his judgment which is in fault. In order that we may have the right to accept his testimony as ground for believing what he says, we must have reasonable grounds for trusting his *veracity*, that he is really trying to speak the truth so far as he knows it; his *knowledge,* that he has had opportunities of knowing the truth about this matter; and his *judgment*, that he has made proper use of those opportunities in coming to the conclusion which he affirms.

However plain and obvious these reasons may be, so that no man of ordinary intelligence, reflecting upon the matter, could fail to arrive at them, it is nevertheless true that a great many persons do habitually disregard them in weighing testimony. Of the two questions, equally important to the trustworthiness of a witness, "Is he dishonest?" and "May he be mistaken?" the majority of mankind are perfectly satisfied if *one* can, with some show of probability, be answered in the negative. The

excellent moral character of a man is alleged as ground for accepting his statements about things which he cannot possibly have known. A Mohammedan, for example, will tell us that the character of his Prophet was so noble and majestic that it commands the reverence even of those who do not believe in his mission. So admirable was his moral teaching, so wisely put together the great social machine which he created, that his precepts have not only been accepted by a great portion of mankind, but have actually been obeyed. His institutions have on the one hand rescued the Negro from savagery, and on the other hand have taught civilization to the advancing West; and although the races which held the highest forms of his faith, and most fully embodied his mind and thought, have all been conquered and swept away by barbaric tribes, yet the history of their marvellous attainments remains as an imperishable glory to Islam. Are we to doubt the word of a man so great and so good? Can we suppose that this magnificent genius, this splendid moral hero, has lied to us about the most solemn and sacred matters? The testimony of Mohammed is clear, that there is but one God, and that he, Mohammed, is his prophet; that if we believe in him we shall enjoy everlasting felicity, but that if we do not we shall be damned. This testimony rests on the most awful of foundations, the revelation of heaven itself; for was he not visited by the angel Gabriel, as he fasted and prayed in his desert cave, and allowed to enter into the blessed fields of paradise? Surely God is God and Mohammed is the Prophet of God.

What should we answer to this Mussulman? First, no doubt, we should be tempted to take exception against his view of the character of the Prophet and the uniformly beneficial influence of Islam: before we could go with him altogether in these matters it might seem that we should have to forget many terrible things of which we have heard or read. But if we chose to grant him all these assumptions, for the sake of argument, and because it is difficult both for the faithful and for infidels to discuss them fairly and without passion, still we should have something to say which takes away the ground of his belief, and therefore shows that it is wrong to entertain it. Namely this: the character of Mohammed is excellent evidence that he was honest and spoke the truth so far as he knew it; but it is no evidence at all that he knew what the truth was. What means could he have of knowing that the form which appeared to him to be the angel Gabriel was not a hallucination, and that his apparent visit to paradise was not a dream? Grant that he himself was fully persuaded and honestly believed that he had the guidance of heaven, and was the vehicle of a supernatural revelation, how could he know that this strong conviction

was not a mistake? Let us put ourselves in his place; we shall find that the more completely we endeavour to realize what passed through his mind, the more clearly we shall perceive that the Prophet could have had no adequate ground for the belief in his own inspiration. It is most probable that he himself never doubted of the matter, or thought of asking the question; but we are in the position of those to whom the question has been asked, and who are bound to answer it. It is known to medical observers that solitude and want of food are powerful means of producing delusion and of fostering a tendency to mental disease. Let us suppose, then, that I, like Mohammed, go into desert places to fast and pray; what things can happen to me which will give me the right to believe that I am divinely inspired? Suppose that I get information, apparently from a celestial visitor, which upon being tested is found to be correct. I cannot be sure, in the first place, that the celestial visitor is not a figment of my own mind, and that the information did not come to me, unknown at the time to my consciousness, through some subtle channel of sense. But if my visitor were a real visitor, and for a long time gave me information which was found to be trustworthy, this would indeed be good ground for trusting him in the future as to such matters as fall within human powers of verification; but it would not be ground for trusting his testimony as to any other matters. For although his tested character would justify me in believing that he spoke the truth so far as he knew, yet the same question would present itself–what ground is there for supposing that he knows?

Even if my supposed visitor had given me such information, subsequently verified by me, as proved him to have means of knowledge about verifiable matters far exceeding my own; this would not justify me in believing what he said about matters that are not at present capable of verification by man. It would be ground for interesting conjecture, and for the hope that, as the fruit of our patient inquiry, we might by and by attain to such a means of verification as should rightly turn conjecture into belief. For belief belongs to man, and to the guidance of human affairs: no belief is real unless it guide our actions, and those very actions supply a test of its truth.

But, it may be replied, the acceptance of Islam as a system is just that action which is prompted by belief in the mission of the Prophet, and which will serve for a test of its truth. Is it possible to believe that a system which has succeeded so well is really founded upon a delusion? Not only have individual saints found joy and peace in believing, and verified those spiritual experiences which are promised to the faithful, but nations also have been raised from savagery or barbarism to a higher social state.

Surely we are at liberty to say that the belief has been acted upon, and that it has been verified.

It requires, however, but little consideration to show that what has really been verified is not at all the supernal character of the Prophet's mission, or the trustworthiness of his authority in matters which we ourselves cannot test, but only his practical wisdom in certain very mundane things. The fact that believers have found joy and peace in believing gives us the right to say that the doctrine is a comfortable doctrine, and pleasant to the soul; but it does not give us the right to say that it is true. And the question which our conscience is always asking about that which we are tempted to believe is not, "Is it comfortable and pleasant?" but, "Is it true?" That the Prophet preached certain doctrines, and predicted that spiritual comfort would be found in them, proves only his sympathy with human nature and his knowledge of it; but it does not prove his superhuman knowledge of theology.

And if we admit for the sake of argument (for it seems that we cannot do more) that the progress made by Moslem nations in certain cases was really due to the system formed and sent forth into the world by Mohammed, we are not at liberty to conclude from this that he was inspired to declare the truth about things which we cannot verify. We are only at liberty to infer the excellence of his moral precepts, or of the means which he devised for so working upon men as so get them obeyed, or of the social and political machinery which he set up. And it would require a great amount of careful examination into the history of those nations to determine which of these things had the greater share in the result. So that here again it is the Prophet's knowledge of human nature, and his sympathy with it, that are verified; not his divine inspiration, or his knowledge of theology.

If there were only one Prophet, indeed, it might well seem a difficult and even an ungracious task to decide upon what points we would trust him, and on what we would doubt his authority; seeing what help and furtherance all men have gained in all ages from those who saw more clearly, who felt more strongly, and who sought the truth with more single heart than their weaker brethren. But there is not only one Prophet; and while the consent of many upon that which, as men, they had real means of knowing and did know, has endured to the end, and been honourably built into the great fabric of human knowledge, the diverse witness of some about that which they did not and could not know remains as a warning to us that to exaggerate the prophetic authority is to misuse it, and to dishonour those who have sought only to help and further us after

their power. It is hardly in human nature that a man should quite accurately gauge the limits of his own insight; but it is the duty of those who profit by his work to consider carefully where he may have been carried beyond it. If we must needs embalm his possible errors along with his solid achievements, and use his authority as an excuse for believing what he cannot have known, we make of his goodness an occasion to sin.

To consider only one other such witness: the followers of the Buddha have at least as much right to appeal to individual and social experience in support of the authority of the Eastern saviour. The special mark of his religion, it is said, that in which it has never been surpassed, is the comfort and consolation which it gives to the sick and sorrowful, the tender sympathy with which it soothes and assuages all the natural griefs of men. And surely no triumph of social morality can be greater or nobler than that which has kept nearly half the human race from persecuting in the name of religion. If we are to trust the accounts of his early followers, he believed himself to have come upon earth with a divine and cosmic mission to set rolling the wheel of the law. Being a prince, he divested himself of his kingdom, and of his free will became acquainted with misery, that he might learn how to meet and subdue it. Could such a man speak falsely about solemn things? And as for his knowledge, was he not a man miraculous with powers more than man's? He was born of woman without the help of man; he rose into the air and was transfigured before his kinsmen; at last he went up bodily into heaven from the top of Adam's Peak. Is not his word to be believed in when he testifies of heavenly things?

If there were only he, and no other, with such claims! But there is Mohammed with his testimony; we cannot choose but listen to them both. The Prophet tells us that there is one God, and that we shall live for ever in joy or misery, according as we believe in the Prophet or not. The Buddha says that there is no God, and that we shall be annihilated by and by if we are good enough. Both cannot be infallibly inspired; one or the other must have been the victim of a delusion, and thought he knew that which he really did not know. Who shall dare to say which? And how can we justify ourselves in believing that the other was not also deluded?

We are led, then, to these judgments following. The goodness and greatness of a man do not justify us in accepting a belief upon the warrant of his authority, unless there are reasonable grounds for supposing that he knew the truth of what he was saying. And there can be no grounds for supposing that a man knows that which we, without ceasing to be men, could not be supposed to verify.

If a chemist tells me, who am no chemist, that a certain substance can be made by putting together other substances in certain proportions and subjecting them to a known process, I am quite justified in believing this upon his authority, unless I know anything against his character or his judgment. For his professional training is one which tends to encourage veracity and the honest pursuit of truth, and to produce a dislike of hasty conclusions and slovenly investigation. And I have reasonable ground for supposing that he knows the truth of what he is saying, for although I am no chemist, I can be made to understand so much of the methods and processes of the science as makes it conceivable to me that, without ceasing to be man, I might verify the statement. I may never actually verify it, or even see any experiment which goes towards verifying it; but still I have quite reason enough to justify me in believing that the verification is within the reach of human appliances and powers, and in particular that it has been actually performed by my informant. His result, the belief to which he has been led by his inquiries, is valid not only for himself but for others; it is watched and tested by those who are working in the same ground, and who know that no greater service can be rendered to science than the purification of accepted results from the errors which may have crept into them. It is in this way that the result becomes common property, a right object of belief, which is a social affair and matter of public business. Thus it is to be observed that his authority is valid because there are those who question it and verify it; that it is precisely this process of examining and purifying that keeps alive among investigators the love of that which shall stand all possible tests, the sense of public responsibility as of those whose work, if well done, shall remain as the enduring heritage of mankind.

But if my chemist tells me that an atom of oxygen has existed unaltered in weight and rate of vibration throughout all time, I have no right to believe this on his authority, for it is a thing which he cannot know without ceasing to be man. He may quite honestly believe that this statement is a fair inference from his experiments, but in that case his judgment is at fault. A very simple consideration of the character of experiments would show him that they never can lead to results of such a kind; that being themselves only approximate and limited, they cannot give us knowledge which is exact and universal. No eminence of character and genius can give a man authority enough to justify us in believing him when he makes statements implying exact or universal knowledge.

Again, an Arctic explorer may tell us that in a given latitude and longitude he has experienced such and such a degree of cold, that the sea

was of such a depth, and the ice of such a character. We should be quite right to believe him, in the absence of any stain upon his veracity. It is conceivable that we might, without ceasing to be men, go there and verify his statement; it can be tested by the witness of his companions, and there is adequate ground for supposing that he knows the truth of what he is saying. But if an old whaler tells us that the ice is three hundred feet thick all the way up to the Pole, we shall not be justified in believing him. For although the statement may be capable of verification by man, it is certainly not capable of verification by *him,* with any means and appliances which he has possessed; and he must have persuaded himself of the truth of it by some means which does not attach any credit to his testimony. Even if, therefore, the matter affirmed is within the reach of human knowledge, we have no right to accept it upon authority unless it is within the reach of our informant's knowledge.

What shall we say of that authority, more venerable and august than any individual witness, the time-honoured tradition of the human race? An atmosphere of beliefs and conceptions has been formed by the labours and struggles of our forefathers, which enables us to breathe amid the various and complex circumstances of our life. It is around and about us and within us; we cannot think except in the forms and processes of thought which it supplies. Is it possible to doubt and to test it? And if possible, is it right?

We shall find reason to answer that it is not only possible and right, but our bounden duty; that the main purpose of the tradition itself is to supply us with the means of asking questions, of testing and inquiring into things; that if we misuse it, and take it as a collection of cut and dried statements, to be accepted without further inquiry, we are not only injuring ourselves here, but by refusing to do our part towards the building up of the fabric which shall be inherited by our children, we are tending to cut off ourselves and our race from the human line.

Let us first take care to distinguish a kind of tradition which especially requires to be examined and called in question, because it especially shrinks from inquiry. Suppose that a medicine man in Central Africa tells his tribe that a certain powerful medicine in his tent will be propitiated if they kill their cattle; and that the tribe believe him. Whether the medicine was propitiated or not, there are no means of verifying, but the cattle are gone. Still the belief may be kept up in the tribe that propitiation has been effected in this way; and in a later generation it will be all the easier for another medicine man to persuade them to a similar act. Here the only reason for belief is that everybody has believed the thing for so long that

it must be true. And yet the belief was founded on fraud, and has been propagated by credulity. That man will undoubtedly do right, and be a friend of men, who shall call it in question and see that there is no evidence for it, help his neighbours to see as he does, and even, if need be, go into the holy tent and break the medicine.

The rule which should guide us in such cases is simple and obvious enough: that the aggregate testimony of our neighbours is subject to the same conditions as the testimony of any one of them. Namely, we have no right to believe a thing true because everybody says so, unless there are good grounds for believing that some one person at least has the means of knowing what is true, and is speaking the truth so far as he knows it. However many nations and generations of men are brought into the witness-box, they cannot testify to anything which they do not know. Every man who has accepted the statement from somebody else, without himself testing and verifying it, is out of court; his word is worth nothing at all. And when we get back at last to the true birth and beginning of the statement, two serious questions must be disposed of in regard to him who first made it: was he mistaken in thinking that he *knew* about this matter, or was he lying?

This last question is unfortunately a very actual and practical one even to us at this day and in this country. We have no occasion to go to La Salette, or to Central Africa, or to Lourdes, for examples of immoral and debasing superstition. It is only too possible for a child to grow up in London surrounded by an atmosphere of beliefs fit only for the savage, which have in our own time been founded in fraud and propagated by credulity.

Laying aside, then, such tradition as is handed on without testing by successive generations, let us consider that which is truly built up out of the common experience of mankind. This great fabric is for the guidance of our thoughts, and through them of our actions, both in the moral and in the material world. In the moral world, for example, it gives us the conceptions of right in general, of justice, of truth, of beneficence, and the like. These are given as conceptions, not as statements or propositions; they answer to certain definite instincts, which are certainly within us, however they came there. That it is right to be beneficent is matter of immediate personal experience; for when a man retires within himself and there finds something, wider and more lasting than his solitary personality, which says, "I want to do right," as well as, "I want to do good to man," he can verify by direct observation that one instinct is founded upon and

agrees fully with the other. And it is his duty so to verify this and all similar statements.

The tradition says also, at a definite place and time, that such and such actions are just, or true, or beneficent. For all such rules a further inquiry is necessary, since they are sometimes established by an authority other than that of the moral sense founded on experience. Until recently, the moral tradition of our own country—and indeed of all Europe—taught that it was beneficent to give money indiscriminately to beggars. But the questioning of this rule, and investigation into it, led men to see that true beneficence is that which helps a man to do the work which he is most fitted for, not that which keeps and encourages him in idleness; and that to neglect this distinction in the present is to prepare pauperism and misery for the future. By this testing and discussion, not only has practice been purified and made more beneficent, but the very conception of beneficence has been made wider and wiser. Now here the great social heirloom consists of two parts: the instinct of beneficence, which makes a certain side of our nature, when predominant, wish to do good to men; and the intellectual conception of beneficence, which we can compare with any proposed course of conduct and ask, "Is this beneficent or not?" By the continual asking and answering of such questions the conception grows in breadth and distinctness, and the instinct becomes strengthened and purified. It appears then that the great use of the conception, the intellectual part of the heirloom, is to enable us to ask questions; that it grows and is kept straight by means of these questions; and if we do not use it for that purpose we shall gradually lose it altogether, and be left with a mere code of regulations which cannot rightly be called morality at all.

Such considerations apply even more obviously and clearly, if possible, to the store of beliefs and conceptions which our fathers have amassed for us in respect of the material world. We are ready to laugh at the rule of thumb of the Australian, who continues to tie his hatchet to the side of the handle, although the Birmingham fitter has made a hole on purpose for him to put the handle in. His people have tied up hatchets so for ages: who is he that he should set himself up against their wisdom? He has sunk so low that he cannot do what some of them must have done in the far distant past—call in question an established usage, and invent or learn something better. Yet here, in the dim beginning of knowledge, where science and art are one, we find only the same simple rule which applies to the highest and deepest growths of that cosmic tree; to its loftiest flower-tipped branches as well as to the profoundest of its hidden roots;

the rule, namely, that what is stored up and handed down to us is rightly used by those who act as the makers acted, when they stored it up; those who use it to ask further questions, to examine, to investigate; who try honestly and solemnly to find out what is the right way of looking at things and of dealing with them.

A question rightly asked is already half answered, said Jacobi; we may add that the method of solution is the other half of the answer, and that the actual result counts for nothing by the side of these two. For an example let us go to the telegraph, where theory and practice, grown each to years of discretion, are marvellously wedded for the fruitful service of men. Ohm found that the strength of an electric current is directly proportional to the strength of the battery which produces it, and inversely as the length of the wire along which it has to travel. This is called Ohm's law; but the result, regarded as a statement to be believed, is not the valuable part of it. The first half is the question: what relation holds good between these quantities? So put, the question involves already the conception of strength of current, and of strength of battery, as quantities to be measured and compared; it hints clearly that these are the things to be attended to in the study of electric currents. The second half is the method of investigation; how to measure these quantities, what instruments are required for the experiment, and how are they to be used? The student who begins to learn about electricity is not asked to believe in Ohm's law: he is made to understand the question, he is placed before the apparatus, and he is taught to verify it. He learns to do things, not to think he knows things; to use instruments and to ask questions, not to accept a traditional statement. The question which required a genius to ask it rightly is answered by a tyro. If Ohm's law were suddenly lost and forgotten by all men, while the question and the method of solution remained, the result could be rediscovered in an hour. But the result by itself, if known to a people who could not comprehend the value of the question or the means of solving it, would be like a watch in the hands of a savage who could not wind it up, or an iron steamship worked by Spanish engineers.

In regard, then, to the sacred tradition of humanity, we learn that it consists, not in propositions or statements which are to be accepted and believed on the authority of the tradition, but in questions rightly asked, in conceptions which enable us to ask further questions, and in methods of answering questions. The value of all these things depends on their being tested day by day. The very sacredness of the precious deposit imposes upon us the duty and the responsibility of testing it, of purifying and

enlarging it to the utmost of our power. He who makes use of its results to stifle his own doubts, or to hamper the inquiry of others, is guilty of a sacrilege which centuries shall never be able to blot out. When the labours and questionings of honest and brave men shall have built up the fabric of known truth to a glory which we in this generation can neither hope for nor imagine, in that pure and holy temple he shall have no part nor lot, but his name and his works shall be cast out into the darkness of oblivion for ever.

III. THE LIMITS OF INFERENCE

The question in what cases we may believe that which goes beyond our experience, is a very large and delicate one, extending to the whole range of scientific method, and requiring a considerable increase in the application of it before it can be answered with anything approaching to completeness. But one rule, lying on the threshold of the subject, of extreme simplicity and vast practical importance, may here be touched upon and shortly laid down.

A little reflection will show us that every belief, even the simplest and most fundamental, goes beyond experience when regarded as a guide to our actions. A burnt child dreads the fire, because it believes that the fire will burn it to-day just as it did yesterday; but this belief goes beyond experience, and assumes that the unknown fire of to-day is like the known fire of yesterday. Even the belief that the child was burnt yesterday goes beyond *present* experience, which contains only the memory of a burning, and not the burning itself; it assumes, therefore, that this memory is trustworthy, although we know that a memory may often be mistaken. But if it is to be used as a guide to action, as a hint of what the future is to be, it must assume something about that future, namely, that it will be consistent with the supposition that the burning really took place yesterday; which is going beyond experience. Even the fundamental "I am," which cannot be doubted, is no guide to action until it takes to itself "I shall be," which goes beyond experience. The question is not, therefore, "May we believe what goes beyond experience?" for this is involved in the very nature of belief; but "How far and in what manner may we add to our experience in forming our beliefs?"

And an answer, of utter simplicity and universality, is suggested by the example we have taken: a burnt child dreads the fire. We may go beyond experience by assuming that what we do not know is like what we do know; or, in other words, we may add to our experience on the assumption

of a uniformity in nature. What this uniformity precisely is, how we grow in the knowledge of it from generation to generation, these are questions which for the present we lay aside, being content to examine two instances which may serve to make plainer the nature of the rule.

From certain observations made with the spectroscope, we infer the existence of hydrogen in the sun. By looking into the spectroscope when the sun is shining on its slit, we see certain definite bright lines: and experiments made upon bodies on the earth have taught us that when these bright lines are seen hydrogen is the source of them. We assume, then, that the unknown bright lines in the sun are like the known bright lines of the laboratory, and that hydrogen in the sun behaves as hydrogen under similar circumstances would behave on the earth.

But are we not trusting our spectroscope too much? Surely, having found it to be trustworthy for terrestrial substances, where its statements can be verified by man, we are justified in accepting its testimony in other like cases; but not when it gives us information about things in the sun, where its testimony cannot be directly verified by man.

Certainly, we want to know a little more before this inference can be justified; and fortunately we do know this. The spectroscope testifies to exactly the same thing in the two cases; namely, that light vibrations of a certain rate are being sent through it. Its construction is such that if it were wrong about this in one case, it would be wrong in the other. When we come to look into the matter, we find that we have really assumed the matter of the sun to be like the matter of the earth, made up of a certain number of distinct substances; and that each of these, when very hot, has a distinct rate of vibration, by which it may be recognized and singled out from the rest. But this is the kind of assumption which we are justified in using when we add to our experience. It is an assumption of uniformity in nature, and can only be checked by comparison with many similar assumptions which we have to make in other such cases.

But is this a true belief, of the existence of hydrogen in the sun? Can it help in the right guidance of human action?

Certainly not, if it is accepted on unworthy grounds, and without some understanding of the process by which it is got at. But when this process is taken in as the ground of the belief, it becomes a very serious and practical matter. For if there is no hydrogen in the sun, the spectroscope—that is to say, the measurement of rates of vibration—must be an uncertain guide in recognizing different substances; and consequently it ought not to be used in chemical analysis—in assaying, for example—to the great saving of time, trouble, and money. Whereas the acceptance of the

spectroscopic method as trustworthy has enriched us not only with new metals, which is a great thing, but with new processes of investigation, which is vastly greater.

For another example, let us consider the way in which we infer the truth of an historical event—say the siege of Syracuse in the Peloponnesian War. Our experience is that manuscripts exist which are said to be and which call themselves manuscripts of the history of Thucydides; that in other manuscripts, stated to be by later historians, he is described as living during the time of the war; and that books, supposed to date from the revival of learning, tell us how these manuscripts had been preserved and were then acquired. We find also that men do not, as a rule, forge books and histories without a special motive; we assume that in this respect men in the past were like men in the present; and we observe that in this case no special motive was present. That is, we add to our experience on the assumption of a uniformity in the characters of men. Because our knowledge of this uniformity is far less complete and exact than our knowledge of that which obtains in physics, inferences of the historical kind are more precarious and less exact than inferences in many other sciences.

But if there is any special reason to suspect the character of the persons who wrote or transmitted certain books, the case becomes altered. If a group of documents give internal evidence that they were produced among people who forged books in the names of others, and who, in describing events, suppressed those things which did not suit them, while they amplified such as did suit them; who not only committed these crimes, but gloried in them as proofs of humility and zeal; then we must say that upon such documents no true historical inference can be founded, but only unsatisfactory conjecture.

We may, then, add to our experience on the assumption of a uniformity in nature; we may fill in our picture of what is and has been, as experience gives it us, in such a way as to make the whole consistent with this uniformity. And practically demonstrative inference—that which gives us a right to believe in the result of it—is a clear showing that in no other way than by the truth of this result can the uniformity of nature be saved.

No evidence, therefore, can justify us in believing the truth of a statement which is contrary to, or outside of, the uniformity of nature. If our experience is such that it cannot be filled up consistently with uniformity, all we have a right to conclude is that there is something wrong somewhere; but the possibility of inference is taken away; we must rest in our experience, and not go beyond it at all. If an event really happened which was not a part of the uniformity of nature, it would have two properties:

no evidence could give the right to believe it to any except those whose actual experience it was; and no inference worthy of belief could be founded upon it at all.

Are we then bound to believe that nature is absolutely and universally uniform? Certainly not; we have no right to believe anything of this kind. The rule only tells us that in forming beliefs which go beyond our experience, we may make the assumption that nature is practically uniform so far as we are concerned. Within the range of human action and verification, we may form, by help of this assumption, actual beliefs; beyond it, only those hypotheses which serve for the more accurate asking of questions.

To sum up:

We may believe what goes beyond our experience, only when it is inferred from that experience by the assumption that what we do not know is like what we know.

We may believe the statement of another person, when there is reasonable ground for supposing that he knows the matter of which he speaks, and that he is speaking the truth so far as he knows it.

It is wrong in all cases to believe on insufficient evidence; and where it is presumption to doubt and to investigate, there it is worse than presumption to believe.

"The Ethics of Belief" is from a collection of Clifford's essays entitled LECTURES AND ESSAYS.

William James [1]

1842–1910

William James was both a philosopher and a psychologist. His greatest work, the *Principles of Psychology*,[2] makes major contributions to both fields. The *Principles* was published in 1890.

Earlier than that, he had begun writing articles for the learned journals and lecturing to an ever-increasing public. The first volume of his lectures to be collected appeared in 1897 under the title of the first lecture, *The Will to Believe*. His study of religious belief, already manifest in this volume, found fullest expression in *The Varieties of Religious Experience*, 1902. His most important philosophical works are *Pragmatism*, 1907, *A Pluralistic Universe* and *The Meaning of Truth*, both of which appeared in 1909, and *Essays in Radical Empiricism*, 1912.

One attraction of James the psychologist lies in his continually going beyond the bounds of his science to raise the broader questions of philosophy. Yet it is no less true that a large part of the fascination of James the philosopher is found in his psychological interest and insight. In *The Sentiment of Rationality*, reprinted here from *The Will to Believe*, James raises what is fundamentally a problem of meaning and method: what is to count as an explanation? Other men have written about method, notably Aristotle in the *Posterior Analytics* and Descartes in the *Discourse on Method*. But neither of them raises, as James does, the question of what feeling an explanation has to satisfy and whether temperament predisposes a person to favor one type of explanation over another. Thus in this essay James analyzes idealism and materialism in terms of the sentiments which they appeal to and satisfy. This leads him later on, in *Pragmatism*, to pro-

[1] For a biography of William James, see Vol. 7, pp. 137–138, in this set.
[2] See *Great Books of the Western World*.

pose that all philosophies can be divided into the tender and the tough-minded. However, since both sentiments are to be found in man, he claims that a true and sound philosophy will somehow have to satisfy both.

Recognizing the influence in the fixing of belief of "passional tendencies" or "our willing nature," James attacks what he considers the crudity of scientists who would dismiss all religious belief for not being based on rational evidence. With Pascal, whom he quotes, he appeals to the reasons of the heart "which the reason does not understand." These, he argues, enter into the judgments of science as well as into those of religion. In this, he emphasizes what more recently has come to be called personal as distinguished from abstractive and objective knowledge.

Another side to his defense of religious belief leads to the philosophy of pragmatism. *The Will to Believe* is dedicated to James's old friend Charles Sanders Peirce, to whom he attributes the original idea of pragmatism. A simplified version of the pragmatic principle, but one from which James himself would not shrink, might be expressed thus: *A belief is true if it works.* James accordingly asks us to test our beliefs by looking to their effects or consequences. Such, he points out, is the ordinary procedure by which science tests a hypothesis. From this James goes on to emphasize the importance of the practical in even our most theoretical beliefs.

James also insists upon the practical importance of theoretical beliefs. This is reflected in his conviction that philosophy is too important to be left to the experts. It is an enterprise in which every man is engaged. The two essays printed here James calls "essays in popular philosophy." They are popular not only or mainly because they are written in a fairly nontechnical and even racy style, but because they reflect James's deep conviction that philosophy is every man's business.

The Will to Believe

In the recently published *Life* by Leslie Stephen of his brother, Fitzjames, there is an account of a school to which the latter went when he was a boy. The teacher, a certain Mr. Guest, used to converse with his pupils in this wise: "Gurney, what is the difference between justification and sanctification? Stephen, prove the omnipotence of God!" etc. In the midst of our Harvard freethinking and indifference we are prone to imagine that here at your good old orthodox College conversation continues to be somewhat upon this order; and to show you that we at Harvard have not lost all interest in these vital subjects, I have brought with me tonight something like a sermon on justification by faith to read to you–I mean an essay in justification *of* faith, a defense of our right to adopt a believing attitude in religious matters, in spite of the fact that our merely logical intellect may not have been coerced. "The Will to Believe," accordingly, is the title of my paper.

I have long defended to my own students the lawfulness of voluntarily adopted faith; but as soon as they have got well imbued with the logical spirit, they have as a rule refused to admit my contention to be lawful philosophically, even though in point of fact they were personally all the time chock-full of some faith or other themselves. I am all the while, however, so profoundly convinced that my own position is correct, that your invitation has seemed to me a good occasion to make my statements more clear. Perhaps your minds will be more open than those with which I have hitherto had to deal. I will be as little technical as I can, though I must begin by setting up some technical distinctions that will help us in the end.

Let us give the name of *hypothesis* to anything that may be proposed to our belief; and just as the electricians speak of live and dead wires, let us speak of any hypothesis as either *live* or *dead*. A live hypothesis is one which appeals as a real possibility to him to whom it is proposed. If I ask

you to believe in the Mahdi, the notion makes no electric connection with your nature–it refuses to scintillate with any credibility at all. As a hypothesis it is completely dead. To an Arab, however (even if he be not one of the Mahdi's followers), the hypothesis is among the mind's possibilities: it is alive. This shows that deadness and liveness in a hypothesis are not intrinsic properties, but relations to the individual thinker. They are measured by his willingness to act. The maximum of liveness in a hypothesis means willingness to act irrevocably. Practically, that means belief; but there is some believing tendency wherever there is willingness to act at all.

Next, let us call the decision between two hypotheses an *option.* Options may be of several kinds. They may be–1, *living* or *dead;* 2, *forced* or *avoidable;* 3, *momentous* or *trivial;* and for our purposes we may call an option a *genuine* option when it is of the forced, living, and momentous kind.

1. A living option is one in which both hypotheses are live ones. If I say to you: "Be a theosophist or be a Mohammedan," it is probably a dead option, because for you neither hypothesis is likely to be alive. But if I say: "Be an agnostic or be a Christian," it is otherwise: trained as you are, each hypothesis makes some appeal, however small, to your belief.

2. Next, if I say to you: "Choose between going out with your umbrella or without it," I do not offer you a genuine option, for it is not forced. You can easily avoid it by not going out at all. Similarly, if I say, "Either love me or hate me," "Either call my theory true or call it false," your option is avoidable. You may remain indifferent to me, neither loving nor hating, and you may decline to offer any judgment as to my theory. But if I say, "Either accept this truth or go without it," I put on you a forced option, for there is no standing place outside of the alternative. Every dilemma based on a complete logical disjunction, with no possibility of not choosing, is an option of this forced kind.

3. Finally, if I were Dr. Nansen and proposed to you to join my North Pole expedition, your option would be momentous; for this would probably be your only similar opportunity, and your choice now would either exclude you from the North Pole sort of immortality altogether or put at least the chance of it into your hands. He who refuses to embrace a unique opportunity loses the prize as surely as if he tried and failed. Per contra, the option is trivial when the opportunity is not unique, when the stake is insignificant, or when the decision is reversible if it later prove unwise. Such trivial options abound in the scientific life. A chemist finds a hy-

pothesis live enough to spend a year in its verification: he believes in it to that extent. But if his experiments prove inconclusive either way, he is quit for his loss of time, no vital harm being done.

It will facilitate our discussion if we keep all these distinctions well in mind.

The next matter to consider is the actual psychology of human opinion. When we look at certain facts, it seems as if our passional and volitional nature lay at the root of all our convictions. When we look at others, it seems as if they could do nothing when the intellect had once said its say. Let us take the latter facts up first.

Does it not seem preposterous on the very face of it to talk of our opinions being modifiable at will? Can our will either help or hinder our intellect in its perceptions of truth? Can we, by just willing it, believe that Abraham Lincoln's existence is a myth, and that the portraits of him in McClure's Magazine are all of someone else? Can we, by any effort of our will, or by any strength of wish that it were true, believe ourselves well and about when we are roaring with rheumatism in bed, or feel certain that the sum of the two one-dollar bills in our pocket must be a hundred dollars? We can *say* any of these things, but we are absolutely impotent to believe them; and of just such things is the whole fabric of the truths that we do believe in made up–matters of fact, immediate or remote, as Hume said, and relations between ideas, which are either there or not there for us if we see them so, and which if not there cannot be put there by any action of our own.

In Pascal's *Thoughts* there is a celebrated passage known in literature as Pascal's wager. In it he tries to force us into Christianity by reasoning as if our concern with truth resembled our concern with the stakes in a game of chance. Translated freely his words are these: You must either believe or not believe that God is–which will you do? Your human reason cannot say. A game is going on between you and the nature of things which at the day of judgment will bring out either heads or tails. Weigh what your gains and your losses would be if you should stake all you have on heads, or God's existence: if you win in such case, you gain eternal beatitude; if you lose, you lose nothing at all. If there were an infinity of chances, and only one for God in this wager, still you ought to stake your all on God; for though you surely risk a finite loss by this procedure, any finite loss is reasonable, even a certain one is reasonable, if there is but the possibility of infinite gain. Go, then, and take holy water,

and have masses said; belief will come and stupefy your scruples—*Cela vous fera croire et vous abêtira.* Why should you not? At bottom, what have you to lose?

You probably feel that when religious faith expresses itself thus, in the language of the gaming table, it is put to its last trumps. Surely Pascal's own personal belief in masses and holy water had far other springs; and this celebrated page of his is but an argument for others, a last desperate snatch at a weapon against the hardness of the unbelieving heart. We feel that a faith in masses and holy water adopted wilfully after such a mechanical calculation would lack the inner soul of faith's reality; and if we were ourselves in the place of the Deity, we should probably take particular pleasure in cutting off believers of this pattern from their infinite reward. It is evident that unless there be some pre-existing tendency to believe in masses and holy water, the option offered to the will by Pascal is not a living option. Certainly no Turk ever took to masses and holy water on its account; and even to us Protestants these means of salvation seem such foregone impossibilities that Pascal's logic, invoked for them specifically, leaves us unmoved. As well might the Mahdi write to us, saying, "I am the Expected One whom God has created in his effulgence. You shall be infinitely happy if you confess me; otherwise you shall be cut off from the light of the sun. Weigh, then, your infinite gain if I am genuine against your finite sacrifice if I am not!" His logic would be that of Pascal; but he would vainly use it on us, for the hypothesis he offers us is dead. No tendency to act on it exists in us to any degree.

The talk of believing by our volition seems, then, from one point of view, simply silly. From another point of view it is worse than silly, it is vile. When one turns to the magnificent edifice of the physical sciences, and sees how it was reared; what thousands of disinterested moral lives of men lie buried in its mere foundations; what patience and postponement, what choking down of preference, what submission to the icy laws of outer fact are wrought into its very stones and mortar; how absolutely impersonal it stands in its vast augustness—then how besotted and contemptible seems every little sentimentalist who comes blowing his voluntary smoke wreaths, and pretending to decide things from out of his private dream! Can we wonder if those bred in the rugged and manly school of science should feel like spewing such subjectivism out of their mouths? The whole system of loyalties which grow up in the schools of science go dead against its toleration; so that it is only natural that those who have caught the scientific fever should pass over to the opposite extreme, and write sometimes as if the incorruptibly truthful intellect

ought positively to prefer bitterness and unacceptableness to the heart in its cup.

> It fortifies my soul to know
> That, though I perish, Truth is so–

sings Clough, while Huxley exclaims: "My only consolation lies in the reflection that, however bad our posterity may become, so far as they hold by the plain rule of not pretending to believe what they have no reason to believe, because it may be to their advantage so to pretend [the word 'pretend' is surely here redundant], they will not have reached the lowest depth of immorality." And that delicious *enfant terrible* Clifford writes: "Belief is desecrated when given to unproved and unquestioned statements for the solace and private pleasure of the believer. . . . Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away. . . . If [a] belief has been accepted on insufficient evidence [even though the belief be true, as Clifford on the same page explains] the pleasure is a stolen one. . . . It is sinful because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence which may shortly master our own body and then spread to the rest of the town. . . . It is wrong always, everywhere, and for every one, to believe anything upon insufficient evidence."

All this strikes one as healthy, even when expressed, as by Clifford, with somewhat too much of robustious pathos in the voice. Free will and simple wishing do seem, in the matter of our credences, to be only fifth wheels to the coach. Yet if any one should thereupon assume that intellectual insight is what remains after wish and will and sentimental preference have taken wing, or that pure reason is what then settles our opinions, he would fly quite as directly in the teeth of the facts.

It is only our already dead hypotheses that our willing nature is unable to bring to life again. But what has made them dead for us is for the most part a previous action of our willing nature of an antagonistic kind. When I say "willing nature," I do not mean only such deliberate volitions as may have set up habits of belief that we cannot now escape from–I mean all such factors of belief as fear and hope, prejudice and passion, imitation and partisanship, the circumpressure of our caste and set. As a matter of fact we find ourselves believing, we hardly know how or why. Mr. Balfour gives the name of "authority" to all those influences, born of the intellectual

climate, that make hypotheses possible or impossible for us, alive or dead. Here in this room, we all of us believe in molecules and the conservation of energy, in democracy and necessary progress, in Protestant Christianity and the duty of fighting for "the doctrine of the immortal Monroe," all for no reasons worthy of the name. We see into these matters with no more inner clearness, and probably with much less, than any disbeliever in them might possess. His unconventionality would probably have some grounds to show for its conclusions; but for us, not insight, but the *prestige* of the opinions, is what makes the spark shoot from them and light up our sleeping magazines of faith. Our reason is quite satisfied, in nine hundred and ninety-nine cases out of every thousand of us, if it can find a few arguments that will do to recite in case our credulity is criticized by someone else. Our faith is faith in someone else's faith, and in the greatest matters this is most the case. Our belief in truth itself, for instance, that there is a truth, and that our minds and it are made for each other—what is it but a passionate affirmation of desire, in which our social system backs us up? We want to have a truth; we want to believe that our experiments and studies and discussions must put us in a continually better and better position towards it; and on this line we agree to fight out our thinking lives. But if a Pyrrhonistic skeptic asks us *how we know* all this, can our logic find a reply? No! certainly it cannot. It is just one volition against another—we willing to go in for life upon a trust or assumption which he, for his part, does not care to make.

As a rule we disbelieve all facts and theories for which we have no use. Clifford's cosmic emotions find no use for Christian feelings. Huxley belabors the bishops because there is no use for sacerdotalism in his scheme of life. Newman, on the contrary, goes over to Romanism, and finds all sorts of reasons good for staying there, because a priestly system is for him an organic need and delight. Why do so few "scientists" even look at the evidence for telepathy, so called? Because they think, as a leading biologist, now dead, once said to me, that even if such a thing were true, scientists ought to band together to keep it suppressed and concealed. It would undo the uniformity of nature and all sorts of other things without which scientists cannot carry on their pursuits. But if this very man had been shown something which as a scientist he might *do* with telepathy, he might not only have examined the evidence, but even have found it good enough. This very law which the logicians would impose upon us—if I may give the name of logicians to those who would rule out our willing nature here—is based on nothing but their own natural wish to exclude all elements for which they, in their professional quality of logicians, can find no use.

Evidently, then, our nonintellectual nature does influence our convictions. There are passional tendencies and volitions which run before and others which come after belief, and it is only the latter that are too late for the fair; and they are not too late when the previous passional work has been already in their own direction. Pascal's argument, instead of being powerless, then seems a regular clincher, and is the last stroke needed to make our faith in masses and holy water complete. The state of things is evidently far from simple; and pure insight and logic, whatever they might do ideally, are not the only things that really do produce our creeds.

Our next duty, having recognized this mixed-up state of affairs, is to ask whether it be simply reprehensible and pathological, or whether, on the contrary, we must treat it as a normal element in making up our minds. The thesis I defend is, briefly stated, this: *Our passional nature not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds; for to say, under such circumstances, "Do not decide, but leave the question open," is itself a passional decision—just like deciding yes or no—and is attended with the same risk of losing the truth.* The thesis thus abstractly expressed will, I trust, soon become quite clear. But I must first indulge in a bit more of preliminary work.

It will be observed that for the purposes of this discussion we are on "dogmatic" ground—ground, I mean, which leaves systematic philosophical skepticism altogether out of account. The postulate that there is truth, and that it is the destiny of our minds to attain it, we are deliberately resolving to make, though the skeptic will not make it. We part company with him, therefore, absolutely, at this point. But the faith that truth exists, and that our minds can find it, may be held in two ways. We may talk of the *empiricist* way and of the *absolutist* way of believing in truth. The absolutists in this matter say that we not only can attain to knowing truth, but we can *know when* we have attained to knowing it; while the empiricists think that although we may attain it, we cannot infallibly know when. To *know* is one thing, and to know for certain *that* we know is another. One may hold to the first being possible without the second; hence the empiricists and the absolutists, although neither of them is a skeptic in the usual philosophic sense of the term, show very different degrees of dogmatism in their lives.

If we look at the history of opinions, we see that the empiricist tendency has largely prevailed in science, while in philosophy the absolutist tendency has had everything its own way. The characteristic sort of happiness,

indeed, which philosophies yield has mainly consisted in the conviction felt by each successive school or system that by it bottom-certitude had been attained. "Other philosophies are collections of opinions, mostly false; *my* philosophy gives standing ground forever"–who does not recognize in this the keynote of every system worthy of the name? A system, to be a system at all, must come as a *closed* system, reversible in this or that detail, perchance, but in its essential features never!

Scholastic orthodoxy, to which one must always go when one wishes to find perfectly clear statement, has beautifully elaborated this absolutist conviction in a doctrine which it calls that of "objective evidence." If, for example, I am unable to doubt that I now exist before you, that two is less than three, or that if all men are mortal then I am mortal too, it is because these things illumine my intellect irresistibly. The final ground of this objective evidence possessed by certain propositions is the *adaequatio intellectus nostri cum re* [the equating of our minds with the thing]. The certitude it brings involves an *aptitudinem ad extorquendum certum assensum* [aptitude for extracting clear and positive assent] on the part of the truth envisaged, and on the side of the subject a *quietem in cognitione* [repose in apprehension], when once the object is mentally received, that leaves no possibility of doubt behind; and in the whole transaction nothing operates but the *entitas ipsa* [existence itself] of the object and the *entitas ipsa* of the mind. We slouchy modern thinkers dislike to talk in Latin–indeed, we dislike to talk in set terms at all; but at bottom our own state of mind is very much like this whenever we uncritically abandon ourselves: You believe in objective evidence, and I do. Of some things we feel that we are certain: we know, and we know that we do know. There is something that gives a click inside of us, a bell that strikes twelve, when the hands of our mental clock have swept the dial and meet over the meridian hour. The greatest empiricists among us are only empiricists on reflection: when left to their instincts, they dogmatize like infallible popes. When the Cliffords tell us how sinful it is to be Christians on such "insufficient evidence," insufficiency is really the last thing they have in mind. For them the evidence is absolutely sufficient, only it makes the other way. They believe so completely in an anti-Christian order of the universe that there is no living option: Christianity is a dead hypothesis from the start.

But now, since we are all such absolutists by instinct, what in our quality of students of philosophy ought we to do about the fact? Shall we espouse and indorse it? Or shall we treat it as a weakness of our nature from which we must free ourselves, if we can?

I sincerely believe that the latter course is the only one we can follow as reflective men. Objective evidence and certitude are doubtless very fine ideals to play with, but where on this moonlit and dream-visited planet are they found? I am, therefore, myself a complete empiricist so far as my theory of human knowledge goes. I live, to be sure, by the practical faith that we must go on experiencing and thinking over our experience, for only thus can our opinions grow more true; but to hold any one of them–I absolutely do not care which–as if it never could be reinterpretable or corrigible, I believe to be a tremendously mistaken attitude, and I think that the whole history of philosophy will bear me out. There is but one indefectibly certain truth, and that is the truth that Pyrrhonistic skepticism itself leaves standing–the truth that the present phenomenon of consciousness exists. That, however, is the bare starting point of knowledge, the mere admission of a stuff to be philosophized about. The various philosophies are but so many attempts at expressing what this stuff really is. And if we repair to our libraries what disagreement do we discover! Where is a certainly true answer found? Apart from abstract propositions of comparison (such as two and two are the same as four), propositions which tell us nothing by themselves about concrete reality, we find no proposition ever regarded by anyone as evidently certain that has not either been called a falsehood, or at least had its truth sincerely questioned by someone else. The transcending of the axioms of geometry, not in play but in earnest, by certain of our contemporaries (as Zöllner and Charles H. Hinton), and the rejection of the whole Aristotelian logic by the Hegelians, are striking instances in point.

No concrete test of what is really true has ever been agreed upon. Some make the criterion external to the moment of perception, putting it either in revelation, the *consensus gentium*, the instincts of the heart, or the systematized experience of the race. Others make the perceptive moment its own test–Descartes, for instance, with his clear and distinct ideas guaranteed by the veracity of God; Reid with his "common sense"; and Kant with his forms of synthetic judgment a priori. The inconceivability of the opposite; the capacity to be verified by sense; the possession of complete organic unity or self-relation, realized when a thing is its own other, are standards which, in turn, have been used. The much lauded objective evidence is never triumphantly there; it is a mere aspiration or *Grenzbegriff*, marking the infinitely remote ideal of our thinking life. To claim that certain truths now possess it is simply to say that when you think them true and they *are* true, then their evidence is objective, otherwise it is not. But practically one's conviction that the evidence one goes by is of the real objective brand, is only one more subjective opinion

added to the lot. For what a contradictory array of opinions have objective evidence and absolute certitude been claimed! The world is rational through and through–its existence is an ultimate brute fact; there is a personal God–a personal God is inconceivable; there is an extramental physical world immediately known–the mind can only know its own ideas; a moral imperative exists–obligation is only the resultant of desires; a permanent spiritual principle is in every one–there are only shifting states of mind; there is an endless chain of causes–there is an absolute first cause; an eternal necessity–a freedom; a purpose–no purpose; a primal One–a primal Many; a universal continuity–an essential discontinuity in things; an infinity–no infinity. There is this–there is that; there is indeed nothing which someone has not thought absolutely true, while his neighbor deemed it absolutely false; and not an absolutist among them seems ever to have considered that the trouble may all the time be essential, and that the intellect, even with truth directly in its grasp, may have no infallible signal for knowing whether it be truth or no. When, indeed, one remembers that the most striking practical application to life of the doctrine of objective certitude has been the conscientious labors of the Holy Office of the Inquisition, one feels less tempted than ever to lend the doctrine a respectful ear.

But please observe, now, that when as empiricists we give up the doctrine of objective certitude, we do not thereby give up the quest or hope of truth itself. We still pin our faith on its existence, and still believe that we gain an ever better position towards it by systematically continuing to roll up experiences and think. Our great difference from the scholastic lies in the way we face. The strength of his system lies in the principles, the origin, the *terminus a quo* of his thought; for us the strength is in the outcome, the upshot, the *terminus ad quem*. Not where it comes from but what it leads to is to decide. It matters not to an empiricist from what quarter a hypothesis may come to him: he may have acquired it by fair means or by foul; passion may have whispered or accident suggested it; but if the total drift of thinking continues to confirm it, that is what he means by its being true.

One more point, small but important, and our preliminaries are done. There are two ways of looking at our duty in the matter of opinion–ways entirely different, and yet ways about whose difference the theory of knowledge seems hitherto to have shown very little concern. *We must know the truth;* and *we must avoid error*–these are our first and great commandments as would-be knowers; but they are not two ways of stating

an identical commandment, they are two separable laws. Although it may indeed happen that when we believe the truth *A*, we escape as an incidental consequence from believing the falsehood *B*, it hardly ever happens that by merely disbelieving *B* we necessarily believe *A*. We may in escaping *B* fall into believing other falsehoods, *C* or *D*, just as bad as *B;* or we may escape *B* by not believing anything at all, not even *A*.

Believe truth! Shun error! These, we see, are two materially different laws; and by choosing between them we may end by coloring differently our whole intellectual life. We may regard the chase for truth as paramount, and the avoidance of error as secondary; or we may, on the other hand, treat the avoidance of error as more imperative, and let truth take its chance. Clifford, in the instructive passage which I have quoted, exhorts us to the latter course. Believe nothing, he tells us, keep your mind in suspense forever, rather than by closing it on insufficient evidence incur the awful risk of believing lies. You, on the other hand, may think that the risk of being in error is a very small matter when compared with the blessings of real knowledge, and be ready to be duped many times in your investigation rather than postpone indefinitely the chance of guessing true. I myself find it impossible to go with Clifford. We must remember that these feelings of our duty about either truth or error are in any case only expressions of our passional life. Biologically considered, our minds are as ready to grind out falsehood as veracity, and he who says, "Better go without belief forever than believe a lie!" merely shows his own preponderant private horror of becoming a dupe. He may be critical of many of his desires and fears, but this fear he slavishly obeys. He cannot imagine anyone questioning its binding force. For my own part, I have also a horror of being duped; but I can believe that worse things than being duped may happen to a man in this world: so Clifford's exhortation has to my ears a thoroughly fantastic sound. It is like a general informing his soldiers that it is better to keep out of battle forever than to risk a single wound. Not so are victories either over enemies or over nature gained. Our errors are surely not such awfully solemn things. In a world where we are so certain to incur them in spite of all our caution, a certain lightness of heart seems healthier than this excessive nervousness on their behalf. At any rate, it seems the fittest thing for the empiricist philosopher.

And now, after all this introduction, let us go straight at our question. I have said, and now repeat it, that not only as a matter of fact do we find our passional nature influencing us in our opinions, but that there are

some options between opinions in which this influence must be regarded both as an inevitable and as a lawful determinant of our choice.

I fear here that some of you my hearers will begin to scent danger, and lend an inhospitable ear. Two first steps of passion you have indeed had to admit as necessary—we must think so as to avoid dupery, and we must think so as to gain truth; but the surest path to those ideal consummations, you will probably consider, is from now onwards to take no further passional step.

Well, of course, I agree as far as the facts will allow. Wherever the option between losing truth and gaining it is not momentous, we can throw the chance of *gaining truth* away, and at any rate save ourselves from any chance of *believing falsehood*, by not making up our minds at all till objective evidence has come. In scientific questions, this is almost always the case; and even in human affairs in general, the need of acting is seldom so urgent that a false belief to act on is better than no belief at all. Law courts, indeed, have to decide on the best evidence attainable for the moment, because a judge's duty is to make law as well as to ascertain it, and (as a learned judge once said to me) few cases are worth spending much time over: the great thing is to have them decided on *any* acceptable principle, and got out of the way. But in our dealings with objective nature we obviously are recorders, not makers, of the truth; and decisions for the mere sake of deciding promptly and getting on to the next business would be wholly out of place. Throughout the breadth of physical nature facts are what they are quite independently of us, and seldom is there any such hurry about them that the risks of being duped by believing a premature theory need be faced. The questions here are always trivial options, the hypotheses are hardly living (at any rate not living for us spectators), the choice between believing truth or falsehood is seldom forced. The attitude of skeptical balance is therefore the absolutely wise one if we would escape mistakes. What difference, indeed, does it make to most of us whether we have or have not a theory of the Röntgen rays, whether we believe or not in mind stuff, or have a conviction about the causality of conscious states? It makes no difference. Such options are not forced on us. On every account it is better not to make them, but still keep weighing reasons *pro et contra* with an indifferent hand.

I speak, of course, here of the purely judging mind. For purposes of discovery such indifference is to be less highly recommended, and science would be far less advanced than she is if the passionate desires of individuals to get their own faiths confirmed had been kept out of the game. See for example the sagacity which Spencer and Weismann now display.

On the other hand, if you want an absolute duffer in an investigation, you must, after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool. The most useful investigator, because the most sensitive observer, is always he whose eager interest in one side of the question is balanced by an equally keen nervousness lest he become deceived.[1] Science has organized this nervousness into a regular *technique*, her so-called method of verification; and she has fallen so deeply in love with the method that one may even say she has ceased to care for truth by itself at all. It is only truth as technically verified that interests her. The truth of truths might come in merely affirmative form, and she would decline to touch it. Such truth as that, she might repeat with Clifford, would be stolen in defiance of her duty to mankind. Human passions, however, are stronger than technical rules. *"Le coeur a ses raisons,"* as Pascal says, *"que la raison ne connaît pas* [The heart has its reasons which the reason does not understand]"; and however indifferent to all but the bare rules of the game the umpire, the abstract intellect, may be, the concrete players who furnish him the materials to judge of are usually, each one of them, in love with some pet "live hypothesis" of his own. Let us agree, however, that wherever there is no forced option, the dispassionately judicial intellect with no pet hypothesis, saving us, as it does, from dupery at any rate, ought to be our ideal.

The question next arises: Are there not somewhere forced options in our speculative questions, and can we (as men who may be interested at least as much in positively gaining truth as in merely escaping dupery) always wait with impunity till the coercive evidence shall have arrived? It seems a priori improbable that the truth should be so nicely adjusted to our needs and powers as that. In the great boarding house of nature, the cakes and the butter and the sirup seldom come out so even and leave the plates so clean. Indeed, we should view them with scientific suspicion if they did.

Moral questions immediately present themselves as questions whose solution cannot wait for sensible proof. A moral question is a question not of what sensibly exists, but of what is good, or would be good if it did exist. Science can tell us what exists; but to compare the *worths*, both of what exists and of what does not exist, we must consult not science, but what Pascal calls our heart. Science herself consults her heart when she

1. Cf. Wilfrid Ward's essay, "The Wish to Believe," in his *Witnesses to the Unseen*, Macmillan & Co., 1893.

lays it down that the infinite ascertainment of fact and correction of false belief are the supreme goods for man. Challenge the statement, and science can only repeat it oracularly, or else prove it by showing that such ascertainment and correction bring man all sorts of other goods which man's heart in turn declares. The question of having moral beliefs at all or not having them is decided by our will. Are our moral preferences true or false, or are they only odd biological phenomena, making things good or bad for *us*, but in themselves indifferent? How can your pure intellect decide? If your heart does not *want* a world of moral reality, your head will assuredly never make you believe in one. Mephistophelian skepticism, indeed, will satisfy the head's play instincts much better than any rigorous idealism can. Some men (even at the student age) are so naturally coolhearted that the moralistic hypothesis never has for them any pungent life, and in their supercilious presence the hot young moralist always feels strangely ill at ease. The appearance of knowingness is on their side, of naïveté and gullibility on his. Yet, in the inarticulate heart of him, he clings to it that he is not a dupe, and that there is a realm in which (as Emerson says) all their wit and intellectual superiority is no better than the cunning of a fox. Moral skepticism can no more be refuted or proved by logic than intellectual skepticism can. When we stick to it that there *is* truth (be it of either kind), we do so with our whole nature, and resolve to stand or fall by the results. The skeptic with his whole nature adopts the doubting attitude; but which of us is the wiser, Omniscience only knows.

Turn now from these wide questions of good to a certain class of questions of fact, questions concerning personal relations, states of mind between one man and another. *Do you like me or not?* for example. Whether you do or not depends, in countless instances, on whether I meet you halfway, am willing to assume that you must like me, and show you trust and expectation. The previous faith on my part in your liking's existence is in such cases what makes your liking come. But if I stand aloof, and refuse to budge an inch until I have objective evidence, until you shall have done something apt, as the absolutists say, *ad extorquendum assensum meum* [at extorting my assent], ten to one your liking never comes. How many women's hearts are vanquished by the mere sanguine insistence of some man that they *must* love him! He will not consent to the hypothesis that they cannot. The desire for a certain kind of truth here brings about that special truth's existence; and so it is in innumerable cases of other sorts. Who gains promotions, boons, appointments, but the man in whose life they are seen to play the part of live hypotheses, who discounts them, sacrifices other things for their sake before they have

come, and takes risks for them in advance? His faith acts on the powers above him as a claim, and creates its own verification.

A social organism of any sort whatever, large or small, is what it is because each member proceeds to his own duty with a trust that the other members will simultaneously do theirs. Wherever a desired result is achieved by the co-operation of many independent persons, its existence as a fact is a pure consequence of the precursive faith in one another of those immediately concerned. A government, an army, a commercial system, a ship, a college, an athletic team, all exist on this condition, without which not only is nothing achieved, but nothing is even attempted. A whole train of passengers (individually brave enough) will be looted by a few highwaymen, simply because the latter can count on one another, while each passenger fears that if he makes a movement of resistance, he will be shot before any one else backs him up. If we believed that the whole carful would rise at once with us, we should each severally rise, and train robbing would never even be attempted. There are, then, cases where a fact cannot come at all unless a preliminary faith exists in its coming. *And where faith in a fact can help create the fact*, that would be an insane logic which should say that faith running ahead of scientific evidence is the "lowest kind of immorality" into which a thinking being can fall. Yet such is the logic by which our scientific absolutists pretend to regulate our lives!

In truths dependent on our personal action, then, faith based on desire is certainly a lawful and possibly an indispensable thing.

But now, it will be said, these are all childish human cases, and have nothing to do with great cosmical matters, like the question of religious faith. Let us then pass on to that. Religions differ so much in their accidents that in discussing the religious question we must make it very generic and broad. What then do we now mean by the religious hypothesis? Science says things are; morality says some things are better than other things; and religion says essentially two things.

First, she says that the best things are the more eternal things, the overlapping things, the things in the universe that throw the last stone, so to speak, and say the final word. "Perfection is eternal"—this phrase of Charles Secrétan seems a good way of putting this first affirmation of religion, an affirmation which obviously cannot yet be verified scientifically at all.

The second affirmation of religion is that we are better off even now if we believe her first affirmation to be true.

Now, let us consider what the logical elements of this situation are *in*

case the religious hypothesis in both its branches be really true. (Of course, we must admit that possibility at the outset. If we are to discuss the question at all, it must involve a living option. If for any of you religion be a hypothesis that cannot, by any living possibility, be true, then you need go no farther. I speak to the "saving remnant" alone.) So proceeding, we see, first, that religion offers itself as a *momentous* option. We are supposed to gain, even now, by our belief, and to lose by our nonbelief, a certain vital good. Secondly, religion is a *forced* option, so far as that good goes. We cannot escape the issue by remaining skeptical and waiting for more light, because, although we do avoid error in that way *if religion be untrue*, we lose the good, *if it be true*, just as certainly as if we positively chose to disbelieve. It is as if a man should hesitate indefinitely to ask a certain woman to marry him because he was not perfectly sure that she would prove an angel after he brought her home. Would he not cut himself off from that particular angel possibility as decisively as if he went and married someone else? Skepticism, then, is not avoidance of option; it is option of a certain particular kind of risk. *Better risk loss of truth than chance of error*—that is your faith vetoer's exact position. He is actively playing his stake as much as the believer is; he is backing the field against the religious hypothesis, just as the believer is backing the religious hypothesis against the field. To preach skepticism to us as a duty until "sufficient evidence" for religion be found is tantamount therefore to telling us, when in presence of the religious hypothesis, that to yield to our fear of its being error is wiser and better than to yield to our hope that it may be true. It is not intellect against all passions, then; it is only intellect with one passion laying down its law. And by what, forsooth, is the supreme wisdom of this passion warranted? Dupery for dupery, what proof is there that dupery through hope is so much worse than dupery through fear? I, for one, can see no proof; and I simply refuse obedience to the scientist's command to imitate his kind of option, in a case where my own stake is important enough to give me the right to choose my own form of risk. If religion be true and the evidence for it be still insufficient, I do not wish, by putting your extinguisher upon my nature (which feels to me as if it had after all some business in this matter), to forfeit my sole chance in life of getting upon the winning side—that chance depending, of course, on my willingness to run the risk of acting as if my passional need of taking the world religiously might be prophetic and right.

All this is on the supposition that it really may be prophetic and right, and that, even to us who are discussing the matter, religion is a live

hypothesis which may be true. Now, to most of us religion comes in a still further way that makes a veto on our active faith even more illogical. The more perfect and more eternal aspect of the universe is represented in our religions as having personal form. The universe is no longer a mere *It* to us, but a *Thou*, if we are religious; and any relation that may be possible from person to person might be possible here. For instance, although in one sense we are passive portions of the universe, in another we show a curious autonomy, as if we were small active centers on our own account. We feel, too, as if the appeal of religion to us were made to our own active good will, as if evidence might be forever withheld from us unless we met the hypothesis halfway. To take a trivial illustration: just as a man who in a company of gentlemen made no advances, asked a warrant for every concession, and believed no one's word without proof would cut himself off by such churlishness from all the social rewards that a more trusting spirit would earn, so here, one who should shut himself up in snarling logicality and try to make the gods extort his recognition willy-nilly, or not get it at all, might cut himself off forever from his only opportunity of making the gods' acquaintance. This feeling, forced on us we know not whence, that by obstinately believing that there are gods (although not to do so would be so easy both for our logic and our life) we are doing the universe the deepest service we can seems part of the living essence of the religious hypothesis. If the hypothesis *were* true in all its parts, including this one, then pure intellectualism, with its veto on our making willing advances, would be an absurdity; and some participation of our sympathetic nature would be logically required. I, therefore, for one, cannot see my way to accepting the agnostic rules for truth seeking, or willfully agree to keep my willing nature out of the game. I cannot do so for this plain reason, that *a rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there would be an irrational rule*. That for me is the long and short of the formal logic of the situation, no matter what the kinds of truth might materially be.

I confess I do not see how this logic can be escaped. But sad experience makes me fear that some of you may still shrink from radically saying with me, *in abstracto*, that we have the right to believe at our own risk any hypothesis that is live enough to tempt our will. I suspect, however, that if this is so, it is because you have got away from the abstract logical point of view altogether, and are thinking (perhaps without realizing it) of some particular religious hypothesis which for you is dead. The freedom to "believe what we will" you apply to the case of some patent su-

perstition; and the faith you think of is the faith defined by the schoolboy when he said, "Faith is when you believe something that you know ain't true." I can only repeat that this is misapprehension. *In concreto*, the freedom to believe can only cover living options which the intellect of the individual cannot by itself resolve; and living options never seem absurdities to him who has them to consider. When I look at the religious question as it really puts itself to concrete men, and when I think of all the possibilities which both practically and theoretically it involves, then this command that we shall put a stopper on our heart, instincts, and courage, and *wait*–acting of course meanwhile more or less as if religion were *not* true [2] till doomsday, or till such time as our intellect and senses working together may have raked in evidence enough–this command, I say, seems to me the queerest idol ever manufactured in the philosophic cave. Were we scholastic absolutists, there might be more excuse. If we had an infallible intellect with its objective certitudes, we might feel ourselves disloyal to such a perfect organ of knowledge in not trusting to it exclusively, in not waiting for its releasing word. But if we are empiricists, if we believe that no bell in us tolls to let us know for certain when truth is in our grasp, then it seems a piece of idle fantasticality to preach so solemnly our duty of waiting for the bell. Indeed we *may* wait if we will–I hope you do not think that I am denying that–but if we do so, we do so at our peril as much as if we believed. In either case we *act*, taking our life in our hands. No one of us ought to issue vetoes to the other, nor should we bandy words of abuse. We ought, on the contrary, delicately and profoundly to respect one another's mental freedom: then only shall we bring about the intellectual republic; then only shall we have that spirit of inner tolerance without which all our outer tolerance is soulless, and which is empiricism's glory; then only shall we live and let live, in speculative as well as in practical things.

I began by a reference to Fitzjames Stephen; let me end by a quotation from him. "What do you think of yourself? What do you think of the world? . . . These are questions with which all must deal as it seems good to them. They are riddles of the Sphinx, and in some way or other

2. Since belief is measured by action, he who forbids us to believe religion to be true, necessarily also forbids us to act as we should if we did believe it to be true. The whole defense of religious faith hinges upon action. If the action required or inspired by the religious hypothesis is in no way different from that dictated by the naturalistic hypothesis, then religious faith is a pure superfluity, better pruned away, and controversy about its legitimacy is a piece of idle trifling, unworthy of serious minds. I myself believe, of course, that the religious hypothesis gives to the world an expression which specifically determines our reactions, and makes them in a large part unlike what they might be on a purely naturalistic scheme of belief.

we must deal with them. . . . In all important transactions of life we have to take a leap in the dark. . . . If we decide to leave the riddles unanswered, that is a choice; if we waver in our answer, that, too, is a choice: but whatever choice we make, we make it at our peril. If a man chooses to turn his back altogether on God and the future, no one can prevent him; no one can show beyond reasonable doubt that he is mistaken. If a man thinks otherwise and acts as he thinks, I do not see that any one can prove that *he* is mistaken. Each must act as he thinks best; and if he is wrong, so much the worse for him. We stand on a mountain pass in the midst of whirling snow and blinding mist, through which we get glimpses now and then of paths which may be deceptive. If we stand still we shall be frozen to death. If we take the wrong road we shall be dashed to pieces. We do not certainly know whether there is any right one. What must we do? 'Be strong and of a good courage.' Act for the best, hope for the best, and take what comes. . . . If death ends all, we cannot meet death better." [3]

3. *Liberty, Equality, Fraternity,* p. 353, 2d edition, London, 1874.

The Sentiment of Rationality

What is the task which philosophers set themselves to perform; and why do they philosophize at all? Almost everyone will immediately reply: They desire to attain a conception of the frame of things which shall on the whole be more rational than that somewhat chaotic view which every one by nature carries about with him under his hat. But suppose this rational conception attained, how is the philosopher to recognize it for what it is, and not let it slip through ignorance? The only answer can be that he will recognize its rationality as he recognizes everything else, by certain subjective marks with which it affects him. When he gets the marks, he may know that he has got the rationality.

What, then, are the marks? A strong feeling of ease, peace, rest is one of them. The transition from a state of puzzle and perplexity to rational comprehension is full of lively relief and pleasure.

But this relief seems to be a negative rather than a positive character. Shall we then say that the feeling of rationality is constituted merely by the absence of any feeling of irrationality? I think there are very good grounds for upholding such a view. All feeling whatever, in the light of certain recent psychological speculations, seems to depend for its physical condition not on simple discharge of nerve currents, but on their discharge under arrest, impediment, or resistance. Just as we feel no particular pleasure when we breathe freely, but a very intense feeling of distress when the respiratory motions are prevented—so any unobstructed tendency to action discharges itself without the production of much cogitative accompaniment, and any perfectly fluent course of thought awakens but little feeling; but when the movement is inhibited, or when the thought meets with difficulties, we experience distress. It is only when the distress is upon us that we can be said to strive, to crave, or to aspire. When enjoying plenary freedom either in the way of motion or of thought, we are in a sort of anesthetic state in which we might say with Walt Whitman, if we cared to say anything about ourselves at such times, "I am sufficient

as I am." This feeling of the sufficiency of the present moment, of its absoluteness—this absence of all need to explain it, account for it, or justify it—is what I call the Sentiment of Rationality. As soon, in short, as we are enabled from any cause whatever to think with perfect fluency, the thing we think of seems to us *pro tanto* rational.

Whatever modes of conceiving the cosmos facilitate this fluency, produce the sentiment of rationality. Conceived in such modes, being vouches for itself and needs no further philosophic formulation. But this fluency may be obtained in various ways; and first I will take up the theoretic way.

The facts of the world in their sensible diversity are always before us, but our theoretic need is that they should be conceived in a way that reduces their manifoldness to simplicity. Our pleasure at finding that a chaos of facts is the expression of a single underlying fact is like the relief of the musician at resolving a confused mass of sound into melodic or harmonic order. The simplified result is handled with far less mental effort than the original data; and a philosophic conception of nature is thus in no metaphorical sense a labor-saving contrivance. The passion for parsimony, for economy of means in thought, is the philosophic passion *par excellence;* and any character or aspect of the world's phenomena which gathers up their diversity into monotony will gratify that passion, and in the philosopher's mind stand for that essence of things compared with which all their other determinations may by him be overlooked.

More universality or extensiveness is, then, one mark which the philosopher's conceptions must possess. Unless they apply to an enormous number of cases they will not bring him relief. The knowledge of things by their causes, which is often given as a definition of rational knowledge, is useless to him unless the causes converge to a minimum number, while still producing the maximum number of effects. The more multiple then are the instances, the more flowingly does his mind rove from fact to fact. The phenomenal transitions are no real transitions; each item is the same old friend with a slightly altered dress.

Who does not feel the charm of thinking that the moon and the apple are, as far as their relation to the earth goes, identical; of knowing respiration and combustion to be one; of understanding that the balloon rises by the same law whereby the stone sinks; of feeling that the warmth in one's palm when one rubs one's sleeve is identical with the motion which the friction checks; of recognizing the difference between beast and fish to be only a higher degree of that between human father and son; of be-

lieving our strength when we climb the mountain or fell the tree to be no other than the strength of the sun's rays which made the corn grow out of which we got our morning meal?

But alongside of this passion for simplification there exists a sister passion, which in some minds—though they perhaps form the minority—is its rival. This is the passion for distinguishing; it is the impulse to be *acquainted* with the parts rather than to comprehend the whole. Loyalty to clearness and integrity of perception, dislike of blurred outlines, of vague identifications, are its characteristics. It loves to recognize particulars in their full completeness, and the more of these it can carry the happier it is. It prefers any amount of incoherence, abruptness, and fragmentariness (so long as the literal details of the separate facts are saved) to an abstract way of conceiving things that, while it simplifies them, dissolves away at the same time their concrete fullness. Clearness and simplicity thus set up rival claims, and make a real dilemma for the thinker.

A man's philosophic attitude is determined by the balance in him of these two cravings. No system of philosophy can hope to be universally accepted among men which grossly violates either need, or entirely subordinates the one to the other. The fate of Spinoza, with his barren union of all things in one substance, on the one hand; that of Hume, with his equally barren "looseness and separateness" of everything, on the other—neither philosopher owning any strict and systematic disciples today, each being to posterity a warning as well as a stimulus—show us that the only possible philosophy must be a compromise between an abstract monotony and a concrete heterogeneity. But the only way to mediate between diversity and unity is to class the diverse items as cases of a common essence which you discover in them. Classification of things into extensive "kinds" is thus the first step; and classification of their relations and conduct into extensive "laws" is the last step, in their philosophic unification. A completed theoretic philosophy can thus never be anything more than a completed classification of the world's ingredients; and its results must always be abstract, since the basis of every classification is the abstract essence embedded in the living fact—the rest of the living fact being for the time ignored by the classifier. This means that none of our explanations are complete. They subsume things under heads wider or more familiar; but the last heads, whether of things or of their connections, are mere abstract genera, data which we just find in things and write down.

When, for example, we think that we have rationally explained the con-

nection of the facts *A* and *B* by classing both under their common attribute *x*, it is obvious that we have really explained only so much of these items as *is x*. To explain the connection of chokedamp and suffocation by the lack of oxygen is to leave untouched all the other peculiarities both of chokedamp and of suffocation, such as convulsions and agony on the one hand, density and explosibility on the other. In a word, so far as *A* and *B* contain *l, m, n,* and *o, p, q,* respectively, in addition to *x*, they are not explained by *x*. Each additional particularity makes its distinct appeal. A single explanation of a fact only explains it from a single point of view. The entire fact is not accounted for until each and all of its characters have been classed with their likes elsewhere. To apply this now to the case of the universe, we see that the explanation of the world by molecular movements explains it only so far as it actually *is* such movements. To invoke the "Unknowable" explains only so much as is unknowable, "Thought" only so much as is thought, "God" only so much as is God. *Which* thought? *Which* God? are questions that have to be answered by bringing in again the residual data from which the general term was abstracted. All those data that cannot be analytically identified with the attribute invoked as universal principle, remain as independent kinds or natures, associated empirically with the said attribute but devoid of rational kinship with it.

Hence the unsatisfactoriness of all our speculations. On the one hand, so far as they retain any multiplicity in their terms, they fail to get us out of the empirical sand-heap world; on the other, so far as they eliminate multiplicity the practical man despises their empty barrenness. The most they can say is that the elements of the world are such and such, and that each is identical with itself wherever found; but the question Where is it found? the practical man is left to answer by his own wit. Which, of all the essences, shall here and now be held the essence of this concrete thing, the fundamental philosophy never attempts to decide. We are thus led to the conclusion that the simple classification of things is, on the one hand, the best possible theoretic philosophy, but is, on the other, a most miserable and inadequate substitute for the fullness of the truth. It is a monstrous abridgment of life, which, like all abridgments is got by the absolute loss and casting out of real matter. This is why so few human beings truly care for philosophy. The particular determinations which she ignores are the real matter exciting needs, quite as potent and authoritative as hers. What does the moral enthusiast care for philosophical ethics? Why does the *Aesthetik* of every German philosopher appear to the artist an abomination of desolation?

Grau, theurer Freund, ist alle Theorie
Und grün des Lebens goldner Baum.

[Gray, dear friend, is all theory
And green the golden tree of life.]

The entire man, who feels all needs by turns, will take nothing as an equivalent for life but the fullness of living itself. Since the essences of things are as a matter of fact disseminated through the whole extent of time and space, it is in their spread outness and alternation that he will enjoy them. When weary of the concrete clash and dust and pettiness, he will refresh himself by a bath in the eternal springs, or fortify himself by a look at the immutable natures. But he will only be a visitor, not a dweller in the region; he will never carry the philosophic yoke upon his shoulders, and when tired of the gray monotony of her problems and insipid spaciousness of her results, will always escape gleefully into the teeming and dramatic richness of the concrete world.

So our study turns back here to its beginning. Every way of classifying a thing is but a way of handling it for some particular purpose. Conceptions, "kinds," are teleological instruments. No abstract concept can be a valid substitute for a concrete reality except with reference to a particular interest in the conceiver. The interest of theoretic rationality, the relief of identification, is but one of a thousand human purposes. When others rear their heads, it must pack up its little bundle and retire till its turn recurs. The exaggerated dignity and value that philosophers have claimed for their solutions is thus greatly reduced. The only virtue their theoretic conception need have is simplicity, and a simple conception is an equivalent for the world only so far as the world is simple–the world meanwhile, whatever simplicity it may harbor, being also a mightily complex affair. Enough simplicity remains, however, and enough urgency in our craving to reach it, to make the theoretic function one of the most invincible of human impulses. The quest of the fewest elements of things is an ideal that some will follow, as long as there are men to think at all.

But suppose the goal attained. Suppose that at last we have a system unified in the sense that has been explained. Our world can now be conceived simply, and our mind enjoys the relief. Our universal concept has made the concrete chaos rational. But now I ask, Can that which is the ground of rationality in all else be itself properly called rational? It would seem at first sight that it might. One is tempted at any rate to say that, since the craving for rationality is appeased by the identification of one thing with another, a datum which left nothing else outstanding might

quench that craving definitively, or be rational *in se*. No otherness being left to annoy us, we should sit down at peace. In other words, as the theoretic tranquillity of the boor results from his spinning no further considerations about his chaotic universe, so any datum whatever (provided it were simple, clear, and ultimate) ought to banish puzzle from the universe of the philosopher and confer peace, inasmuch as there would then be for him absolutely no further considerations to spin.

This in fact is what some persons think. Professor Bain says–

> A difficulty is solved, a mystery unriddled, when it can be shown to resemble something else; to be an example of a fact already known. Mystery is isolation, exception, or it may be apparent contradiction: the resolution of the mystery is found in assimilation, identity, fraternity. When all things are assimilated, so far as assimilation can go, so far as likeness holds, there is an end to explanation; there is an end to what the mind can do, or can intelligently desire. . . . The path of science as exhibited in modern ages is toward generality, wider and wider, until we reach the highest, the widest laws of every department of things; there explanation is finished, mystery ends, perfect vision is gained.

But, unfortunately, this first answer will not hold. Our mind is so wedded to the process of seeing an *other* beside every item of its experience, that when the notion of an absolute datum is presented to it, it goes through its usual procedure and remains pointing at the void beyond, as if in that lay further matter for contemplation. In short, it spins for itself the further positive consideration of a nonentity enveloping the being of its datum; and as that leads nowhere, back recoils the thought toward its datum again. But there is no natural bridge between nonentity and this particular datum, and the thought stands oscillating to and fro, wondering "Why was there anything but nonentity; why just this universal datum and not another?" and finds no end, in wandering mazes lost. Indeed, Bain's words are so untrue that in reflecting men it is just when the attempt to fuse the manifold into a single totality has been most successful, when the conception of the universe as a unique fact is nearest its perfection, that the craving for further explanation, the ontological wonder-sickness, arises in its extremest form. As Schopenhauer says, "The uneasiness which keeps the never-resting clock of metaphysics in motion, is the consciousness that the nonexistence of this world is just as possible as its existence."

The notion of nonentity may thus be called the parent of the philosophic craving in its subtilest and profoundest sense. Absolute existence is absolute mystery, for its relations with the nothing remain unmediated to our understanding. One philosopher only has pretended to throw a logical

bridge over this chasm. Hegel, by trying to show that nonentity and concrete being are linked together by a series of identities of a synthetic kind, binds everything conceivable into a unity, with no outlying notion to disturb the free rotary circulation of the mind within its bounds. Since such unchecked movement gives the feeling of rationality, he must be held, if he has succeeded, to have eternally and absolutely quenched all rational demands.

But for those who deem Hegel's heroic effort to have failed, nought remains but to confess that when all things have been unified to the supreme degree, the notion of a possible other than the actual may still haunt our imagination and prey upon our system. The bottom of being is left logically opaque to us, as something which we simply come upon and find, and about which (if we wish to act) we should pause and wonder as little as possible. The philosopher's logical tranquillity is thus in essence no other than the boor's. They differ only as to the point at which each refuses to let further considerations upset the absoluteness of the data he assumes. The boor does so immediately, and is liable at any moment to the ravages of many kinds of doubt. The philosopher does not do so till unity has been reached, and is warranted against the inroads of those considerations, but only practically, not essentially, secure from the blighting breath of the ultimate Why? If he cannot exorcise this question, he must ignore or blink it, and, assuming the data of his system as something given, and the gift as ultimate, simply proceed to a life of contemplation or of action based on it. There is no doubt that this acting on an opaque necessity is accompanied by a certain pleasure. See the reverence of Carlyle for brute fact: "There is an infinite significance in fact." "Necessity," says Dühring, and he means not rational but given necessity, "is the last and highest point that we can reach. . . . It is not only the interest of ultimate and definitive knowledge, but also that of the feelings, to find a last repose and an ideal equilibrium in an uttermost datum which can simply not be other than it is."

Such is the attitude of ordinary men in their theism, God's fiat being in physics and morals such an uttermost datum. Such also is the attitude of all hard-minded analysts and *Verstandesmenschen* [persons ruled by the intellect]. Lotze, Renouvier, and Hodgson promptly say that of experience as a whole no account can be given, but neither seek to soften the abruptness of the confession nor to reconcile us with our impotence.

But mediating attempts may be made by more mystical minds. The peace of rationality may be sought through ecstasy when logic fails. To religious persons of every shade of doctrine moments come when the

world, as it is, seems so divinely orderly, and the acceptance of it by the heart so rapturously complete, that intellectual questions vanish; nay, the intellect itself is hushed to sleep—as Wordsworth says, "thought is not; in enjoyment it expires." Ontological emotion so fills the soul that ontological speculation can no longer overlap it and put her girdle of interrogation marks round existence. Even the least religious of men must have felt with Walt Whitman, when loafing on the grass on some transparent summer morning, that "swiftly arose and spread round him the peace and knowledge that pass all the argument of the earth." At such moments of energetic living we feel as if there were something diseased and contemptible, yea vile, in theoretic grubbing and brooding. In the eye of healthy sense the philosopher is at best a learned fool.

Since the heart can thus wall out the ultimate irrationality which the head ascertains, the erection of its procedure into a systematized method would be a philosophic achievement of first-rate importance. But as used by mystics hitherto it has lacked universality, being available for few persons and at few times, and even in these being apt to be followed by fits of reaction and dryness; and if men should agree that the mystical method is a subterfuge without logical pertinency, a plaster but no cure, and that the idea of nonentity can never be exorcised, empiricism will be the ultimate philosophy. Existence then will be a brute fact to which as a whole the emotion of ontologic wonder shall rightfully cleave, but remain eternally unsatisfied. Then wonderfulness or mysteriousness will be an essential attribute of the nature of things, and the exhibition and emphasizing of it will continue to be an ingredient in the philosophic industry of the race. Every generation will produce its Job, its Hamlet, its Faust, or its Sartor Resartus.

With this we seem to have considered the possibilities of purely theoretic rationality. But we saw at the outset that rationality meant only unimpeded mental function. Impediments that arise in the theoretic sphere might perhaps be avoided if the stream of mental action should leave that sphere betimes and pass into the practical. Let us therefore inquire what constitutes the feeling of rationality in its *practical* aspect. If thought is not to stand forever pointing at the universe in wonder, if its movement is to be diverted from the issueless channel of purely theoretic contemplation, let us ask what conception of the universe will awaken active impulses capable of effecting this diversion. A definition of the world which will give back to the mind the free motion which has been blocked in the purely contemplative path may so far make the world seem rational again.

Well, of two conceptions equally fit to satisfy the logical demand, that

one which awakens the active impulses, or satisfies other aesthetic demands better than the other, will be accounted the more rational conception, and will deservedly prevail.

There is nothing improbable in the supposition that an analysis of the world may yield a number of formulas, all consistent with the facts. In physical science different formulas may explain the phenomena equally well–the one-fluid and the two-fluid theories of electricity, for example. Why may it not be so with the world? Why may there not be different points of view for surveying it, within each of which all data harmonize, and which the observer may therefore either choose between, or simply cumulate one upon another? A Beethoven string quartet is truly, as someone has said, a scraping of horses' tails on cats' bowels, and may be exhaustively described in such terms; but the application of this description in no way precludes the simultaneous applicability of an entirely different description. Just so a thoroughgoing interpretation of the world in terms of mechanical sequence is compatible with its being interpreted teleologically, for the mechanism itself may be designed.

If, then, there were several systems excogitated, equally satisfying to our purely logical needs, they would still have to be passed in review, and approved or rejected by our aesthetic and practical nature. Can we define the tests of rationality which these parts of our nature would use?

Philosophers long ago observed the remarkable fact that mere familiarity with things is able to produce a feeling of their rationality. The empiricist school has been so much struck by this circumstance as to have laid it down that the feeling of rationality and the feeling of familiarity are one and the same thing, and that no other kind of rationality than this exists. The daily contemplation of phenomena juxtaposed in a certain order begets an acceptance of their connection, as absolute as the repose engendered by theoretic insight into their coherence. To explain a thing is to pass easily back to its antecedents; to know it is easily to foresee its consequents. Custom, which lets us do both, is thus the source of whatever rationality the thing may gain in our thought.

In the broad sense in which rationality was defined at the outset of this essay, it is perfectly apparent that custom must be one of its factors. We said that any perfectly fluent and easy thought was devoid of the sentiment of irrationality. Inasmuch then as custom acquaints us with all the relations of a thing, it teaches us to pass fluently from that thing to others, and *pro tanto* tinges it with the rational character.

Now, there is one particular relation of greater practical importance than all the rest–I mean the relation of a thing to its future conse-

quences. So long as an object is unusual, our expectations are baffled; they are fully determined as soon as it becomes familiar. I therefore propose this as the first practical requisite which a philosophic conception must satisfy: *It must, in a general way at least, banish uncertainty from the future*. The permanent presence of the sense of futurity in the mind has been strangely ignored by most writers, but the fact is that our consciousness at a given moment is never free from the ingredient of expectancy. Everyone knows how when a painful thing has to be undergone in the near future, the vague feeling that it is impending penetrates all our thought with uneasiness and subtly vitiates our mood even when it does not control our attention; it keeps us from being at rest, at home in the given present. The same is true when a great happiness awaits us. But when the future is neutral and perfectly certain, "we do not mind it," as we say, but give an undisturbed attention to the actual. Let now this haunting sense of futurity be thrown off its bearings or left without an object, and immediately uneasiness takes possession of the mind. But in every novel or unclassified experience this is just what occurs; we do not know what will come next; and novelty per se becomes a mental irritant, while custom per se is a mental sedative, merely because the one baffles while the other settles our expectations.

Every reader must feel the truth of this. What is meant by coming "to feel at home" in a new place, or with new people? It is simply that, at first, when we take up our quarters in a new room, we do not know what drafts may blow in upon our back, what doors may open, what forms may enter, what interesting objects may be found in cupboards and corners. When after a few days we have learned the range of all these possibilities, the feeling of strangeness disappears. And so it does with people, when we have got past the point of expecting any essentially new manifestations from their character.

The utility of this emotional effect of expectation is perfectly obvious; "natural selection," in fact, was bound to bring it about sooner or later. It is of the utmost practical importance to an animal that he should have prevision of the qualities of the objects that surround him, and especially that he should not come to rest in presence of circumstances that might be fraught either with peril or advantage–go to sleep, for example, on the brink of precipices, in the dens of enemies, or view with indifference some new-appearing object that might, if chased, prove an important addition to the larder. Novelty *ought* to irritate him. All curiosity has thus a practical genesis. We need only look at the physiognomy of a dog or a horse when a new object comes into his view, his mingled fascination and fear,

to see that the element of conscious insecurity or perplexed expectation lies at the root of his emotion. A dog's curiosity about the movements of his master or a strange object only extends as far as the point of deciding what is going to happen next. That settled, curiosity is quenched. The dog quoted by Darwin, whose behavior in presence of a newspaper moved by the wind seemed to testify to a sense "of the supernatural," was merely exhibiting the irritation of an uncertain future. A newspaper which could move spontaneously was in itself so unexpected that the poor brute could not tell what new wonders the next moment might bring forth.

To turn back now to philosophy. An ultimate datum, even though it be logically unrationalized, will, if its quality is such as to define expectancy, be peacefully accepted by the mind; while if it leave the least opportunity for ambiguity in the future, it will to that extent cause mental uneasiness if not distress. Now, in the ultimate explanations of the universe which the craving for rationality has elicited from the human mind, the demands of expectancy to be satisfied have always played a fundamental part. The term set up by philosophers as primordial has been one which banishes the incalculable. "Substance," for example, means, as Kant says, *das Beharrliche*, which will be as it has been, because its being is essential and eternal. And although we may not be able to prophesy in detail the future phenomena to which the substance shall give rise, we may set our minds at rest in a general way, when we have called the substance God, Perfection, Love, or Reason, by the reflection that whatever is in store for us can never at bottom be inconsistent with the character of this term; so that our attitude even toward the unexpected is in a general sense defined. Take again the notion of immortality, which for common people seems to be the touchstone of every philosophic or religious creed: what is this but a way of saying that the determination of expectancy is the essential factor of rationality? The wrath of science against miracles, of certain philosophers against the doctrine of free will, has precisely the same root–dislike to admit any ultimate factor in things which may rout our prevision or upset the stability of our outlook.

Antisubstantialist writers strangely overlook this function in the doctrine of substance: "If there be such a *substratum,*" says Mill, "suppose it at this instant miraculously annihilated, and let the sensations continue to occur in the same order, and how would the *substratum* be missed? By what signs should we be able to discover that its existence had terminated? Should we not have as much reason to believe that it still existed as we now have? And if we should not then be warranted in believing it, how can we be so now?" Truly enough, if we have already securely bagged our

facts in a certain order, we can dispense with any further warrant for that order. But with regard to the facts yet to come the case is far different. It does not follow that if substance may be dropped from our conception of the irrecoverably past, it need be an equally empty complication to our notions of the future. Even if it were true that, for aught we know to the contrary, the substance might develop at any moment a wholly new set of attributes, the mere logical form of referring things to a substance would still (whether rightly or wrongly) remain accompanied by a feeling of rest and future confidence. In spite of the acutest nihilistic criticism, men will therefore always have a liking for any philosophy which explains things *per substantiam.*

A very natural reaction against the theosophizing conceit and hidebound confidence in the upshot of things, which vulgarly optimistic minds display, has formed one factor of the skepticism of empiricists, who never cease to remind us of the reservoir of possibilities alien to our habitual experience which the cosmos may contain, and which, for any warrant we have to the contrary, may turn it inside out tomorrow. Agnostic substantialism like that of Mr. Spencer, whose Unknowable is not merely the unfathomable but the absolute irrational, on which, if consistently represented in thought, it is of course impossible to count, performs the same function of rebuking a certain stagnancy and smugness in the manner in which the ordinary philistine feels his security. But considered as anything else than as reactions against an opposite excess, these philosophies of uncertainty cannot be acceptable; the general mind will fail to come to rest in their presence, and will seek for solutions of a more reassuring kind.

We may then, I think, with perfect confidence lay down as a first point gained in our inquiry that a prime factor in the philosophic craving is the desire to have expectancy defined; and that no philosophy will definitively triumph which in an emphatic manner denies the possibility of gratifying this need.

We pass with this to the next great division of our topic. It is not sufficient for our satisfaction merely to know the future as determined, for it may be determined in either of many ways, agreeable or disagreeable. For a philosophy to succeed on a universal scale it must define the future *congruously with our spontaneous powers.* A philosophy may be unimpeachable in other respects, but either of two defects will be fatal to its universal acceptance. First, its ultimate principle must not be one that essentially baffles and disappoints our dearest desires and most cherished powers. A pessimistic principle like Schopenhauer's incurably vicious Will-

substance, or Hartmann's wicked Jack-of-all-trades the Unconscious, will perpetually call forth essays at other philosophies. Incompatibility of the future with their desires and active tendencies is, in fact, to most men a source of more fixed disquietude than uncertainty itself. Witness the attempts to overcome the "problem of evil," the "mystery of pain." There is no "problem of good."

But a second and worse defect in a philosophy than that of contradicting our active propensities is to give them no object whatever to press against. A philosophy whose principle is so incommensurate with our most intimate powers as to deny them all relevancy in universal affairs, as to annihilate their motives at one blow, will be even more unpopular than pessimism. Better face the enemy than the eternal Void! This is why materialism will always fail of universal adoption, however well it may fuse things into an atomistic unity, however clearly it may prophesy the future eternity. For materialism denies reality to the objects of almost all the impulses which we most cherish. The real *meaning* of the impulses, it says, is something which has no emotional interest for us whatever. Now, what is called "extradition" is quite as characteristic of our emotions as of our senses: both point to an object as the cause of the present feeling. What an intensely objective reference lies in fear! In like manner an enraptured man and a dreary-feeling man are not simply aware of their subjective states; if they were, the force of their feelings would all evaporate. Both believe there is outward cause why they should feel as they do: either, "It is a glad world! how good life is!" or, "What a loathsome tedium is existence!" Any philosophy which annihilates the validity of the reference by explaining away its objects or translating them into terms of no emotional pertinency leaves the mind with little to care or act for. This is the opposite condition from that of nightmare, but when acutely brought home to consciousness it produces a kindred horror. In nightmare we have motives to act, but no power; here we have powers, but no motives. A nameless *unheimlichkeit* [uneasiness] comes over us at the thought of there being nothing eternal in our final purposes, in the objects of those loves and aspirations which are our deepest energies. The monstrously lopsided equation of the universe and its knower, which we postulate as the ideal of cognition, is perfectly paralleled by the no less lopsided equation of the universe and the *doer*. We demand in it a character for which our emotions and active propensities shall be a match. Small as we are, minute as is the point by which the cosmos impinges upon each one of us, each one desires to feel that his reaction at that point is congruous with the demands of the vast whole–that he balances the latter, so to speak,

and is able to do what it expects of him. But as his abilities to do lie wholly in the line of his natural propensities, as he enjoys reacting with such emotions as fortitude, hope, rapture, admiration, earnestness, and the like, and as he very unwillingly reacts with fear, disgust, despair, or doubt–a philosophy which should only legitimate emotions of the latter sort would be sure to leave the mind a prey to discontent and craving.

It is far too little recognized how entirely the intellect is built up of practical interests. The theory of evolution is beginning to do very good service by its reduction of all mentality to the type of reflex action. Cognition, in this view, is but a fleeting moment, a cross section at a certain point, of what in its totality is a motor phenomenon. In the lower forms of life no one will pretend that cognition is anything more than a guide to appropriate action. The germinal question concerning things brought for the first time before consciousness is not the theoretic "What is that?" but the practical "Who goes there?" or rather, as Horwicz has admirably put it, "What is to be done?"–"*Was fang' ich an?*" In all our discussions about the intelligence of lower animals, the only test we use is that of their *acting* as if for a purpose. Cognition, in short, is incomplete until discharged in act; and although it is true that the later mental development, which attains its maximum through the hypertrophied cerebrum of man, gives birth to a vast amount of theoretic activity over and above that which is immediately ministerial to practice, yet the earlier claim is only postponed, not effaced, and the active nature asserts its rights to the end.

When the cosmos in its totality is the object offered to consciousness, the relation is in no whit altered. React on it we must in some congenial way. It was a deep instinct in Schopenhauer which led him to reinforce his pessimistic argumentation by a running volley of invective against the practical man and his requirements. No hope for pessimism unless he is slain!

Helmholtz' immortal works on the eye and ear are to a great extent little more than a commentary on the law that practical utility wholly determines which parts of our sensations we shall be aware of, and which parts we shall ignore. We notice or discriminate an ingredient of sense only so far as we depend upon it to modify our actions. We *comprehend* a thing when we synthetize it by identity with another thing. But the other great department of our understanding, *acquaintance* (the two departments being recognized in all languages by the antithesis of such words as *wissen* [to know] and *kennen* [to be acquainted with]; *scire* [to know] and *noscere* [to be acquainted with], etc.), what is that also but a

synthesis–a synthesis of a passive perception with a certain tendency to reaction? We are acquainted with a thing as soon as we have learned how to behave towards it, or how to meet the behavior which we expect from it. Up to that point it is still "strange" to us.

If there be anything at all in this view, it follows that however vaguely a philosopher may define the ultimate universal datum, he cannot be said to leave it unknown to us so long as he in the slightest degree pretends that our emotional or active attitude toward it should be of one sort rather than another. He who says "life is real, life is earnest," however much he may speak of the fundamental mysteriousness of things, gives a distinct definition to that mysteriousness by ascribing to it the right to claim from us the particular mood called seriousness–which means the willingness to live with energy, though energy bring pain. The same is true of him who says that all is vanity. For indefinable as the predicate "vanity" may be *in se*, it is clearly something that permits anesthesia, mere escape from suffering, to be our rule of life. There can be no greater incongruity than for a disciple of Spencer to proclaim with one breath that the substance of things is unknowable, and with the next that the thought of it should inspire us with awe, reverence, and a willingness to add our co-operative push in the direction toward which its manifestations seem to be drifting. The unknowable may be unfathomed, but if it make such distinct demands upon our activity we surely are not ignorant of its essential quality.

If we survey the field of history and ask what feature all great periods of revival, of expansion of the human mind, display in common, we shall find, I think, simply this: that each and all of them have said to the human being, "The inmost nature of the reality is congenial to *powers* which you possess." In what did the emancipating message of primitive Christianity consist but in the announcement that God recognizes those weak and tender impulses which paganism had so rudely overlooked? Take repentance: the man who can do nothing rightly can at least repent of his failures. But for paganism this faculty of repentance was a pure supernumerary, a straggler too late for the fair. Christianity took it, and made it the one power within us which appealed straight to the heart of God. And after the night of the Middle Ages had so long branded with obloquy even the generous impulses of the flesh, and defined the reality to be such that only slavish natures could commune with it, in what did the *sursum corda* of the Platonizing renaissance lie but in the proclamation that the archetype of verity in things laid claim on the widest activity of our whole aesthetic being? What were Luther's mission and Wesley's but appeals to

powers which even the meanest of men might carry with them–faith and self-despair–but which were personal, requiring no priestly intermediation, and which brought their owner face to face with God? What caused the wildfire influence of Rousseau but the assurance he gave that man's nature was in harmony with the nature of things, if only the paralyzing corruptions of custom would stand from between? How did Kant and Fichte, Goethe and Schiller inspire their time with cheer, except by saying, "Use all your powers; that is the only obedience the universe exacts"? And Carlyle with his gospel of work, of fact, of veracity, how does he move us except by saying that the universe imposes no tasks upon us but such as the most humble can perform? Emerson's creed that everything that ever was or will be is here in the enveloping now; that man has but to obey himself–"He who will rest in what he *is* is a part of destiny"–is in like manner nothing but an exorcism of all skepticism as to the pertinency of one's natural faculties.

In a word, "Son of Man, *stand upon thy feet* and I will speak unto thee!" is the only revelation of truth to which the solving epochs have helped the disciple. But that has been enough to satisfy the greater part of his rational need. *In se* and per se the universal essence has hardly been more defined by any of these formulas than by the agnostic *x*; but the mere assurance that my powers, such as they are, are not irrelevant to it, but pertinent; that it speaks to them and will in some way recognize their reply; that I can be a match for it if I will, and not a footless waif, suffices to make it rational to my feeling in the sense given above. Nothing could be more absurd than to hope for the definitive triumph of any philosophy which should refuse to legitimate, and to legitimate in an emphatic manner, the more powerful of our emotional and practical tendencies. Fatalism, whose solving word in all crises of behavior is "all striving is vain," will never reign supreme, for the impulse to take life strivingly is indestructible in the race. Moral creeds which speak to that impulse will be widely successful in spite of inconsistency, vagueness, and shadowy determination of expectancy. Man needs a rule for his will, and will invent one if one be not given him.

But now observe a most important consequence. Men's active impulses are so differently mixed that a philosophy fit in this respect for Bismarck will almost certainly be unfit for a valetudinarian poet. In other words, although one can lay down in advance the rule that a philosophy which utterly denies all fundamental ground for seriousness, for effort, for hope, which says the nature of things is radically alien to human nature, can never succeed, one cannot in advance say what particular dose of hope, or

of Gnosticism of the nature of things, the definitely successful philosophy shall contain. In short, it is almost certain that personal temperament will here make itself felt, and that although all men will insist on being spoken to by the universe in some way, few will insist on being spoken to in just the same way. We have here, in short, the sphere of what Matthew Arnold likes to call *Aberglaube* [superstition], legitimate, inexpugnable, yet doomed to eternal variations and disputes.

Take idealism and materialism as examples of what I mean, and suppose for a moment that both give a conception of equal theoretic clearness and consistency, and that both determine our expectations equally well. Idealism will be chosen by a man of one emotional constitution, materialism by another. At this very day all sentimental natures, fond of conciliation and intimacy, tend to an idealistic faith. Why? Because idealism gives to the nature of things such kinship with our personal selves. Our own thoughts are what we are most at home with, what we are least afraid of. To say then that the universe essentially is thought is to say that I myself, potentially at least, am all. There is no radically alien corner, but an all-pervading *intimacy*. Now, in certain sensitively egotistic minds this conception of reality is sure to put on a narrow, close, sickroom air. Everything sentimental and priggish will be consecrated by it. That element in reality which every strong man of common sense willingly feels there because it calls forth powers that he owns—the rough, harsh sea wave, north-wind element, the denier of persons, the democratizer—is banished because it jars too much on the desire for communion. Now, it is the very enjoyment of this element that throws many men upon the materialistic or agnostic hypothesis, as a polemic reaction against the contrary extreme. They sicken at a life wholly constituted of intimacy. There is an overpowering desire at moments to escape personality, to revel in the action of forces that have no respect for our ego, to let the tides flow, even though they flow over us. The strife of these two kinds of mental temper will, I think, always be seen in philosophy. Some men will keep insisting on the reason, the atonement, that lies in the heart of things, and that we can act *with;* others, on the opacity of brute fact that we must react *against.*

Now, there is one element of our active nature which the Christian religion has emphatically recognized, but which philosophers as a rule have with great insincerity tried to huddle out of sight in their pretension to found systems of absolute certainty. I mean the element of faith. Faith means belief in something concerning which doubt is still theoretically possible; and as the test of belief is willingness to act, one may say that

faith is the readiness to act in a cause the prosperous issue of which is not certified to us in advance. It is in fact the same moral quality which we call courage in practical affairs; and there will be a very widespread tendency in men of vigorous nature to enjoy a certain amount of uncertainty in their philosophic creed, just as risk lends a zest to worldly activity. Absolutely certified philosophies seeking the *inconcussum* [unshaken] are fruits of mental natures in which the passion for identity (which we saw to be but one factor of the rational appetite) plays an abnormally exclusive part. In the average man, on the contrary, the power to trust, to risk a little beyond the literal evidence, is an essential function. Any mode of conceiving the universe which makes an appeal to this generous power, and makes the man seem as if he were individually helping to create the actuality of the truth whose metaphysical reality he is willing to assume, will be sure to be responded to by large numbers.

The necessity of faith as an ingredient in our mental attitude is strongly insisted on by the scientific philosophers of the present day; but by a singularly arbitrary caprice they say that it is only legitimate when used in the interests of one particular proposition–the proposition, namely, that the course of nature is uniform. That nature will follow tomorrow the same laws that she follows today is, they all admit, a truth which no man can *know;* but in the interests of cognition as well as of action we must postulate or assume it. As Helmholtz says: "*Hier gilt nur der eine Rath: vertraue und handle* [Here it is a matter of only one kind of advice: Have faith and act]!" And Professor Bain urges: "Our only error is in proposing to give any reason or justification of the postulate, or to treat it as otherwise than begged at the very outset."

With regard to all other possible truths, however, a number of our most influential contemporaries think that an attitude of faith is not only illogical but shameful. Faith in a religious dogma for which there is no outward proof, but which we are tempted to postulate for our emotional interests, just as we postulate the uniformity of nature for our intellectual interests, is branded by Professor Huxley as "the lowest depth of immorality." Citations of this kind from leaders of the modern *Aufklärung* [enlightenment] might be multiplied almost indefinitely. Take Professor Clifford's article on the *Ethics of Belief*. He calls it "guilt" and "sin" to believe even the truth without "scientific evidence." But what is the use of being a genius, unless *with the same scientific evidence* as other men, one can reach more truth than they? Why does Clifford fearlessly proclaim his belief in the conscious-automaton theory, although the "proofs" before him are the same which make Mr. Lewes reject it? Why does he believe in

primordial units of "mind-stuff' on evidence which would seem quite worthless to Professor Bain? Simply because, like every human being of the slightest mental originality, he is peculiarly sensitive to evidence that bears in some one direction. It is utterly hopeless to try to exorcise such sensitiveness by calling it the disturbing subjective factor, and branding it as the root of all evil. "Subjective" be it called! and "disturbing" to those whom it foils! But if it helps those who, as Cicero says, "*vim naturae magis sentiunt* [feel more strongly the force of nature]," it is good and not evil. Pretend what we may, the whole man within us is at work when we form our philosophical opinions. Intellect, will, taste, and passion co-operate just as they do in practical affairs; and lucky it is if the passion be not something as petty as a love of personal conquest over the philosopher across the way. The absurd abstraction of an intellect verbally formulating all its evidence and carefully estimating the probability thereof by a vulgar fraction by the size of whose denominator and numerator alone it is swayed is ideally as inept as it is actually impossible. It is almost incredible that men who are themselves working philosophers should pretend that any philosophy can be, or ever has been, constructed without the help of personal preference, belief, or divination. How have they succeeded in so stultifying their sense for the living facts of human nature as not to perceive that every philosopher, or man of science either, whose initiative counts for anything in the evolution of thought, has taken his stand on a sort of dumb conviction that the truth must lie in one direction rather than another, and a sort of preliminary assurance that his notion can be made to work; and has borne his best fruit in trying to make it work? These mental instincts in different men are the spontaneous variations upon which the intellectual struggle for existence is based. The fittest conceptions survive, and with them the names of their champions shining to all futurity.

The coil is about us, struggle as we may. The only escape from faith is mental nullity. What we enjoy most in a Huxley or a Clifford is not the professor with his learning, but the human personality ready to go in for what it feels to be right, in spite of all appearances. The concrete man has but one interest–to be right. That for him is the art of all arts, and all means are fair which help him to it. Naked he is flung into the world, and between him and nature there are no rules of civilized warfare. The rules of the scientific game, burdens of proof, presumptions, *experimenta crucis*, complete inductions, and the like, are only binding on those who enter that game. As a matter of fact we all more or less do enter it, because it helps us to our end. But if the means presume to frustrate the end and call

us cheats for being right in advance of their slow aid, by guesswork or by hook or crook, what shall we say of them? Were all of Clifford's works, except the *Ethics of Belief*, forgotten, he might well figure in future treatises on psychology in place of the somewhat threadbare instance of the miser who has been led by the association of ideas to prefer his gold to all the goods he might buy therewith.

In short, if I am born with such a superior general reaction to evidence that I can guess right and act accordingly, and gain all that comes of right action, while my less gifted neighbor (paralyzed by his scruples and waiting for more evidence which he dares not anticipate, much as he longs to) still stands shivering on the brink, by what law shall I be forbidden to reap the advantages of my superior native sensitiveness? Of course I yield to my belief in such a case as this or distrust it, alike at my peril, just as I do in any of the great practical decisions of life. If my inborn faculties are good, I am a prophet; if poor, I am a failure: nature spews me out of her mouth, and there is an end of me. In the total game of life we stake our persons all the while; and if in its theoretic part our persons will help us to a conclusion, surely we should also stake them there, however inarticulate they may be.[1]

But in being myself so very articulate in proving what to all readers with a sense for reality will seem a platitude, am I not wasting words? We cannot live or think at all without some degree of faith. Faith is synonymous with working hypothesis. The only difference is that while some hypotheses can be refuted in five minutes, others may defy ages. A chemist who conjectures that a certain wallpaper contains arsenic, and has faith enough to lead him to take the trouble to put some of it into a hydrogen bottle, finds out by the results of his action whether he was right or wrong. But theories like that of Darwin, or that of the kinetic constitution of matter, may exhaust the labors of generations in their corroboration, each tester of their truth proceeding in this simple way, that he acts as if it were

1. At most, the command laid upon us by science to believe nothing not yet verified by the senses is a prudential rule intended to maximize our right thinking and minimize our errors *in the long run*. In the particular instance we must frequently lose truth by obeying it; but on the whole we are safer if we follow it consistently, for we are sure to cover our losses with our gains. It is like those gambling and insurance rules based on probability, in which we secure ourselves against losses in detail by hedging on the total run. But this hedging philosophy requires that long run should be there; and this makes it inapplicable to the question of religious faith as the latter comes home to the individual man. He plays the game of life not to escape losses, for he brings nothing with him to lose; he plays it for gains; and it is now or never with him, for the long run which exists indeed for humanity is not there for him. Let him doubt, believe, or deny, he runs his risk, and has the natural right to choose which one it shall be.

true, and expects the result to disappoint him if his assumption is false. The longer disappointment is delayed, the stronger grows his faith in his theory.

Now, in such questions as God, immortality, absolute morality, and free will, no nonpapal believer at the present day pretends his faith to be of an essentially different complexion; he can always doubt his creed. But his intimate persuasion is that the odds in its favor are strong enough to warrant him in acting all along on the assumption of its truth. His corroboration or repudiation by the nature of things may be deferred until the day of judgment. The uttermost he now means is something like this: "I *expect* then to triumph with tenfold glory; but if it should turn out, as indeed it may, that I have spent my days in a fool's paradise, why, better have been the dupe of *such* a dreamland than the cunning reader of a world like that which then beyond all doubt unmasks itself to view." In short, we *go in* against materialism very much as we should *go in*, had we a chance, against the Second French Empire or the Church of Rome, or any other system of things toward which our repugnance is vast enough to determine energetic action, but too vague to issue in distinct argumentation. Our reasons are ludicrously incommensurate with the volume of our feeling, yet on the latter we unhesitatingly act.

Now, I wish to show what to my knowledge has never been clearly pointed out, that belief (as measured by action) not only does and must continually outstrip scientific evidence, but that there is a certain class of truths of whose reality belief is a factor as well as a confessor; and that as regards this class of truths faith is not only licit and pertinent, but essential and indispensable. The truths cannot become true till our faith has made them so.

Suppose, for example, that I am climbing in the Alps, and have had the ill luck to work myself into a position from which the only escape is by a terrible leap. Being without similar experience, I have no evidence of my ability to perform it successfully; but hope and confidence in myself make me sure I shall not miss my aim, and nerve my feet to execute what without those subjective emotions would perhaps have been impossible. But suppose that, on the contrary, the emotions of fear and mistrust preponderate; or suppose that, having just read the *Ethics of Belief*, I feel it would be sinful to act upon an assumption unverified by previous experience–why, then I shall hesitate so long that at last, exhausted and trembling, and launching myself in a moment of despair, I miss my foothold and roll into the abyss. In this case (and it is one of an immense class) the part of wisdom clearly is to believe what one desires; for the

belief is one of the indispensable preliminary conditions of the realization of its object. *There are then cases where faith creates its own verification*. Believe, and you shall be right, for you shall save yourself; doubt, and you shall again be right, for you shall perish. The only difference is that to believe is greatly to your advantage.

The future movements of the stars or the facts of past history are determined now once for all, whether I like them or not. They are given irrespective of my wishes, and in all that concerns truths like these subjective preference should have no part; it can only obscure the judgment. But in every fact into which there enters an element of personal contribution on my part, as soon as this personal contribution demands a certain degree of subjective energy which, in its turn, calls for a certain amount of faith in the result, so that, after all, the future fact is conditioned by my present faith in it, how trebly asinine would it be for me to deny myself the use of the subjective method, the method of belief based on desire!

In every proposition whose bearing is universal (and such are all the propositions of philosophy), the acts of the subject and their consequences throughout eternity should be included in the formula. If *M* represent the entire world *minus* the reaction of the thinker upon it, and if M + *x* represent the absolutely total matter of philosophic propositions (*x* standing for the thinker's reaction and its results), what would be a universal truth if the term *x* were of one complexion might become egregious error if *x* altered its character. Let it not be said that *x* is too infinitesimal a component to change the character of the immense whole in which it lies imbedded. Everything depends on the point of view of the philosophic proposition in question. If we have to define the universe from the point of view of sensibility, the critical material for our judgment lies in the animal kingdom, insignificant as that is, quantitatively considered. The moral definition of the world may depend on phenomena more restricted still in range. In short, many a long phrase may have its sense reversed by the addition of three letters, *n-o-t;* many a monstrous mass have its unstable equilibrium discharged one way or the other by a featherweight that falls.

Let us make this clear by a few examples. The philosophy of evolution offers us today a new criterion to serve as an ethical test between right and wrong. Previous criteria, it says, being subjective, have left us still floundering in variations of opinion and the *status belli*. Here is a criterion which is objective and fixed: *That is to be called good which is destined to prevail or survive*. But we immediately see that this standard can only

remain objective by leaving myself and my conduct out. If what prevails and survives does so by my help, and cannot do so without that help; if something else will prevail in case I alter my conduct, how can I possibly now, conscious of alternative courses of action open before me, either of which I may suppose capable of altering the path of events, decide which course to take by asking what path events will follow? If they follow my direction, evidently my direction cannot wait on them. The only possible manner in which an evolutionist can use his standard is the obsequious method of forecasting the course society would take *but for him*, and then putting an extinguisher on all personal idiosyncrasies of desire and interest, and with bated breath and tiptoe tread following as straight as may be at the tail, and bringing up the rear of everything. Some pious creatures may find a pleasure in this; but not only does it violate our general wish to lead and not to follow (a wish which is surely not immoral if we but lead aright), but if it be treated as every ethical principle must be treated, namely, as a rule good for all men alike, its general observance would lead to its practical refutation by bringing about a general deadlock. Each good man hanging back and waiting for orders from the rest, absolute stagnation would ensue. Happy, then, if a few unrighteous ones contribute an initiative which sets things moving again!

All this is no caricature. That the course of destiny may be altered by individuals no wise evolutionist ought to doubt. Everything for him has small beginnings, has a bud which may be "nipped," and nipped by a feeble force. Human races and tendencies follow the law, and have also small beginnings. The best, according to evolution, is that which has the biggest endings. Now, if a present race of men, enlightened in the evolutionary philosophy, and able to forecast the future, were able to discern in a tribe arising near them the potentiality of future supremacy; were able to see that their own race would eventually be wiped out of existence by the newcomers if the expansion of these were left unmolested, these present sages would have two courses open to them, either perfectly in harmony with the evolutionary test: strangle the new race *now*, and ours survives; help the new race, and *it* survives. In both cases the action is right as measured by the evolutionary standard—it is action for the winning side.

Thus the evolutionist foundation of ethics is purely objective only to the herd of nullities whose votes count for zero in the march of events. But for others, leaders of opinion or potentates, and in general those to whose actions position or genius gives a far-reaching import, and to the rest of us, each in his measure, whenever we espouse a cause we contribute

to the determination of the evolutionary standard of right. The truly wise disciple of this school will then admit faith as an ultimate ethical factor. Any philosophy which makes such questions as, What is the ideal type of humanity? What shall be reckoned virtues? What conduct is good? depend on the question, What is going to succeed? must needs fall back on personal belief as one of the ultimate conditions of the truth. For again and again success depends on energy of act; energy again depends on faith that we shall not fail; and that faith in turn on the faith that we are right, which faith thus verifies itself.

Take as an example the question of optimism or pessimism, which makes so much noise just now in Germany. Every human being must sometime decide for himself whether life is worth living. Suppose that in looking at the world and seeing how full it is of misery, of old age, of wickedness and pain, and how unsafe is his own future, he yields to the pessimistic conclusion, cultivates disgust and dread, ceases striving, and finally commits suicide. He thus adds to the mass *M* of mundane phenomena, independent of his subjectivity, the subjective complement *x*, which makes of the whole an utterly black picture illumined by no gleam of good. Pessimism completed, verified by his moral reaction and the deed in which this ends, is true beyond a doubt. $M + x$ expresses a state of things totally bad. The man's belief supplied all that was lacking to make it so, and now that it is made so the belief was right.

But now suppose that with the same evil facts *M*, the man's reaction *x* is exactly reversed; suppose that instead of giving way to the evil he braves it, and finds a sterner, more wonderful joy than any passive pleasure can yield in triumphing over pain and defying fear; suppose he does this successfully, and however thickly evils crowd upon him proves his dauntless subjectivity to be more than their match, will not everyone confess that the bad character of the *M* is here the *conditio sine qua non* of the good character of the *x?* Will not everyone instantly declare a world fitted only for fair-weather human beings susceptible of every passive enjoyment, but without independence, courage, or fortitude, to be from a moral point of view incommensurably inferior to a world framed to elicit from the man every form of triumphant endurance and conquering moral energy? As James Hinton says–

> Little inconveniences, exertions, pains–these are the only things in which we rightly feel our life at all. If these be not there, existence becomes worthless, or worse; success in putting them all away is fatal. So it is men engage in athletic sports, spend their holidays in climbing up mountains, find nothing so enjoyable as that which taxes their endurance

> and their energy. This is the way we are made, I say. It may or may not be a mystery or a paradox; it is a fact. Now, this enjoyment in endurance is just according to the intensity of life: the more physical vigor and balance, the more endurance can be made an element of satisfaction. A sick man cannot stand it. The line of enjoyable suffering is not a fixed one; it fluctuates with the perfectness of the life. That our pains are, as they are, unendurable, awful, overwhelming, crushing, not to be borne save in misery and dumb impatience, which utter exhaustion alone makes patient—that our pains are thus unendurable means not that they are too great, but that *we are sick*. We have not got our proper life. So you perceive pain is no more necessarily an evil, but an essential element of the highest good.

But the highest good can be achieved only by our getting our proper life; and that can come about only by help of a moral energy born of the faith that in some way or other we shall succeed in getting it if we try pertinaciously enough. This world *is* good, we must say, since it is what we make it—and we shall make it good. How can we exclude from the cognition of a truth a faith which is involved in the creation of the truth? *M* has its character indeterminate, susceptible of forming part of a thoroughgoing pessimism on the one hand, or of a meliorism, a moral (as distinguished from a sensual) optimism on the other. All depends on the character of the personal contribution *x*. Wherever the facts to be formulated contain such a contribution, we may logically, legitimately, and inexpugnably believe what we desire. The belief creates its verification. The thought becomes literally father to the fact, as the wish was father to the thought.[2]

Let us now turn to the radical question of life—the question whether this be at bottom a moral or an unmoral universe—and see whether the method of faith may legitimately have a place there. It is really the question of materialism. Is the world a simple brute actuality, an existence *de facto* about which the deepest thing that can be said is that it happens so to be; or is the judgment of *better* or *worse*, of *ought*, as intimately pertinent to phenomena as the simple judgment *is* or *is not?* The materialistic theorists say that judgments of worth are themselves mere matters of

2. Observe that in all this not a word has been said of free will. It all applies as well to a predetermined as to an indeterminate universe. If $M + x$ is fixed in advance, the belief which leads to x and the desire which prompts the belief are also fixed. But fixed or not, these subjective states form a phenomenal condition necessarily preceding the facts; necessarily constitutive, therefore, of the truth $M + x$ which we seek. If, however, free acts be possible, a faith in their possibility, by augmenting the moral energy which gives them birth, will increase their frequency in a given individual.

fact; that the words "good" and "bad" have no sense apart from subjective passions and interests which we may, if we please, play fast and loose with at will, so far as any duty of ours to the nonhuman universe is concerned. Thus, when a materialist says it is better for him to suffer great inconvenience than to break a promise, he only means that his social interests have become so knit up with keeping faith that, those interests once being granted, it *is* better for him to keep the promise in spite of everything. But the interests themselves are neither right nor wrong, except possibly with reference to some ulterior order of interests which themselves again are mere subjective data without character, either good or bad.

For the absolute moralists, on the contrary, the interests are not there merely to be felt–they are to be believed in and obeyed. Not only is it best for my social interests to keep my promise, but best for me to have those interests, and best for the cosmos to have this me. Like the old woman in the story who described the world as resting on a rock, and then explained that rock to be supported by another rock, and finally when pushed with questions said it was rocks all the way down, he who believes this to be a radically moral universe must hold the moral order to rest either on an absolute and ultimate *should*, or on a series of *shoulds* all the way down.[3]

The practical difference between this objective sort of moralist and the other one is enormous. The subjectivist in morals, when his moral feelings are at war with the facts about him, is always free to seek harmony by toning down the sensitiveness of the feelings. Being mere data, neither good nor evil in themselves, he may pervert them or lull them to sleep by any means at his command. Truckling, compromise, time-serving, capitulations of conscience are conventionally opprobrious names for what, if successfully carried out, would be on his principles by far the easiest and most praiseworthy mode of bringing about that harmony between inner and outer relations which is all that he means by good. The absolute moralist, on the other hand, when his interests clash with the world, is not free to gain harmony by sacrificing the ideal interests. According to him, these latter should be as they are and not otherwise. Resistance then, poverty, martyrdom if need be, tragedy in a word, such are the solemn feasts of his inward faith. Not that the contradiction between the two men occurs every day; in commonplace matters all moral schools agree. It is

3. In either case, . . . the *should* which the moralist regards as binding upon *him* must be rooted in the feeling of some other thinker, or collection of thinkers, to whose demands he individually bows.

only in the lonely emergencies of life that our creed is tested: then routine maxims fail, and we fall back on our gods. It cannot then be said that the question, Is this a moral world? is a meaningless and unverifiable question because it deals with something nonphenomenal. Any question is full of meaning to which, as here, contrary answers lead to contrary behavior. And it seems as if in answering such a question as this we might proceed exactly as does the physical philosopher in testing an hypothesis. He deduces from the hypothesis an experimental action, *x;* this he adds to the facts *M* already existing. It fits them if the hypothesis be true; if not, there is discord. The results of the action corroborate or refute the idea from which it flowed. So here: the verification of the theory which you may hold as to the objectively moral character of the world can consist only in this, that if you proceed to act upon your theory it will be reversed by nothing that later turns up as your action's fruit; it will harmonize so well with the entire drift of experience that the latter will, as it were, adopt it, or at most give it an ampler interpretation, without obliging you in any way to change the essence of its formulation. If this be an objectively moral universe, all acts that I make on that assumption, all expectations that I ground on it, will tend more and more completely to interdigitate with the phenomena already existing. $M + x$ will be in accord; and the more I live, and the more the fruits of my activity come to light, the more satisfactory the consensus will grow. While if it be not such a moral universe, and I mistakenly assume that it is, the course of experience will throw ever new impediments in the way of my belief, and become more and more difficult to express in its language. Epicycle upon epicycle of subsidiary hypothesis will have to be invoked to give to the discrepant terms a temporary appearance of squaring with each other; but at last even this resource will fail.

If, on the other hand, I rightly assume the universe to be not moral, in what does my verification consist? It is that by letting moral interests sit lightly, by disbelieving that there is any duty about *them* (since duty obtains only as *between* them and other phenomena), and so throwing them over if I find it hard to get them satisfied–it is that by refusing to take up a tragic attitude, I deal in the long run most satisfactorily with the facts of life. "All is vanity" is here the last word of wisdom. Even though in certain limited series there may be a great appearance of seriousness, he who in the main treats things with a degree of good-natured skepticism and radical levity will find that the practical fruits of his epicurean hypothesis verify it more and more, and not only save him from pain but do honor to his sagacity. While, on the other hand, he who contrary to

reality stiffens himself in the notion that certain things absolutely should be, and rejects the truth that at bottom it makes no difference what is, will find himself evermore thwarted and perplexed and bemuddled by the facts of the world, and his tragic disappointment will, as experience accumulates, seem to drift farther and farther away from that final atonement or reconciliation which certain partial tragedies often get.

Anesthesia is the watchword of the moral skeptic brought to bay and put to his trumps. *Energy* is that of the moralist. Act on my creed, cries the latter, and the results of your action will prove the creed true, and that the nature of things is earnest infinitely. Act on mine, says the epicurean, and the results will prove that seriousness is but a superficial glaze upon a world of fundamentally trivial import. You and your acts and the nature of things will be alike enveloped in a single formula, a universal *vanitas vanitatum* [vanity of vanities].

For the sake of simplicity I have written as if the verification might occur in the life of a single philosopher, which is manifestly untrue, since the theories still face each other, and the facts of the world give countenance to both. Rather should we expect that, in a question of this scope, the experience of the entire human race must make the verification, and that all the evidence will not be "in" till the final integration of things, when the last man has had his say and contributed his share to the still unfinished *x*. Then the proof will be complete; then it will appear without doubt whether the moralistic *x* has filled up the gap which alone kept the *M* of the world from forming an even and harmonious unity, or whether the nonmoralistic *x* has given the finishing touches which were alone needed to make the *M* appear outwardly as vain as it inwardly was.

But if this be so, is it not clear that the facts *M*, taken per se, are inadequate to justify a conclusion either way in advance of my action? My action is the complement which, by proving congruous or not, reveals the latent nature of the mass to which it is applied. The world may in fact be likened unto a lock, whose inward nature, moral or unmoral, will never reveal itself to our simply expectant gaze. The positivists, forbidding us to make any assumptions regarding it, condemn us to eternal ignorance, for the "evidence" which they wait for can never come so long as we are passive. But nature has put into our hands two keys, by which we may test the lock. If we try the moral key *and it fits*, it is a moral lock. If we try the unmoral key and *it* fits, it is an unmoral lock. I cannot possibly conceive of any other sort of "evidence" or "proof" than this. It is quite true that the co-operation of generations is needed to educe it. But in these matters the

solidarity (so called) of the human race is a patent fact. The essential thing to notice is that our active preference is a legitimate part of the game—that it is our plain business as men to try one of the keys, and the one in which we most confide. If then the proof exist not till I have acted, and I must needs in acting run the risk of being wrong, how can the popular science professors be right in objurgating in me as infamous a "credulity" which the strict logic of the situation requires? If this really be a moral universe; if by my acts I be a factor of its destinies; if to believe where I may doubt be itself a moral act analogous to voting for a side not yet sure to win, by what right shall they close in upon me and steadily negate the deepest conceivable function of my being by their preposterous command that I shall stir neither hand nor foot, but remain balancing myself in eternal and insoluble doubt? Why, doubt itself is a decision of the widest practical reach, if only because we may miss by doubting what goods we might be gaining by espousing the winning side. But more than that! It is often practically impossible to distinguish doubt from dogmatic negation. If I refuse to stop a murder because I am in doubt whether it be not justifiable homicide, I am virtually abetting the crime. If I refuse to bale out a boat because I am in doubt whether my efforts will keep her afloat, I am really helping to sink her. If in the mountain precipice I doubt my right to risk a leap, I actively connive at my destruction. He who commands himself not to be credulous of God, of duty, of freedom, of immortality, may again and again be indistinguishable from him who dogmatically denies them. Skepticism in moral matters is an active ally of immorality. Who is not for is against. The universe will have no neutrals in these questions. In theory as in practice, dodge or hedge, or talk as we like about a wise skepticism, we are really doing volunteer military service for one side or the other.

Yet obvious as this necessity practically is, thousands of innocent magazine readers lie paralyzed and terrified in the network of shallow negations which the leaders of opinion have thrown over their souls. All they need to be free and hearty again in the exercise of their birthright is that these fastidious vetoes should be swept away. All that the human heart wants is its chance. It will willingly forego certainty in universal matters if only it can be allowed to feel that in them it has that same inalienable right to run risks which no one dreams of refusing to it in the pettiest practical affairs. And if I, in these last pages, like the mouse in the fable, have gnawed a few of the strings of the sophistical net that has been binding down its lion-strength, I shall be more than rewarded for my pains.

To sum up: No philosophy will permanently be deemed rational by all men which (in addition to meeting logical demands) does not to some degree pretend to determine expectancy, and in a still greater degree make a direct appeal to all those powers of our nature which we hold in highest esteem. Faith, being one of these powers, will always remain a factor not to be banished from philosophic constructions, the more so since in many ways it brings forth its own verification. In these points, then, it is hopeless to look for literal agreement among mankind.

The ultimate philosophy, we may therefore conclude, must not be too strait laced in form, must not in all its parts divide heresy from orthodoxy by too sharp a line. There must be left over and above the propositions to be subscribed, *ubique, semper, et ab omnibus* [everywhere, always, and apart from all], another realm into which the stifled soul may escape from pedantic scruples and indulge its own faith at its own risks; and all that can here be done will be to mark out distinctly the questions which fall within faith's sphere.

The foregoing essays are taken from William James's
THE WILL TO BELIEVE AND OTHER ESSAYS IN POPULAR PHILOSOPHY.

John Dewey

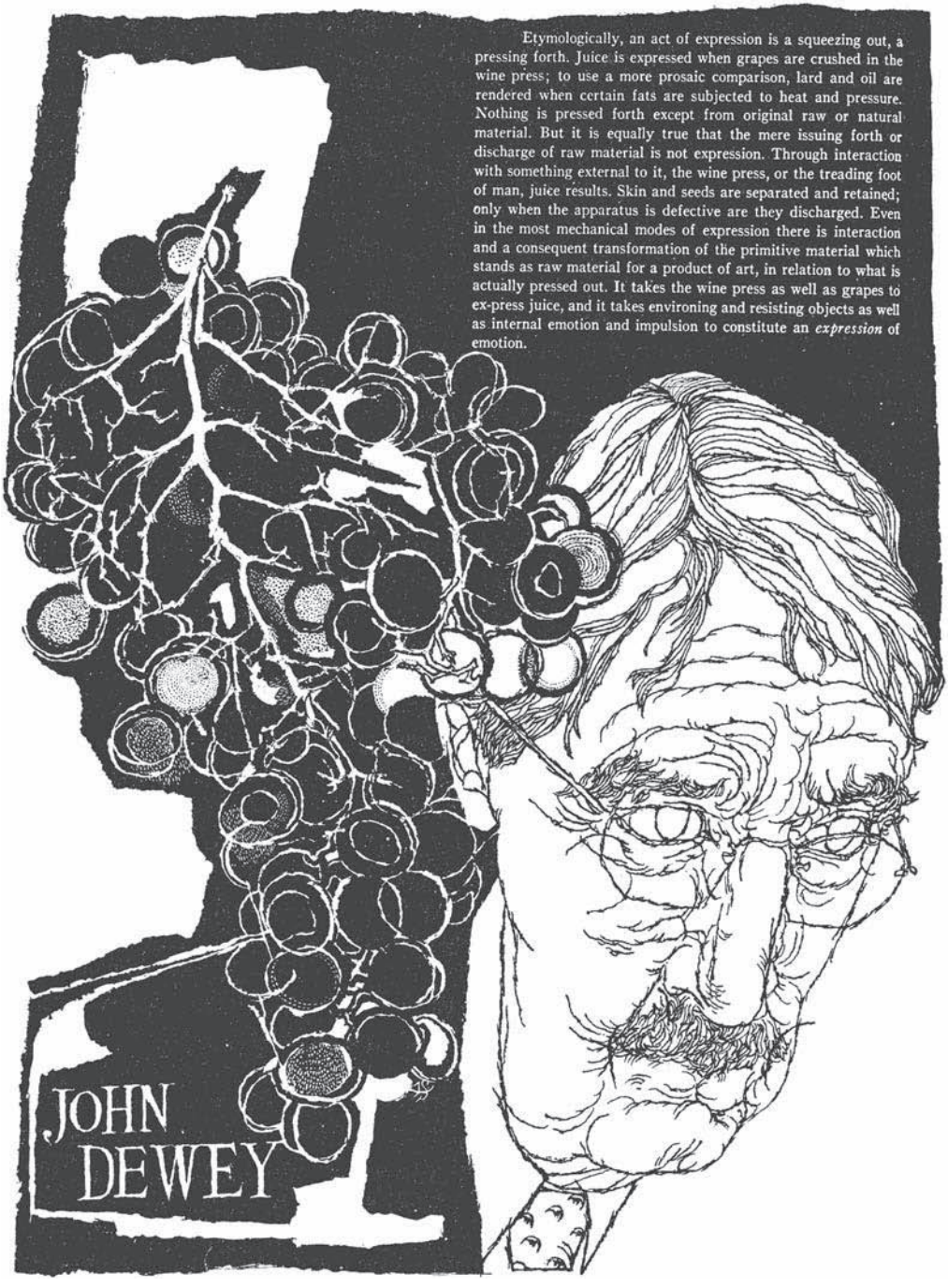
1859–1952

John Dewey, thought by many to be the foremost philosopher the United States has produced, was born in Burlington, Vermont, in 1859. He was educated in the local public schools and at the University of Vermont, graduating with a bachelor's degree in 1879. After teaching school for two years, he entered Johns Hopkins University to do graduate work. He received his Ph.D. degree in 1884, and for the next ten years he taught philosophy at Michigan and Minnesota universities. In 1894 he was invited to the University of Chicago to become head of the combined departments of philosophy, psychology, and pedagogy.

It was at the University of Chicago that Dewey engaged in the educational experiments that were to bring him international recognition. With funds obtained from interested private citizens, he established an experimental elementary school known as "The Laboratory School." This school provided him with the opportunity to make firsthand observations of children in various classroom situations. On the basis of these observations, he developed the revolutionary educational theories that inspired the "progressive education" movement.

Dewey's influential and widely read book *The School and Society* was published in 1899. It was followed by *The Child and the Cur-*

Notes from the artist: *"A detailed study of the head of Dewey is ornamented with a bunch of grapes, symbolizing the long quotation from* Art as Experience.*"*



Etymologically, an act of expression is a squeezing out, a pressing forth. Juice is expressed when grapes are crushed in the wine press; to use a more prosaic comparison, lard and oil are rendered when certain fats are subjected to heat and pressure. Nothing is pressed forth except from original raw or natural material. But it is equally true that the mere issuing forth or discharge of raw material is not expression. Through interaction with something external to it, the wine press, or the treading foot of man, juice results. Skin and seeds are separated and retained; only when the apparatus is defective are they discharged. Even in the most mechanical modes of expression there is interaction and a consequent transformation of the primitive material which stands as raw material for a product of art, in relation to what is actually pressed out. It takes the wine press as well as grapes to ex-press juice, and it takes environing and resisting objects as well as internal emotion and impulsion to constitute an *expression* of emotion.

riculum in 1902. His other major works on education, *How We Think* and *Democracy and Education,* were published several years later. In all of these works, he argued for greater emphasis upon the needs and interests of the students, and less upon formal subject matter. He insisted that there should be a close relationship between school experiences and life outside the school. He maintained that the primary aim of education is to train students to think through problematic situations, not to memorize isolated facts or abstract formulas.

Dewey resigned from the University of Chicago in 1904 as the result of a dispute with the university administration over Laboratory School policy. He then accepted a position at Columbia University, where he remained until his retirement in 1930.

Though Dewey is best known for his contributions to educational theory, he wrote extensively on almost all philosophical subjects, including logic, epistemology, ethics, politics, and aesthetics. His philosophy, usually referred to as Instrumentalism, is closely related to the pragmatism of William James. It is perhaps best described as the application of the scientific method to all areas of human inquiry.

Dewey's activities were not confined to the academy. He took part in several political campaigns and was active in a number of political action groups. A vigorous man even in his old age, Dewey remarried when he was eighty-seven (his first wife died in 1927). Dewey had six children by his first wife and with her adopted one child; with his second wife he adopted two children. He died in New York City in 1952.

A theory of education must be based upon a theory of knowledge. Before we can make any useful recommendations concerning how people should be *taught*, we must first have some conception of how people *learn*. *How We Think* is an attempt to describe the learning process and to suggest some methods for stimulating and guiding it.

Though *How We Think* is essentially a work of description and analysis, it can also be read as "A Guide to Effective Thinking." In analyzing the process which leads from inquiry to knowledge, Dewey finds it necessary to consider some of the obstacles to clear thinking. After listing these obstacles, he goes on to suggest ways of overcoming them through the cultivation of proper attitudes.

How We Think begins with an examination of the various types

of thinking, and an explanation of why some are more valuable than others. According to Dewey, only one type–reflective thinking–leads to genuine knowledge. As defined by him, reflective thinking is the "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends." After discussing the value of reflective thinking, Dewey considers some of the factors hindering it. He insists that these hindrances can be removed (or their effect lessened) by the development of the attitudes of "openmindedness," "wholeheartedness," and "responsibility."

The main section of *How We Think* is a detailed analysis of the various phases of reflective thinking. Dewey knew very well how complex a process thinking is, and he made no attempt to gloss over its complexities. He shows how facts and ideas are continually being modified by each other, how analysis and synthesis are inseparably related, how meanings and concepts undergo subtle changes, etc. In the course of his analysis of thinking, he explains what ideas are, what it means to make judgments, what concepts are and how they arise, how things acquire meaning, and why method is important in thinking.

How We Think concludes with some observations about the thought processes in children, the relationships between play, work, and education, the differences between practical and theoretical thinking, the role of language in thought, and the importance of developing the ability to make precise observations. All in all, *How We Think* is an extraordinarily illuminating and useful analysis of thinking by one of the greatest psychologists of the twentieth century.

The Process of Thought
from *How We Think*

WHAT IS THINKING?

I
DIFFERENT MEANINGS OF THOUGHT

The Best Way of Thinking

No one can tell another person in any definite way how he *should* think, any more than how he ought to breathe or to have his blood circulate. But the various ways in which men *do* think can be told and can be described in their general features. Some of these ways are better than others; the reasons why they are better can be set forth. The person who understands what the better ways of thinking are and why they are better can, if he will, change his own personal ways until they become more effective; until, that is to say, they do better the work that thinking can do and that other mental operations cannot do so well. The better way of thinking that is to be considered in this book is called reflective thinking: the kind of thinking that consists in turning a subject over in the mind and giving it serious and consecutive consideration. Before we take up this main theme, we shall, however, first take note briefly of some other mental processes to which the name *thought* is sometimes given.

The "Stream of Consciousness." All the time we are awake and sometimes when we are asleep, something is, as we say, going through our heads. When we are asleep we call that kind of sequence "dreaming." We also have daydreams, reveries, castles built in the air, and mental streams that are even more idle and chaotic. To this uncontrolled coursing of ideas through our heads the name of "thinking" is sometimes given. It is auto-

matic and unregulated. Many a child has attempted to see whether he could not "stop thinking"–that is, stop this procession of mental states through his mind–and in vain. More of our waking life than most of us would care to admit is whiled away in this inconsequential trifling with mental pictures, random recollections, pleasant but unfounded hopes, flitting, half-developed impressions. Hence it is that he who offers "a penny for your thoughts" does not expect to drive any great bargain if his offer is taken; he will only find out what happens to be "going through the mind" and what "goes" in this fashion rarely leaves much that is worth while behind.

Reflective Thought Is a Chain. In this sense, silly folk and dullards *think.* The story is told of a man in slight repute for intelligence, who, desiring to be chosen selectman in his New England town, addressed a knot of neighbors in this wise: "I hear you don't believe I know enough to hold office. I wish you to understand that I am thinking about something or other most of the time." Now, reflective thought is like this random coursing of things through the mind in that it consists of a succession of things thought of, but it is unlike in that the mere chance occurrence of any chance "something or other" in an irregular sequence does not suffice. Reflection involves not simply a sequence of ideas, but a *con*-sequence–a consecutive ordering in such a way that each determines the next as its proper outcome, while each outcome in turn leans back on, or refers to, its predecessors. The successive portions of a reflective thought grow out of one another and support one another; they do not come and go in a medley. Each phase is a step from something to something–technically speaking, it is a *term* of thought. Each term leaves a deposit that is utilized in the next term. The stream or flow becomes a train or chain. There are in any reflective thought definite units that are linked together so that there is a sustained movement to a common end.

Thinking Usually Restricted to Things Not Directly Perceived. The second meaning of thinking limits it to things not sensed or directly perceived, to things *not* seen, heard, touched, smelled, or tasted. We ask the man telling a story if he saw a certain incident happen, and his reply may be, "No, I only thought of it." A note of invention, as distinct from faithful record of observation, is present. Most important in this class are successions of imaginative incidents and episodes that have a certain coherence, hang together on a continuous thread, and thus lie between kaleidoscopic flights of fancy and considerations deliberately employed to establish a conclusion. The imaginative stories poured forth by children possess all degrees of internal congruity; some are disjointed, some are

articulated. When connected, they simulate reflective thought; indeed, they usually occur in minds of logical capacity. These imaginative enterprises often precede thinking of the close-knit type and prepare the way for it. In this sense, a thought or idea is a mental picture of something not actually present, and thinking is the succession of such pictures.

Reflective Thinking Aims at a Conclusion. In contrast, reflective thinking has a purpose beyond the entertainment afforded by the train of agreeable mental inventions and pictures. The train must lead somewhere; it must tend to a conclusion that can be substantiated outside the course of the images. A story of a giant may satisfy merely because of the story itself; a reflective conclusion that a giant lived at a certain date and place on the earth would have to have some justification outside of the chain of ideas in order to be a valid or sound conclusion. This contrasting element is probably best conveyed in the ordinary saying: "Think it *out*." The phrase suggests an entanglement to be straightened out, something obscure to be cleared up through the application of thought. There is a goal to be reached, and this end sets a task that controls the sequence of ideas.

Thinking as Practically Synonymous with Believing. A third meaning of thought is practically synonymous with *belief*. "I think it is going to be colder tomorrow" or "I think Hungary is larger than Yugoslavia" is equivalent to "I believe so-and-so." When we say, "Men used to think the world was flat," we obviously refer to a belief that was held by our ancestors. This meaning of thought is narrower than those previously mentioned. A belief refers to something beyond itself by which its value is tested; it makes an assertion about some matter of fact or some principle or law. It means that a specified state of fact or law is accepted or rejected, that it is something proper to be affirmed or at least acquiesced in. It is hardly necessary to lay stress upon the importance of belief. It covers all the matters of which we have no sure knowledge and yet which we are sufficiently confident of to act upon and also the matters that we now accept as certainly true, as knowledge, but which nevertheless may be questioned in the future–just as much that passed as knowledge in the past has now passed into the limbo of mere opinion or of error.

There is nothing in the mere fact of thought as identical with belief that reveals whether the belief is well founded or not. Two different men say, "I believe the world is spherical." One man, if challenged, could produce little or no evidence for thinking as he does. It is an idea that he has picked up from others and that he accepts because the idea is generally current, not because he has examined into the matter and not because his own mind has taken any active part in reaching and framing the belief.

Such "thoughts" grow up unconsciously. They are picked up—we know not how. From obscure sources and by unnoticed channels they insinuate themselves into the mind and become unconsciously a part of our mental furniture. Tradition, instruction, imitation—all of which depend upon authority in some form, or appeal to our own advantage, or fall in with a strong passion—are responsible for them. Such thoughts are prejudices; that is, prejudgments, not conclusions reached as the result of personal mental activity, such as observing, collecting, and examining evidence. Even when they happen to be correct, their correctness is a matter of accident as far as the person who entertains them is concerned.

Reflective Thinking Impels to Inquiry. Thus we are brought again, by way of contrast, to the particular kind of thinking that we are to study in this volume, *reflective thinking.* Thought, in the two first senses mentioned, may be harmful to the mind because it distracts attention from the real world, and because it may be a waste of time. On the other hand, if indulged in judiciously these thoughts may afford genuine enjoyment and also be a source of needed recreation. But in either case they can make no claim to truth; they cannot hold themselves up as something that the mind should accept, assert, and be willing to act upon. They may involve a kind of emotional commitment, but not intellectual and practical commitment. Beliefs, on the other hand, do involve precisely this commitment and consequently sooner or later they demand our investigation to find out upon what grounds they rest. To think of a cloud as a whale or a camel—in the sense of to "fancy"—does not commit one to the conclusion that the person having the idea would ride the camel or extract oil from the whale. But when Columbus "thought" the world was round, in the sense of "believed it to be so," he and his followers were thereby committed to a series of other beliefs and actions: to beliefs about routes to India, about what would happen if ships traveled far westward on the Atlantic, etc., precisely as thinking that the world was flat had committed those who held it to belief in the impossibility of circumnavigation, and in the limitation of the earth to regions in the small civilized part of it Europeans were already acquainted with, etc.

The earlier thought, belief in the flatness of the earth, had some foundation in evidence; it rested upon what men could see easily within the limits of their vision. But this evidence was not further looked into; it was not checked by considering other evidence; there was no search for new evidence. Ultimately the belief rested on laziness, inertia, custom, absence of courage and energy in investigation. The later belief rests upon careful and extensive study, upon purposeful widening of the area of observation, upon reasoning out the conclusions of alternative conceptions to see what

would follow in case one or the other were adopted for belief. As distinct from the first kind of thinking there was an orderly chain of ideas; as distinct from the second, there was a controlling purpose and end; as distinct from the third, there was personal examination, scrutiny, inquiry.

Because Columbus did not accept unhesitatingly the current traditional theory, because he doubted and inquired, he arrived at his thought. Skeptical of what, from long habit, seemed most certain, and credulous of what seemed impossible, he went on thinking until he could produce evidence for both his confidence and his disbelief. Even if his conclusion had finally turned out wrong, it would have been a different sort of belief from those it antagonized, because it was reached by a different method. *Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends* constitutes reflective thought. Any one of the first three kinds of thought may elicit this type; but once begun, it includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality.

II
THE CENTRAL FACTOR IN THINKING

The Suggestion of Something Not Observed. There are, however, no sharp lines of demarcation between the various operations just outlined. The problem of attaining correct habits of reflection would be much easier than it is did not the different modes of thinking blend insensibly into one another. So far, we have considered rather extreme instances of each kind in order to get the field clearly before us. Let us now reverse this operation; let us consider a rudimentary case of thinking, lying between careful examination of evidence and a mere irresponsible stream of fancies. A man is walking on a warm day. The sky was clear the last time he observed it; but presently he notes, while occupied primarily with other things, that the air is cooler. It occurs to him that it is probably going to rain; looking up, he sees a dark cloud between him and the sun, and he then quickens his steps. What, if anything, in such a situation can be called thought? Neither the act of walking nor the noting of the cold is a thought. Walking is one direction of activity; looking and noting are other modes of activity. The likelihood that it will rain is, however, something *suggested*. The pedestrian *feels* the cold; first he *thinks* of clouds, then he looks and perceives them, and then he thinks of something

he does not see: a storm. This *suggested possibility* is the idea, the thought. If it is believed in as a genuine possibility which may occur, it is the kind of thought which falls within the scope of knowledge and which requires reflective consideration.

Up to a certain point there is the same sort of situation as when one who looks at a cloud is reminded of a human figure and face. Thinking in both of these cases (the cases of belief and of fancy) involves noting or perceiving a fact, followed by something else that is not observed but that is brought to mind, suggested by the thing seen. One thing reminds us, as we say, of the other. Side by side, however, with this factor of agreement in the two cases of suggestion is a factor of marked disagreement. We do not *believe* in the face suggested by the cloud; we do not consider at all the probability of its being a fact. There is no *reflective* thought. The danger of rain, on the contrary, presents itself to us as a genuine possibility–a fact of the same nature as the observed coolness. Put differently, we do not regard the cloud as meaning or indicating a face, but merely as suggesting it, while we do consider that the coolness may *mean* rain. In the first case, on seeing an object, we just happen, as we say, to think of something else; in the second, we consider the *possibility and nature of the connection between the object seen and the object suggested*. The seen thing is regarded as in some way *the ground or basis of belief* in the suggested thing; it possesses the quality of *evidence*.

The Function of Signifying. This function whereby one thing signifies or indicates another, thus leading us to consider how far the one may be regarded as warrant for belief in the other, is, then, the central factor in all reflective or distinctively intellectual thinking. By calling up various situations to which such terms as *signifies* and *indicates* apply, the student will realize for himself the actual facts denoted. Synonyms for these terms are: points to, tells of, betokens, prognosticates, represents, stands for, implies.[1] We also say one thing portends another, is ominous of another, or a symptom of it, or a key to it, or (if the connection is quite obscure) that it gives a hint, clue, or intimation. Reflection is not identical with the mere fact that one thing indicates, means, another thing. It commences when we begin to inquire into the reliability, the worth, of any particular indication; when we try to test its value and see what guarantee there is that the existing data *really* point to the idea that is suggested in such a way as to *justify* acceptance of the latter.

1. *Implies* is more often used when a principle or general truth brings about belief in some other truth; the other phrases are more frequently used to denote the cases in which a fact or event leads us to believe in some other fact or in a law.

Reflection Implies Belief on Evidence. Reflection thus implies that something is believed in (or disbelieved in), not on its own direct account, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as *ground of belief*. At one time, rain is actually felt or directly experienced; at another time, we *infer* that it has rained from the appearance of the grass and trees, or that it is going to rain because of the condition of the air or the state of the barometer. At one time, we see a man (or suppose we do) without any intermediary fact; at another time, we are not quite sure what we see, and hunt for accompanying facts that will serve as signs, indications, tokens of what we are to believe.

Thinking, for the purposes of this inquiry, is accordingly defined as *that operation in which present facts suggest other facts* (*or truths*) *in such a way as to induce belief in what is suggested on the ground of real relation in the things themselves*, a relation between what suggests and what is suggested. A cloud *suggests* a weasel or a whale; it does not *mean* the latter, because there is no tie, or bond, in the things themselves between what is seen and what is suggested. Ashes not merely suggest a previous fire, but they signify there has been a fire, because ashes are produced by combustion and, if they are genuine ashes, only by combustion. It is an objective connection, the link in actual things, that makes one thing the ground, warrant, evidence, for believing in something else.

III
PHASES OF REFLECTIVE THINKING

We may carry our account further by noting that *reflective* thinking, in distinction from other operations to which we apply the name of thought, involves (1) a state of doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and (2) an act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity.

The Importance of Uncertainty and of Inquiry. In our illustration, the shock of coolness generated confusion and suspended belief, at least momentarily. Because it was unexpected, it was a shock or an interruption needing to be accounted for, identified, or placed. To say that the abrupt occurrence of the change of temperature constitutes a problem may sound forced and artificial; but if we are willing to extend the meaning of the word *problem* to whatever—no matter how slight and commonplace in character—perplexes and challenges the mind so that it makes belief at all

uncertain, there is a genuine problem, or question, involved in an experience of sudden change.

The turning of the head, the lifting of the eyes, the scanning of the heavens are activities adapted to bring to recognition facts that will answer the question presented by the sudden coolness. The facts as they first presented themselves were perplexing; they suggested, however, clouds. The act of looking was an act to discover whether this suggested explanation held good. It may again seem forced to speak of this looking, almost automatic, as an act of research, or inquiry. But once more, if we are willing to generalize our conceptions of our mental operations to include the trivial and ordinary as well as the technical and recondite, there is no good reason for refusing to give this title to the act of looking. For the result of the act is to bring facts before the mind that enable a person to reach a conclusion on the basis of evidence. In so far, then, as the act of looking was deliberate, was performed with the intention of getting an external basis on which to rest a belief, it exemplifies in an elementary way the operation of hunting, searching, inquiring involved in any reflective operation.

Another instance, commonplace also, yet not quite so trivial, may enforce this lesson. A man traveling in an unfamiliar region comes to a branching of the road. Having no sure knowledge to fall back upon, he is brought to a standstill of hesitation and suspense. Which road is right? And how shall his perplexity be resolved? There are but two alternatives: he must either blindly and arbitrarily take his course, trusting to luck for the outcome, or he must discover grounds for the conclusion that a given road is right. Any attempt to decide the matter by thinking will involve inquiring into other facts, whether brought to mind by memory, or by further observation, or by both. The perplexed wayfarer must carefully scrutinize what is before him and he must cudgel his memory. He looks for evidence that will support belief in favor of either of the roads—for evidence that will weight down one suggestion. He may climb a tree; he may go first in this direction, then in that, looking, in either case, for signs, clues, indications. He wants something in the nature of a signboard or a map, and *his reflection is aimed at the discovery of facts that will serve this purpose.*

The foregoing illustration may be generalized. Thinking begins in what may fairly enough be called a *forked-road* situation, a situation that is ambiguous, that presents a dilemma, that proposes alternatives. As long as our activity glides smoothly along from one thing to another, or as long as we permit our imagination to entertain fancies at pleasure, there is no call

for reflection. Difficulty or obstruction in the way of reaching a belief brings us, however, to a pause. In the suspense of uncertainty, we metaphorically climb a tree; we try to find some standpoint from which we may survey additional facts and, getting a more commanding view of the situation, decide how the facts stand related to one another.

The Regulation of Thinking by Its Purpose. Demand for the solution of a perplexity is the steadying and guiding factor in the entire process of reflection. Where there is no question of a problem to be solved or a difficulty to be surmounted, the course of suggestions flows on at random; we have the first type of thought described. If the stream of suggestions is controlled simply by their emotional congruity, their fitting agreeably into a single picture or story, we have the second type. But a question to be answered, an ambiguity to be resolved, sets up an end and holds the current of ideas to a definite channel. Every suggested conclusion is tested by its reference to this regulating end, by its pertinence to the problem in hand. This need of straightening out a perplexity also controls the kind of inquiry undertaken. A traveler whose end is the most beautiful path will look for other signs and will test suggestions on another basis than if he wishes to discover the way to a given city. *The nature of the problem fixes the end of thought*, and *the end controls the process of thinking*.

IV
SUMMARY

We may recapitulate by saying that the origin of thinking is some perplexity, confusion, or doubt. Thinking is not a case of spontaneous combustion; it does not occur just on "general principles." There is something that occasions and evokes it. General appeals to a child (or to a grownup) to think, irrespective of the existence in his own experience of some difficulty that troubles him and disturbs his equilibrium, are as futile as advice to lift himself by his bootstraps.

Given a difficulty, the next step is suggestion of some way out–the formation of some tentative plan or project, the entertaining of some theory that will account for the peculiarities in question, the consideration of some solution for the problem. The data at hand cannot supply the solution; they can only suggest it. What, then, are the sources of the suggestion? Clearly, past experience and a fund of relevant knowledge at one's command. If the person has had some acquaintance with similar situations, if he has dealt with material of the same sort before, suggestions more or less apt and helpful will arise. But unless there has been some

analogous experience, confusion remains mere confusion. Even when a child (or a grownup) has a problem, it is wholly futile to urge him to think when he has no prior experiences that involve some of the same conditions.

There may, however, be a state of perplexity and also previous experience out of which suggestions emerge and yet thinking need not be reflective. For the person may not be sufficiently *critical* about the ideas that occur to him. He may jump at a conclusion without weighing the grounds on which it rests; he may forego or unduly shorten the act of hunting, inquiring; he may take the first "answer," or solution, that comes to him because of mental sloth, torpor, impatience to get something settled. One can think reflectively only when one is willing to endure suspense and to undergo the trouble of searching. To many persons both suspense of judgment and intellectual search are disagreeable; they want to get them ended as soon as possible. They cultivate an overpositive and dogmatic habit of mind, or feel perhaps that a condition of doubt will be regarded as evidence of mental inferiority. It is at the point where examination and test enter into investigation that the difference between reflective thought and bad thinking comes in. To be genuinely thoughtful, we must be willing to sustain and protract that state of doubt which is the stimulus to thorough inquiry, so as not to accept an idea or make positive assertion of a belief until justifying reasons have been found.

WHY REFLECTIVE THINKING MUST BE AN EDUCATIONAL AIM

I
THE VALUES OF THINKING

It Makes Possible Action with a Conscious Aim. We all acknowledge, in words at least, that ability to think is highly important; it is regarded as the distinguishing power that marks man off from the lower animals. But since our ordinary notions of how and why thinking is important are vague, it is worthwhile to state explicitly the values possessed by reflective thought. In the first place, it emancipates us from merely impulsive and merely routine activity. Put in positive terms, thinking enables us to direct our activities with foresight and to plan according to ends in view, or purposes of which we are aware. It enables us to act in deliberate and intentional fashion to attain future objects or to come into command of what is now distant and lacking. By putting the consequences of different

ways and lines of action before the mind, it enables us to *know what we are about* when we act. *It converts action that is merely appetitive, blind, and impulsive into intelligent action*. A brute animal, as far as we know, is pushed on from behind; it is moved in accordance with its present physiological state by some present external stimulus. The being who can think is moved by remote considerations, by results that can be attained perhaps only after a lapse of years–as when a young person sets out to gain a professional education to fit himself for a career in years to come.

For example, an animal without thought will go into its hole when rain threatens, because of some immediate stimulus to its organism. But a thinking being will perceive that certain given facts are probable signs of a future rain and will take steps in the light of this anticipated future. To plant seeds, to cultivate the soil, to harvest grain are intentional acts, possible only to a being who has learned to subordinate the immediately felt elements of an experience to those values which these elements hint at and prophesy. Philosophers have made much of the phrases "book of nature," "language of nature." Well, it is in virtue of thought that given things are significant of absent things and that nature speaks a language which may be interpreted. To a being who thinks, things are records of their past, as fossils tell of the prior history of the earth, and are prophetic of their future, as from the present positions of heavenly bodies remote eclipses are foretold. Shakespeare's "tongues in trees, books in the running brooks" expresses literally enough the power superadded to existences when they are used by a thinking being. Only when things about us have meaning for us, only when they signify consequences that can be reached by using them in certain ways, is any such thing as intentional, deliberate control of them possible.

It Makes Possible Systematic Preparations and Inventions. By thought man also develops and arranges artificial signs to remind him in advance of consequences and of ways of securing and avoiding them. As the trait just mentioned makes the difference between savage man and brute, so this trait makes the difference between civilized man and savage. A savage who has been shipwrecked on a river may note certain things that serve him as signs of danger in the future. But civilized man deliberately *makes* such signs; he sets up in advance of any particular shipwreck warning buoys, and builds lighthouses where he sees signs that such an event may occur. A savage reads weather signs with great expertness; civilized man institutes a weather service by which signs are artificially secured and information is distributed in advance of the appearance of any signs that could be detected without special methods. A savage finds

his way skillfully through a wilderness by reading certain obscure indications; civilized man builds a highway that shows the road to all. The savage learns to detect the signs of fire and thereby to invent methods of producing flame; civilized man discovers illuminating gas and oils, and invents lamps, electric lights, stoves, furnaces, central heating plants, etc. The very essence of civilized culture is that we deliberately erect monuments and memorials, lest we forget; and deliberately institute, in advance of the happening of various contingencies and emergencies of life, devices for detecting their approach and registering their nature, for warding off what is unfavorable, or at least for protecting ourselves from its full impact and for making more secure and extensive what is favorable. All forms of artificial apparatus are intentional modifications of natural things so designed that they may serve better than in their natural estate to indicate the hidden, the absent, and the remote.

It Enriches Things with Meanings. Finally, thought confers upon physical events and objects a very different status and value from those which they possess to a being that does not reflect. These words are mere scratches, curious variations of light and shade, to one to whom they are not linguistic signs. To him for whom they are signs of other things, the collection of marks stands for some idea or object. We are so used to the fact that things have meaning for us, that they are not mere excitations of sense organs, that we fail to recognize that they are charged with the significance they have only because in the past absent things have been suggested to us by what is present and these suggestions have been confirmed in subsequent experience. If we stumble against something in the dark, we may react to it and get out of the way to save ourselves a bruise or a tumble without recognizing what particular *object* it is. We react almost automatically to many stimuli; they have no meaning for us or are not definite individual objects. For an *object* is more than a mere *thing;* it is a thing having a definite significance.

The distinction we are making can be most readily understood if the reader will call to mind things and events that are strange to him and compare them with the same things and events as they appear to persons having expert knowledge of them; or if he will compare a thing or event as it is *before*, with what it is *after*, he has obtained intellectual mastery over it. To a layman a particular body of water may signify only something to wash with or to drink; to another person it may stand for a union of two chemical elements, themselves not liquids but gases; or it may signify something that should *not* be drunk because of danger of typhoid fever. To a baby things are at first only patterns of color and light, sources of

sound; they acquire meaning only as they become signs of possible, but not yet present and actual, experiences. To the learned scientific man, the range of meanings possessed by ordinary things is much widened. A stone is not merely a stone; it is a stone of a given mineralogical type, from a particular geological stratum, etc. It tells him something about what happened millions of years ago, and helps paint the picture of the earth's history.

Control and Enriched Value. The first two values mentioned are of a practical sort; they give increased power of *control*. The value just mentioned is an enrichment of meaning apart from added control–a certain event in the heavens cannot be warded off just because we know it is an eclipse and how it is produced, but it does have a significance for us that it did not have before. We may not need to do any thinking now when some event occurs, but if we have thought about it before, the outcome of that thinking is funded as a directly added and deepened meaning of the event. The great reward of exercising the power of thinking is that there are no limits to the possibility of carrying over, into the objects and events of life, meanings originally acquired by thoughtful examination, and hence no limit to the continual growth of meaning in human life. A child today may see meanings in things that were hidden from Ptolemy and Copernicus because of the results of reflective investigations that have occurred in the meantime.

Various values of the power of thought are summed up in the following quotation from John Stuart Mill.

> To draw inferences has been said to be the great business of life. Everyone has daily, hourly, and momentary need of ascertaining facts which he has not directly observed: not from any general purpose of adding to his stock of knowledge, but because the facts themselves are of importance to his interests or to his occupations. The business of the magistrate, of the military commander, of the navigator, of the physician, of the agriculturist, *is merely to judge of evidence and to act accordingly*. . . . As they do this well or ill, so they discharge well or ill the duties of their several callings. *It is the only occupation in which the mind never ceases to be engaged*.[2]

Two Reasons for Training Thought. These three values, in their cumulative effect, make the difference between a truly human and rational life and the existence lived by those animals that are immersed in sensation and appetite. Beyond a somewhat narrow limit, enforced by the necessi-

2. Mill, *System of Logic*, Introduction, § 5.

ties of life, the values that have been described do not, however, automatically realize themselves. For anything approaching their adequate realization, thought needs careful and attentive educational direction. Nor is that the whole story. Thinking may develop in positively wrong ways and lead to false and harmful beliefs. The need of systematic training would be less than it is if the only danger to be feared were lack of any development; the evil of the wrong kind of development is even greater.

An earlier writer than Mill, John Locke (1632–1704), brings out the importance of thought for life and the need of training so that its best and not its worst possibilities will be realized, in the following words:

> No man ever sets himself about anything but upon some view or other, which serves him for a reason for what he does; and whatsoever faculties he employs, the understanding with such light as it has, well or ill informed, constantly leads; and by that light, true or false, all his operative powers are directed. . . . Temples have their sacred images, and we see what influence they have always had over a great part of mankind. But in truth the ideas and images in men's minds are the invisible powers that constantly govern them, and to these they all, universally, pay a ready submission. It is therefore of the highest concernment that great care should be taken of the understanding, to conduct it aright in the search of knowledge and in judgments it makes.[3]

While the power of thought, then, frees us from servile subjection to instinct, appetite, and routine, it also brings with it the occasion and possibility of error and mistake. In elevating us above the brute, it opens the possibility of failures to which the animal, limited to instinct, cannot sink.

II
TENDENCIES NEEDING CONSTANT REGULATION

Physical and Social Sanctions of Correct Thinking. Up to a certain point, the necessities of life enforce a fundamental and persistent discipline of thought for which the most cunningly devised artifices would be ineffective substitutes. The burned child dreads the fire; a painful consequence emphasizes the need of correct inference much more than would learned discourses on the properties of heat. Social conditions also put a premium on correct inference in matters where action based on valid thought is socially important. These sanctions of proper thinking may affect life itself, or at least a life reasonably free from perpetual discomfort.

3. Locke, *The Conduct of the Understanding,* first paragraph.

The signs of enemies, of shelter, of food, of the main social conditions have to be correctly apprehended.

But this disciplinary training, efficacious as it is within certain limits, does not carry us far. Logical attainment in one direction is no bar to extravagant conclusions in another. A savage who is expert in judging the movements and location of the animals that he hunts will accept and gravely narrate the most preposterous yarns concerning the origin of their habits and peculiarities of structure. When there is no direct appreciable reaction of the inference upon the security and prosperity of life, there are no natural checks to the acceptance of wrong beliefs. Conclusions may be accepted merely because the suggestions are vivid and interesting, while a large accumulation of dependable data may fail to suggest a proper conclusion because of opposition from existing customs. Then there is a "primitive credulity," a natural tendency to believe anything that is suggested unless there is overpowering evidence to the contrary. It sometimes seems, upon surveying the history of thought, that men exhausted pretty much all wrong forms of belief before they hit upon the right conceptions. The history of scientific beliefs also shows that, when a wrong theory once gets general acceptance, men will expend ingenuity of thought in buttressing it with additional errors rather than surrender it and start in a new direction: witness for example the elaborate pains taken to preserve the Ptolemaic theory of the solar system. Even today correct beliefs about the constitution of nature are held by the great multitude merely because they are current and popular rather than because the multitude understands the reasons upon which they rest.

Superstition Is as Natural as Science. As to the mere function of suggestion, there is no difference between the power of a column of mercury to portend rain and that of the entrails of an animal or the flight of birds to foretell the fortunes of war. For all anybody can tell in advance, the spilling of salt is as likely to import bad luck as the bite of a mosquito to import malaria. Only systematic regulation of the conditions under which observations are made and severe discipline of the habits of entertaining suggestions can secure a decision that one type of belief is vicious and the other sound. The substitution of scientific for superstitious habits of inference has not been brought about by any improvement in the acuteness of the senses or in the natural workings of the function of suggestion. It is the result of regulation *of the conditions* under which observation and inference take place. When such regulation is absent, dreams, the position of stars, the lines of the hand are regarded as valuable signs, and the fall of cards as an inevitable omen, while natural events of the most crucial

significance go disregarded. Hence beliefs in portents of various kinds, now mere nook-and-cranny superstitions, were once universal. A long discipline in exact science was required for their conquest.

The General Causes of Bad Thinking: Bacon's "Idols." It is instructive to note some of the attempts that have been made to classify the main sources of error in reaching beliefs. Francis Bacon, for example, at the beginning of modern scientific inquiry, enumerated four such classes, under the somewhat fantastic title of "idols" (Gr. εἴδωλα, images), spectral forms that allure the mind into false paths. These he called the idols, or phantoms, of (*a*) the tribe, (*b*) the market place, (*c*) the cave or den, and (*d*) the theatre; or, less metaphorically, (*a*) standing erroneous methods (or at least temptations to error) that have their roots in human nature generally, (*b*) those that come from intercourse and language, (*c*) those that are due to causes peculiar to a specific individual, and finally, (*d*) those that have their sources in the fashion or general current of a period. Classifying these causes of fallacious belief somewhat differently, we may say that two are intrinsic and two are extrinsic. Of the intrinsic, one is common to all men alike (such as the universal tendency to notice instances that corroborate a favorite belief more readily than those that contradict it), while the other resides in the specific temperament and habits of the given individual. Of the extrinsic, one proceeds from generic social conditions–like the tendency to suppose that there is a fact wherever there is a word, and no fact where there is no linguistic term–while the other proceeds from local and temporary social currents.

Locke on Typical Forms of Wrong Belief. Locke's method of dealing with typical forms of wrong belief is less formal and may be more enlightening. We can hardly do better than quote his forcible and quaint language when, enumerating different classes of men, he shows different ways in which thought goes wrong:

> (*a*) The first is of those who seldom reason at all, but do and think according to the example of others, whether parents, neighbors, ministers, or whom else they are pleased to make choice of to have an implicit faith in, for the saving of themselves the pains and troubles of thinking and examining for themselves.
>
> (*b*) This kind is of those who put passion in the place of reason, and being resolved that shall govern their actions and arguments, neither use their own, nor hearken to other people's reason, any farther than it suits their humor, interest, or party.[4]

4. In another place Locke says: "Men's prejudices and inclinations impose often upon themselves. . . . Inclination suggests and slides into discourse favorable terms, which introduce favorable ideas; till at last by this means that is concluded clear

(*c*) The third sort is of those who readily and sincerely follow reason, but for want of having that which one may call large, sound, roundabout sense, have not a full view of all that relates to the question. . . . They converse but with one sort of men, they read but one sort of books, they will not come in the hearing but of one sort of notions. . . . They have a pretty traffic with known correspondents in some little creek . . . but will not venture out into the great ocean of knowledge. [Men of originally equal natural parts may finally arrive at very different stores of knowledge and truth] when all the odds between them has been the different scope that has been given to their understandings to range in, for the gathering up of information and furnishing their heads with ideas and notions and observations, whereon to employ their mind.[5]

In another portion of his writings,[6] Locke states the same ideas in slightly different form.

1. That which is inconsistent with our *principles* is so far from passing for probable with us that it will not be allowed possible. The reverence borne to these principles is so great, and their authority so paramount to all other, that the testimony not only of other men but the evidence of our own senses are often rejected when they offer to vouch anything contrary to these *established rules*. . . . There is nothing more ordinary than children's receiving into their minds propositions . . . from their parents, nurses, or those about them; which being insinuated in their unwary as well as unbiased understandings, and fastened by degrees, are at last (and this whether true or false) riveted there by long custom and education, beyond all possibility of being pulled out again. For men, when they are grown up, reflecting upon their opinions and finding those of this sort to be as ancient in their minds as their very memories, not having observed their early insinuation, nor by what means they got them, they are apt to reverence them as sacred things, and not to suffer them to be profaned, touched, or questioned. [They take them as standards] to be the great and unerring deciders of truth and falsehood, and the judges to which they are to appeal in all manner of controversies.

2. Secondly, next to these are men whose understandings are cast into a mold, and fashioned just to the size of a received hypothesis. [Such men, while not denying the existence of facts and evidence, cannot be convinced even by the evidence that would decide them if their minds were not so closed by adherence to fixed belief.]

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and evident, thus dressed up, which, taken in its native state, by making use of none but precise determined ideas, would find no admittance at all."

5. *The Conduct of the Understanding,* § 3.

6. *Essay Concerning Human Understanding,* Bk. IV, Ch. XX, "Of Wrong Assent or Error." [See *Great Books of the Western World* (Ed.).]

> 3. Predominant Passions. Thirdly, probabilities which cross men's appetites and prevailing passions run the same fate. Let ever so much probability hang on one side of a covetous man's reasoning, and money on the other, it is easy to foresee which will outweigh. Earthly minds, like mud walls, resist the strongest batteries.
>
> 4. Authority. The fourth and last wrong measure of probability I shall take notice of, and which keeps in ignorance or error more people than all the others together, is the giving up our assent to the common received opinions, either of our friends or party, neighborhood or country.

Importance of Attitudes. We have quoted from influential thinkers of the past. But the facts to which they refer are familiar in our everyday experience. Any observant person can note any day, both in himself and in others, the tendency to believe that which is in harmony with desire. We take that to be true which we should like to have so, and ideas that go contrary to our hopes and wishes have difficulty in getting lodgment. We all jump to conclusions; we all fail to examine and test our ideas because of our personal attitudes. When we generalize, we tend to make sweeping assertions; that is, from one or only a few facts we make a generalization covering a wide field. Observation also reveals the powerful influence wielded by social influences that have actually nothing to do with the truth or falsity of what is asserted and denied. Some of the dispositions that give these irrelevant influences power to limit and mislead thought are good in themselves, a fact that renders the need of training the more important. Reverence for parents and regard for those placed in authority are in the abstract surely valuable traits. Yet, as Locke points out, they are among the chief forces that determine beliefs apart from and even contrary to the operations of intelligent thought. The desire to be in harmony with others is in itself a desirable trait. But it may lead a person too readily to fall in with the prejudices of others and may weaken his independence of judgment. It even leads to an extreme partisanship that regards it as disloyal to question the beliefs of a group to which one belongs.

Because of the importance of attitudes, ability to train thought is not achieved merely by knowledge of the best forms of thought. Possession of this information is no guarantee for ability to think well. Moreover, there are no set exercises in correct thinking whose repeated performance will cause one to be a good thinker. The information and the exercises are both of value. But no individual realizes their value except as he is personally animated by certain dominant attitudes in his own character. It was once almost universally believed that the mind had faculties, like memory and

attention, that could be developed by repeated exercise, as gymnastic exercises are supposed to develop the muscles. This belief is now generally discredited in the large sense in which it was once held. Similarly it is highly questionable whether the practice of thinking in accordance with some logical formula results in creation of a general habit of thinking; namely, one applicable over a wide range of subjects. It is a matter of common notice that men who are expert thinkers in their own special fields adopt views on other matters without doing the inquiring that they know to be necessary for substantiating simpler facts that fall within their own specialities.

The Union of Attitude and Skilled Method. What can be done, however, is to cultivate those *attitudes* that are favorable to the use of the best methods of inquiry and testing. Knowledge of the methods alone will not suffice; there must be the desire, the will, to employ them. This desire is an affair of personal disposition. But on the other hand the disposition alone will not suffice. There must also be understanding of the forms and techniques that are the channels through which these attitudes operate to the best advantage. Since these forms and techniques will be taken up for discussion later, we shall here mention the attitudes that need to be cultivated in order to secure their adoption and use.

(*a*) *Open-mindedness*. This attitude may be defined as freedom from prejudice, partisanship, and such other habits as close the mind and make it unwilling to consider new problems and entertain new ideas. But it is something more active and positive than these words suggest. It is very different from empty-mindedness. While it *is* hospitality to new themes, facts, ideas, questions, it is not the kind of hospitality that would be indicated by hanging out a sign: "Come right in; there is nobody at home." It includes an active desire to listen to more sides than one; to give heed to facts from whatever source they come; to give full attention to alternative possibilities; to recognize the possibility of error even in the beliefs that are dearest to us. Mental sluggishness is one great factor in closing the mind to new ideas. The path of least resistance and least trouble is a mental rut already made. It requires troublesome work to undertake the alteration of old beliefs. Self-conceit often regards it as a sign of weakness to admit that a belief to which we have once committed ourselves is wrong. We get so identified with an idea that it is literally a "pet" notion and we rise to its defense and stop our mental eyes and ears to anything different. Unconscious fears also drive us into purely defensive attitudes that operate like a coat of armor not only to shut out new conceptions but even to prevent us from making a new observation. The

cumulative effect of these forces is to shut in the mind, and to create a withdrawal from new intellectual contacts that are needed for learning. They can best be fought by cultivating that alert curiosity and spontaneous outreaching for the new which is the essence of the open mind. The mind that is open merely in the sense that it passively permits things to trickle in and through will not be able to resist the factors that make for mental closure.

(*b*) *Wholeheartedness*. When anyone is thoroughly interested in some object and cause, he throws himself into it; he does so, as we say, "heartily," or with a whole heart. The importance of this attitude or disposition is generally recognized in practical and moral affairs. But it is equally important in intellectual development. There is no greater enemy of effective thinking than divided interest. This division unfortunately is often produced in school. A pupil gives an external, perfunctory attention to the teacher and to his book and lesson while his inmost thoughts are concerned with matters more attractive to him. He pays attention with ear or eye, but his brain is occupied with affairs that make an immediate appeal. He feels obliged to study because he has to recite, to pass an examination, to make a grade, or because he wishes to please his teacher or his parents. But the material does not hold him by its own power. His approach is not straightforward and single-minded. This point may in some cases seem trivial. But in others it may be very serious. It then contributes to the formation of a general habit or attitude that is most unfavorable to good thinking.

When a person is absorbed, the subject carries him on. Questions occur to him spontaneously; a flood of suggestions pour in on him; further inquiries and readings are indicated and followed; instead of having to use his energy to hold his mind to the subject (thereby lessening that which is available for the subject, itself, and creating a divided state of mind), the material holds and buoys his mind up and gives an onward impetus to thinking. A genuine enthusiasm is an attitude that operates as an intellectual force. A teacher who arouses such an enthusiasm in his pupils has done something that no amount of formalized method, no matter how correct, can accomplish.

(*c*) *Responsibility*. Like sincerity or wholeheartedness, responsibility is usually conceived as a moral trait rather than as an intellectual resource. But it is an attitude that is necessary to win the adequate support of desire for new points of view and new ideas and of enthusiasm for and capacity for absorption in subject matter. These gifts may run wild, or at least they may lead the mind to spread out too far. They do not of themselves ensure

that centralization, that unity, which is essential to good thinking. To be intellectually responsible is to consider the consequences of a projected step; it means to be willing to adopt these consequences when they follow reasonably from any position already taken. Intellectual responsibility secures integrity; that is to say, consistency and harmony in belief. It is not uncommon to see persons continue to accept beliefs whose logical consequences they refuse to acknowledge. They profess certain beliefs but are unwilling to commit themselves to the consequences that flow from them. The result is mental confusion. The "split" inevitably reacts upon the mind to blur its insight and weaken its firmness of grasp; no one can use two inconsistent mental standards without losing some of his mental grip. When pupils study subjects that are too remote from their experience, that arouse no active curiosity, and that are beyond their power of understanding, they begin to use a measure of value and of reality for school subjects different from the measure they employ for affairs of life that make a vital appeal. They tend to become intellectually irresponsible; they do not ask for the *meaning* of what they learn, in the sense of what difference it makes to the rest of their beliefs and to their actions.

The same thing happens when such a multitude of subjects or disconnected facts is forced upon the mind that the student does not have time and opportunity to weigh their meaning. He fancies he is accepting them, is believing them, when in fact his belief is of a totally different kind and implies a different measure of reality from that which operates in his life and action out of school. He then becomes mentally mixed; mixed not only about particular things but also about the basic reasons that make things worthy of belief. Fewer subjects and fewer facts and more responsibility for thinking the material of those subjects and facts through to realize what they involve would give better results. To carry something through to completion is the real meaning of thoroughness, and power to carry a thing through to its end or conclusion is dependent upon the existence of the attitude of intellectual responsibility.

The Bearing of These Personal Attitudes upon Readiness to Think. The three attitudes that have been mentioned, open-mindedness, wholehearted or absorbed interest, responsibility in facing consequences, are of themselves personal qualities, traits of character. They are not the only attitudes that are important in order that the *habit* of thinking in a reflective way may be developed. But the other attitudes that might be set forth are also traits of character, attitudes that, in the proper sense of the word, are *moral*, since they are traits of personal character that have to be

cultivated. Any person thinks at times on particular subjects that arouse him. Other persons have habits of thinking quite persistently in special fields of interest; on matters, for example, that are their professional concern. A thoroughgoing habit of thinking is, however, more extended in its scope. No one can think about everything, to be sure; no one can think about *any*thing without experience and information about it. Nevertheless, there is such a thing as *readiness* to consider in a thoughtful way the subjects that do come within the range of experience—a readiness that contrasts strongly with the disposition to pass judgment on the basis of mere custom, tradition, prejudice, etc., and thus shun the task of thinking. The personal attitudes that have been named are essential constituents of this general readiness.

If we were compelled to make a choice between these personal attitudes and knowledge about the principles of logical reasoning together with some degree of technical skill in manipulating special logical processes, we should decide for the former. Fortunately no such choice has to be made, because there is no opposition between personal attitudes and logical processes. We only need to bear in mind that, with respect to the aims of education, no separation can be made between impersonal, abstract principles of logic and moral qualities of character. What is needed is to weave them into unity.

ANALYSIS OF REFLECTIVE THINKING

I
FACTS AND IDEAS

When a situation arises containing a difficulty or perplexity, the person who finds himself in it may take one of a number of courses. He may dodge it, dropping the activity that brought it about, turning to something else. He may indulge in a flight of fancy, imagining himself powerful or wealthy, or in some other way in possession of the means that would enable him to deal with the difficulty. Or, finally, he may face the situation. In this case, he begins to reflect.

Reflection Includes Observation. The moment he begins to reflect, he begins of necessity to observe in order to take stock of conditions. Some of these observations are made by direct use of the senses; others by recollecting observations previously made either by himself or by others. The person who had the engagement to keep notes with his eyes his present

location, recalls the place where he should arrive at one o'clock, and brings back to mind the means of transportation with which he is acquainted and their respective locations. In this way he gets as clear and distinct a recognition as possible of the nature of the situation with which he has to deal. Some of the conditions are obstacles and others are aids, resources. No matter whether these conditions come to him by direct perception or by memory, they form the "*facts* of the case." They are the things that are *there*, that have to be reckoned with. Like all facts, they are stubborn. They cannot be got out of the way by magic just because they are disagreeable. It is no use to *wish* they did not exist or were different. They must be taken for just what they are. Hence observation and recollection must be used to the full so as not to glide over or to mistake important features. Until the habit of thinking is well formed, facing the situation to discover the facts requires an effort. For the mind tends to dislike what is unpleasant and so to sheer off from an adequate notice of that which is especially annoying.

Reflection Includes Suggestions. Along with noting the conditions that constitute the facts to be dealt with, suggestions arise of possible courses of action. Thus the person of our illustration thinks of surface cars, elevated trains, and the subway. These alternative suggestions compete with one another. By comparison he judges which alternative is best, which one is the more likely to give a satisfactory solution. The comparison takes place indirectly. The moment one thinks of a possible solution and holds it in suspense, he turns back to the facts. He has now a point of view that leads him to new observations and recollections and to a reconsideration of observations already made in order to test the worth of the suggested way out. Unless he uses the suggestion so as to guide to new observations instead of exercising suspended judgment, he accepts it as soon as it presents itself. Then he falls short of truly reflective thought. The newly noted facts may (and in any complex situation surely will) cause new suggestions to spring up. These become clues to further investigation of conditions. The results of this survey test and correct the proposed inference or suggest a new one. This continuous interaction of the facts disclosed by observation and of the suggested proposals of solution and the suggested methods of dealing with conditions goes on till some suggested solution meets all the conditions of the case and does not run counter to any discoverable feature of it.

Data and Ideas Are Correlative and Indispensable Factors in Reflection. A technical term for the observed facts is *data*. The data form the material

that has to be interpreted, accounted for, explained; or, in the case of deliberation as to what to do or how to do it, to be managed and utilized. The suggested solutions for the difficulties disclosed by observation form *ideas*. Data (facts) and ideas (suggestions, possible solutions) thus form the two indispensable and correlative factors of all reflective activity. The two factors are carried on by means respectively of *observation* (in which for convenience is included memory of prior observations of similar cases) and *inference*. The latter runs beyond what is actually noted, beyond what is found, upon careful examination, to be actually present. It relates, therefore, to what is *possible*, rather than to what is actual. It proceeds by anticipation, supposition, conjecture, imagination. All foresight, prediction, planning, as well as theorizing and speculation, are characterized by excursion from the actual into the possible. Hence (as we have already seen) what is inferred demands a double test: first, the process of forming the idea or supposed solution is checked by constant cross reference to the conditions observed to be actually present; secondly, the idea *after* it is formed is tested by *acting* upon it, overtly if possible, otherwise in imagination. The consequences of this action confirm, modify, or refute the idea.

We shall illustrate what has been said by a simple case. Suppose you are walking where there is no regular path. As long as everything goes smoothly, you do not have to think about your walking; your already formed habit takes care of it. Suddenly you find a ditch in your way. You think you will jump it (supposition, plan); but to make sure, you survey it with your eyes (observation), and you find that it is pretty wide and that the bank on the other side is slippery (facts, data). You then wonder if the ditch may not be narrower somewhere else (idea), and you look up and down the stream (observation) to see how matters stand (test of idea by observation). You do not find any good place and so are thrown back upon forming a new plan. As you are casting about, you discover a log (fact again). You ask yourself whether you could not haul that to the ditch and get it across the ditch to use as a bridge (idea again). You judge that idea is worth trying, and so you get the log and manage to put it in place and walk across (test and confirmation by overt action).

If the situation were more complicated, thinking would of course be more elaborate. You can imagine a case in which making a raft, constructing a pontoon bridge, or making a dugout would be the ideas that would finally come to mind and have to be checked by reference to conditions of action (facts). Simple or complicated, relating to what to do in a practical predicament or what to infer in a scientific or philosophic prob-

lem, there will always be the two sides: the conditions to be accounted for, dealt with, and the ideas that are plans for dealing with them or are suppositions for interpreting and explaining the phenomena.

In predicting an eclipse, for example, a multitude of observed facts regarding position and movements of earth, sun, and moon comes in on one side, while on the other side the ideas employed to predict and explain involve extensive mathematical calculations. In a philosophic problem, the facts or data may be remote and not susceptible of direct observation by the senses. But still there will be data, perhaps of science, or of morals, art, or the conclusions of past thinkers, that supply the subject matter to be dealt with and by which theories are checked. On the other side, there are the speculations that come to mind and that lead to search for additional subject matter which will both develop the proposed theories as ideas and test their value. Mere facts or data are dead, as far as mind is concerned, unless they are used to suggest and test some idea, some way out of a difficulty. Ideas, on the other hand, are *mere* ideas, idle speculations, fantasies, dreams, unless they are used to guide new observations of, and reflections upon, actual situations, past, present, or future. Finally, they must be brought to some sort of check by actual given material or else remain ideas. Many ideas are of great value as material of poetry, fiction, or the drama, but not as the stuff of knowledge. However, ideas may be of intellectual use to a penetrating mind even when they do not find any immediate reference to actuality, provided they stay in the mind for use when new facts come to light.

II
THE ESSENTIAL FUNCTIONS OF REFLECTIVE ACTIVITY

We now have before us the material for the analysis of a complete act of reflective activity. In the preceding chapter we saw that the two limits of every unit of thinking are a perplexed, troubled, or confused situation at the beginning and a cleared-up, unified, resolved situation at the close. The first of these situations may be called *pre*-reflective. It sets the problem to be solved; out of it grows the question that reflection has to answer. In the final situation the doubt has been dispelled; the situation is *post*-reflective; there results a direct experience of mastery, satisfaction, enjoyment. Here, then, are the limits within which reflection falls.

Five Phases, or Aspects, of Reflective Thought. In between, as states of thinking, are (1) *suggestions*, in which the mind leaps forward to a possible solution; (2) an intellectualization of the difficulty or perplexity

that has been *felt* (directly experienced) into a *problem* to be solved, a question for which the answer must be sought; (3) the use of one suggestion after another as a leading idea, or *hypothesis*, to initiate and guide observation and other operations in collection of factual material; (4) the mental elaboration of the idea or supposition as an idea or supposition (*reasoning*, in the sense in which reasoning is a part, not the whole, of inference); and (5) testing the hypothesis by overt or imaginative action.

We shall now take up the five phases, or functions, one by one.

The First Phase, *Suggestion*. The most "natural" thing for anyone to do is to go ahead; that is to say, to *act* overtly. The disturbed and perplexed situation arrests such direct activity temporarily. The tendency to continue *acting* nevertheless persists. It is diverted and takes the form of an idea or a suggestion. The *idea* of what to do when we find ourselves "in a hole" is a substitute for direct action. It is a vicarious, anticipatory way of acting, a kind of dramatic rehearsal. Were there only one suggestion popping up, we should undoubtedly adopt it at once. But where there are two or more, they collide with one another, maintain the state of suspense, and produce further inquiry. The first suggestion in the instance recently cited was to jump the ditch, but the perception of conditions inhibited that suggestion and led to the occurrence of other ideas.

Some inhibition of *direct* action is necessary to the condition of hesitation and delay that is essential to thinking. Thought is, as it were, conduct turned in upon itself and examining its purpose and its conditions, its resources, aids, and difficulties and obstacles.

The Second Phase, Intellectualization. We have already noted that it is artificial, so far as thinking is concerned, to start with a ready-made problem, a problem made out of whole cloth or arising out of a vacuum. In reality such a "problem" is simply an assigned *task*. There is not at first a situation *and* a problem, much less just a problem and no situation. There is a troubled, perplexed, trying situation, where the difficulty is, as it were, spread throughout the entire situation, infecting it as a whole. If we knew just what the difficulty was and where it lay, the job of reflection would be much easier than it is. As the saying truly goes, a question well put is half answered. In fact, we know what the problem *exactly* is simultaneously with finding a way out and getting it resolved. Problem and solution stand out *completely* at the same time. Up to that point, our grasp of the problem has been more or less vague and tentative.

A blocked suggestion leads us to reinspect the conditions that confront us. Then our uneasiness, the shock of disturbed activity, gets stated in

some degree on the basis of observed conditions, of objects. The width of the ditch, the slipperiness of the banks, not the mere presence of a ditch, is the trouble. The difficulty is getting located and defined; it is becoming a true problem, something intellectual, not just an annoyance at being held up in what we are doing. The person who is suddenly blocked and troubled in what he is doing by the thought of an engagement to keep at a time that is near and a place that is distant has the suggestion of getting there at once. But in order to carry this suggestion into effect, he has to find means of transportation. In order to find them he has to note his present position and its distance from the station, the present time, and the interval at his disposal. Thus the perplexity is more precisely located: just so much ground to cover, so much time to do it in.

The word "problem" often seems too elaborate and dignified to denote what happens in minor cases of reflection. But in every case where reflective activity ensues, there is a process of *intellectualizing* what at first is merely an *emotional* quality of the whole situation. This conversion is effected by noting more definitely the conditions that constitute the trouble and cause the stoppage of action.

The Third Phase, the Guiding Idea, Hypothesis. The first suggestion occurs spontaneously; it comes to mind automatically; it *springs* up; it "pops," as we have said, "into the mind"; it flashes upon us. There is no direct control of its occurrence; the idea just comes or it does not come; that is all that can be said. There is nothing *intellectual* about its occurrence. The intellectual element consists in *what we do with it*, how we use it, *after* its sudden occurrence as an idea. A controlled use of it is made possible by the state of affairs just described. In the degree in which we define the difficulty (which is effected by stating it in terms of objects), we get a better idea of the kind of solution that is needed. The facts or data set the problem before us, and insight into the problem corrects, modifies, expands the suggestion that originally occurred. In this fashion the suggestion becomes a definite supposition or, stated more technically, a *hypothesis.*

Take the case of a physician examining a patient or a mechanic inspecting a piece of complicated machinery that does not behave properly. There is something wrong, so much is sure. But how to remedy it cannot be told until it is known *what* is wrong. An untrained person is likely to make a wild guess—the suggestion—and then proceed to act upon it in a random way, hoping that by good luck the right thing will be hit upon. So some medicine that appears to have worked before or that a neighbor has recommended is tried. Or the person fusses, monkeys, with the machine, poking here and hammering there on the chance of making the right

move. The trained person proceeds in a very different fashion. He *observes* with unusual care, using the methods, the techniques, that the experience of physicians and expert mechanics in general, those familiar with the structure of the organism or the machine, have shown to be helpful in detecting trouble.

The idea of the solution is thus controlled by the diagnosis that has been made. But if the case is at all complicated, the physician or mechanic does not foreclose further thought by assuming that the suggested method of remedy is certainly right. He proceeds to act upon it tentatively rather than decisively. That is, he treats it as a guiding idea, a working hypothesis, and is led by it to make more observations, to collect more facts, so as to see if the *new* material is what the hypothesis calls for. He reasons that *if* the disease is typhoid, *then* certain phenomena will be found; and he looks particularly to see if *just* these conditions are present. Thus both the first and second operations are brought under control; the sense of the problem becomes more adequate and refined and the suggestion ceases to be a *mere* possibility, becoming a *tested* and, if possible, a *measured* probability.

The Fourth Phase, Reasoning (*in the Narrower Sense*). Observations pertain to what exists in nature. They constitute the facts, and these facts both regulate the formation of suggestions, ideas, hypotheses, and test their probable value as indications of solutions. The ideas, on the other hand, occur, as we say, in our heads, in our minds. They not only occur there, but are capable, as well, of great development there. Given a fertile suggestion occurring in an experienced, well-informed mind, that mind is capable of elaborating it until there results an idea that is quite different from the one with which the mind started.

. . . In more complex cases, there are long trains of reasoning in which one idea leads up to another idea known by previous test to be related to it. The stretch of links brought to light by reasoning depends, of course, upon the store of knowledge that the mind is already in possession of. And this depends not only upon the prior experience and special education of the individual who is carrying on the inquiry, but also upon the state of culture and science of the age and place. Reasoning helps extend knowledge, while at the same time it depends upon what is already known and upon the facilities that exist for communicating knowledge and making it a public, open resource.

A physician today can develop, by reasoning from his knowledge, the implications of the disease that symptoms suggest to him as probable in a way that would have been impossible even a generation ago; just as, on the other hand, he can carry his observation of symptoms much farther

because of improvement in clinical instruments and the technique of their use.

Reasoning has the same effect upon a suggested solution that more intimate and extensive observation has upon the original trouble. Acceptance of a suggestion in its first form is prevented by looking into it more thoroughly. Conjectures that seem plausible at first sight are often found unfit or even absurd when their full consequences are traced out. Even when reasoning out the bearings of a supposition does not lead to its rejection, it develops the idea into a form in which it is more apposite to the problem. Only when, for example, the conjecture that a pole was an index pole had been thought out in its implications could its particular applicability to the case in hand be judged. Suggestions at first seemingly remote and wild are frequently so transformed by being elaborated into what follows from them as to become apt and fruitful. The development of an idea through reasoning helps supply intervening or intermediate terms which link together into a consistent whole elements that at first seemingly conflict with each other, some leading the mind to one inference and others to an opposed one.

Mathematics as Typical Reasoning. Mathematics affords the typical example of how far can be carried the operation of relating ideas to one another, without having to depend upon the observations of the senses. In geometry we start with a few simple conceptions, line, angle, parallel, surfaces formed by lines meeting, etc., and a few principles defining equalities. Knowing something about the equality of angles made by parallel lines when they intersect a straight line, and knowing, by definition, that a perpendicular to a straight line forms two right angles, by means of a combination of these ideas we readily determine that the sum of the interior angles of a triangle is equal to two right angles. By continuing to trace the implications of theorems already demonstrated, the whole subject of plane figures is finally elaborated. The manipulation of algebraic symbols so as to establish a series of equations and other mathematical functions affords an even more striking example of what can be accomplished by developing the relation of ideas to one another.

When the hypothesis indicated by a series of scientific observations and experiments can be stated in mathematical form, that idea can be transformed to almost any extent, until it assumes a form in which a problem can be dealt with most expeditiously and effectively. Much of the accomplishment of physical science depends upon an intervening mathematical elaboration of ideas. It is not the mere presence of measurements in quantitative form that yields scientific knowledge, but that particular

kind of mathematical statement which can be developed by reasoning into other and more fruitful forms—a consideration which is fatal to the claim to scientific standing of many educational measurements merely because they have a quantitative form.

The Fifth Phase, Testing the Hypothesis by Action. The concluding phase is some kind of testing by overt action to give *experimental corroboration*, or *verification,* of the conjectural idea. Reasoning shows that *if* the *idea* be adopted, certain consequences follow. So far the conclusion is hypothetical or conditional. If when we look we find present all the conditions demanded by the theory, and if we find the characteristic traits called for by rival alternatives to be lacking, the tendency to believe, to accept, is almost irresistible. Sometimes direct observation furnishes corroboration, as in the case of the pole on the boat. In other cases, as in that of the bubbles, experiment is required; that is, *conditions are deliberately arranged in accord with the requirements of an idea or hypothesis to see whether the results theoretically indicated by the idea actually occur.* If it is found that the experimental results agree with the theoretical, or rationally deduced, results, and if there is reason to believe that *only* the conditions in question would yield such results, the confirmation is so strong as to induce a conclusion—at least until contrary facts shall indicate the advisability of its revision.

Of course, verification does not always follow. Sometimes consequences show failure to confirm instead of corroboration. The idea in question is refuted by the court of final appeal. But a great advantage of possession of the habit of reflective activity is that failure is not *mere* failure. It is instructive. The person who really thinks learns quite as much from his failures as from his successes. For a failure indicates to the person whose thinking has been involved in it, and who has not come to it by mere blind chance, what further observations should be made. It suggests to him what modifications should be introduced in the hypothesis upon which he has been operating. It either brings to light a new problem or helps to define and clarify the problem on which he has been engaged. Nothing shows the trained thinker better than the use he makes of his errors and mistakes. What merely annoys and discourages a person not accustomed to thinking, or what starts him out on a new course of aimless attack by mere cut-and-try methods, is a stimulus and a guide to the trained inquirer.

The Sequence of the Five Phases Is Not Fixed. The five phases, terminals, or functions of thought that we have noted do not follow one another in a set order. On the contrary, each step in genuine thinking does

something to perfect the formation of a suggestion and promote its change into a leading idea or directive hypothesis. It does something to promote the location and definition of the problem. Each improvement in the idea leads to new observations that yield new facts or data and help the mind judge more accurately the relevancy of facts already at hand. The elaboration of the hypothesis does not wait until the problem has been defined and adequate hypothesis has been arrived at; it may come in at any intermediate time. And as we have just seen, any particular overt test need not be final; it may be introductory to new observations and new suggestions, according to what happens in consequence of it.

There is, however, an important difference between test by overt action in practical deliberations and in scientific investigations. In the former the practical commitment involved in overt action is much more serious than in the latter. An astronomer or a chemist performs overt actions, but they are for the sake of knowledge; they serve to test and develop his conceptions and theories. In practical matters, the main result desired lies outside of knowledge. One of the great values of thinking, accordingly, is that it defers the commitment to action that is irretrievable, that, once made, cannot be revoked. Even in moral and other practical matters, therefore, a thoughtful person treats his overt deeds as experimental so far as possible; that is to say, while he cannot call them back and must stand their consequences, he gives alert attention to what they teach him about his conduct as well as to the nonintellectual consequences. He makes a problem out of consequences of conduct, looking into the causes from which they probably resulted, especially the causes that lie in his own habits and desires.

In conclusion, we point out that the five phases of reflection that have been described represent only in outline the indispensable traits of reflective thinking. In practice, two of them may telescope, some of them may be passed over hurriedly, and the burden of reaching a conclusion may fall mainly on a single phase, which will then require a seemingly disproportionate development. No set rules can be laid down on such matters. The way they are managed depends upon the intellectual tact and sensitiveness of the individual. When things have come out wrong, it is, however, a wise practice to review the methods by which the unwise decision was reached, and see where the misstep was made.

One Phase May Be Expanded. In complicated cases some of the five phases are so extensive that they include definite subphases within themselves. In this case it is arbitrary whether the minor functions are regarded as parts or are listed as distinct phases. There is nothing especially sacred

about the number five. For example, in matters of practical deliberation where the object is to decide what to do, it may be well to undertake a scrutiny of the underlying desires and motives that are operating; that is, instead of asking what ends and means will best satisfy one's wish, one may turn back to the attitudes of which the wish is the expression. It is a matter of indifference whether this search be listed as an independent problem, having its own phases, or as an additional phase in the original problem.

Reference to the Future and to the Past. Again, it has been suggested that reflective thinking involves a look into the future, a forecast, an anticipation, or a prediction, and that this should be listed as a sixth aspect, or phase. As a matter of fact, every intellectual suggestion or idea is anticipatory of some possible future experience, while the final solution gives a definite set toward the future. It is both a record of something accomplished and an assignment of a future method of operation. It helps set up an enduring habit of procedure. When a physician, for example, has diagnosed a case, he usually makes also a *prognosis*, a forecast, of the probable future course of the disease. And not only is his treatment a verification–or the reverse–of the idea or hypothesis about the disease upon which he has proceeded, but the result also affects his treatment of future patients. In some cases, the future reference may be so important as to require special elaboration. In this case, it may be presented as an added, distinct phase. Some of the investigations of an astronomical expedition to watch an eclipse of the sun may be directly intended, for example, to get material bearing on Einstein's theory. But the theory, itself, is so important that its confirmation or refutation will give a decided turn to the future of physical science, and this consideration is likely to be uppermost in the minds of scientists.

Of equal importance is the reference to the *past* involved in reflection. Of course, suggestions are dependent in any case upon one's past experience; they do not arise out of nothing. But while sometimes we go ahead with the suggestion without stopping to go back to the original experience of which it is the fruit, at other times we go consciously over the past experience in considerable detail as part of the process of testing the value of the suggestion.

For example, it occurs to a man to invest in real estate. Then he recalls that a previous investment of this kind turned out unfortunately. He goes over the former case, comparing it bit by bit with the present, to see how far the two cases are alike or unlike. Examination of the past may be the chief and decisive factor in thought. The most valuable reference to the

past is likely, however, to come at the time the conclusion is reached. We noted earlier the importance of a final survey to secure a net formulation of the exact result and of the premises upon which it logically depends. This is not only an important part of the process of *testing*, but, as was stated in the earlier discussion, is almost necessary if good habits are to be built up. Ability to *organize* knowledge consists very largely in the habit of reviewing previous facts and ideas and relating them to one another on a new basis; namely, that of the conclusion that has been reached. A certain amount of this operation is included in the testing phase that has been described. But its influence upon the attitude of students is so important that it may be well at times so to emphasize it that it becomes a definite function, or phase, on its own account.

THE PLACE OF JUDGMENT IN REFLECTIVE ACTIVITY

I
THREE FACTORS IN JUDGING

We have been dealing so far with the act of reflection as an entirety. There are subordinate unities within the process upon whose character the efficiency of the whole undertaking depends.

Judgments, the Constituent Units of Thought. From one point of view the whole process of thinking consists of making a series of judgments that are so related as to support one another in leading to a final judgment—the conclusion. In spite of this fact, we have treated reflective activity as a whole, first, because judgments do not occur in isolation but in connection with the solution of a problem, the clearing away of something obscure and perplexing, the resolution of a difficulty; in short, as units in reflective activity. The purpose of solving a problem determines what kind of judgments should be made. If I were suddenly to announce that it would take twenty-two and a half yards of carpet to cover a certain floor, it might be a perfectly correct statement, but as a *judgment* it would be senseless if it did not bear upon some question that had come up. Judgments need to be *relevant* to an issue as well as correct. Judging is the act of selecting and weighing the bearing of facts and suggestions as they present themselves, as well as of deciding whether the alleged facts are really facts and whether the idea used is a sound idea or merely a fancy. We may say, for short, that a person of sound judgment is one who, in the

idiomatic phrase, has "horse sense"; he is a good judge of *relative value;* he can estimate, appraise, evaluate, with tact and discernment.

It follows that the heart of a good habit of thought lies in the power to pass judgments *pertinently* and *discriminatingly*. We sometimes meet men with little schooling whose advice is greatly relied upon and who are spontaneously looked to when an emergency arises, men who are conspicuously successful in conducting vital affairs. They are the persons of sound judgment. A man of sound judgment in any set of affairs is an *educated* man as respects those affairs, whatever his schooling or academic standing. And if our schools turn out their pupils in that attitude of mind which is conducive to good judgment in any department of affairs in which the pupils are placed, they have done more than if they sent out their pupils possessed *merely* of vast stores of information or high degrees of skill in specialized branches.

The Features of Judgment. The significant traits of judgment may be gathered from a consideration of the operations to which the word *judgment* was originally applied; namely, the authoritative decision of matters in a legal controversy–the procedure of the *judge on the bench.* There are three such features: (1) a controversy, consisting of opposite claims regarding the same objective situation; (2) a process of defining and elaborating these claims and of sifting the facts adduced to support them; (3) a final decision, or sentence, closing the particular matter in dispute while also serving as a rule or principle for deciding future cases.

It Arises from Doubt and Controversy. (1) Unless there is something doubtful, the situation is read off at a glance; it is taken in on sight; *i.e.,* there is merely perception, recognition, not judgment. If the matter is wholly doubtful, if it is dark and obscure throughout, there is a blind mystery and again no judgment occurs. But if it suggests, however vaguely, different meanings, rival possible interpretations, there is some *point at issue,* some *matter at stake.* Doubt takes the form of discussion, of controversy within the mind. Different sides compete for a conclusion in their favor. Cases brought to trial before a judge illustrate neatly and unambiguously this strife of alternative interpretations; but any attempt to clear up intellectually a doubtful situation exemplifies the same traits. A moving blur catches our eye in the distance; we ask ourselves: "What is it? Is it a cloud of whirling dust? a tree waving its branches? a man signaling to us?" Something in the total situation suggests each of these possible meanings. Only one of them can possibly be correct; perhaps none of them is appropriate; yet *some* meaning the thing in question surely has.

Which of the alternative suggested meanings has the rightful claim? What does the perception really mean? How is it to be interpreted, estimated, appraised, placed? Every judgment proceeds from some such situation.

It Defines the Issue by Selecting Evidential Facts and Appropriate Principles. (2) The hearing of the controversy, the trial, the weighing of alternative claims, divides into two branches, either of which, in a given case, may be more conspicuous than the other. In the consideration of a legal dispute these two branches are sifting the evidence and selecting the rules that are applicable; they are "the facts" and "the law" of the case. In ordinary judgment they are (*a*) the determination of the data that are important in the given case, and (*b*) the elaboration of the conceptions or meanings suggested by the crude data. They are concerned with the two questions: (*a*) What portions or aspects of the situation are significant in controlling the formation of the interpretation? (*b*) Just what is the full meaning and bearing of the idea used as a method of interpretation? These questions are strictly correlative; the answer to each depends upon the answer to the other. We may, however, for convenience, consider them separately.

(*a*) *Selecting the Facts*. In every actual occurrence there are many details that are part of the total occurrence, but nevertheless are not significant in relation to the point at issue. All parts of an experience are equally present, but they are very far from being equally valuable as signs or as evidences. Nor is there any tag, or label, on any trait saying: "This is important" or "This is trivial." Nor is intensity, or vividness, or conspicuousness a safe measure of indicative and proving value. The glaring thing may be totally insignificant in this particular situation, and the key to the understanding of the whole matter may be modest or hidden. Features that are not significant are distracting; they insist upon their claim to be regarded as clues and cues to interpretation, while traits that are really significant do not appear on the surface at all. Hence, judgment is required *even in reference to the situation* or event that is present to the senses; elimination or rejection, selection, discovery, or bringing to light must take place. Till we have reached a final conclusion, rejection and selection must be tentative or conditional. We select the things that we hope or trust are cues to meaning. But if they do not suggest a situation that accepts and includes them, we reconstitute our data, the facts of the case; for we mean, intellectually, by the facts of the case *those traits that are used as evidence in reaching a conclusion or forming a decision.*

No hard and fast rules for this operation of selecting and rejecting, or fixing upon significant evidential facts, can be given. It all comes back, as

we say, to the good judgment, the good sense, of the one judging. To be a good judge is to have a sense of the relative indicative or signifying values of the various features of the perplexing situation; to know what to let go as of no account; what to eliminate as irrelevant; what to retain as conducive to the outcome; what to emphasize as a clue to the difficulty. This power in ordinary matters we call *knack, tact, cleverness;* in more important affairs, *insight, discernment*. In part it is instinctive or inborn, but it also represents the funded outcome of long familiarity with like operations in the past. Possession of this ability to seize what is evidential or significant and to let the rest go is the mark of the expert, the connoisseur, the *judge*, in any matter.

Mill cites the following case, which is worth noting as an instance of the extreme delicacy and accuracy to which may be developed this power of sizing up the significant factors of a situation.

> A Scotch manufacturer procured from England, at a high rate of wages, a working dyer, famous for producing very fine colors, with a view of teaching to his other workmen the same skill. The workman came; but his method of proportioning the ingredients, in which lay the secret of the effects he produced, was by taking them up in handfuls, while the common method was to weigh them. The manufacturer sought to make him turn his handling system into an equivalent weighing system, that the general principles of his peculiar mode of proceeding might be ascertained. This, however, the man found himself quite unable to do, and could therefore impart his own skill to nobody. He had, from individual cases of his own experience, established a connection in his mind between fine effects of color and tactual perceptions in handling his dyeing materials; and from these perceptions he could, in any particular case, *infer the means to be employed* and the effects which would be produced.

Long brooding over conditions, intimate contact associated with keen interest, thorough absorption in a multiplicity of allied experiences tend to bring about those judgments which we then call "intuitive"; but they are true judgments, because they are based on intelligent selection and estimation, with solution of a problem as the controlling standard. Possession of this capacity makes the difference between the artist and the intellectual bungler.

Such is ability to judge in its completest form. But in any case there is a certain feeling after the way to be followed; a tentative picking out of certain qualities to see what emphasis upon them would lead to; a willingness to hold final appraisal in suspense; willingness to reject the factors entirely or relegate them to a different position in the evidential scheme if

other features yield more solvent suggestions. Alertness, flexibility, curiosity are the essentials; dogmatism, rigidity, prejudice, caprice, arising from routine, passion, and flippancy are fatal.

(*b*) *Selecting the Principles*. This selection of data is, of course, for the sake of controlling the *development and elaboration of the suggested meaning in the light of which they are to be interpreted*. Evolution of conceptions thus goes on simultaneously with determination of the facts; one possible meaning after another is held before the mind, considered in relation to the data to which it is applied, is developed into its more detailed bearings, is dropped or tentatively accepted and used. We do not approach any problem with a wholly naïve or virgin mind; we approach it with certain acquired habitual modes of understanding, with a certain store of previously evolved meanings or at least of experiences from which meanings may be educed.

If a habit is checked, and so inhibited from easy application, a possible meaning for the facts in question comes to the mind. No hard and fast rules decide whether a meaning suggested is the right and proper meaning to follow up. The individual's own good (or bad) judgment is the guide. There is no label, on any given idea or principle, that says automatically, "Use me in this situation"–as the magic cakes of Alice in Wonderland were inscribed "Eat me." The thinker has to decide, to choose; and there is always a risk, so that the prudent thinker selects warily–subject, that is, to confirmation or frustration by later events. If one is not able to estimate wisely what is relevant to the interpretation of a given perplexing or doubtful issue, it avails little that arduous learning has built up a large stock of concepts. For learning is not wisdom; information does not guarantee good judgment. Memory may provide a refrigerator in which to store a stock of meanings for future use, but judgment selects and adopts the one to be used in an emergency–and without an emergency (some crisis, slight or great) there is no call for judgment. No conception, even if it is carefully and firmly established in the abstract, can at first safely be more than a *candidate* for the office of interpreter. Only greater success than that of its rivals in clarifying dark spots, untying hard knots, reconciling discrepancies can elect it and prove it to be a valid idea for the given situation. In short, thinking is a continual appraising of both data and ideas. Unless the pertinence and force of each seemingly evidential fact and seemingly explanatory idea is *judged*, appraised, the mind goes on a wild-goose chase.

It Terminates in a Decision. (3) The judgment when formed is a *decision;* it closes, or concludes, the question at issue. This determination not only settles that particular case, but it also helps fix a rule or method

for deciding similar matters in the future; as the sentence of the judge on the bench both terminates that dispute and also forms a precedent for future decisions. If the interpretation settled upon is not controverted by subsequent events, a presumption is built up in favor of similar interpretation in other cases where the features are not so obviously unlike as to make it inappropriate. In this way, principles of judging are gradually built up; a certain manner of interpretation gets weight, authority. In short, meanings get *standardized;* they become logical concepts.

II
ANALYSIS AND SYNTHESIS: THE TWO FUNCTIONS OF JUDGMENT

Through judging, confused data are cleared up, and seemingly incoherent and disconnected facts are brought together. The clearing up is *analysis*. The bringing together, or unifying, is *synthesis*. Things may have a peculiar feeling for us; they may make a certain indescribable impression upon us: the thing may *feel* round (that is, present a quality which we afterwards define as "round"); an act may seem rude; yet this impression, this quality, may be lost, absorbed, blended in the total situation. Only as we need to use just that aspect of the original situation as a tool of grasping something perplexing or obscure in another situation, do we detach the quality so that it becomes individualized. Only because we need to characterize the shape of some new object or the moral quality of some new act, does the element of roundness or rudeness in the old experience detach itself and so stand out as a distinctive feature. If the element thus selected clears up what is otherwise obscure in the new experience, if it settles what is uncertain, it thereby gains in positiveness and definiteness of meaning. This point will meet us again in the following chapter; here we speak of the matter only as it bears upon the question of analysis and synthesis.

Mental Analysis Is Not like Physical Division. Even when it is definitely stated that intellectual and physical analyses are different sorts of operations, intellectual analysis is often treated after the analogy of physical, as if it were the breaking up of a whole into all its constituent parts in the mind instead of in space. As nobody can possibly tell what breaking a whole into its parts in the mind means, this conception leads to the further notion that logical analysis is a mere enumeration and listing of all conceivable qualities and relations. The influence upon education of this conception has been very great. Every subject in the curriculum has passed through—or still remains in—what may be called the phase of "anatomi-

cal" or "morphological" method: the stage in which understanding the subject is thought to consist of multiplying distinctions of quality, form, relation, and so on, and attaching some name to each distinguished element. In normal growth, specific properties are emphasized and so individualized only when they serve to clear up a present difficulty. Only as they are involved in judging some specific situation is there any motive or use for analyses, for emphasis upon some element or relation as peculiarly significant.

The same putting the cart before the horse, the product before the process, is found in that overconscious formulation of methods of procedure so current in elementary instruction. The method that is employed in discovery, in reflective inquiry, cannot possibly be identified with the method that emerges *after* the discovery is made. In the genuine operation of inference, the mind is in the attitude of *search,* of *hunting,* of *projection,* of *trying this and that;* when the conclusion is reached, the search is at an end. The Greeks used to discuss: "How is learning (or inquiry) possible? For either we know already what we are after, and then we do not learn or inquire; or we do not know, and then we cannot inquire, for we do not know what to look for." The dilemma is at least suggestive, for it points to the true alternative: the use in inquiry of doubt, of tentative suggestion, of experimentation. After we have reached the conclusion, a reconsideration of the steps of the process to see what is helpful, what is harmful, what is merely useless assists in dealing more promptly and efficaciously with analogous problems in the future. In this way the method of *organizing* thought is built up.

Conscious Method and Unconscious Logical Attitude. The common assumption that, unless the pupil from the outset *consciously recognizes and explicitly states* the method logically implied in the result he is to reach, he will have *no* method and his mind will work confusedly or anarchically is fallacious. It is equally erroneous to believe that, if he accompanies his performance with conscious statement of some form of procedure (outline, topical analysis, list of headings and subheadings, uniform formula), his mind is safeguarded and strengthened. As a matter of fact, the gradual, largely unconscious, development of *logical attitude and habit* comes first. A conscious setting forth of the method logically adapted for reaching an end is possible only after the result has first been reached by unconscious and tentative methods. Such conscious setting forth of the method is valuable when a review of the method that achieved success in a given case will throw light upon a new similar case. The ability to fasten upon and single out (abstract, analyze) those features of one experience that are logically best is hindered by premature insistence

upon their explicit formulation. Repeated use is what gives a *method* definiteness; given this definiteness, precipitation into formulated statement should follow naturally. But because teachers find that the things that they themselves best understand are marked off and defined in clear-cut ways, our schoolrooms are pervaded with the superstition that children are to *begin* with crystallized formulas of method.

As analysis is conceived to be a sort of picking to pieces, so synthesis is thought to be a sort of physical piecing together. When it is so imagined, it too becomes a mystery. In fact, synthesis takes place wherever we grasp the bearing of facts on a conclusion or of a principle on facts. As analysis is *emphasis*, so synthesis is *placing;* the one causes the emphasized fact or property to stand out as significant; the other puts what is selected in its *context*, its connection with what is signified. It unites it with some other meaning to give both increased significance. When quicksilver was linked to iron, tin, etc., as a *metal*, all these objects obtained new intellectual value. Every judgment is analytic in so far as it involves discernment, discrimination, marking off the trivial from the important, the irrelevant from what points to a conclusion; and it is synthetic in so far as it leaves the mind with an inclusive situation within which selected facts are placed.

Analysis and Synthesis in Educational Procedure. Educational methods that pride themselves on being exclusively analytic or exclusively synthetic are (so far as they carry out their boasts) incompatible with normal operations of judgment. Discussions have taken place, for example, as to whether the teaching of geography should be analytic or synthetic. The synthetic method is supposed to begin with the partial, limited portion of the earth's surface already familiar to the pupil, and then gradually piece on adjacent regions (the county, the country, the continent, and so on) till an idea of the entire globe is reached, or of the solar system that includes the globe. The analytic method is supposed to begin with the physical whole, the solar system or globe, and to work down through its constituent portions till the immediate environment is reached. The underlying conceptions here deal with physical wholes and physical parts. As a matter of fact, we cannot assume that the portion of the earth already familiar to the child is such a definite object, mentally, that he can safely start with and from his present idea of it. His knowledge of it is misty and vague as well as incomplete. Accordingly, mental progress will involve analysis of *it*–emphasis of features that are significant till they will stand out clearly. Moreover, his own locality is not sharply marked off, neatly bounded, and measured. His experience of it is already an experience that involves sun, moon, and stars as parts of the scene he surveys; it involves a changing

horizon line as he moves about. In short, even his more limited and local experience involves far-reaching factors that take his imagination out beyond his own street and village. Connection, relationship with a larger whole, is already involved. But understanding of these relations is inadequate, vague, incorrect. He needs to define the features of the local environment in order to clarify and enlarge his conceptions of the larger geographical scene to which they belong. At the same time, not till he has grasped the larger scene will many of even the commonest features of his local environment become intelligible. Analysis leads to synthesis, while synthesis perfects analysis. As the pupil grows in comprehension of the vast complicated earth in its setting in space, he also sees more definitely the meaning of familiar local details. This intimate interaction between selective emphasis and interpretation through a context of what is selected is found wherever reflection proceeds normally. Hence the folly of trying to set analysis and synthesis over against each other.

Whenever we appraise, we both select and emphasize a particular quality or feature, and we link together things that, from an intellectual point of view, were previously separate. In appraising the value of land, the appraiser not only causes its monetary property to stand out, but he also places it in a scale of the land values of the whole community. Something of this sort happens in all judgment.

UNDERSTANDING: IDEAS AND MEANINGS

I
IDEAS AS SUGGESTIONS AND CONJECTURES

We see something moving, hear a sound unexpectedly, smell an unusual odor, and we ask: What is it? What does what we see, hear, smell *mean*? When we have found out what it signifies, a squirrel running, two persons conversing, an explosion of gunpowder, we say that we *understand*. To understand is to grasp meaning. Until we understand, we are, if we have curiosity, troubled, baffled, and hence moved to inquire. After we understand, we are, comparatively at least, intellectually at home. There is a time during our investigation when meaning is only suggested; when we hold it in suspense as a possibility rather than accept it as an actuality. Then the meaning is an *idea*. An idea thus stands midway between assured understanding and mental confusion and bafflement. While a meaning is *conditionally* accepted, accepted for use and trial, it is an idea,

a supposal. When it is *positively* accepted, some object or event is understood.

Ideas Are Elements in Judgments, Tools of Interpretation. An idea is thus not a unity like judgment, but rather a unit element in forming a judgment. We may compare a complete reflection to a paragraph; then the judgment is like a sentence in the structure of the paragraph, and an idea is like a word in the sentence. That ideas are necessary constituents of inference, we have already seen. Positive inference can be deferred and kept in process of development and test only while a meaning is *not* asserted and believed in. Moreover, ideas are indispensable to inference because they direct observations and regulate the collection and inspection of data. Without a guiding idea, facts would be heaped up like grains of sand; they would not be organized into intellectual unity. In discussing ideas we are not, accordingly, introducing a new topic, but are, as in the discussion of judgment, going into detail regarding an element in the whole already considered.

Let us take the instance of a blur in motion at a distance. We wonder what the *thing is;* that is, what the *blur means.* A man waving his arms, a friend beckoning to us are suggested as possibilities. To accept at once either alternative is to arrest judgment. But if we treat what is suggested as only a suggestion, a supposition, a possibility, it becomes an idea, having the following traits: (*a*) As merely a suggestion, it is a conjecture, a guess, which in cases of greater dignity we call a "hypothesis" or a "theory." That is to say, it is *a possible, but as yet doubtful, mode of interpretation.* (*b*) Even though doubtful, it has an office to perform; namely, that of directing inquiry and examination. If this blur means a friend beckoning, then careful observation should show certain other traits. If it is a man driving unruly cattle, certain other traits should be found. Let us look and see if these traits are found. Taken merely as a doubt, an idea would paralyze inquiry. Taken merely as a certainty, it would arrest inquiry. Taken as a doubtful possibility, it affords a standpoint, a platform, a method of inquiry.

Ideas, then, are not genuine ideas unless they are tools with which to search for material to solve a problem. Suppose it is desired that the pupil grasp *the idea* of the sphericity of the earth. This is different from teaching him its sphericity *as a fact.* He may be shown (or reminded of) a ball or a globe and be told that the earth is round like those things; he may then be made to repeat that statement day after day till the shape of the earth and the shape of the ball are welded together in his mind. But he has not thereby acquired an *idea* of the earth's sphericity; at most, he has had a

certain image of a sphere and has finally managed to image the earth after the analogy of his ball image. To grasp "sphericity" as an idea, the pupil must first have realized certain confusing features in observed facts and have had the idea of spherical shape suggested to him as a possible way of accounting for such phenomena as tops of masts being seen at sea after the hulls have disappeared, the shape of shadows of the earth in an eclipse, etc. Only by use as a method of interpreting data so as to give them fuller meaning does sphericity become a genuine idea. There may be a vivid image and no idea; or there may be a fleeting, obscure image and yet an idea, if that image performs the function of instigating and directing the observation and relation of facts.

Logical ideas are like keys that are shaped with reference to opening a lock. Pike, separated by a glass partition from the fish upon which they ordinarily prey, will—so it is said—butt their heads against the glass until it is literally beaten into them that they cannot get at their food. Animals learn (when they learn at all) by a "cut-and-try" method, by doing at random first one thing then another thing and continuing the things that happen to succeed. This procedure is followed by human beings when they do not operate on the basis of ideas, when they "monkey," to use a term derived from the random activity of one of the most intelligent of the lower animals. Action directed consciously by ideas—by suggested meanings accepted for the sake of experimenting with them—is the sole alternative both to bullheaded stupidity and to learning bought from that dear teacher—chance experience.

It is significant that many words for intelligence suggest the idea of circuitous, evasive activity—often with a sort of intimation of even moral obliquity. The bluff, hearty man goes straight (and stupidly, it is implied) at some work. The intelligent man is cunning, shrewd (crooked), wily, subtle, crafty, artful, designing—the idea of indirection is involved. An idea is a method of evading, circumventing, or surmounting through reflection obstacles that otherwise would have to be attacked by brute force. But ideas may lose their intellectual quality because of habitual use. When a child was first learning to recognize, in some hesitating suspense, cats, dogs, houses, marbles, trees, shoes, and other objects, ideas—conscious and tentative meanings—intervened as methods of identification. Now, as a rule, the thing and the meaning are so completely fused that there is no idea proper, but only automatic recognition. On the other hand, things which are so familiar, so known already, that they are recognized without an intervening idea may appear in an unusual context and give rise to a problem that necessitates intermediate ideas in order that the object be understood. For example, a person drawing a room will

be compelled to form a new idea of the corner of the room formed by the meeting of two walls and the ceiling, since now that corner has to be represented on a plane surface. A child has practical familiarity with squares and spheres in the context of daily life, as shapes of toys and utensils. But when they present themselves in a definitely geometrical connection, he is obliged to use mental effort to form ideas of them.

Ideas Are Logical Instruments, Not Psychic Compounds. It will be noted that an idea in its logical significance is something quite different from ideas as they are often treated in psychological texts. An idea, logically speaking, is not a faded perception of an object, nor is it a compound of a number of sensations. You would not get the peculiar meaning that is attached to, say, "chair" by having a mental picture of one. A savage might be able to form an image of poles and wires, and a layman of a complex scientific diagram. But unless the savage knew something about telegraphy, he would have no idea, or at least no correct idea, of the poles and wires, while the most accurate mental reproduction of the diagram would leave the layman totally without understanding of its meaning, and hence without an idea of it, even though he could list all *its* qualities one by one. The fact is that an idea, intellectually, cannot be defined by its structure, but only by its function and use. Whatever in a doubtful situation or undecided issue helps us to form a judgment and to bring inference to a conclusion by means of anticipating a possible solution is an idea, and nothing else is. It is an idea because of what it *does* in clearing up a perplexity or in harmonizing what is otherwise fragmentary, not because of its psychical make-up.

II
THINGS AND MEANINGS

An idea normally terminates in giving understanding, so that an event or thing acquires meaning. A thing understood, a thing with a meaning, is different from both an idea, which is a doubtful and still unattached meaning, and from a mere brute, physical thing. I can stumble against something in the dark and get hurt without any understanding of what the thing is. So far, it is *merely* a thing, a something or other. If I get a light and investigate, I learn that the thing is a stool, or a coal hod, or a log of firewood. Now it is a *known* object, a thing understood, a thing with a meaning–all three being synonymous expressions.

To Understand Is to Grasp Meaning. If a person comes suddenly into your room and calls out "Paper," various alternatives are possible. If you do not understand the English language, there is simply a noise that may

act as a physical stimulus or irritant. But the noise is not an intellectual object; it does not have intellectual value. It is the mere brute thing just spoken of. If, first, the cry is the usual accompaniment of the delivery of the morning paper, the sound will have meaning, intellectual content; you will understand it. Or if, second, you are eagerly awaiting the receipt of some important document, you may assume that the cry means an announcement of its arrival. If, third, you understand the English language, but no context suggests itself from your habits and expectations, the *word* has meaning, but not the whole event. You are then perplexed and incited to think out, to hunt for, some explanation of the apparently meaningless occurrence. If you find something that accounts for the performance, it gets meaning; you come to understand it. As intelligent beings, we presume the existence of meaning, and its absence is an anomaly. Hence, if it should turn out that the person merely meant to inform you that there was a scrap of paper on the sidewalk, or that paper existed somewhere in the universe, you would think him crazy or yourself the victim of a stupid joke. To grasp the meaning of a thing, an event, or a situation is to see it in its *relations* to other things: to note how it operates or functions, what consequences follow from it, what causes it, what uses it can be put to. In contrast, what we have called the brute thing, the thing without meaning to us, is something whose relations are not grasped.

Since all knowing, including all scientific inquiry, aims at clothing things and events with meaning–at understanding them–it always proceeds by taking the thing inquired into out of its isolation. Search is continued until the thing is discovered to be a related part in some larger whole. Thus a piece of rock may be understood by referring it to a sedimentary stratum known to have been formed under certain conditions, or a suddenly appearing light in the heavens may be understood when identified as the return of Halley's Comet. Suppose that the rock has peculiar markings on it. They may be contemplated purely esthetically, as curiosities. But they may arouse inquiry. If so, the resulting investigation will have for its purpose the removal of the apparent isolation, the non-connectedness, of the markings. Finally, they are explained as glacial scratches. They no longer stand alone. They have been brought into connection with a past era of the earth's history in which great masses of slow-moving ice descended into regions now temperate, carrying with them grit and rocks that ground and scratched other rocks imbedded in place.

Interaction of Two Modes of Understanding. In these illustrations two types of grasp of meaning have been exemplified. When the English

language is understood, the person grasps at once the meaning of "paper." He may not, however, see any meaning or sense in the performance as a whole. Similarly, the person identifies the object on sight as a stone; there is no secret, no mystery, no perplexity about that. But he does not understand the markings on it. They have some meaning, but what is it? In one case, owing to familiar acquaintance, the thing and its meaning, up to a certain point, are one; in the other, the thing and its meaning are, temporarily at least, sundered, and meaning has to be sought in order to understand the thing. In one case understanding is direct, prompt, immediate; in the other, it is roundabout and delayed.

Most languages have two sets of words to express these two modes of understanding; one for the direct taking in or grasp of meaning, the other for its circuitous apprehension, thus: γνῶναι and εἰδέναι in Greek; *noscere* and *scire* in Latin; *kennen* and *wissen* in German; *connaître* and *savoir* in French; while in English *to be acquainted with* and *to know of or about* have been suggested as equivalents.[7] Now, our intellectual life consists of a peculiar interaction between these two types of understanding. All judgment, all reflective inference, presupposes some lack of understanding, a partial absence of meaning. We reflect in order that we may get hold of the full and adequate significance of what happens. Nevertheless, *something* must be already understood, the mind must be in possession of some meaning that it has mastered, or else thinking is impossible. We think in order to grasp meaning, but nonetheless every extension of knowledge makes us aware of blind and opaque spots, where with less knowledge all had seemed obvious and natural. A scientist brought into a new district will find many things that he does not understand, while the native savage or rustic will be wholly oblivious to any meanings beyond those directly apparent. Some Indians brought to a large city remained stolid at the sight of mechanical wonders of bridge, trolley, and telephone, but were held spellbound by the sight of workmen climbing poles to repair wires. Increase of the store of meanings makes us conscious of new problems, while only through translation of the new perplexities into what is already familiar and plain do we understand or solve these problems. This is the constant spiral movement of knowledge.

Intellectual Progress a Rhythm. Our progress in genuine knowledge always consists *in part in the discovery of something not understood in what had previously been taken for granted as plain, obvious, matter-of-course, and in part in using meanings that are directly grasped as*

7. James, *Principles of Psychology*. To *know* and to *know that* are perhaps more precise equivalents; compare "I know him" and "I know *that* he has gone home." The former expresses a fact simply; for the latter, evidence might be demanded and supplied. [See *Great Books of the Western World* (Ed.).]

instruments for getting hold of obscure and doubtful meanings. No object is so familiar, so obvious, so commonplace that it may not unexpectedly present, in a novel situation, some problem, and thus arouse reflection in order to understand it. No object or principle is so strange, peculiar, or remote that it may not be dwelt upon till its meaning becomes familiar–taken in on sight without reflection. We may come to *see, perceive, recognize, grasp, seize, lay hold of* principles, laws, abstract truths–*i.e.,* to understand their meaning in an immediate fashion. Our intellectual progress consists, as has been said, in a rhythm of direct understanding–technically called *ap*prehension–with indirect, mediated understanding–technically called *com*prehension.

III
THE PROCESS BY WHICH THINGS ACQUIRE MEANING

The first problem that comes up in connection with direct understanding is how a store of directly recognized meanings is built up. How do we learn to view things on sight as significant members of a situation or as having, as a matter of course, specific meanings? Our chief difficulty in answering this question lies in the thoroughness with which the lesson of familiar things has been learned. Thought can more easily traverse an unexplored region than it can undo what has been so thoroughly done as to be ingrained in unconscious habit. We apprehend chairs, tables, books, trees, horses, clouds, stars, rain so promptly and directly that it is hard to realize that once these objects were mere brute things, as alien to our understanding as the sounds of the Choctaw language would be if we now suddenly heard them.

Vague Wholes Are Antecedent to Understanding. In an often quoted passage, Mr. James has said: "The baby, assailed by eyes, ears, nose, skin, and entrails at once, feels it all as one great blooming, buzzing confusion." [8] Mr. James is speaking of a baby's world taken as a whole; the description, however, is equally applicable to the way any new thing strikes an adult, so far as the thing is really new and strange. To the traditional "cat in a strange garret," everything is blurred and confused; the usual marks that label things so as to separate them from one another are lacking. Foreign languages that we do not understand always seem jabberings, babblings, in which it is impossible to fix a definite, clear-cut, individualized group of

8. *Principles of Psychology*. [See *Great Books of the Western World* (Ed.).]

sounds. The countryman in the crowded city street, the landlubber at sea, the ignoramus in sport at a contest between experts in a complicated game are instances. Put an unexperienced man in a factory, and at first the work seems to him a meaningless medley. All strangers of another race proverbially look alike to the visiting foreigner. Only gross differences of size or color are perceived by an outsider in a flock of sheep, each of which is perfectly individualized to the shepherd. A diffusive blur and indiscriminate shifting characterize what we do not understand. The problem of the acquisition of meaning by things, or (stated in another way) of forming habits of simple apprehension, is thus the problem of introducing (*a*) *definiteness,* or *distinction* and (*b*) *consistency, coherence, constancy,* or *stability* of meaning into what is otherwise vague and wavering.

Practical Responses Clarify the Vague. The acquisition of definiteness and of consistency of meanings is derived primarily from practical activities. By rolling an object, the child makes its roundness appreciable; by bouncing it, he singles out its elasticity; by lifting it, he makes weight its conspicuous distinctive factor. Not through the senses, but by means of the reaction, the responsive adjustment, is an impression given a character marked off from qualities that call out unlike reactions. Children, for example, are usually quite slow in apprehending differences in color. Differences from the standpoint of the adult so glaring that it is impossible not to note them are recognized and recalled by the young with great difficulty. Doubtless colors do not all *feel* alike, but there is no intellectual recognition of what constitutes the difference. The redness or greenness or blueness of the object does not call out a reaction that is sufficiently peculiar to give prominence or distinction to the color trait. Gradually, however, certain characteristic habitual responses associate themselves with certain things; the white becomes the sign, say, of milk and sugar, to which the child reacts favorably; blue becomes the sign of a dress that the child likes to wear, and so on; and the distinctive reactions tend to single out color qualities from other things in which they had been submerged.

Take another example. We have little difficulty in distinguishing from one another rakes, hoes, plows and harrows, shovels and spades. Each has its own associated characteristic use and function. A student of botany or chemistry may have, however, great difficulty in recalling the difference between serrate and dentate, ovoid and obovoid, in the shapes and edges of leaves, or between acids in *ic* and in *ous.* There is some difference; but just what? Or, he knows what the difference is; but which is which?

Variations in form, size, color, and arrangement of parts have much less to do, and the uses, purposes, and functions of things and of their parts much more to do, with distinctness of character and meaning than we should be likely to think. What misleads us is the fact that the qualities of form, size, color, and so on, are *now* so distinct that we fail to see that the problem is precisely to account for the way in which they originally obtained their definiteness and conspicuousness. As long as we sit passive before objects, they are not distinguished out of the vague blur that swallow's them all. Differences in the pitch and intensity of sounds leave behind a different feeling, but until we assume different attitudes toward them, or *do* something special in reference to them, their vague difference cannot be *intellectually* gripped and retained.

Illustrations from Drawing and Language. Children's drawings afford a further exemplification of the same principle. Perspective does not exist, for the child's interest is not in *pictorial representation*, but in the *values* of the things represented; and while perspective is essential to the former, it is no part of the characteristic use and function of the things themselves. The house is drawn with transparent walls, because the rooms, chairs, beds, people inside are the important things in the house meaning; smoke always comes out of the chimney–otherwise, why have a chimney at all? At Christmas time, the stockings may be drawn almost as large as the house or even so large that they have to be put outside of it–in any case, it is the scale of values in use that furnishes the scale for their qualities. The drawings are diagrammatic reminders of these values, not impartial records of physical and sensory qualities. One of the chief difficulties felt by most persons in learning the art of pictorial representation is that habitual uses and results of use have become so intimately read into the character of things that it is practically impossible to shut them out at will.

The acquiring of meaning by sounds, in virtue of which they become words, is perhaps the most striking illustration that can be found of the way in which mere sensory stimuli acquire definiteness and constancy of meaning and are thereby themselves defined and interconnected for purposes of recognition. Language is a specially good example because there are hundreds or even thousands of words in which meaning is now so thoroughly consolidated with physical qualities as to be directly understood. In the case of words it is easier to recognize that this connection has been gradually and laboriously acquired than in the case of physical objects, such as chairs, tables, buttons, trees, stones, hills, flowers, and so on, where it seems as if the union of intellectual meaning with physical fact were aboriginal. It now seems to be thrust upon us rather than

acquired through active explorations. But in the case of the meaning of words, we see readily that it is by making sounds and noting the results that follow, by listening to the sounds of others and watching the activities that accompany them, that a given sound finally becomes the stable bearer of a meaning.

Meaning and Context. In the case of the meaning of words, we are aware by watching children and by our own experience in learning French or German that happenings, like sounds, which originally were devoid of significance acquire meaning by use, and that this use always involves a *context.* With children just learning to understand and use speech, the context is largely that of objects and acts. A child associates *hat* with putting something on his head when he is going outdoors; *drawer* with pulling something out of a table, etc. Single words, because of the direct presence of a context of actions performed with objects, then have the force that complete sentences have to an older person. Gradually other words that originally gained meaning by use in a context of overt actions become capable of supplying the context, so that the mind can dispense with the context of things and deeds. Speaking in sentences marks obviously a *linguistic* gain. But the more important matter is that it shows a person has made a great *intellectual* advance. He can now think by putting together verbal signs of things that are not present to the senses and are not accompanied by any overt actions on his part. As he understands similar combinations made by others, he has a new resource that extends his otherwise narrow personal experience indefinitely. When he learns to read, arbitrary marks on paper acquire meaning for him, and he gains possession of the means of still further extending his experience so as to include what others, far remote from him in space and time, have experienced.

As was indicated a short time ago, it is not easy to grasp the fact that things had at first no significance in our experience, and that significance was acquired in their case, as in that of sounds, by entering into a context of use, by bringing help and enjoyment to us—articles of food, furniture, and wearing apparel—or by bringing harm and suffering—like fire approached too closely, pins that scratch, hammers that hit fingers instead of nails.

Take, for example, a little spark of light appearing at night in the heavens, and compare the original mere sight of it with the discriminating and extensive knowledge of it that the expert astronomer has. He identifies it, say, as planet, asteroid, satellite, or fixed star that is the sun of some other system. Each one of these things carries an immense store of mean-

ings with it—distance, rate of movement, chemical composition, indeed all the things that one finds in a bulky volume upon astronomy. The change from a mere spark to an immensely significant object illustrates the acquisition of meaning which has taken place in the case of everything that we understand or know. It illustrates also the fact that the acquisition of ability to understand (which is the same as the acquisition of significance by things) is immensely furthered by language and by elaboration of a series of meanings and through reasoning. This latter process is itself dependent upon possession of some kind of linguistic sign system—for we must remember that mathematical symbols are also a kind of language.

The Means-Consequence Relation and Its Educational Significance. We may sum up by stating that things gain meaning when they are used as *means to bring about consequences* (or as means to prevent the occurrence of undesired consequences), or as standing for *consequences* for which we have to discover *means*. The relation of *means-consequence* is the center and heart of all understanding. The operations by which things become understood as chairs, tables, shoes, hats, food illustrate the means-consequence relation from the "means" side. The relation beginning with the "consequence," or result-sought, side is illustrated in any invention. Edison thought of producing light by the use of electricity; he then had to discover the conditions of things and relations that would produce it—the means for it. The same obtained with Langley and the Wright brothers after they conceived the idea, as a desired end, of a machine to fly in the air. It is illustrated in all cases of ordinary planning. We think of something needful or desirable, and then we have to seek out materials and methods for bringing it to pass. Every time we have to solve a problem of this kind, things enter into the means-consequence relation and in doing so take on added meaning, just as carbon filaments obtained a new significance through the production of electric light, and as gasoline, once almost a waste by-product, secured new meaning when the internal-combustion engine was invented.

The educational bearing of this principle is almost too obvious for mention. One of the chief causes for failure in school to secure that gain in ability to understand that is a precious educational result is the neglecting to set up the conditions for active use as a means in bringing consequences to pass—the neglecting to provide projects that call out the inventiveness and ingenuity of pupils in proposing aims to realize, or finding means to realize, consequences already thought of. All routine and all externally dictated activity fail to develop ability to understand, even though they promote skill in external doing. Too many so-called "problems," in reality

assigned tasks, call at best simply for a kind of mechanical dexterity in applying set rules and manipulating symbols. In short, there is a challenge to understanding only when there is either a desired consequence for which means have to be found by inquiry, or things (including symbols in the degree in which experience has matured) are presented under conditions where reflection is required to see what consequences can be effected by their use.

It is assumed too frequently that subject matter is understood when it has been stored in memory and can be reproduced upon demand. The net outcome of our discussion is that nothing is really known except in so far as it is understood.

UNDERSTANDING: CONCEPTION AND DEFINITION

I
THE NATURE OF CONCEPTIONS

In the preceding chapter we discussed meaning from two points of view, and we suggested a third aspect of it that we shall consider more fully in this chapter. The two aspects that were discussed were (1) meaning as doubtful, as a hypothetical possibility; in short as an *idea* (which, as was pointed out, is not a mere psychological complex but is an object or situation that has a status of being *supposed* instead of being accepted), and (2) meaning as a property of things and events. It was shown in that connection how things *acquire* meaning and how finally meaning is so consolidated with a thing that we do not dream of separating the thing from its significance.

They Are Established Meanings. The aspect of meaning that was indicated in passing is the fact that an idea, after it has been used as a guide to observation and action, may be confirmed and so acquire an accepted status on its own behalf. Afterwards it is employed, not tentatively and conditionally, but with assurance as an instrumentality of understanding and explaining things that are still uncertain and perplexing. These established meanings, taken to be secure and warranted, are *conceptions*. They are means of judgment because they are *standards of reference*. They may be best described as "standardized meanings." Every common noun that is familiar and so well understood in itself that it can be used to judge other things expresses a concept. Table, stone, sunset, grass, animal, moon, and on through the list of common nouns that are solid and dependable,

are concepts in their meaning. We see an object that looks strange; we are told that it is the kind of bed used by a certain folk. The thing in question is no longer unfamiliar in meaning; to us its significance is settled.

They Enable Us to Generalize. Concepts enable us to *generalize*, to extend and carry over our understanding from one thing to another. If we know what "bed" means in general, we at least can tell what *kind* or what *sort* of thing the individual thing is. It is plain that conceptions, since they represent the whole class or set of things, economize our intellectual efforts tremendously. Sometimes of course we are especially interested in the peculiar traits of an object, in what is unique about it, what makes it an *individual*. But for practical purposes it is often enough to know what *kind* of thing it is; knowing that fact, we can bring into play the habits of thought and behavior that belong to every member of the entire class. The concept calls into play whatever is appropriate to a large number of cases previously known, thus freeing thought from preoccupation with finding out what *this* is.

They Standardize Our Knowledge. Conceptions *standardize* our knowledge. They introduce solidity into what would otherwise be formless, and *permanence* into what would otherwise be shifting. If pounds arbitrarily changed their weight and foot rules their length while we were using them, weighing and measuring would, obviously, amount to nothing. What would it signify to say that a piece of cloth was a yard and a half wide, or that a bulk of sugar weighed twenty pounds? The standard of reference must remain the same to be of any use. The concept signifies that a meaning has been stabilized and remains the same in different contexts. Sometimes when persons are discussing a controversial matter, the argument gets confused and the debaters misled because, as they go along, they unconsciously shift the meanings of the terms they use. Reflection and new discoveries may, to be sure, change the meaning of an old concept, just as people may change from the foot-pound system of measurement to the metric system. But they should know what they are about and deliberately note that they are using a changed meaning unless they are to get hopelessly mixed up.

When persons are said to have come to an understanding with each other, it is meant that they have arrived at an *agreement* or *settlement* of some affair or issue that has been under discussion between them. This fact indicates that standardized and stable meanings are a condition of effective communication. When two persons speak languages that are not mutually understood, they can still communicate to some extent, provided there are gestures which have *identical meanings for both parties*. Indeed,

the social necessity of meanings that are the same for two persons in spite of differences in their experiences and their conditions of life is one of the chief forces in standardizing meanings. After they are socially stabilized, an individual has the ability to keep his own thinking steady because some of his thoughts remain constant in what they refer to; "chair" always signifies the same; so do "sun," "water," "earth," etc. Each of our entire list of common nouns always refers to the same objects, in spite of differences of place, time, and other conditions of experience.

They Help Identify the Unknown and Supplement the Sensibly Present. Stating the matter somewhat differently, conceptions, or standard meanings, are instruments of (*a*) identification, (*b*) supplementation, and (*c*) placing an object in a system. Suppose a little speck of light hitherto unseen is detected in the heavens. Unless there is a store of meanings to fall back upon in reasoning, that speck of light will remain just what it is to the senses—a mere speck of light. For all that it leads to intellectually, it might as well be a mere irritation of the optic nerve. Given, however, the stock of meanings built up in prior experience, this speck of light is mentally attacked by means of appropriate concepts. Does it indicate asteroid, or comet, or a new-forming sun, or a nebula resulting from some cosmic collision or disintegration? Each of these conceptions has its own specific and differentiating characters, which are then sought for by minute and persistent inquiry. As a result, then, the speck is identified, we will say, as a comet. Through a standard meaning it gets identity and stability of character. Supplementation then takes place. All the known qualities of comets are read into this particular thing, even though they have not been as yet observed. All that the astronomers of the past have learned about the paths and structure of comets becomes available capital with which to interpret the speck of light. Finally, this comet meaning is, itself, not isolated; it is a related portion of the whole system of astronomic knowledge. Suns, planets, satellites, nebulae, comets, meteors, star dust—all these conceptions have a certain mutuality of reference and interaction, and when the speck of light is identified as meaning a comet, it is at once adopted as a full member in this vast kingdom of beliefs.

Darwin, in an autobiographical sketch, says that when a youth he told the geologist Sidgwick of finding a tropical shell in a certain gravel pit. Thereupon Sidgwick said it must have been thrown there by some person, adding: "But if it were really embedded there, it would be the greatest misfortune to geology, because it would overthrow all that we know about the superficial deposits of the Midland Counties"—since these were glacial. And then Darwin adds: "I was then utterly astonished at Sidgwick not

being delighted at so wonderful a fact as a tropical shell being found near the surface in the middle of England. Nothing before had made me thoroughly realize *that science consists in grouping facts so that general laws or conclusions may be drawn from them*." This instance (which might, of course, be duplicated from any branch of science) indicates how scientific notions make explicit the systematizing tendency involved in all use of concepts.

The Educational Significance of Concepts. It follows that it would be impossible to overestimate the educational importance of arriving at conceptions: that is, of meanings that are *general* because applicable in a great variety of different instances in spite of their difference; that are constant, uniform, or self-identical in what they refer to, and that are standardized, known points of reference by which to get our bearings when we are plunged into the strange and unknown.

Young children cannot of course acquire and employ the same conceptions that persons of riper experience use. But at *every* stage of development, each lesson, in order to be educative, should lead up to a certain amount of conceptualizing of impressions and ideas. Without this conceptualizing or intellectualizing, nothing is gained that can be carried over to the better understanding of new experiences. The *deposit* is what counts, educationally speaking. No amount of transient interest, however absorbing and exciting it may be, can compensate for failure to achieve an intellectual deposit.

The very importance of concepts has led, however, to great mistakes in the conduct of teaching. What we earlier termed the false use of the "logical" had its roots in the belief that somehow definite and general meanings, or concepts, can be presented to pupils and absorbed by them *ready-made*, thus promoting the rapidity and efficiency of acquisition of knowledge. In consequence, failure to observe the conditions that are essential for the formation of conceptions left most pupils with only *verbal* formulas. Concepts were often presented that were so remote from the understanding and experience of students as to be positively confusing in their artificiality.

The reaction of education in experimental schools against the arbitrary imposition of indigestible material has often, however, been a reaction to the opposite extreme. A variety of worthwhile experiences and activities with real materials is introduced, but pains are not taken to make sure that the activities terminate in that which makes them *educationally* worthwhile, as distinct from an agreeable passing of the time–namely, the achievement of a fairly definite *intellectualization* of the experience. This

intellectualization is the deposit of an *idea* that is both definite and general. Education in its intellectual aspect and getting an idea from what is experienced are synonymous. What does having an experience amount to unless, as it ceases to exist, it leaves behind an increment of meaning, a better understanding of something, a clearer future plan and purpose of action: in short, an idea? With respect to teaching there is no more important topic than the question of the way in which genuine concepts are formed. To that question we now turn.

II
HOW CONCEPTIONS ARISE

They Are Not Formed by Extracting Common Traits from Ready-Made Objects. It is convenient in discussing this question to begin with the negative side, with the mistaken character of some current beliefs about the way in which conceptions come into existence. They are *not* derived by taking a number of things, each of which is already well understood and definite in meaning, and then comparing them one with another, point by point, till all different qualities are excluded and there remains a core of what is common to all. The origin of concepts is sometimes described to be as if a child began with a lot of different particular things, say particular dogs: his own Fido, his neighbor's Carlo, his cousin's Tray. Having all these different objects before him, he analyzes them into a lot of different qualities, say (*a*) color, (*b*) size, (*c*) shape, (*d*) number of legs, (*e*) quantity and quality of hair, (*f*) foods eaten, and so on; and then strikes out all the unlike qualities (such as color, size, shape, hair), retaining traits, such as quadruped and domesticated, which they all have in common.

They Begin with Experiences. As a matter of fact, the child begins with whatever significance he has got out of some one dog he has seen, heard, and played with. He carries over from his experience of this one object to his subsequent experiences expectations of characteristic modes of behavior: he expects them before they show themselves. He assumes this attitude of anticipation whenever an object gives him any excuse for it. Thus he may call cats "little dogs" or horses "big dogs." But finding that other expected traits and modes of behavior are not fulfilled, he is forced to throw out certain traits from the dog meaning, while by contrast some other traits are selected and emphasized. As he further applies the meaning to other animals, the dog meaning gets still further defined and refined. He does not begin with a lot of ready-made objects from which he

extracts a common meaning; he tries to apply in every new experience whatever result of his old experience will help him understand and deal with it.

They Become More Definite with Use. It is not true that the child's idea of each individual dog is clear and definite to begin with, and that his own dog is perceived by him with its full equipment of distinct qualities. Rather his original idea of Fido is vague and pulpy, wavering, as long as Fido is the only dog (and much more so if the only animal) he knows. By observing the family cat, he is led to discriminate the particular qualities that characterize each of them. As he makes acquaintance with other animals, the horse, pig, etc., the definite properties that belong to a dog are still further demarcated. Thus, even without much comparison with other *dogs,* a dog concept is gradually built up. In just the extent to which he is aware of the qualities that make his Fido a *dog*, rather than a cat, horse, or any other animal, he has a standardized point of reference for assimilating and sorting out other animals as he makes acquaintance with them. During the whole process he has been trying to fit his idea, vague or definite according to his stage of experience, on all animals that are at all similar to dogs, applying it when he can, becoming aware of differences whenever it won't fit. By these processes, his idea gets body, steadiness, distinction; it becomes a concept.

They Become General with Use. By the same processes, a vague, more or less formless idea acquires *generality*. Conceptions, that is to say, are general because of use and application, not because of their ingredients. The view that a conception originates in an impossible sort of analysis has its counterpart in the idea that it is made up out of all the like elements that remain after dissection of a number of individuals. Not so; the moment a meaning is gained, it is a working tool of further apprehensions, an instrument of understanding other things. Thereby the meaning is *extended* as well as defined. Generality resides in application to the comprehension of new cases, not in the constituent parts of a notion. A collection of traits left as the common residuum, the *caput mortuum* of a million objects, would be merely a collection, an inventory or aggregate, not a *general idea.* Any striking trait emphasized in an experience that afterward serves as an aid in understanding some other experience becomes, in virtue of that application, in so far general.

What has just been said may be compared with the earlier statements about analysis and synthesis. The analysis that results in giving an idea the solidity and definiteness of a concept is simply emphasis upon that which gives a clue for dealing with some uncertainty. If a child identifies a

dog seen at a distance by the way in which the animal wags its tail, then that particular trait, which may never have been *consciously* singled out before, becomes distinct–it is analyzed out of its vague submergence in the animal as a whole. The only difference between such a case and the analysis effected by a scientific inquirer in chemistry or botany is that the latter is alert for clues that will serve for the purpose of sure identification in the *widest possible area* of cases; he wants to find the signs by which he can identify an object as one of a definite kind or class even should it present itself under very unusual circumstances and in an obscure and disguised form. The idea that the selected trait is already plain to the mind and then is merely isolated from other traits equally definite puts the cart before the horse. It is selection as evidence or as a clue that gives a trait distinctness it did not possess before.

Synthesis is the operation that gives extension and generality to an idea, as analysis makes the meaning distinct. Synthesis is correlative to analysis. As soon as any quality is definitely discriminated and given a special meaning of its own, the mind at once looks around for other cases to which that meaning may be applied. As it is applied, cases that were previously separated in meaning become assimilated, identified, in their significance. They now belong to the same *kind* of thing. Even a young child, as soon as he masters the meaning of a word, tries to find occasion to use it; if he gets the idea of a cylinder, he sees cylinders in stovepipes, logs, etc. In principle this is not different from Newton's procedure in the story about the origin in his mind of the concept of gravitation. Having the idea suggested by the falling of an apple, he at once extended it in imagination to the moon as something also tending to fall towards the earth, and then to the movements of the planets in relation to the sun, to the movement of the ocean in the tides, etc. In consequence of this application of an idea that was discriminated, made definite in some one case, to other events, a large number of phenomena that previously were believed to be disconnected from one another were integrated into a consistent system. In other words, there was a comprehensive synthesis.

It would be a great mistake, however, as just indicated, to confine the idea of synthesis to important cases like Newton's generalization. On the contrary, when anyone carries over any meaning from one object to another object that had previously seemed to be of a different kind, synthesis occurs. It is synthesis when a lad associates the gurgling that takes place when water is poured into what he had thought was an empty bottle with the existence and pressure of air; when he learns to interpret the siphoning of water and the sailing of a boat in connection with the

same fact. It is synthesis when things themselves as different as clouds, meadow, brook, and rocks are so brought together as to be composed into a picture. It is synthesis when iron, tin, and mercury are conceived to be of the same kind in spite of individual differences.

III
DEFINITION AND ORGANIZATION OF MEANINGS

The Harmful Consequences of Vagueness. A being that cannot understand at all is at least protected from *mis*-understandings. But beings that get knowledge by means of inferring and interpreting, by judging what things signify in relation to one another, are constantly exposed to the danger of *mis*-apprehension, *mis*-understanding, *mis*-taking–taking of a thing amiss. A constant source of misunderstanding and mistake is indefiniteness of meaning. Because of vagueness of meaning we misunderstand other people, things, and ourselves; because of ambiguity we distort and pervert. Conscious distortion of meaning may be enjoyed as nonsense; erroneous meanings, if clear-cut, may be followed up and got rid of. But vague meanings are too gelatinous to offer matter for analysis and too pulpy to afford support to other beliefs. They evade testing and responsibility. Vagueness disguises the unconscious mixing together of different meanings, and facilitates the substitution of one meaning for another, and covers up the failure to have any precise meaning at all. It is the aboriginal logical sin–the source from which flow most bad intellectual consequences. Totally to eliminate indefiniteness is impossible; to reduce it in extent and in force requires sincerity and vigor.

Meaning as Intension and as Extension. To be clear or perspicuous, a meaning must be detached, single, self-contained, homogeneous as it were, throughout. The technical name for any meaning that is thus individualized is *intension*. The process of arriving at such units of meaning (and of stating them when reached) is *definition*. The intension of the terms "man," "river," "honesty," "supreme court" is the meaning that *exclusively* and *characteristically* attaches to those terms. This meaning is set forth in *definition* of these units of meaning.

The test of the distinctness of a meaning is that it successfully marks off a group of things that exemplify the meaning from other groups, especially from those objects that convey nearly allied meanings. The river meaning (or character) must serve to *designate* the Rhone, the Rhine, the Mississippi, the Hudson, the Wabash, in spite of their varieties of place, length,

quality of water; and must be such as *not* to suggest ocean currents, ponds, or brooks. This use of a meaning to mark off and group together a variety of distinct existences constitutes its *extension.*

As definition sets forth intension, so division (or the reverse process, classification) expounds extension. Intension and extension, definition and division, are clearly correlative; in language previously used, *intension* is meaning as a principle of identifying particulars; extension is the group of particulars identified and distinguished. Meaning, as extension, would be wholly in the air or unreal did it not point to some object or group of objects; while objects would be as isolated and independent intellectually as they seem to be spatially were they not bound into groups or classes on the basis of characteristic meanings they suggest and exemplify in a uniform way.

Together, definition and division put us in possession of definite meanings and also indicate the group of objects to which they refer, the *kind* of things indicated and its various subclasses. They typify the fixation and the organization of meanings. In the degree in which the meanings of any set of experiences are so cleared up as to serve as principles for grouping those experiences in relation to one another, that set of particulars becomes a science; *i.e.*, definition and classification are the marks of a science, as distinct from unrelated heaps of miscellaneous information and from habits that introduce coherence into our experience without our being aware of their operation.

Three Types of Definitions. Definitions are of three types, *denotative, expository, scientific.* Of these, the first and third are logically important, while the expository type is socially and pedagogically important as an intervening step.

(*a*) *Denotative*. A blind man can never have an adequate understanding of the meaning of *color* and *red;* a seeing person can acquire the knowledge only by having certain things designated in such a way as to fix attention upon some of their qualities. This method of delimiting a meaning by calling out a certain attitude toward objects may be called *denotative*, or *indicative*. It is required for all sense qualities—sounds, tastes, colors—and equally for all emotional and moral qualities. The meanings of "honesty," "sympathy," "hatred" must be grasped by having them presented in an individual's firsthand experience. The reaction of educational reformers against linguistic and bookish training has always taken the form of demanding recourse to personal experience. However advanced the person is in knowledge and in scientific training, understanding of a

new subject, or of a new aspect of an old subject, must always be through acts of experiencing directly or in imagination the existence of the quality in question.

(*b*) *Expository*. Given a certain store of meanings that have been directly or denotatively marked out, language becomes a resource by which imaginative combinations and variations may be built up. A color may be defined to one who has not experienced it as lying between green and blue; a tiger may be defined (*i.e*., the idea of it made more definite) by selecting some qualities from known members of the cat tribe and combining them with ideas of size and weight derived from other objects. Illustrations are of the nature of expository definitions; so are the accounts of meanings given in a dictionary. By taking better-known meanings and associating them, the attained store of meanings of the community in which one resides is put at one's disposal. But in themselves these definitions are secondhand and conventional; there is danger that instead of inciting one to effort after personal experiences that will exemplify and verify them, they will be accepted on authority as *substitutes* for direct observation and experiment.

(*c*) *Scientific*. Even popular definitions serve as rules for identifying and classifying individuals, but the purpose of such identifications and classifications is mainly practical and social, not intellectual. To conceive the whale as a fish does not interfere with the success of whalers, nor does it prevent recognition of a whale when seen, while to conceive it not as a fish but as a mammal serves the practical end equally well, and also furnishes a much more valuable principle for scientific identification and classification. Popular definitions select certain fairly obvious traits as keys to classification. Scientific definitions select *conditions of causation*, *production*, *and generation* as their characteristic material. The traits used by the popular definition do not help us to understand why an object has its common meanings and qualities; they simply state the fact that it does have them. Causal and genetic definitions settle on the way an object is constructed as giving the key to its belonging to a certain *kind* of objects. They explain why it has its class or common traits on the basis of its manner of production.

If, for example, a layman of considerable practical experience were asked what he meant or understood by *metal*, he would probably reply in terms of the qualities useful in recognizing any given metal and in the arts. Smoothness, hardness, glossiness, and brilliancy, heavy weight for its size would probably be included in his definition, because such traits enable us to identify specific things when we see and touch them; the

serviceable properties of capacity for being hammered and pulled without breaking, of being softened by heat and hardened by cold, of retaining the shape and form given, of resistance to pressure and decay would probably be included–whether or not such terms as "malleable" or "fusible" were used. Now a scientific conception, instead of using, even with additions, traits of this kind, determines meaning on a different basis. The present definition of metal is about like this: Metal means any chemical element that enters into combination with oxygen so as to form a base; *i.e.*, a compound that combines with an acid to form a salt. This scientific definition is founded, not on directly perceived qualities nor on directly useful properties, but on the *way in which certain things are causally related to other things; i.e.*, it denotes a relation. As chemical concepts become more and more those of relationships of interaction in constituting other substances, so physical concepts express more and more relations of operation: mathematical, functions of dependence and order of grouping; biological, relations of differentiation of descent, effected through adjustment of various environments; and so on through the sphere of the sciences. In short, our conceptions attain a maximum of definite individuality and of generality (or applicability) in the degree to which they show how things depend upon one another or influence one another, instead of expressing the qualities that objects possess statistically. The ideal of a system of scientific conceptions is to attain continuity, freedom, and flexibility of transition in passing from any fact and meaning to any other; this demand is met in the degree in which we lay hold of the dynamic ties that hold things together in a continuously changing process–a principle that gives insight into mode of production or growth.

SYSTEMATIC METHOD: CONTROL OF DATA AND EVIDENCE

I

METHOD AS DELIBERATE TESTING OF FACTS AND IDEAS

Judgment, understanding, conception are all of them constituents of the reflective process in which a perplexing, confused, unsettled situation is transformed into one that is coherent, clear, and decided or settled. In discussing them we have introduced nothing new in principle but have amplified what was illustrated in the three cases . . . analyzed in some detail [in the chapter on "Analysis of Reflective Thinking"]. We shall now return to the original account and utilize the added knowledge we

have obtained to discuss the method of reflective activity when it is regulated in a technical and elaborate way. We saw . . . that reflection is an operation in which facts on one side and meaning on the other are elicited through constant interaction with each other. Each newly discovered fact develops, tests, and modifies an idea, and every new idea and new shade of an idea lead to further inquiry, which brings to light new facts, modifying our understanding of facts previously observed.

The discussion in which we are now engaging accordingly has two sides. One side concerns method as it operates in gathering and testing the *data* that form the evidence upon which an inference must rest to be properly supported–method of control of observation and memory, which supply the facts upon which inference proceeds. The other side concerns the formation and development of method as it operates in arriving at the *ideas* that are used to interpret the data, to solve problems, and to elaborate and apply concepts. The two functions, as we have seen, accompany each other. The improved selection and discrimination of pertinent data gives a better clue to ideas that are fruitful when employed and to the tests to which they must be submitted. The improvement of ideas in turn stimulates the performance of new observations and the collection of new data.

The Need for Systematized Method. Method of a systematic sort is required in order to safeguard the operations by which we move from one to the other, from facts to ideas, and back again from ideas to the facts that will test them. Without adequate method a person grabs, as it were, at the first facts that offer themselves; he does not examine them to see whether they are truly facts or whether, even though they be real facts, they are relevant to the inference that needs to be made. On the other side, we are given to jumping at the first solution that occurs to us, accepting it as a conclusion without examination and test. We are given also to generalizing an idea far beyond support by evidence. We extend it to new cases without careful study to see whether these cases may not be so different as not to justify the generalization. Method is particularly needed in complex cases and cases of generalization, in order to safeguard us from falling into these errors.

We shall first give an illustration of the way in which the discovery of relevant facts on which to base, and by which to support and test, an inferred solution goes on in company with the formation and use of ideas to interpret the facts.

A man who has left his room in order finds it upon his return in a state of confusion, articles being scattered at random. Automatically, the notion comes to his mind that burglary would account for the disorder. He has

not seen the burglars; their presence is not a fact of observation; it is a thought, an idea. The state of the room is a *fact,* certain, speaking for itself; the presence of burglars is a possibility that may explain the facts. Moreover, the man has no special burglar in mind. The state of his room is perceived and is particular, definite–exactly as it is; a burglar is inferred. But no particular individual is thought of; merely some indefinite, unspecified, member of a class.

The original fact, the room as it is first observed, does not by any means *prove* the fact of burglary. The latter conjecture may be correct, but evidence to justify accepting it positively is lacking. The total "fact" as given contains both too much and too little; too much, because there are many features in it that are irrelevant to inference, that are therefore *logically* superfluous. Too little, because the considerations that are crucial–that, if they were ascertained, would be decisive–do not appear on the surface. Thoughtful search for the *kind* of facts that are clues is therefore necessitated. If the illustration were followed out beyond the judgment as to whether there had been a burglary to the question of who the criminal was and how he was to be discovered and the crime brought home to him, the need for extensive and careful examination of the fact side of the case would be even clearer.

Observation Valuable When Guided by Hypotheses. This search needs guidance. If it is conducted purely at random a multitude of facts will be turned up, but they will be so unrelated that their very number will add to the difficulty of the case. It is quite possible for thinking to be swamped by the mere multiplicity and diversity of facts. The real problem is: What facts are *evidence* in this case? The search for evidential facts is best conducted when some suggested *possible* meaning is used as a guide in exploring facts, especially in instituting a hunt for some fact that would point conclusively to one explanation and exclude all others. So the person entertains various hypotheses. Besides burglary, there is the possibility that some member of the family had an urgent need to find some article and, being in a hurry, had not taken the time to put things in order again. There are children also in the family, and they are not above mischief on occasion. Each of these conjectured possibilities is developed to some extent. *If* it were a burglar, or an adult in a hurry, or mischief on the part of children, *then* certain features characteristic of each particular cause would be present. *If* it were a case of burglary, *then* articles of value would be missing. Guided by this idea, the person looks again, not any longer at the scene as a whole, but analytically, with reference to this one item. He finds jewelry gone; he finds that some silver articles have been twisted and bent, and left behind as merely plated wear. These data are

incompatible with any hypothesis except burglary. Looking further, he finds data that are most naturally interpreted to mean that a window has been tampered with–a fact consistent only with the action of a burglar. Under any ordinary circumstances these data would give adequate evidence of the visit of a burglar; if the conditions were very unusual, there would be nothing but to continue thinking of further possibilities and looking for further facts as data by which to test them. The instance is taken from ordinary life. Scientific method represents the same sort of thing carried on with greater elaborateness, by means especially of instruments and apparatus devised for the purpose and of mathematical calculations.

II
THE IMPORTANCE OF METHOD IN JUDGING DATA

From what has been said it is clear that the formation of the idea or hypothesis that is employed to interpret data and to unify them into a coherent situation is indirect. Fundamentally, suggestions just occur or do not occur, depending, as we have seen, on the state of culture and knowledge at the time; upon the discernment and experience and native genius of the individual; upon his recent activities; to some extent upon chance; for many of the most pregnant inventions and discoveries have come about almost accidentally, although these happy accidents never happen except to persons especially prepared by interest and prior thought. But while the original happening of a suggestion, whether it be brilliant or stupid, is not *directly* controlled, the acceptance and use of the suggestion is capable of control, given a person of a thoughtful habit of mind.

The primary method of control is that indicated in the illustration. The person who is confronted with the situation that has to be thought through returns upon, revises, extends, analyzes, and makes more precise and definite the facts of the case. He strives to convert them into just those data which will test the suggestions that occur to mind. This testing will take place, as in the burglary incident, by finding upon examination traits that are *incompatible* with some suggested possibility and consistent with some other. They are just what *should* be there in fact *if* that particular hypothesis is correct. The ideal of course is discovery of traits that could be present *only* upon a particular hypothesis. This type of evidence can rarely be found in fact, but it is approximated by the methods of control of observation and collection of data that have been found to work well in scientific inquiry.

The Interrelations of Observation and Thought. It will be noted, then, that observation is not an operation that is opposed to thought or that is even independent of it. On the contrary, *thoughtful* observing is at least one half of thinking, the other half being the entertaining and elaboration of multiple hypotheses. Features that are glaringly conspicuous often need to be ignored; hidden traits need to be brought to light; obscure characteristics to be emphasized and cleared up.

Consider, for example, how a physician makes his diagnosis, his interpretation. If he is scientifically trained, he suspends–postpones–reaching a conclusion in order that he may not be led by superficial occurrences into a snap judgment. There are some facts that are given in an obvious way to his observation. But what is obvious may be, *when regarded as an evidential sign*, most misleading; the evidential facts, the real data, may show themselves only after a prolonged search involving artificial apparatus and a technique that expresses the methods found useful by a whole body of experts.

Conspicuous phenomena may forcibly suggest typhoid, but the physician avoids a conclusion or even any strong preference for this or that conclusion until he has both greatly *enlarged* the scope of his data and also rendered them more *minute*. He not only questions the patient as to his feelings and as to his acts prior to the disease, but by various manipulations with his hands (and with instruments made for the purpose) brings to light a large number of facts of which the patient is quite unaware. The state of temperature, respiration, and heart action is accurately noted, and their fluctuations from time to time are exactly recorded. Until this examination has worked *out* toward a wider collection and *in* toward a minuter scrutiny of details, inference is deferred.

Regulative Features of Scientific Method. Scientific method includes, in short, *all the processes by which the observing and amassing of data are regulated with a view to facilitating the formation of explanatory conceptions and theories*. These devices are all directed toward selecting the precise facts to which weight and significance shall attach in forming suggestions or ideas. Specifically, this selective determination involves operations of (1) elimination by analysis of what is likely to be misleading and irrelevant, (2) emphasis of the important by collection and comparison of cases, and (3) deliberate construction of data by experimental variation.

Elimination of Irrelevant Meanings. (1) It is a common saying that one must learn to discriminate between observed facts and judgments based upon them. Taken literally, such advice cannot be carried out; in every

observed thing there is—if the thing have any meaning at all—some consolidation of meaning with what is sensibly and physically present, such that, if this were entirely excluded, what is left would have no sense. A says: "I saw my brother." The term *brother*, however, involves a relation that cannot be sensibly or physically observed; it is inferential in status. If A contents himself with saying, "I saw a man," the factor of classification, of intellectual reference, is less complex, but still exists. If, as a last resort, A were to say, "Anyway, I saw a colored object," some relationship, though more rudimentary and undefined, still subsists. Theoretically, it is possible that no object was there, only abnormal nerve stimulation. Nonetheless, the advice to discriminate what is observed from what is inferred is sound practical advice. Its working import is that one should eliminate or exclude *those* inferences as to which experience has shown that there is greatest liability to error. This, of course, is a relative matter. Under ordinary circumstances no reasonable doubt would attach to the observation, "I see my brother"; it would be pedantic and silly to resolve this recognition back into a more elementary form. Under other circumstances it might be a perfectly genuine question as to whether A saw even a colored *thing*, or whether the color was due to a stimulation of the sensory optical apparatus (like "seeing stars" upon a blow) or to a disordered circulation. In general, the scientific man is one who knows that he is likely to be hurried to a conclusion and that part of this precipitancy is due to certain habits that tend to make him "read" certain meanings into the situation that confronts him, so that he must be on the lookout against errors arising from his interests, habits, and current preconceptions.

The technique of scientific inquiry thus consists in various processes that tend to exclude overhasty "reading in" of meanings; devices that aim to give a purely "objective," unbiased rendering of the data to be interpreted. Flushed cheeks usually mean heightened temperature; paleness means lowered temperature. The clinical thermometer records automatically the actual temperature and hence checks up the habitual associations that might lead to error in a given case. All the instrumentalities of observation—the various -meters and -graphs and -scopes—fulfill a part of their scientific role in helping to eliminate meanings supplied because of habit, prejudice, the strong momentary preoccupation of excitement and anticipation, and by the vogue of existing theories. Photographs, phonographs, kymographs, actinographs, seismographs, plethysmographs, and the like, moreover, give records that are permanent, so that they can be employed by different persons, and by the same person in different states

of mind; *i.e.*, under the influence of varying expectations and dominant beliefs. Thus purely personal prepossessions (due to habit, to desire, to aftereffects of recent experience) may be largely eliminated. In ordinary language, the facts are *objectively*, rather than *subjectively*, determined. In this way tendencies to premature interpretation are held in check.

Collection of Sufficient Instances. (2) Another important method of control consists in the multiplication of cases or instances. If I doubt whether a certain handful gives a fair sample or one representative, for purposes of judging value, of a whole carload of grain, I take a number of handfuls from various parts of the car and compare them. If they agree in quality, well and good; if they disagree, we try to get enough samples so that when they are thoroughly mixed the result will be a fair basis for an evaluation. This illustration represents roughly the value of that aspect of scientific method that insists upon multiplying observations instead of basing the conclusion upon one or a few cases.

So prominent, indeed, is this aspect of method at a certain stage of its development that it is frequently treated as constituting induction. It is supposed that all controlled inference as to matters of fact is based upon collecting and comparing a number of like cases. Actually such comparison and collection is a secondary development within the process of securing a correct conclusion in some single case. If a man infers from one sample of grain as to the grade of wheat of the car as a whole, it is induction and, under certain circumstances, namely, if the entire bulk has been thoroughly mixed, it is a *sound* induction. Other cases are resorted to simply for the sake of rendering a suggested inference more guarded, and more probably correct. In like fashion, the reasoning that led up to the burglary idea in the instance already cited, the particulars upon which the general meaning (or relation) of burglary was grounded, were simply the sum total of the unlike items and qualities that made up the one case examined. Had this case presented very great obscurities and difficulties, recourse might *then* have been had to examination of a number of similar cases. But this comparison would not introduce scientific method into a process that was not previously of that character; it would only render inference more wary and adequate. *The object of bringing into consideration a multitude of cases is to facilitate the selection of the evidential or significant features upon which to base inference in some single case.*

Unlikeness as Important as Likeness in These Instances. Accordingly, points of *unlikeness* are as important as points of *likeness* among the cases examined. *Comparison*, without *contrast*, does not amount to anything

logically. In the degree in which other cases observed or remembered merely duplicate the case in question, we are no better off for purposes of inference than if we had permitted our single original fact to dictate a conclusion. In the case of various samples of grain, it is the fact that samples are *different*, at least as to the place of the carload from which they are taken, that is important. Were it not for this difference, likeness in quality would be of no avail in controlling inference.[9] If we are endeavoring to get a child to regulate his conclusions about the germination of a seed by taking into account a number of instances, very little is gained if the conditions in all these instances closely approximate one another. But if one seed is placed in pure sand, another in loam, and another on blotting paper, and if in each case there are two conditions, one with and another without moisture, the unlike factors tend to throw into relief the factors that are significant (or "essential") for reaching a conclusion. Unless, in short, the observer takes care to have the differences in the observed cases as extreme as conditions allow, and unless he notes unlikenesses as carefully as likenesses, he has no way of determining the evidential force of the data that confront him.

Another way of bringing out this importance of unlikeness is the emphasis put by the scientist upon *negative* cases–upon instances that, it would seem, ought to fall into line but that, as a matter of fact, do not. Anomalies, exceptions, things that agree in most respects but disagree in some crucial point, are so important that many of the devices of scientific technique are designed purely to detect, record, and impress upon memory contrasting cases. Darwin remarked that, so easy is it to pass over cases that oppose a favorite generalization, he had made it a habit, not merely to hunt for contrary instances, but also to write down any exception he noted or thought of–as otherwise it was almost sure to be forgotten.

Experimental Variation of Conditions. (3) We have already touched upon this factor of control of method, the one that is the most important of all wherever it is feasible. Theoretically, one sample case *of the right kind* will be as good a basis for an inference as a thousand cases; but cases of the right kind rarely turn up spontaneously. We have to search for them, and we may have to *make* them. If we take cases just as we find them–whether one case or many cases–they contain much that is irrelevant to the problem in hand, while much that is relevant is obscure, hidden.

9. In terms of the phrases used in logical treatises, the so-called "methods of agreement" (comparison) and "difference" (contrast) must accompany each other or constitute a "joint method" in order to be of logical use.

The object of experimentation is the *construction*, *by regular steps taken on the basis of a plan thought out in advance*, *of a typical*, *crucial case*, a case formed with express reference to throwing light on the difficulty in question. All methods on the fact side rest, as already stated, upon regulation of the conditions of observation and memory; experiment is simply the most adequate regulation of these conditions that is possible. We try to make the observation such that every factor entering into it, together with the mode and the amount of its operation, may be open to recognition. Making observations open, overt, precise constitutes experiment.

Three Advantages of Experiment. Such observations have many and obvious advantages over observations—no matter how extensive—with respect to which we simply wait for an event to happen or an object to present itself. Experiment overcomes defects due to (*a*) the *rarity,* (*b*) the *subtlety* and minuteness (or the violence), and (*c*) the rigid *fixity* of facts as we ordinarily experience them. The following quotations from Jevons' *Elementary Lessons in Logic* bring out all these points:

> We might have to wait years or centuries to meet accidentally with facts which we can readily produce at any moment in a laboratory; and it is probable that most of the chemical substances now known and many excessively useful products would never have been discovered at all by waiting till nature presented them spontaneously to our observation.

This quotation refers to the infrequency, or rarity, of certain facts of nature, even very important ones. The passage then goes on to speak of the minuteness of many phenomena that makes them escape ordinary experience:

> Electricity doubtless operates in every particle of matter, perhaps at every moment of time; and even the ancients could not but notice its action in the loadstone, in lightning, in the aurora borealis, or in a piece of rubbed amber. But in lightning electricity was too intense and dangerous; in the other cases it was too feeble to be properly understood. The science of electricity and magnetism could only advance by getting regular supplies of electricity from the common electric machine or the galvanic battery and by making powerful electromagnets. Most, if not all, the effects which electricity produces must go on in nature, but altogether too obscurely for observation.

Jevons then deals with the fact that, under ordinary conditions of experience, phenomena that can be understood only by seeing them under varying conditions are presented in a fixed and uniform way.

> Thus carbonic acid is only met in the form of a gas, proceeding from the combustion of carbon; but when exposed to extreme pressure and cold, it is condensed into a liquid, and may even be converted into a snowlike solid substance. Many other gases have in like manner been liquefied or solidified, and there is reason to believe that every substance is capable of taking all three forms of solid, liquid, and gas, if only the conditions of temperature and pressure can be sufficiently varied. Mere observation of nature would have led us, on the contrary, to suppose that nearly all substances were fixed in one condition only, and could not be converted from solid into liquid and from liquid into gas.

Many volumes would be required to describe in detail all the methods that investigators have developed in various subjects for analyzing and restating the facts of ordinary experience so that we may escape from capricious and routine suggestions and may get the facts in such a form and in such a light (or context) that exact and far-reaching explanations may be suggested in place of vague and limited ones. But these various devices of inductive inquiry all have one goal in view: the indirect regulation of the function of suggestions, or formation of ideas; and, in the main, they will be found to reduce to some combination of the three types of selecting and arranging subject matter just described.

SYSTEMATIC METHOD: CONTROL OF REASONING AND CONCEPTS

I
THE VALUE OF SCIENTIFIC CONCEPTIONS

We have already called attention to the fact that control of observation and memory so as to select and give proper weight to data as evidence depends upon the possession of a store of standardized meanings, or conceptions. If, in the case of the disordered room, the person did not have in hand fairly definite conceptions of burglary, mischief, etc., he would have been as much at a loss in interpreting the scene that met his eyes as a little child would have been. Conceptions are the intellectual instrumentalities that are brought to bear upon the material of sense perception and of recollection in order to clarify the obscure, to bring order into seeming conflict, and unity into the fragmentary. In the case of the physician's diagnosis, dependence upon the fund of already possessed knowledge is even more evident as well as complete. It is an old story that

we know *with* what we already know or have mastered intellectually. And "achieved understanding," "established and solid meaning," and "conception" are synonymous terms. Hence the necessity for the regulated control of their formation.

The Basic Importance of System in Concepts. We dealt previously with the way in which conceptions come into existence. We have now to consider the method by which a secure serial development of conceptions, one leading to another in regular sequence, is brought about. The important consideration here is the basic importance of relations between conceptions, of *system*.

A concept may be excellent for the purpose of identifying events that frequently recur in our experience, even if it is not placed in a system or related body of concepts. Thus a person can identify a given four-legged animal as a dog, even though the concept of "dog" is not part of a system of concepts such as forms the science of zoology. But there are other problems of animal life that cannot possibly be solved by the everyday conception of "dog," problems that require a serial order of concepts: wolf family, vertebrate, mammal, and a knowledge of the relations of mammal to birds, reptiles, etc.

The importance of the connections that bind concepts together into a whole is indicated by the words that we use to express the relation of premises and conclusions to each other. (1) The premises are called grounds, foundations, bases, and are said to underlie, uphold, support the conclusion. (2) We "descend" from the premises to the conclusion, and "ascend" in the opposite direction–as a river may be continuously traced from source to sea or vice versa. So the conclusion springs, flows, or is drawn from its premises. (3) The conclusion–as the word itself implies–closes, shuts in, locks up together the various factors stated in the premises. We say that the premises "contain" the conclusion, and that the conclusion "contains" the premises, thereby marking our sense of the inclusive and comprehensive unity in which the elements of reasoning are bound tightly together.

Popular concepts, like the ordinary one of a dog, are based on fairly obvious qualities, qualities that anyone having the normal use of his senses can readily perceive. But these popular concepts do not take us very far; they are extended or generalized to include cases outwardly different only with great risk. They are responsible for such generalizations as calling a bat a "bird," and a whale a "fish." They not only lead us astray, but they also stop far short of such generalizations as those that are basic and almost commonplace in science–electron, atom, molecule, mass,

energy, etc. And it is this latter kind of concept that furthers discovery, invention, and the control of the forces of nature.

Value of the Concepts of Quantity. One of the great conquests of natural science has been effected by the development of mathematical concepts in a form applicable to observation and interpretation of natural events. Take for example the concepts of quantity and measurement. We can unite from the point of view of the popular concept such qualities as red, green, blue, etc., by bringing them together in the concept of color. But we can make much more exact and extensive inferences regarding color when we use the concept of rates of vibration. We can then relate color phenomena to other events apparently of a totally different kind–infrared and ultraviolet, radioactive phenomena, sound, electromagnetism, etc. Through the use of the concepts of quantity we can ignore the differences of quality which mark off things from one another and hence arrest inference. Consequently we can go from one fact to another to an almost indefinite extent if we treat them all as exhibiting measured differences of quantity.

Distinctive Standard Concepts Established in Each Science. Every branch of science, geology, zoology, chemistry, physics, astronomy, as well as the different branches of mathematics, arithmetic, algebra, calculus, etc., aims at establishing its own specialized set of concepts that are keys to understanding the phenomena that are classified in each field. In this way there is provided for every typical branch of subject matter a set of meanings and principles so closely interknit that any one implies some other, according to definite conditions, that, under certain other conditions, implies another, and so on. In this way, substitutions of equivalent meanings are possible, and reasoning, without having recourse to specific observations, can trace out very remote consequences of any principle that is suggested. Definition, general formulas, and classification are the devices by which the fixation of a meaning and its elaboration into its ramifications are carried on. They are not ends in themselves–as they are frequently regarded even in elementary education–but instrumentalities for facilitating understanding, aids to the interpretation of the obscure and the explanation of the puzzling. Moreover, a conception that, in the form in which it first presents itself, is not applicable to the situation may have implied meanings that are readily applicable–as the rise of water or mercury in a vacuum is explained by developing the implications of weight and of the fact that air has weight. Again, the original concept may be quite limited in its application, while energy will be conserved if the

implied ideas traced out by reasoning have wider application than the original idea had.

Playing with Concepts. To the specialist, conceptual meanings become a subject matter of their own. It is an intellectual satisfaction to develop them in their logical relations of interdependence, of implication, without any reference at all to their immediate or even ulterior application to actual existence. To the trained mathematician, for example, nothing is more fascinating than to follow out the relations of concepts and, by discovering unexpected relations among them, see them unfold into a harmonious system whose contemplation gives great esthetic satisfaction. There is such a thing as *playing with ideas.*

It is possible for this form of sport to become much more absorbing than is playing games with things. No one, it is safe to say, has ever become distinguished as a thinker in any field of science or philosophy who did not have an absorbing interest in the relations of ideas for their own sake. Many children are much more capable of playing with ideas (provided they are within the range of their understanding) than is usually believed. Constraint arising from external imposition dulls this power and often turns into concealed daydreaming and fantasy building what, under happier circumstances, would be an interest in connecting meanings with one another and a delight in coming upon unexpected combinations. One of the great values of creative work, as in writing, painting, or any art, is that it promotes a constructive, although unconscious, playing with meanings in their relations.

Need of Final Test of Concepts. Although conceptions are capable of development without reference to direct observation, and although the habit of tracing their connection with one another as just ideas or meaning is absolutely indispensable to the growth of science and to high personal intellectual cultivation, yet the final test lies in the data furnished by experimental observation. Elaboration by reasoning may make a suggested idea very rich and very plausible, but it will not settle the validity of that idea. Only when facts are observed (by methods either of collection or of experimentation) that agree in detail and without exception with theoretical results, are we justified in accepting the rational conclusion as a conclusion that is valid for actual things. Thinking, in short, must end as well as begin in the domain of concrete observations if it is to be complete thinking. And the ultimate educative value of all deductive processes is measured by the degree to which they become working tools in the creation and development of new experiences.

II
SIGNIFICANT APPLICATIONS TO EDUCATION: CHARACTERISTIC INADEQUACIES

Some of the points that have been made may be clinched by considering their bearing upon instruction and learning. We shall go back to the statement made earlier about the correlative character of fact and meaning, observation and conception. For most of the educational mistakes about concepts, definition, and generalization result from making a false separation between facts and meanings. In this separation, "facts" become a dead weight of undigested, mechanical, largely verbal, so-called "information," while ideas become so remote from objects and acts of experience that they are empty. Instead of being means for better understanding, they become themselves incomprehensible mysteries, which for some unexplained reason haunt the schoolroom but do not belong anywhere else.

Isolation of Facts from Meaning. In some school subjects and in many topics and lessons, pupils are immersed in mere details. Their minds are loaded with disconnected piecemeal items that are accepted on hearsay or authority. They may even be drawn from observation in so-called "object-lessons" if what is observed stands as an isolated thing, and no attempt is made to interpret it by placing it in relation to what it does, how it was caused, and what it stands for. It is not enough to load the memory with statement of facts and laws and then hope that later in life by some magic the mind will find a use for them. Even general principles, when merely memorized, stand on the same level as bare particular facts. Since they are not used either in understanding actual objects and events or in giving rise, through what they imply, to other conceptual meanings, they are, to the mind that memorizes them (falsely called *learning*), mere arbitrary items of information.

In laboratory instruction in higher education as well as in object lessons in elementary education, the subject is often so treated that the student fails to "see the forest on account of the trees." Things and their qualities are retailed and detailed, without reference to a more general character that they stand for and mean. In the laboratory the student becomes engrossed in the processes of manipulation, irrespective of the reason for their performance, without recognizing a typical problem for the solution of which they afford the appropriate method. Only deduction or reasoning brings out and emphasizes consecutive relationships, and only when *rela-*

tionships are held in view does learning become more than a miscellaneous scrap bag.

Failure to Follow Up by Reasoning. Again, the mind is allowed to hurry on to a vague notion of the whole of which the fragmentary facts are portions, without any attempt to become conscious of *how* they are bound together as parts of this whole. The student feels that "in a general way," as we say, the facts of the history or geography lesson are related thus and so; but "in a general way" here stands only for "in a vague way," somehow or other, with no clear recognition of just how.

The pupil may be encouraged to form, on the basis of the particular facts, a general notion, a conception of how they stand related, but no pains be taken to make the student follow up the notion, to elaborate it and see just what its bearings are upon the case in hand and upon similar cases. The inductive inference, the guess, is formed by the student; if it happens to be correct, it is at once accepted by the teacher; or if it is false, it is rejected. If any amplification of the idea occurs, it is quite likely carried through by the teacher, who thereby assumes the responsibility for its intellectual development. But a complete, an integral, act of thought requires that the person making the suggestion (the guess) be responsible also for reasoning out its bearings upon the problem in hand, for developing the suggestion enough at least to indicate the ways in which it applies to and accounts for the specific data of the case. Too often when a recitation does not consist in simply testing the ability of the student to display some form of technical skill or to repeat facts and principles accepted on authority, the teacher goes to the opposite extreme; and after calling out the spontaneous reflections of the pupils, their guesses or ideas about the matter, merely accepts or rejects them, assuming himself the responsibility for their elaboration. In this way, the function of suggestion and of interpretation is excited, but it is not directed and trained. Suggestion is stimulated but is not carried over into the *reasoning* phase necessary to complete it.

In other subjects and topics, the reasoning phase is isolated, and is treated as if it were complete in itself. This false isolation may show itself in either (and both) of two points; namely, at the beginning or at the end of the resort to general intellectual procedure.

Isolation of Deduction by Commencing with It. Beginning with definitions, rules, general principles, classifications, and the like, is a common form of the first error. This method has been such a uniform object of attack on the part of all educational reformers that it is not necessary to dwell upon it further than to note that the mistake is, logically, due to the

attempt to introduce deductive considerations without first making acquaintance with the particular facts that create a need for definition and generalization. Unfortunately, the reformer sometimes carries his objection too far or, rather, locates it in the wrong place. He is led into a tirade against *all* definition, all systematization, all use of general principles, instead of confining himself to pointing out their futility and their deadness when not properly motivated by familiarity with concrete experiences. Moreover, a flat statement of a general principle may properly come at the beginning, provided it is used to challenge attention and not to close inquiry.

Isolation of Conceptions from Direction of New Observations. The isolation of general ideas is found at the other end wherever there is failure to clinch and test the results of the general reasoning processes by application to new concrete cases. The final point of the rational devices lies in their use in assimilating and comprehending individual cases. No one understands a general principle fully—no matter how adequately he can demonstrate it, to say nothing of repeating it—till he can employ it in the mastery of new situations, which, if they *are* new, differ in manifestation from the cases used in reaching the generalization. Too often the student and teacher are contented with a series of somewhat perfunctory examples and illustrations, and the student is not forced to carry the principle that he has formulated over into further cases of his own experience. In so far, the principle is inert and dead; it does not move into new facts or ideas.

Failure to Provide for Experimentation. It is only a variation upon this same theme to say that every complete act of reflective inquiry makes provision for experimentation—for testing suggested and accepted principles by employing them for the active construction of new cases, in which new qualities emerge. Only slowly do our schools accommodate themselves to the general advance of scientific method. From the scientific side, it is demonstrated that effective and integral thinking is possible only where the experimental method in some form is used. Some recognition of this principle is evinced in higher institutions of learning, colleges, and high schools. But in elementary education, it is still assumed, for the most part, that the pupil's natural range of observations, supplemented by what he accepts on hearsay, is adequate for intellectual growth. Of course it is not necessary that laboratories shall be introduced under that name, much less that elaborate apparatus be secured; but the entire scientific history of humanity demonstrates that the conditions for complete mental activity do not exist unless adequate provision is made for carrying on activities

that actually modify physical conditions, and that books, pictures, and even objects, that are passively observed but not manipulated do not furnish the required provision.

The counterpart error has already been touched upon. In some "progressive" schools, continual outward activity, even though of a somewhat random and disconnected character, is treated as if it were experimentation. In truth, every genuine experiment involves a problem in which something must be found out and where overt action must be guided by an idea used as a working hypothesis so as to give action purpose and point.

Failure to Summarize Net Accomplishment. In such schools there is also a tendency to overlook the need of constant review, in the sense of looking back over what has been done and has been found out, so as to formulate the net outcome, thus getting mentally rid of debris, of all material and acts that do not sustain the outcome. Just because too explicit formulation and organization should *not* come at the beginning, it is so much the more necessary that the ongoing process of experience should be periodically arrested to make a survey of what has been going on and to secure a summary of its *net* accomplishment. Otherwise loose and disorderly habits are promoted.

ACTIVITY AND THE TRAINING OF THOUGHT

In this chapter we shall gather together and amplify considerations that have already been advanced, in various passages of the preceding pages, concerning the relation of *action to thought.* We shall follow, though not with exactness, the order of development in the unfolding of a human being.

I
THE EARLY STAGE OF ACTIVITY

"What Is the Baby Thinking About?" The sight of a baby often calls out the question: "What do you suppose he is thinking about?" By the nature of the case, the question is unanswerable in detail; but, also by the nature of the case, we may be sure about a baby's chief interest. His primary problem is mastery of his body as a tool of securing comfortable and effective adjustments to his surroundings, physical and social. The child has to learn to do almost everything: to see, to hear, to reach, to handle, to

balance the body, to creep, to walk, and so on. Even if it be true that human beings have even more instinctive reactions than lower animals, it is also true that instinctive tendencies are much less perfect in men, and that most of them are of little use till they are intelligently combined and directed. A little chick just out of the shell will after a few trials peck at and grasp grains of food with its beak as well as at any later time. This involves a complicated co-ordination of the eye and the head. An infant does not even begin to reach definitely for things that the eye sees till he is several months old, and even then several weeks' practice is required before he learns the adjustment so as neither to overreach nor to underreach. It may not be literally true that the child will grasp for the moon, but it is true that he needs much practice before he can tell whether an object is within reach or not. The arm is thrust out instinctively in response to a stimulus from the eye, and this tendency is the origin of the ability to reach and grasp exactly and quickly; but nevertheless final mastery requires observing and selecting the successful movements and arranging them in view of an end. *These operations of conscious selection and arrangement constitute thinking*, though of a rudimentary type.

Mastery of the Body Is an Intellectual Problem. Since mastery of the bodily organs is necessary for all later developments, such problems are both interesting and important, and solving them supplies a very genuine training of thinking power. The joy the child shows in learning to use his limbs, to translate what he sees into what he handles, to connect sounds with sights, sights with taste and touch, and the rapidity with which intelligence grows in the first year and a half of life (the time during which the more fundamental problems of the use of the organism are mastered) are sufficient evidence that the development of physical control is not a physical, but an intellectual, achievement.

Social Adjustments Soon Become Important. Although in the early months the child is mainly occupied in learning to use his body to accommodate himself to physical conditions in a comfortable way and to use things skillfully and effectively, yet social adjustments are very important. In connection with parents, nurse, brother, and sister, the child learns the signs of satisfaction of hunger, of removal of discomfort, of the approach of agreeable light, color, sound, and so on. His contact with physical things is regulated by persons, and he soon distinguishes persons as the most important and interesting of all the objects with which he has to do.

Speech, the accurate adaptation of sounds heard to the movements of tongue and lips, is, however, the great instrument of social adaptation;

and with the development of speech (usually in the second year) adaptation of the baby's activities to and with those of other persons gives the keynote of mental life. His range of possible activities is indefinitely widened as he watches what other persons do, and as he tries to understand and to do what they encourage him to attempt. The outline pattern of mental life is thus set in the first four or five years. Years, centuries, generations of invention and planning may have gone to the development of the performances and occupations of the adults surrounding the child. Yet for him their activities are direct stimuli; they are part of his natural environment; they are carried on in physical terms that appeal to his eye, ear, and touch. He cannot, of course, appropriate their meaning directly through his senses; but they furnish stimuli to which he responds, so that his attention is focused upon a higher order of materials and of problems. Were it not for this process by which the achievements of one generation form the stimuli that direct the activities of the next, the story of civilization would be writ in water, and each generation would have laboriously to make for itself, if it could, its way out of savagery. In learning to understand and make words, children learn a great deal more than the words themselves. They gain a habit that opens a new world to them.

The Role of Imitation. Imitation is one, though only one, of the means by which the activities of adults supply stimuli that are so interesting, so varied, so complex, and so novel as to occasion a rapid progress of thought. Mere imitation, however, would not give rise to thinking; if we could learn like parrots by simply copying the outward acts of others, we should never have to think; nor should we know, after we had mastered the copied act, what was the meaning of the thing we had done. Educators (and psychologists) have often assumed that acts that reproduce the behavior of others are acquired merely by imitation. But a child rarely learns by conscious imitation, and to say that his imitation is unconscious is to say that it is not, from his standpoint, imitation at all. The word, the gesture, the act, the occupation of another, falls in line with *some impulse already active* and suggests some satisfactory mode of expression, some end in which it may find fulfillment. Having this end of his own, the child then notes other persons, as he notes natural events, to get further suggestions as to means of its realization. He selects some of the means he observes, tries them on, finds them successful or unsuccessful, is confirmed or weakened in his belief in their value, and so continues selecting, arranging, adapting, testing, till he can accomplish what he wishes. The onlooker may then observe the resemblance of this act to some act of an adult and conclude that it was acquired by imitation, while as a matter of fact it was

acquired by attention, observation, selection, experimentation, and confirmation by results. Only because this method is employed is there intellectual discipline and an educative result. The presence of adult activities plays an enormous role in the intellectual growth of the child because they add to the natural stimuli of the world new stimuli that are more exactly adapted to the needs of a human being, that are richer, better organized, more complex in range, permitting more flexible adaptations, and calling out novel reactions. But in utilizing these stimuli, the child follows the same methods that he uses when he is forced to think in order to master his body.

II
PLAY, WORK, AND ALLIED FORMS OF ACTIVITY

The Significance of Play and of Playfulness. When things become signs, when they gain a representative capacity as standing for other things, play is transformed from mere physical exuberance into an activity involving a mental factor. A little girl who had broken her doll was seen to perform with the leg of the doll all the operations of washing, putting to bed, and fondling that she had been accustomed to perform with the entire doll. The part stood for the whole; she reacted, not to the stimulus sensibly present, but to the meaning suggested by the sense object. So children use a stone for a table, leaves for plates, acorns for cups. So they use their dolls, their trains, their blocks, their other toys. In manipulating them, they are living not with the physical things, but in the large world of meanings, natural and social, evoked by these things. So when children play horse, play store, play house or making calls, they are subordinating the physically present to the ideally signified. In this way, a world of meanings, a store of concepts (so fundamental in all intellectual achievement), is defined and built up.

Moreover, not only do meanings thus become familiar acquaintances, but they are organized, arranged in groups, made to cohere in connected ways. A play and a story blend insensibly into each other. The most fanciful plays of children rarely lose all touch with the mutual fitness and pertinency of various meanings to one another; the "freest" plays observe some principles of coherence and unification. They have a beginning, middle, and end. In games, rules of order run through various minor acts and bind them into a connected whole. The rhythm, the competition, and the co-operation involved in most plays and games also introduce organization. There is, then, nothing mysterious or mystical in the discovery

made by Plato and remade by Froebel that play is the chief, almost the only, mode of education for the child in the years of later infancy.

Playfulness is a more important consideration than play. The former is an attitude of mind; the latter is a passing outward manifestation of this attitude. When things are treated simply as vehicles of suggestion, what is suggested overrides the thing. Hence the playful attitude is one of freedom. The person is not bound to the physical traits of things, nor does he care whether a thing really "means" what he takes it to represent. When the child plays horse with a broom and cars with chairs, the fact that the broom does not really represent a horse or a chair a locomotive is of no account. In order, then, that playfulness may not terminate in arbitrary fancifulness and in building up an imaginary world alongside the world of actual things, it is necessary that the play attitude should gradually pass into a work attitude.

The Significance of Work. What is work—work not as mere external performance, but as attitude of mind? In the natural course of growth, children come to find irresponsible, make-believe plays inadequate. A fiction is too easy a way out to afford contentment, not stimulus enough to call forth satisfactory mental response. When this point is reached, the ideas that things suggest are applied to the things with some regard to fitness. A small cart, resembling a "real" cart, with "real" wheels, tongue, and body, meets the mental demand better than merely making believe that anything that comes to hand is a cart. Occasionally to take part in setting a "real" table with "real" dishes brings more reward than forever to make believe a flat stone is a table and that leaves are dishes. The interest may still center in the meanings; things may be of importance only as furthering a certain meaning. So far the attitude is one of play. But meaning becomes of such a character that it must find embodiment, or at least expression, in actual things.

The dictionary does not permit us to call such activities work. Nevertheless, they represent a passage of play into work. For work (as a mental attitude, not as mere external performance) *means interest in the adequate embodiment of a meaning* (a suggestion, purpose, aim) *in objective form through the use of appropriate materials and appliances.* Such an attitude takes advantage of the meanings aroused and built up in free play, but *controls their development by seeing to it that they are applied to things in ways consistent with the observable structure of things themselves.*

The word "work" is not very satisfactory. For it is often used to denote routine activity that accomplishes useful results with but a minimum of

thoughtful selection of means, deliberate adjustment to produce desired consequences. We view work from the outside when we think of it as simply doing things that need to be done. But it may also be looked at from the inside; it must be so looked at when we are thinking of it in relation to education. Then work signifies activity directed by ends that thought sets before the person as something to be accomplished; it signifies ingenuity and inventiveness in selecting proper means and making plans, and thus, finally, signifies that expectations and ideas are tested by actual results.

A child, like an adult, may make or do something following the dictation of others, working mechanically from oral or printed instructions, or stereotyped blueprints. There is then next to no thought; his activity is not truly reflective. But as we have already noted, the means-consequence relation is the heart of all meaning. "Work," in the sense of *intelligent action*, is therefore highly educative, because it continually builds up meanings while at the same time it tests them by application to actual conditions. It is necessary, however, that the adult do not judge the value of such an activity on the part of the young by his familiar adult standards about the value of the *product*; if he does, the activity will usually seem to him to amount to little. He must judge from the standpoint of the planning, invention, ingenuity, observation exercised by the young, remembering always that what is an old story to him may arouse emotion and thought in the child.

The True Distinction between Play and Work. The point of the distinction between play and work may be cleared up by comparing it with a more usual way of stating the difference. In play activity, it is said, the interest is in the activity for its own sake; in work, it is in the product or result in which the activity terminates. Hence the former is purely free, while the latter is tied down by the end to be achieved. When the difference is stated in this sharp fashion, there is almost always introduced a false, unnatural separation between process and product, between activity and its achieved outcome. The true distinction is not between an interest in activity for its own sake and interest in the external result of that activity, but between an interest in an activity just as it flows on from moment to moment and an interest in an activity as tending to a culmination, to an outcome, and therefore possessing a thread of continuity binding together its successive stages. Both may equally exemplify interest in an activity "for its own sake"; but in the one case the activity in which the interest resides is more or less casual, following the accident of circumstance and whim, or of dictation; in the other, the activity is en-

riched by the sense that it leads somewhere, that it amounts to something.

Were it not that the false theory of the relation of the play and the work attitudes has been connected with unfortunate modes of school practice, insistence upon a truer view might seem an unnecessary refinement. But the sharp break that so often prevails between the kindergarten and the grades is evidence that the theoretical distinction has practical implications. Under the title of "play" the former is rendered unduly symbolic, fanciful, sentimental, and arbitrary; while under the antithetical caption of "work" the latter contains many *tasks externally assigned*. The former has no end; the latter an end so remote that only the educator, not the child, is aware that it is an end.

There comes a time when children must extend and make more exact their acquaintance with existing things, must conceive ends and consequences with sufficient definiteness to guide their actions by them, and must acquire some technical skill in selecting and arranging means to realize these ends. Unless these factors are gradually introduced in the earlier play period, they must later be introduced abruptly and arbitrarily, to the manifest disadvantage of both the earlier and the later stages.

Correlative False Notions of Imagination and Utility. The sharp opposition of play and work is usually associated with false notions of utility and imagination. Activity that is directed upon matters of home and neighborhood interest is depreciated as merely utilitarian. To let the child wash dishes, set the table, engage in cooking, cut and sew dolls' clothes, make boxes that will hold "real things," and construct his own playthings by using hammer and nails excludes (so it is said) the aesthetic and appreciative factor, eliminates imagination, and subjects the child's development to material and practical concerns; while (so it is said) to reproduce symbolically the domestic relationships of birds and other animals, of human father and mother and child, of workman and tradesman, of knight, soldier, and magistrate secures a liberal exercise of mind that is of great moral as well as intellectual value. It has even been stated that it is overphysical and utilitarian if a child plants seeds and takes care of growing plants in the kindergarten; whereas if he reproduces dramatically the operations of planting, cultivating, reaping, and so on, with no physical materials or with symbolic representatives, he educates imagination and his spiritual appreciation. Toy dolls, trains or cars, boats, and engines are rigidly excluded, but cubes, balls, and other symbols for representing his social activities are recommended. The more unfitted the physical object for its imagined purpose, such as a cube for a boat, the greater is the supposed appeal to the imagination.

There are several fallacies in this way of thinking.

First, the healthy imagination deals not with the unreal, but with the mental realization of what is suggested. Its exercise is not a flight into the purely fanciful and ideal, but a method of expanding and filling in what is real. To the child the homely activities going on about him are not utilitarian devices for accomplishing physical ends; they exemplify a wonderful world, the depths of which he has not sounded, a world full of the mystery and promise that attend all the doings of the grownups whom he admires. However prosaic this world may be to the adults who find its duties routine affairs, to the child it is fraught with social meaning. To engage in it is to exercise the imagination in constructing an experience of wider value than any the child has yet mastered.

Second, educators sometimes think children are reacting to a great moral or spiritual truth when the children's reactions are largely physical and sensational. Children have great powers of dramatic simulation, and their physical bearing may seem (to adults prepossessed with a philosophic theory) to indicate they have been impressed with some lesson of chivalry, devotion, or nobility when the children, themselves, are occupied only with transitory physical excitations. To symbolize great truths far beyond the child's range of actual experience is an impossibility, and to attempt it is to invite love of momentary stimulation.

Third, just as the opponents of play in education always conceive of play as mere amusement, so the opponents of direct and useful activities confuse occupation with labor. The adult is acquainted with responsible labor upon which serious financial results depend. Consequently he seeks relief, relaxation, amusement. Unless children have prematurely worked for hire, unless they have come under the blight of child labor, no such division exists for them. Whatever appeals to them at all appeals directly on its own account. There is no contrast between doing things for utility and for fun. Their life is more united and more wholesome. To suppose that activities customarily performed by adults only under the pressure of utility may not be done perfectly freely and joyously by children indicates a lack of imagination. Not the thing done, but the quality of mind that goes into the doing, settles what is utilitarian and what is unconstrained and creative.

III
CONSTRUCTIVE OCCUPATIONS

The Sciences Grew Out of Occupations. The history of culture shows that mankind's scientific knowledge and technical abilities have devel-

oped, especially in all their earlier stages, out of the fundamental problems of life. Anatomy and physiology grew out of the practical needs of keeping healthy and active; geometry and mechanics out of demands for measuring land, for building, and for making labor-saving machines; astronomy has been closely connected with navigation, keeping record of the passage of time; botany grew out of the requirements of medicine and of agronomy; chemistry has been associated with dyeing, metallurgy, and other industrial pursuits. In turn, modern industry is almost wholly a matter of applied science; year by year the domain of routine and crude empiricism is narrowed by the translation of scientific discovery into industrial invention. The trolley, the telephone, the electric light, the steam engine, with all their revolutionary consequences for social intercourse and control, are the fruits of science.

School Occupations Offer Intellectual Possibilities. These facts are full of educational significance. Most children are pre-eminently active in their tendencies. The schools have also taken on—largely from utilitarian, rather than from strictly educative, reasons—a large number of active pursuits commonly grouped under the head of manual training, including also school gardens, excursions, and various graphic arts. Perhaps the most pressing problem of education at the present moment is to organize and relate these subjects so that they will become instruments for forming alert, persistent, and fruitful *intellectual* habits. That they take hold of the more primary and native equipment of children (appealing to their desire to do) is generally recognized; that they afford great opportunity for training in self-reliant and efficient social service is gaining acknowledgment. But they may also be used for presenting *typical problems to be solved by personal reflection and experimentation and by acquiring definite bodies of knowledge leading later to more specialized scientific knowledge*. There is indeed no magic by which mere physical activity or deft manipulation will secure intellectual results. Manual subjects may be taught by routine, by dictation, or by convention as readily as bookish subjects. But intelligent consecutive work in gardening, cooking, or weaving, or in elementary wood and iron, may be so planned that it will inevitably result not only in students' amassing information of practical and scientific importance in botany, zoology, chemistry, physics, and other sciences, but also (what is more significant) in their becoming versed in methods of experimental inquiry and proof.

That the elementary curriculum is overloaded is a common complaint. The only alternative to a reactionary return to the educational traditions of the past lies in working out the intellectual possibilities resident in

various arts, crafts, and occupations, and reorganizing the curriculum accordingly. Here, more than elsewhere, are found the means by which the blind and routine experience of the race may be transformed into illuminated and emancipated experiment.

Conditions to Be Met to Render "Projects" Educative. Constructive occupations have in recent years found their way increasingly into the schoolroom. They are usually known as "projects." In order that they may be truly educative, there are certain conditions that should be fulfilled.

The first condition, that of interest, is usually met. Unless the activity lays hold on the emotions and desires, unless it offers an outlet for energy that means something to the individual himself, his *mind* will turn in aversion from it, even though externally he keeps at it. But interest is not enough. Given interest, the important matter is *what kind of object and action* enlists it. Is it something transitory or is it enduring? Is the interest mainly one of excitement or is thought involved?

Hence the second condition to be met is that the activity be worthwhile intrinsically. This statement does not signify, as we have just seen in another connection, that its outcome be something externally useful from the adult point of view. But it does mean that merely trivial activities, those that are of no consequence beyond the immediate pleasure that engaging in them affords, should be excluded. It is not difficult to find projects that are enjoyable while at the same time they stand for something valuable in life itself.

The third condition (really only an amplification of the point just made) is that the project in the course of its development present problems that awaken new curiosity and create a demand for information. There is nothing educative in an activity, however agreeable it may be, that does not lead the mind out into new fields. The new field cannot be entered unless the mind is led to ask questions that it had not thought of before and unless the presence of these questions creates a thirst for additional information to be obtained by observation, by reading, by consulting persons expert in that particular field.

Finally, as a fourth condition, the project must involve a considerable time span for its adequate execution. The plan and the object to be gained must be capable of development, one thing leading on naturally to another. Unless it does so, new fields cannot be entered. It is the province of the adult to look ahead and see whether one stage of achievement will suggest something else to be looked into and done. An occupation has continuity. It is not a succession of unrelated acts, but is a consecutively ordered activity in which one step prepares the need for the next one and

that one adds to, and carries further in a cumulative way, what has already been done.

FROM THE CONCRETE TO THE ABSTRACT

I
WHAT IS THE CONCRETE?

The maxim enjoined upon teachers, "proceed from the concrete to the abstract," is familiar rather than wholly intelligible. Few who read and hear it gain a clear conception of the starting point, the concrete; of the nature of the goal, the abstract; and of the exact nature of the path to be traversed in going from one to the other. At times the injunction is positively misunderstood, being taken to mean that education should advance from things to thought–as if any dealing with things in which thinking is not involved could possibly be educative. So understood, the maxim encourages mechanical routine or sensuous excitation at one end of the educational scale–the lower–and academic and unapplied learning at the upper end.

Actually, all dealing with things, even the child's, is immersed in inference; things are clothed with the suggestions they arouse. They are significant as challenges to interpretation or as evidences to substantiate a belief. Nothing could be more unnatural than instruction in things without thought, in sense perceptions without judgments connected with them. And if the abstract to which we are to proceed denotes thought apart from things, the goal is formal and empty, for effective thought always refers, more or less directly, to things.

Relation to Direct and Indirect Meaning. Yet the maxim has a meaning which, understood and supplemented, states the direction of logical development. What is this meaning? "Concrete" denotes a meaning definitely marked off from other meanings so that it is readily apprehended by itself. When we hear the words, *table, chair, stove, coat,* we do not have to reflect in order to grasp what is meant. The terms convey meaning so directly that no effort at translation is needed. The meaning of some terms and things, however, is grasped only by first calling to mind more familiar things and then tracing out connections between them and what we do not understand. Roughly speaking, the former kind of meaning is concrete; the latter is abstract.

Dependence on the Intellectual Status of the Individual. To one who is

thoroughly at home in physics and chemistry, the notions of *atom* and *molecule* are fairly concrete. They are constantly used without involving any labor of thought in apprehending what they mean. But the layman and the beginner in science have to remind themselves of things with which they already are well acquainted, and then go through a process of slow translation. Moreover the terms *atom* and *molecule* lose their hard-won meaning only too easily if familiar things and the line of transition from them to the strange drop out of mind. The same difference is illustrated by any technical terms: *coefficient* and *exponent* in algebra, *triangle* and *square* in their geometric as distinct from their popular meanings; *capital* and *value* in political economy, and so on.

The difference as noted is purely relative to the intellectual progress of an individual; what is abstract at one period of growth is concrete at another; or even the contrary, as one finds that things supposed to be thoroughly familiar involve strange factors and unsolved problems. There is, nevertheless, a general line of cleavage that decides upon the whole what things fall within, and what fall without, the limits of familiar acquaintance. This line accordingly marks off the concrete and the abstract in a fairly permanent way. *The limits are fixed mainly by the demands of practical life*. Things such as sticks and stones, meat and potatoes, houses and trees are constant features of the environment of which we have to take account in order to live. Hence their important meanings are soon learned and are indissolubly associated with objects. We are acquainted with a thing (or it is familiar to us) when we have so much to do with it that its strange and troublesome corners are rubbed off. The necessities of social intercourse convey to adults a like concreteness upon such terms as *taxes, elections, wages, the law,* and so on. Things the meaning of which I personally do not take in directly, appliances of cook, carpenter, or weaver, for example, are nevertheless unhesitatingly classed as concrete, since they are directly connected with our common social life.

Relation to Thinking as a Means and as an End. By contrast, the abstract is the *theoretical*, that not intimately associated with practical concerns. The abstract thinker (the "man of pure science," as he is sometimes called) deliberately abstracts from application in life; that is, he leaves practical uses out of account. This, however, is a merely negative statement. What remains when connections with use and application are excluded? *Evidently only what has to do with knowing considered as an end in itself.* Many notions in science are abstract, not only because they cannot be understood without a long apprenticeship in the science (which

is equally true of technical matters in the arts), but also because the whole content of their meaning has been framed for the sole purpose of facilitating further knowledge, inquiry, and speculation. *When thinking is used as a means to some end, good, or value beyond itself, it is concrete*; *when it is employed simply as a means to more thinking, it is abstract*. To a theorist an idea is adequate and self-contained just because it engages and rewards thought; to a medical practitioner, an engineer, an artist, a merchant, a politician, it is complete only when employed in the furthering of some interest in life—health, wealth, beauty, goodness, success, or what you will.

Depreciation of "Mere Theory." The great majority of men under ordinary circumstances find the practical exigencies of life almost, if not quite, coercive. Their main business is the proper conduct of their affairs. Whatever is of significance only as affording scope for thinking is pallid and remote—almost artificial. Hence the contempt felt by the practical and successful executive for the "mere theorist"; hence his conviction that certain things may be all very well in theory, but that they will not do in practice; hence, in general, the depreciatory way in which he uses the terms *abstract, theoretical,* and *intellectual.*

This attitude is justified, of course, under certain conditions. But depreciation of theory does not contain the whole truth, as common or practical sense recognizes. There is such a thing, even from the common-sense standpoint, as being "too practical," as being so intent upon the immediately practical as not to see beyond the end of one's nose or as to cut off the limb upon which one is sitting. The question is one of limits, of degrees and adjustments, rather than one of absolute separation. Truly practical men give their minds free play about a subject without asking too closely at every point for any advantage to be gained. Exclusive preoccupation with matters of use and application narrows the horizon and in the long run defeats itself. It does not pay to tether one's thoughts to the post of use with too short a rope. Power in action requires largeness of vision, which can be had only through the use of imagination. Men must at least have enough interest in thinking for the sake of thinking to escape the limitations of routine and custom. Interest in knowledge for the sake of knowledge, in thinking for the sake of the free play of thought, is necessary to the *emancipation* of practical life—to making it rich and progressive.

We now recur to the pedagogic maxim of going from the concrete to the abstract and call attention to three aspects of the process.

Beginning with Practical Manipulations. (1) Since the *concrete* denotes

thinking applied to activities for the sake of dealing with difficulties that present themselves practically, "begin with the concrete" signifies that we should, at the outset of any new experience in learning, make much of what is already familiar, and if possible connect the new topics and principles with the pursuit of an end in some active occupation. We do not "follow the order of nature" when we multiply mere sensations or accumulate physical objects. Instruction in number is not concrete merely because splints or beans or dots are employed. Whenever the use and bearing of number relations are clearly perceived, a number idea is concrete even if figures alone are used. Just what sort of symbol it is best to use at a given time—whether blocks, or lines, or figures—is entirely a matter of adjustment to the given case. If the physical things used in teaching number or geography or anything else do not leave the mind illuminated with recognition of a *meaning* beyond themselves, the instruction that uses them is as abstruse as that which doles out ready-made definitions and rules, for it distracts attention from ideas to mere physical excitations.

The notion that we have only to put physical objects before the senses in order to impress ideas upon the mind amounts almost to a superstition. The introduction of object lessons and sense training scored a distinct advance over the prior method of linguistic symbols, but this advance tended to blind educators to the fact that only a halfway step had been taken. Things and sensations develop the child, indeed, but only when he *uses* them in mastering his body and co-ordinating his actions. Continuous occupations involve the use of natural materials, tools, modes of energy, and do it in a way that compels thinking as to how they are related to one another and to the realization of ends. But the mere isolated presentation of things to sense remains barren and dead. A few generations ago the great obstacle in the way of reform of primary education was belief in the almost magical efficacy of the symbols of language (including number) to produce mental training; at present, belief in the efficacy of objects just as objects blocks the way. As frequently happens, the better is an enemy of the best.

Transferring Interest to Intellectual Matters. (2) The interest in results, in the successful carrying on of an activity, should be gradually transferred to the *study* of objects—their properties, consequences, structures, causes, and effects. The adult when at work in his life calling is rarely free to devote time or energy—beyond the necessities of his immediate action—to the study of what he deals with. The educative activities of childhood should be so arranged that the activity creates a demand for attention to

matters that have only an indirect and an intellectual connection with the original activity. To take an instance to which reference has already been made, the direct interest in carpentering or shopwork should gradually pass into an interest in geometric and mechanical problems. The interest in cooking should grow into an interest in chemical experimentation and the physiology and hygiene of bodily growth. The original casual making of pictures should pass to an interest in the technique of representation of perspective, the handling of brush, pigments, etc. This development is what the term "go" signifies in the maxim "*go* from the concrete to the abstract"; it represents the dynamic and educative phase of the process.

Developing Delight in Thinking. (3) The outcome, the *abstract* to which education is to proceed, is an interest in intellectual matters for their own sake, a delight in thinking for the sake of thinking. It is an old story that acts and processes that at the outset are incidental to something else develop and maintain an absorbing value of their own. So it is with thinking and with knowledge; at first incidental to results and adjustments beyond themselves, they attract more and more attention to themselves till they become ends, not means. Children engage, unconstrainedly and continually, in reflective inspection and testing for the sake of what they are interested in doing. Habits of thinking thus generated may increase in amount till they become of importance on their own account. It is part of the business of a teacher to lead students to extricate and dwell upon the distinctively intellectual side of what they do until there develops a spontaneous interest in ideas and their relations with one another—that is, a genuine power of abstraction, of rising from engrossment in the present to the plane of ideas.

II
WHAT IS THE ABSTRACT?

Examples of the Transition from Concrete to Abstract. The three instances cited [previously [10]] represent an ascending cycle from the concrete to the abstract. Taking thought to keep a personal engagement is obviously of the concrete kind. Endeavoring to work out the meaning of a certain part of a boat is an instance of an intermediate kind. The original reason for the existence and position of the pole is practical, so that to the designer the problem was purely concrete—the maintenance of a certain system of action. But for the passenger on the boat, the problem was theoretical, more or less speculative. It made no difference to his reaching

10. Chapter VI, which is not reprinted here [Ed.].

his destination whether he worked out the meaning or not. The third case, that of the appearance and movement of the bubbles, illustrates a strictly abstract case. No overcoming of physical obstacles, no adjustment of external means to ends, is at stake. Curiosity, intellectual curiosity, is challenged by a seemingly anomalous occurrence; and thinking tries simply to account for an apparent exception in terms of recognized principles. Intellectual means are adjusted to an intellectual result.

Abstract Thinking Not the Whole End and Not Congenial to Most Persons. Abstract thinking, it should be noted, represents *an* end, not *the* end. The power of sustained thinking on matters remote from direct use is an outgrowth of thinking on practical and immediate matters, but not a substitute for it. The educational end is not the destruction of power to think practically in overcoming obstacles, utilizing resources, and achieving ends; it is not its replacement by abstract reflection. Nor is theoretical thinking a higher type of thinking than practical. A person who has at command both types of thinking is of a higher order than he who possesses only one. Methods that, in developing abstract intellectual abilities, weaken habits of practical or concrete thinking fall as much short of the educational ideal as do the methods that, in cultivating ability to plan, to invent, to arrange, to forecast, fail to secure some delight in thinking, irrespective of practical consequences.

Educators should also note the very great individual differences that exist; they should not try to force one pattern and model upon all. In many (probably the majority) the executive tendency, the habit of mind that thinks for purposes of conduct and achievement, not for the sake of knowing, remains dominant to the end. Engineers, lawyers, doctors, merchants are much more numerous in adult life than scientists and philosophers. While education should strive to make men who, however prominent their professional interests and aims, partake of the spirit of the scholar, philosopher, and scientist, no good reason appears why education should esteem the one mental habit inherently superior to the other and deliberately try to transform the type from concrete to abstract. Have not our schools been one-sidedly devoted to the more abstract type of thinking, thus doing injustice to the majority of pupils? Has not the idea of a "liberal" and "humane" education tended too often in practice to the production of technical, because overspecialized, thinkers?

Education Should Aim to Secure a Working Balance. The aim of education should be to secure a balanced interaction of the two types of mental attitude, having sufficient regard to the disposition of the individual not to hamper and cripple whatever powers are naturally strong in him. The

narrowness of individuals of strong concrete bent needs to be liberalized. Every opportunity that occurs within practical activities for developing curiosity and susceptibility to intellectual problems should be seized. Violence is not done to natural disposition; rather the latter is broadened. Otherwise, the concrete becomes narrowing and deadening. As regards the smaller number of those who have a taste for abstract, purely intellectual topics, pains should be taken to multiply opportunities for the application of ideas, for translating symbolic truths into terms of everyday and social life. Every human being has both capabilities, and every individual will be more effective and happier if both powers are developed in easy and close interaction with each other. Otherwise the abstract becomes identical with the academic and pedantic.

LANGUAGE AND THE TRAINING OF THOUGHT

I
LANGUAGE AS THE TOOL OF THINKING

Language has such a peculiarly intimate connection with thought as to require special discussion. The very word logic, coming from logos (λόγος), means indifferently both word or speech and thought or reason. Yet "words, words, words" denote intellectual barrenness, a sham of thought. Schooling has language as its chief instrument (and often as its chief subject matter) of study. Yet educational reformers have for centuries brought their severest indictments against the current use of language in the schools. The conviction that language is necessary to thinking (is even identical with it) is met by the contention that language perverts and conceals thought. There is a genuine problem here.

Views of the Relation of Thought and Language. Three typical views have been maintained regarding the relation of thought and language: first, that they are identical; second, that words are the garb, or clothing, of thought, necessary not for thought but only for conveying it; and third (the view we shall here maintain), that, while language is not thought, it is necessary for thinking as well as for communication. When it is said, however, that thinking is impossible without language, we must recall that language includes much more than oral and written speech. Gestures, pictures, monuments, visual images, finger movements–anything deliberately and artificially employed as a *sign* is, logically, language. To say that language is necessary for thinking is to say that signs are necessary.

Thought deals not with bare things, but with their *meanings*, their suggestions; and meanings, in order to be apprehended, must be embodied in sensible and particular existences. Without meaning, things are nothing but blind stimuli, brute things, or chance sources of pleasure and pain; and since meanings are not themselves tangible things, they must be anchored by attachment to some physical existence. Existences that are especially set aside to fixate and convey meanings are *symbols*. If a man moves toward another to throw him out of the room, his movement is not a sign. If, however, the man points to the door with his hand, or utters the sound *go*, his act becomes a vehicle of meaning: it is a sign, not a complete thing in itself. In the case of signs we care nothing for what they are in themselves, but everything for what they signify and represent. *Canis, Hund, chien, dog*–it makes no difference what the outward thing is, so long as the meaning is presented.

Natural objects are signs of other things and events. Clouds stand for rain; a footprint represents game or an enemy; a projecting rock serves to indicate minerals below the surface. The limitations of *natural* signs are, however, great. First, physical or direct sense excitation tends to distract attention from what is meant or indicated. Almost everyone will recall pointing out to a kitten or puppy an object of food, only to have the animal devote himself to the hand pointing, not to the thing pointed at. Second, where natural signs alone exist, we are mainly at the mercy of external happenings; we have to wait until the natural event presents itself in order to be warned or advised of the possibility of some other event. Third, natural signs, not being originally intended to be signs, are cumbrous, bulky, inconvenient, unmanageable. A symbol, on the contrary, is intended and invented, like any artificial tool and utensil, for the purpose of conveying meaning.

Aspects of Artificial Signs That Favor Their Use to Represent Meanings. It is therefore indispensable for any high development of thought that there exist intentional signs. Language supplies the requirement. Gestures, sounds, written or printed forms are strictly physical existences, but their native value is intentionally subordinated to the value they acquire as representative of meanings. There are three aspects of artificial signs that favor their use as representatives of meanings:

First, the direct and sensible value of faint sounds and minute written or printed marks is very slight. Accordingly, attention is not distracted from their *representative* function.

Second, their production is under our direct control, so that they may be produced when needed. When we can make the word *rain*, we do not

have to wait for some physical forerunner of rain to call our thoughts in that direction. We cannot make the cloud; we can make the sound, and as a token of meaning the sound serves the purpose as well as the cloud.

Third, arbitrary linguistic signs are convenient and easy to manage. They are compact, portable, and delicate. As long as we live we breathe, and modifications by the muscles of throat and mouth of the volume and quality of the air are simple, easy, and indefinitely controllable. Bodily postures and gestures of the hand and arm are also employed as signs, but they are coarse and unmanageable compared with modifications of breath to produce sounds. No wonder that oral speech has been selected as the main stuff of intentional intellectual signs. Sounds, while subtle, refined, and easily modifiable, are transitory. This defect is met by the system of written and printed words, appealing to the eye. *Litera scripta manet* [The written word remains].

Bearing in mind the intimate connection of meanings and signs (or language), we may note in more detail what language does (1) for specific meanings, and (2) for the organization of meanings.

Language Selects, Preserves, and Applies Specific Meanings. In the case of specific meanings a verbal sign (*a*) selects, detaches, a meaning from what is otherwise a vague flux and blur; (*b*) retains, registers, stores that meaning; and (*c*) applies it, when needed, to the comprehension of other things. Combining these various functions in a mixture of metaphors, we may say that a linguistic sign is a fence, a label, and a vehicle—all in one.

(*a*) *The Word as a Fence*. Everyone has experienced how learning an appropriate name for what was dim and vague cleared up and crystallized the whole matter. Some meaning seems almost within reach, but is elusive; it refuses to condense into definite form; the attaching of a word somehow (just how, it is almost impossible to say) puts limits around the meaning, draws it out from the void, makes it stand out as an entity on its own account. When Emerson said that he would almost rather know the true name, the poet's name, for a thing, than to know the thing itself, he presumably had this irradiating and illuminating function of language in mind. The delight that children take in demanding and learning the names of everything about them indicates that meanings are becoming concrete individuals to them, so that their commerce with things is passing from the physical to the intellectual plane. It is hardly surprising that savages attach a magical efficacy to words. To name anything is to give it a title, to dignify and honor it by raising it from a mere physical occurrence to a meaning that is distinct and permanent. To know the names of

people and things and to be able to manipulate these names are, in savage lore, to be in possession of their dignity and worth, to master them.

(*b*) *The Word as a Label*. Things come and go, or we come and go, and either way things escape our notice. Our direct sensible relation to things is very limited. The suggestion of meanings by natural signs is limited to occasions of direct contact or vision. But a meaning fixed by a linguistic sign is conserved for future use. Even if the thing is not there to represent the meaning, the word may be produced so as to evoke the meaning. Since intellectual life depends on possession of a store of meanings, the importance of language as a tool of preserving meanings cannot be overstated. To be sure, the method of storage is not wholly aseptic; words often corrupt and modify the meanings they are supposed to keep intact, but liability to infection is a price paid by every living thing for the privilege of living.

(*c*) *The Word as a Vehicle*. When a meaning is detached and fixed by a sign, it is possible to use that meaning in a new context and situation. This transfer and reapplication is the key to all judgment and inference. It would little profit a man to recognize that a given particular cloud was the premonitor of a given particular rainstorm if his recognition ended there, for he would then have to learn over and over again, since the next cloud and the next rain are different events. No cumulative growth of intelligence would occur. Experience might form habits of physical adaptation but it would not *teach* anything, for we should not be able to use an old experience consciously to anticipate and regulate a new experience. To be able to use the past to judge and infer the new and unknown implies that, although the past thing has gone, its *meaning* abides in such a way as to be applicable in determining the character of the new. Speech forms are our great carriers, the easy-running vehicles by which meanings are transported from experiences that no longer concern us to those that are as yet dark and dubious.

Language Signs Are Instruments for Organizing Meanings. In emphasizing the importance of signs in relation to specific meanings, we have overlooked another aspect, equally valuable. Signs not only mark off specific or individual meanings, but they are also instruments of grouping meanings in relation to one another. Words are not only names or titles of single meanings; they also form *sentences* in which meanings are organized in relation to one another. When we say "That book is a dictionary," or "That blur of light in the heavens is Halley's Comet," we express a *logical* connection—an act of classifying and defining that goes beyond the physical thing into the logical region of genera and species, things and

attributes. Propositions, sentences bear the same relation to judgments that distinct words, built up mainly by analyzing propositions in their various types, bear to meanings or conceptions; and just as words imply a sentence, so a sentence implies a larger whole of consecutive discourse into which it fits. As is often said, grammar expresses the unconscious logic of the popular mind. *The chief intellectual classifications that constitute the working capital of thought have been built up for us by our mother tongue*. Our very lack of explicit consciousness, when using language, that we are then employing the intellectual systematizations of the race shows how thoroughly accustomed we have become to its logical distinctions and groupings.

II
THE ABUSE OF LINGUISTIC METHODS IN EDUCATION

Teaching Things Alone, the Negation of Education. Taken literally, the maxim, "Teach things, not words," or "Teach things before words," would be the negation of education; it would reduce mental life to mere physical and sensible adjustments. Learning, in the proper sense, is not learning things, but the *meanings* of things, and this process involves the use of signs, or language in its generic sense. In like fashion, the warfare of some educational reformers against symbols, if pushed to extremes, involves the destruction of intellectual life, since this lives, moves, and has its being in those processes of definition, abstraction, generalization, and classification that are made possible by symbols alone. Nevertheless, these contentions of educational reformers have been needed. The liability of a thing to abuse is in proportion to the value of its right use.

The Limitations and Dangers of Symbols in Relation to Meanings. Symbols themselves, as already pointed out, are particular, physical, sensible existences, like any other things. They are symbols only by virtue of what they suggest and represent; *i.e*., meanings.

In the first place, they stand for these meanings to any individual only when he has had *experience* of some situation to which these meanings are actually relevant. Words can detach and preserve a meaning only when the meaning has been first involved in our own direct intercourse with things. To attempt to give a meaning through a word alone without any dealings with a thing is to deprive the word of intelligible signification; against this attempt, a tendency only too prevalent in education, reformers have protested. Moreover, there is a tendency to assume that,

whenever there is a definite word or form of speech, there is also a definite idea; while, as a matter of fact, adults and children alike are capable of using even formulas that are verbally precise with only the vaguest and most confused sense of what they mean. Genuine ignorance is more profitable because it is likely to be accompanied by humility, curiosity, and open-mindedness; whereas ability to repeat catch phrases, cant terms, familiar propositions gives the conceit of learning and coats the mind with a varnish waterproof to new ideas.

In the second place, although new combinations of words without the intervention of physical things may supply new ideas, there are limits to this possibility. Lazy inertness causes individuals to accept ideas that have currency about them without personal inquiry and testing. A man uses thought, perhaps, to find out what others believe, and then stops. The ideas of others as embodied in language become substitutes for one's own ideas. The use of linguistic studies and methods to halt the human mind on the level of the attainments of the past, to prevent new inquiry and discovery, to put the authority of tradition in place of the authority of natural facts and laws, to reduce the individual to a parasite living on the secondhand experience of others–these things have been the source of the reformers' protest against the pre-eminence assigned to language in schools.

In the third place, words that originally stood for ideas come, with repeated use, to be mere counters; they become physical things to be manipulated according to certain rules or reacted to by certain operations without consciousness of their meaning. Mr. Stout (who has called such terms "substitute signs") remarks that "algebraical and arithmetical signs are to a great extent used as mere substitute signs. . . . It is possible to use signs of this kind whenever fixed and definite rules of operation can be derived from the nature of the things symbolized, so as to be applied in manipulating the signs, without further reference to their signification. A word is an instrument for thinking about the meaning which it expresses; a substitute sign is a means of *not* thinking about the meaning which it symbolizes." The principle applies, however, to ordinary words, as well as to algebraic signs; they also enable us to use meanings so as to get results without thinking. In many respects, signs that are means of not thinking are of great advantage; standing for the familiar, they release attention for meanings that, being novel, require conscious interpretation. Nevertheless, the premium put in the schoolroom upon attainment of technical facility, upon skill in producing external results, often changes this advantage into a positive detriment. In manipulating symbols so as to recite well, to get

and give correct answers, to follow prescribed formulas of analysis, the pupil's attitude becomes mechanical, rather than thoughtful; verbal memorizing is substituted for inquiry into the meaning of things. This danger is perhaps the one uppermost in mind when verbal methods of education are attacked.

III
THE USE OF LANGUAGE IN ITS EDUCATIONAL BEARINGS

Language stands in a twofold relation to the work of education. On the one hand, it is continually used in all studies as well as in all the social discipline of the school; on the other, it is a distinct object of study. We shall consider only the ordinary use of language, since its effects upon habits of thought are much deeper than those of conscious linguistic study, for the latter only makes explicit what speech already contains.

The common statement that "language is the expression of thought" conveys only a half-truth, and a half-truth that is likely to result in positive error. Language does express thought, but not primarily, nor, at first, even consciously. The primary motive for language is to influence (through the expression of desire, emotion, and thought) the activity of others; its secondary use is to enter into more intimate sociable relations with them; its employment as a conscious vehicle of thought and knowledge is a tertiary, and relatively late, formation. The contrast is well brought out by the statement of John Locke that words have a double use, "civil" and "philosophical." "By their civil use, I mean such a communication of thoughts and ideas by words as may serve for the upholding of common conversation and commerce about the ordinary affairs and conveniences of civil life. . . . By the philosophical use of words, I mean such a use of them as may serve to convey the precise notions of things and to express in general propositions certain and undoubted truths."

Education Has to Transform Language into an Intellectual Tool. This distinction of the practical and social from the intellectual use of language throws much light on the problem of the school in respect to speech. That problem is *to direct pupils' oral and written speech, used primarily for practical and social ends, so that gradually it shall become a conscious tool of conveying knowledge and assisting thought.* How without checking the spontaneous, natural motives—motives to which language owes its vitality, force, vividness, and variety—are we to modify speech habits so as to render them accurate and flexible *intellectual* instruments? It is comparatively easy to encourage the original spontaneous flow and not make

language over into a servant of reflective thought; it is comparatively easy to check and almost destroy (so far as the schoolroom is concerned) native aim and interest and to set up artificial and formal modes of expression in some isolated and technical matters. The difficulty lies in making over habits that have to do with "ordinary affairs and conveniences" into habits concerned with "precise notions." The successful accomplishing of the transformation requires (*a*) enlarging the pupil's vocabulary, (*b*) rendering its terms more precise and accurate, and (*c*) forming habits of consecutive discourse.

(*a*) *Enlarging the Vocabulary*. This takes place, of course, by wider intelligent contact with things and persons, and also vicariously, by gathering the meanings of words from the context in which they are heard or read. To grasp by either method a word in its meaning is to exercise intelligence, to perform an act of intelligent selection or analysis, and it is also to widen the fund of meanings or concepts readily available in further intellectual enterprises. It is usual to distinguish between one's active and one's passive vocabulary, the latter being composed of the words that are understood when they are heard or seen, the former of words that are used intelligently. The fact that the passive is very much larger than the active vocabulary indicates power not controlled or utilized by the individual. Failure to use meanings that are understood may reveal dependence upon external stimulus and lack of intellectual initiative. This condition is to some extent an artificial product of education. Small children usually attempt to put to use every new word they get hold of, but when they learn to read they are introduced to a large variety of terms that they have no opportunity to use. The result is a kind of mental suppression, if not smothering. Moreover, the meaning of words not actively used in building up and conveying ideas is never quite clear-cut or complete. Action is required to make them definite.

While a limited vocabulary may be due to a limited range of experience, to a sphere of contact with persons and things so narrow as not to suggest or require a full store of words, it is also due to carelessness and vagueness. A happy-go-lucky frame of mind makes the individual averse to clear discriminations, either in perception or in his own speech. Words are used loosely in an indeterminate kind of reference to things, and speech approaches a condition where practically everything is just a "thing-um-bob" or a "what-do-you-call-it," a condition that reacts to make thought hopelessly loose and vague. Paucity of vocabulary on the part of those with whom the child associates, triviality and meagerness in the child's reading matter (as frequently even in his school readers and textbooks)

tend to shut down the area of mental vision. Even technical terms become clear when they are used to make either an idea or an object clearer in meaning. Every self-respecting mechanic will call the parts of an automobile by their right names because that is the way to distinguish them. Simplicity should mean intelligibility, but not an approach to baby talk.

We must note also the great difference between flow of words and command of language. Volubility is not necessarily a sign of a large vocabulary; much talking or even ready speech is quite compatible with moving round and round in a circle of moderate radius. Most schoolrooms suffer from a lack of materials and appliances save perhaps books—and even these are "written down" to the supposed capacity, or incapacity, of children. Occasion and demand for an enriched vocabulary are accordingly restricted. The vocabulary of things studied in the schoolroom is very largely isolated; it does not link itself organically to the range of the ideas and words that are in vogue outside the school. Hence the enlargement that takes place is often nominal, adding to the inert, rather than to the active, fund of meanings and terms.

(*b*) *Rendering the Vocabulary More Precise*. One way in which the fund of words and concepts is increased is by discovering and naming shades of meaning—that is to say, by making the vocabulary more precise. Increase in definiteness is as important relatively as is the enlargement of the capital stock absolutely.

The first meanings of terms, since they are due to superficial acquaintance with things, are "general"—in the sense of being vague. The little child calls all men "papa"; acquainted with a dog, he may call the first horse he sees "big dog." Differences of quantity and intensity are noted, but the fundamental meaning is so vague that it covers things that are far apart. To many persons trees are just trees, being discriminated only into deciduous trees and evergreens, with perhaps recognition of one or two kinds of each. Such vagueness tends to persist and to become a barrier to the advance of thinking. Terms that are miscellaneous in scope are clumsy tools at best; in addition they are frequently treacherous, for their ambiguous reference causes us to confuse things that should be distinguished.

The growth of precise terms out of original vagueness takes place normally in two directions: first, toward words that stand for relationships, and second, toward words that stand for highly individualized traits; the first is associated with abstract, the second with concrete, thinking. Some Australian tribes are said to have no words for *animal* or for *plant*, while they have specific names for every variety of plant and animal in their neighborhoods. This minuteness of vocabulary represents progress toward

definiteness, but in a one-sided way. Specific properties are distinguished, but not relationships.[11] On the other hand, students of philosophy and of the general aspects of natural and social science are apt to acquire a store of terms that signify relations, without balancing them up with terms that designate specific individuals and traits. The ordinary use of such terms as *causation, law, society, individual, capital* illustrates this tendency.

In the history of language we find both aspects of the growth of vocabulary illustrated by changes in the sense of words: some words originally wide in their application are narrowed to denote shades of meaning; others originally specific are widened to express relationships. The term *vernacular*, now meaning mother speech, has been generalized from the word *verna*, meaning a slave born in the master's household. *Publication* has evolved its meaning of communication by means of print through restricting an earlier meaning of any kind of communication–although the wider meaning is retained in legal procedure, as publishing a libel. The sense of the word *average* has been generalized from a use connected with dividing loss by shipwreck proportionately among various sharers in an enterprise.

These historical changes assist the educator to appreciate the changes that occur in individuals with advance in intellectual resources. In studying geometry, a pupil must learn both to narrow and to extend the meanings of such familiar words as *line, surface, angle, square, circle*–to narrow them to the precise meanings involved in demonstrations, to extend them to cover generic relations not expressed in ordinary usage. Qualities of color and size must be excluded; relations of direction, of variation in direction, of limit must be definitely seized. Thus in generalized geometry the idea of *line* does not carry any connotation of *length*. To it, what is ordinarily called a line is only a *section* of a line. A like transformation occurs in every subject of study. Just at this point lies the danger, alluded to above, of simply overlaying common meanings with new and isolated meanings instead of effecting a genuine working over of popular and practical meanings into logical concepts.

Terms used with intentional exactness so as to express a meaning, the whole meaning, and only the meaning are called *technical*. For educational purposes, a technical term indicates something relative, not absolute; for a term is technical, not because of its verbal form or its unusual-

11. The term *general* is itself an ambiguous term, meaning (in its best logical sense) the related and also (in its natural usage) the indefinite, the vague. *General*, in the first sense, denotes the discrimination of a principle or generic relation; in the second sense, it denotes the absence of discrimination of specific or individual properties.

ness, but because it is employed to fix a meaning precisely. Ordinary words get a technical quality when used intentionally for this end. Whenever thought becomes more accurate, a (relatively) technical vocabulary grows up. Teachers are apt to oscillate between extremes in regard to technical terms. On the one hand, these are multiplied in every direction, seemingly on the assumption that learning a new piece of terminology, accompanied by verbal description or definition, is equivalent to grasping a new idea. On the other hand, when it is seen how largely the net outcome is the accumulation of an isolated set of words, a jargon or scholastic cant, and to what extent the natural power of judgment is clogged by this accumulation, there is a reaction to the opposite extreme. Technical terms are banished; "name words" exist, but not nouns: "action words," but not verbs; pupils may "take away," but not subtract; they may tell what four fives are, but not what four times five are, and so on. A sound instinct underlies this reaction–aversion to words that give the pretense, but not the reality, of meaning. Yet the fundamental difficulty is not with the word, but with the idea. If the idea is not grasped, nothing is gained by using a more familiar word; if the idea is grasped, the use of the term that exactly names it may assist in fixing the idea. Terms denoting highly exact meanings should be introduced only sparingly–that is, a few at a time; they should be led up to gradually, and great pains should be taken to secure the circumstances that render precision of meaning significant.

(*c*) *Forming Habits of Consecutive Discourse*. As we saw, language connects and organizes meanings as well as selects and fixes them. As every meaning is set in the context of some situation, so every word in concrete use belongs to some sentence (it may itself represent a condensed sentence); and the sentence, in turn, belongs to some larger story, description, or reasoning process. It is unnecessary to repeat what has been said about the importance of continuity and ordering of meanings. We may, however, note some ways in which school practices tend to interrupt consecutiveness of language and thereby interfere harmfully with systematic reflection.

First, teachers have a habit of monopolizing continued discourse. Many, if not most, instructors would be surprised if informed at the end of the day of the amount of time they have talked as compared with any pupil. Children's conversation is often confined to answering questions in brief phrases or in single disconnected sentences. Expatiation and explanation are reserved for the teacher, who often admits any hint at an answer on the part of the pupil, and then amplifies what he supposes the child must

have meant. The habits of sporadic and fragmentary discourse thus promoted have inevitably a disintegrating intellectual influence.

Second, assignment of too short lessons, when accompanied (as it usually is in order to pass the time of the recitation period) by minute "analytic" questioning, has the same effect. This evil is usually at its height in such subjects as history and literature, where not infrequently the material is so minutely subdivided as to break up the unity of meaning belonging to a given portion of the matter, to destroy perspective, and in effect to reduce the whole topic to an accumulation of disconnected details all upon the same level. More often than the teacher is aware, *his* mind carries and supplies the background of unity of meaning against which pupils project isolated scraps.

Third, insistence upon avoiding error instead of attaining power tends also to interruption of continuous discourse and thought. Children who begin with something to say and with intellectual eagerness to say it are sometimes made so conscious of minor errors in substance and form that the energy that should go into constructive thinking is diverted into anxiety not to make mistakes, and even, in extreme cases, into passive quiescence as the best method of minimizing error. This tendency is especially marked in connection with the writing of compositions, essays, and themes. It has even been gravely recommended that little children should always write on trivial subjects and in short sentences because in that way they are less likely to make mistakes. The teaching of high-school and college students occasionally reduces itself to a technique for detecting and designating mistakes. Self-consciousness and constraint follow. Students lose zest for writing. Instead of being interested in what they have to say and in how it is said as a means of adequate formulation and expression of their own thought, interest is drained off. Having to say something is a very different matter from having something to say.

OBSERVATION AND INFORMATION IN THE TRAINING OF MIND

Thinking is ordering of subject matter with reference to discovering what it signifies or indicates. Thinking no more exists apart from this arranging of subject matter than digestion occurs apart from the assimilating of food. The way in which the subject matter is supplied and assimilated is, therefore, of fundamental importance. If the subject matter is provided in too scanty or too profuse fashion, if it comes in disordered array or in isolated scraps, the effect upon habits of thought is detrimen-

tal. If personal observation and the communication of information by others (whether in books or speech) are rightly conducted, half the logical battle is won, for these are the channels of obtaining subject matter, and the method in which they are carried on directly affects the habit of thinking. The effect is often deeper because it is so unconscious. The best digestion can be ruined by innutritious foodstuffs, by eating at the wrong time, too much at a time, or having an unbalanced diet–that is, one the materials of which are badly arranged.

I
THE NATURE AND VALUE OF OBSERVATION

Observation Not an End in Itself. The protest, mentioned in the last chapter, of educational reformers against the exaggerated and false use of language insisted upon personal and direct observation as the alternative course. The reformers felt that the current emphasis upon the linguistic factor eliminated all opportunity for firsthand acquaintance with real things; hence they appealed to sense perception to fill the gap. It is not surprising that this enthusiastic zeal frequently failed to ask how and why observation is educative, and hence fell into the error of making observation an end in itself and hence was satisfied with any kind of material under any kind of conditions. Such isolation of observation is still manifested in the statement that this faculty develops first, then that of memory and imagination, and finally the faculty of thought. From this point of view, observation is regarded as furnishing crude masses of raw material, to which, later on, reflective processes may be applied. Our previous pages should have made obvious the fallacy of this point of view by bringing out the fact that simple concrete thinking attends all our intercourse with things that is not on a purely physical level.

Observation Impelled by Sympathetic Interest in Extending Acquaintance. All persons have a natural desire–akin to curiosity–for a widening of their range of acquaintance with persons and things. The sign in art galleries that forbids the carrying of canes and umbrellas is obvious testimony to the fact that simply to see is not enough for many people; there is a feeling of lack of acquaintance until some direct contact is made. This demand for fuller and closer knowledge is quite different from conscious interest in observation for its own sake. Desire for expansion, for "self-realization," is its motive. The interest is sympathetic, socially and aesthetically sympathetic, rather than cognitive. While the interest is especially keen in children (because their actual experience is so small and

their possible experience so large), it still characterizes adults when routine has not blunted its edge. This sympathetic interest provides the medium for carrying and binding together what would otherwise be a multitude of items, diverse, disconnected, and of no intellectual use. The result is a social and aesthetic organization rather than one consciously intellectual; but it provides the natural opportunity and supplies the material for conscious intellectual explorations. Some educators have recommended that nature study in the elementary schools be conducted with a love of nature and a cultivation of aesthetic appreciation in view rather than in a purely analytic spirit. Others have urged making much of the care of animals and plants. Both of these important recommendations have grown out of experience, not out of theory, but they afford an excellent exemplification of the point just made.

Analytic Observation Impelled by Need Arising in Activity: Some Fallacies about Sense Training. In normal development, specific analytic observations are originally connected almost exclusively with the imperative need for noting means and ends in carrying on activities. When one is *doing* something *intelligently*, one is compelled, if the work is to succeed (unless it is purely routine), to use eyes, ears, and sense of touch as guides to action. Without a constant and alert exercise of the senses, not even plays and games can go on; in any form of work, materials, obstacles, appliances, failures, and successes must be intently watched. Sense perception does not occur for its own sake or for purposes of training, but because it is an indispensable factor of success in doing what one is trying to do. Although it is not designed for sense training, this method effects sense training in the most economical and thoroughgoing way. Various schemes have been designed by teachers for cultivating sharp and prompt observation of forms, as by writing words (even in an unknown language), making arrangements of figures and geometrical forms, and having pupils reproduce them after a momentary glance. Children often attain great skill in quick seeing and full reproducing of even complicated meaningless combinations. But such methods of training, however valuable as occasional games and diversions, compare very unfavorably with the training of eye and hand that comes as an incident of work with tools in wood or metals, or such activities as gardening, cooking, or the care of animals. Training by isolated exercises leaves no deposit, leads nowhere; and even the technical skill acquired has little radiating power or transferable value. Criticism made upon the training of observation, on the ground that many persons cannot correctly reproduce the forms and arrangement of the figures on the face of their watches, misses the point, because

persons do not look at a watch to find out whether four o'clock is indicated by IIII or by IV, but to find out what time it is, and if observation decides this fact, noting other details is irrelevant and a waste of time. In the training of observation the question of purpose and result is all-important.

Observation Impelled by Solving Theoretical Problems. The further intellectual or scientific development of observation follows the line of the growth of practical into theoretical reflection already traced. As problems emerge and are dwelt upon, observation is directed less to facts that bear upon a practical aim and more to what bears upon a problem as a problem. What often makes observation in schools intellectually ineffective is (more than anything else) that it is carried on without a sense of a problem that it helps define and solve. The evil of this isolation is seen through the entire educational system, from the kindergarten through the elementary and high schools to the college. Almost everywhere may be found, at some time, recourse to observations as if they were of complete and final value in themselves, instead of being means for getting the data that test an idea or plan and that make the felt difficulty into a question that guides subsequent thinking. Moreover, intellectual method is violated because observations are not aroused and guided by any idea of the *purpose* they are to serve.

In the kindergarten observations are heaped up regarding geometrical forms, lines, surfaces, cubes, colors, and so on. In the elementary school, under the name of "object lessons," the form and properties of objects—apple, orange, chalk—selected almost at random are minutely noted, while under the name of "nature study" similar observations are directed upon leaves, stones, insects, selected in almost equally arbitrary fashion. In the high school and college, laboratory and microscopic observations are carried on as if the accumulation of observed facts and the acquisition of skill in manipulation were educational ends in themselves.

Observation in Scientific Work. Compare with these methods of isolated observations the statement of Jevons that observation as conducted by scientific men is effective "only when excited and guided by hope of verifying a theory"; and again, "the number of things which can be observed and experimented upon are infinite, and if we merely set to work to record facts without any distinct purpose, our records will have no value." Strictly speaking, the first statement of Jevons is too narrow. Scientific men institute observations not merely to test an idea (or suggested explanatory meaning), but also to locate a problem or even create one and thereby guide the formation of a hypothesis. But the principle of

his remark—namely, that scientific men never make the accumulation of observations an end in itself, but always a means to a general intellectual conclusion—is absolutely sound. Until the force of this principle is adequately recognized in education, observation will be largely a matter of uninteresting dead work or of acquiring forms of technical skill that are not available as intellectual resources.

II
METHODS AND MATERIALS OF OBSERVATION IN THE SCHOOLS

The best methods already in use in schools furnish many suggestions for giving observation its right place in mental training. Three features of these methods deserve mention.

Observation Should Involve Active Exploration. First, they rest upon the sound assumption that observation is an *active* process. Observation is exploration, inquiry for the sake of discovering something previously hidden and unknown, this something being needed in order to reach some end, practical or theoretical. Observation is to be discriminated from recognition, the perception of what is familiar. The identification of something already understood is, indeed, an indispensable function of further investigation; but it is relatively automatic and passive, while observation demands the mind to be alert, on the *qui vive*, searching and probing. Recognition deals with the already mastered; observation is concerned with delving into the unknown. The common notions that perception is like writing on a blank piece of paper or like impressing an image on the mind as a seal is imprinted on wax or as a picture is formed on a photographic plate (notions that have played a disastrous role in educational methods) arise from a failure to distinguish between automatic recognition and live observation.

Observation Should Introduce the Dramatic Element of Suspense, of "Plot Interest." Second, much assistance in the selection of appropriate material for observation may be derived from considering the eagerness and closeness of observation that attend the following of a story or drama. Alertness of observation is at its height wherever there is "plot interest." Why? Because of the balanced combination of the old and the new, of the familiar and the unexpected. We hang on the lips of the storyteller because of the element of mental suspense. Alternatives are suggested, but are left ambiguous, so that our whole being questions: What befell next? Which way did things turn out? Contrast the ease and fullness with which

a child notes all the salient traits of a story, with the labor and inadequacy of his observation of some dead and static thing where nothing raises a question or suggests alternative outcomes.

When an individual is engaged in doing or making something (the activity not being of such a mechanical and habitual character that its outcome is assured), there is an analogous situation. Something is going to come of what is present to the sense, but just what is doubtful. The plot is unfolding toward success or failure, but just when or how is uncertain. Hence the keen and tense observation of conditions and results that attends constructive manual operations. Where the subject matter is of a more impersonal sort, the same principle of movement toward a denouement may apply. It is a commonplace that what is moving attracts notice when that which is at rest escapes it. Yet too often it would seem as if pains were taken to deprive the material of school observations of all life and dramatic quality, to reduce it to a dead and inert form. Mere change is not enough, however. Vicissitude, alteration, motion excite observation; but if they merely excite it, there is no thought. The changes must (like the incidents of a well-arranged story or plot) take place in a certain cumulative order; each successive change must at once remind us of its predecessor and arouse interest in its successor if observations of change are to be intellectually ordered and thus are to aid in forming a logical attitude.

Observation of Structure and Function. Living beings, plants and animals, fulfill the twofold requirement to an extraordinary degree. Where there is growth, there is motion, change, process; and there is also arrangement of the changes in a cycle. The first arouses thought; the second organizes it. Much of the extraordinary interest that children take in planting seeds and watching the stages of their growth is due to the fact that a drama is enacting before their eyes; there is something doing, each step of which is important in the destiny of the plant. The great practical improvements that have occurred of late years in the teaching of botany and zoology will be found, upon inspection, to involve treating plants and animals as beings that act, that do something, instead of as mere inert specimens having static properties to be inventoried, named, and registered. Treated in the latter fashion, observation is inevitably reduced to the falsely "analytic," to mere enumeration and cataloguing.

There is, of course, a place, and an important place, for observation of the static qualities of objects. When, however, the primary interest is in *function*, in what the object does and how it operates, there is a motive for more minute analytic study, for observation of *structure*. Interest in noting

an activity passes insensibly into noting how the activity is carried on; the interest in what is done passes over into an interest in the organs by which it is done. But when the beginning is made with the morphological, the anatomical, the noting of peculiarities of form, size, color, and distribution of parts, the material is cut off from significance and becomes dead and dull. It is as natural for children to look intently for the *stomata* of a plant after they have learned that, like animals, it breathes, and so must have something corresponding in function to lungs. It is repulsive to attend minutely to them when they are presented for study as mere items of structure, and no idea of their action and use is conveyed.

Observation Should Become Scientific in Nature. Third, observation that is carried on at first to help out a practical purpose or for the mere fun of seeing and hearing comes to be conducted for an intellectual purpose. Pupils learn to observe for the sake (*a*) of finding out what sort of perplexity confronts them; (*b*) of conjecturing and inventing hypothetical explanations for the puzzling features revealed by observation; and (*c*) of testing the ideas thus suggested.

In short, observation becomes scientific in nature. Of such observations it may be said that they should follow a rhythm between the extensive and the intensive. Problems become definite, and suggested explanations significant, by an alternation between a wide and loose soaking in of relevant facts and a minutely accurate study of a few selected facts. The wider, less exact observation is necessary to give the student a feeling for the reality of the field of inquiry, a sense of its bearings and possibilities, and to store his mind with materials that imagination may transform into suggestions. The intensive study is necessary for limiting the problem and for securing the conditions of experimental testing. As the latter by itself is too specialized and technical to arouse intellectual growth, the former by itself is too superficial and scattering for control of intellectual development. In the sciences of life, field study, excursions, acquaintance with living things in their natural habitats may alternate with microscopic and laboratory observation. In the physical sciences, phenomena of light, of heat, of electricity, of moisture, of gravity, in their broad setting in nature—their physiographic setting—should prepare for an exact study of selected facts under conditions of laboratory control. In this way, the student gets the benefit of technical scientific methods of discovery and testing, while he retains his sense of the identity of the laboratory modes of energy with large out-of-door realities, thereby avoiding the impression (that so often accrues) that the facts studied are peculiar to the laboratory. Scientific observation does not, however, merely replace obser-

vation that is enjoyed for its own sake. The latter, sharpened by the purpose of contributing to an art like writing, painting, singing, becomes truly aesthetic, and the persons who enjoy seeing and hearing will be the best observers.

III
COMMUNICATION OF INFORMATION

When all is said and done, the field of fact open to any one observer by himself is narrow. Into every one of our beliefs, even those that we have worked out under the conditions of utmost personal, firsthand acquaintance, much has insensibly entered from what we have heard or read of the observations and conclusions of others. In spite of the great extension of direct observation in our schools, the vast bulk of educational subject matter is derived from other sources–from textbook, lecture, and viva voce interchange. No educational question is of greater import than how to get *intellectual* good out of what persons and books have to communicate.

How to Make an Intellectual Asset of Learning through Communicated Information. Doubtless the chief meaning associated with the word *instruction* is this conveying and instilling of the results of the observations and inferences of others. Doubtless the undue prominence in education of the ideal of amassing information has its source in the prominence of the learning of other persons. The problem, then, is how to convert this form of learning into an intellectual asset. In logical terms, the material supplied from the experience of others is *testimony:* that is to say, *evidence* submitted by others that is to be employed by one's own judgment in reaching a conclusion. How shall we treat subject matter that is supplied by textbook and teacher so that it shall rank as material of reflective inquiry, not as ready-made intellectual pabulum to be accepted and swallowed just as if it were something bought at a shop?

In reply to this question, we may say first that communication of material should be *needed.* That is to say, it should be such as cannot readily be attained by personal observation. For teacher or book to cram pupils with facts which, with little more trouble, they could discover by direct inquiry is to violate their intellectual integrity and to cultivate mental servility. This does not mean that the material supplied through communication of others should be meager or scanty. With the utmost range of the senses, the world of nature and history stretches out almost infinitely beyond. But fields within which direct observation is practicable

should be carefully chosen and sacredly protected. Curiosity should not be dulled by making its satisfaction cheap and stale.

Second, material should be supplied by way of stimulus, not with dogmatic finality and rigidity. When pupils get the notion that any field of study has been definitely surveyed, that knowledge about it is exhaustive and final, they may become docile pupils, but they cease to be students. All thinking whatsoever–so be it *is* thinking–contains a phase of originality. This originality does not imply that the student's conclusion varies from the conclusions of others, much less that it is a radically novel conclusion. His originality is not incompatible with large use of materials and suggestions contributed by others. Originality means personal interest in the question, personal initiative in turning over the suggestions furnished by others, and sincerity in following them out to a tested conclusion. Literally, the phrase "Think for yourself" is tautological; any thinking is thinking for one's self.

Third, the material furnished by way of information should be relevant to a question that is vital in the student's own experience. What has been said about the evil of observations that begin and end in themselves may be transferred without change to communicated learning. Instruction in subject matter that does not fit into an interest already stirring in the student's own experience or that is not presented in such a way as to arouse a problem is worse than useless for intellectual purposes. In that it fails to enter into any process of reflection, it is useless; in that it remains in the mind as so much lumber and debris, it is a barrier, an obstruction, in the way of effective thinking when a problem arises.

Another way of stating the same principle is that material furnished by communication must be such as to enter into some existing system or organization of experience. All students of psychology are familiar with the principle of apperception–that we assimilate new material with what we have digested and retained from prior experiences. Now the apperceptive basis of material furnished by teacher and textbook should be found, as far as possible, in what the learner has derived from more direct forms of his own experience. There is a tendency to connect material of the schoolroom simply with the material of prior school lessons, instead of linking it to what the pupil has acquired in his out-of-school experience. The teacher says, "Do you not remember what we learned from the book last week?"–instead of saying, "Do you not recall such and such a thing that you have seen or heard?" As a result, there are built up detached and independent systems of school knowledge that inertly overlay the ordinary systems of experience instead of reacting to enlarge and refine them. Pupils are taught to live in two separate worlds, one the world

of out-of-school experience, the other the world of books and lessons. Then we stupidly wonder why what is studied in school counts so little outside.

SOME GENERAL CONCLUSIONS

We shall conclude our survey of how we think and how we should think by presenting some factors of thinking that should balance each other, but that constantly tend to become so isolated that they work against each other instead of co-operating to make reflective inquiry efficient.

I
THE UNCONSCIOUS AND THE CONSCIOUS

Implicit and Explicit Context. It is significant that one meaning of the term "understood" is something so thoroughly mastered, so completely agreed upon, as to be *assumed*; that is to say, something taken as a matter of course without explicit statement. The familiar "it goes without saying" means "it is understood." If two persons can converse intelligently with each other, it is because a common experience supplies a background of mutual understanding upon which their respective remarks are projected. To dig up and to formulate this common background would be imbecile; it is "understood"; that is, it is silently sup-plied and im-plied as the taken-for-granted medium of intelligent exchange of ideas.

If, however, the two persons find themselves at cross purposes, it is necessary to dig up and compare the presuppositions, the implied context, on the basis of which each is speaking. The im-plicit is made ex-plicit; what was unconsciously assumed is exposed to the light of conscious day. In this way, the root of the misunderstanding is removed. Some such rhythm of the unconscious and the conscious, of going ahead and of analysis, is involved in all fruitful thinking. A person in pursuing a consecutive train of thoughts takes some system of ideas for granted (which accordingly he leaves unexpressed, "unconscious") as surely as he does in conversing with others. Some context, some situation, some controlling purpose, dominates his explicit ideas so thoroughly that it does not need to be consciously formulated and expounded. Explicit thinking goes on within the limits of what is implied or understood. Yet the fact that reflection originates in a problem makes it necessary *at some points* consciously to inspect and examine this familiar background. We have to turn upon some unconscious assumption and make it explicit.

No rules can be laid down for attaining the due balance and rhythm of

these two phases of mental life. No ordinance can prescribe at just what point the spontaneous working of some unconscious attitude and habit is to be checked till we have made explicit what is implied in it. No one is wise enough to tell in detail just when and how far analytic inspection and conscious statement should be engaged in. We can say that they must be carried far enough so that the individual will know what he is about and be able to guide his thinking; but in a given case just how far is that? We can say that they must be carried far enough to detect and guard against the source of some false perception or reasoning, and to get a leverage on an investigation; but such statements only restate the original difficulty. Since our reliance must be upon the disposition and tact of the individual in the particular case, there is no test of the success of an education more important than whether it nurtures a type of mind that maintains a balance of the unconscious and the conscious.

The ways of teaching criticized in the foregoing pages as false "analytic" methods of instruction all reduce themselves to the mistake of directing explicit attention and formulation to what would work better if left an unconscious attitude and working assumption. To pry into the familiar, the usual, the automatic, simply for the sake of making it conscious, simply for the sake of formulating it, is both an impertinent interference and a source of boredom. To be forced to dwell consciously upon the accustomed is the essence of ennui. Methods of instruction that have that tendency dull curiosity.

On the other hand, what has been said in criticism of merely routine forms of skill, what has been said about the importance of having a genuine problem, of introducing the novel, and of reaching a deposit of general meaning, weighs on the other side of the scales. It is fatal to good thinking to fail to make conscious the standing source of some error or recurring failure as well as to pry needlessly into what works smoothly. To oversimplify, to exclude the novel for the sake of prompt skill, to avoid obstacles for the sake of averting errors, is as detrimental as to try to get pupils to formulate everything they know and to state every step of the procedure by which a result was obtained. Where the shoe pinches, analytic examination is indicated. When a topic is to be clinched so that knowledge of it will carry over and be an effective resource in further topics, conscious summarizing and organization are imperative. In the early stage of acquaintance with a subject, a good deal of unconstrained unconscious mental play about it may be permitted, even at the risk of some random experimenting; in the later stages, conscious formulation and review may be encouraged. Projection and reflection, going directly

ahead and turning back in scrutiny, should alternate. Unconsciousness gives spontaneity and freshness; consciousness, command and control.

An Illustration from Control of Reflective Thinking. The point may be illustrated by the analysis in this volume of the phases of reflective activity. Some readers may get the idea that it is intended that students in their study and recitation should be made consciously to note and formulate these various phases as a means of intellectual control. Such a notion is, however, foreign to the spirit of the analysis. For it holds that fundamental control is effected by means of the *conditions* under which students work—the provision of a real situation that arouses inquiry, suggestion, reasoning, testing, etc. The chief value of the analysis that has been given is therefore to suggest to teachers the ways in which reflective thought may be best secured in students without the latter being made conscious at every step of their own attitudes and processes. It is also true that, *after* the instructor has once provided the conditions most likely to call out and direct thinking, the student's subsequent activity, while conscious of ends and means, may be unconscious with respect to his own personal attitudes and procedures. The familiar fact that creative work in the arts, writing, painting, music, etc., is largely unconscious as to the motives and attitudes of the artist, his mind being fixed on the objects he is dealing with or constructing, suggests the adoption of a like course in both study and teaching. The artist should be taken as a model rather than the activities of one painfully conscious at every step of just how he is operating. Control should be exercised by the setup of the situation itself. Yet in conditions of unusual perplexity or repeated error it will usually be a help if conscious attention goes back to such causes as lie in the attitudes and processes of the learner.

Absorption and Incubation. It is a common experience that after prolonged preoccupation with an intellectual topic, the mind ceases to function readily. It apparently has got into a rut; the "wheels go around" in the head, but they do not turn out any fresh grist. New suggestions cease to occur. The mind is, as the apt expression goes, "fed up." This condition is a warning to turn, as far as conscious attention and reflection are concerned, to something else. Then after the mind has ceased to be intent on the problem, and consciousness has relaxed its strain, a period of incubation sets in. Material rearranges itself; facts and principles fall into place; what was confused becomes bright and clear; the mixed up becomes orderly, often to such an extent that the problem is essentially solved. Many persons having a complicated practical question to decide find it advisable to sleep on the matter. Often they awake in the morning to find

that, while they were sleeping, things have wonderfully straightened themselves out. A subtle process of incubation has resulted in hatching a decision and a plan. But this bringing forth of inventions, solutions, and discoveries rarely occurs except to a mind that has previously steeped itself consciously in material relating to its question, has turned matters off and over, weighed pros and cons. Incubation, in short, is one phase of a rhythmic process.

II
PROCESS AND PRODUCT

Play and Work Again. A like balance in mental life characterizes process and product. We met one important phase of this adjustment in considering play and work. In play, interest centers in activity, without much reference to its outcome. The sequence of deeds, images, emotions suffices on its own account. In work, the end holds attention and controls the notice given to means. Since the difference is one of direction of interest, the contrast is one of emphasis, not of cleavage. When comparative prominence in consciousness of activity or outcome is transformed into isolation of one from the other, play degenerates into fooling, and work into drudgery.

Play Should Not Be Fooling. By "fooling" we understand a series of disconnected temporary overflows of energy dependent upon whim and accident. When all reference to outcome is eliminated from the sequence of ideas and acts that make play, each member of the sequence is cut loose from every other and becomes fantastic, arbitrary, aimless; mere fooling follows. There is some inveterate tendency to fool in children as well as in animals; the tendency is not wholly evil, for it militates against falling into ruts. Even indulgence in dreaming and fancies *may* give mind a start in a new direction. But when they are excessive in amount, dissipation and disintegration follow; and the only way of preventing this result is to see to it that the children look ahead and forecast, to some extent, the ends of their activity, the effects it is likely to produce.

Work Should Not Be Drudgery. However, *exclusive* interest in a result alters work to drudgery. For by drudgery is meant those activities in which the interest in the outcome does not suffuse the process of getting the result. Whenever a piece of work becomes drudgery, the process of doing loses all value for the doer; he cares solely for what is to be had at the end of it. The work itself, the putting forth of energy, is hateful; it is just a necessary evil, since without it some important end would be

missed. Now, it is a commonplace that in the work of the world many things have to be done, the doing of which is not intrinsically very interesting. However, the argument that children should be kept doing drudgery tasks because thereby they acquire power to be faithful to distasteful duties is wholly fallacious. Repulsion, shirking, and evasion are the consequences of having the repulsive imposed—not loyal love of duty. Willingness to work for ends by means of acts not naturally attractive is best attained by securing an appreciation of the value of the end, so that a sense of its value is transferred to its means of accomplishment. Not interesting in themselves, they borrow interest from the result with which they are associated.

Balance of the Work Attitude and the Play Attitude. The intellectual harm accruing from divorce of work and play, product and process, is evidenced in the proverb, "All work and no play makes Jack a dull boy." That the obverse is true is perhaps sufficiently signalized in the fact that fooling is so near to foolishness. To be playful and serious at the same time is possible, and it defines the ideal mental condition. Absence of dogmatism and prejudice, presence of intellectual curiosity and flexibility are manifest in the free play of the mind upon a topic. To give the mind this free play is not to encourage toying with a subject, but is to be interested in the unfolding of the subject on its own account, apart from any subservience to a preconceived belief or habitual aim. Mental play is open-mindedness, faith in the power of thought to preserve its own integrity without external supports and arbitrary restrictions. Hence free mental play involves seriousness, the earnest following of the development of subject matter. It is incompatible with carelessness or flippancy, for it exacts accurate noting of every result reached in order that every conclusion may be put to further use. What is termed the "interest in truth for its own sake" is certainly a serious matter, yet this pure interest in truth coincides with love of the free play of thought in inquiry.

In spite of many appearances to the contrary—usually due to social conditions either of superfluity of means that induces idle fooling or of undue economic pressure that compels drudgery—childhood normally realizes the ideal of conjoint free mental play and thoughtfulness. Successful portrayals of children have always made their wistful intentness at least as obvious as their lack of worry for the morrow. To live in the present is compatible with condensation of far-reaching meanings in the present. Such enrichment of the present for its own sake is the just heritage of childhood and the best insurer of future growth. The child forced into premature concern with economic remote results may develop

a surprising sharpening of wits in a particular direction, but there is danger that this precocious specialization will be paid for by later apathy and dullness.

The Attitude of the Artist. That art originated in play is a common saying. Whether or not the saying is historically correct, it suggests a harmony of mental playfulness and seriousness that describes the artistic ideal. When the artist is preoccupied overmuch with means and materials, he may achieve wonderful technique, but not the artistic spirit par excellence. When the animating idea is in excess of the command of method, aesthetic feeling may be indicated, but the art of presentation is too defective to express the feeling thoroughly. When the thought of the end becomes so adequate that it compels translation into the means that embody it, or when attention to means is inspired by recognition of the end they serve, we have the attitude typical of the artist, an attitude that may be displayed in all activities, even though they are not conventionally designated "arts."

The Teacher as an Artist. That teaching is an art and the true teacher an artist is a familiar saying. Now the teacher's own claim to rank as an artist is measured by his ability to foster the attitude of the artist in those who study with him, whether they be youth or little children. Some succeed in arousing enthusiasm, in communicating large ideas, in evoking energy. So far, well; but the final test is whether the stimulus thus given to wider aims succeeds in transforming itself into power; that is to say, into the attention to detail that ensures mastery over means of execution. If not, the zeal flags, the interest dies out, the ideal becomes a clouded memory. Other teachers succeed in training facility, skill, mastery of the technique of subjects. Again it is well–so far. But unless enlargement of mental vision, power of increased discrimination of final values, a sense for ideas, for principles, accompanies this training, forms of skill ready to be put indifferently to any end may be the result. Such modes of technical skill may display themselves, according to circumstances, as cleverness in serving self-interest, as docility in carrying out the purposes of others, or as unimaginative plodding in ruts. To nurture inspiring aim and executive means into harmony with each other is at once the difficulty and the reward of the teacher.

III
THE FAR AND THE NEAR

"Familiarity Breeds Contempt." Teachers who have heard that they should avoid matters foreign to pupils' experience are frequently surprised

to find pupils wake up when something beyond their ken is introduced, while they remain apathetic in considering the familiar. In geography the child upon the plains seems perversely irresponsive to the intellectual charms of his local environment, but fascinated by whatever concerns mountains or the sea. Teachers who have struggled with little avail to extract from pupils essays describing the details of things with which they are well acquainted sometimes find them eager to write on lofty or imaginary themes. A woman of education, who has recorded her experience as a factory worker, tried retelling *Little Women* to some factory girls during their working hours. They cared little for it, saying, "Those girls had no more interesting experience than we have," and demanded stories of millionaires and society leaders. A man interested in the mental condition of those engaged in routine labor asked a Scotch girl in a cotton factory what she thought about all day. She replied that, as soon as her mind was free from starting the machinery, she married a duke, and their fortunes occupied her for the remainder of the day.

Naturally, these incidents are not told in order to encourage methods of teaching that appeal to the sensational, the extraordinary, or the incomprehensible. They are told, however, to enforce the point that the familiar and the near do not excite or repay thought on their own account, but only as they are adjusted to mastering the strange and remote. It is a commonplace of psychology that we do not attend to the old or consciously mind that to which we are thoroughly accustomed. For this there is good reason; to devote attention to the old, when new circumstances are constantly arising to which we should adjust ourselves, would be wasteful and dangerous. Thought must be reserved for the new, the precarious, the problematic. Hence the mental constraint, the sense of being lost, that comes to pupils when they are invited to turn their thoughts upon that with which they are already familiar. The old, the near, the accustomed, is not that *to* which but that *with* which we attend; it does not furnish the material of a problem, but of its solution.

Balancing the New and the Old. The last sentence has brought us to the balancing of new and old, of the far and that close by, involved in reflection. The more remote supplies the stimulus and the motive; the nearer at hand furnishes the point of approach and the available resources. This principle may also be stated in this form: the best thinking occurs when the easy and the difficult are duly proportioned to each other. The easy and the familiar are equivalents, as are the strange and the difficult. Too much that is easy gives no ground for inquiry; too much that is hard renders inquiry hopeless.

The necessity of the interaction of the near and the far follows directly

from the nature of thinking. Where there is thought, something present suggests and indicates something absent. Accordingly, unless the familiar is presented under conditions that are in some respect unusual, there is no jog to thinking; no demand is made upon hunting out something new and different. And if the subject presented is totally strange, there is no basis upon which it may suggest anything serviceable for its comprehension. When a person first has to do with fractions, for example, they will be wholly baffling so far as they do not signify to him some relation that he has already mastered in dealing with whole numbers. When fractions have become thoroughly familiar, his perception of them acts simply as a signal to do certain things; they are a "substitute sign," to which he can react without thinking. If, nevertheless, the situation as a whole presents something novel and hence uncertain, the entire response is not mechanical, because this mechanical operation is put to use in solving a problem. There is no end to this spiral process: foreign subject matter transformed through thinking into a familiar possession becomes a resource for judging and assimilating additional foreign subject matter.

Observation Supplies the Near, Imagination the Remote. The need for both imagination and observation in every mental enterprise illustrates another aspect of the same principle. Teachers who have tried object lessons of the conventional type have usually found that, when the lessons were new, pupils were attracted to them as a diversion, but as soon as they became matters of course, they were as dull and wearisome as was ever the most mechanical study of mere symbols. Imagination could not play about the objects so as to enrich them. The feeling that instruction in "facts, facts" produces a narrow Gradgrind is justified, not because facts in themselves are limiting, but because facts are dealt out as hard and fast ready-made articles. No room is left to imagination. Let the facts be presented so as to stimulate imagination, and culture ensues naturally enough. The converse is equally true. The imaginative is not necessarily the imaginary; that is, the unreal. The proper function of imagination is vision of realities and possibilities that cannot be exhibited under existing conditions of sense perception. Clear insight into the remote, the absent, the obscure is its aim. History, literature, and geography, the principles of science, nay, even geometry and arithmetic, are full of matters that must be imaginatively realized if they are realized at all. Imagination supplements and deepens observation; only when it turns into the fanciful does it become a substitute for observation and lose logical force.

A final exemplification of the required balance between near and far is found in the relation that obtains between the narrower field of experience

realized in an individual's own contact with persons and things, and the wider experience of the race that may become his through communication. Instruction always runs the risk of swamping the pupil's own vital, though narrow, experience under masses of communicated material. The mere instructor ceases and the vital teacher begins at the point where communicated matter stimulates into fuller and more significant life that which has entered by the strait and narrow gate of sense perception and motor activity. Genuine communication involves contagion; its name should not be taken in vain by terming communication that which produces no community of thought and purpose between the child and the race of which he is the heir.

The foregoing consists
of Chapters I–II, VII–XII, XIV–XVII, and XIX
from John Dewey's HOW WE THINK.

Epicurus

c. 341–*c.* 270 B.C.

Lucretius in his poem *On the Nature of Things* [1] extols Epicurus as the "glory of the Greek race" and ranks him among the gods for his services to mankind. Yet in the word "epicure" this Greek philosopher has provided the name for a devotee of the pleasures of the flesh.

His life, from what we now know of it, was uneventful. He was born about 341 B.C. on the Aegean island of Samos. He thus belongs to the generation immediately following Plato, who died in 347, and was approaching his twentieth year when Aristotle died in 322. Although he must have known of these philosophers, his work contains little sign of any direct influence. Epicurus, whose father was an Athenian, went to Athens when he was eighteen. He remained there only a year and for the next fourteen years taught in various Greek cities and gathered about him a group of disciples. In 306 he returned to Athens, where he lived and taught for the rest of his life; he died about 270 B.C.

The scene of his life and teaching was a garden on the outskirts of Athens. This has given rise to his being called the philosopher of the Garden, as Plato is known for the Academy and Zeno for the Porch. It was there that Epicurus gathered about him a society of men and women. Although the relations between the sexes may not have been what is often referred to as Platonic, there seems to be little ground for the charges of licentiousness that were sometimes made. Rabelais may well have taken the society as the prototype for his Abbey of Thélème.[2]

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[1] See *Great Books of the Western World.*

[2] See *Great Books of the Western World.*

Although Epicurus was a prolific writer, with but one exception nothing but fragments of his works remains extant. The exception consists of three letters in which he provided a summary of his most important teaching. These have been preserved in a work on the lives and teachings of the philosophers compiled about the beginning of the third century A.D. by Diogenes Laërtius. The *Letter to Pythoclese*, omitted here, deals with questions of astronomy and meteorology.

The *Letter to Herodotus* (who is not to be confused with the historian) contains a digest of the teaching of Epicurus on the constitution and structure of the universe. It sets forth his main arguments for the theory of the atomic structure of the world. The *Letter to Menoeceus* provides a summary of the Epicurean moral theory that pleasure and peace of mind constitute the main aim of human life. The two letters thus give us in brief a picture of the Epicurean philosophy. Epicureanism was one of the four great philosophical systems of the ancient world, the others being Platonism, Aristotelianism, and the Stoicism of Epictetus and Marcus Aurelius. From them we have inherited not only problems and methods of dealing with problems, but also in many cases the general form of the solutions to be applied.

Epicurus provides one classic statement of the issue between science and religion. He looks upon the two as rival views of the world competing for man's allegiance. Religion is for him nothing but superstition. Besides being false, it is pernicious, since it gives rise to false fears which turn human life into wretchedness. Religion is for Epicurus, and Lucretius after him, the very opposite of an "opiate of the people," as it is according to Marx. It is the destroyer of peace of mind. For all this, it is significant that Epicurus is not an atheist. He still declares that the gods exist. But it is not at all clear that they have any function. The arrangements of material atoms moving in space is sufficient, according to his theory, to account for everything there is.

Yet for all his praise of science Epicurus is more of a moralist than a scientist. He seeks pleasure and peace of mind and is willing to countenance many different scientific explanations of the same event so long as they enable him to avoid the fears that religion arouses in him. The pleasure that he calls the "beginning and end of the blessed life" is far from luxurious. He is no epicure, and the life he recommends is simple, even austere.

Letter to Herodotus

For those who are unable, Herodotus, to work in detail through all that I have written about nature, or to peruse the larger books which I have composed, I have already prepared at sufficient length an epitome of the whole system, that they may keep adequately in mind at least the most general principles in each department, in order that as occasion arises they may be able to assist themselves on the most important points, in so far as they undertake the study of nature. But those also who have made considerable progress in the survey of the main principles ought to bear in mind the scheme of the whole system set forth in its essentials. For we have frequent need of the general view, but not so often of the detailed exposition. Indeed it is necessary to go back on the main principles, and constantly to fix in one's memory enough to give one the most essential comprehension of the truth. And in fact the accurate knowledge of details will be fully discovered if the general principles in the various departments are thoroughly grasped and borne in mind; for even in the case of one fully initiated the most essential feature in all accurate knowledge is the capacity to make a rapid use of observation and mental apprehension, and this can be done if everything is summed up in elementary principles and formulae. For it is not possible for any one to abbreviate the complete course through the whole system if he cannot embrace in his own mind by means of short formulae all that might be set out with accuracy in detail. Wherefore since the method I have described is valuable to all those who are accustomed to the investigation of nature, I, who urge upon others the constant occupation in the investigation of nature, and find my own peace chiefly in a life so occupied, have composed for you another epitome on these lines, summing up the first principles of the whole doctrine.

First of all, Herodotus, we must grasp the ideas attached to words, in order that we may be able to refer to them and so to judge the inferences of opinion or problems of investigation or reflection, so that we may not either leave everything uncertain and go on explaining to infinity or use

words devoid of meaning. For this purpose it is essential that the first mental image associated with each word should be regarded, and that there should be no need of explanation, if we are really to have a standard to which to refer a problem of investigation or reflection or a mental inference. And besides we must keep all our investigations in accord with our sensations, and in particular with the immediate apprehensions whether of the mind or of any one of the instruments of judgment, and likewise in accord with the feelings existing in us, in order that we may have indications whereby we may judge both the problem of sense-perception and the unseen.

Having made these points clear, we must now consider things imperceptible to the senses. First of all, that nothing is created out of that which does not exist: for if it were, everything would be created out of everything with no need of seeds. And again, if that which disappears were destroyed into that which did not exist, all things would have perished, since that into which they were dissolved would not exist. Furthermore, the universe always was such as it is now, and always will be the same. For there is nothing into which it changes: for outside the universe there is nothing which could come into it and bring about the change.

Moreover, the universe is bodies and space: for that bodies exist, sense itself witnesses in the experience of all men, and in accordance with the evidence of sense we must of necessity judge of the imperceptible by reasoning, as I have already said. And if there were not that which we term void and place and intangible existence, bodies would have nowhere to exist and nothing through which to move, as they are seen to move. And besides these two nothing can even be thought of either by conception or on the analogy of things conceivable such as could be grasped as whole existences and not spoken of as the accidents or properties of such existences. Furthermore, among bodies some are compounds, and others those of which compounds are formed. And these latter are indivisible and unalterable (if, that is, all things are not to be destroyed into the non-existent, but something permanent is to remain behind at the dissolution of compounds): they are completely solid in nature, and can by no means be dissolved in any part. So it must needs be that the first-beginnings are indivisible corporeal existences.

Moreover, the universe is boundless. For that which is bounded has an extreme point, and the extreme point is seen against something else. So that as it has no extreme point, it has no limit; and as it has no limit, it must be boundless and not bounded. Furthermore, the infinite is boundless both in the number of the bodies and in the extent of the void. For if

on the one hand the void were boundless, and the bodies limited in number, the bodies could not stay anywhere, but would be carried about and scattered through the infinite void, not having other bodies to support them and keep them in place by means of collisions. But if, on the other hand, the void were limited, the infinite bodies would not have room wherein to take their place.

Besides this the indivisible and solid bodies, out of which too the compounds are created and into which they are dissolved, have an incomprehensible number of varieties in shape; for it is not possible that such great varieties of things should arise from the same atomic shapes if they are limited in number. And so in each shape the atoms are quite infinite in number, but their differences of shape are not quite infinite, but only incomprehensible in number.

And the atoms move continuously for all time, some of them falling straight down, others swerving, and others recoiling from their collisions. And of the latter, some are borne on, separating to a long distance from one another, while others again recoil and recoil, whenever they chance to be checked by the interlacing with others, or else shut in by atoms interlaced around them. For on the one hand the nature of the void which separates each atom by itself brings this about, as it is not able to afford resistance, and on the other hand the hardness which belongs to the atoms makes them recoil after collision to as great a distance as the interlacing permits separation after the collision. And these motions have no beginning, since the atoms and the void are the cause.

These brief sayings, if all these points are borne in mind, afford a sufficient outline for our understanding of the nature of existing things.

Furthermore, there are infinite worlds both like and unlike this world of ours. For the atoms being infinite in number, as was proved already, are borne on far out into space. For those atoms, which are of such nature that a world could be created out of them or made by them, have not been used up either on one world or on a limited number of worlds, nor again on all the worlds which are alike, or on those which are different from these. So that there nowhere exists an obstacle to the infinite number of the worlds.

Moreover, there are images like in shape to the solid bodies, far surpassing perceptible things in their subtlety of texture. For it is not impossible that such emanations should be formed in that which surrounds the objects, nor that there should be opportunities for the formation of such hollow and thin frames, nor that there should be effluences which preserve the respective position and order which they had before in the solid bodies: these images we call idols.

Next, nothing among perceptible things contradicts the belief that the images have unsurpassable fineness of texture. And for this reason they have also unsurpassable speed of motion, since the movement of all their atoms is uniform, and besides nothing or very few things hinder their emission by collisions, whereas a body composed of many or infinite atoms is at once hindered by collisions. Besides this, nothing contradicts the belief that the creation of the idols takes place as quick as thought. For the flow of atoms from the surface of bodies is continuous, yet it cannot be detected by any lessening in the size of the object because of the constant filling up of what is lost. The flow of images preserves for a long time the position and order of the atoms in the solid body, though it is occasionally confused. Moreover, compound idols are quickly formed in the air around, because it is not necessary for their substance to be filled in deep inside: and besides there are certain other methods in which existences of this sort are produced. For not one of these beliefs is contradicted by our sensations, if one looks to see in what way sensation will bring us the clear visions from external objects, and in what way again the corresponding sequences of qualities and movements.

Now we must suppose too that it is when something enters us from external objects that we not only see but think of their shapes. For external objects could not make on us an impression of the nature of their own colour and shape by means of the air which lies between us and them, nor again by means of the rays or effluences of any sort which pass from us to them—nearly so well as if models, similar in colour and shape, leave the objects and enter according to their respective size either into our sight or into our mind, moving along swiftly, and so by this means reproducing the image of a single continuous thing and preserving the corresponding sequence of qualities and movements from the original object as the result of their uniform contact with us, kept up by the vibration of the atoms deep in the interior of the concrete body.

And every image which we obtain by an act of apprehension on the part of the mind or of the sense-organs, whether of shape or of properties, this image is the shape or the properties of the concrete object, and is produced by the constant repetition of the image or the impression it has left. Now falsehood and error always lie in the addition of opinion with regard to what is waiting to be confirmed or not contradicted, and then is not confirmed or is contradicted. For the similarity between the things which exist, which we call real, and the images received as a likeness of things and produced either in sleep or through some other acts of apprehension on the part of the mind or the other instruments of judgment, could never be unless there were some effluences of this nature actually brought into

contact with our senses. And error would not exist unless another kind of movement too were produced inside ourselves, closely linked to the apprehension of images, but differing from it; and it is owing to this, supposing it is not confirmed, or is contradicted, that falsehood arises; but if it is confirmed or not contradicted, it is true. Therefore we must do our best to keep this doctrine in mind, in order that on the one hand the standards of judgment dependent on the clear visions may not be undermined, and on the other error may not be as firmly established as truth and so throw all into confusion.

Moreover, hearing, too, results when a current is carried off from the object speaking or sounding or making a noise, or causing in any other way a sensation of hearing. Now this current is split up into particles, each like the whole, which at the same time preserve a correspondence of qualities with one another and a unity of character which stretches right back to the object which emitted the sound: this unity it is which in most cases produces comprehension in the recipient, or, if not, merely makes manifest the presence of the external object. For without the transference from the object of some correspondence of qualities, comprehension of this nature could not result. We must not then suppose that the actual air is moulded into shape by the voice which is emitted or by other similar sounds–for it will be very far from being so acted upon by it–but that the blow which takes place inside us when we emit our voice causes at once a squeezing out of certain particles, which produce a stream of breath, of such a character as to afford us the sensation of hearing.

Furthermore, we must suppose that smell, too, just like hearing, could never bring about any sensation unless there were certain particles carried off from the object of suitable size to stir this sense-organ, some of them in a manner disorderly and alien to it, others in a regular manner and akin in nature.

Moreover, we must suppose that the atoms do not possess any of the qualities belonging to perceptible things, except shape, weight, and size, and all that necessarily goes with shape. For every quality changes; but the atoms do not change at all, since there must needs be something which remains solid and indissoluble at the dissolution of compounds, which can cause changes; not changes into the non-existent or from the non-existent, but changes effected by the shifting of position of some particles, and by the addition or departure of others. For this reason it is essential that the bodies which shift their position should be imperishable and should not possess the nature of what changes, but parts and configuration of their own. For thus much must needs remain constant. For even in things per-

ceptible to us which change their shape by the withdrawal of matter it is seen that shape remains to them, whereas the qualities do not remain in the changing object, in the way in which shape is left behind, but are lost from the entire body. Now these particles which are left behind are sufficient to cause the differences in compound bodies, since it is essential that some things should be left behind and not be destroyed into the non-existent.

Moreover, we must not either suppose that every size exists among the atoms, in order that the evidence of phenomena may not contradict us, but we must suppose that there are some variations of size. For if this be the case, we can give a better account of what occurs in our feelings and sensations. But the existence of atoms of every size is not required to explain the differences of qualities in things, and at the same time some atoms would be bound to come within our ken and be visible; but this is never seen to be the case, nor is it possible to imagine how an atom could become visible.

Besides this we must not suppose that in a limited body there can be infinite parts or parts of every degree of smallness. Therefore, we must not only do away with division into smaller and smaller parts to infinity, in order that we may not make all things weak, and so in the composition of aggregate bodies be compelled to crush and squander the things that exist into the non-existent, but we must not either suppose that in limited bodies there is a possibility of continuing to infinity in passing even to smaller and smaller parts. For if once one says that there are infinite parts in a body or parts of any degree of smallness, it is not possible to conceive how this should be, and indeed how could the body any longer be limited in size? (For it is obvious that these infinite particles must be of some size or other; and however small they may be, the size of the body too would be infinite.) And again, since the limited body has an extreme point, which is distinguishable, even though not perceptible by itself, you cannot conceive that the succeeding point to it is not similar in character, or that if you go on in this way from one point to another, it should be possible for you to proceed to infinity marking such points in your mind. We must notice also that the least thing in sensation is neither exactly like that which admits of progression from one part to another, nor again is it in every respect wholly unlike it, but it has a certain affinity with such bodies, yet cannot be divided into parts. But when on the analogy of this resemblance we think to divide off parts of it, one on the one side and another on the other, it must needs be that another point like the first meets our view. And we look at these points in succession starting from

the first, not within the limits of the same point nor in contact part with part, but yet by means of their own proper characteristics measuring the size of bodies, more in a greater body and fewer in a smaller. Now we must suppose that the least part in the atom too bears the same relation to the whole; for though in smallness it is obvious that it exceeds that which is seen by sensation, yet it has the same relations. For indeed we have already declared on the ground of its relation to sensible bodies that the atom has size, only we placed it far below them in smallness. Further, we must consider these least indivisible points as boundary-marks, providing in themselves as primary units the measure of size for the atoms, both for the smaller and the greater, in our contemplation of these unseen bodies by means of thought. For the affinity which the least parts of the atom have to the homogeneous parts of sensible things is sufficient to justify our conclusion to this extent, but that they should ever come together as bodies with motion is quite impossible.

Furthermore, in the infinite we must not speak of "up" or "down," as though with reference to an absolute highest or lowest—and indeed we must say that, though it is possible to proceed to infinity in the direction above our heads from wherever we take our stand, the absolute highest point will never appear to us—nor yet can that which passes beneath the point thought of to infinity be at the same time both up and down in reference to the same thing: for it is impossible to think this. So that it is possible to consider as one single motion that which is thought of as the upward motion to infinity and as another the downward motion, even though that which passes from us into the regions above our heads arrives countless times at the feet of beings above and that which passes downwards from us at the head of beings below; for none the less the whole motions are thought of as opposed, the one to the other, to infinity.

Moreover, the atoms must move with equal speed when they are borne onwards through the void, nothing colliding with them. For neither will the heavy move more quickly than the small and light, when, that is, nothing meets them; nor again the small more quickly than the great, having their whole course uniform, when nothing collides with them either; nor is the motion upwards or sideways owing to blows quicker, nor again that downwards owing to their own weight. For as long as either of the two motions prevails, so long will it have a course as quick as thought, until something checks it either from outside or from its own weight counteracting the force of that which dealt the blow. Moreover, their passage through the void, when it takes place without meeting any bodies which might collide, accomplishes every comprehensible distance in an

inconceivably short time. For it is collision and its absence which take the outward appearance of slowness and quickness. Moreover, it will be said that in compound bodies too one atom is faster than another, though as a matter of fact all are equal in speed: this will be said because even in the least period of continuous time all the atoms in aggregate bodies move towards one place, even though in moments of time perceptible only by thought they do not move towards one place but are constantly jostling one against another, until the continuity of their movement comes under the ken of sensation. For the addition of opinion with regard to the unseen, that the moments perceptible only by thought will also contain continuity of motion, is not true in such cases; for we must remember that it is what we observe with the senses or grasp with the mind by an apprehension that is true. Nor must it either be supposed that in moments perceptible only by thought the moving body too passes to the several places to which its component atoms move (for this too is unthinkable, and in that case, when it arrives all together in a sensible period of time from any point that may be in the infinite void, it would not be taking its departure from the place from which we apprehend its motion); for the motion of the whole body will be the outward expression of its internal collisions, even though up to the limits of perception we suppose the speed of its motion not to be retarded by collision. It is of advantage to grasp this first principle as well.

Next, referring always to the sensations and the feelings, for in this way you will obtain the most trustworthy ground of belief, you must consider that the soul is a body of fine particles distributed throughout the whole structure, and most resembling wind with a certain admixture of heat, and in some respects like to one of these and in some to the other. There is also the part which is many degrees more advanced even than these in fineness of composition, and for this reason is more capable of feeling in harmony with the rest of the structure as well. Now all this is made manifest by the activities of the soul and the feelings and the readiness of its movements and its processes of thought and by what we lose at the moment of death. Further, you must grasp that the soul possesses the chief cause of sensation, yet it could not have acquired sensation unless it were in some way enclosed by the rest of the structure. And this in its turn having afforded the soul this cause of sensation acquires itself too a share in this contingent capacity from the soul. Yet it does not acquire all the capacities which the soul possesses; and therefore when the soul is released from the body, the body no longer has sensation. For it never possessed this power in itself, but used to afford opportunity

for it to another existence, brought into being at the same time with itself; and this existence, owing to the power now consummated within itself as a result of motion, used spontaneously to produce for itself the capacity of sensation and then to communicate it to the body as well, in virtue of its contact and correspondence of movement, as I have already said. Therefore, so long as the soul remains in the body, even though some other part of the body be lost, it will never lose sensation; nay more, whatever portions of the soul may perish too, when that which enclosed it is removed either in whole or in part, if the soul continues to exist at all, it will retain sensation. On the other hand the rest of the structure, though it continues to exist either as a whole or in part, does not retain sensation, if it has once lost that sum of atoms, however small it be, which together goes to produce the nature of the soul. Moreover, if the whole structure is dissolved, the soul is dispersed and no longer has the same powers nor performs its movements, so that it does not possess sensation either. For it is impossible to imagine it with sensation, if it is not in this organism and cannot effect these movements, when what encloses and surrounds it is no longer the same as the surroundings in which it now exists and performs these movements. Furthermore, we must clearly comprehend as well that the incorporeal in the general acceptation of the term is applied to that which could be thought of as such as an independent existence. Now it is impossible to conceive the incorporeal as a separate existence, except the void; and the void can neither act nor be acted upon, but only provides opportunity of motion through itself to bodies. So that those who say that the soul is incorporeal are talking idly. For it would not be able to act or be acted on in any respect if it were of this nature. But as it is, both these occurrences are clearly distinguished in respect of the soul. Now if one refers all these reasonings about the soul to the standards of feeling and sensation and remembers what was said at the outset, he will see that they are sufficiently embraced in these general formulae to enable him to work out with certainty on this basis the details of the system as well.

Moreover, as regards shape and colour and size and weight and all other things that are predicated of body, as though they were concomitant properties either of all things or of things visible or recognizable through the sensation of these qualities, we must not suppose that they are either independent existences (for it is impossible to imagine that), nor that they absolutely do not exist, nor that they are some other kind of incorporeal existence accompanying body, nor that they are material parts of body; rather we should suppose that the whole body in its totality owes its own permanent existence to all these, yet not in the sense that it is

composed of properties brought together to form it (as when, for instance, a larger structure is put together out of the parts which compose it, whether the first units of size or other parts smaller than itself, whatever it is), but only, as I say, that it owes its own permanent existence to all of them. All these properties have their own peculiar means of being perceived and distinguished, provided always that the aggregate body goes along with them and is never wrested from them, but in virtue of its comprehension as an aggregate of qualities acquires the predicate of body.

Furthermore, there often happen to bodies and yet do not permanently accompany them accidents, of which we must suppose neither that they do not exist at all nor that they have the nature of a whole body, nor that they can be classed among unseen things nor as incorporeal. So that when according to the most general usage we employ this name, we make it clear that accidents have neither the nature of the whole, which we comprehend in its aggregate and call body, nor that of the qualities which permanently accompany it, without which a given body cannot be conceived. But as the result of certain acts of apprehension, provided the aggregate body goes along with them, they might each be given this name, but only on occasions when each one of them is seen to occur, since accidents are not permanent accompaniments. And we must not banish this clear vision from the realm of existence, because it does not possess the nature of the whole to which it is joined nor that of the permanent accompaniments, nor must we suppose that such contingencies exist independently (for this is inconceivable both with regard to them and to the permanent properties), but, just as it appears in sensation, we must think of them all as accidents occurring to bodies, and that not as permanent accompaniments, or again as having in themselves a place in the ranks of material existence; rather they are seen to be just what our actual sensation shows their proper character to be.

Moreover, you must firmly grasp this point as well: we must not look for time, as we do for all other things which we look for in an object, by referring them to the general conceptions which we perceive in our own minds, but we must take the direct intuition, in accordance with which we speak of "a long time" or "a short time," and examine it, applying our intuition to time as we do to other things. Neither must we search for expressions as likely to be better, but employ just those which are in common use about it. Nor again must we predicate of time anything else as having the same essential nature as this special perception, as some people do, but we must turn our thoughts particularly to that only with

which we associate this peculiar perception and by which we measure it. For indeed this requires no demonstration, but only reflection, to show that it is with days and nights and their divisions that we associate it, and likewise also with internal feelings or absence of feeling, and with movements and states of rest; in connection with these last again we think of this very perception as a peculiar kind of accident, and in virtue of this we call it time.

And in addition to what we have already said we must believe that worlds, and indeed every limited compound body which continuously exhibits a similar appearance to the things we see, were created from the infinite, and that all such things, greater and less alike, were separated off from individual agglomerations of matter; and that all are again dissolved, some more quickly, some more slowly, some suffering from one set of causes, others from another. And further we must believe that these worlds were neither created all of necessity with one configuration nor yet with every kind of shape. Furthermore, we must believe that in all worlds there are living creatures and plants and other things we see in this world; for indeed no one could prove that in a world of one kind there might or might not have been included the kinds of seeds from which living things and plants and all the rest of the things we see are composed, and that in a world of another kind they could not have been.

Moreover, we must suppose that human nature too was taught and constrained to do many things of every kind merely by circumstances; and that later on reasoning elaborated what had been suggested by nature and made further inventions, in some matters quickly, in others slowly, at some epochs and times making great advances, and lesser again at others. And so names too were not at first deliberately given to things, but men's natures according to their different nationalities had their own peculiar feelings and received their peculiar impressions, and so each in their own way emitted air formed into shape by each of these feelings and impressions, according to the differences made in the different nations by the places of their abode as well. And then later on by common consent in each nationality special names were deliberately given in order to make their meanings less ambiguous to one another and more briefly demonstrated. And sometimes those who were acquainted with them brought in things hitherto unknown and introduced sounds for them, on some occasions being naturally constrained to utter them, and on others choosing them by reasoning in accordance with the prevailing mode of formation, and thus making their meaning clear.

Furthermore, the motions of the heavenly bodies and their turnings and

eclipses and risings and settings, and kindred phenomena to these, must not be thought to be due to any being who controls and ordains or has ordained them and at the same time enjoys perfect bliss together with immortality (for trouble and care and anger and kindness are not consistent with a life of blessedness, but these things come to pass where there is weakness and fear and dependence on neighbours). Nor again must we believe that they, which are but fire agglomerated in a mass, possess blessedness, and voluntarily take upon themselves these movements. But we must preserve their full majestic significance in all expressions which we apply to such conceptions, in order that there may not arise out of them opinions contrary to this notion of majesty. Otherwise this very contradiction will cause the greatest disturbance in men's souls. Therefore we must believe that it is due to the original inclusion of matter in such agglomerations during the birth-process of the world that this law of regular succession is also brought about.

Furthermore, we must believe that to discover accurately the cause of the most essential facts is the function of the science of nature, and that blessedness for us in the knowledge of celestial phenomena lies in this and in the understanding of the nature of the existences seen in these celestial phenomena, and of all else that is akin to the exact knowledge requisite for our happiness; in knowing too that what occurs in several ways or is capable of being otherwise has no place here, but that nothing which suggests doubt or alarm can be included at all in that which is naturally immortal and blessed. Now this we can ascertain by our mind is absolutely the case. But what falls within the investigation of risings and settings and turnings and eclipses, and all that is akin to this, is no longer of any value for the happiness which knowledge brings, but persons who have perceived all this, but yet do not know what are the natures of these things and what are the essential causes, are still in fear, just as if they did not know these things at all; indeed, their fear may be even greater, since the wonder which arises out of the observation of these things cannot discover any solution or realize the regulation of the essentials. And for this very reason, even if we discover several causes for turnings and settings and risings and eclipses and the like, as has been the case already in our investigation of detail, we must not suppose that our inquiry into these things has not reached sufficient accuracy to contribute to our peace of mind and happiness. So we must carefully consider in how many ways a similar phenomenon is produced on earth, when we reason about the causes of celestial phenomena and all that is imperceptible to the senses; and we must despise those persons who do not recognize either what

exists or comes into being in one way only, or that which may occur in several ways in the case of things which can only be seen by us from a distance, and further are not aware under what conditions it is impossible to have peace of mind. If, therefore, we think that a phenomenon probably occurs in some such particular way, and that in circumstances under which it is equally possible for us to be at peace, when we realize that it may occur in several ways, we shall be just as little disturbed as if we know that it occurs in some particular way.

And besides all these matters in general we must grasp this point, that the principal disturbance in the minds of men arises because they think that these celestial bodies are blessed and immortal, and yet have wills and actions and motives inconsistent with these attributes; and because they are always expecting or imagining some everlasting misery, such as is depicted in legends, or even fear the loss of feeling in death as though it would concern them themselves; and, again, because they are brought to this pass not by reasoned opinion, but rather by some irrational presentiment, and therefore, as they do not know the limits of pain, they suffer a disturbance equally great or even more extensive than if they had reached this belief by opinion. But peace of mind is being delivered from all this, and having a constant memory of the general and most essential principles.

Wherefore we must pay attention to internal feelings and to external sensations in general and in particular, according as the subject is general or particular, and to every immediate intuition in accordance with each of the standards of judgment. For if we pay attention to these, we shall rightly trace the causes whence arose our mental disturbance and fear, and, by learning the true causes of celestial phenomena and all other occurrences that come to pass from time to time, we shall free ourselves from all which produces the utmost fear in other men.

Here, Herodotus, is my treatise on the chief points concerning the nature of the general principles, abridged so that my account would be easy to grasp with accuracy. I think that, even if one were unable to proceed to all the detailed particulars of the system, he would from this obtain an unrivalled strength compared with other men. For indeed he will clear up for himself many of the detailed points by reference to our general system, and these very principles, if he stores them in his mind, will constantly aid him. For such is their character that even those who are at present engaged in working out the details to a considerable degree, or even completely, will be able to carry out the greater part of their investigations into the nature of the whole by conducting their analysis in

reference to such a survey as this. And as for all who are not fully among those on the way to being perfected, some of them can from this summary obtain a hasty view of the most important matters without oral instruction so as to secure peace of mind.

Letter to Menoeceus

Let no one when young delay to study philosophy, nor when he is old grow weary of his study. For no one can come too early or too late to secure the health of his soul. And the man who says that the age for philosophy has either not yet come or has gone by is like the man who says that the age for happiness is not yet come to him, or has passed away. Wherefore both when young and old a man must study philosophy, that as he grows old he may be young in blessings through the grateful recollection of what has been, and that in youth he may be old as well, since he will know no fear of what is to come. We must then meditate on the things that make our happiness, seeing that when that is with us we have all, but when it is absent we do all to win it.

The things which I used unceasingly to commend to you, these do and practise, considering them to be the first principles of the good life. First of all believe that God is a being immortal and blessed, even as the common idea of a god is engraved on men's minds, and do not assign to Him anything alien to His immortality or ill-suited to His blessedness, but believe about Him everything that can uphold His blessedness and immortality. For gods there are, since the knowledge of them is by clear vision. But they are not such as the many believe them to be, for indeed they do not consistently represent them as they believe them to be. And the impious man is not he who denies the gods of the many, but he who attaches to the gods the beliefs of the many. For the statements of the many about the gods are not conceptions derived from sensation, but false suppositions, according to which the greatest misfortunes befall the wicked and the greatest blessings the good by the gift of the gods. For men being accustomed always to their own virtues welcome those like themselves, but regard all that is not of their nature as alien.

Become accustomed to the belief that death is nothing to us. For all good and evil consists in sensation, but death is deprivation of sensation. And therefore a right understanding that death is nothing to us makes the

mortality of life enjoyable, not because it adds to it an infinite span of time, but because it takes away the craving for immortality. For there is nothing terrible in life for the man who has truly comprehended that there is nothing terrible in not living. So that the man speaks but idly who says that he fears death not because it will be painful when it comes, but because it is painful in anticipation. For that which gives no trouble when it comes is but an empty pain in anticipation. So death, the most terrifying of ills, is nothing to us, since so long as we exist, death is not with us; but when death comes, then we do not exist. It does not then concern either the living or the dead, since for the former it is not, and the latter are no more.

But the many at one moment shun death as the greatest of evils, at another yearn for it as a respite from the evils in life. But the wise man neither seeks to escape life nor fears the cessation of life, for neither does life offend him nor does the absence of life seem to be any evil. And just as with food he does not seek simply the larger share and nothing else, but rather the most pleasant, so he seeks to enjoy not the longest period of time, but the most pleasant.

And he who counsels the young man to live well, but the old man to make a good end, is foolish, not merely because of the desirability of life, but also because it is the same training which teaches to live well and to die well. Yet much worse still is the man who says it is good not to be born, but

> once born make haste to pass the gates of Death.
>
> [*Theognis, 427*]

For if he says this from conviction why does he not pass away out of life? For it is open to him to do so, if he had firmly made up his mind to this. But if he speaks in jest, his words are idle among men who cannot receive them.

We must then bear in mind that the future is neither ours, nor yet wholly not ours, so that we may not altogether expect it as sure to come, nor abandon hope of it, as if it will certainly not come.

We must consider that of desires some are natural, others vain, and of the natural some are necessary and others merely natural; and of the necessary some are necessary for happiness, others for the repose of the body, and others for very life. The right understanding of these facts enables us to refer all choice and avoidance to the health of the body and the soul's freedom from disturbance, since this is the aim of the life of blessedness. For it is to obtain this end that we always act, namely, to

avoid pain and fear. And when this is once secured for us, all the tempest of the soul is dispersed, since the living creature has not to wander as though in search of something that is missing, and to look for some other thing by which he can fulfil the good of the soul and the good of the body. For it is then that we have need of pleasure, when we feel pain owing to the absence of pleasure; but when we do not feel pain, we no longer need pleasure. And for this cause we call pleasure the beginning and end of the blessed life. For we recognize pleasure as the first good innate in us, and from pleasure we begin every act of choice and avoidance, and to pleasure we return again, using the feeling as the standard by which we judge every good.

And since pleasure is the first good and natural to us, for this very reason we do not choose every pleasure, but sometimes we pass over many pleasures, when greater discomfort accrues to us as the result of them; and similarly we think many pains better than pleasures, since a greater pleasure comes to us when we have endured pains for a long time. Every pleasure then because of its natural kinship to us is good, yet not every pleasure is to be chosen; even as every pain also is an evil, yet not all are always of a nature to be avoided. Yet by a scale of comparison and by the consideration of advantages and disadvantages we must form our judgment on all these matters. For the good on certain occasions we treat as bad, and conversely the bad as good.

And again independence of desire we think a great good–not that we may at all times enjoy but a few things, but that, if we do not possess many, we may enjoy the few in the genuine persuasion that those have the sweetest pleasure in luxury who least need it, and that all that is natural is easy to be obtained, but that which is superfluous is hard. And so plain savours bring us a pleasure equal to a luxurious diet when all the pain due to want is removed; and bread and water produce the highest pleasure when one who needs them puts them to his lips. To grow accustomed therefore to simple and not luxurious diet gives us health to the full, and makes a man alert for the needful employments of life, and, when after long intervals we approach luxuries, disposes us better towards them, and fits us to be fearless of fortune.

When, therefore, we maintain that pleasure is the end, we do not mean the pleasures of profligates and those that consist in sensuality, as is supposed by some who are either ignorant or disagree with us or do not understand, but freedom from pain in the body and from trouble in the mind. For it is not continuous drinkings and revellings, nor the satisfaction of lusts, nor the enjoyment of fish and other luxuries of the wealthy table

which produce a pleasant life, but sober reasoning, searching out the motives for all choice and avoidance, and banishing mere opinions, to which are due the greatest disturbance of the spirit.

Of all this the beginning and the greatest good is prudence. Wherefore prudence is a more precious thing even than philosophy; for from prudence are sprung all the other virtues, and it teaches us that it is not possible to live pleasantly without living prudently and honourably and justly, nor, again, to live a life of prudence, honour, and justice without living pleasantly. For the virtues are by nature bound up with the pleasant life, and the pleasant life is inseparable from them. For indeed who, think you, is a better man than he who holds reverent opinions concerning the gods, and is at all times free from fear of death, and has reasoned out the end ordained by nature? He understands that the limit of good things is easy to fulfil and easy to attain, whereas the course of ills is either short in time or slight in pain: he laughs at Destiny, whom some have introduced as the mistress of all things. He thinks that with us lies the chief power in determining events, some of which happen by necessity and some by chance, and some are within our control; for while necessity cannot be called to account, he sees that chance is inconstant, but that which is in our control is subject to no master, and to it are naturally attached praise and blame. For, indeed, it were better to follow the myths about the gods than to become a slave to the Destiny of the natural philosophers; for the former suggests a hope of placating the gods by worship, whereas the latter involves a necessity which knows no placation. As to chance, he does not regard it as a god as most men do (for in a god's acts there is no disorder), nor as an uncertain cause of all things; for he does not believe that good and evil are given by chance to man for the framing of a blessed life, but that opportunities for great good and great evil are afforded by it. He therefore thinks it better to be unfortunate in reasonable action than to prosper in unreason. For it is better in a man's actions that what is well chosen should fail, rather than that what is ill chosen should be successful owing to chance.

Meditate therefore on these things and things akin to them night and day by yourself, and with a companion like to yourself, and never shall you be disturbed waking or asleep, but you shall live like a god among men. For a man who lives among immortal blessings is not like to a mortal being.

Epictetus

c. 60–*c.* 138

Epictetus, the son of a slave woman, was born about A.D. 60 in central Asia Minor, in Hierapolis, Phrygia. As a boy he was a slave in Rome to Epaphroditus, the secretary of Nero and himself a former slave. While still in servitude, Epictetus attended the lectures of the fashionable Stoic philosopher Musonius Rufus. Obtaining his freedom about the year 89, he set up as a street-corner teacher, but was unsuccessful. His first success came when, along with many other philosophers suspected of republicanism, he was exiled from Rome by the Emperor Domitian. He withdrew to northern Greece, to the city of Nicopolis, where he established a school. He remained there, teaching until his death, about 138. His fame as a teacher became so great that the town was known for being the site of his school.

Epictetus did no writing, but taught entirely by word of mouth. But among his pupils, who came from all parts of the empire, was Flavius Arrian, the later historian of Alexander. From what must have been the careful notes he took of his master's teaching, he published the doctrine of Epictetus in the eight books of the *Discourses*, of which four survive, and the *Enchiridion*, or *Manual*, which is printed here.

Stoicism was the most influential and also the most popular of the ancient schools of philosophy. It had its origin in Athens during the generation following the death of Plato. Zeno of Citium was its founder, and since he taught in a covered portico (*Stoa* in Greek), his teaching came to be known as the philosophy of the Porch, or Stoicism. It achieved its greatest triumph in Rome, where, in the

persons of Epictetus and of Marcus Aurelius, it proved its capacity to reach from a slave to an emperor.

Following a tradition that goes back to Aristotle, the Stoics divided their teaching into logic, physics, and ethics. It was thus a complete philosophy and there was no part of the intellectual world that it did not claim to touch. It won great fame for its logic, and the second leader of the school, Chrysippus, was often referred to simply as The Logician. The Stoics developed in the logic of propositions a branch of logic which Aristotle, the father of logic, had not investigated. However, of the great many works in logic and physics, or natural philosophy, that were written by Stoic philosophers, all but a few fragments have disappeared. The only complete works that have come down to us from the Stoics are restricted almost entirely to the field of ethics or morals. These are the works of Epictetus and Marcus Aurelius.[1]

From the *Enchiridion* it is easy to see why "stoic" has become the word for a person who can endure pain without flinching. Socrates is frequently held up by the Stoics as the model for imitation. But it is not so much the Socrates of the Platonic dialogues who delights in intellectual controversy as the Socrates who is indifferent to pleasure and pain and possesses an interior freedom that is unmoved by imprisonment and death.

The Stoic philosopher as presented by Epictetus has many of the characteristics of the saint: he is ascetic, disciplined in will, resigned to whatever may befall him, fond of meditating on death, yet compassionate of others whom he recognizes as his brothers. However, to such a Christian as Pascal the teaching of Epictetus is an abomination. Convinced of the weakness and misery of man without God, he is affronted by the claim that there are things within man's power, and that the philosopher is one who "looks to himself for all help or harm." It is upon what the Stoic claims are "our own," such as "opinion, aim, desire, aversion," that Epictetus builds his moral teaching. By controlling our attitude toward what happens, he claims that it is possible for man to achieve freedom and a secure peace of mind.

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[1] See *Great Books of the Western World.*

The Enchiridion

I

There are things which are within our power, and there are things which are beyond our power. Within our power are opinion, aim, desire, aversion, and, in one word, whatever affairs are our own. Beyond our power are body, property, reputation, office, and, in one word, whatever are not properly our own affairs.

Now the things within our power are by nature free, unrestricted, unhindered; but those beyond our power are weak, dependent, restricted, alien. Remember, then, that if you attribute freedom to things by nature dependent and take what belongs to others for your own, you will be hindered, you will lament, you will be disturbed, you will find fault both with gods and men. But if you take for your own only that which is your own and view what belongs to others just as it really is, then no one will ever compel you, no one will restrict you; you will find fault with no one, you will accuse no one, you will do nothing against your will; no one will hurt you, you will not have an enemy, nor will you suffer any harm.

Aiming, therefore, at such great things, remember that you must not allow yourself any inclination, however slight, toward the attainment of the others; but that you must entirely quit some of them, and for the present postpone the rest. But if you would have these, and possess power and wealth likewise, you may miss the latter in seeking the former; and you will certainly fail of that by which alone happiness and freedom are procured.

Seek at once, therefore, to be able to say to every unpleasing semblance, "You are but a semblance and by no means the real thing." And then examine it by those rules which you have; and first and chiefly by this: whether it concerns the things which are within our own power or those which are not; and if it concerns anything beyond our power, be prepared to say that it is nothing to you.

II

Remember that desire demands the attainment of that of which you are desirous; and aversion demands the avoidance of that to which you are averse; that he who fails of the object of his desires is disappointed; and he who incurs the object of his aversion is wretched. If, then, you shun only those undesirable things which you can control, you will never incur anything which you shun; but if you shun sickness, or death, or poverty, you will run the risk of wretchedness. Remove [the habit of] aversion, then, from all things that are not within our power, and apply it to things undesirable which are within our power. But for the present, altogether restrain desire; for if you desire any of the things not within our own power, you must necessarily be disappointed; and you are not yet secure of those which are within our power, and so are legitimate objects of desire. Where it is practically necessary for you to pursue or avoid anything, do even this with discretion and gentleness and moderation.

III

With regard to whatever objects either delight the mind or contribute to use or are tenderly beloved, remind yourself of what nature they are, beginning with the merest trifles: if you have a favorite cup, that it is but a cup of which you are fond of–for thus, if it is broken, you can bear it; if you embrace your child or your wife, that you embrace a mortal–and thus, if either of them dies, you can bear it.

IV

When you set about any action, remind yourself of what nature the action is. If you are going to bathe, represent to yourself the incidents usual in the bath–some persons pouring out, others pushing in, others scolding, others pilfering. And thus you will more safely go about this action if you say to yourself, "I will now go to bathe and keep my own will in harmony with nature." And so with regard to every other action. For thus, if any impediment arises in bathing, you will be able to say, "It was not only to bathe that I desired, but to keep my will in harmony with nature; and I shall not keep it thus if I am out of humor at things that happen."

V

Men are disturbed not by things, but by the views which they take of things. Thus death is nothing terrible, else it would have appeared so to Socrates. But the terror consists in our notion of death, that it is terrible. When, therefore, we are hindered or disturbed, or grieved, let us never impute it to others, but to ourselves—that is, to our own views. It is the action of an uninstructed person to reproach others for his own misfortunes; of one entering upon instruction, to reproach himself; and one perfectly instructed, to reproach neither others nor himself.

VI

Be not elated at any excellence not your own. If a horse should be elated, and say, "I am handsome," it might be endurable. But when you are elated and say, "I have a handsome horse," know that you are elated only on the merit of the horse. What then is your own? The use of the phenomena of existence. So that when you are in harmony with nature in this respect, you will be elated with some reason; for you will be elated at some good of your own.

VII

As in a voyage, when the ship is at anchor, if you go on shore to get water, you may amuse yourself with picking up a shellfish or a truffle in your way, but your thoughts ought to be bent toward the ship, and perpetually attentive, lest the captain should call, and then you must leave all these things, that you may not have to be carried on board the vessel, bound like a sheep; thus likewise in life, if, instead of a truffle or shellfish, such a thing as a wife or a child be granted you, there is no objection; but if the captain calls, run to the ship, leave all these things, and never look behind. But if you are old, never go far from the ship, lest you should be missing when called for.

VIII

Demand not that events should happen as you wish; but wish them to happen as they do happen, and you will go on well.

IX

Sickness is an impediment to the body, but not to the will unless itself pleases. Lameness is an impediment to the leg, but not to the will; and say this to yourself with regard to everything that happens. For you will find it to be an impediment to something else, but not truly to yourself.

X

Upon every accident, remember to turn toward yourself and inquire what faculty you have for its use. If you encounter a handsome person, you will find continence the faculty needed; if pain, then fortitude; if reviling, then patience. And when thus habituated, the phenomena of existence will not overwhelm you.

XI

Never say of anything, "I have lost it," but, "I have restored it." Has your child died? It is restored. Has your wife died? She is restored. Has your estate been taken away? That likewise is restored. "But it was a bad man who took it." What is it to you by whose hands he who gave it has demanded it again? While he permits you to possess it, hold it as something not your own, as do travelers at an inn.

XII

If you would improve, lay aside such reasonings as these: "If I neglect my affairs, I shall not have a maintenance; if I do not punish my servant, he will be good for nothing." For it were better to die of hunger, exempt from grief and fear, than to live in affluence with perturbation; and it is better that your servant should be bad than you unhappy.

Begin therefore with little things. Is a little oil spilled or a little wine stolen? Say to yourself, "This is the price paid for peace and tranquillity; and nothing is to be had for nothing." And when you call your servant, consider that it is possible he may not come at your call; or, if he does, that he may not do what you wish. But it is not at all desirable for him, and very undesirable for you, that it should be in his power to cause you any disturbance.

XIII

If you would improve, be content to be thought foolish and dull with regard to externals. Do not desire to be thought to know anything; and though you should appear to others to be somebody, distrust yourself. For be assured, it is not easy at once to keep your will in harmony with nature and to secure externals; but while you are absorbed in the one, you must of necessity neglect the other.

XIV

If you wish your children and your wife and your friends to live forever, you are foolish, for you wish things to be in your power which are not so, and what belongs to others to be your own. So likewise, if you wish your servant to be without fault, you are foolish, for you wish vice not to be vice but something else. But if you wish not to be disappointed in your desires, that is in your own power. Exercise, therefore, what is in your power. A man's master is he who is able to confer or remove whatever that man seeks or shuns. Whoever then would be free, let him wish nothing, let him decline nothing, which depends on others; else he must necessarily be a slave.

XV

Remember that you must behave as at a banquet. Is anything brought round to you? Put out your hand and take a moderate share. Does it pass by you? Do not stop it. Is it not yet come? Do not yearn in desire toward it, but wait till it reaches you. So with regard to children, wife, office, riches; and you will some time or other be worthy to feast with the gods. And if you do not so much as take the things which are set before you, but are able even to forego them, then you will not only be worthy to feast with the gods, but to rule with them also. For, by thus doing, Diogenes and Heraclitus, and others like them, deservedly became divine, and were so recognized.

XVI

When you see anyone weeping for grief, either that his son has gone abroad or that he has suffered in his affairs, take care not to be overcome

by the apparent evil, but discriminate and be ready to say, "What hurts this man is not this occurrence itself–for another man might not be hurt by it–but the view he chooses to take of it." As far as conversation goes, however, do not disdain to accommodate yourself to him and, if need be, to groan with him. Take heed, however, not to groan inwardly, too.

XVII

Remember that you are an actor in a drama of such sort as the Author chooses–if short, then in a short one; if long, then in a long one. If it be his pleasure that you should enact a poor man, or a cripple, or a ruler, or a private citizen, see that you act it well. For this is your business–to act well the given part, but to choose it belongs to another.

XVIII

When a raven happens to croak unluckily, be not overcome by appearances, but discriminate and say, "Nothing is portended to *me,* either to my paltry body, or property, or reputation, or children, or wife. But to *me* all portents are lucky if I will. For whatsoever happens, it belongs to me to derive advantage therefrom."

XIX

You can be unconquerable if you enter into no combat in which it is not in your own power to conquer. When, therefore, you see anyone eminent in honors or power, or in high esteem on any other account, take heed not to be bewildered by appearances and to pronounce him happy; for if the essence of good consists in things within our own power, there will be no room for envy or emulation. But, for your part, do not desire to be a general, or a senator, or a consul, but to be free; and the only way to this is a disregard of things which lie not within our own power.

XX

Remember that it is not he who gives abuse or blows, who affronts, but the view we take of these things as insulting. When, therefore, anyone provokes you, be assured that it is your own opinion which provokes you. Try, therefore, in the first place, not to be bewildered by appearances. For

if you once gain time and respite, you will more easily command yourself.

XXI

Let death and exile, and all other things which appear terrible, be daily before your eyes, but death chiefly; and you will never entertain an abject thought, nor too eagerly covet anything.

XXII

If you have an earnest desire toward philosophy, prepare yourself from the very first to have the multitude laugh and sneer, and say, "He is returned to us a philosopher all at once"; and, "Whence this supercilious look?" Now, for your part, do not have a supercilious look indeed, but keep steadily to those things which appear best to you, as one appointed by God to this particular station. For remember that, if you are persistent, those very persons who at first ridiculed will afterwards admire you. But if you are conquered by them, you will incur a double ridicule.

XXIII

If you ever happen to turn your attention to externals, for the pleasure of anyone, be assured that you have ruined your scheme of life. Be content, then, in everything, with being a philosopher; and if you wish to seem so likewise to anyone, appear so to yourself, and it will suffice you.

XXIV

Let not such considerations as these distress you: "I shall live in discredit and be nobody anywhere." For if discredit be an evil, you can no more be involved in evil through another than in baseness. Is it any business of yours, then, to get power or to be admitted to an entertainment? By no means. How then, after all, is this discredit? And how it is true that you will be nobody anywhere when you ought to be somebody in those things only which are within your own power, in which you may be of the greatest consequence? "But my friends will be unassisted." What do you mean by "unassisted"? They will not have money from you, nor will you make them Roman citizens. Who told you, then, that these are

among the things within our own power, and not rather the affairs of others? And who can give to another the things which he himself has not? "Well, but get them, then, that we too may have a share." If I can get them with the preservation of my own honor and fidelity and self-respect, show me the way and I will get them; but if you require me to lose my own proper good, that you may gain what is no good, consider how unreasonable and foolish you are. Besides, which would you rather have, a sum of money or a faithful and honorable friend? Rather assist me, then, to gain this character than require me to do those things by which I may lose it. Well, but my country, say you, as far as depends upon me, will be unassisted. Here, again, what assistance is this you mean? It will not have porticos nor baths of your providing? And what signifies that? Why, neither does a smith provide it with shoes, nor a shoemaker with arms. It is enough if everyone fully performs his own proper business. And were you to supply it with another faithful and honorable citizen, would not he be of use to it? Yes. Therefore neither are you yourself useless to it. "What place, then," say you, "shall I hold in the state?" Whatever you can hold with the preservation of your fidelity and honor. But if, by desiring to be useful to that, you lose these, how can you serve your country when you have become faithless and shameless?

XXV

Is anyone preferred before you at an entertainment, or in courtesies, or in confidential intercourse? If these things are good, you ought to rejoice that he has them; and if they are evil, do not be grieved that you have them not. And remember that you cannot be permitted to rival others in externals without using the same means to obtain them. For how can he who will not haunt the door of any man, will not attend him, will not praise him have an equal share with him who does these things? You are unjust, then, and unreasonable if you are unwilling to pay the price for which these things are sold, and would have them for nothing. For how much are lettuces sold? An obulus, for instance. If another, then, paying an obulus, takes the lettuces, and you, not paying it, go without them, do not imagine that he has gained any advantage over you. For as he has the lettuces, so you have the obulus which you did not give. So, in the present case, you have not been invited to such a person's entertainment because you have not paid him the price for which a supper is sold. It is sold for praise; it is sold for attendance. Give him, then, the value if it be for your advantage. But if you would at the same time not pay the one, and yet

receive the other, you are unreasonable and foolish. Have you nothing, then, in place of the supper? Yes, indeed, you have–not to praise him whom you do not like to praise; not to bear the insolence of his lackeys.

XXVI

The will of nature may be learned from things upon which we are all agreed. As when our neighbor's boy has broken a cup, or the like, we are ready at once to say, "These are casualties that will happen"; be assured, then, that when your own cup is likewise broken, you ought to be affected just as when another's cup was broken. Now apply this to greater things. Is the child or wife of another dead? There is no one who would not say, "This is an accident of mortality." But if anyone's own child happens to die, it is immediately, "Alas! how wretched am I!" It should be always remembered how we are affected on hearing the same thing concerning others.

XXVII

As a mark is not set up for the sake of missing the aim, so neither does the nature of evil exist in the world.

XXVIII

If a person had delivered up your body to some passer-by, you would certainly be angry. And do you feel no shame in delivering up your own mind to any reviler, to be disconcerted and confounded?

XXIX

In every affair consider what precedes and what follows, and then undertake it. Otherwise you will begin with spirit, indeed, careless of the consequences, and when these are developed, you will shamefully desist. "I would conquer at the Olympic Games." But consider what precedes and what follows, and then, if it be for your advantage, engage in the affair. You must conform to rules, submit to a diet, refrain from dainties; exercise your body, whether you choose it or not, at a stated hour, in heat and cold; you must drink no cold water, and sometimes no wine–in a word, you must give yourself up to your trainer as to a physician. Then, in the combat, you may be thrown into a ditch, dislocate your arm, turn your

ankle, swallow an abundance of dust, receive stripes [for negligence], and, after all, lose the victory. When you have reckoned up all this, if your inclination still holds, set about the combat. Otherwise, take notice, you will behave like children who sometimes play wrestlers, sometimes gladiators, sometimes blow a trumpet, and sometimes act a tragedy, when they happen to have seen and admired these shows. Thus you too will be at one time a wrestler, and another a gladiator; now a philosopher, now an orator; but nothing in earnest. Like an ape you mimic all you see, and one thing after another is sure to please you, but is out of favor as soon as it becomes familiar. For you have never entered upon anything considerately; nor after having surveyed and tested the whole matter, but carelessly, and with a halfway zeal. Thus some, when they have seen a philosopher and heard a man speaking like Euphrates–though, indeed, who can speak like him?–have a mind to be philosophers, too. Consider first, man, what the matter is, and what your own nature is able to bear. If you would be a wrestler, consider your shoulders, your back, your thighs; for different persons are made for different things. Do you think that you can act as you do and be a philosopher, that you can eat, drink, be angry, be discontented, as you are now? You must watch, you must labor, you must get the better of certain appetites, must quit your acquaintances, be despised by your servant, be laughed at by those you meet; come off worse than others in everything–in offices, in honors, before tribunals. When you have fully considered all these things, approach, if you please–that is, if, by parting with them, you have a mind to purchase serenity, freedom, and tranquillity. If not, do not come hither; do not, like children, be now a philosopher, then a publican, then an orator, and then one of Caesar's officers. These things are not consistent. You must be one man, either good or bad. You must cultivate either your own reason or else externals; apply yourself either to things within or without you–that is, be either a philosopher or one of the mob.

XXX

Duties are universally measured by relations. Is a certain man your father? In this are implied taking care of him, submitting to him in all things, patiently receiving his reproaches, his correction. But he is a bad father. Is your natural tie, then, to a *good* father? No, but to a father. Is a brother unjust? Well, preserve your own just relation toward him. Consider not what *he* does, but what *you* are to do to keep your own will in a state conformable to nature, for another cannot hurt you unless you

please. You will then be hurt when you consent to be hurt. In this manner, therefore, if you accustom yourself to contemplate the relations of neighbor, citizen, commander, you can deduce from each the corresponding duties.

XXXI

Be assured that the essence of piety toward the gods lies in this—to form right opinions concerning them, as existing and as governing the universe justly and well. And fix yourself in this resolution, to obey them, and yield to them, and willingly follow them amidst all events, as being ruled by the most perfect wisdom. For thus you will never find fault with the gods, nor accuse them of neglecting you. And it is not possible for this to be affected in any other way than by withdrawing yourself from things which are not within our own power, and by making good or evil to consist only in those which are. For if you suppose any other things to be either good or evil, it is inevitable that, when you are disappointed of what you wish or incur what you would avoid, you should reproach and blame their authors. For every creature is naturally formed to flee and abhor things that appear hurtful and that which causes them; and to pursue and admire those which appear beneficial and that which causes them. It is impracticable, then, that one who supposes himself to be hurt should rejoice in the person who, as he thinks, hurts him, just as it is impossible to rejoice in the hurt itself. Hence, also, a father is reviled by his son when he does not impart the things which seem to be good; and this made Polynices and Eteocles mutually enemies—that empire seemed good to both. On this account the husbandman reviles the gods; [and so do] the sailor, the merchant, or those who have lost wife or child. For where our interest is, there, too, is piety directed. So that whoever is careful to regulate his desires and aversions as he ought is thus made careful of piety likewise. But it also becomes incumbent on everyone to offer libations and sacrifices and first fruits, according to the customs of his country, purely, and not heedlessly nor negligently; not avariciously, nor yet extravagantly.

XXXII

When you have recourse to divination, remember that you know not what the event will be, and you come to learn it of the diviner; but of what nature it is you knew before coming; at least, if you are of philosophic mind. For if it is among the things not within our own power, it can

by no means be either good or evil. Do not, therefore, bring with you to the diviner either desire or aversion—else you will approach him trembling—but first clearly understand that every event is indifferent and nothing to *you,* of whatever sort it may be; for it will be in your power to make a right use of it, and this no one can hinder. Then come with confidence to the gods as your counselors; and afterwards, when any counsel is given you, remember what counselors you have assumed, and whose advice you will neglect if you disobey. Come to divination as Socrates prescribed, in cases of which the whole consideration relates to the event, and in which no opportunities are afforded by reason or any other art to discover the matter in view. When, therefore, it is our duty to share the danger of a friend or of our country, we ought not to consult the oracle as to whether we shall share it with them or not. For though the diviner should forewarn you that the auspices are unfavorable, this means no more than that either death or mutilation or exile is portended. But we have reason within us; and it directs us, even with these hazards, to stand by our friend and our country. Attend, therefore, to the greater diviner, the Pythian God, who once cast out of the temple him who neglected to save his friend.[1]

XXXIII

Begin by prescribing to yourself some character and demeanor, such as you may preserve both alone and in company.

Be mostly silent, or speak merely what is needful, and in few words. We may, however, enter sparingly into discourse sometimes, when occasion calls for it; but let it not run on any of the common subjects, as gladiators, or horse races, or athletic champions, or food, or drink—the vulgar topics of conversation—and especially not on men, so as either to blame, or praise, or make comparisons. If you are able, then, by your own conversation, bring over that of your company to proper subjects; but if you happen to find yourself among strangers, be silent.

Let not your laughter be loud, frequent, or abundant.

Avoid taking oaths, if possible, altogether; at any rate, so far as you are able.

Avoid public and vulgar entertainments; but if ever an occasion calls you to them, keep your attention upon the stretch, that you may not

1. [This refers to an anecdote given in full by Simplicius, in his commentary on this passage, of a man assaulted and killed on his way to consult the oracle, while his companion, deserting him, took refuge in the temple till cast out by the Deity.—Tr.]

imperceptibly slide into vulgarity. For be assured that if a person be ever so pure himself, yet, if his companion be corrupted, he who converses with him will be corrupted likewise.

Provide things relating to the body no further than absolute need requires, as meat, drink, clothing, house, retinue. But cut off everything that looks toward show and luxury.

Before marriage guard yourself with all your ability from unlawful intercourse with women; yet be not uncharitable or severe to those who are led into this, nor boast frequently that you yourself do otherwise.

If anyone tells you that a certain person speaks ill of you, do not make excuses about what is said of you, but answer: "He was ignorant of my other faults, else he would not have mentioned these alone."

It is not necessary for you to appear often at public spectacles; but if ever there is a proper occasion for you to be there, do not appear more solicitous for any other than for yourself–that is, wish things to be only just as they are, and only the best man to win; for thus nothing will go against you. But abstain entirely from acclamations and derision and violent emotions. And when you come away, do not discourse a great deal on what has passed and what contributes nothing to your own amendment. For it would appear by such discourse that you were dazzled by the show.

Be not prompt or ready to attend private recitations; but if you do attend, preserve your gravity and dignity, and yet avoid making yourself disagreeable.

When you are going to confer with anyone, and especially with one who seems your superior, represent to yourself how Socrates or Zeno would behave in such a case, and you will not be at a loss to meet properly whatever may occur.

When you are going before anyone in power, fancy to yourself that you may not find him at home, that you may be shut out, that the doors may not be opened to you, that he may not notice you. If, with all this, it be your duty to go, bear what happens and never say to yourself, "It was not worth so much"; for this is vulgar, and like a man bewildered by externals.

In company, avoid a frequent and excessive mention of your own actions and dangers. For however agreeable it may be to yourself to allude to the risks you have run, it is not equally agreeable to others to hear your adventures. Avoid likewise an endeavor to excite laughter, for this may readily slide you into vulgarity, and, besides, may be apt to lower you in the esteem of your acquaintance. Approaches to indecent discourse

are likewise dangerous. Therefore, when anything of this sort happens, use the first fit opportunity to rebuke him who makes advances that way, or, at least, by silence and blushing and a serious look show yourself to be displeased by such talk.

XXXIV

If you are dazzled by the semblance of any promised pleasure, guard yourself against being bewildered by it; but let the affair wait your leisure, and procure yourself some delay. Then bring to your mind both points of time—that in which you shall enjoy the pleasure, and that in which you will repent and reproach yourself, after you have enjoyed it—and set before you, in opposition to these, how you will rejoice and applaud yourself if you abstain. And even though it should appear to you a seasonable gratification, take heed that its enticements and allurements and seductions may not subdue you, but set in opposition to this how much better it is to be conscious of having gained so great a victory.

XXXV

When you do anything from a clear judgment that it ought to be done, never shrink from being seen to do it, even though the world should misunderstand it; for if you are not acting rightly, shun the action itself; if you are, why fear those who wrongly censure you?

XXXVI

As the proposition, "either it is day or it is night," has much force in a disjunctive argument, but none at all in a conjunctive one, so, at a feast, to choose the largest share is very suitable to the bodily appetite, but utterly inconsistent with the social spirit of the entertainment. Remember, then, when you eat with another, not only the value to the body of those things which are set before you, but also the value of proper courtesy toward your host.

XXXVII

If you have assumed any character beyond your strength, you have both demeaned yourself ill in that and quitted one which you might have supported.

XXXVIII

As in walking you take care not to tread upon a nail, or turn your foot, so likewise take care not to hurt the ruling faculty of your mind. And if we were to guard against this in every action, we should enter upon action more safely.

XXXIX

The body is to everyone the proper measure of its possessions, as the foot is of the shoe. If, therefore, you stop at this, you will keep the measure; but if you move beyond it, you must necessarily be carried forward, as down a precipice; as in the case of a shoe, if you go beyond its fitness to the foot, it comes first to be gilded, then purple, and then studded with jewels. For to that which once exceeds the fit measure there is no bound.

XL

Women from fourteen years old are flattered by men with the title of mistresses. Therefore, perceiving that they are regarded only as qualified to give men pleasure, they begin to adorn themselves, and in that to place all their hopes. It is worth while, therefore, to try that they may perceive themselves honored only so far as they appear beautiful in their demeanor and modestly virtuous.

XLI

It is a mark of want of intellect to spend much time in things relating to the body, as to be immoderate in exercises, in eating and drinking, and in the discharge of other animal functions. These things should be done incidentally and our main strength be applied to our reason.

XLII

When any person does ill by you, or speaks ill of you, remember that he acts or speaks from an impression that it is right for him to do so. Now it is not possible that he should follow what appears right to you, but only what appears so to himself. Therefore, if he judges from false appearances, he is the person hurt, since he, too, is the person deceived. For if anyone takes a true proposition to be false, the proposition is not hurt, but only

the man is deceived. Setting out, then, from these principles, you will meekly bear with a person who reviles you, for you will say upon every occasion, "It seemed so to him."

XLIII

Everything has two handles: one by which it may be borne, another by which it cannot. If your brother acts unjustly, do not lay hold on the affair by the handle of his injustice, for by that it cannot be borne, but rather by the opposite—that he is your brother, that he was brought up with you; and thus you will lay hold on it as it is to be borne.

XLIV

These reasonings have no logical connection: "I am richer than you, therefore I am your superior." "I am more eloquent than you, therefore I am your superior." The true logical connection is rather this: "I am richer than you, therefore my possessions must exceed yours." "I am more eloquent than you, therefore my style must surpass yours." But you, after all, consist neither in property nor in style.

XLV

Does anyone bathe hastily? Do not say that he does it ill, but hastily. Does anyone drink much wine? Do not say that he does ill, but that he drinks a great deal. For unless you perfectly understand his motives, how should you know if he acts ill? Thus you will not risk yielding to any appearances but such as you fully comprehend.

XLVI

Never proclaim yourself a philosopher, nor make much talk among the ignorant about your principles, but show them by actions. Thus, at an entertainment, do not discourse how people ought to eat, but eat as you ought. For remember that thus Socrates also universally avoided all ostentation. And when persons came to him and desired to be introduced by him to philosophers, he took them and introduced them; so well did he bear being overlooked. So if ever there should be among the ignorant any discussion of principles, be for the most part silent. For there is great danger in hastily throwing out what is undigested. And if anyone tells you

that you know nothing, and you are not nettled at it, then you may be sure that you have really entered on your work. For sheep do not hastily throw up the grass to show the shepherds how much they have eaten, but, inwardly digesting their food, they produce it outwardly in wool and milk. Thus, therefore, do you not make an exhibition before the ignorant of your principles, but of the actions to which their digestion gives rise.

XLVII

When you have learned to nourish your body frugally, do not pique yourself upon it; nor, if you drink water, be saying upon every occasion, "I drink water." But first consider how much more frugal are the poor than we, and how much more patient of hardship. If at any time you would inure yourself by exercise to labor and privation, for your own sake and not for the public, do not attempt great feats; but when you are violently thirsty, just rinse your mouth with water, and tell nobody.

XLVIII

The condition and characteristic of a vulgar person is that he never looks for either help or harm from himself, but only from externals. The condition and characteristic of a philosopher is that he looks to himself for all help or harm. The marks of a proficient are that he censures no one, praises no one, blames no one, accuses no one; says nothing concerning himself as being anybody or knowing anything. When he is in any instance hindered or restrained, he accuses himself; and if he is praised, he smiles to himself at the person who praises him; and if he is censured, he makes no defense. But he goes about with the caution of a convalescent, careful of interference with anything that is doing well but not yet quite secure. He restrains desire; he transfers his aversion to those things only which thwart the proper use of our own will; he employs his energies moderately in all directions; if he appears stupid or ignorant, he does not care; and, in a word, he keeps watch over himself as over an enemy and one in ambush.

XLIX

When anyone shows himself vain on being able to understand and interpret the works of Chrysippus, say to yourself: "Unless Chrysippus had written obscurely, this person would have had nothing to be vain of.

But what do I desire? To understand nature, and follow her. I ask, then, who interprets her; and hearing that Chrysippus does, I have recourse to him. I do not understand his writings. I seek, therefore, one to interpret *them*." So far there is nothing to value myself upon. And when I find an interpreter, what remains is to make use of his instructions. This alone is the valuable thing. But if I admire merely the interpretation, what do I become more than a grammarian, instead of a philosopher, except, indeed, that instead of Homer I interpret Chrysippus? When anyone, therefore, desires me to read Chrysippus to him, I rather blush when I cannot exhibit actions that are harmonious and consonant with his discourse.

L

Whatever rules you have adopted, abide by them as laws, and as if you would be impious to transgress them; and do not regard what anyone says of you, for this, after all, is no concern of yours. How long, then, will you delay to demand of yourself the noblest improvements, and in no instance to transgress the judgments of reason? You have received the philosophic principles with which you ought to be conversant; and you have been conversant with them. For what other master, then, do you wait as an excuse for this delay in self-reformation? You are no longer a boy but a grown man. If, therefore, you will be negligent and slothful, and always add procrastination to procrastination, purpose to purpose, and fix day after day in which you will attend to yourself, you will insensibly continue to accomplish nothing and, living and dying, remain of vulgar mind. This instant, then, think yourself worthy of living as a man grown up and a proficient. Let whatever appears to be the best be to you an inviolable law. And if any instance of pain or pleasure, glory or disgrace, be set before you, remember that now is the combat, now the Olympiad comes on, nor can it be put off; and that by one failure and defeat honor may be lost or–won. Thus Socrates became perfect, improving himself by everything, following reason alone. And though you are not yet a Socrates, you ought, however, to live as one seeking to be a Socrates.

LI

The first and most necessary topic in philosophy is the practical application of principles, as, *We ought not to lie*; the second is that of demonstrations as, *Why it is that we ought not to lie*; the third, that which gives strength and logical connection to the other two, as, *Why this is a demon-*

stration. For what is demonstration? What is a consequence? What a contradiction? What truth? What falsehood? The third point is then necessary on account of the second; and the second on account of the first. But the most necessary, and that whereon we ought to rest, is the first. But we do just the contrary. For we spend all our time on the third point and employ all our diligence about that, and entirely neglect the first. Therefore, at the same time that we lie, we are very ready to show how it is demonstrated that lying is wrong.

Upon all occasions we ought to have these maxims ready at hand:

> Conduct me, Zeus, and thou, O Destiny,
> Wherever your decrees have fixed my lot.
> I follow cheerfully; and, did I not,
> Wicked and wretched, I must follow still.[2]

> Who'er yields properly to Fate is deemed
> Wise among men, and knows the laws of Heaven.[3]

And this third:

> O Crito, if it thus pleases the gods, thus let it be.[4]
> Anytus and Meletus may kill me indeed; but hurt me they cannot.[5]

2. Cleanthes, in Diogenes Laertius, quoted also by Seneca, *Epistle* 107.
3. Euripides, Fragment 965.
4. Plato, *Crito* [See *Great Books of the Western World* (Ed.)].
5. Plato, *Apology* [See *Great Books of the Western World* (Ed.)].

Translated by Thomas W. Higginson.

Walter Horatio Pater

1839–1894

Walter Pater was born in England on August 4, 1839. His father, Richard, came from a Dutch family and was born in New York; he had moved to England several years before Walter's birth. Walter was educated at the King's School, Canterbury, and at Queen's College, Oxford. He remained at Oxford as a private tutor until 1864, when he was elected a fellow of Brasenose College. In 1868 his essay *Aesthetic Poetry* appeared in the *Fortnightly Revie;* it was followed by critical essays on Leonardo, Pico, Botticelli, Michelangelo, and others. These were collected in a volume, *Studies in the History of the Renaissance*, which appeared in 1873. The celebrated "Conclusion" to this work is reprinted below.

Pater now became the center of a small circle of critics and aestheticians; the Pre-Raphaelites were among his friends. He published a novel, *Marius the Epicurean*, in 1885. This was hailed by his followers as the gospel of a new movement; it advocated devotion to an aesthetic ideal of life, and its perfection of style and calm elevation of tone lent force to the claim. Pater continued to write, publishing a series of philosophical essays in fictional form in 1887 called *Imaginary Portraits*, and in 1893 the critical work *Plato and Platonism*. In his later life Pater returned to the religious fervor of his youth, and it is said that if he had lived he might have taken orders. He died, however, on July 30, 1894, at the age of fifty-four. Two volumes of his essays and a novel were published after his death, and the collected edition of his writings appeared in 1901.

The highest goal of human beings, according to Plato and Aristotle, is disinterested intellectual contemplation. For Epicurus

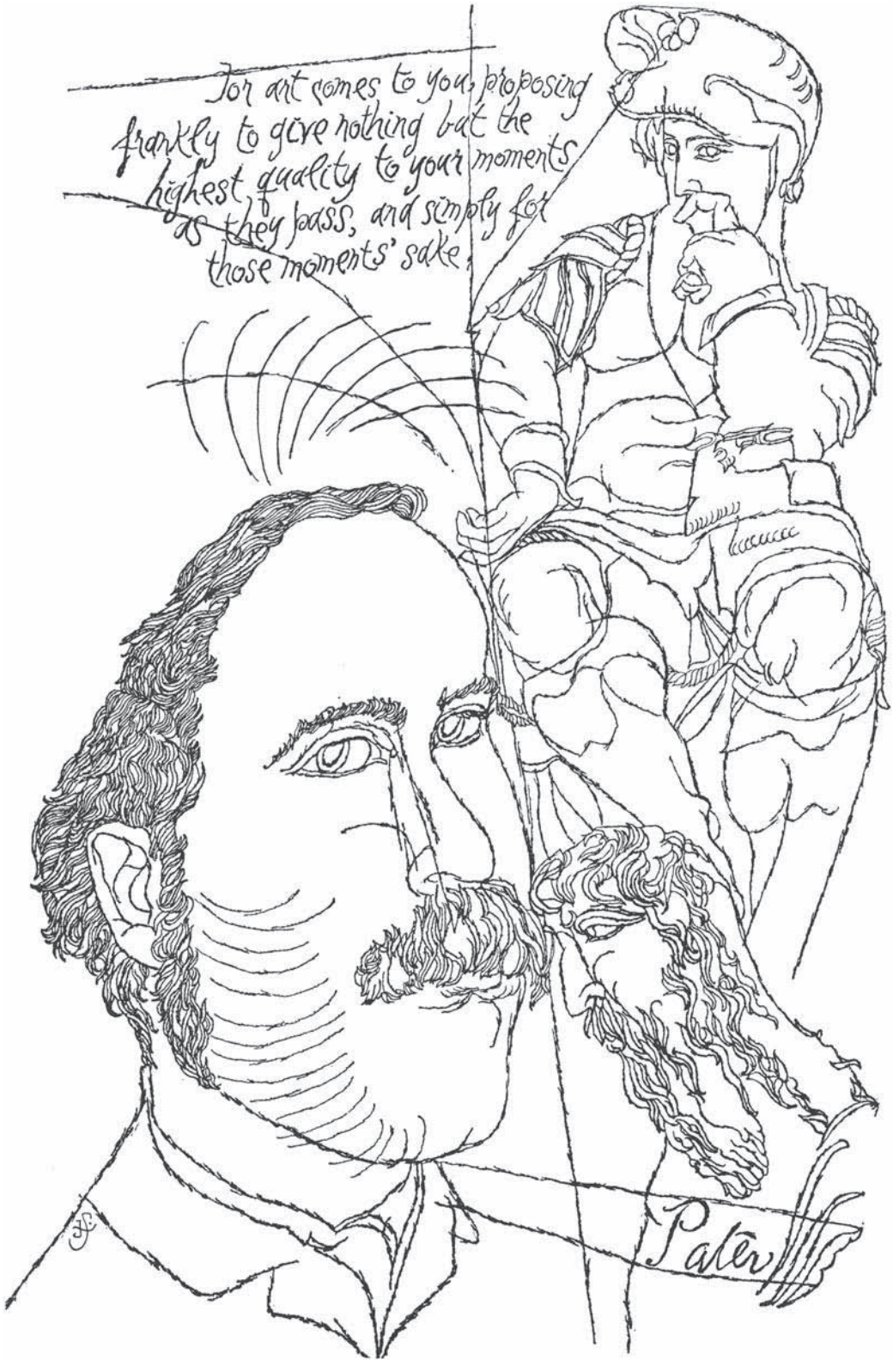
and Lucretius, the ideal of life was mild pleasure exempt from pain and trouble. Neither ideal, as Pater saw, excluded a certain *intensity* of experience. Intellectual contemplation was for him no mere passive beholding of truth; it also involved the joy of discovery. There was an exquisite poise and ardor in the gentle, undemanding friendships of the Epicureans, and courage in their acceptance of nature, which was conceived to be indifferent to man and his fate.

Pater developed and exaggerated this element in Epicureanism in his *Marius the Epicurean.* In Plato's doctrine, Pater emphasized the soul's reckless ascent to the highest truth and beauty and to the most intense experience. What gives value to life, he insisted, are the ecstasies, the high moments of realization. Humdrum virtues and mediocre achievements are a weariness. "Hitch your wagon to a star," as Emerson said. Think nothing of the sacrifice; be contented only with the finest–the finest phrase, the finest composition and color–the most consummate style in whatever you do.

The Renaissance was a subject to Pater's taste. Never before in history, except for a short period in Athens, had so many geniuses accumulated in one small peninsula. In spite of the suffering due to disease, internal wars, and invasions, life reached a feverish pitch of creative achievement. Pater could point to Renaissance Italy as a living model of his ideal.

In the "Conclusion" of this book, he tells us that the way to success in life is to pass quickly from ecstasy to ecstasy. It is "to burn always with this hard, gemlike flame." Like Rousseau, in his *Émile*, Pater thinks it is the forming of habits which robs us of spontaneity. If we are to maintain ecstasy, he says, we must avoid these stereotypes.

Notes from the artist: "The figure of Lorenzo de' Medici and the quotation from Studies in the History of the Renaissance *surmount the portrait of Pater, while below, at the right, is a small head of the Greek philosopher Heraclitus, an important influence on Pater's thought."*


for art comes to you, proposing
frankly to give nothing but the
highest quality to your moments
as they pass, and simply for
those moments' sake.
Pater

The Art of Life
from *The Renaissance*

To regard all things and principles of things as inconstant modes or fashions has more and more become the tendency of modern thought. Let us begin with that which is without—our physical life. Fix upon it in one of its more exquisite intervals, the moment, for instance, of delicious recoil from the flood of water in summer heat. What is the whole physical life in that moment but a combination of natural elements to which science gives their names? But those elements, phosphorus and lime and delicate fibres, are present not in the human body alone: we detect them in places most remote from it. Our physical life is a perpetual motion of them—the passage of the blood, the waste and repairing of the lenses of the eye, the modification of the tissues of the brain under every ray of light and sound—processes which science reduces to simpler and more elementary forces. Like the elements of which we are composed, the action of these forces extends beyond us: it rusts iron and ripens corn. Far out on every side of us those elements are broadcast, driven in many currents; and birth and gesture and death and the springing of violets from the grave are but a few out of ten thousand resultant combinations. That clear, perpetual outline of face and limb is but an image of ours, under which we group them—a design in a web, the actual threads of which pass out beyond it. This at least of flame-like our life has, that it is but the concurrence, renewed from moment to moment, of forces parting sooner or later on their ways.

Or, if we begin with the inward world of thought and feeling, the whirlpool is still more rapid, the flame more eager and devouring. There it is no longer the gradual darkening of the eye, the gradual fading of colour from the wall—movements of the shore-side, where the water flows down indeed, though in apparent rest—but the race of the mid-stream, a drift of

momentary acts of sight and passion and thought. At first sight experience seems to bury us under a flood of external objects, pressing upon us with a sharp and importunate reality, calling us out of ourselves in a thousand forms of action. But when reflection begins to play upon those objects they are dissipated under its influence; the cohesive force seems suspended like some trick of magic; each object is loosed into a group of impressions—colour, odour, texture—in the mind of the observer. And if we continue to dwell in thought on this world, not of objects in the solidity with which language invests them, but of impressions, unstable, flickering, inconsistent, which burn and are extinguished with our consciousness of them, it contracts still further; the whole scope of observation is dwarfed into the narrow chamber of the individual mind. Experience, already reduced to a group of impressions, is ringed round for each one of us by that thick wall of personality through which no real voice has ever pierced on its way to us, or from us to that which we can only conjecture to be without. Every one of those impressions is the impression of the individual in his isolation, each mind keeping as a solitary prisoner its own dream of a world. Analysis goes a step farther still, and assures us that those impressions of the individual mind to which, for each one of us, experience dwindles down, are in perpetual flight; that each of them is limited by time, and that as time is infinitely divisible, each of them is infinitely divisible also; all that is actual in it being a single moment, gone while we try to apprehend it, of which it may ever be more truly said that it has ceased to be than that it is. To such a tremulous wisp constantly reforming itself on the stream, to a single sharp impression, with a sense in it, a relic more or less fleeting, of such moments gone by, what is real in our life fines itself down. It is with this movement, with the passage and dissolution of impressions, images, sensations, that analysis leaves off—that continual vanishing away, that strange, perpetual weaving and unweaving of ourselves.

Philosophiren, says Novalis, *ist dephlegmatisiren, vivificiren.* The service of philosophy, of speculative culture, towards the human spirit, is to rouse, to startle it to a life of constant and eager observation. Every moment some form grows perfect in hand or face; some tone on the hills or the sea is choicer than the rest; some mood of passion or insight or intellectual excitement is irresistibly real and attractive to us—for that moment only. Not the fruit of experience, but experience itself, is the end. A counted number of pulses only is given to us of a variegated, dramatic life. How may we see in them all that is to be seen in them by the finest

senses? How shall we pass most swiftly from point to point, and be present always at the focus where the greatest number of vital forces unite in their purest energy?

To burn always with this hard, gemlike flame, to maintain this ecstasy, is success in life. In a sense it might even be said that our failure is to form habits: for, after all, habit is relative to a stereotyped world, and meantime it is only the roughness of the eye that makes any two persons, things, situations, seem alike. While all melts under our feet, we may well grasp at any exquisite passion, or any contribution to knowledge that seems by a lifted horizon to set the spirit free for a moment, or any stirring of the senses, strange dyes, strange colours, and curious odours, or work of the artist's hands, or the face of one's friend. Not to discriminate every moment some passionate attitude in those about us, and in the very brilliancy of their gifts some tragic dividing of forces on their ways, is, on this short day of frost and sun, to sleep before evening. With this sense of the splendour of our experience and of its awful brevity, gathering all we are into one desperate effort to see and touch, we shall hardly have time to make theories about the things we see and touch. What we have to do is to be for ever curiously testing new opinions and courting new impressions, never acquiescing in a facile orthodoxy of Comte, or of Hegel, or of our own. Philosophical theories or ideas, as points of view, instruments of criticism, may help us to gather up what might otherwise pass unregarded by us. "Philosophy is the microscope of thought." The theory or idea or system which requires of us the sacrifice of any part of this experience, in consideration of some interest into which we cannot enter, or some abstract theory we have not identified with ourselves, or of what is only conventional, has no real claim upon us.

One of the most beautiful passages of Rousseau is that in the sixth book of the *Confessions*, where he describes the awakening in him of the literary sense. An undefinable taint of death had clung always about him, and now in early manhood he believed himself smitten by mortal disease. He asked himself how he might make as much as possible of the interval that remained; and he was not biased by anything in his previous life when he decided that it must be by intellectual excitement, which he found just then in the clear, fresh writings of Voltaire. Well! we are all *condamnés* as Victor Hugo says: we are all under sentence of death but with a sort of indefinite reprieve–*les hommes sont tous condamnés à mort avec des sursis indéfinis*–we have an interval, and then our place knows us no more. Some spend this interval in listlessness, some in high passions, the wisest, at least among "the children of this world," in art and song. For

our one chance lies in expanding that interval in getting as many pulsations as possible into the given time. Great passions may give us this quickened sense of life, ecstasy and sorrow of love, the various forms of enthusiastic activity, disinterested or otherwise, which come naturally to many of us. Only be sure it is passion–that it does yield you this fruit of a quickened, multiplied consciousness. Of such wisdom, the poetic passion, the desire of beauty, the love of art for its own sake, has most. For art comes to you proposing frankly to give nothing but the highest quality to your moments as they pass, and simply for those moments' sake.

The foregoing is the concluding section of Walter Pater's THE RENAISSANCE.

Plutarch [1]

c. 46–120

The essay that follows is often titled *On Tranquillity*. But the tranquil person is, perhaps, a more passive and resigned one than the ideal of Plutarch. In any event, *Contentment* seems to be closer in meaning to the Greek title of the piece. That is, therefore, the title chosen by the present translator.

What is contentment? Who is the contented man? He is, first of all, what might be called a sensible person. He does not covet the impossible; he recognizes the limitations that exist in the world and in the human beings with whom he must deal if he is to live at all. "The business entrusted to your administration," Plutarch says to Paccius, the friend to whom he addresses the essay, "is in large part served not by straightforward and upright characters, like tools suited to a job, but by uneven and crooked tools." He urges Paccius to "use them for what they are." The man who constantly bewails the fact that the world is disappointing cannot be content. He is disappointed because he expected too much. He should have known that nothing is perfect.

On the other hand, one cannot be content, either, if he underestimates the world. Contentment is not to be found, Plutarch says, in total resignation, in retirement. One who avoids all public or private business for the sake of contentment is like the man in Euripides' *Orestes* who was ordered to go to bed and stay there, as if this would cure all his ailments. Or he would be like Achilles, sitting beside the ships, "a useless burden upon the earth." Contentment is not obtainable simply by avoiding trouble.

To retire from life is cowardly and, besides, involves a betrayal of

[1] For a biography of Plutarch, see Vol. 7, pp. 93–95, in this set.

one's friends. The truly contented man is one who is active in the world's and in his own business. He must, nevertheless, regard blessings as probably transitory, and he must be willing and able to accept their loss with equanimity. "No man alive can say," Plutarch quotes Menander as reminding us, " 'This shall not happen to me.' " It is nonsense to insist that no harm can befall the good man. Of course it can. But the good man can remain content even in the face of disaster. Even death should not be feared. Death is not something to be constantly worrying about. Anyone can imagine circumstances in which it would constitute a change for the better.

Contentment depends on reason and knowledge. The soul must be schooled; "sensible people should rehearse" arguments which are specifics for the passions "before the passions arise to have them in stock for greater effectiveness." Fundamentally, "the culprit is self-love." Reason tells us that we may expect bad things as well as good, but self-love deludes us into thinking that the universe was created for our sake alone. One who believes that will soon be disappointed.

There is only one emotion that reason cannot control and overcome, Plutarch says, and that is regret. But even regret can be lessened if we act well, for then we will have little to regret. Thus contentment is far from a passive state of the soul. The contented man, like the virtuous one, is the man who not only avoids bad deeds, but who also does good ones. To him, Plutarch ends by saying, life is everywhere and at all times a festival. He can "face the future without apprehension or misgivings but with hope glad and shining."

The task of telling us how to be contented is as important as it is difficult. We all want to be contented but are often impatient of advice, especially when we are told to steel ourselves for reverses and to be untroubled when they come. Young people, it is said, have to learn for themselves. But would we learn as well if not prepared by past warnings? On the other hand, does not Plutarch demand too much? How can we be expected to be contented in the midst of disaster or heartbreak? And perhaps discontent would show us a better way out of it than contentment can. In any case, Plutarch's recipe for contentment prompts us to face up to the subject ourselves.

Contentment

reetings and good wishes, my dear Paccius. It is only a short while since I received your letter urging me to write you a piece on contentment and one on points in Plato's *Timaeus* which require careful exegesis. At the same time it happened that our friend Eros was obliged to make a trip to Rome; he had received a characteristically peremptory summons from that splendid fellow Fundanus. I hadn't the leisure I would have liked to comply with your request, and at the same time could not have a visitor from me call upon you empty handed, and so I have put together notes on contentment which I had made for my own use, in the conviction that what you desired was not a polished literary composition but something that would be serviceable and helpful. Happily, though you are on terms of intimacy with great personages and enjoy an unsurpassed reputation as a public speaker, you have not fared like Merops in the tragedy, whom "the admiring crowd made oblivious" to normal reactions. You bear in mind what you have repeatedly heard, that gout is not relieved by a fine shoe nor a hangnail by a costly ring nor migraine by a tiara. How can money or reputation or power at court contribute to serenity of spirit and untroubled life unless men find their presence agreeable and do not always miss their absence? And what but reason can train and habituate us promptly to arrest the irrational and passionate part of the soul as often as it rebels and not suffer it to overflow and be swept away because of a momentary situation? Xenophon counsels us to be particularly mindful of the gods and honor them when we prosper so that in time of need we can call upon them with the assurance that they are friendly and favorably disposed. It is the same with arguments which are specifics for the passions: sensible people should rehearse them before the passions arise to have them in stock for greater effectiveness. Mastiffs bristle at every voice and are quieted only by the one they are used to; similarly the passions of the soul are not easily laid

when they grow restive unless there are familiar and firmly held arguments ready to check their rioting.

"A man who would attain contentment," it has been said, "must not become involved in business private or public." In the first place, contentment comes very dear if its price is inactivity. It is like the advice to the invalid, "Stay in bed and don't move, poor fellow"; [1] lethargy is a bad remedy for an ailing frame. But a psychiatrist does no better if he prescribes sloth and effeminacy and betrayal of friends and relatives and country as a cure for a perturbed and distressed soul. In the second place, it is not true that persons not involved in business are even tempered. In that case women, whose chief concern is housekeeping, should be more even tempered than men; but the fact is that though, as Hesiod says, the north wind "blows not upon the tender flesh of a maiden," the women's apartment is assailed by more distress and disturbance and depression than you could count because of their jealousy and superstition and ambition and empty notions. Laertes spent twenty years on a farm by himself "with a crone to serve him food and drink," [2] but though he forsook his country and house and kingship, distress, along with inactivity and depression, kept house with him. Some people idleness reduces to moping, as in this case:

> But he continued in anger, sitting beside the swift ships,
> The Zeus-descended son of Peleus, swift-footed Achilles.
> Nor ever would he attend the man-honoring assembly
> Nor ever go to war, but wasted his heart, remaining there
> And longed for the battle cry and for war.[3]

Achilles himself avows that it makes him uneasy and fidgety: "Here I sit beside the ships, a useless burden upon the earth." [4] That is why even Epicurus holds that men who are ambitious for distinction should not keep inactive but fulfill their nature by participating in politics and public business; such men are disposed to suffer greater perturbation by reason of inactivity if they fail to reach their goals. But the absurdity of the position lies in urging a public career not on those capable of it, but on those incapable of inactivity. Contentment or its reverse should be defined not by the volume of a man's occupations but by their noble or base

1. Euripides, *Orestes,* 258. [Cf. *Great Books of the Western World* (Ed.).]
2. Odyssey, I, 191. [Cf. *Great Books of the Western World* (Ed.).]
3. *Iliad,* I, 488 ff. [Cf. *Great Books of the Western World* (Ed.).]
4. *Iliad,* XVIII, 104. [Cf. *Great Books of the Western World* (Ed.).]

quality, for, as has been remarked, the omission of good is no less reprehensible than the commission of evil.

Some specify one particular life, such as the farmer's, the bachelor's, the king's, as being free of vexation. For such Menander's lines are sufficient admonition:

> I imagined, Phanias, that rich men
> Who need not borrow or groan
> Through the night and toss and turn
> And cry Alack! could sleep sweet
> And soft.

He goes on to observe that rich and poor fare exactly alike:

> Grief must be fused with life.
> It subsists with a luxurious life,
> It attends a famous life,
> It grows old with a needy life.

Timorous and seasick voyagers imagine their plight would be eased if they transferred from a sloop to a merchantman and then from a merchantman to a warship; but their efforts are futile because they carry their bile and their squeamishness with them. So changing one career for another does not relieve the soul of the factors which vex and perturb it–inexperience, unreasonableness, incapacity, and ineptitude in making proper use of what is available. Rich and poor alike are storm tossed by these factors, they infect the unmarried as well as the married. Because of them men avoid the forum, and then find inactivity intolerable; because of them men seek preferment at court, and when they have attained it find it a burden. "It is being at a loss makes the sick hard to please";[5] their wives annoy them, they find fault with the doctor, they are dissatisfied with the bed, and "a visitor is a nuisance when he comes and a burden when he goes," as Ion puts it. But when the disease is broken and supplanted by a different condition, access of health makes everything welcome and agreeable; a man who choked on eggs and rusks and crisp rolls yesterday eagerly relishes a coarse loaf with olives and water cress today.

Just such a cheerful change can be introduced into any life by reason. Alexander burst into tears when he heard Anaxarchus speak of an infinity of worlds, and when his friends asked what the matter was, he said: "When worlds are infinite is not our failure to master even one worth

5. Euripides, *Orestes,* 232. [Cf. *Great Books of the Western World* (Ed.).]

crying about?" Yet Crates, with only scrip and poncho, went through life jesting and laughing as if it were a frolic. Agamemnon himself found it troublesome to rule many subjects:

> Agamemnon you must know, Atreus' son, upon whom
> Beyond all men Zeus laid never-ending cares.[6]

But Diogenes sprawled on the block and jeered the auctioneer, and when he ordered him to stand, Diogenes laughed and teased him: "What if you were selling a fish?" Socrates in jail philosophized with his friends; Phaethon mounted to heaven wept because no one would give him his father's horses and chariot. A shoe turns with the foot, not vice versa, and likewise dispositions mold lives to their own fashion. It is not habit, as has been alleged, that makes the best life sweet to those who have chosen it, but it is intelligence which makes a life at once best and sweetest. We should therefore purge the source of contentment which is in ourselves, so that externals also, like familiar things which are our own and which we do not abuse, may profit us.

> It is futile to rail at circumstances
> For they are indifferent. He shall fare well
> Who confronts circumstances aright.

Plato likened life to a game of dice, where we must make an advantageous throw, and then make proper use of whatever falls. The first of these, the advantageous throw, is not in our discretion; but to receive what fate allots properly, to assign each item a place where what we like will do most good and what we dislike least harm–that *is* our function if we are wise. Men who approach life without craftsmanship and intelligence are like sick people who can tolerate neither heat nor cold; prosperity elates them and adversity dejects them. They are perturbed by either lot, or rather by themselves in either lot, and no less in so-called prosperity than in the other. Theodorus called the Atheist used to say that he offered his discourses with his right hand and his hearers received them with the left; the uncultured often show their awkwardness by giving Fortune a left-handed reception when she makes a dextrous presentation. But sensible people behave like bees; bees get honey from thyme, which is very tart and dry, and sensible people often get something appropriate and useful to themselves from the most untoward situation.

This should be the first exercise to practice–like the man who missed the dog with his throw but hit his stepmother: "Not so bad," said he. It *is*

6. *Iliad,* X, 88 f. [Cf. *Great Books of the Western World* (Ed.).]

possible to divert Fortune from what is unwelcome. Diogenes was banished: "Not so bad"; after he was banished he began to philosophize. Zeno of Citium had one freighter left, and when he heard that it too had foundered with its cargo he remarked, "Well done, Fortune! You have driven me to Stoicism." What prevents us from imitating such models? Your election campaign has miscarried? You shall live in the country and mind your own business. You courted some grandee and were snubbed? You shall be free of jeopardy and distraction. Are you again in some activity which involves time and worry? "Hot water does not so soothe the joints," in the words of Pindar, as fame and respect, and a modicum of power makes "Exertion sweet and toil well spent." [7] Has malice or envy confronted you with insult and abuse? It is a tail wind that wafts you to the Muses and the Academy, as it was for Plato when Dionysius' friendship broke into a tempest.

This too–the example of famous men who were not affected by adversity–will contribute greatly to contentment. For example, is childlessness a vexation? Consider the kings of Rome, none of whom bequeathed his realm to a son. Are you irked by actual poverty? Is there any Boeotian you would prefer to be rather than Epaminondas, any Roman rather than Fabricius? "But my wife has been seduced." Have you not read the inscription at Delphi, "Placed by Agis, king of sea and land," and have you not heard that Alcibiades seduced Agis' wife Timaia, and that she whispered to her servants that her baby's name was Alcibiades? But this did not prevent Alcibiades from becoming the greatest and most illustrious of the Greeks. Nor did his daughter's debauchery prevent Stilpo from being the most cheerful philosopher of his day. When Metrocles took him to task he said, "Is it my fault or hers?" "Her fault," Metrocles replied, "but your misfortune." "How do you mean?" said Stilpo. "Are not faults slips?" "They are indeed," said Metrocles. "And are not slips debited to those who slip?" Metrocles agreed. "And are not the debits the misfortune of the person debited?" This gentle dialectic demonstrated that the Cynic's scolding was pointless barking.

But most people are irritated and exasperated by the derelictions not only of their friends and relatives but even of their enemies. Upbraiding, irascibility, envy, malevolence, and malignant jealousy pertain only to persons ridden by these pests, and they do burden and exacerbate thoughtless people–neighbors' squabbling, friends' moping, malfeasance of officials in the discharge of their office are examples. I place you high in the

7. Euripides, *The Bacchantes,* 66. [Cf. *Great Books of the Western World* (Ed.).]

list of people bothered by such conduct; like the doctors in Sophocles who "Bitter bile with bitter medicine purge" so you show indignation and exasperation to match their passion and distemper. This is illogical. The business entrusted to your administration is in large part served not by straightforward and upright characters, like tools suited to a job, but by uneven and crooked tools. Do not imagine it is your responsibility to straighten them out, or that it is easy to do. But if you use them for what they are, as a doctor uses dental forceps or surgical clips, and comfort yourself with the calmness and moderation the situation requires, the pleasure you take in your own deportment will be greater than your vexation at the crudeness and depravity of others. You will think that they are only fulfilling their nature, like dogs that bark, and no longer unwillingly concentrate a mass of vexation in a petty and impotent spirit, like scum which flows into a low and hollow sink, and is bound to infect you with others' woes. Some philosophers reprehend even pity bestowed on unfortunates, arguing that to help a neighbor is charity, but that to share his sorrow and surrender to it is not. More than this, when we realize that we are at fault and in a bad state these philosophers forbid us to be disheartened or distressed but enjoin us to apply a proper and objective cure to our malady; consider how unreasonable it is, then, to allow ourselves to be grieved and dejected because not everyone who has business with us or calls on us is an honest gentleman! Take care, my dear Paccius, that our general repugnance to the wickedness we encounter be not an unwitting and timid pretext for love of self, rather than hatred of evil. Vehement concern for politics, and either excessive appetite and pursuit or excessive distaste and revulsion, beget brooding suspicions against men we think deprived us of some things or thrust us into others. The man who has learned to accommodate himself to public business easily and dispassionately turns out to be very affable and gentle in his intercourse with his fellow men.

But we must revert to our proper subject. In a state of fever anything we taste seems bitter and disagreeable, but when we see others relishing these things without a wry face we no longer blame the food and drink but ourselves and our distemper; so we shall desist from finding fault and being provoked with circumstances if we see others accepting the same conditions calmly and cheerfully. When things fall out not according to our liking it will contribute to our contentment if we bethink us of the agreeable and charming things that are ours; in the mixture the better will eclipse the worse. When our eyes are dazzled by excessive glare we soothe them by turning to green grass and flowers, but our mind we keep intent

on what is painful and force it to brood over vexation without respite, all but violently wrenching it from more comforting thoughts. This is an apt context for the remark made to the busybody in the play:

> Why, evil-eyed fellow, look you so keen
> On another's evil and turn a blind eye
> To your own?

Why, my good man, do you stare at your own evil so narrowly and make it vivid and conspicuous, but fail to turn your attention to the good things you have? You concentrate the worst of your qualities against yourself as cupping concentrates the worst humors to draw them out of the body. You are no better than the Chian who sold fine old wine to other people but looked for sour to take with his meal; when one of his slaves asked another what the master was doing when he left, the reply was, "Looking for bad when good is available."

The majority do indeed pass by what is potable and good in their own circumstances and rush towards what is troublesome and vexatious. Not so Aristippus; he put the resources he had on the scale, like a good man, and so lightened his woe. He had lost a fine estate, but when a sham friend offered sympathy and condolence he asked the man, "I have three farms left, and you only a plot of ground, I believe?" When his interlocutor agreed, he said, "Then should I not rather condole with you?" To be distressed at what is lost and not rejoice at what is saved is crazy; only a baby will weep and bawl and throw the rest of his toys away if one is taken from him. That is how we behave if, when Fortune has tripped us in one detail, we make all the rest unprofitable by wailing and grieving.

"What do we possess?" a man may ask. What do we not possess? One man has reputation, another a family, another a marriage, another a friend. On his deathbed Antipater of Tarsus made an inventory of the good things that had befallen him, and even included the good trip from Cilicia to Athens. Ordinary things must not be overlooked but taken into account. We ought to be thankful that we are alive and well and see the sun, that there is no war or revolution, that earth and sea lie open for those who wish to till or sail, that we can speak and act or hold our peace and enjoy repose. The presence of these blessings will conduce to our contentment even more if we imagine how it would be if they were not present, if we keep reminding ourselves how the sick yearn for health, men at war for peace, a stranger in the city for friends and reputation, and of how distressing the loss of these things can be. If we do, then we shall not value and cherish these blessings only when we have lost them and

depreciate them only when they are safe. Our not having a thing does not raise its value. It is wrong to acquire things in the belief that they are good, to be in constant fear of losing them in the belief that they are good, and yet when we hold them to disregard and despise them as if they were nothing worth. Rather should we use them with pleasure and satisfaction, so that we may easily bear their loss, if that should befall. The majority of men, Arcesilaus remarks, feel obliged to scrutinize other peoples' poems and paintings and statues very carefully, examining each part with mind and eye; but their own lives, which have many features for agreeable contemplation, they overlook. Always they look to other men's reputations and fortunes, as adulterers look to other men's wives, and themselves and their own qualities they despise.

Here is another practice conducive to contentment. It is best, of course, to look to oneself and one's own state, but if not we should contemplate inferiors, and not, as the majority do, compare ourselves with our superiors. Prisoners, for example, regard those released as happy, and these, in turn, freemen, and freemen citizens, and citizens, in turn, the rich, the rich satraps, satraps kings, and kings gods, all but coveting thunder and lightning. Always desiderating what is beyond them, they are never pleased with what they have.

> The wealth of gold-abounding Croesus
> Is no concern to me;
> Ambition offers no temptation;
> From envy I am free.
> The gods' affairs I do not question;
> No monarch would I be.
> I am content, where'er I'm sent
> With mediocrity.[8]

"A Thasian's sentiment," it will be objected. But there are Chians and Galatians and Bithynians who are dissatisfied with the reputation or power they have got among their countrymen and wail because they cannot sport the patrician badge, and if they can, because they are not praetors, and if they are, because they are not consuls, and if they are, because they were nominated second instead of first. What is this but scraping up excuses for ingratitude to Fortune and penalizing and tormenting oneself? But the sensible man whose thinking is wholesome knows that the sun looks down on untold myriads of men, "As many as enjoy the produce of broad earth" [Simonides], does not sit downhearted and

8. Archilochus 25, tr. N. H. Dole.

humiliated because there are some more famous and richer than he, but reflects that his life is better and more respectable than millions of others and goes his way singing hallelujahs to his tutelary deity and to his life.

At Olympia you cannot win by choosing your competitors, but the rules of life allow you to vaunt your superiority over many others, to be enviable rather than envious–unless you set yourself up to rival a Briareus or a Hercules. So whenever you admire a man carried in a sedan chair as being superior, stoop to look at the carriers too. And whenever you call Xerxes blessed, as the Hellespontine did when he saw him crossing the bridge, look at the poor devils digging at Athos under the knout and having their ears and noses cut off because the waves broke the bridge down, and reflect on what is in their mind: they call *your* life and *your* state blessed.

When Socrates heard one of his friends complain that the city was dear–"Chian wine a mina, purple cloth three minae, a dram of honey five drachmas"–he took hold of him and brought him to the grain vendors. "Half a peck for an obol–the city is cheap"; then to the oil men–"A quart for two coppers"; then to the clothing merchants–"A gown for ten drachmas–the city is cheap." So when we hear anyone remark that our situation is mean and irksome because we are not consuls or governors, we can say, "Our situation is brilliant, our life enviable: we are not beggars, or porters, or flatterers."

But folly has habituated us to live with a view to others rather than to ourselves, and our nature holds so much envy and malice that our pleasure in our own advantages is not so great as our distress at others'; it behooves you, therefore, to look not merely at the brilliance and fame of those you envy and admire but to roll back the spangled curtain of their reputation, as it were, strip the veneer off and get inside, and behold the many troublesome and disagreeable aspects of their being. The famous Pittacus, whose courage and wisdom and justice were so widely acclaimed, was entertaining guests when his wife came storming in and overturned the table. His guests were embarrassed, but Pittacus said: "Each of us has his trouble; a man with mine is to be congratulated."

> This man the market place counts happy
> Is a heap of misery when he opens his door:
> His wife is emperor and general and always embattled.
> He has much to vex him, I have naught.

Many such vexations, which wealth and fame and royalty entail, are imperceptible to the commonality, for they are benighted in a fog. For his

extrinsic pomp, his arms and horses and warrior host, Agamemnon is felicitated as "Atreides, favored by Fortune's weird"; [9] but from within the voice of his own suffering bears witness against this empty glory: "Zeus son of Cronus has bound me fast in heavy doom," [10] and

> I envy you, old man;
> I envy any man who has passed through life
> Without danger, without fame, without glory.[11]

Such reflections as these will serve to skim off that carping at Fortune which humbles and forfeits our own assets by admiration of our neighbor's.

A very considerable handicap to contentment is our failure to temper our ambition, as a skipper reefs his sails, to the energy available. Our hopes reach out for too much, and when we fail we blame Fortune and doom instead of our own folly. It is not bad luck which prevents a man from practicing archery with a plow or hunting rabbits with an ox, it is not a malignant deity which keeps him from catching stag or boar with fishing tackle; to attempt the impossible is stupid and silly. The culprit is self-love, which impels men to crave primacy and victory in everything and to an irrepressible desire to lay hands on everything. Men not only claim the right to be at once rich and learned and strong and good fellows and agreeable companions and friends of kings and governors of a city, but they are dejected if they do not also own blue-ribbon dogs and horses and quails and cocks.

The elder Dionysius was not content with being the greatest dictator of his time, but because he could not rhyme better than the poet Philoxenus or down Plato in dialectic, he flew into a rage and in his exasperation threw Philoxenus into the stone quarries and sent Plato to Aegina to be sold into slavery. Not so Alexander; when the champion Crison seemed to slacken speed on purpose in a race with him he got very angry. When Achilles says,[12] "Of the bronze-armed Achaeans none is my peer," he subjoins, "In battle; in council others are better." When Megabyzus the Persian visited Apelles' studio and undertook to babble about art, Apelles shut his mouth with the remark: "So long as you held your peace you seemed to be somebody because of your gold and purple, but now the apprentices grinding the colors are laughing at your foolishness."

When some people hear that the Stoics call their sage not only wise and

9. *Iliad*, III, 182. [Cf. *Great Books of the Western World* (Ed.).]
10. *Iliad*, II, 111. [Cf. *Great Books of the Western World* (Ed.).]
11. Euripides, *Iphigenia at Aulis,* 16 ff. [Cf. *Great Books of the Western World* (Ed.).]
12. *Iliad*, XVIII, 105. [Cf. *Great Books of the Western World* (Ed.).]

just and brave but also an orator, poet, general, millionaire, king, they think it funny, and yet they themselves claim all these graces and are irked if they do not get them. But even among the gods each has his own province; one is styled "of war," another "of prophecy," another "of gain," and Zeus assigns Aphrodite to weddings and the bridal chamber "for that she hath no share in deeds of war."

It is in the nature of certain pursuits that they cannot exist side by side but must be in conflict with one another. For example, practicing declamations and studying mathematics require leisure and freedom from distraction, whereas success as a public official or courtier is impossible without preoccupation and activity. Again, "wine and a meat diet render the body stout and robust, but the soul weak." Constant care and vigilance in money matters augments wealth, but a detached disdain of wealth is an effective viaticum for the road to philosophy. Not everything is for everyone; one must heed the Pythian injunction to know himself and then occupy himself as Nature intended and not override her by compulsive emulation of one mode of life after another. [As Pindar says:]

> The horse is for the chariot, the ox for the plow,
> The dolphin swiftly skims the sea at the vessel's side;
> If a man would slay a boar he must find a rugged hound.

Only a lunatic is impatient and vexed because he is not at once a lion "Mountain-ranging, confident in his strength," [13] and a Maltese lap dog for a widow to pet. Equally silly is the man who would be an Empedocles or Plato or Democritus, writing on the universe and the nature of reality, and at the same time sleep beside an elderly heiress like Euphorion or tipple with Alexander's cronies like Medius, who is indignant and irritated if he is not admired for his wealth like Ismenias and for his courage like Epaminondas. Runners are not downhearted because they do not carry off the wrestler's crown, but take pride and pleasure in their own accomplishment. "Sparta is your portion: cultivate Sparta!" So Solon said:

> We shall not exchange our virtue for their wealth,
> For virtue is stable, whereas money now one has,
> Now another.

When the physicist Strato heard that Menedemus had many more pupils he said: "Is it strange that more people want baths than an athlete's rubdown?" In a letter to Antipater Aristotle writes: "Alexander is not the

13. *Odyssey*, VI, 130. [Cf. *Great Books of the Western World* (Ed.).]

only one entitled to be proud, because he rules many subjects; those whose speculations on theology are correct also have an equal claim." Men who have so high a regard for their own attainments will not be disturbed by the attainments of their neighbors. We do not expect a vine to bear figs or an olive grapes, but when it comes to ourselves, if we do not possess the combined advantages of millionaire and scholar and general and philosopher, of the flatterer and the plain speaker, of the frugal and the extravagant, we calumniate ourselves and are irked with ourselves and despise ourselves as leading a drab and curtailed life.

There is another lesson, which Nature herself teaches. For diverse beasts she has provided diverse sustenance, and has not made them all flesh eaters or seed pickers or root grubbers; for mankind too she has vouchsafed various avenues to a livelihood—"Shepherd, plowman, fowler, him the sea sustains."

Men should choose the calling suited to them, concentrate upon it, and let the others be; they should not take exception to Hesiod's dictum: "Potter envies potter, builder builder."

Actually men do not limit their jealousy to fellow craftsmen and men of their own class, the rich envy the learned, the famous the rich, the lawyers the professors, and freemen and patricians, by Zeus, grow delirious in blessing deft comedians on the stage and ballet dancers and servants in royal courts, thus inflicting no small vexation and unhappiness upon themselves.

Differences in our emotions make it plain that each man holds the cellars of contentment and discontent within himself; the jugs of good things and bad are not deposited "on Zeus' threshold" but in the soul. The foolish overlook and neglect the good things that are there because their imagination is always straining towards the future, but the wise make even things of the past vividly present by recalling them. The present offers itself to our touch for only an instant of time and then eludes the senses; fools think that it is no longer ours, that it no longer pertains to us. There is a painting of a ropemaker in hell with an ass gobbling up all the rope he makes as he plays it out; so the multitude is overtaken and held fast by insensate and ingrate forgetfulness, which erases every deed and every success and every pleasant experience of ease and companionship and enjoyment. It never allows life to grow into a unity, with the past interwoven with the present, but separates yesterday from today as though it were a different substance, and today from tomorrow, as if it were not the same; forgetfulness transforms every occurrence into a nonoccurrence. The logic of the schoolmen who deny

the principle of growth on the ground that being is in constant flux would continually transform each of us into a different man; so those who do not retain and cherish the past in memory but allow it to flow away actually make themselves empty and impoverished day by day and dependent upon the morrow, as though all that had occurred yesterday and the day before had not happened at all and had no relevance to them.

If this is one factor that confounds contentment, a greater is when men glide away from what is amiable and easygoing to entangle themselves in memories of disagreeable experiences, like flies that slip off the smooth parts of a mirror and cling to the rough places where there are cracks. Better, like the beetles in Olynthus, which, when they have fallen into a place called Beetles' Doom, cannot get out but twist and turn until they die, so men who have subsided into memory of their misfortunes have no wish to struggle up and breathe free again. We ought to put the bright and attractive in the foreground of our soul, as we do colors in a picture, and de-emphasize or suppress the gloomy; to blot them out or banish them altogether is impossible. "The harmony of the universe is alternately tensed and relaxed, like a lyre or a bow"; and in the affairs of men too nothing is pure and unmixed. In music there are deep notes and shrill, and in grammar vowels and consonants, and the musician or grammarian does not dislike and avoid one or the other but understands how to blend them for his own purpose and use them. In human affairs too there are opposing elements, for as Euripides says:

> Good and bad may not be dissevered;
> There is, as there should be, a commingling.

The one element ought not make us downhearted and despondent; rather like musicians who dull the edge of the bad with the better and swathe the inferior with the good, we ought to make our life a tuneful blend which is appropriate to ourselves.

Menander says,

> Beside each man at his birth there stands a daimon
> To be his good guide through life.

Menander is wrong, and Empedocles has it right: *pairs* of daimons or Norns receive each of us at birth and direct us:

> Earth maiden was there and Sun maiden who sees afar;
> Bloody Strife and stable Harmony,
> Beauty and Ugliness, Haste and Loitering,
> Charming Infallibility and darkling Dubiety.

At birth we receive the seeds of each of these traits in a mixture, which produces marked unevenness. A sensible man prays for the better but anticipates the other as well, and, avoiding extremes, makes use of both. Epicurus remarks that "the man least dependent upon the morrow goes to meet the morrow most cheerfully"; just so do wealth and reputation and power and preferment give the greatest satisfaction to those least apprehensive of their opposites. A vehement desire for these things begets a vehement fear of their not lasting, and this makes the enjoyment of them unstable, like a flickering flame. But if Reason has equipped a man to say to Fortune, without fear or trepidation, "Very nice, if you bring me something; no harm if you do not," his stoutheartedness, the fact that he does not fear that loss would be intolerable, enables him to enjoy his present blessings with the greatest satisfaction.

Upon the death of his son, Anaxagoras said, "I knew I had begotten a mortal." We may not only admire his composure but imitate it and say, when any adversity befalls, "I know that wealth is transitory and impermanent. I know that those who bestow office can take it away. I know that my wife is good, but a woman, and that my friend is a man, a creature naturally changeable, as Plato says." When unwanted (but not unexpected) accidents befall people who have schooled themselves to such composure there is no place for such protestations as, "I would never have thought it. I anticipated something different. I had not expected this." Such composure banishes the leaping and fluttering of the heart and quickly restores its excitement and confusion to stability. In affairs of moment it is solely the element of the unexpected, as Carneades reminds us, that reduces us to distress and despair. The Macedonian Kingdom was a tiny fraction of the size of the Roman Empire, yet when Perseus lost Macedonia he bewailed his loss most bitterly, and everyone regarded him as the most unfortunate and ill starred of men. His conqueror, Aemilius, handed his supreme command by land and sea to his successor, received a wreath and offered sacrifice, and was counted blessed, and rightly. He knew he would relinquish the office he had received, whereas Perseus lost his when he did not expect to. Well has our poet taught us the power of the unexpected: when Odysseus' dog fawned upon him he wept, but when he sat by his tearful wife he showed no such feeling. In the latter case he had come prepared in advance, keeping his emotion under the control of reason, but the former case was a contretemps into which he had fallen suddenly and unexpectedly.

Of unwelcome occurrences, generally speaking, some naturally entail grief and vexation, but in the case of most a false conception has schooled

and habituated us to be irked by them. As a specific against the latter it is advisable to keep a line of Menander handy: "Nothing has happened to you unless you make much of it." His meaning is that your body and soul need not be affected if, for example, your father is lowborn, your wife taken in adultery, yourself deprived of some honorary crown or front-seat privilege, for none of these prevents a man from thriving in physique or psyche. For the former category—sickness, hardship, the death of friends or of children—which seem naturally to entail grief and vexation, the line of Euripides should be kept handy: "Alas!—but why Alas? It is the lot of mortality we experience." No logic can so effectively brake the descending spiral of our emotions as the reflection that it is only through the common compulsion of Nature, which is an element in his physical constitution, that man is vulnerable to Fortune; in his most essential and greatest aspects he stands secure.

When Demetrius took the Megarians' city he asked Stilpo whether any of his goods had been looted. "I saw no one going off with *my* goods," said Stilpo. When Fortune plunders and confiscates all else we still have within us a thing "such as Achaeans can neither rape nor plunder." It follows that we must not underrate and dismiss Nature as being incapable of prevailing over or even withstanding Fortune. On the contrary, we know that the corruptible and unresisting part of man which is vulnerable to Fortune is small, whereas we ourselves are masters of the better part in which are firmly fixed the greatest of our goods—right opinions and knowledge and reasoning whose consummation is virtue—which can neither be alienated nor destroyed. Undismayed and with hearts courageous we face what is to be and say to Fortune what Socrates said to his judges when he was ostensibly speaking to his accusers: "Anytus and Meletus can kill me, they cannot harm me." Fortune can infect a man with sickness, take his money away, malign him to his countrymen or a tyrant; but she cannot make a good and virile and high-spirited man a poltroon or mean spirited or ignoble or envious, nor can she rob us of the serenity whose permanent availability is more useful for facing life than a pilot is for facing the sea. No pilot can calm rough wave and wind, or find a haven at will for his need, nor abide what is to be without fear and trepidation. So long as he has not despaired, he uses his skill

> To escape the hellish sea,
> Mainsail lashed at mast's bottom;

but when the sea shows its strength he sits shivering and shaking. But a wise man's serenity affords an expanse of calm to the bodily factors. By

self-control and a prudent way of life and moderate exertion, he banishes susceptibility to disease; and if trouble of an outside origin befalls he skims by the reefs "riding a poised and light beam," as Asclepiades says. But if some great and extraordinary calamity overtakes and masters him, then a haven is ready at hand and he can swim from his body as from a boat with seams opened.

It is fear of death, not craving for life, that makes a fool hang on to his body and wind himself about it as Odysseus clung to the fig tree for fear of lurking Charybdis. "The gale suffers him neither to halt nor sail"; he is displeased with what is, and afraid of the alternative. But a man who has attained an understanding of the soul and has calculated that death may be a change for the better, but certainly not for the worse, has in indifference to death no inconsiderable resource for facing life with contentment. A man who can lead an agreeable life when the satisfactory and congenial element is in the ascendant and depart fearlessly when the uncongenial and unnatural assail him and say, "The god will himself release me whensoever I will," [14] is impregnable to any imaginable difficulty or distemper or agitation. It was not bolts or bars or walls that gave his confidence to the man who said, "I have forestalled you, Fortune; I have blocked your every access to me"; it was by precepts and doctrines which are available to everyone. Utterances of this kind should not be dismissed or distrusted; one should admire and emulate and be inspired by them to put himself to the proof, testing himself in lesser matters as preparation for greater, not evading or thrusting away the care of the soul or taking refuge in the thought that "probably nothing too disagreeable will happen." The luxury-loving soul which is preoccupied with what is easiest and retreats from what it doesn't like to what is most agreeable begets nervelessness and undisciplined effeminacy. But the soul which devotes study and the inexorable force of logic to formulate a detailed conception of what disease and hardship and exile are will find much that is spurious and empty and unsound in things seemingly difficult and formidable. Reason will demonstrate this in every case.

And yet Menander's line—"No man alive can say, 'This shall not happen to me' "—terrifies many people because they do not realize how much it contributes to serenity to train oneself to be able to look Fortune in the face with eyes wide open and not to foster in oneself fancies dainty and soft, embowered in the shade of many hopes which yield to every pressure and offer resistance to none. We can indeed agree with Menander's "This

14. Euripides, *The Bacchantes,* 498. [Cf. *Great Books of the Western World* (Ed.).]

shall not happen to me," and declare, while we are men alive, "This I shall not do: I shall not lie, nor cheat, nor defraud, nor conspire." This lies within our power, and it is no slight contribution to contentment but a very great one. On the other hand,

> My conscience, my own awareness
> That I have committed a wrong

leaves behind in the soul, like an ulcer in the flesh, a trauma which always aches and draws blood. Other pangs reason can allay, but reason is the very thing that produces regret; it is the soul and its sense of shame that gnaws and scourges itself. The shivering and burning caused by ague or fever are more annoying and distressing than heat or cold from an outside source; similarly the darts of Fortune inflict lighter pain for they assail us from without. But the dirge we keen over offenses that issue from within ourselves–

> None other than I is to blame for these things;
> I myself am guilty–

exacerbates the pain by compounding it with shame.

It follows that no costly mansion, no mass of gold, no pride of race, no grandeur of office, no charm or force of eloquence can bestow upon life so clear skied a serenity as a soul purged of evil deeds and thoughts which keeps as the fountain of life a character imperturbable and untainted. From this fountain flow fair deeds which combine inspired and glad activity carried on with a high heart and a memory sweeter and solider than that Pindar speaks of as sustaining old age. "Even when they are emptied," says Carneades, "censers retain their bouquet for a long while"; and in the soul of a sensible man fair deeds leave behind a memory always pleasing and always fresh. By this memory satisfaction in fair deeds is kept watered, so that it thrives and despises such as bewail life and complain of it as a domain of evil or a place of exile appointed for souls in this world.

I like what Diogenes said when he saw his Spartan host outdoing himself in preparing for a certain festival: "Isn't every day a festival in the sight of a good man?" And a very splendid festival if we have good sense. The universe is a temple of the highest holiness and sanctity. Into this temple his birth introduces man as a beholder not of images made by man and incapable of movement but of such as the divine intelligence has revealed as imitations of ideas perceptible to the senses, in Plato's language, with the source of life and movement inherent in them–the sun

and the moon and the stars and the rivers which continually send forth new water and the earth which continually sends up sustenance for plants and animals. Life is an initiation and consummation of these mysteries and should therefore be filled with contentment and joy. We should not, like the crowd, wait for such occasions as the Cronia and Diasia and Panathenaea and the like to take pleasure and recreation, purchasing laughter of mimes and dancers for cash payment. We observe the proprieties as we sit there, to be sure, and watch our tongues, for no one complains while he is being initiated or laments while he is attending the Pythia or drinking at the Cronia; but they shame the festivals which the god organizes for us and initiates us into by passing the greater part of their time in complaints and heavyheartedness and crushing anxiety. Men take delight in the sweet strains of instrumental music and in the singing of birds, they take pleasure in the spectacle of animals frisking and frolicking and dislike it when they roar and bellow and scowl. But when they see that their own life is unsmiling and brooding and crushed and ground down by highly disagreeable and unending passions and preoccupations and worries, they find no respite or refreshment for themselves–how could they? Not only so, but when others invite them to do so they will heed no argument whose acceptance would enable them to tolerate the present without recrimination, recall the past with gratitude, and face the future without apprehension or misgivings but with hope glad and shining.

Translated by Moses Hadas.

Cicero [1]

106–43 B.C.

Marcus Tullius Cicero was not only the greatest orator of ancient Rome, he was also one of its leading statesmen. Born at Arpinum, in central Italy, in 106 B.C., he was educated in Rome. He studied rhetoric, law, and philosophy under some of the most famous teachers of his time, and, at the age of twenty-five, he was ready to begin his career as an advocate. His earliest efforts attracted considerable attention, but they also brought him into disfavor with the dictator Sulla. Out of fear for his safety, Cicero temporarily left Rome. He journeyed to Athens, where he spent much of his time perfecting his oratorical style.

When he was thirty, Cicero was appointed to the office of quaestor in a province in Sicily. He performed his duties well, and within a few years he was asked to serve as prosecutor in the case against Verres, a Sicilian official who had cruelly oppressed the people. His successful handling of this case made him famous throughout Rome and launched him on his political career. He rose to power rapidly, and less than seven years later he was elected to the consulship, the highest office in Rome.

Cicero's unsuccessful rival for the consulship was Catiline, a patrician who had fallen into disrepute. Upon his defeat, Catiline organ-

[1] See Plutarch's *Cicero* in *Great Books of the Western World.*

Notes from the artist: "The strength of Cicero as an orator, poet, and public figure is emphasized by the reverse of blacks and whites in this portrait. The quotation, from De divinatione, *is translated as: 'There is nothing so absurd but some philosopher has said it.' "*

Nihil tam absurde
dici potest, quod
non dicatur ab
aliquo philosophorum.
CICERO

ized a conspiracy to seize the highest offices of the state by force. Cicero discovered the plot and acted boldly to prevent it. For his vigilance he was rewarded with the title "Father of His Country."

Cicero's good fortune did not last long, however. He was soon banished from Rome for executing members of Catiline's party without trial. Then, only a little more than a year later, the edict of banishment was lifted. Upon his return to Rome, Cicero was enthusiastically received by the populace.

During the next few years, Cicero devoted himself to his law practice and to literary composition. He did not completely neglect political affairs, however, and he viewed with concern the rising star of Julius Caesar. When Caesar provoked civil war by crossing the Rubicon, Cicero sided with Pompey against him. Pompey was eventually defeated, but Caesar made no attempt to punish Cicero.

Cicero returned to his literary pursuits until the murder of Caesar in 44 B.C. Then, in the ensuing struggle for power, he took the side of young Octavian Caesar against Mark Antony. He attacked Antony in a famous series of orations known as the "Philippics." When Antony and Octavian came to an agreement, Cicero was condemned to death. He was killed by agents of Antony in 43 B.C., and his head and hands were cut off and exhibited in Rome.

Cicero was a man of vast learning and a prolific writer. We are indebted to him for much of our knowledge of Greek philosophy after Aristotle. His complete works, which include treatises on rhetoric and many philosophical and political subjects, essays, dialogues, speeches, and letters, fill several volumes.

Friendship was an important subject for the great philosophers of antiquity. Plato devoted an early dialogue, *Lysis*,[2] to an attempt to define it; Aristotle exhaustively analyzed it in the *Nicomachean Ethics;*[3] Epictetus made it the subject of one of his discourses;[4] Seneca touched upon it frequently in his *Moral Essays;* and Cicero wrote the dialogue *De amicitia*, or *On Friendship*. In the early modern period, the subject was taken up again by Montaigne and Bacon, each of whom composed an essay on it. Since then, however, philosophers have paid less and less attention to friendship.

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[2] See *Great Books of the Western World.*
[3] See *Great Books of the Western World.*
[4] See *Great Books of the Western World.*

The decline of interest in friendship can probably be explained in several ways. The most obvious explanation is that the emphasis on romantic love and marriage, which is characteristic of our civilization, has made friendship seem less important. Yet, as we all know from our own experience, friendship remains a significant part of human life. We are still interested in what philosophers have to say about it. We still want to know what friendship is, what it means to *have* a good friend, and what it means to *be* a good friend. There is perhaps no better place for us to begin than with Cicero's *On Friendship*.

On Friendship is presented as a dialogue between Gaius Laelius and two of his sons-in-law. Gaius Laelius was the father-in-law of Scaevola, one of Cicero's early teachers, but he is best known as the intimate friend of Publius Scipio Africanus, one of the greatest of early Romans. It was Scipio Africanus who led the Roman armies that conquered Carthage, defeated Hannibal, and established Rome as the supreme power in the Mediterranean world. The companion selection to *On Friendship*—*On Old Age*—is a dialogue between the same Gaius Laelius, Scipio Africanus the younger (grandson of the elder Scipio), and Marcus Cato, a Roman renowned for his wisdom and patriotism.

Cicero's views on old age (as expressed through the character of Cato) are quite different from those that appear to be dominant in the twentieth century. The present emphasis is on the importance of remaining young, both in appearance and in spirit. Old age seems to be an object of universal dread. This is not the case with Cicero. He insists that old age can be as happy as any other period in life.

Cicero considers each of the four most frequently voiced criticisms of old age: (1) it withdraws us from active employments; (2) it enfeebles the body; (3) it deprives us of nearly all physical pleasures; and (4) it is the last step before death. Then, in the main body of the dialogue, he presents arguments to prove that the first of these criticisms is not valid, the second involves no serious disadvantage, the third results in more of a gain than a loss, and the fourth can be overcome by reason.

On Friendship

The augur Quintus Mucius Scaevola used to recount a number of stories about his father-in-law, Gaius Laelius, accurately remembered and charmingly told; and whenever he talked about him always gave him the title of "the wise" without any hesitation. I had been introduced by my father to Scaevola as soon as I had assumed the *toga virilis*, and I took advantage of the introduction never to quit the venerable man's side as long as I was able to stay and he was spared to us. The consequence was that I committed to memory many disquisitions of his, as well as many short pointed apophthegms, and, in short, took as much advantage of his wisdom as I could. When he died, I attached myself to Scaevola the Pontifex, whom I may venture to call quite the most distinguished of our countrymen for ability and uprightness. But of this latter I shall take other occasions to speak. To return to Scaevola the augur: Among many other occasions I particularly remember one. He was sitting on a semicircular garden-bench, as was his custom, when I and a very few intimate friends were there, and he chanced to turn the conversation upon a subject which about that time was in many people's mouths. You must remember, Atticus, for you were very intimate with Publius Sulpicius, what expressions of astonishment, or even indignation, were called forth by his mortal quarrel, as tribune, with the consul Quintus Pompeius, with whom he had formerly lived on terms of the closest intimacy and affection. Well, on this occasion, happening to mention this particular circumstance, Scaevola detailed to us a discourse of Laelius on friendship delivered to himself and Laelius' other son-in-law, Gaius Fannius, son of Marcus Fannius, a few days after the death of Africanus. The points of that discussion I committed to memory, and have arranged them in this book at my own discretion. For I have brought the speakers, as it were, personally on to my stage to prevent the constant "said I" and "said he" of a narrative, and to give the discourse the air of being orally delivered in our hearing.

You have often urged me to write something on friendship, and I quite

acknowledged that the subject seemed one worth everybody's investigation, and specially suited to the close intimacy that has existed between you and me. Accordingly I was quite ready to benefit the public at your request.

As to the *dramatis personae:* In the treatise *On Old Age*, which I dedicated to you, I introduced Cato as chief speaker. No one, I thought, could with greater propriety speak on old age than one who had been an old man longer than any one else, and had been exceptionally vigorous in his old age. Similarly, having learnt from tradition that of all friendships that between Gaius Laelius and Publius Scipio was the most remarkable, I thought Laelius was just the person to support the chief part in a discussion on friendship which Scaevola remembered him to have actually taken. Moreover, a discussion of this sort gains somehow in weight from the authority of men of ancient days, especially if they happen to have been distinguished. So it comes about that in reading over what I have myself written I have a feeling at times that it is actually Cato that is speaking, not I.

Finally, as I sent the former essay to you as a gift from one old man to another, so I have dedicated this *On Friendship* as a most affectionate friend to his friend. In the former Cato spoke, who was the oldest and wisest man of his day; in this Laelius speaks on friendship–Laelius, who was at once a wise man (that was the title given him) and eminent for his famous friendship. Please forget me for a while; imagine Laelius to be speaking.

Gaius Fannius and Quintus Mucius come to call on their father-in-law after the death of Africanus. They start the subject; Laelius answers them. And the whole essay on friendship is his. In reading it you will recognize a picture of yourself.

Fannius. You are quite right, Laelius! there never was a better or more illustrious character than Africanus. But you should consider that at the present moment all eyes are on you. Everybody calls you "the wise" *par excellence*, and thinks you so. The same mark of respect was lately paid Cato, and we know that in the last generation Lucius Atilius was called "the wise." But in both cases the word was applied with a certain difference. Atilius was so called from his reputation as a jurist; Cato got the name as a kind of honorary title and in extreme old age because of his varied experience of affairs, and his reputation for foresight and firmness, and the sagacity of the opinions which he delivered in senate and forum. You, however, are regarded as "wise" in a somewhat different sense–not

alone on account of natural ability and character, but also from your industry and learning; and not in the sense in which the vulgar, but that in which scholars, give that title. In this sense we do not read of any one being called wise in Greece except one man at Athens; and he, to be sure, had been declared by the oracle of Apollo also to be "the supremely wise man." For those who commonly go by the name of the Seven Sages are not admitted into the category of the wise by fastidious critics. Your wisdom people believe to consist in this, that you look upon yourself as self-sufficing and regard the changes and chances of mortal life as powerless to affect your virtue. Accordingly they are always asking me, and doubtless also our Scaevola here, how you bear the death of Africanus. This curiosity has been the more excited from the fact that on the Nones of this month, when we augurs met as usual in the suburban villa of Decimus Brutus for consultation, you were not present, though it had always been your habit to keep that appointment and perform that duty with the utmost punctuality.

Scaevola. Yes, indeed, Laelius, I am often asked the question mentioned by Fannius. But I answer in accordance with what I have observed: I say that you bear in a reasonable manner the grief which you have sustained in the death of one who was at once a man of the most illustrious character and a very dear friend. That of course you could not but be affected—anything else would have been wholly unnatural in a man of your gentle nature—but that the cause of your non-attendance at our college meeting was illness, not melancholy.

Laelius. Thanks, Scaevola! You are quite right; you spoke the exact truth. For in fact I had no right to allow myself to be withdrawn from a duty which I had regularly performed, as long as I was well, by any personal misfortune; nor do I think that anything that can happen will cause a man of principle to intermit a duty. As for your telling me, Fannius, of the honourable appellation given me (an appellation to which I do not recognize my title, and to which I make no claim), you doubtless act from feelings of affection; but I must say that you seem to me to do less than justice to Cato. If any one was ever "wise"—of which I have my doubts—he was. Putting aside everything else, consider how he bore his son's death! I had not forgotten Paulus; I had seen with my own eyes Gallus. But they lost their sons when mere children; Cato his when he was a full-grown man with an assured reputation. Do not therefore be in a hurry to reckon as Cato's superior even that same famous personage whom Apollo, as you say, declared to be "the wisest." Remember the former's reputation rests on deeds, the latter's on words.

Now, as far as I am concerned (I speak to both of you now), believe me, the case stands thus: If I were to say that I am not affected by regret for Scipio, I must leave the philosophers to justify my conduct, but in point of fact I should be telling a lie. Affected of course I am by the loss of a friend as I think there will never be again, such as I can fearlessly say there never was before. But I stand in no need of medicine. I can find my own consolation, and it consists chiefly in my being free from the mistaken notion which generally causes pain at the departure of friends. To Scipio I am convinced no evil has befallen: mine is the disaster, if disaster there be; and to be severely distressed at one's own misfortunes does not show that you love your friend, but that you love yourself.

As for him, who can say that all is not more than well? For, unless he had taken the fancy to wish for immortality, the last thing of which he ever thought, what is there for which mortal man may wish that he did not attain? In his early manhood he more than justified by extraordinary personal courage the hopes which his fellow-citizens had conceived of him as a child. He never was a candidate for the consulship, yet was elected consul twice: the first time before the legal age; the second at a time which, as far as he was concerned, was soon enough, but was near being too late for the interests of the state. By the overthrow of two cities which were the most bitter enemies of our empire, he put an end not only to the wars then raging, but also to the possibility of others in the future. What need to mention the exquisite grace of his manners, his dutiful devotion to his mother, his generosity to his sisters, his liberality to his relations, the integrity of his conduct to every one? You know all this already. Finally, the estimation in which his fellow-citizens held him has been shown by the signs of mourning which accompanied his obsequies. What could such a man have gained by the addition of a few years? Though age need not be a burden–as I remember Cato arguing in the presence of myself and Scipio two years before he died–yet it cannot but take away the vigour and freshness which Scipio was still enjoying. We may conclude therefore that his life, from the good fortune which had attended him and the glory he had obtained, was so circumstanced that it could not be bettered, while the suddenness of his death saved him the sensation of dying. As to the manner of his death it is difficult to speak; you see what people suspect. Thus much, however, I may say: Scipio in his lifetime saw many days of supreme triumph and exultation, but none more magnificent than his last, on which, upon the rising of the Senate, he was escorted by the senators and the people of Rome, by the allies, and by the Latins, to his own door. From such an elevation of popular esteem the next step

seems naturally to be an ascent to the gods above, rather than a descent to Hades.

For I am not one of these modern philosophers who maintain that our souls perish with our bodies, and that death ends all. With me ancient opinion has more weight: whether it be that of our own ancestors, who attributed such solemn observances to the dead, as they plainly would not have done if they had believed them to be wholly annihilated; or that of the philosophers who once visited this country, and who by their maxims and doctrines educated Magna Graecia, which at that time was in a flourishing condition, though it has now been ruined; or that of the man who was declared by Apollo's oracle to be "most wise," and who used to teach without the variation which is to be found in most philosophers that "the souls of men are divine, and that when they have quitted the body a return to heaven is open to them, least difficult to those who have been most virtuous and just." This opinion was shared by Scipio. Only a few days before his death–as though he had a presentiment of what was coming–he discoursed for three days on the state of the republic. The company consisted of Philus and Manlius and several others, and I had brought you, Scaevola, along with me. The last part of his discourse referred principally to the immortality of the soul; for he told us what he had heard from the elder Africanus in a dream. Now if it be true that in proportion to a man's goodness the escape from what may be called the prison and bonds of the flesh is easiest, whom can we imagine to have had an easier voyage to the gods than Scipio? I am disposed to think, therefore, that in his case mourning would be a sign of envy rather than of friendship. If, however, the truth rather is that the body and soul perish together, and that no sensation remains, then though there is nothing good in death, at least there is nothing bad. Remove sensation, and a man is exactly as though he had never been born; and yet that this man *was* born is a joy to me, and will be a subject of rejoicing to this state to its last hour.

Wherefore, as I said before, all is as well as possible with him. Not so with me; for as I entered life before him, it would have been fairer for me to leave it also before him. Yet such is the pleasure I take in recalling our friendship, that I look upon my life as having been a happy one because I have spent it with Scipio. With him I was associated in public and private business; with him I lived in Rome and served abroad; and between us there was the most complete harmony in our tastes, our pursuits, and our sentiments, which is the true secret of friendship. It is not therefore in that

reputation for wisdom mentioned just now by Fannius—especially as it happens to be groundless—that I find my happiness so much, as in the hope that the memory of our friendship will be lasting. What makes me care the more about this is the fact that in all history there are scarcely three or four pairs of friends on record; and it is classed with them that I cherish a hope of the friendship of Scipio and Laelius being known to posterity.

Fannius. Of course that must be so, Laelius. But since you have mentioned the word friendship, and we are at leisure, you would be doing me a great kindness, and I expect Scaevola also, if you would do as it is your habit to do when asked questions on other subjects, and tell us your sentiments about friendship, its nature, and the rules to be observed in regard to it.

Scaevola. I shall of course be delighted. Fannius has anticipated the very request I was about to make. So you will be doing us both a great favour.

Laelius. I should certainly have no objection if I felt confidence in myself. For the theme is a noble one, and we are (as Fannius has said) at leisure. But who am I? and what ability have I? What you propose is all very well for professional philosophers, who are used, particularly if Greeks, to have the subject for discussion proposed to them on the spur of the moment. It is a task of considerable difficulty, and requires no little practice. Therefore for a set discourse on friendship you must go, I think, to professional lecturers. All I can do is to urge on you to regard friendship as the greatest thing in the world; for there is nothing which so fits in with our nature, or is so exactly what we want in prosperity or adversity.

But I must at the very beginning lay down this principle—*friendship can only exist between good men*. I do not, however, press this too closely, like the philosophers who push their definitions to a superfluous accuracy. They have truth on their side, perhaps, but it is of no practical advantage. Those, I mean, who say that no one but the "wise" is "good." Granted, by all means. But the "wisdom" they mean is one to which no mortal ever yet attained. We must concern ourselves with the facts of everyday life as we find it—not imaginary and ideal perfections. Even Gaius Fannius, Manius Curius, and Tiberius Coruncanius, whom our ancestors decided to be "wise," I could never declare to be so according to their standard. Let them, then, keep this word "wisdom" to themselves. Everybody is irritated by it; no one understands what it means. Let them but grant that the men I mentioned were "good." No, they won't do that either. No one but

the "wise" can be allowed that title, say they. Well, then, let us dismiss them and manage as best we may with our own poor mother wit, as the phrase is.

We mean then by the "good" *those whose actions and lives leave no question as to their honour, purity, equity, and liberality; who are free from greed, lust, and violence; and who have the courage of their convictions.* The men I have just named may serve as examples. Such men as these being generally accounted "good," let us agree to call them so, on the ground that to the best of human ability they follow nature as the most perfect guide to a good life.

Now this truth seems clear to me, that nature has so formed us that a certain tie unites us all, but that this tie becomes stronger from proximity. So it is that fellow-citizens are preferred in our affections to foreigners, relations to strangers; for in their case Nature herself has caused a kind of friendship to exist, though it is one which lacks some of the elements of permanence. Friendship excels relationship in this, that whereas you may eliminate affection from relationship, you cannot do so from friendship. Without it relationship still exists in name, friendship does not. You may best understand this friendship by considering that, whereas the merely natural ties uniting the human race are indefinite, this one is so concentrated, and confined to so narrow a sphere, that affection is ever shared by two persons only, or at most by a few.

Now friendship may be thus defined: *a complete accord on all subjects human and divine, joined with mutual good will and affection.* And with the exception of wisdom, I am inclined to think nothing better than this has been given to man by the immortal gods. There are people who give the palm to riches or to good health, or to power and office, many even to sensual pleasures. This last is the ideal of brute beasts; and of the others we may say that they are frail and uncertain, and depend less on our own prudence than on the caprice of fortune. Then there are those who find the "chief good" in virtue. Well, that is a noble doctrine. But the very virtue they talk of is the parent and preserver of friendship, and without it friendship cannot possibly exist.

Let us, I repeat, use the word virtue in the ordinary acceptation and meaning of the term, and do not let us define it in high-flown language. Let us account as good the persons usually considered so, such as Paulus, Cato, Gallus, Scipio, and Philus. Such men as these are good enough for everyday life; and we need not trouble ourselves about those ideal characters which are nowhere to be met with.

Well, between men like these the advantages of friendship are almost

more than I can say. To begin with, how can life be worth living, to use the words of Ennius, which lacks that repose which is to be found in the mutual good will of a friend? What can be more delightful than to have some one to whom you can say everything with the same absolute confidence as to yourself? Is not prosperity robbed of half its value if you have no one to share your joy? On the other hand, misfortunes would be hard to bear if there were not some one to feel them even more acutely than yourself. In a word, other objects of ambition serve for particular ends—riches for use, power for securing homage, office for reputation, pleasure for enjoyment, health for freedom from pain and the full use of the functions of the body. But friendship embraces innumerable advantages. Turn which way you please, you will find it at hand. It is everywhere; and yet never out of place, never unwelcome. Fire and water themselves, to use a common expression, are not of more universal use than friendship. I am not now speaking of the common or modified form of it, though even that is a source of pleasure and profit, but of that true and complete friendship which existed between the select few who are known to fame. Such friendship enhances prosperity, and relieves adversity of its burden by halving and sharing it.

And great and numerous as are the blessings of friendship, this certainly is the sovereign one, that it gives us bright hopes for the future and forbids weakness and despair. In the face of a true friend a man sees as it were a second self. So that where his friend is he is; if his friend be rich, he is not poor; though he be weak, his friend's strength is his; and in his friend's life he enjoys a second life after his own is finished. This last is perhaps the most difficult to conceive. But such is the effect of the respect, the loving remembrance, and the regret of friends which follow us to the grave. While they take the sting out of death, they add a glory to the life of the survivors. Nay, if you eliminate from nature the tie of affection, there will be an end of house and city, nor will so much as the cultivation of the soil be left. If you don't see the virtue of friendship and harmony, you may learn it by observing the effects of quarrels and feuds. Was any family ever so well established, any state so firmly settled, as to be beyond the reach of utter destruction from animosities and factions? This may teach you the immense advantage of friendship.

They say that a certain philosopher of Agrigentum, in a Greek poem, pronounced with the authority of an oracle the doctrine that whatever in nature and the universe was unchangeable was so in virtue of the binding force of friendship; whatever was changeable was so by the solvent power of discord. And indeed this is a truth which everybody understands and

practically attests by experience. For if any marked instance of loyal friendship in confronting or sharing danger comes to light, every one applauds it to the echo. What cheers there were, for instance, all over the theatre at a passage in the new play of my friend and guest Pacuvius; where, the king not knowing which of the two was Orestes, Pylades declared himself to be Orestes, that he might die in his stead, while the real Orestes kept on asserting that it was he. The audience rose *en masse* and clapped their hands. And this was at an incident in fiction: what would they have done, must we suppose, if it had been in real life? You can easily see what a natural feeling it is, when men who would not have had the resolution to act thus themselves, showed how right they thought it in another.

I don't think I have any more to say about friendship. If there is any more, and I have no doubt there is much, you must, if you care to do so, consult those who profess to discuss such matters.

Fannius. We would rather apply to you. Yet I have often consulted such persons, and have heard what they had to say with a certain satisfaction. But in your discourse one somehow feels that there is a different strain.

Scaevola. You would have said that still more, Fannius, if you had been present the other day in Scipio's pleasure-grounds when we had the discussion about the state. How splendidly he stood up for justice against Philus' elaborate speech!

Fannius. Ah! it was naturally easy for the justest of men to stand up for justice.

Scaevola. Well, then, what about friendship? Who could discourse on it more easily than the man whose chief glory is a friendship maintained with the most absolute fidelity, constancy, and integrity?

Laelius. Now you are really using force. It makes no difference what kind of force you use: force it is. For it is neither easy nor right to refuse a wish of my sons-in-law, particularly when the wish is a creditable one in itself.

Well, then, it has very often occurred to me when thinking about friendship, that the chief point to be considered was this: is it weakness and want of means that make friendship desired? I mean, is its object an interchange of good offices, so that each may give that in which he is strong, and receive that in which he is weak? Or is it not rather true that, although this is an advantage naturally belonging to friendship, yet its original cause is quite other, prior in time, more noble in character, and springing more directly from our nature itself? The Latin word for friendship—*amicitia*—is derived from that for love—*amo*; and love is certainly

the prime mover in contracting mutual affection. For as to material advantages, it often happens that those are obtained even by men who are courted by a mere show of friendship and treated with respect from interested motives. But friendship by its nature admits of no feigning, no pretence: as far as it goes it is both genuine and spontaneous. Therefore I gather that friendship springs from a natural impulse rather than a wish for help: from an inclination of the heart, combined with a certain instinctive feeling of love, rather than from a deliberate calculation of the material advantage it was likely to confer. The strength of this feeling you may notice in certain animals. They show such love to their offspring for a certain period, and are so beloved by them, that they clearly have a share in this natural, instinctive affection. But of course it is more evident in the case of man: first, in the natural affection between children and their parents, an affection which only shocking wickedness can sunder; and next, when the passion of love has attained to a like strength—on our finding, that is, some one person with whose character and nature we are in full sympathy, because we think that we perceive in him what I may call the beacon-light of virtue. For nothing inspires love, nothing conciliates affection, like virtue. Why, in a certain sense we may be said to feel affection even for men we have never seen, owing to their honesty and virtue. Who, for instance, fails to dwell on the memory of Gaius Fabricius and Manius Curius with some affection and warmth of feeling, though he has never seen them? Or who but loathes Tarquinius Superbus, Spurius Cassius, Spurius Maelius? We have fought for empire in Italy with two great generals, Pyrrhus and Hannibal. For the former, owing to his probity, we entertain no great feelings of enmity: the latter, owing to his cruelty, our country has detested and always will detest.

Now, if the attraction of probity is so great that we can love it not only in those whom we have never seen, but, what is more, actually in an enemy, we need not be surprised if men's affections are roused when they fancy that they have seen virtue and goodness in those with whom a close intimacy is possible. I do not deny that affection is strengthened by the actual receipt of benefits, as well as by the perception of a wish to render service, combined with a closer intercourse. When these are added to the original impulse of the heart, to which I have alluded, a quite surprising warmth of feeling springs up. And if any one thinks that this comes from a sense of weakness, that each may have some one to help him to his particular need, all I can say is that, when he maintains it to be born of want and poverty, he allows to friendship an origin very base, and a pedigree, if I may be allowed the expression, far from noble. If this had

been the case, a man's inclination to friendship would be exactly in proportion to his low opinion of his own resources. Whereas the truth is quite the other way. For when a man's confidence in himself is greatest, when he is so fortified by virtue and wisdom as to want nothing and to feel absolutely self-dependent, it is then that he is most conspicuous for seeking out and keeping up friendships. Did Africanus, for example, want anything of me? Not the least in the world! Neither did I of him. In my case it was an admiration of his virtue, in his an opinion, maybe, which he entertained of my character, that caused our affection. Closer intimacy added to the warmth of our feelings. But though many great material advantages did ensue, they were not the source from which our affection proceeded. For as we are not beneficent and liberal with any view of extorting gratitude, and do not regard an act of kindness as an investment, but follow a natural inclination to liberality; so we look on friendship as worth trying for, not because we are attracted to it by the expectation of ulterior gain, but in the conviction that what it has to give us is from first to last included in the feeling itself.

Far different is the view of those who, like brute beasts, refer everything to sensual pleasure. And no wonder. Men who have degraded all their powers of thought to an object so mean and contemptible can of course raise their eyes to nothing lofty, to nothing grand and divine. Such persons indeed let us leave out of the present question. And let us accept the doctrine that the sensation of love and the warmth of inclination have their origin in a spontaneous feeling which arises directly the presence of probity is indicated. When once men have conceived the inclination, they of course try to attach themselves to the object of it, and move themselves nearer and nearer to him. Their aim is that they may be on the same footing and the same level in regard to affection, and be more inclined to do a good service than to ask a return, and that there should be this noble rivalry between them. Thus both truths will be established. We shall get the most important material advantages from friendship; and its origin from a natural impulse rather than from a sense of need will be at once more dignified and more in accordance with fact. For if it were true that its material advantages cemented friendship, it would be equally true that any change in them would dissolve it. But nature being incapable of change, it follows that genuine friendships are eternal.

So much for the origin of friendship. But perhaps you would not care to hear any more.

Fannius. Nay, pray go on; let us have the rest, Laelius. I take on myself to speak for my friend here as his senior.

Scaevola. Quite right! Therefore, pray let us hear.

Laelius. Well, then, my good friends, listen to some conversations about friendship which very frequently passed between Scipio and myself. I must begin by telling you, however, that he used to say that the most difficult thing in the world was for a friendship to remain unimpaired to the end of life. So many things might intervene: conflicting interests; differences of opinion in politics; frequent changes in character, owing sometimes to misfortunes, sometimes to advancing years. He used to illustrate these facts from the analogy of boyhood, since the warmest affections between boys are often laid aside with the boyish toga; and even if they did manage to keep them up to adolescence, they were sometimes broken by a rivalry in courtship, or for some other advantage to which their mutual claims were not compatible. Even if the friendship was prolonged beyond that time, yet it frequently received a rude shock should the two happen to be competitors for office. For while the most fatal blow to friendship in the majority of cases was the lust of gold, in the case of the best men it was a rivalry for office and reputation, by which it had often happened that the most violent enmity had arisen between the closest friends.

Again, wide breaches and, for the most part, justifiable ones were caused by an immoral request being made of friends, to pander to a man's unholy desires or to assist him in inflicting a wrong. A refusal, though perfectly right, is attacked by those to whom they refuse compliance as a violation of the laws of friendship. Now the people who have no scruples as to the requests they make to their friends, thereby allow that they are ready to have no scruples as to what they will do *for* their friends; and it is the recriminations of such people which commonly not only quench friendships, but give rise to lasting enmities. "In fact," he used to say, "these fatalities overhang friendship in such numbers that it requires not only wisdom but good luck also to escape them all."

With these premises, then, let us first, if you please, examine the question–how far ought personal feeling to go in friendship? For instance: suppose Coriolanus to have had friends, ought they to have joined him in invading his country? Again, in the case of Vecellinus or Spurius Maelius, ought their friends to have assisted them in their attempt to establish a tyranny? Take two instances of either line of conduct. When Tiberius Gracchus attempted his revolutionary measures he was deserted, as we saw, by Quintus Tubero and the friends of his own standing. On the other hand, a friend of your own family, Scaevola, Gains Blossius of Cumae, took a different course. I was acting as assessor to the consuls Laenus and

Rupilius to try the conspirators, and Blossius pleaded for my pardon on the ground that his regard for Tiberius Gracchus had been so high that he looked upon his wishes as law. "Even if he had wished you to set fire to the Capitol?" said I. "That is a thing," he replied, "that he never would have wished." "Ah, but if he had wished it?" said I. "I would have obeyed." The wickedness of such a speech needs no comment. And in point of fact he was as good and better than his word; for he did not wait for orders in the audacious proceedings of Tiberius Gracchus, but was the head and front of them, and was a leader rather than an abettor of his madness. The result of his infatuation was that he fled to Asia, terrified by the special commission appointed to try him, joined the enemies of his country, and paid a penalty to the republic as heavy as it was deserved. I conclude, then, that the plea of having acted in the interests of a friend is not a valid excuse for a wrong action. For, seeing that a belief in a man's virtue is the original cause of friendship, friendship can hardly remain if virtue be abandoned. But if we decide it to be right to grant our friends whatever they wish, and to ask them for whatever we wish, perfect wisdom must be assumed on both sides if no mischief is to happen. But we cannot assume this perfect wisdom; for we are speaking only of such friends as are ordinarily to be met with, whether we have actually seen them or have been told about them–men, that is to say, of everyday life. I must quote some examples of such persons, taking care to select such as approach nearest to our standard of wisdom. We read, for instance, that Papus Aemilius was a close friend of Gaius Luscinus. History tells us that they were twice consuls together, and colleagues in the censorship. Again, it is on record that Manius Curius and Tiberius Coruncanius were on the most intimate terms with them and with each other. Now, we cannot even suspect that any one of these men ever asked of his friend anything that militated against his honour or his oath or the interests of the republic. In the case of such men as these there is no point in saying that one of them would not have obtained such a request if he had made it; for they were men of the most scrupulous piety, and the making of such a request would involve a breach of religious obligation no less than the granting it. However, it is quite true that Gaius Carbo and Gaius Cato did follow Tiberius Gracchus; and though his brother Gaius Gracchus did not do so at the time, he is now the most eager of them all.

We may then lay down this rule of friendship–*neither ask nor consent to do what is wrong*. For the plea "for friendship's sake" is a discreditable one, and not to be admitted for a moment. This rule holds good for all wrong-doing, but more especially in such as involves disloyalty to the

republic. For things have come to such a point with us, my dear Fannius and Scaevola, that we are bound to look somewhat far ahead to what is likely to happen to the republic. The constitution, as known to our ancestors, has already swerved somewhat from the regular course and the lines marked out for it. Tiberius Gracchus made an attempt to obtain the power of a king, or, I might rather say, enjoyed that power for a few months. Had the Roman people ever heard or seen the like before? What the friends and connections that followed him, even after his death, have succeeded in doing in the case of Publius Scipio I cannot describe without tears. As for Carbo, thanks to the punishment recently inflicted on Tiberius Gracchus, we have by hook or by crook managed to hold out against his attacks. But what to expect of the tribuneship of Gaius Gracchus I do not like to forecast. One thing leads to another; and once set going, the downward course proceeds with ever increasing velocity. There is the case of the ballot: what a blow was inflicted first by the lex Gabinia, and two years afterwards by the lex Cassia! I seem already to see the people estranged from the Senate, and the most important affairs at the mercy of the multitude. For you may be sure that more people will learn how to set such things in motion than how to stop them. What is the point of these remarks? This: no one ever makes any attempt of this sort without friends to help him. We must therefore impress upon good men that, should they become inevitably involved in friendships with men of this kind, they ought not to consider themselves under any obligation to stand by friends who are disloyal to the republic. Bad men must have the fear of punishment before their eyes: a punishment not less severe for those who follow than for those who lead others to crime. Who was more famous and powerful in Greece than Themistocles? At the head of the army in the Persian War he had freed Greece; he owed his exile to personal envy: but he did not submit to the wrong done him by his ungrateful country as he ought to have done. He acted as Coriolanus had acted among us twenty years before. But no one was found to help them in their attacks upon their fatherland. Both of them accordingly committed suicide.

We conclude, then, not only that no such confederation of evilly disposed men must be allowed to shelter itself under the plea of friendship, but that, on the contrary, it must be visited with the severest punishment, lest the idea should prevail that fidelity to a friend justifies even making war upon one's country. And this is a case which I am inclined to think, considering how things are beginning to go, will sooner or later arise. And I care quite as much what the state of the constitution will be after my death as what it is now.

Let this, then, be laid down as the first law of friendship, that *we should ask from friends, and do for friends, only what is good.* But do not let us wait to be asked either: let there be ever an eager readiness, and an absence of hesitation. Let us have the courage to give advice with candour. In friendship, let the influence of friends who give good advice be paramount; and let this influence be used to enforce advice not only in plain-spoken terms, but sometimes, if the case demands it, with sharpness; and when so used, let it be obeyed.

I give you these rules because I believe that some wonderful opinions are entertained by certain persons who have, I am told, a reputation for wisdom in Greece. There is nothing in the world, by the way, beyond the reach of their sophistry. Well, some of them teach that we should avoid very close friendships, for fear that one man should have to endure the anxieties of several. Each man, say they, has enough and to spare on his own hands; it is too bad to be involved in the cares of other people. The wisest course is to hold the reins of friendship as loose as possible; you can then tighten or slacken them at your will. For the first condition of a happy life is freedom from care, which no one's mind can enjoy if it has to travail, so to speak, for others besides itself. Another sect, I am told, gives vent to opinions still less generous. I briefly touched on this subject just now. They affirm that friendships should be sought solely for the sake of the assistance they give, and not at all from motives of feeling and affection; and that therefore just in proportion as a man's power and means of support are lowest, he is most eager to gain friendships: thence it comes that weak women seek the support of friendship more than men, the poor more than the rich, the unfortunate rather than those esteemed prosperous. What noble philosophy! You might just as well take the sun out of the sky as friendship from life; for the immortal gods have given us nothing better or more delightful.

But let us examine the two doctrines. What is the value of this "freedom from care"? It is very tempting at first sight, but in practice it has in many cases to be put on one side. For there is no business and no course of action demanded from us by our honour which you can consistently decline, or lay aside when begun, from a mere wish to escape from anxiety. Nay, if we wish to avoid anxiety we must avoid virtue itself, which necessarily involves some anxious thoughts in showing its loathing and abhorrence for the qualities which are opposite to itself–as kindness for ill nature, self-control for licentiousness, courage for cowardice. Thus you may notice that it is the just who are most pained at injustice, the brave at cowardly actions, the temperate at depravity. It is then character-

istic of a rightly ordered mind to be pleased at what is good and grieved at the reverse. Seeing then that the wise are not exempt from the heartache (which must be the case unless we suppose all human nature rooted out of their hearts), why should we banish friendship from our lives, for fear of being involved by it in some amount of distress? If you take away emotion, what difference remains I don't say between a man and a beast, but between a man and a stone or a log of wood, or anything else of that kind?

Neither should we give any weight to the doctrine that virtue is something rigid and unyielding as iron. In point of fact it is in regard to friendship, as in so many other things, so supple and sensitive that it expands, so to speak, at a friend's good fortune, contracts at his misfortunes. We conclude then that mental pain which we must often encounter on a friend's account is not of sufficient consequence to banish friendship from our life, any more than it is true that the cardinal virtues are to be dispensed with because they involve certain anxieties and distresses.

Let me repeat then, "the clear indication of virtue, to which a mind of like character is naturally attracted, is the beginning of friendship." When that is the case the rise of affection is a necessity. For what can be more irrational than to take delight in many objects incapable of response, such as office, fame, splendid buildings, and personal decoration, and yet to take little or none in a sentient being endowed with virtue, which has the faculty of loving or, if I may use the expression, loving back? For nothing is really more delightful than a return of affection, and the mutual interchange of kind feeling and good offices. And if we add, as we may fairly do, that nothing so powerfully attracts and draws one thing to itself as likeness does to friendship, it will at once be admitted to be true that the good love the good and attach them to themselves as though they were united by blood and nature. For nothing can be more eager, or rather greedy, for what is like itself than nature. So, my dear Fannius and Scaevola, we may look upon this as an established fact, that between good men there is, as it were of necessity, a kindly feeling, which is the source of friendship ordained by nature. But this same kindliness affects the many also. For that is no unsympathetic or selfish or exclusive virtue, which protects even whole nations and consults their best interests. And that certainly it would not have done had it disdained all affection for the common herd.

Again, the believers in the "interest" theory appear to me to destroy the most attractive link in the chain of friendship. For it is not so much what one gets by a friend that gives one pleasure, as the warmth of his feeling;

and we only care for a friend's service if it has been prompted by affection. And so far from its being true that lack of means is a motive for seeking friendship, it is usually those who, being most richly endowed with wealth and means, and above all with virtue (which, after all, is a man's best support), are least in need of another, that are most open handed and beneficent. Indeed I am inclined to think that friends ought at times to be in want of something. For instance, what scope would my affections have had if Scipio had never wanted my advice or co-operation at home or abroad? It is not friendship, then, that follows material advantage, but material advantage friendship.

We must not therefore listen to these superfine gentlemen when they talk of friendship, which they know neither in theory nor in practice. For who, in heaven's name, would choose a life of the greatest wealth and abundance on condition of neither loving nor being beloved by any creature? That is the sort of life tyrants endure. They, of course, can count on no fidelity, no affection, no security for the good will of any one. For them all is suspicion and anxiety; for them there is no possibility of friendship. Who can love one whom he fears, or by whom he knows that he is feared? Yet such men have a show of friendship offered them, but it is only a fair-weather show. If it ever happen that they fall, as it generally does, they will at once understand how friendless they are. So they say Tarquin observed in his exile that he never knew which of his friends were real and which sham, until he had ceased to be able to repay either. Though what surprises me is that a man of his proud and overbearing character should have a friend at all. And as it was his character that prevented his having genuine friends, so it often happens in the case of men of unusually great means—their very wealth forbids faithful friendships. For not only is Fortune blind herself; but she generally makes those blind also who enjoy her favours. They are carried, so to speak, beyond themselves with self-conceit and self-will; nor can anything be more perfectly intolerable than a successful fool. You may often see it. Men who before had pleasant manners enough undergo a complete change on attaining power of office. They despise their old friends: devote themselves to new.

Now, can anything be more foolish than that men who have all the opportunities which prosperity, wealth, and great means can bestow, should secure all else which money can buy—horses, servants, splendid upholstering, and costly plate—but do not secure friends, who are, if I may use the expression, the most valuable and beautiful furniture of life? And yet, when they acquire the former, they know not who will enjoy them, nor for whom they may be taking all this trouble; for they will one

and all eventually belong to the strongest: while each man has a stable and inalienable ownership in his friendships. And even if those possessions, which are, in a manner, the gifts of fortune, do prove permanent, life can never be anything but joyless which is without the consolations and companionship of friends.

To turn to another branch of our subject: We must now endeavour to ascertain what limits are to be observed in friendship—what is the boundary-line, so to speak, beyond which our affection is not to go. On this point I notice three opinions, with none of which I agree. One is *that we should love our friend just as much as we love ourselves, and no more;* another, *that our affection to friends should exactly correspond and equal theirs to us;* a third, *that a man should be valued at exactly the same rate as he values himself.* To not one of these opinions do I assent. The first, which holds that our regard for ourselves is to be the measure of our regard for our friend, is not true; for how many things there are which we would never have done for our own sakes, but do for the sake of a friend! We submit to make requests from unworthy people, to descend even to supplication; to be sharper in invective, more violent in attack. Such actions are not creditable in our own interests, but highly so in those of our friends. There are many advantages too which men of upright character voluntarily forgo, or of which they are content to be deprived, that their friends may enjoy them rather than themselves.

The second doctrine is that which limits friendship to an exact equality in mutual good offices and good feelings. But such a view reduces friendship to a question of figures in a spirit far too narrow and illiberal, as though the object were to have an exact balance in a debtor and creditor account. True friendship appears to me to be something richer and more generous than that comes to; and not to be so narrowly on its guard against giving more than it receives. In such a matter we must not be always afraid of something being wasted or running over in our measure, or of more than is justly due being devoted to our friendship.

But the last limit proposed is the worst, namely, that a friend's estimate of himself is to be the measure of our estimate of him. It often happens that a man has too humble an idea of himself, or takes too despairing a view of his chance of bettering his fortune. In such a case a friend ought not to take the view of him which he takes of himself. Rather he should do all he can to raise his drooping spirits, and lead him to more cheerful hopes and thoughts.

We must then find some other limit. But I must first mention the sentiment which used to call forth Scipio's severest criticism. He often

said that no one ever gave utterance to anything more diametrically opposed to the spirit of friendship than the author of the dictum, "You should love your friend with the consciousness that you may one day hate him." He could not be induced to believe that it was rightfully attributed to Bias, who was counted as one of the Seven Sages. It was the sentiment of some person with sinister motives or selfish ambition, or who regarded everything as it affected his own supremacy. How can a man be friends with another, if he thinks it possible that he may be his enemy? Why, it will follow that he must wish and desire his friend to commit as many mistakes as possible, that he may have all the more handles against him; and, conversely, that he must be annoyed, irritated, and jealous at the right actions or good fortune of his friends. This maxim, then, let it be whose it will, is the utter destruction of friendship. The true rule is to take such care in the selection of our friends as never to enter upon a friendship with a man whom we could under any circumstances come to hate. And even if we are unlucky in our choice, we must put up with it—according to Scipio—in preference to making calculations as to a future breach.

The real limit to be observed in friendship is this: the characters of two friends must be stainless. There must be complete harmony of interests, purpose, and aims, without exception. Then if the case arises of a friend's wish (not strictly right in itself) calling for support in a matter involving his life or reputation, we must make some concession from the straight path—on condition, that is to say, that extreme disgrace is not the consequence. Something must be conceded to friendship. And yet we must not be entirely careless of our reputation, nor regard the good opinion of our fellow-citizens as a weapon which we can afford to despise in conducting the business of our life, however lowering it may be to tout for it by flattery and smooth words. We must by no means abjure virtue, which secures us affection.

But to return again to Scipio, the sole author of the discourse on friendship: He used to complain that there was nothing on which men bestowed so little pains: that every one could tell exactly how many goats or sheep he had, but not how many friends; and while they took pains in procuring the former, they were utterly careless in selecting friends, and possessed no particular marks, so to speak, or tokens by which they might judge of their suitability for friendship. Now the qualities we ought to look out for in making our selection are firmness, stability, constancy. There is a plentiful lack of men so endowed, and it is difficult to form a judgment without testing. Now this testing can only be made during the

actual existence of the friendship; for friendship so often precedes the formation of a judgment, and makes a previous test impossible. If we are prudent then, we shall rein in our impulse to affection as we do chariot horses. We make a preliminary trial of horses. So we should of friendship; and should test our friends' characters by a kind of tentative friendship. It may often happen that the untrustworthiness of certain men is completely displayed in a small money matter; others who are proof against a small sum are detected if it be large. But even if some *are* found who think it mean to prefer money to friendship, where shall we look for those who put friendship before office, civil or military promotions, and political power, and who, when the choice lies between these things on the one side and the claims of friendship on the other, do not give a strong preference to the former? It is not in human nature to be indifferent to political power; and if the price men have to pay for it is the sacrifice of friendship, they think their treason will be thrown into the shade by the magnitude of the reward. This is why true friendship is very difficult to find among those who engage in politics and the contest for office. Where can you find the man to prefer his friend's advancement to his own? And to say nothing of that, think how grievous and almost intolerable it is to most men to share political disaster. You will scarcely find any one who can bring himself to do that. And though what Ennius says is quite true—"the hour of need shows the friend indeed"—yet it is in these two ways that most people betray their untrustworthiness and inconstancy, by looking down on friends when they are themselves prosperous, or deserting them in their distress. A man, then, who has shown a firm, unshaken, and unvarying friendship in both these contingencies we must reckon as one of a class the rarest in the world, and all but superhuman.

Now what is the quality to look out for as a warrant for the stability and permanence of friendship? It is loyalty. Nothing that lacks this can be stable. We should also in making our selection look out for simplicity, a social disposition, and a sympathetic nature, moved by what moves us. These all contribute to maintain loyalty. You can never trust a character which is intricate and tortuous. Nor, indeed, is it possible for one to be trustworthy and firm who is unsympathetic by nature and unmoved by what affects ourselves. We may add, that he must neither take pleasure in bringing accusations against us himself, nor believe them when they are brought. All these contribute to form that constancy which I have been endeavouring to describe. And the result is, what I started by saying, that friendship is only possible between good men.

Now there are two characteristic features in his treatment of his friends

that a good (which may be regarded as equivalent to a wise) man will always display. First, he will be entirely without any make-believe or pretence of feeling; for the open display even of dislike is more becoming to an ingenuous character than a studied concealment of sentiment. Secondly, he will not only reject all accusations brought against his friend by another, but he will not be suspicious himself either, nor be always thinking that his friend has acted improperly. Besides this, there should be a certain pleasantness in word and manner which adds no little flavour to friendship. A gloomy temper and unvarying gravity may be very impressive; but friendship should be a little less unbending, more indulgent and gracious, and more inclined to all kinds of good-fellowship and good nature.

But here arises a question of some little difficulty. Are there any occasions on which, assuming their worthiness, we should prefer new to old friends, just as we prefer young to aged horses? The answer admits of no doubt whatever. For there should be no satiety in friendship, as there is in other things. The older the sweeter, as in wines that keep well. And the proverb is a true one, "You must eat many a peck of salt with a man to be thorough friends with him." Novelty, indeed, has its advantage, which we must not despise. There is always hope of fruit, as there is in healthy blades of corn. But age too must have its proper position; and, in fact, the influence of time and habit is very great. To recur to the illustration of the horse which I have just now used: Every one likes *ceteris paribus* [other things being equal] to use the horse to which he has been accustomed, rather than one that is untried and new. And it is not only in the case of a living thing that this rule holds good, but in inanimate things also; for we like places where we have lived the longest, even though they are mountainous and covered with forest. But here is another golden rule in friendship: *put yourself on a level with your friend.* For it often happens that there are certain superiorities, as for example Scipio's in what I may call our set. Now he never assumed any airs of superiority over Philus, or Rupilius, or Mummius, or over friends of a lower rank still. For instance, he always showed a deference to his brother Quintus Maximus because he was his senior, who, though a man no doubt of eminent character, was by no means his equal. He used also to wish that all his friends should be the better for his support. This is an example we should all follow. If any of us have any advantage in personal character, intellect, or fortune, we should be ready to make our friends sharers and partners in it with ourselves. For instance, if their parents are in humble circumstances, if their relations are powerful neither in intellect nor means, we should supply their deficiencies and promote their rank and dignity.

You know the legends of children brought up as servants in ignorance of their parentage and family. When they are recognized and discovered to be the sons of gods or kings, they still retain their affection for the shepherds whom they have for many years looked upon as their parents. Much more ought this to be so in the case of real and undoubted parents. For the advantages of genius and virtue, and in short of every kind of superiority, are never realized to their fullest extent until they are bestowed upon our nearest and dearest.

But the converse must also be observed. For in friendship and relationship, just as those who possess any superiority must put themselves on an equal footing with those who are less fortunate, so these latter must not be annoyed at being surpassed in genius, fortune, or rank. But most people of that sort are for ever either grumbling at something, or harping on their claims; and especially if they consider that they have services of their own to allege involving zeal and friendship and some trouble to themselves. People who are always bringing up their services are a nuisance. The recipient ought to remember them; the performer should never mention them. In the case of friends, then, as the superior are bound to descend, so are they bound in a certain sense to raise those below them. For there are people who make their friendship disagreeable by imagining themselves undervalued. This generally happens only to those who think that they deserve to be so; and they ought to be shown by deeds as well as by words the groundlessness of their opinion. Now the measure of your benefits should be in the first place your own power to bestow, and in the second place the capacity to bear them on the part of him on whom you are bestowing affection and help. For, however great your personal prestige may be, you cannot raise all your friends to the highest offices of the state. For instance, Scipio was able to make Publius Rupilius consul, but not his brother Lucius. But granting that you can give any one anything you choose, you must have a care that it does not prove to be beyond his powers.

As a general rule, we must wait to make up our mind about friendships till men's characters and years have arrived at their full strength and development. People must not, for instance, regard as fast friends all whom in their youthful enthusiasm for hunting or football they liked for having the same tastes. By that rule, if it were a mere question of time, no one would have such claims on our affections as nurses and slave-tutors. Not that they are to be neglected, but they stand on a different ground. It is only these mature friendships that can be permanent. For difference of character leads to difference of aims, and the result of such diversity is to estrange friends. The sole reason, for instance, which prevents good men

from making friends with bad, or bad with good, is that the divergence of their characters and aims is the greatest possible.

Another good rule in friendship is this: do not let an excessive affection hinder the highest interests of your friends. This very often happens. I will go again to the region of fable for an instance. Neoptolemus could never have taken Troy if he had been willing to listen to Lycomedes, who had brought him up, and with many tears tried to prevent his going there. Again, it often happens that important business makes it necessary to part from friends: the man who tries to balk it, because he thinks that he cannot endure the separation, is of a weak and effeminate nature, and on that very account makes but a poor friend. There are, of course, limits to what you ought to expect from a friend and to what you should allow him to demand of you. And these you must take into calculation in every case.

Again, there is such a disaster, so to speak, as having to break off friendship. And sometimes it is one we cannot avoid. For at this point the stream of our discourse is leaving the intimacies of the wise and touching on the friendship of ordinary people. It will happen at times that an outbreak of vicious conduct affects either a man's friends themselves or strangers, yet the discredit falls on the friends. In such cases friendships should be allowed to die out gradually by an intermission of intercourse. They should, as I have been told that Cato used to say, rather be unstitched than torn in twain; unless, indeed, the injurious conduct be of so violent and outrageous a nature as to make an instant breach and separation the only possible course consistent with honour and rectitude. Again, if a change in character and aim takes place, as often happens, or if party politics produces an alienation of feeling (I am now speaking, as I said a short time ago, of ordinary friendships, not of those of the wise), we shall have to be on our guard against appearing to embark upon active enmity while we only mean to resign a friendship. For there can be nothing more discreditable than to be at open war with a man with whom you have been intimate. Scipio, as you are aware, had abandoned his friendship for Quintus Pompeius on my account; and again, from differences of opinion in politics, he became estranged from my colleague Metellus. In both cases he acted with dignity and moderation, showing that he was offended indeed, but without rancour.

Our first object, then, should be to prevent a breach; our second, to secure that, if it does occur, our friendship should seem to have died a natural rather than a violent death. Next, we should take care that friendship is not converted into active hostility, from which flow personal quar-

rels, abusive language, and angry recriminations. These last, however, provided that they do not pass all reasonable limits of forbearance, we ought to put up with, and, in compliment to an old friendship, allow the party that inflicts the injury, not the one that submits to it, to be in the wrong. Generally speaking, there is but one way of securing and providing oneself against faults and inconveniences of this sort—not to be too hasty in bestowing our affection, and not to bestow it at all on unworthy objects.

Now, by "worthy of friendship" I mean those who have in themselves the qualities which attract affection. This sort of man is rare; and indeed all excellent things *are* rare; and nothing in the world is so hard to find as a thing entirely and completely perfect of its kind. But most people not only recognize nothing as good in our life unless it is profitable, but look upon friends as so much stock, caring most for those by whom they hope to make most profit. Accordingly they never possess that most beautiful and most spontaneous friendship which must be sought solely for itself without any ulterior object. They fail also to learn from their own feelings the nature and the strength of friendship. For every one loves himself, not for any reward which such love may bring, but because he is dear to himself independently of anything else. But unless this feeling is transferred to another, what a real friend is will never be revealed; for he is, as it were, a second self. But if we find these two instincts showing themselves in animals—whether of the air or the sea or the land, whether wild or tame—first, a love of self, which in fact is born in everything that lives alike; and, secondly, an eagerness to find and attach themselves to other creatures of their own kind; and if this natural action is accompanied by desire and by something resembling human love, how much more must this be the case in man by the law of his nature? For man not only loves himself, but seeks another whose spirit he may so blend with his own as almost to make one being of two.

But most people unreasonably, not to speak of modesty, want such a friend as they are unable to be themselves, and expect from their friends what they do not themselves give. The fair course is first to be good yourself, and then to look out for another of like character. It is between such that the stability in friendship of which we have been talking can be secured; when, that is to say, men who are united by affection learn, first of all, to rule those passions which enslave others, and in the next place to take delight in fair and equitable conduct, to bear each other's burdens, never to ask each other for anything inconsistent with virtue and rectitude, and not only to serve and love but also to respect each other. I say

"respect"; for if respect is gone, friendship has lost its brightest jewel. And this shows the mistake of those who imagine that friendship gives a privilege to licentiousness and sin. Nature has given us friendship as the handmaid of virtue, not as a partner in guilt: to the end that virtue, being powerless when isolated to reach the highest objects, might succeed in doing so in union and partnership with another. Those who enjoy in the present, or have enjoyed in the past, or are destined to enjoy in the future such a partnership as this, must be considered to have secured the most excellent and auspicious combination for reaching nature's highest good. This is the partnership, I say, which combines moral rectitude, fame, peace of mind, serenity: all that men think desirable because with them life is happy, but without them cannot be so. This being our best and highest object, we must, if we desire to attain it, devote ourselves to virtue; for without virtue we can obtain neither friendship nor anything else desirable. In fact, if virtue be neglected, those who imagine themselves to possess friends will find out their error as soon as some grave disaster forces them to make trial of them. Wherefore, I must again and again repeat, you must satisfy your judgment before engaging your affections: not love first and judge afterwards. We suffer from carelessness in many of our undertakings: in none more than in selecting and cultivating our friends. We put the cart before the horse, and shut the stable door when the steed is stolen, in defiance of the old proverb. For, having mutually involved ourselves in a long-standing intimacy or by actual obligations, all on a sudden some cause of offence arises and we break off our friendships in full career.

It is this that makes such carelessness in a matter of supreme importance all the more worthy of blame. I say "supreme importance," because friendship is the one thing about the utility of which everybody with one accord is agreed. That is not the case in regard even to virtue itself; for many people speak slightingly of virtue as though it were mere puffing and self-glorification. Nor is it the case with riches. Many look down on riches, being content with a little and taking pleasure in poor fare and dress. And as to the political offices for which some have a burning desire–how many entertain such a contempt for them as to think nothing in the world more empty and trivial!

And so on with the rest; things desirable in the eyes of some are regarded by very many as worthless. But of friendship all think alike to a man, whether those who have devoted themselves to politics, or those who delight in science and philosophy, or those who follow a private way of life and care for nothing but their own business, or those lastly who

have given themselves body and soul to sensuality—they all think, I say, that without friendship life is no life, if they want some part of it, at any rate, to be noble. For friendship, in one way or another, penetrates into the lives of us all, and suffers no career to be entirely free from its influence. Though a man be of so churlish and unsociable a nature as to loathe and shun the company of mankind, as we are told was the case with a certain Timon at Athens, yet even he cannot refrain from seeking some one in whose hearing he may disgorge the venom of his bitter temper. We should see this most clearly, if it were possible that some god should carry us away from these haunts of men, and place us somewhere in perfect solitude, and then should supply us in abundance with everything necessary to our nature, and yet take from us entirely the opportunity of looking upon a human being. Who could steel himself to endure such a life? Who would not lose in his loneliness the zest for all pleasures? And indeed this is the point of the observation of, I think, Archytas of Tarentum. I have it third hand; men who were my seniors told me that their seniors had told them. It was this: "If a man could ascend to heaven and get a clear view of the natural order of the universe, and the beauty of the heavenly bodies, that wonderful spectacle would give him small pleasure, though nothing could be conceived more delightful if he had but had some one to whom to tell what he had seen." So true it is that Nature abhors isolation, and ever leans upon something as a stay and support; and this is found in its most pleasing form in our closest friend.

But though Nature also declares by so many indications what her wish and object and desire is, we yet in a manner turn a deaf ear and will not hear her warnings. The intercourse between friends is varied and complex, and it must often happen that causes of suspicion and offence arise, which a wise man will sometimes avoid, at other times remove, at others treat with indulgence. The one possible cause of offence that must be faced is when the interests of your friend and your own sincerity are at stake. For instance, it often happens that friends need remonstrance and even reproof. When these are administered in a kindly spirit they ought to be taken in good part. But somehow or other there is truth in what my friend Terence says in his *Andria:*

> Compliance gets us friends, plain speaking hate.

Plain speaking is a cause of trouble, if the result of it is resentment, which is poison of friendship; but compliance is really the cause of much more trouble, because by indulging his faults it lets a friend plunge into head-

long ruin. But the man who is most to blame is he who resents plain speaking and allows flattery to egg him on to his ruin. On this point, then, from first to last there is need of deliberation and care. If we remonstrate, it should be without bitterness; if we reprove, there should be no word of insult. In the matter of compliance (for I am glad to adopt Terence's word), though there should be every courtesy, yet that base kind which assists a man in vice should be far from us, for it is unworthy of a free-born man, to say nothing of a friend. It is one thing to live with a tyrant, another with a friend. But if a man's ears are so closed to plain speaking that he cannot bear to hear the truth from a friend, we may give him up in despair. This remark of Cato's, as so many of his did, shows great acuteness: "There are people who owe more to bitter enemies than to apparently pleasant friends: the former often speak the truth, the latter never." Besides, it is a strange paradox that the recipients of advice should feel no annoyance where they ought to feel it, and yet feel so much where they ought not. They are not at all vexed at having committed a fault, but very angry at being reproved for it. On the contrary, they ought to be grieved at the crime and glad of the correction.

Well, then, if it is true that to give and receive advice—the former with freedom and yet without bitterness, the latter with patience and without irritation—is peculiarly appropriate to genuine friendship, it is no less true that there can be nothing more utterly subversive of friendship than flattery, adulation, and base compliance. I use as many terms as possible to brand this vice of light-minded, untrustworthy men, whose sole object in speaking is to please without any regard to truth. In everything false pretence is bad, for it suspends and vitiates our power of discerning the truth. But to nothing is it so hostile as to friendship; for it destroys that frankness without which friendship is an empty name. For the essence of friendship being that two minds become as one, how can that ever take place if the mind of each of the separate parties to it is not single and uniform, but variable, changeable, and complex? Can anything be so pliable, so wavering, as the mind of a man whose attitude depends not only on another's feeling and wish, but on his very looks and nods?

> If one says "No," I answer "No"; if "Yes," I answer "Yes."
> In fine, I've laid this task upon myself,
> To echo all that's said—

to quote my old friend Terence again. But he puts these words into the mouth of a Gnatho. To admit such a man into one's intimacy at all is a sign of folly. But there are many people like Gnatho, and it is when they

are superior either in position or fortune or reputation that their flatteries become mischievous, the weight of their position making up for the lightness of their character. But if we only take reasonable care, it is as easy to separate and distinguish a genuine from a specious friend as anything else that is coloured and artificial from what is sincere and genuine. A public assembly, though composed of men of the smallest possible culture, nevertheless will see clearly the difference between a mere demagogue (that is, a flatterer and untrustworthy citizen) and a man of principle, standing, and solidity. It was by this kind of flattering language that Gaius Papirius the other day endeavoured to tickle the ears of the assembled people, when proposing his law to make the tribunes re-eligible. I spoke against it. But I will leave the personal question. I prefer speaking of Scipio. Good heavens! how impressive his speech was, what a majesty there was in it! You would have pronounced him, without hesitation, to be no mere henchman of the Roman people, but their leader. However, you were there, and moreover have the speech in your hands. The result was that a law meant to please the people was by the people's votes rejected. Once more to refer to myself, you remember how apparently popular was the law proposed by Gaius Licinius Crassus "about the election to the College of Priests" in the consulship of Quintus Maximus, Scipio's brother, and Lucius Mancinus. For the power of filling up their own vacancies on the part of the colleges was by this proposal to be transferred to the people. It was this man, by the way, who began the practice of turning towards the forum when addressing the people. In spite of this, however, upon my speaking on the conservative side, religion gained an easy victory over his plausible speech. This took place in my praetorship, five years before I was elected consul, which shows that the cause was successfully maintained more by the merits of the case than by the prestige of the highest office.

Now, if on a stage, such as a public assembly essentially is, where there is the amplest room for fiction and half-truths, truth nevertheless prevails if it be but fairly laid open and brought into the light of day, what ought to happen in the case of friendship, which rests entirely on truthfulness? Friendship, in which, unless you both see and show an open breast, to use a common expression, you can neither trust nor be certain of anything– no, not even of mutual affection, since you cannot be sure of its sincerity. However, this flattery, injurious as it is, can hurt no one but the man who takes it in and likes it. And it follows that the man to open his ears widest to flatterers is he who first flatters himself and is fondest of himself. I grant you that Virtue naturally loves herself; for she knows herself and perceives

how worthy of love she is. But I am not now speaking of absolute virtue, but of the belief men have that they possess virtue. The fact is that fewer people are endowed with virtue than wish to be thought to be so. It is such people that take delight in flattery. When they are addressed in language expressly adapted to flatter their vanity, they look upon such empty persiflage as a testimony to the truth of their own praises. It is not then properly friendship at all when the one will not listen to the truth, and the other is prepared to lie. Nor would the servility of parasites in comedy have seemed humorous to us had there been no such things as braggart captains. "Is Thaïs really much obliged to me?" It would have been quite enough to answer, "Much," but he must needs say, "Immensely." Your servile flatterer always exaggerates what his victim wishes to be put strongly. Wherefore, though it is with those who catch at and invite it that this flattering falsehood is especially powerful, yet men even of solider and steadier character must be warned to be on the watch against being taken in by cunningly disguised flattery. An open flatterer any one can detect, unless he is an absolute fool: the covert insinuation of the cunning and the sly is what we have to be studiously on our guard against. His detection is not by any means the easiest thing in the world, for he often covers his servility under the guise of contradiction, and flatters by pretending to dispute, and then at last giving in and allowing himself to be beaten, that the person hoodwinked may think himself to have been the clearer sighted. Now what can be more degrading than to be thus hoodwinked? You must be on your guard against this happening to you, like the man in the *Heiress:*

> How have I been befooled! no drivelling dotards
> On any stage were e'er so played upon.

For even on the stage we have no grosser representation of folly than that of short-sighted and credulous old men. But somehow or other I have strayed away from the friendship of the perfect, that is, of the "wise" (meaning, of course, such "wisdom" as human nature is capable of), to the subject of vulgar, unsubstantial friendships. Let us then return to our original theme, and at length bring that, too, to a conclusion.

Well, then, Fannius and Mucius, I repeat what I said before. It is virtue, virtue, which both creates and preserves friendship. On it depends harmony of interest, permanence, fidelity. When Virtue has reared her head and shown the light of her countenance, and seen and recognized the same light in another, she gravitates towards it, and in her turn welcomes that which the other has to show; and from it springs up a flame which you

may call love or friendship as you please. Both words are from the same root in Latin; and love is just the cleaving to him whom you love without the prompting of need or any view to advantage—though this latter blossoms spontaneously on friendship, little as you may have looked for it. It is with such warmth of feeling that I cherished Lucius Paulus, Marcus Cato, Gaius Gallus, Publius Nasica, Tiberius Gracchus, my dear Scipio's father-in-law. It shines with even greater warmth when men are of the same age, as in the case of Scipio and Lucius Furius, Publius Rupilius, Spurius Mummius, and myself. *En revanche*, in my old age I find comfort in the affection of young men, as in the case of yourselves and Quintus Tubero: nay more, I delight in the intimacy of such a very young man as Publius Rutilius and Aulus Verginius. And since the law of our nature and of our life is that a new generation is for ever springing up, the most desirable thing is that along with your contemporaries, with whom you started in the race, you may also reach what is to us the goal. But in view of the instability and perishableness of mortal things, we should be continually on the look-out for some to love and by whom to be loved; for if we lose affection and kindliness from our life, we lose all that gives it charm. For me, indeed, though torn away by a sudden stroke, Scipio still lives and ever will live. For it was the virtue of the man that I loved, and that has not suffered death. And it is not my eyes only, because I had all my life a personal experience of it, that never lose sight of it: it will shine to posterity also with undimmed glory. No one will ever cherish a nobler ambition or a loftier hope without thinking his memory and his image the best to put before his eyes. I declare that of all the blessings which either fortune or nature has bestowed upon me I know none to compare with Scipio's friendship. In it I found sympathy in public, counsel in private business; in it too a means of spending my leisure with unalloyed delight. Never, to the best of my knowledge, did I offend him even in the most trivial point; never did I hear a word from him I could have wished unsaid. We had one house, one table, one style of living; and not only were we together on foreign service, but in our tours also and country sojourns. Why speak of our eagerness to be ever gaining some knowledge, to be ever learning something, on which we spent all our leisure hours far from the gaze of the world? If the recollection and memory of these things had perished with the man, I could not possibly have endured the regret for one so closely united with me in life and affection. But these things have not perished; they are rather fed and strengthened by reflection and memory. Even supposing me to have been entirely bereft of them, still my time of life of itself brings me no small consolation: for I cannot have

much longer now to bear this regret; and everything that is brief ought to be endurable, however severe.

This is all I had to say on friendship. One piece of advice on parting. Make up your minds to this: virtue (without which friendship is impossible) is first; but next to it, and to it alone, the greatest of all things is friendship.

On Old Age

> And should my service, Titus, ease the weight
> Of care that wrings your heart, and draw the sting
> Which rankles there, what guerdon shall there be?

For I may address you, Atticus, in the lines in which Flamininus was addressed by the man

> who, poor in wealth, was rich in honour's gold,

though I am well assured that you are not, as Flamininus was,

> kept on the rack of care by night and day.

For I know how well-ordered and equable your mind is, and am fully aware that it was not a surname alone which you brought home with you from Athens, but its culture and good sense. And yet I have an idea that you are at times stirred to the heart by the same circumstances as myself. To console you for these is a more serious matter, and must be put off to another time. For the present I have resolved to dedicate to you an essay on old age. For from the burden of impending or at least advancing age, common to us both, I would do something to relieve us both: though as to yourself I am fully aware that you support and will support it, as you do everything else, with calmness and philosophy. But directly I resolved to write on old age, you at once occurred to me as deserving a gift of which both of us might take advantage. To myself, indeed, the composition of this book has been so delightful that it has not only wiped away all the disagreeables of old age, but has even made it luxurious and delightful too. Never, therefore, can philosophy be praised as highly as it deserves, considering that its faithful disciple is able to spend every period of his

life with unruffled feelings. However, on other subjects I have spoken at large, and shall often speak again: this book which I herewith send you is on old age. I have put the whole discourse not, as Alisto of Cos did, in the mouth of Tithonus—for a mere fable would have lacked conviction—but in that of Marcus Cato when he was an old man, to give my essay greater weight. I represent Laelius and Scipio at his house expressing surprise at his carrying his years so lightly, and Cato answering them. If he shall seem to show somewhat more learning in this discourse than he generally did in his own books, put it down to the Greek literature of which it is known that he became an eager student in his old age. But what need of more? Cato's own words will at once explain all I feel about old age.

M. CATO. PUBLIUS CORNELIUS SCIPIO AFRICANUS (*the younger*). GAIUS LAELIUS.

Scipio. Many a time have I in conversation with my friend Gaius Laelius here expressed my admiration, Marcus Cato, of the eminent, nay perfect, wisdom displayed by you indeed at all points, but above everything because I have noticed that old age never seemed a burden to you, while to most old men it is so hateful that they declare themselves under a weight heavier than Aetna.

Cato. Your admiration is easily excited, it seems, my dear Scipio and Laelius. Men, of course, who have no resources in themselves for securing a good and happy life find every age burdensome. But those who look for all happiness from within can never think anything bad which Nature makes inevitable. In that category before anything else comes old age, to which all wish to attain, and at which all grumble when attained. Such is Folly's inconsistency and unreasonableness! They say that it is stealing upon them faster than they expected. In the first place, who compelled them to hug an illusion? For in what respect did old age steal upon manhood faster than manhood upon childhood? In the next place, in what way would old age have been less disagreeable to them if they were in their eight-hundredth year than in their eightieth? For their past, however long, when once it was past, would have no consolation for a stupid old age. Wherefore, if it is your wont to admire my wisdom—and I would that it were worthy of your good opinion and of my own surname of Sapiens—it really consists in the fact that I follow Nature, the best of guides, as I would a god, and am loyal to her commands. It is not likely, if she has written the rest of the play well, that she has been careless about the last act like some idle poet. But after all some "last" was inevitable, just as to

the berries of a tree and the fruits of the earth there comes in the fullness of time a period of decay and fall. A wise man will not make a grievance of this. To rebel against Nature—is not that to fight like the giants with the gods?

Laelius. And yet, Cato, you will do us a very great favour (I venture to speak for Scipio as for myself) if—since we all hope, or at least wish, to become old men—you would allow us to learn from you in good time before it arrives, by what methods we may most easily acquire the strength to support the burden of advancing age.

Cato. I will do so without doubt, Laelius, especially if, as you say, it will be agreeable to you both.

Laelius. We do wish very much, Cato, if it is no trouble to you, to be allowed to see the nature of the bourne which you have reached after completing a long journey, as it were, upon which we too are bound to embark.

Cato. I will do the best I can, Laelius. It has often been my fortune to hear the complaints of my contemporaries—like will to like, you know, according to the old proverb—complaints to which men like C. Salinator and Sp. Albinus, who were of consular rank and about my time, used to give vent. They were, first, that they had lost the pleasures of the senses, without which they did not regard life as life at all; and, secondly, that they were neglected by those from whom they had been used to receive attentions. Such men appear to me to lay the blame on the wrong thing. For if it had been the fault of old age, then these same misfortunes would have befallen me and all other men of advanced years. But I have known many of them who never said a word of complaint against old age; for they were only too glad to be freed from the bondage of passion, and were not at all looked down upon by their friends. The fact is that the blame for all complaints of that kind is to be charged to character, not to a particular time of life. For old men who are reasonable and neither cross-grained nor churlish find old age tolerable enough: whereas unreason and churlishness cause uneasiness at every time of life.

Laelius. It is as you say, Cato. But perhaps some one may suggest that it is your large means, wealth, and high position that make you think old age tolerable: whereas such good fortune only falls to few.

Cato. There is something in that, Laelius, but by no means all. For instance, the story is told of the answer of Themistocles in a wrangle with a certain Seriphian, who asserted that he owed his brilliant position to the reputation of his country, not to his own. "If I had been a Seriphian," said he, "even I should never have been famous, nor would you if you had

been an Athenian." Something like this may be said of old age. For the philosopher himself could not find old age easy to bear in the depths of poverty, nor the fool feel it anything but a burden though he were a millionaire. You may be sure, my dear Scipio and Laelius, that the arms best adapted to old age are culture and the active exercise of the virtues. For if they have been maintained at every period–if one has lived much as well as long–the harvest they produce is wonderful, not only because they never fail us even in our last days (though that in itself is supremely important), but also because the consciousness of a well-spent life and the recollection of many virtuous actions are exceedingly delightful.

Take the case of Q. Fabius Maximus, the man, I mean, who recovered Tarentum. When I was a young man and he an old one, I was as much attached to him as if he had been my contemporary. For that great man's serious dignity was tempered by courteous manners, nor had old age made any change in his character. True, he was not exactly an old man when my devotion to him began, yet he was nevertheless well on in life; for his first consulship fell in the year after my birth. When quite a stripling I went with him in his fourth consulship as a soldier in the ranks, on the expedition against Capua, and in the fifth year after that against Tarentum. Four years after that I was elected quaestor, holding office in the consulship of Tuditanus and Cethegus, in which year, indeed, he as a very old man spoke in favour of the Cincian law "on gifts and fees."

Now this man conducted wars with all the spirit of youth when he was far advanced in life, and by his persistence gradually wearied out Hannibal, when rioting in all the confidence of youth. How brilliant are those lines of my friend Ennius on him!

> For us, down beaten by the storms of fate,
> One man by wise delays restored the State.
> Praise or dispraise moved not his constant mood,
> True to his purpose, to his country's good!
> Down ever-lengthening avenues of fame
> Thus shines and shall shine still his glorious name.

Again, what vigilance, what profound skill did he show in the capture of Tarentum! It was indeed in my hearing that he made the famous retort to Salinator, who had retreated into the citadel after losing the town: "It was owing to me, Quintus Fabius, that you retook Tarentum." "Quite so," he replied with a laugh; "for had you not lost it, I should never have recovered it." Nor was he less eminent in civil life than in war. In his second consulship, though his colleague would not move in the matter, he resisted

as long as he could the proposal of the tribune C. Flaminius to divide the territory of the Picenians and Gauls in free allotments in defiance of a resolution of the Senate. Again, though he was an augur, he ventured to say that whatever was done in the interests of the state was done with the best possible auspices, that any laws proposed against its interest were proposed against the auspices. I was cognizant of much that was admirable in that great man, but nothing struck me with greater astonishment than the way in which he bore the death of his son—a man of brilliant character and who had been consul. His funeral speech over him is in wide circulation, and when we read it, is there any philosopher of whom we do not think meanly? Nor in truth was he only great in the light of day and in the sight of his fellow-citizens; he was still more eminent in private and at home. What a wealth of conversation! What weighty maxims! What a wide acquaintance with ancient history! What an accurate knowledge of the science of augury! For a Roman, too, he had a great tincture of letters. He had a tenacious memory for military history of every sort, whether of Roman or foreign wars. And I used at that time to enjoy his conversation with a passionate eagerness, as though I already divined, what actually turned out to be the case, that when he died there would be no one to teach me anything.

What then is the purpose of such a long disquisition on Maximus? It is because you now see that an old age like his cannot conscientiously be called unhappy. Yet it is after all true that everybody cannot be a Scipio or a Maximus, with stormings of cities, with battles by land and sea, with wars in which they themselves commanded, and with triumphs to recall. Besides this there is a quiet, pure, and cultivated life which produces a calm and gentle old age, such as we have been told Plato's was, who died at his writing-desk in his eighty-first year; or like that of Isocrates, who says that he wrote the book called *The Panegyric* in his ninety-fourth year, and who lived for five years afterwards; while his master Gorgias of Leontini completed a hundred and seven years without ever relaxing his diligence or giving up work. When some one asked him why he consented to remain so long alive—"I have no fault," said he, "to find with old age." That was a noble answer, and worthy of a scholar. For fools impute their own frailties and guilt to old age, contrary to the practice of Ennius, whom I mentioned just now. In the lines—

> Like some brave steed that oft before
> The Olympic wreath of victory bore,
> Now by the weight of years oppressed,
> Forgets the race, and takes his rest—

he compares his own old age to that of a high-spirited and successful race-horse. And him indeed you may very well remember. For the present consuls Titus Flamininus and Manius Acilius were elected in the nineteenth year after his death; and his death occurred in the consulship of Caepio and Philippus, the latter consul for the second time: in which year I, then sixty-six years old, spoke in favour of the Voconian law in a voice that was still strong and with lungs still sound; while he, though seventy years old, supported two burdens considered the heaviest of all–povertyand old age–in such a way as to be all but fond of them.

The fact is that when I come to think it over, I find that there are four reasons for old age being thought unhappy: First, that it withdraws us from active employments; second, that it enfeebles the body; third, that it deprives us of nearly all physical pleasures; fourth, that it is the next step to death. Of each of these reasons, if you will allow me, let us examine the force and justice separately.

OLD AGE WITHDRAWS US FROM ACTIVE EMPLOYMENTS. From which of them? Do you mean from those carried on by youth and bodily strength? Are there then no old men's employments to be after all conducted by the intellect, even when bodies are weak? So then Q. Maximus did nothing; nor L. Aemilius–your father, Scipio, and my excellent son's father-in-law! So with other old men–the Fabricii, the Curii and Coruncanii–when they were supporting the state by their advice and influence, they were doing nothing! To old age Appius Claudius had the additional disadvantage of being blind; yet it was he who, when the Senate was inclining towards a peace with Pyrrhus and was for making a treaty, did not hesitate to say what Ennius has embalmed in the verses:

> Whither have swerved the souls so firm of yore?
> Is sense grown senseless? Can feet stand no more?

And so on in a tone of the most passionate vehemence. You know the poem, and the speech of Appius himself is extant. Now, he delivered it seventeen years after his second consulship, there having been an interval of ten years between the two consulships, and he having been censor before his previous consulship. This will show you that at the time of the war with Pyrrhus he was a very old man. Yet this is the story handed down to us.

There is therefore nothing in the arguments of those who say that old age takes no part in public business. They are like men who would say that a steersman does nothing in sailing a ship, because, while some of the crew are climbing the masts, others hurrying up and down the gangways,

others pumping out the bilge water, he sits quietly in the stern holding the tiller. He does not do what young men do; nevertheless he does what is much more important and better. The great affairs of life are not performed by physical strength, or activity, or nimbleness of body, but by deliberation, character, expression of opinion. Of these old age is not only not deprived, but, as a rule, has them in a greater degree. Unless by any chance I, who as a soldier in the ranks, as military tribune, as legate, and as consul have been employed in various kinds of war, now appear to you to be idle because not actively engaged in war. But I enjoin upon the Senate what is to be done, and how. Carthage has long been harbouring evil designs, and I accordingly proclaim war against her in good time. I shall never cease to entertain fears about her till I hear of her having been levelled with the ground. The glory of doing that I pray that the immortal gods may reserve for you, Scipio, so that you may complete the task begun by your grandfather, now dead more than thirty-two years ago; though all years to come will keep that great man's memory green. He died in the year before my censorship, nine years after my consulship, having been returned consul for the second time in my own consulship. If then he had lived to his hundredth year, would he have regretted having lived to be old? For he would of course not have been practising rapid marches, nor dashing on a foe, nor hurling spears from a distance, nor using swords at close quarters—but only counsel, reason, and senatorial eloquence. And if those qualities had not resided in us *seniors*, our ancestors would never have called their supreme council a *Senate*. At Sparta, indeed, those who hold the highest magistracies are in accordance with the fact actually called "elders." But if you will take the trouble to read or listen to foreign history, you will find that the mightiest states have been brought into peril by young men, have been supported and restored by old. The question occurs in the poet Naevius' *Sport*:

> Pray, who are those who brought your state
> With such despatch to meet its fate?

There is a long answer, but this is the chief point:

> A crop of brand-new orators we grew,
> And foolish, paltry lads who thought they knew.

For of course rashness is the note of youth, prudence of old age.

But, it is said, memory dwindles. No doubt, unless you keep it in practice, or if you happen to be somewhat dull by nature. Themistocles had the names of all his fellow-citizens by heart. Do you imagine that in

his old age he used to address Aristides as Lysimachus? For my part, I know not only the present generation, but their fathers also, and their grandfathers. Nor have I any fear of losing my memory by reading tombstones, according to the vulgar superstition. On the contrary, by reading them I renew my memory of those who are dead and gone. Nor, in point of fact, have I ever heard of any old man forgetting where he had hidden his money. They remember everything that interests them: when to answer to their bail, business appointments, who owes them money, and to whom they owe it. What about lawyers, pontiffs, augurs, philosophers, when old? What a multitude of things they remember! Old men retain their intellects well enough, if only they keep their minds active and fully employed. Nor is that the case only with men of high position and great office: it applies equally to private life and peaceful pursuits. Sophocles composed tragedies to extreme old age; and being believed to neglect the care of his property owing to his devotion to his art, his sons brought him into court to get a judicial decision depriving him of the management of his property on the ground of weak intellect–just as in our law it is customary to deprive a paterfamilias of the management of his property if he is squandering it. Thereupon the old poet is said to have read to the judges the play he had on hand and had just composed–the *Oedipus Coloneus*–and to have asked them whether they thought that the work of a man of weak intellect. After the reading he was acquitted by the jury. Did old age then compel this man to become silent in his particular art, or Homer, Hesiod, Simonides, or Isocrates and Gorgias, whom I mentioned before, or the founders of schools of philosophy, Pythagoras, Democritus, Plato, Xenocrates, or later Zeno and Cleanthus, or Diogenes the Stoic, whom you too saw at Rome? Is it not rather the case with all these that the active pursuit of study only ended with life?

But, to pass over these sublime studies, I can name some rustic Romans from the Sabine district, neighbours and friends of my own, without whose presence farm work of importance is scarcely ever performed–whether sowing, or harvesting or storing crops. And yet in other things this is less surprising; for no one is so old as to think that he may not live a year. But they bestow their labour on what they know does not affect them in any case:

> He plants his trees to serve a race to come,

as our poet Statius says in his *Comrades*. Nor indeed would a farmer, however old, hesitate to answer any one who asked him for whom he was planting: "For the immortal gods, whose will it was that I should not

merely receive these things from my ancestors, but should also hand them on to the next generation."

That remark about the old man is better than the following:

> If age brought nothing worse than this,
> It were enough to mar our bliss,
> That he who bides for many years
> Sees much to shun and much for tears.

Yes, and perhaps much that gives him pleasure too. Besides, as to subjects for tears, he often comes upon them in youth as well.

A still more questionable sentiment in the same Caecilius is:

> No greater misery can of age be told
> Than this: be sure, the young dislike the old.

Delight in them is nearer the mark than dislike. For just as old men, if they are wise, take pleasure in the society of young men of good parts, and as old age is rendered less dreary for those who are courted and liked by the youth, so also do young men find pleasure in the maxims of the old, by which they are drawn to the pursuit of excellence. Nor do I perceive that you find my society less pleasant than I do yours. But this is enough to show you how, so far from being listless and sluggish, old age is even a busy time, always doing and attempting something, of course of the same nature as each man's taste had been in the previous part of his life. Nay, do not some even add to their stock of learning? We see Solon, for instance, boasting in his poems that he grows old "daily learning something new." Or again in my own case, it was only when an old man that I became acquainted with Greek literature, which in fact I absorbed with such avidity—in my yearning to quench, as it were, a long-continued thirst—that I became acquainted with the very facts which you see me now using as precedents. When I heard what Socrates had done about the lyre I should have liked for my part to have done that too, for the ancients used to learn the lyre, but, at any rate, I worked hard at literature.

Nor, again, do I now MISS THE BODILY STRENGTH OF A YOUNG MAN (for that was the second point as to the disadvantages of old age) any more than as a young man I missed the strength of a bull or an elephant. You should use what you have, and whatever you may chance to be doing, do it with all your might. What could be weaker than Milo of Croton's exclamation? When in his old age he was watching some athletes practising in the course, he is said to have looked at his arms and to have

exclaimed with tears in his eyes: "Ah, well! these are now as good as dead." Not a bit more so than yourself, you trifler! For at no time were you made famous by your real self, but by chest and biceps. Sext. Aelius never gave vent to such a remark, nor, many years before him, Titus Coruncanius, nor, more recently, P. Crassus—all of them learned jurisconsults in active practice, whose knowledge of their profession was maintained to their last breath. I am afraid an orator does lose vigour by old age, for his art is not a matter of the intellect alone, but of lungs and bodily strength. Though as a rule that musical ring in the voice even gains in brilliance in a certain way as one grows old—certainly I have not yet lost it, and you see my years. Yet after all the style of speech suitable to an old man is the quiet and unemotional, and it often happens that the chastened and calm delivery of an old man eloquent secures a hearing. If you cannot attain to that yourself, you might still instruct a Scipio and a Laelius. For what is more charming than old age surrounded by the enthusiasm of youth? Shall we not allow old age even the strength to teach the young, to train and equip them for all the duties of life? And what can be a nobler employment? For my part, I used to think Publius and Gnaeus Scipio and your two grandfathers, L. Aemilius and P. Africanus, fortunate men when I saw them with a company of young nobles about them. Nor should we think any teachers of the fine arts otherwise than happy, however much their bodily forces may have decayed and failed. And yet that same failure of the bodily forces is more often brought about by the vices of youth than of old age; for a dissolute and intemperate youth hands down the body to old age in a worn-out state. Xenophon's Cyrus, for instance, in his discourse delivered on his death-bed and at a very advanced age, says that he never perceived his old age to have become weaker than his youth had been. I remember as a boy Lucius Metellus, who, having been created Pontifex Maximus four years after his second consulship, held that office twenty-two years, enjoying such excellent strength of body in the very last hours of his life as not to miss his youth. I need not speak of myself; though that indeed is an old man's way and is generally allowed to my time of life. Don't you see in Homer how frequently Nestor talks of his own good qualities? For he was living through a third generation; nor had he any reason to fear that upon saying what was true about himself he should appear either over vain or talkative. For, as Homer says, "from his lips flowed discourse sweeter than honey," for which sweet breath he wanted no bodily strength. And yet, after all, the famous leader of the Greeks nowhere wishes to have ten men like Ajax, but like Nestor: if he could get them, he feels no doubt of Troy shortly falling.

But to return to my own case: I am in my eighty-fourth year. I could wish that I had been able to make the same boast as Cyrus; but, after all, I can say this: I am not indeed as vigorous as I was as a private soldier in the Punic War, or as quaestor in the same war, or as consul in Spain, and four years later when as a military tribune I took part in the engagement at Thermopylae under the consul Manius Acilius Glabrio; but yet, as you see, old age has not entirely destroyed my muscles, has not quite brought me to the ground. The Senate-house does not find all my vigour gone, nor the rostra, nor my friends, nor my clients, nor my foreign guests. For I have never given in to that ancient and much praised proverb:

> Old when young
> Is old for long.

For myself, I had rather be an old man a somewhat shorter time than an old man *before* my time. Accordingly, no one up to the present has wished to see me, to whom I have been denied as engaged. But, it may be said, I have less strength than either of you. Neither have you the strength of the centurion T. Pontius: is he the more eminent man on that account? Let there be only a proper husbanding of strength, and let each man proportion his efforts to his powers. Such an one will assuredly not be possessed with any great regret for his loss of strength. At Olympia Milo is said to have stepped into the course carrying a live ox on his shoulders. Which then of the two would you prefer to have given to you–bodily strength like that, or intellectual strength like that of Pythagoras? In fine, enjoy that blessing when you have it; when it is gone, don't wish it back–unless we are to think that young men should wish their childhood back, and those somewhat older their youth! The course of life is fixed, and nature admits of its being run but in one way, and only once; and to each part of our life there is something specially seasonable; so that the feebleness of children, as well as the high spirit of youth, the soberness of maturer years, and the ripe wisdom of old age–all have a certain natural advantage which should be secured in its proper season. I think you are informed, Scipio, what your grandfather's foreign friend Masinissa does to this day, though ninety years old. When he has once begun a journey on foot he does not mount his horse at all; when on horseback he never gets off his horse. By no rain or cold can he be induced to cover his head. His body is absolutely free from unhealthy humours, and so he still performs all the duties and functions of a king. Active exercise, therefore, and temperance can preserve some part of one's former strength even in old age.

Bodily strength is wanting to old age; but neither is bodily strength

demanded from old men. Therefore, both by law and custom, men of my time of life are exempt from those duties which cannot be supported without bodily strength. Accordingly not only are we not forced to do what we cannot do; we are not even obliged to do as much as we can. But, it will be said, many old men are so feeble that they cannot perform any duty in life of any sort or kind. That is not a weakness to be set down as peculiar to old age: it is one shared by ill health. How feeble was the son of P. Africanus, who adopted you! What weak health he had, or rather no health at all! If that had not been the case, we should have had in him a second brilliant light in the political horizon; for he had added a wider cultivation to his father's greatness of spirit. What wonder then, that old men are eventually feeble, when even young men cannot escape it? My dear Laelius and Scipio, we must stand up against old age and make up for its drawbacks by taking pains. We must fight it as we should an illness. We must look after our health, use moderate exercise, take just enough food and drink to recruit, but not to overload, our strength. Nor is it the body alone that must be supported, but the intellect and soul much more. For they are like lamps: unless you feed them with oil, they too go out from old age. Again, the body is apt to get gross from exercise; but the intellect becomes nimbler by exercising itself. For what Caecilius means by "old dotards of the comic stage" are the credulous, the forgetful, and the slipshod. These are faults that do not attach to old age as such, but to a sluggish, spiritless, and sleepy old age. Young men are more frequently wanton and dissolute than old men; but yet, as it is not all young men that are so, but the bad set among them, even so senile folly–usually called imbecility–applies to old men of unsound character, not to all. Appius governed four sturdy sons, five daughters, that great establishment, and all those clients, though he was both old and blind. For he kept his mind at full stretch like a bow, and never gave in to old age by growing slack. He maintained not merely an influence but an absolute command over his family: his slaves feared him, his sons were in awe of him, all loved him. In that family, indeed, ancestral custom and discipline were in full vigour. The fact is that old age is respectable just as long as it asserts itself, maintains its proper rights, and is not enslaved to any one. For as I admire a young man who has something of the old man in him, so do I an old one who has something of a young man. The man who aims at this may possibly become old in body–in mind he never will. I am now engaged in composing the seventh book of my *Origins*. I collect all the records of antiquity. The speeches delivered in all the celebrated cases which I have defended I am at this particular time getting into shape for publication. I

am writing treatises on augural, pontifical, and civil law. I am, besides, studying hard at Greek, and after the manner of the Pythagoreans–to keep my memory in working order–I repeat in the evening whatever I have said, heard, or done in the course of each day. These are the exercises of the intellect, these the training-grounds of the mind: while I sweat and labour on these I don't much feel the loss of bodily strength. I appear in court for my friends; I frequently attend the Senate and bring motions before it on my own responsibility, prepared after deep and long reflection. And these I support by my intellectual, not my bodily forces. And if I were not strong enough to do these things, yet I should enjoy my sofa–imagining the very operations which I was now unable to perform. But what makes me capable of doing this is my past life. For a man who is always living in the midst of these studies and labours does not perceive when old age creeps upon him. Thus, by slow and imperceptible degrees life draws to its end. There is no sudden breakage; it just slowly goes out.

The third charge against old age is that it LACKS SENSUAL PLEASURES. What a splendid service does old age render, if it takes from us the greatest blot of youth! Listen, my dear young friends, to a speech of Archytas of Tarentum, among the greatest and most illustrious of men, which was put into my hands when as a young man I was at Tarentum with Q. Maximus. "No more deadly curse than sensual pleasure has been inflicted on mankind by nature, to gratify which our wanton appetites are roused beyond all prudence or restraint. It is a fruitful source of treasons, revolutions, secret communications with the enemy. In fact, there is no crime, no evil deed, to which the appetite for sensual pleasures does not impel us. Fornications and adulteries, and every abomination of that kind, are brought about by the enticements of pleasure and by them alone. Intellect is the best gift of nature or God: to this divine gift and endowment there is nothing so inimical as pleasure. For when appetite is our master, there is no place for self-control; nor where pleasure reigns supreme can virtue hold its ground. To see this more vividly, imagine a man excited to the highest conceivable pitch of sensual pleasure. It can be doubtful to no one that such a person, so long as he is under the influence of such excitation of the senses, will be unable to use to any purpose either intellect, reason, or thought. Therefore nothing can be so execrable and so fatal as pleasure; since, when more than ordinarily violent and lasting, it darkens all the light of the soul."

These were the words addressed by Archytas to the Samnite Gaius Pontius, father of the man by whom the consuls Spurius Postumius and

Titus Veturius were beaten in the battle of Caudium. My friend Nearchus of Tarentum, who had remained loyal to Rome, told me that he had heard them repeated by some old men; and that Plato the Athenian was present, who visited Tarentum, I find, in the consulship of L. Camillus and Appius Claudius.

What is the point of all this? It is to show you that, if we were unable to scorn pleasure by the aid of reason and philosophy, we ought to have been very grateful to old age for depriving us of all inclination for that which it was wrong to do. For pleasure hinders thought, is a foe to reason, and, so to speak, blinds the eyes of the mind. It is, moreover, entirely alien to virtue. I was sorry to have to expel Lucius, brother of the gallant Titus Flamininus, from the Senate seven years after his consulship; but I thought it imperative to affix a stigma on an act of gross sensuality. For when he was in Gaul as consul, he had yielded to the entreaties of his paramour at a dinner-party to behead a man who happened to be in prison condemned on a capital charge. When his brother Titus was Censor, who preceded me, he escaped; but I and Flaccus could not countenance an act of such criminal and abandoned lust, especially as, besides the personal dishonour, it brought disgrace on the government.

I have often been told by men older than myself, who said that they had heard it as boys from old men, that Gaius Fabricius was in the habit of expressing astonishment at having heard, when envoy at the headquarters of King Pyrrhus, from the Thessalian Cineas, that there was a man of Athens who professed to be a "philosopher," and affirmed that everything we did was to be referred to pleasure. When he told this to Manius Curius and Publius Decius, they used to remark that they wished that the Samnites and Pyrrhus himself would hold the same opinion. It would be much easier to conquer them, if they had once given themselves over to sensual indulgences. Manius Curius had been intimate with P. Decius, who four years before the former's consulship had devoted himself to death for the republic. Both Fabricius and Coruncanius knew him also, and from the experience of their own lives, as well as from the action of P. Decius, they were of opinion that there did exist something intrinsically noble and great, which was sought for its own sake, and at which all the best men aimed, to the contempt and neglect of pleasure. Why then do I spend so many words on the subject of pleasure? Why, because, far from being a charge against old age, that it does not much feel the want of any pleasures, it is its highest praise.

But, you will say, it is deprived of the pleasures of the table, the heaped-up board, the rapid passing of the wine-cup. Well, then, it is also free from headache, disordered digestion, broken sleep. But if we must

grant pleasure something, since we do not find it easy to resist its charms—for Plato, with happy inspiration, calls pleasure "vice's bait," because of course men are caught by it as fish by a hook—yet, although old age has to abstain from extravagant banquets, it is still capable of enjoying modest festivities. As a boy I often used to see Gaius Duilius, the son of Marcus, then an old man, returning from a dinner-party. He thoroughly enjoyed the frequent use of torch and flute-player, distinctions which he had assumed though unprecedented in the case of a private person. It was the privilege of his glory. But why mention others? I will come back to my own case. To begin with, I have always remained a member of a "club"—clubs, you know, were established in my quaestorship on the reception of the Magna Mater from Ida. So I used to dine at their feast with the members of my club—on the whole with moderation, though there was a certain warmth of temperament natural to my time of life; but as that advances there is a daily decrease of all excitement. Nor was I, in fact, ever wont to measure my enjoyment even of these banquets by the physical pleasures they gave more than by the gathering and conversation of friends. For it was a good idea of our ancestors to style the presence of guests at a dinner-table—seeing that it implied a community of enjoyment—a *convivium*, "a living together." It is a better term than the Greek words which mean "a drinking together" or "an eating together." For they would seem to give the preference to what is really the least important part of it.

For myself, owing to the pleasure I take in conversation, I enjoy even banquets that begin early in the afternoon, and not only in company with my contemporaries—of whom very few survive—but also with men of your age and with yourselves. I am thankful to old age, which has increased my avidity for conversation, while it has removed that for eating and drinking. But if any one does enjoy these—not to seem to have proclaimed war against all pleasure without exception, which is perhaps a feeling inspired by nature—I fail to perceive even in these very pleasures that old age is entirely without the power of appreciation. For myself, I take delight even in the old-fashioned appointment of master of the feast; and in the arrangement of the conversation, which according to ancestral custom is begun from the last place on the left-hand couch when the wine is brought in; as also in the cups which, as in Xenophon's banquet, are small and filled by driblets; and in the contrivance for cooling in summer, and for warming by the winter sun or winter fire. These things I keep up even among my Sabine countrymen, and every day have a full dinner-party of neighbours, which we prolong as far into the night as we can with varied conversation.

But you may urge—there is not the same tingling sensation of pleasure in old men. No doubt; but neither do they miss it so much. For nothing gives you uneasiness which you do not miss. That was a fine answer of Sophocles to a man who asked him, when in extreme old age, whether he was still a lover. "Heaven forbid!" he replied; "I was only too glad to escape from that, as though from a boorish and insane master." To men indeed who are keen after such things it may possibly appear disagreeable and uncomfortable to be without them; but to jaded appetites it is pleasanter to lack than to enjoy. However, he cannot be said to lack who does not want: my contention is that not to want is the pleasanter thing.

But even granting that youth enjoys these pleasures with more zest; in the first place, they are insignificant things to enjoy, as I have said; and in the second place, such as age is not entirely without, if it does not possess them in profusion. Just as a man gets greater pleasure from Ambivius Turpio if seated in the front row at the theatre than if he was in the last, yet, after all, the man in the last row does get pleasure; so youth, because it looks at pleasures at closer quarters, perhaps enjoys itself more, yet even old age, looking at them from a distance, does enjoy itself well enough. Why, what blessings are these—that the soul, having served its time, so to speak, in the campaigns of desire and ambition, rivalry and hatred, and all the passions, should live in its own thoughts, and, as the expression goes, should dwell apart! Indeed, if it has in store any of what I may call the food of study and philosophy, nothing can be pleasanter than an old age of leisure. We were witnesses to C. Gallus—a friend of your father's, Scipio—intent to the day of his death on mapping out the sky and land. How often did the light surprise him while still working out a problem begun during the night! How often did night find him busy on what he had begun at dawn! How he delighted in predicting for us solar and lunar eclipses long before they occurred! Or again in studies of a lighter nature, though still requiring keenness of intellect, what pleasure Naevius took in his *Punic War!* Plautus in his *Truculentus* and *Pseudolus!* I even saw Livius Andronicus, who, having produced a play six years before I was born—in the consulship of Cento and Tuditanus—lived till I had become a young man. Why speak of Publius Licinius Crassus' devotion to pontifical and civil law, or of the Publius Scipio of the present time, who within these last few days has been created Pontifex Maximus? And yet I have seen all whom I have mentioned ardent in these pursuits when old men. Then there is Marcus Cethegus, whom Ennius justly called "Persuasion's Marrow"—with what enthusiasm did we see him exert himself in oratory even when quite old! What pleasures are there in feasts,

games, or mistresses comparable to pleasures such as these? And they are all tastes, too, connected with learning, which in men of sense and good education grow with their growth. It is indeed an honourable sentiment which Solon expresses in a verse which I have quoted before—that he grew old learning many a fresh lesson every day. Than that intellectual pleasure none certainly can be greater.

I come now to the pleasures of the farmer, in which I take amazing delight. These are not hindered by any extent of old age, and seem to me to approach nearest to the ideal wise man's life. For he has to deal with the earth, which never refuses its obedience, nor ever returns what it has received without usury; sometimes, indeed, with less, but generally with greater interest. For my part, however, it is not merely the thing produced, but the earth's own force and natural productiveness that delight me. For having received in its bosom the seed scattered broadcast upon it, softened and broken up, she first keeps it concealed therein (hence the harrowing which accomplishes this gets its name from a word meaning "to hide"); next, when it has been warmed by her heat and close pressure, she splits it open and draws from it the greenery of the blade. This, supported by the fibres of the root, little by little grows up, and held upright by its jointed stalk is enclosed in sheaths, as being still immature. When it has emerged from them it produces an ear of corn arranged in order, and is defended against the pecking of the smaller birds by a regular palisade of spikes.

Need I mention the starting, planting, and growth of vines? I can never have too much of this pleasure—to let you into the secret of what gives my old age repose and amusement. For I say nothing here of the natural force which all things propagated from the earth possess—the earth which from that tiny grain in a fig, or the grapestone in a grape, or the most minute seeds of the other cereals and plants, produces such huge trunks and boughs. Mallet-shoots, slips, cuttings, quicksets, layers—are they not enough to fill any one with delight and astonishment? The vine by nature is apt to fall, and unless supported drops down to the earth; yet in order to keep itself upright it embraces whatever it reaches with its tendrils as though they were hands. Then as it creeps on, spreading itself in intricate and wild profusion, the dresser's art prunes it with the knife and prevents it growing a forest of shoots and expanding to excess in every direction. Accordingly at the beginning of spring in the shoots which have been left there protrudes at each of the joints what is termed an "eye." From this the grape emerges and shows itself; which, swollen by the juice of the earth and the heat of the sun, is at first very bitter to the taste, but afterwards grows sweet as it matures; and being covered with tendrils is never

without a moderate warmth, and yet is able to ward off the fiery heat of the sun. Can anything be richer in product or more beautiful to contemplate? It is not its utility only, as I said before, that charms me, but the method of its cultivation and the natural process of its growth: the rows of uprights, the cross-pieces for the tops of the plants, the tying up of the vines and their propagation by layers, the pruning, to which I have already referred, of some shoots, the setting of others. I need hardly mention irrigation, or trenching and digging the soil, which much increase its fertility. As to the advantages of manuring I have spoken in my book on agriculture. The learned Hesiod did not say a single word on this subject, though he was writing on the cultivation of the soil; yet Homer, who in my opinion was many generations earlier, represents Laertes as softening his regret for his son by cultivating and manuring his farm. Nor is it only in cornfields and meadows and vineyards and plantations that a farmer's life is made cheerful. There are the garden and the orchard, the feeding of sheep, the swarms of bees, endless varieties of flowers. Nor is it only planting out that charms: there is also grafting–surely the most ingenious invention ever made by husbandmen.

I might continue my list of the delights of country life; but even what I have said I think is somewhat overlong. However, you must pardon me; for farming is a very favourite hobby of mine, and old age is naturally rather garrulous–for I would not be thought to acquit it of all faults.

Well, it was in a life of this sort that Manius Curius, after celebrating triumphs over the Samnites, the Sabines, and Pyrrhus, spent his last days. When I look at his villa–for it is not far from my own–I never can enough admire the man's own frugality or the spirit of the age. As Curius was sitting at his hearth the Samnites, who brought him a large sum of gold, were repulsed by him; for it was not, he said, a fine thing in his eyes to possess gold, but to rule those who possessed it. Could such a high spirit fail to make old age pleasant?

But to return to farmers–not to wander from my own *métier*. In those days there were senators, *i.e.*, old men, on their farms. For L. Quinctius Cincinnatus was actually at the plough when word was brought him that he had been named dictator. It was by his order as dictator, by the way, that C. Servilius Ahala, the master of the horse, seized and put to death Spurius Maelius when attempting to obtain royal power. Curius as well as other old men used to receive their summonses to attend the Senate in their farm-houses, from which circumstances the summoners were called *viatores* or "travellers." Was these men's old age an object of pity who found their pleasure in the cultivation of the land? In my opinion, scarcely

any life can be more blessed, not alone from its utility (for agriculture is beneficial to the whole human race), but also as much from the mere pleasure of the thing, to which I have already alluded, and from the rich abundance and supply of all things necessary for the food of man and for the worship of the gods above. So, as these are objects of *desire* to certain people, let us make our peace with pleasure. For the good and hard-working farmer's wine-cellar and oil-store, as well as his larder, are always well filled, and his whole farm-house is richly furnished. It abounds in pigs, goats, lambs, fowls, milk, cheese, and honey. Then there is the garden, which the farmers themselves call their "second flitch." A zest and flavour is added to all these by hunting and fowling in spare hours. Need I mention the greenery of meadows, the rows of trees, the beauty of vineyard and olive grove? I will put it briefly: nothing can either furnish necessaries more richly, or present a fairer spectacle, than well-cultivated land. And to the enjoyment of that, old age does not merely present no hindrance–it actually invites and allures to it. For where else can it better warm itself, either by basking in the sun or by sitting by the fire, or at the proper time cool itself more wholesomely by the help of shade or water? Let the young keep their arms then to themselves, their horses, spears, their foils and ball, their swimming-baths and running-path. To us old men let them, out of the many forms of sport, leave dice and counters; but even that as they choose, since old age can be quite happy without them.

Xenophon's books are very useful for many purposes. Pray go on reading them with attention, as you have ever done. In what ample terms is agriculture lauded by him in the book about husbanding one's property, which is called *Oeconomicus!* But to show you that he thought nothing so worthy of a prince as the taste for cultivating the soil, I will translate what Socrates says to Critobulus in that book:

"When that most gallant Lacedaemonian, Lysander, came to visit the Persian prince Cyrus at Sardis, so eminent for his character and the glory of his rule, bringing him presents from his allies, he treated Lysander in all ways with courteous familiarity and kindness, and, among other things, took him to see a certain park carefully planted. Lysander expressed admiration of the height of the trees and the exact arrangement of their rows in the quincunx, the careful cultivation of the soil, its freedom from weeds, and the sweetness of the odours exhaled from the flowers, and went on to say that what he admired was not the industry only, but also the skill of the man by whom this had been planned and laid out. Cyrus replied: 'Well, it was I who planned the whole thing; these rows are my doing, the

laying out is all mine; many of the trees were even planted by my own hand.' Then Lysander, looking at his purple robe, the brilliance of his person, and his adornment Persian fashion with gold and many jewels, said: 'People are quite right, Cyrus, to call you happy, since the advantages of high fortune have been joined to an excellence like yours.' "

This kind of good fortune, then, it is in the power of old men to enjoy; nor is age any bar to our maintaining pursuits of every other kind, and especially of agriculture, to the very extreme verge of old age. For instance, we have it on record that M. Valerius Corvus kept it up to his hundredth year, living on his land and cultivating it after his active career was over, though between his first and sixth consulships there was an interval of six and forty years. So that he had an official career lasting the number of years which our ancestors defined as coming between birth and the beginning of old age. Moreover, that last period of his old age was more blessed than that of his middle life, inasmuch as he had greater influence and less labour. For the crowning grace of old age is influence.

How great was that of L. Caecilius Metellus! How great that of Atilius Calatinus, over whom the famous epitaph was placed, "Very many classes agree in deeming this to have been the very first man of the nation"! The line cut on his tomb is well known. It is natural, then, that a man should have had influence, in whose praise the verdict of history is unanimous. Again, in recent times, what a great man was Publius Crassus, Pontifex Maximus, and his successor in the same office, M. Lepidus! I need scarcely mention Paulus or Africanus, or, as I did before, Maximus. It was not only their senatorial utterances that had weight: their least gesture had it also. In fact, old age, especially when it has enjoyed honours, has an influence worth all the pleasures of youth put together.

But throughout my discourse remember that my panegyric applies to an old age that has been established on foundations laid by youth. From which may be deduced what I once said with universal applause, that it was a wretched old age that had to defend itself by speech. Neither white hairs nor wrinkles can at once claim influence in themselves: it is the honourable conduct of earlier days that is rewarded by possessing influence at the last. Even things generally regarded as trifling and matters of course–being saluted, being courted, having way made for one, people rising when one approaches, being escorted to and from the forum, being referred to for advice–all these are marks of respect, observed among us and in other states–always most sedulously where the moral tone is highest. They say that Lysander the Spartan, whom I have mentioned before, used to remark that Sparta was the most dignified home for old

age; for that nowhere was more respect paid to years, nowhere was old age held in higher honour. Nay, the story is told of how when a man of advanced years came into the theatre at Athens when the games were going on, no place was given him anywhere in that large assembly by his own countrymen; but when he came near the Lacedaemonians, who as ambassadors had a fixed place assigned to them, they rose as one man out of respect for him, and gave the veteran a seat. When they were greeted with rounds of applause from the whole audience, one of them remarked: "The Athenians know what is right, but will not do it."

There are many excellent rules in our augural college, but among the best is one which affects our subject—that precedence in speech goes by seniority; and augurs who are older are preferred not only to those who have held higher office, but even to those who are actually in possession of *imperium*. What then are the physical pleasures to be compared with the reward of influence? Those who have employed it with distinction appear to me to have played the drama of life to its end, and not to have broken down in the last act like unpractised players.

But, it will be said, old men are fretful, fidgety, ill tempered, and disagreeable. If you come to that, they are also avaricious. But these are faults of character, not of the time of life. And, after all, fretfulness and the other faults I mentioned admit of some excuse—not, indeed, a complete one, but one that may possibly pass muster: they think themselves neglected, looked down upon, mocked. Besides, with bodily weakness every rub is a source of pain. Yet all these faults are softened both by good character and good education. Illustrations of this may be found in real life, as also on the stage in the case of the brothers in the *Adelphi*. What harshness in the one, what gracious manners in the other! The fact is that, just as it is not every wine, so it is not every life, that turns sour from keeping. Serious gravity I approve of in old age, but, as in other things, it must be within due limits: bitterness I can in no case approve. What the object of senile avarice may be I cannot conceive. For can there be anything more absurd than to seek more journey money, the less there remains of the journey?

There remains the fourth reason, which more than anything else appears to torment men of my age and keep them in a flutter—THE NEARNESS OF DEATH, which, it must be allowed, cannot be far from an old man. But what a poor dotard must he be who has not learnt in the course of so long a life that death is not a thing to be feared? Death, that is either to be totally disregarded, if it entirely extinguishes the soul, or is even to be desired, if it brings him where he is to exist forever. A third alternative, at

any rate, cannot possibly be discovered. Why then should I be afraid if I am destined either not to be miserable after death or even to be happy? After all, who is such a fool as to feel certain—however young he may be—that he will be alive in the evening? Nay, that time of life has many more chances of death than ours. Young men more easily contract diseases; their illnesses are more serious; their treatment has to be more severe. Accordingly, only a few arrive at old age. If that were not so, life would be conducted better and more wisely; for it is in old men that thought, reason, and prudence are to be found; and if there had been no old men, states would never have existed at all. But I return to the subject of the imminence of death. What sort of charge is this against old age, when you see that it is shared by youth? I had reason in the case of my excellent son—as you had, Scipio, in that of your brothers, who were expected to attain the highest honours—to realize that death is common to every time of life. Yes, you will say; but a young man expects to live long; an old man cannot expect to do so. Well, he is a fool to expect it. For what can be more foolish than to regard the uncertain as certain, the false as true? "An old man has nothing even to hope." Ah, but it is just there that he is in a better position than a young man, since what the latter only hopes he has obtained. The one wishes to live long; the other has lived long.

And yet, good heavens! what is "long" in a man's life? For grant the utmost limit: let us expect an age like that of the King of the Tartessi. For there was, as I find recorded, a certain Agathonius at Gades who reigned eighty years and lived a hundred and twenty. But to my mind nothing seems even long in which there is any "last," for when that arrives, then all the past has slipped away—only that remains to which you have attained by virtue and righteous actions. Hours indeed, and days and months and years depart, nor does past time ever return, nor can the future be known. Whatever time each is granted for life, with that he is bound to be content. An actor, in order to earn approval, is not bound to perform the play from beginning to end; let him only satisfy the audience in whatever act he appears. Nor need a wise man go on to the concluding "plaudite." For a short term of life is long enough for living well and honourably. But if you go farther, you have no more right to grumble than farmers do because the charm of the spring season is past and the summer and autumn have come. For the word "spring" in a way suggests youth, and points to the harvest to be: the other seasons are suited for the reaping and storing of the crops. Now the harvest of old age is, as I have often said, the memory and rich store of blessings laid up in earlier life.

Again, all things that accord with nature are to be counted as good. But what can be more in accordance with nature than for old men to die? A thing, indeed, which also befalls young men, though Nature revolts and fights against it. Accordingly, the death of young men seems to me like putting out a great fire with a deluge of water; but old men die like a fire going out because it has burnt down of its own nature without artificial means. Again, just as apples when unripe are torn from trees, but when ripe and mellow drop down, so it is violence that takes life from young men, ripeness from old. This ripeness is so delightful to me that, as I approach nearer to death, I seem, as it were, to be sighting land, and to be coming to port at last after a long voyage.

Again, there is no fixed border-line for old age, and you are making a good and proper use of it as long as you can satisfy the call of duty and disregard death. The result of this is, that old age is even more confident and courageous than youth. That is the meaning of Solon's answer to the tyrant Pisistratus. When the latter asked him what he relied upon in opposing him with such boldness, he is said to have replied, "On my old age." But that end of life is the best when, without the intellect or senses being impaired, Nature herself takes to pieces her own handiwork which she also put together. Just as the builder of a ship or a house can break them up more easily than any one else, so the Nature that knit together the human frame can also best unfasten it. Moreover, a thing freshly glued together is always difficult to pull asunder; if old, this is easily done.

The result is that the short time of life left to them is not to be grasped at by old men with greedy eagerness, or abandoned without cause. Pythagoras forbids us, without an order from our commander, that is God, to desert life's fortress and outpost. Solon's epitaph, indeed, is that of a wise man, in which he says that he does not wish his death to be unaccompanied by the sorrow and lamentations of his friends. He wants, I suppose, to be beloved by them. But I rather think Ennius says better:

> None grace me with their tears, nor weeping loud
> Make sad my funeral rites!

He holds that a death is not a subject for mourning when it is followed by immortality.

Again, there may possibly be some sensation of dying–and that only for a short time, especially in the case of an old man: *after* death, indeed, sensation is either what one would desire, or it disappears altogether. But to disregard death is a lesson which must be studied from our youth up; for unless that is learnt, no one can have a quiet mind. For die we

certainly must, and that too without being certain whether it may not be this very day. As death, therefore, is hanging over our head every hour, how can a man ever be unshaken in soul if he fears it?

But on this theme I don't think I need much enlarge: when I remember what Lucius Brutus did, who was killed while defending his country; or the two Decii, who spurred their horses to a gallop and met a voluntary death; or M. Atilius Regulus, who left his home to confront a death of torture, rather than break the word which he had pledged to the enemy; or the two Scipios, who determined to block the Carthaginian advance even with their own bodies; or your grandfather Lucius Paulus, who paid with his life for the rashness of his colleague in the disgrace at Cannae; or M. Marcellus, whose death not even the most bloodthirsty of enemies would allow to go without the honour of burial. It is enough to recall that our legions (as I have recorded in my *Origins*) have often marched with cheerful and lofty spirit to ground from which they believed that they would never return. That, therefore, which young men—not only uninstructed, but absolutely ignorant—treat as of no account, shall men who are neither young nor ignorant shrink from in terror? As a general truth, as it seems to me, it is weariness of all pursuits that creates weariness of life. There are certain pursuits adapted to childhood: do young men miss them? There are others suited to early manhood: does that settled time of life called "middle age" ask for them? There are others, again, suited to that age, but not looked for in old age. There are, finally, some which belong to old age. Therefore, as the pursuits of the earlier ages have their time for disappearing, so also have those of old age. And when that takes place, a satiety of life brings on the ripe time for death.

For I do not see why I should not venture to tell you my personal opinion as to death, of which I seem to myself to have a clearer vision in proportion as I am nearer to it. I believe, Scipio and Laelius, that your fathers—those illustrious men and my dearest friends—are still alive, and that too with a life which alone deserves the name. For as long as we are imprisoned in this framework of the body, we perform a certain function and laborious work assigned us by fate. The soul, in fact, is of heavenly origin, forced down from its home in the highest, and, so to speak, buried in earth, a place quite opposed to its divine nature and its immortality. But I suppose the immortal gods to have sown souls broadcast in human bodies, that there might be some to survey the world, and while contemplating the order of the heavenly bodies to imitate it in the unvarying regularity of their life. Nor is it only reason and arguments that have brought me to this belief, but the great fame and authority of the most

distinguished philosophers. I used to be told that Pythagoras and the Pythagoreans—almost natives of our country, who in old times had been called the Italian school of philosophers—never doubted that we had souls drafted from the universal divine intelligence. I used besides to have pointed out to me the discourse delivered by Socrates on the last day of his life upon the immortality of the soul—Socrates, who was pronounced by the oracle at Delphi to be the wisest of men. I need say no more. I have convinced myself, and I hold—in view of the rapid movement of the soul, its vivid memory of the past and its prophetic knowledge of the future, its many accomplishments, its vast range of knowledge, its numerous discoveries—that a nature embracing such varied gifts cannot itself be mortal. And since the soul is always in motion and yet has no external source of motion, for it is self-moved, I conclude that it will also have no end to its motion, because it is not likely ever to abandon itself. Again, since the nature of the soul is not composite, nor has in it any admixture that is not homogeneous and similar, I conclude that it is indivisible, and, if indivisible, that it cannot perish. It is again a strong proof of men knowing most things before birth, that when mere children they grasp innumerable facts with such speed as to show that they are not then taking them in for the first time, but remembering and recalling them. This is roughly Plato's argument.

Once more in Xenophon we have the elder Cyrus on his death-bed speaking as follows:

"Do not suppose, my dearest sons, that when I have left you I shall be nowhere and no one. Even when I was with you, you did not see my soul, but knew that it was in this body of mine from what I did. Believe then that it is still the same, even though you see it not. The honours paid to illustrious men had not continued to exist after their death, had the souls of these very men not done something to make us retain our recollection of them beyond the ordinary time. For myself, I never could be persuaded that souls while in mortal bodies were alive, and died directly they left them; nor, in fact, that the soul only lost all intelligence when it left the unintelligent body. I believe rather that when, by being liberated from all corporeal admixture, it has begun to be pure and undefiled, it is then that it becomes wise. And again, when man's natural frame is resolved into its elements by death, it is clearly seen whither each of the other elements departs: for they all go to the place from which they came: but the soul alone is invisible alike when present and when departing. Once more, you see that nothing is so like death as sleep. And yet it is in sleepers that souls most clearly reveal their divine nature; for they foresee many events when

they are allowed to escape and are left free. This shows what they are likely to be when they have completely freed themselves from the fetters of the body. Wherefore, if these things are so, obey me as a god. But if my soul is to perish with my body, nevertheless do you from awe of the gods, who guard and govern this fair universe, preserve my memory by the loyalty and piety of your lives."

Such are the words of the dying Cyrus. I will now, with your good leave, look at home. No one, my dear Scipio, shall ever persuade me that your father, Paulus, and your two grandfathers, Paulus and Africanus, or the father of Africanus, or his uncle, or many other illustrious men not necessary to mention, would have attempted such lofty deeds as to be remembered by posterity, had they not seen in their minds that future ages concerned them. Do you suppose—to take an old man's privilege of a little self-praise—that I should have been likely to undertake such heavy labours by day and night, at home and abroad, if I had been destined to have the same limit to my glory as to my life? Had it not been much better to pass an age of ease and repose without any labour or exertion? But my soul, I know not how, refusing to be kept down, ever fixed its eyes upon future ages, as though from a conviction that it would begin to live only when it had left the body. But had it not been the case that souls were immortal, it would not have been the souls of all the best men that made the greatest efforts after an immortality of fame.

Again, is there not the fact that the wisest man ever dies with the greatest cheerfulness, the most unwise with the least? Don't you think that the soul which has the clearer and longer sight sees that it is starting for better things, while the soul whose vision is dimmer does not see it? For my part, I am transported with the desire to see your fathers, who were the object of my reverence and affection. Nor is it only those whom I knew that I long to see; it is those also of whom I have been told and have read, whom I have myself recorded in my history. When I am setting out for that, there is certainly no one who will find it easy to draw me back, or boil me up again like second Pelios. Nay, if some god should grant me to renew my childhood from my present age and once more to be crying in my cradle, I would firmly refuse; nor should I in truth be willing, after having, as it were, run the full course, to be recalled from the winning-crease to the barriers. For what blessing has life to offer? Should we not rather say, what labour? But granting that it has, at any rate it has after all a limit either to enjoyment or to existence. I don't wish to depreciate life, as many men and good philosophers have often done; nor do I regret having lived, for I have done so in a way that lets me think that

I was not born in vain. But I quit life as I would an inn, not as I would a home. For nature has given us a place of entertainment, not of residence.

Oh, glorious day when I shall set out to join that heavenly conclave and company of souls, and depart from the turmoil and impurities of this world! For I shall not go to join only those whom I have before mentioned, but also my son Cato, than whom no better man was ever born, nor one more conspicuous for piety. His body was burnt by me, though mine ought, on the contrary, to have been burnt by him; but his spirit, not abandoning, but ever looking back upon me, has certainly gone whither he saw that I too must come. I was thought to bear that loss heroically, not that I really bore it without distress, but I found my own consolation in the thought that the parting and separation between us was not to be for long.

It is by these means, my dear Scipio—for you said that you and Laelius were wont to express surprise on this point—that my old age sits lightly on me, and is not only not oppressive but even delightful. But if I am wrong in thinking the human soul immortal, I am glad to be wrong; nor will I allow the mistake which gives me so much pleasure to be wrested from me as long as I live. But if when dead, as some insignificant philosophers think, I am to be without sensation, I am not afraid of dead philosophers deriding my errors. Again, if we are not to be immortal, it is nevertheless what a man must wish—to have his life end at its proper time. For nature puts a limit to living as to everything else. Now, old age is, as it were, the playing out of the drama, the full fatigue of which we should shun, especially when we also feel that we have had more than enough of it.

This is all I had to say on old age. I pray that you may arrive at it, that you may put my words to a practical test.

Translated by E. S. Shuckburgh.

Sir Francis Bacon [1]

1561–1626

Of the fixed things in Bacon's fixed world, nothing is more stable than mankind, nor did Bacon need to wait half a century for Locke to tell him that "human nature is always and everywhere the same." No doubt men are always different too, as between one individual and another, but as a whole they are all alike, and it is with the whole that Bacon is concerned in these essays on moral subjects. Hence his talk is generalized—stripped to the bone of common truth.

Of truth itself, he says candidly: "A mixture of a lie doth ever add pleasure." On other moral matters, he speaks with equal if chilling realism. "Men fear Death as children fear to go in the dark," he tells us, "and as that natural fear in children is increased with tales, so is the other." Bacon does not seek to change men, but to govern them. "To seek to extinguish Anger utterly is but a bravery of the Stoics," he says. "We have better oracles: 'Be angry, but sin not. Let not the sun go down upon your anger.' Anger must be limited and confined," he suggests instead, meaning that we must live with it.

Bacon does not reach noble heights, or try to. His talk is of the middle ground, where good and evil are always mixed—where men are what they are, not what they ought to be. They might act better than they do, certainly; nor does Bacon fail to suggest how. But he mostly has in mind their satisfaction and their safety rather than their souls. The reader should not decide too quickly that this is cynical. Perhaps souls are not much the business of the civil lawyer, who is concerned with something nearer than salvation—with this world rather than the next. Goodness is not impossible in the world,

[1] For a biography of Sir Francis Bacon, see Vol. 5, pp. 90–92, in this set.

except as the iniquity of the world is not recognized or faced. The point simply is—as Bacon might be taken to imply, following every philosopher since Plato—that the best man is in the end the wisest, and the one most knowing of humankind.

Of Truth

hat is Truth?" said jesting Pilate; and would not stay for an answer. Certainly there be that delight in giddiness, and count it a bondage to fix a belief, affecting free will in thinking, as well as in acting. And though the sects of philosophers of that kind be gone, yet there remain certain discoursing wits which are of the same veins, though there be not so much blood in them as was in those of the ancients. But it is not only the difficulty and labour which men take in finding out of truth, nor again that when it is found it imposeth upon men's thoughts, that doth bring lies in favour, but a natural though corrupt love of the lie itself. One of the later school of the Grecians examineth the matter, and is at a stand to think what should be in it that men should love lies, where neither they make for pleasure, as with poets, nor for advantage, as with the merchant, but for the lie's sake. But I cannot tell: this same truth is a naked and open daylight, that doth not show the masks and mummeries and triumphs of the world half so stately and daintily as candlelights.

Truth may perhaps come to the price of a pearl, that showeth best by day; but it will not rise to the price of a diamond or carbuncle [ruby], that showeth best in varied lights. A mixture of a lie doth ever add pleasure. Doth any man doubt that if there were taken out of men's minds vain opinions, flattering hopes, false valuations, imaginations as one would, and the like, but it would leave the minds of a number of men poor shrunken things, full of melancholy and indisposition, and unpleasing to themselves? One of the Fathers, in great severity, called poesy *vinum daemonum* [devils' wine], because it filleth the imagination; and yet it is but with the shadow of a lie. But it is not the lie that passeth through the mind, but the lie that sinketh in and settleth in it, that doth the hurt; such as we spake of before. But howsoever these things are thus in men's depraved judgments and affections, yet truth, which only doth judge itself, teacheth that the inquiry of truth, which is the love-making or wooing of it, the knowledge of truth, which is the presence of it, and the

belief of truth, which is the enjoying of it, is the sovereign good of human nature.

The first creature of God, in the works of the days, was the light of the sense; the last was the light of reason; and his sabbath work ever since is the illumination of his Spirit. First he breathed light upon the face of the matter or chaos; then he breathed light into the face of man; and still he breatheth and inspireth light into the face of his chosen. The poet that beautified the sect that was otherwise inferior to the rest saith yet excellently well: "It is a pleasure to stand upon the shore, and to see ships tossed upon the sea; a pleasure to stand in the window of a castle, and to see a battle and the adventures thereof below; but no pleasure is comparable to the standing upon the vantage ground of truth (a hill not to be commanded, and where the air is always clear and serene), and to see the errors, and wanderings, and mists, and tempests, in the vale below"; so always that this prospect be with pity, and not with swelling or pride. Certainly, it is heaven upon earth to have a man's mind move in charity, rest in providence, and turn upon the poles of truth.

To pass from theological and philosophical truth to the truth of civil business, it will be acknowledged even by those that practise it not that clear and round dealing is the honour of man's nature; and that mixture of falsehood is like alloy in coin of gold and silver, which may make the metal work the better, but it embaseth it. For these winding and crooked courses are the goings of the serpent, which goeth basely upon the belly, and not upon the feet. There is no vice that doth so cover a man with shame as to be found false and perfidious. And therefore Montaigne saith prettily, when he inquired the reason, why the word of the lie should be such a disgrace and such an odious charge. Saith he, "If it be well weighed, to say that a man lieth is as much to say as that he is brave towards God and a coward towards men." For a lie faces God, and shrinks from man. Surely the wickedness of falsehood and breach of faith cannot possibly be so highly expressed as in that it shall be the last peal to call the judgments of God upon the generations of men; it being foretold that when Christ cometh, "He shall not find faith upon the earth."

Of Death

Men fear death as children fear to go in the dark; and as that natural fear in children is increased with tales, so is the other. Certainly, the contemplation of death, as the wages of sin and passage to another world, is holy and religious; but the fear of it, as a tribute due unto nature, is weak. Yet in religious meditations there is sometimes mixture of vanity and of superstition. You shall read in some of the friars' books of mortification that a man should think with himself what the pain is if he have but his finger's end pressed or tortured, and thereby imagine what the pains of death are, when the whole body is corrupted and dissolved; when many times death passeth with less pain than the torture of a limb, for the most vital parts are not the quickest of sense. And by him that spake only as a philosopher and natural man, it was well said, *Pompa mortis magis terret quam mors ipsa* [The funeral procession is more terrible than death itself]. Groans and convulsions, and a discoloured face, and friends weeping, and blacks, and obsequies, and the like, show death terrible.

It is worthy the observing that there is no passion in the mind of man so weak but it mates and masters the fear of death; and therefore death is no such terrible enemy when a man hath so many attendants about him that can win the combat of him. Revenge triumphs over death; love slights it; honour aspireth to it; grief flieth to it; fear pre-occupateth it; nay we read, after Otho the emperor had slain himself, pity (which is the tenderest of affections) provoked many to die, out of mere compassion to their sovereign, and as the truest sort of followers. Nay Seneca adds niceness and satiety: *Cogita quamdiu eadem feceris; mori velle*, *non tantum fortis, aut miser, sed etiam fastidiosus potest* [Take thought, as long as you will do the same: not only the strong, not only the wretched, but also the fastidious man can welcome death]. A man would die, though he were neither valiant nor miserable, only upon a weariness to do the same thing so oft over and over.

It is no less worthy to observe how little alteration in good spirits the approaches of death make, for they appear to be the same men till the last instant. Augustus Caesar died in a compliment: *Livia*, *conjugii nostri memor*, *vive et vale* [Live and prosper, Livia, in remembrance of our marriage]. Tiberius in dissimulation, as Tacitus saith of him: *Jam Tiberium vires et corpus*, *non dissimulatio*, *deserebant* [For now his strength and his body, but not his duplicity, were deserting him]. Vespasian in a jest, sitting upon the stool: *Ut puto Deus fio* [As I see it, I am becoming a god]. Galba with a sentence: *Feri*, *si ex re sit populi Romani* [Strike, if it profits the Roman people]; holding forth his neck. Septimius Severus in despatch: *Adeste si quid mihi restat agendum* [Come, then, if there is still anything that I must do]. And the like. Certainly the Stoics bestowed too much cost upon death, and by their great preparations made it appear more fearful. Better saith he, *qui finem vitae extremum inter munera ponat naturae* [. . . , who counts the end of life among the gifts of nature]. It is as natural to die as to be born; and to a little infant, perhaps, the one is as painful as the other. He that dies in an earnest pursuit is like one that is wounded in hot blood; who, for the time, scarce feels the hurt; and therefore a mind fixed and bent upon somewhat that is good doth avert the dolours of death. But above all, believe it, the sweetest canticle [1] is, *Nunc dimittis* [Lord, now lettest thou thy servant depart in peace] when a man hath obtained worthy ends and expectations. Death hath this also: that it openeth the gate to good fame, and extinguisheth envy. *Extinctus amabitur idem* [That same man (who was envied while he was alive) shall be loved when he is dead].

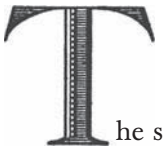
1. The Canticle of Simeon, Luke 2:29 [Ed.].

Of Adversity

t was a high speech of Seneca (after the manner of the Stoics), "that the good things which belong to prosperity are to be wished; but the good things that belong to adversity are to be admired." *Bona rerum secundarum optabilia; adversarum mirabilia*. Certainly if miracles be the command over nature, they appear most in adversity. It is yet a higher speech of his than the other (much too high for a heathen), "It is true greatness to have in one the frailty of a man, and the security of a God." *Vere magnum habere fragilitatem hominis*, *securitatem Dei*. This would have done better in poesy, where transcendences are more allowed. And the poets indeed have been busy with it; for it is in effect the thing which is figured in that strange fiction of the ancient poets, which seemeth not to be without mystery; nay, and to have some approach to the state of a Christian; that "Hercules, when he went to unbind Prometheus (by whom human nature is represented), sailed the length of the great ocean in an earthen pot or pitcher"; lively describing Christian resolution, that saileth in the frail bark of the flesh thorough the waves of the world.

But to speak in a mean. The virtue of prosperity is temperance; the virtue of adversity is fortitude, which in morals is the more heroical virtue. Prosperity is the blessing of the Old Testament; adversity is the blessing of the New, which carrieth the greater benediction, and the clearer revelation of God's favour. Yet even in the Old Testament, if you listen to David's harp, you shall hear as many hearse-like airs as carols; and the pencil of the Holy Ghost hath laboured more in describing the afflictions of Job than the felicities of Solomon. Prosperity is not without many fears and distastes; and adversity is not without comforts and hopes. We see in needleworks and embroideries it is more pleasing to have a lively work upon a sad and solemn ground than to have a dark and melancholy work upon a lightsome ground: judge therefore of the pleasure of the heart by the pleasure of the eye. Certainly virtue is like precious odours, most fragrant when they are incensed or crushed; for prosperity doth best discover vice, but adversity doth best discover virtue.

Of Love



he stage is more beholding to love than the life of man. For as to the stage, love is ever matter of comedies, and now and then of tragedies; but in life it doth much mischief, sometimes like a siren, sometimes like a fury. You may observe that amongst all the great and worthy persons (whereof the memory remaineth, either ancient or recent) there is not one that hath been transported to the mad degree of love, which shows that great spirits and great business do keep out this weak passion. You must except nevertheless Marcus Antonius, the half-partner of the empire of Rome, and Appius Claudius, the decemvir and lawgiver; whereof the former was indeed a voluptuous man, and inordinate; but the latter was an austere and wise man; and therefore it seems (though rarely) that love can find entrance not only into an open heart but also into a heart well fortified, if watch be not well kept.

It is a poor saying of Epicurus, *Satis magnum alter alteri theatrum sumus* [We are each for one another a theatre large enough]; as if man, made for the contemplation of heaven and all noble objects, should do nothing but kneel before a little idol, and make himself a subject, though not of the mouth (as beasts are), yet of the eye, which was given him for higher purposes. It is a strange thing to note the excess of this passion, and how it braves the nature and value of things, by this: that the speaking in a perpetual hyperbole is comely in nothing but in love. Neither is it merely in the phrase; for whereas it hath been well said that the arch-flatterer, with whom all the petty flatterers have intelligence, is a man's self, certainly the lover is more. For there was never proud man thought so absurdly well of himself as the lover doth of the person loved; and therefore it was well said, "That it is impossible to love and to be wise." Neither doth this weakness appear to others only, and not to the party loved; but to the loved most of all, except the love be reciprocal. For it is a true rule that love is ever rewarded either with the reciprocal or with an inward and secret contempt. By how much the more men ought to beware of this passion, which loseth not only other things, but itself. As

for the other losses, the poet's relation doth well figure them: that he that preferred Helena quitted the gifts of Juno and Pallas. For whosoever esteemeth too much of amorous affection quitteth both riches and wisdom.

This passion hath his floods in the very times of weakness, which are great prosperity and great adversity, though this latter hath been less observed; both which times kindle love, and make it more fervent, and therefore show it to be the child of folly. They do best who, if they cannot but admit love, yet make it keep quarter, and sever it wholly from their serious affairs and actions of life; for if it check once with business, it troubleth men's fortunes, and maketh men that they can no ways be true to their own ends. I know not how, but martial men are given to love; I think it is but as they are given to wine, for perils commonly ask to be paid in pleasures. There is in man's nature a secret inclination and motion towards love of others, which, if it be not spent upon some one or a few, doth naturally spread itself towards many, and maketh men become humane and charitable; as it is seen sometimes in friars. Nuptial love maketh mankind; friendly love perfecteth it; but wanton love corrupteth and embaseth it.

Of Friendship

It had been hard for him that spake it to have put more truth and untruth together in few words than in that speech, "Whosoever is delighted in solitude is either a wild beast or a god." For it is most true that a natural and secret hatred and aversation towards society in any man hath somewhat of the savage beast; but it is most untrue that it should have any character at all of the divine nature, except it proceed, not out of a pleasure in solitude, but out of a love and desire to sequester a man's self for a higher conversation, such as is found to have been falsely and feignedly in some of the heathen, as Epimenides the Candian, Numa the Roman, Empedocles the Sicilian, and Apollonius of Tyana, and truly and really in divers of the ancient hermits and holy fathers of the church. But little do men perceive what solitude is, and how far it extendeth. For a crowd is not company; and faces are but a gallery of pictures; and talk but a tinkling cymbal, where there is no love. The Latin adage meeteth with it a little: *Magna civitas, magna solitudo* [A great city is a great solitude]; because in a great town friends are scattered; so that there is not that fellowship, for the most part, which is in less neighbourhoods. But we may go further, and affirm most truly that it is a mere and miserable solitude to want true friends, without which the world is but a wilderness; and even in this sense also of solitude, whosoever in the frame of his nature and affections is unfit for friendship, he taketh it of the beast, and not from humanity.

A principal fruit of friendship is the ease and discharge of the fullness and swellings of the heart, which passions of all kinds do cause and induce. We know diseases of stoppings and suffocations are the most dangerous in the body; and it is not much otherwise in the mind. You may take sarza to open the liver, steel to open the spleen, flower of sulphur for the lungs, castoreum for the brain; but no receipt openeth the heart but a true friend, to whom you may impart griefs, joys, fears, hopes, suspicions,

counsels, and whatsoever lieth upon the heart to oppress it, in a kind of civil shrift or confession.

It is a strange thing to observe how high a rate great kings and monarchs do set upon this fruit of friendship whereof we speak: so great as they purchase it many times at the hazard of their own safety and greatness. For princes, in regard of the distance of their fortune from that of their subjects and servants, cannot gather this fruit except (to make themselves capable thereof) they raise some persons to be as it were companions and almost equals to themselves, which many times sorteth to inconvenience. The modern languages give unto such persons the name of favourites, or privadoes, as if it were matter of grace, or conversation. But the Roman name attaineth the true use and cause thereof, naming them *participes curarum* [those who share in troubles], for it is that which tieth the knot. And we see plainly that this hath been done, not by weak and passionate princes only, but by the wisest and most politic that ever reigned; who have oftentimes joined to themselves some of their servants; whom both themselves have called friends, and allowed others likewise to call them in the same manner, using the word which is received between private men.

L. Sylla, when he commanded Rome, raised Pompey (after surnamed the Great) to that height, that Pompey vaunted himself for Sylla's overmatch. For when he had carried the consulship for a friend of his against the pursuit of Sylla, and that Sylla did a little resent thereat, and began to speak great, Pompey turned upon him again, and in effect bade him be quiet, for that more men adored the sun rising than the sun setting. With Julius Caesar, Decimus Brutus had obtained that interest, as he set him down in his testament for heir in remainder after his nephew. And this was the man that had power with him to draw him forth to his death. For when Caesar would have discharged the Senate, in regard of some ill presages, and specially a dream of Calpurnia, this man lifted him gently by the arm out of his chair, telling him he hoped he would not dismiss the Senate till his wife had dreamt a better dream. And it seemeth his favour was so great as Antonius, in a letter which is recited verbatim in one of Cicero's *Philippics*, calleth him *venefica*, "witch," as if he had enchanted Caesar. Augustus raised Agrippa (though of mean birth) to that height, as when he consulted with Maecenas about the marriage of his daughter Julia, Maecenas took the liberty to tell him, "that he must either marry his daughter to Agrippa, or take away his life: there was no third way, he had made him so great." With Tiberius Caesar, Sejanus had ascended to that height, as they two were termed and reckoned as a pair of friends.

Tiberius in a letter to him saith, *haec pro amicitia nostra non occultavi* [I have not concealed these things on account of our friendship]; and the whole Senate dedicated an altar to friendship, as to a goddess, in respect of the great dearness of friendship between them two. The like or more was between Septimius Severus and Plautianus. For he forced his eldest son to marry the daughter of Plautianus; and would often maintain Plautianus in doing affronts to his son; and did write also in a letter to the Senate by these words: "I love the man so well as I wish he may overlive me." Now if these princes had been as a Trajan or a Marcus Aurelius, a man might have thought that this had proceeded of an abundant goodness of nature; but being men so wise, of such strength and severity of mind, and so extreme lovers of themselves, as all these were, it proveth most plainly that they found their own felicity (though as great as ever happened to mortal men) but as a half piece except they might have a friend to make it entire; and yet, which is more, they were princes that had wives, sons, nephews; and yet all these could not supply the comfort of friendship.

It is not to be forgotten what Commineus observeth of his first master, Duke Charles the Hardy; namely, that he would communicate his secrets with none; and least of all, those secrets which troubled him most. Whereupon he goeth on and saith that towards his latter time that closeness did impair and a little perish his understanding. Surely Commineus might have made the same judgment also, if it had pleased him, of his second master, Louis XI, whose closeness was indeed his tormentor. The parable of Pythagoras is dark, but true: *Cor ne edito*, "Eat not the heart." Certainly, if a man would give it a hard phrase, those that want friends to open themselves unto are cannibals of their own hearts. But one thing is most admirable (wherewith I will conclude this first fruit of friendship), which is that this communicating of a man's self to his friend works two contrary effects: for it redoubleth joys and cutteth griefs in halves. For there is no man that imparteth his joys to his friend but he joyeth the more; and no man that imparteth his griefs to his friend but he grieveth the less. So that it is in truth of operation upon a man's mind, of like virtue as the alchemists use to attribute to their stone for man's body, that it worketh all contrary effects, but still to the good and benefit of nature. But yet, without praying in aid of alchemists, there is a manifest image of this in the ordinary course of nature. For in bodies, union strengtheth and cherisheth any natural action, and on the other side weakeneth and dulleth any violent impression, and even so it is of minds.

The second fruit of friendship is healthful and sovereign for the under-

standing, as the first is for the affections. For friendship maketh indeed a fair day in the affections, from storm and tempests; but it maketh daylight in the understanding, out of darkness and confusion of thoughts. Neither is this to be understood only of faithful counsel, which a man receiveth from his friend; but before you come to that, certain it is that whosoever hath his mind fraught with many thoughts, his wits and understanding do clarify and break up in the communicating and discoursing with another; he tosseth his thoughts more easily; he marshalleth them more orderly; he seeth how they look when they are turned into words; finally, he waxeth wiser than himself, and that more by an hour's discourse than by a day's meditation. It was well said by Themistocles to the king of Persia, "That speech was like cloth of Arras, opened and put abroad; whereby the imagery doth appear in figure; whereas in thoughts they lie but as in packs." Neither is this second fruit of friendship, in opening the understanding, restrained only to such friends as are able to give a man counsel (they indeed are best); but even without that, a man learneth of himself, and bringeth his own thoughts to light, and whetteth his wits as against a stone, which itself cuts not. In a word, a man were better relate himself to a statue or picture than to suffer his thoughts to pass in smother.

Add now, to make this second fruit of friendship complete, that other point which lieth more open and falleth within vulgar observation, which is faithful counsel from a friend. Heraclitus saith well in one of his enigmas, "Dry light is ever the best." And certain it is that the light that a man receiveth by counsel from another is drier and purer than that which cometh from his own understanding and judgment, which is ever infused and drenched in his affections and customs. So there is as much difference between the counsel that a friend giveth and that a man giveth himself as there is between the counsel of a friend and of a flatterer. For there is no such flatterer as is a man's self; and there is no such remedy against flattery of a man's self as the liberty of a friend. Counsel is of two sorts: the one concerning manners, the other concerning business. For the first, the best preservative to keep the mind in health is the faithful admonition of a friend. The calling of a man's self to a strict account is a medicine, sometime, too piercing and corrosive. Reading good books of morality is a little flat and dead. Observing our faults in others is sometimes improper for our case. But the best receipt (best, I say, to work, and best to take) is the admonition of a friend.

It is a strange thing to behold what gross errors and extreme absurdities many (especially of the greater sort) do commit for want of a friend to tell them of them, to the great damage both of their fame and fortune; for,

as St. James saith, they are as men "that look sometimes into a glass, and presently forget their own shape and favour." As for business, a man may think, if he will, that two eyes see no more than one; or that a gamester seeth always more than a looker-on; or that a man in anger is as wise as he that hath said over the four and twenty letters; or that a musket may be shot off as well upon the arm as upon a rest; and such other fond and high imaginations, to think himself all in all. But when all is done, the help of good counsel is that which setteth business straight. And if any man think that he will take counsel, but it shall be by pieces, asking counsel in one business of one man, and in another business of another man, it is well (that is to say, better perhaps than if he asked none at all); but he runneth two dangers: one, that he shall not be faithfully counselled; for it is a rare thing, except it be from a perfect and entire friend, to have counsel given but such as shall be bowed and crooked to some ends which he hath that giveth it. The other, that he shall have counsel given hurtful and unsafe (though with good meaning), and mixed partly of mischief and partly of remedy; even as if you would call a physician that is thought good for the cure of the disease you complain of, but is unacquainted with your body; and therefore may put you in way for a present cure, but overthroweth your health in some other kind; and so cure the disease and kill the patient. But a friend that is wholly acquainted with a man's estate will beware, by furthering any present business, how he dasheth upon other inconvenience. And therefore rest not upon scattered counsels; they will rather distract and mislead than settle and direct.

After these two noble fruits of friendship (peace in the affections and support of the judgment), followeth the last fruit, which is like the pomegranate, full of many kernels; I mean aid and bearing a part in all actions and occasions. Here the best way to represent to life the manifold use of friendship is to cast and see how many things there are which a man cannot do himself; and then it will appear that it was a sparing speech of the ancients to say, "that a friend is another himself"; for that a friend is far more than himself. Men have their time, and die many times in desire of some things which they principally take to heart: the bestowing of a child, the finishing of a work, or the like. If a man have a true friend, he may rest almost secure that the care of those things will continue after him. So that a man hath, as it were, two lives in his desires. A man hath a body, and that body is confined to a place; but where friendship is, all offices of life are as it were granted to him and his deputy. For he may exercise them by his friend. How many things are there which a man cannot, with any face or comeliness, say or do himself? A man can scarce

allege his own merits with modesty, much less extol them; a man cannot sometimes brook to supplicate or beg; and a number of the like. But all these things are graceful in a friend's mouth, which are blushing in a man's own. So again, a man's person hath many proper relations which he cannot put off. A man cannot speak to his son but as a father, to his wife but as a husband, to his enemy but upon terms; whereas a friend may speak as the case requires, and not as it sorteth with the person. But to enumerate these things were endless; I have given the rule where a man cannot fitly play his own part; if he have not a friend, he may quit the stage.

Of Anger

To seek to extinguish anger utterly is but a bravery of the Stoics. We have better oracles: "Be angry, but sin not. Let not the sun go down upon your anger." Anger must be limited and confined both in race and in time. We will first speak how the natural inclination and habit to be angry may be attempered and calmed. Secondly, how the particular motions of anger may be repressed, or at least refrained from doing mischief. Thirdly, how to raise anger or appease anger in another.

For the first, there is no other way but to meditate and ruminate well upon the effects of anger, how it troubles man's life. And the best time to do this is to look back upon anger when the fit is thoroughly over. Seneca saith well, "That anger is like ruin, which breaks itself upon that it falls." The Scripture exhorteth us, "To possess our souls in patience." Whosoever is out of patience is out of possession of his soul. Men must not turn bees;

> *. . . animasque in vulnere ponunt.*
> [. . . and give up their lives in the sting.]

Anger is certainly a kind of baseness, as it appears well in the weakness of those subjects in whom it reigns: children, women, old folks, sick folks. Only men must beware that they carry their anger rather with scorn than with fear, so that they may seem rather to be above the injury than below it, which is a thing easily done if a man will give law to himself in it.

For the second point, the causes and motives of anger are chiefly three. First, to be too sensible of hurt; for no man is angry that feels not himself hurt; and therefore tender and delicate persons must needs be oft angry; they have so many things to trouble them, which more robust natures have little sense of. The next is the apprehension and construction of the injury offered to be, in the circumstances thereof, full of contempt; for contempt is that which putteth an edge upon anger, as much or more than the hurt itself. And therefore when men are ingenious in picking out cir-

cumstances of contempt, they do kindle their anger much. Lastly, opinion of the touch of a man's reputation doth multiply and sharpen anger. Wherein the remedy is that a man should have, as Consalvo was wont to say, *telam honoris crassiorem* [somewhat thickly woven honour]. But in all refrainings of anger, it is the best remedy to win time; and to make a man's self believe that the opportunity of his revenge is not yet come, but that he foresees a time for it, and so to still himself in the mean time and reserve it.

To contain anger from mischief, though it take hold of a man, there be two things whereof you must have special caution. The one, of extreme bitterness of words, especially if they be aculeate and proper, for *communia maledicta* [general railing accusations] are nothing so much; and again, that in anger a man reveal no secrets, for that makes him not fit for society. The other, that you do not peremptorily break off, in any business, in a fit of anger; but howsoever you show bitterness, do not act anything that is not revocable.

For raising and appeasing anger in another, it is done chiefly by choosing of times, when men are frowardest and worst disposed, to incense them. Again, by gathering (as was touched before) all that you can find out to aggravate the contempt. And the two remedies are by the contraries. The former to take good times when first to relate to a man an angry business, for the first impression is much; and the other is to sever, as much as may be, the construction of the injury from the point of contempt, imputing it to misunderstanding, fear, passion, or what you will.

The foregoing essays are from a collection of Bacon's essays entitled ESSAYS: CIVIL AND MORAL.

George Santayana

1863–1952

George Santayana, poet and philosopher, was born in Madrid, Spain, in 1863. At the age of nine he was brought to the United States, where, at Boston, he was reared and educated. At Harvard College, in the 1880's, he was at once a promising poet and a young philosopher—a favorite student of William James and Josiah Royce. And though Santayana joined the faculty as a teacher of philosophy in 1889, his productions for the next dozen years included three volumes of poems, a play in verse, and a treatise on aesthetics.

Santayana left Harvard and his adopted country in 1912 and spent the remainder of his long life abroad. His last years were spent in Italy, where he died in 1952. He never married; indeed, after his retirement from teaching he lived in virtual seclusion, content to be known by the many writings that were his only occupation. Among these were *The Life of Reason* (5 vols., 1905–06), in which he surveyed the progress of systematic thought since the Greeks, and *The Realms of Being* (4 vols., 1927–40), in which he indicated both a total skepticism as to the possibility of knowledge and at the same time what he called an "animal faith" in the existence of things. This anti-philosophical conclusion may, with some reservations, be called his ultimate one, though his complex and sophisticated mind defies summary.

Perhaps it is enough to say that he was both various and subtle in his judgments of the world and of ideas, and that these were always expressed in language of exquisite if somewhat chilly grace, so that Santayana has come to be known less for any doctrines he held than for the felicity with which he uttered them.

The two essays which follow, on Lucretius [1] and on Goethe's *Faust*,[2] were first published in a volume called *Three Philosophical Poets* (1910). (The third poet was Dante.[3]) The title is important, for it was because his three poets were philosophical that Santayana studied them. By philosophical he appears to mean that they were concerned to find nothing less than the order of the world. He did not study them in the narrow terms of literary criticism, which might have been content with the poems they wrote. Instead it is with the poets themselves that Santayana is concerned, not in the sense of their biographies but in terms of the speculative minds their works reveal. It was Santayana's belief that each of those minds was "typical of an age," and that "taken together they sum up all European philosophy."

What he means by this he explains in the Introduction to *Three Philosophical Poets*. In the philosophy of Lucretius–"materialism in natural science, humanism in ethics"–Santayana finds not only "the gist of all Greek philosophy before Socrates" but the precedent for "what may be called the philosophy of the Renaissance, the reassertion of science and liberty in the modern world, by Bacon, by Spinoza, by the whole contemporary school that looks to science for its view of facts, and to the happiness of men on earth for its ideal." Such a system, Santayana says, "is called naturalism; and of this Lucretius is the unrivalled poet."

Goethe, too, is seen in the context of his age, or rather *Faust* is. The age was 1800, and it was one, Santayana says, in which "the

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[1]See *Great Books of the Western World.*
[2]See *Great Books of the Western World.*
[3]For Dante's *Divine Comedy*, see *Great Books of the Western World* For a selection from his *De Monarchia*, see Vol. 7, pp. 383–399, in this set.

Notes from the artist: "Santayana with some of the people that were prominent in his life. The three complete figures are those of Goethe and Lucretius at the top, and Dante at the left, all alluding to Santayana's Three Philosophical Poets.

Santayana

Teutonic races that have previously conquered Europe have begun to dominate themselves. They have become Protestants, or protesters against the Roman world. An infinite fountain of life seems to be unlocked within their bosom. They turn successively to the Bible, to learning, to patriotism, to industry, for new objects to love and fresh worlds to conquer; but they have too much vitality, or too little maturity, to rest in any of these things. A demon drives them on; and this demon, divine and immortal in its apparent waywardness, is their inmost self. It is their insatiable will, their radical courage. . . . This is romanticism. . . . The greatest monument to this romanticism is Goethe's *Faust*."

Santayana was a very learned man and had a wide knowledge of history and philosophy; he thus had as much right as anyone, perhaps, to epitomize an age in such terms as those above. But it should be recognized that Santayana really does not claim to have read or realized all that men have said and done. All that he claims to do is to attempt to find the center of the age, whereby, though he cannot see all its multitudinous parts, he can place the most important of them in relation to each other. That is what Lucretius did, in his *On the Nature of Things*, with the universe of nature. He sought a theory of it that would make it comprehensible. Santayana would seem in his book to be doing much the same thing with the history of philosophy. Through his poetic subjects he is seeking a theory that will make comprehensible the universe of thought.

No reader should be disappointed, upon reading the essays, to discover that the theory is difficult to grasp. Of course it is, as any such comprehensive idea–certainly "the sum of all European philosophy"–must be. It may even be allowed that Santayana is not wholly successful in what he tried to do. But neither was Lucretius, nor Goethe.

Santayana is remarkable, nevertheless, not so much for what he found, or even for what he sought, but for the place in which he sought it. In studying European philosophy, he turned not to the philosophers but to the poets. His idea was that the greatest poetry is philosophical, and in its eloquence perhaps the best philosophy there is. "Can it be accident," he asks, "that the most adequate and probably the most lasting exposition of these three schools of philosophy should have been made by poets?" His book gives a clear answer to the question: it is no accident. And Santayana gives the impression beyond a doubt that he believes any philosopher should realize that.

Lucretius

There is perhaps no important poem the antecedents of which can be traced so exhaustively as can those of the work of Lucretius, *De rerum natura.* These antecedents, however, do not lie in the poet himself. If they did, we should not be able to trace them, since we know nothing, or next to nothing, about Lucretius the man. In a chronicon, compiled by St. Jerome largely out of Suetonius, in which miscellaneous events are noted which occurred in each successive year, we read for the year 94 B.C.: "Titus Lucretius, poet, is born. After a love-philtre had turned him mad, and he had written, in the intervals of his insanity, several books which Cicero revised, he killed himself by his own hand in the forty-fourth year of his age."

The love-philtre in this report sounds apocryphal; and the story of the madness and suicide attributes too edifying an end to an atheist and Epicurean not to be suspected. If anything lends color to the story it is a certain consonance which we may feel between its tragic incidents and the genius of the poet as revealed in his work, where we find a strange scorn of love, a strange vehemence, and a high melancholy. It is by no means incredible that the author of such a poem should have been at some time the slave of a pathological passion, that his vehemence and inspiration should have passed into mania, and that he should have taken his own life. But the untrustworthy authority of St. Jerome cannot assure us whether what he repeats is a tradition founded on fact or an ingenious fiction.

Our ignorance of the life of Lucretius is not, I think, much to be regretted. His work preserves that part of him which he himself would have wished to preserve. Perfect conviction ignores itself, proclaiming the public truth. To reach this no doubt requires a peculiar genius which is called intelligence; for intelligence is quickness in seeing things as they are. But where intelligence is attained, the rest of a man, like the scaffolding to a finished building, becomes irrelevant. We do not wish it to

intercept our view of the solid structure, which alone was intended by the artist–if he was building for others, and was not a coxcomb. It is his intellectual vision that the naturalist in particular wishes to hand down to posterity, not the shabby incidents that preceded that vision in his own person. These incidents, even if they were by chance interesting, could not be repeated in us; but the vision into which the thinker poured his faculties, and to which he devoted his vigils, is communicable to us also, and may become a part of ourselves.

Since Lucretius is thus identical for us with his poem, and is lost in his philosophy, the antecedents of Lucretius are simply the stages by which his conception of nature first shaped itself in the human mind. To retrace these stages is easy; some of them are only too familiar; yet the very triteness of the subject may blind us to the grandeur and audacity of the intellectual feat involved. A naturalistic conception of things is a great work of imagination–greater, I think, than any dramatic or moral mythology: it is a conception fit to inspire great poetry, and in the end, perhaps, it will prove the only conception able to inspire it.

We are told of the old Xenophanes that he looked up into the round heaven and cried, "The All is One." What is logically a truism may often be, imaginatively, a great discovery, because no one before may have thought of the obvious analogy which the truism registers. So, in this case, the unity of all things is logically an evident, if barren, truth; for the most disparate and unrelated worlds would still be a multitude, and so an aggregate, and so, in some sense, a unity. Yet it was a great imaginative feat to cast the eye deliberately round the entire horizon, and to draw mentally the sum of all reality, discovering that reality makes such a sum, and may be called one; as any stone or animal, though composed of many parts, is yet called one in common parlance. It was doubtless some prehistoric man of genius, long before Xenophanes, who first applied in this way to all things together that notion of unity and wholeness which everybody had gained by observation of things singly, and who first ventured to speak of "the world." To do so is to set the problem for all natural philosophy, and in a certain measure to anticipate the solution of that problem; for it is to ask how things hang together, and to assume that they do hang together in one way or another.

To cry "The All is One," and to perceive that all things are in one landscape and form a system by their juxtaposition, is the rude beginning of wisdom in natural philosophy. But it is easy to go farther, and to see that things form a unity in a far deeper and more mysterious way. One of the first things, for instance, that impresses the poet, the man of feeling

and reflection, is that these objects that people the world all pass away, and that the place thereof knows them no more. Yet, when they vanish, nothingness does not succeed; other things arise in their stead. Nature remains always young and whole in spite of death at work everywhere; and what takes the place of what continually disappears is often remarkably like it in character. Universal instability is not incompatible with a great monotony in things; so that while Heraclitus lamented that everything was in flux, Ecclesiastes, who was also entirely convinced of that truth, could lament that there was nothing new under the sun.

This double experience of mutation and recurrence, an experience at once sentimental and scientific, soon brought with it a very great thought, perhaps the greatest thought that mankind has ever hit upon, and which was the chief inspiration of Lucretius. It is that all we observe about us, and ourselves also, may be so many passing forms of a permanent substance. This substance, while remaining the same in quantity and in inward quality, is constantly redistributed; in its redistribution it forms those aggregates which we call things, and which we find constantly disappearing and reappearing. All things are dust, and to dust they return; a dust, however, eternally fertile, and destined to fall perpetually into new, and doubtless beautiful, forms. This notion of substance lends a much greater unity to the outspread world; it persuades us that all things pass into one another, and have a common ground from which they spring successively, and to which they return.

The spectacle of inexorable change, the triumph of time, or whatever we may call it, has always been a favorite theme for lyric and tragic poetry, and for religious meditation. To perceive universal mutation, to feel the vanity of life, has always been the beginning of seriousness. It is the condition for any beautiful, measured, or tender philosophy. Prior to that, everything is barbarous, both in morals and in poetry; for until then mankind has not learned to renounce anything, has not outgrown the instinctive egotism and optimism of the young animal, and has not removed the center of its being, or of its faith, from the will to the imagination.

To discover substance, then, is a great step in the life of reason, even if substance be conceived quite negatively as a term that serves merely to mark, by contrast, the unsubstantiality, the vanity, of all particular moments and things. That is the way in which Indian poetry and philosophy conceived substance. But the step taken by Greek physics, and by the poetry of Lucretius, passes beyond. Lucretius and the Greeks, in observing universal mutation and the vanity of life, conceived behind appearance a

great intelligible process, an evolution in nature. The reality became interesting, as well as the illusion. Physics became scientific, which had previously been merely spectacular.

Here was a much richer theme for the poet and philosopher, who was launched upon the discovery of the ground and secret causes of this gay or melancholy flux. The understanding that enabled him to discover these causes did for the European what no Indian mystic, what no despiser of understanding anywhere, suffers himself to do; namely, to dominate, foretell, and transform this changing show with a virile, practical intelligence. The man who discovers the secret springs of appearances opens to contemplation a second positive world, the workshop and busy depths of nature, where a prodigious mechanism is continually supporting our life, and making ready for it from afar by the most exquisite adjustments. The march of this mechanism, while it produces life and often fosters it, yet as often makes it difficult and condemns it to extinction. This truth, which the conception of natural substance first makes intelligible, justifies the elegies which the poets of illusion and disillusion have always written upon human things. It is a truth with a melancholy side; but being a truth, it satisfies and exalts the rational mind, that craves truth as truth, whether it be sad or comforting, and wishes to pursue a possible, not an impossible, happiness.

So far, Greek science had made out that the world was one, that there was a substance, that this was a physical substance, distributed and moving in space. It was matter. The question remained, What is the precise nature of matter, and how does it produce the appearances we observe? The only answer that concerns us here is that given by Lucretius; an answer he accepted from Epicurus, his master in everything, who in turn had accepted it from Democritus. Now Democritus had made a notable advance over the systems that selected one obvious substance, like water, or collected all the obvious substances, as Anaxagoras had done, and tried to make the world out of them. Democritus thought that the substance of everything ought not to have any of the qualities present in some things and absent in others; it ought to have only the qualities present in all things. It should be *merely* matter. Materiality, according to him, consisted of extension, figure, and solidity; in the thinnest ether, if we looked sharp enough, we should find nothing but particles possessing these properties. All other qualities of things were apparent only, and imputed to them by a convention of the mind. The mind was a born mythologist, and projected its feelings into their causes. Light, color, taste, warmth, beauty, excellence were such imputed and conventional

qualities; only space and matter were real. But empty space was no less real than matter. Consequently, although the atoms of matter never changed their form, real changes could take place in nature, because their position might change in a real space.

Unlike the useless substance of the Indians, the substance of Democritus could offer a calculable ground for the flux of appearances; for this substance was distributed unequally in the void, and was constantly moving. Every appearance, however fleeting, corresponded to a precise configuration of substance; it arose with that configuration and perished with it. This substance, accordingly, was physical, not metaphysical. It was no dialectical term, but a scientific anticipation, a prophecy as to what an observer who should be properly equipped would discover in the interior of bodies. Materialism is not a system of metaphysics; it is a speculation in chemistry and physiology, to the effect that, if analysis could go deep enough, it would find that all substance was homogeneous, and that all motion was regular.

Though matter was homogeneous, the forms of the ultimate particles, according to Democritus, were various; and sundry combinations of them constituted the sundry objects in nature. Motion was not, as the vulgar (and Aristotle) supposed, unnatural, and produced magically by some moral cause; it had been eternal and was native to the atoms. On striking, they rebounded; and the mechanical currents or vortexes which these contacts occasioned formed a multitude of stellar systems, called worlds, with which infinite space was studded.

Mechanism as to motion, atomism as to structure, materialism as to substance, that is the whole system of Democritus. It is as wonderful in its insight, in its sense for the ideal demands of method and understanding, as it is strange and audacious in its simplicity. Only the most convinced rationalist, the boldest prophet, could embrace it dogmatically; yet time has largely given it the proof. If Democritus could look down upon the present state of science, he would laugh, as he was in the habit of doing, partly at the confirmation we can furnish to portions of his philosophy, and partly at our stupidity that cannot guess the rest.

There are two maxims in Lucretius that suffice, even to this day, to distinguish a thinker who is a naturalist from one who is not. "Nothing," he says, "arises in the body in order that we may use it, but what arises brings forth its use."[1] This is that discarding of final causes on which all progress in science depends. The other maxim runs: "One thing will grow

1. Lucretius, IV. 834, 835. [Cf. *Great Books of the Western World* (Ed.).]

plain when compared with another: and blind night shall not obliterate the path for thee, before thou hast thoroughly scanned the ultimate things of nature; so much will things throw light on things." [2] Nature is her own standard; and if she seems to us unnatural, there is no hope for our minds.

The ethics of Democritus, insofar as we may judge from scanty evidence, were merely descriptive or satirical. He was an aristocratic observer, a scorner of fools. Nature was laughing at us all; the wise man considered his fate and, by knowing it, raised himself in a measure above it. All living things pursued the greatest happiness they could see their way to; but they were marvellously shortsighted; and the business of the philosopher was to foresee and pursue the greatest happiness that was really possible. This, in so rough a world, was to be found chiefly in abstention and retrenchment. If you asked for little, it was more probable that the event would not disappoint you. It was important not to be a fool, but it was very hard.

The system of Democritus was adopted by Epicurus, but not because Epicurus had any keenness of scientific vision. On the contrary, Epicurus, the Herbert Spencer of antiquity, was in his natural philosophy an encyclopaedia of secondhand knowledge. Prolix and minute, vague and inconsistent, he gathered his scientific miscellany with an eye fixed not on nature, but on the exigencies of an inward faith—a faith accepted on moral grounds, deemed necessary to salvation, and defended at all costs with any available weapon. It is instructive that materialism should have been adopted at that juncture on the same irrelevant moral grounds on which it has usually been rejected.

Epicurus, strange as it may sound to those who have heard, with horror or envy, of wallowing in his sty, Epicurus was a saint. The ways of the world filled him with dismay. The Athens of his time, which some of us would give our eyes to see, retained all its splendor amid its political decay; but nothing there interested or pleased Epicurus. Theaters, porches, gymnasiums, and above all the agora, reeked, to his sense, with vanity and folly. Retired in his private garden, with a few friends and disciples, he sought the ways of peace; he lived abstemiously; he spoke gently; he gave alms to the poor; he preached against wealth, against ambition, against passion. He defended free will because he wished to exercise it in withdrawing from the world, and in not swimming with the current. He denied the supernatural, since belief in it would have a

2. *Ibid.,* I. 1115–18. [Cf. *Great Books of the Western World* (Ed.).]

disquieting influence on the mind, and render too many things compulsory and momentous. There was no future life: the art of living wisely must not be distorted by such wild imaginings.

All things happened in due course of nature; the gods were too remote and too happy, secluded like good Epicureans, to meddle with earthly things. Nothing ruffled what Wordsworth calls their "voluptuous unconcern." Nevertheless, it was pleasant to frequent their temples. There, as in the spaces where they dwelt between the worlds, the gods were silent and beautiful, and wore the human form. Their statues, when an unhappy man gazed at them, reminded him of happiness; he was refreshed and weaned for a moment from the senseless tumult of human affairs. From those groves and hallowed sanctuaries the philosopher returned to his garden strengthened in his wisdom, happier in his isolation, more friendly and more indifferent to all the world. Thus the life of Epicurus, as St. Jerome bears witness, was "full of herbs, fruits, and abstinences." There was a hush in it, as of bereavement. His was a philosophy of the decadence, a philosophy of negation, and of flight from the world.

Although science for its own sake could not interest so monkish a nature, yet science might be useful in buttressing the faith, or in removing objections to it. Epicurus therefore departed from the reserve of Socrates, and looked for a natural philosophy that might support his ethics. Of all the systems extant—and they were legion—he found that of Democritus the most helpful and edifying. Better than any other it would persuade men to renounce the madness that must be renounced and to enjoy the pleasures that may be enjoyed. But, since it was adopted on these external and pragmatic grounds, the system of Democritus did not need to be adopted entire. In fact, one change at least was imperative. The motion of the atoms must not be wholly regular and mechanical. Chance must be admitted, that Fate might be removed. Fate was a terrifying notion. It was spoken of by the people with superstitious unction. Chance was something humbler, more congenial to the man in the street. If only the atoms were allowed to deflect a little now and then from their courses, the future might remain unpredictable, and free will might be saved. Therefore, Epicurus decreed that the atoms deflected, and fantastic arguments were added to show that this intrusion of chance would aid in the organization of nature; for the declension of the atoms, as it is called, would explain how the original parallel downpour of them might have yielded to vortexes, and so to organized bodies. Let us pass on.

Materialism, like any system of natural philosophy, carries with it no

commandments and no advice. It merely describes the world, including the aspirations and consciences of mortals, and refers all to a material ground. The materialist, being a man, will not fail to have preferences, and even a conscience, of his own; but his precepts and policy will express, not the logical implications of his science, but his human instincts, as inheritance and experience may have shaped them. Any system of ethics might accordingly coexist with materialism; for if materialism declares certain things (like immortality) to be impossible, it cannot declare them to be undesirable. Nevertheless, it is not likely that a man so constituted as to embrace materialism will be so constituted as to pursue things which he considers unattainable. There is therefore a psychological, though no logical, bond between materialism and a homely morality.

The materialist is primarily an observer; and he will probably be such in ethics also; that is, he will have no ethics, except the emotion produced upon him by the march of the world. If he is an *esprit fort* and really disinterested, he will love life; as we all love perfect vitality, or what strikes us as such, in gulls and porpoises. This, I think, is the ethical sentiment psychologically consonant with a vigorous materialism: sympathy with the movement of things, interest in the rising wave, delight at the foam it bursts into, before it sinks again. Nature does not distinguish the better from the worse, but the lover of nature does. He calls better what, being analogous to his own life, enhances his vitality and probably possesses some vitality of its own. This is the ethical feeling of Spinoza, the greatest of modern naturalists in philosophy; and we shall see how Lucretius, in spite of his fidelity to the ascetic Epicurus, is carried by his poetic ecstasy in the same direction.

But mark the crux of this union: the materialist will love the life of nature when he loves his own life; but if he should hate his own life, how should the life of nature please him? Now Epicurus, for the most part, hated life. His moral system, called hedonism, recommends that sort of pleasure which has no excitement and no risk about it. This ideal is modest, and even chaste, but it is not vital. Epicurus was remarkable for his mercy, his friendliness, his utter horror of war, of sacrifice, of suffering. These are not sentiments that a genuine naturalist would be apt to share. Pity and repentance, Spinoza said, were vain and evil; what increased a man's power and his joy increased his goodness also. The naturalist will believe in a certain hardness, as Nietzsche did; he will incline to a certain scorn, as the laughter of Democritus was scornful. He will not count too scrupulously the cost of what he achieves; he will be an imperialist, rapt in the joy of achieving something. In a word, the moral hue of materialism in a formative age, or in an aggressive mind, would be aristocratic and

imaginative; but in a decadent age, or in a soul that is renouncing everything, it would be, as in Epicurus, humanitarian and timidly sensual.

We have now before us the antecedents and components of Lucretius' poem on nature. There remains the genius of the poet himself. The greatest thing about this genius is its power of losing itself in its object, its impersonality. We seem to be reading not the poetry of a poet about things, but the poetry of things themselves. That things have their poetry, not because of what we make them symbols of, but because of their own movement and life, is what Lucretius proves once for all to mankind.

Of course, the poetry we see in nature is due to the emotion the spectacle produces in us; the life of nature might be as romantic and sublime as it chose, it would be dust and ashes to us if there were nothing sublime and romantic in ourselves to be stirred by it to sympathy. But our emotion may be ingenuous; it may be concerned with what nature really is and does, has been and will do forever. It need not arise from a selfish preoccupation with what these immense realities involve for our own persons or may be used to suggest to our self-indulgent fancy. No, the poetry of nature may be discerned merely by the power of intuition which it awakens and the understanding which it employs. These faculties, more, I should say, than our moodiness or stuffy dreams, draw taut the strings of the soul, and bring out her full vitality and music. Naturalism is a philosophy of observation, and of an imagination that extends the observable; all the sights and sounds of nature enter into it, and lend it their directness, pungency, and coercive stress. At the same time, naturalism is an intellectual philosophy; it divines substance behind appearance, continuity behind change, law behind fortune. It therefore attaches all those sights and sounds to a hidden background that connects and explains them. So understood, nature has depth as well as surface, force and necessity as well as sensuous variety. Before the sublimity of this insight, all forms of the pathetic fallacy seem cheap and artificial. Mythology, that to a childish mind is the only possible poetry, sounds like bad rhetoric in comparison. The naturalistic poet abandons fairy land, because he has discovered nature, history, the actual passions of man. His imagination has reached maturity; its pleasure is to dominate, not to play.

Poetic dominion over things as they are is seen best in Shakespeare for the ways of men, and in Lucretius for the ways of nature. Unapproachably vivid, relentless, direct in detail, he is unflinchingly grand and serious in his grouping of the facts. It is the truth that absorbs him and carries him along. He wishes us to be convinced and sobered by the fact, by the overwhelming evidence of thing after thing, raining down upon us, all bearing witness with one voice to the nature of the world.

Suppose, however—and it is a tenable supposition—that Lucretius is quite wrong in his science, and that there is no space, no substance, and no nature. His poem would then lose its pertinence to our lives and personal convictions; it would not lose its imaginative grandeur. We could still conceive a world composed as he describes. Fancy what emotions those who lived in such a world would have felt on the day when a Democritus or a Lucretius revealed to them their actual situation. How great the blindness or the madness dissipated, and how wonderful the vision gained! How clear the future, how intelligible the past, how marvelous the swarming atoms, in their unintentional, perpetual fertility! What the sky is to our eyes on a starry night, that every nook and cranny of nature would resemble, with here and there the tentative smile of life playing about those constellations. Surely that universe, for those who lived in it, would have had its poetry. It would have been the poetry of naturalism. Lucretius, thinking he lived in such a world, heard the music of it, and wrote it down.

And yet, when he set himself to make his poem out of the system of Epicurus, the greatness of that task seems to have overwhelmed him. He was to unfold for the first time, in sonorous but unwieldy Latin, the birth and nature of all things, as Greek subtlety had discerned them. He was to dispel superstition, to refute antagonists, to lay the sure foundations of science and of wisdom, to summon mankind compellingly from its cruel passions and follies to a life of simplicity and peace. He was himself combative and distracted enough—as it is often our troubles, more than our attainments, that determine our ideals. Yet in heralding the advent of human happiness, and in painting that of the gods, he was to attain his own, soaring upon the strong wings of his hexameters into an ecstasy of contemplation and enthusiasm. When it is so great an emotion to read these verses, what must it have been to compose them? Yet could he succeed? Could such great things fall to his lot? Yes, they might, if only the creative forces of nature, always infinite and always at hand, could pass into his brain and into his spirit; if only the seeds of corruption and madness, which were always coursing through the air, could be blown back for a moment; and if the din of civil conflicts could be suspended while he thought and wrote. To a fortunate conjunction of atoms, a child owes his first being. To a propitious season and atmosphere, a poet owes his inspiration and his success. Conscious that his undertaking hangs upon these chance conjunctions, Lucretius begins by invoking the powers he is about to describe, that they may give him breath and genius enough to describe them. And at once these powers send him a happy inspiration,

perhaps a happy reminiscence of Empedocles. There are two great perspectives which the moralist may distinguish in the universal drift of atoms—a creative movement, producing what the moralist values, and a destructive movement, abolishing the same. Lucretius knows very well that this distinction is moral only, or as people now say, subjective. No one else has pointed out so often and so clearly as he that nothing arises in this world not helped to life by the death of some other thing;[3] so that the destructive movement creates and the creative movement destroys. Yet from the point of view of any particular life or interest, the distinction between a creative force and a destructive force is real and all-important. To make it is not to deny the mechanical structure of nature, but only to show how this mechanical structure is fruitful morally, how the outlying parts of it are friendly or hostile to me or to you, its local and living products.

This double coloring of things is supremely interesting to the philosopher; so much so that before his physical science has reached the mechanical stage, he will doubtless regard the double aspect which things present to him as a dual principle in these things themselves. So Empedocles had spoken of Love and Strife as two forces which respectively gathered and disrupted the elements, so as to carry on between them the Penelope's labor of the world, the one perpetually weaving fresh forms of life, and the other perpetually undoing them.[4]

It needed but a slight concession to traditional rhetoric in order to exchange these names, Love and Strife, which designated divine powers in Empedocles, into the names of Venus and Mars, which designated the same influences in Roman mythology. The Mars and Venus of Lucretius are not moral forces, incompatible with the mechanism of atoms; they are this mechanism itself, insofar as it now produces and now destroys life, or any precious enterprise, like this of Lucretius in composing his saving poem. Mars and Venus, linked in each other's arms, rule the universe together; nothing arises save by the death of some other thing. Yet when what arises is happier in itself, or more congenial to us, than what is destroyed, the poet says that Venus prevails, that she woos her captive lover to suspend his unprofitable raging. At such times it is spring on earth; the storms recede (I paraphrase the opening passage),[5] the fields are covered with flowers, the sunshine floods the serene sky, and all the

3. Lucretius, I. 264, 265. [Cf. *Great Books of the Western World* (Ed.).]
4. An excellent expression of this view is put by Plato into the mouth of the physician Eryximachus in the *Symposium*. [See *Great Books of the Western World* (Ed.).]
5. Lucretius, I. 1–13. [Cf. *Great Books of the Western World* (Ed.).]

tribes of animals feel the mighty impulse of Venus in their hearts. The corn ripens in the plains, and even the sea bears in safety the fleets that traverse it.

Not least, however, of these works of Venus is the Roman people. Never was the formative power of nature better illustrated than in the vitality of this race, which conquered so many other races, or than in its assimilative power, which civilized and pacified them. Legend had made Venus the mother of Aeneas, and Aeneas the progenitor of the Romans. Lucretius seizes on this happy accident and identifies the Venus of fable with the true Venus, the propitious power in all nature, of which Rome was indeed a crowning work. But the poet's work, also, if it is to be accomplished worthily, must look to the same propitious movement for its happy issue and for its power to persuade. Venus must be the patron of his art and philosophy. She must keep Memmius from the wars, that he may read, and be weaned from frivolous ambitions; and she must stop the tumult of constant sedition, that Lucretius may lend his undivided mind to the precepts of Epicurus, and his whole heart to a sublime friendship, which prompts him to devote to intense study all the watches of the starry night, plotting the course of each invisible atom, and mounting almost to the seat of the gods.[6]

This impersonation in the figure of Venus of whatever makes for life would not be legitimate—it would really contradict a mechanical view of nature—if it were not balanced by a figure representing the opposite tendency, the no less universal tendency towards death.

The Mars of the opening passage, subdued for a moment by the blandishments of love, is raging in all the rest of the poem in his irrepressible fury. These are the two sides of every transmutation, that in creating, one thing destroys another; and this transmutation being perpetual—nothing being durable except the void, the atoms, and their motion—it follows that the tendency towards death is, for any particular thing, the final and victorious tendency. The names of Venus and Mars, not being essential to the poet's thought, are allowed to drop out, and the actual processes they stand for are described nakedly; yet, if the poem had ever been finished, and Lucretius had wished to make the end chime with the beginning, and represent, as it were, one great cycle of the world, it is conceivable that he might have placed at the close a mythical passage to match that at the beginning; and we might have seen Mars aroused from his luxurious lethargy, reasserting his immortal nature, and rushing, firebrand in hand,

6. Lucretius, I. 24, 28–30, 41–43, 140–44. [Cf. *Great Books of the Western World* (Ed.).]

from the palace of love to spread destruction throughout the universe, till all things should burn fiercely, and be consumed together. Yet not quite all; for the goddess herself would remain, more divine and desirable than ever in her averted beauty. Instinctively into her bosom the God of War would sink again, when weary and drunk with slaughter; and a new world would arise from the scattered atoms of the old.

These endless revolutions, taken in themselves, exactly balance; and I am not sure that, impartially considered, it is any sadder that new worlds should arise than that this world should always continue. Besides, nature cannot take from us more than she has given, and it would be captious and thankless in us to think of her as destructive only, or destructive essentially, after the unspeculative fashion of modern pessimists. She destroys to create, and creates to destroy, her interest (if we may express it so) being not in particular things, nor in their continuance, but solely in the movement that underlies them, in the flux of substance beneath. Life, however, belongs to form, and not to matter; or in the language of Lucretius, life is an *eventum*, a redundant ideal product or incidental aspect, involved in the equilibration of matter; as the throw of sixes is an *eventum*, a redundant ideal product or incidental aspect, occasionally involved in shaking a dicebox. Yet, as this throw makes the acme and best possible issue of a game of dice, so life is the acme and best possible issue of the dance of atoms; and it is from the point of view of this *eventum* that the whole process is viewed by us, and is judged. Not until that happy chance has taken place, do we exist morally, or can we reflect or judge at all. The philosopher is at the top of the wave, he is the foam in the rolling tempest; and as the wave must have risen before he bursts into being, all that he lives to witness is the fall of the wave. The decadence of all he lives by is the only prospect before him; his whole philosophy must be a prophecy of death. Of the life that may come after, when the atoms come together again, he can imagine nothing; the life he knows and shares, all that is life to him, is waning and almost spent.

Therefore Lucretius, who is nothing if not honest, is possessed by a profound melancholy. Vigorous and throbbing as are his pictures of spring, of love, of ambition, of budding culture, of intellectual victory, they pale before the vivid strokes with which he paints the approach of death—fatigue of the will, lassitude in pleasure, corruption and disintegration in society, the soil exhausted, the wild animals tamed or exterminated, poverty, pestilence, and famine at hand; and for the individual, almost at once, the final dissipation of the atoms of his soul, escaping from a relaxed body, to mingle and lose themselves in the universal flaw. Nothing comes

out of nothing, nothing falls back into nothing, if we consider substance; but everything comes from nothing and falls back into nothing if we consider things—the objects of love and experience. Time can make no impression on the void or on the atoms; nay, time is itself an *eventum* created by the motion of atoms in the void; but the triumph of time is absolute over persons, and nations, and worlds.[7]

In treating of the soul and of immortality Lucretius is an imperfect psychologist and an arbitrary moralist. His zeal to prove that the soul is mortal is inspired by the wish to dispel all fear of future punishments, and so to liberate the mind for the calm and tepid enjoyment of this world. There is something to be gained in this direction, undoubtedly, especially if tales about divine vengeance to come are used to sanction irrational practices, and to prevent poor people from improving their lot. At the same time, it is hardly fair to assume that hell is the only prospect which immortality could possibly open to any of us; and it is also unfair not to observe that the punishments which religious fables threaten the dead with are, for the most part, symbols for the actual degradation which evil-doing brings upon the living; so that the fear of hell is not more deterrent or repressive than experience of life would be if it were clearly brought before the mind.

There is another element in this polemic against immortality which, while highly interesting and characteristic of a decadent age, betrays a very one-sided and, at bottom, untenable ideal. This element is the fear of life. Epicurus had been a pure and tender moralist, but pusillanimous. He was so afraid of hurting and of being hurt, so afraid of running risks or tempting fortune, that he wished to prove that human life was a brief business, not subject to any great transformations, nor capable of any great achievements. He taught accordingly that the atoms had produced already all the animals they could produce, for though infinite in number the atoms were of few kinds. Consequently the possible sorts of being were finite and soon exhausted; this world, though on the eve of destruction, was of recent date. The worlds around it, or to be produced in future, could not afford anything essentially different. All the suns were much alike, and there was nothing new under them. We need not, then, fear the world; it is an explored and domestic scene—a home, a little garden, six feet of earth for a man to stretch in. If people rage and make a great noise, it is not because there is much to win, or much to fear, but because people are mad. Let me not be mad, thought Epicurus; let me be

7. Lucretius, II. 1139–41, 1148–49, 1164–74. [Cf. *Great Books of the Western World* (Ed.).]

reasonable, cultivating sentiments appropriate to a mortal who inhabits a world morally comfortable and small, and physically poor in its infinite monotony. The well-known lines of Fitzgerald echo this sentiment perfectly:

> A Book of Verses underneath the Bough,
> A Jug of Wine, a Loaf of Bread—and Thou
> Beside me singing in the Wilderness—
> Oh, Wilderness were Paradise enow!

But what if the shadow of incalculable possibilities should fall across this sunny retreat? What if after death we should awake in a world to which the atomic philosophy might not in the least apply? Observe that this suggestion is not in the least opposed to any of the arguments by which science might prove the atomic theory to be correct. All that Epicurus taught about the universe now before us might be perfectly true of it; but what if tomorrow a new universe should have taken its place? The suggestion is doubtless gratuitous, and no busy man will be much troubled by it; yet when the heart is empty it fills itself with such attenuated dreams. The muffled pleasures of the wise man, as Epicurus conceived him, were really a provocation to supernaturalism. They left a great void; and before long supernaturalism—we shall see it in Dante—actually rushed in to quicken the pulses of life with fresh hopes and illusions, or at least (what may seem better than nothing) with terrors and fanatical zeal. With such tendencies already afoot as the myths and dogmas of Plato had betrayed, it was imperative for Epicurus to banish anxiously all thought of what might follow death. To this end are all his arguments about the material nature of the soul and her incapacity to survive the body.

To say that the soul is material has a strange and barbarous sound to modern ears. We live after Descartes, who taught the world that the essence of the soul was consciousness; and to call consciousness material would be to talk of the blackness of white. But ancient usage gave the word soul a rather different meaning. The essence of the soul was not so much to be conscious as to govern the formation of the body, to warm, move, and guide it. And if we think of the soul exclusively in this light, it will not seem a paradox, it may even seem a truism, to say that the soul must be material. For how are we to conceive that pre-existing consciousness should govern the formation of the body, move, warm, or guide it? A spirit capable of such a miracle would in any case not be human, but altogether divine. The soul that Lucretius calls material should not, then, be identified with consciousness, but with the ground of consciousness,

which is at the same time the cause of life in the body. This he conceives to be a swarm of very small and volatile atoms, a sort of ether, resident in all living seeds, breathed in abundantly during life and breathed out at death.

Even if this theory were accepted, however, it would not prove the point which Lucretius has chiefly at heart, namely, that an afterlife is impossible. The atoms of the soul are indestructible, like all atoms; and if consciousness were attached to the fortunes of a small group of them, or of one only (as Leibniz afterwards taught), consciousness would continue to exist after these atoms had escaped from the body and were shooting through new fields of space. Indeed, they might be the more aroused by that adventure, as a bee might find the sky or the garden more exciting than the hive. All that Lucretius urges about the divisibility of the soul, its diffused bodily seat, and the perils it would meet outside fails to remove the ominous possibility that troubles him.

To convince us that we perish at death he has to rely on vulgar experience and inherent probability: what changes is not indestructible; what begins, ends; mental growth, health, sanity accompany the fortunes of the body as a whole (not demonstrably those of the soul-atoms); the passions are relevant to bodily life and to an earthly situation; we should not be ourselves under a different mask or in a new setting; we remember no previous existence if we had one, and so, in a future existence, we should not remember this. These reflections are impressive, and they are enforced by Lucretius with his usual vividness and smack of reality. Nothing is proved scientifically by such a deliverance, yet it is good philosophy and good poetry; it brings much experience together and passes a loftly judgment upon it. The artist has his eye on the model; he is painting death to the life.

If these considerations succeed in banishing the dread of an afterlife, there remains the distress which many feel at the idea of extinction; and if we have ceased to fear death, like Hamlet, for the dreams that may come after it, we may still fear death instinctively, like a stuck pig. Against this instinctive horror of dying Lucretius has many brave arguments. Fools, he says to us, why do you fear what never can touch you? While you still live, death is absent; and when you are dead, you are so dead that you cannot know you are dead, nor regret it. You will be as much at ease as before you were born. Or is what troubles you the childish fear of being cold in the earth, or feeling its weight stifling you? But you will not be there; the atoms of your soul–themselves unconscious–will be dancing in some sunbeam far away, and you yourself will be nowhere; you will

absolutely not exist. Death is by definition a state that excludes experience. If you fear it, you fear a word.

To all this, perhaps, Memmius, or some other recalcitrant reader, might retort that what he shrank from was not the metaphysical state of being dead, but the very real agony of dying. Dying is something ghastly, as being born is something ridiculous; and, even if no pain were involved in quitting or entering this world, we might still say what Dante's Francesca says of it: *Il modo ancor m' offende*–"I shudder at the way of it." Lucretius, for his part, makes no attempt to show that everything is as it should be; and if our way of coming into this life is ignoble, and our way of leaving it pitiful, that is no fault of his nor of his philosophy. If the fear of death were merely the fear of dying, it would be better dealt with by medicine than by argument. There is, or there might be, an art of dying well, of dying painlessly, willingly, and in season–as in those noble partings which Attic gravestones depict–especially if we were allowed, as Lucretius would allow us, to choose our own time.

But the radical fear of death, I venture to think, is something quite different. It is the love of life. Epicurus, who feared life, seems to have missed here the primordial and colossal force he was fighting against. Had he perceived that force, he would have been obliged to meet it in a more radical way, by an enveloping movement, as it were, and an attack from the rear. The love of life is not something rational, or founded on experience of life. It is something antecedent and spontaneous. It is that Venus Genetrix which covers the earth with its flora and fauna. It teaches every animal to seek its food and its mate, and to protect its offspring; as also to resist or fly from all injury to the body, and most of all from threatened death. It is the original impulse by which good is discriminated from evil, and hope from fear.

Nothing could be more futile, therefore, than to marshal arguments against that fear of death which is merely another name for the energy of life, or the tendency to self-preservation. Arguments involve premises, and these premises, in the given case, express some particular form of the love of life; whence it is impossible to conclude that death is in no degree evil and not at all to be feared. For what is most dreaded is not the agony of dying, nor yet the strange impossibility that when we do not exist we should suffer for not existing. What is dreaded is the defeat of a present will directed upon life and its various undertakings. Such a present will cannot be argued away, but it may be weakened by contradictions arising within it, by the irony of experience, or by ascetic discipline. To introduce ascetic discipline, to bring out the irony of experience, to expose the

self-contradictions of the will, would be the true means of mitigating the love of life; and if the love of life were extinguished, the fear of death, like smoke rising from that fire, would have vanished also.

Indeed, the force of the great passage against the fear of death, at the end of the third book of Lucretius, comes chiefly from the picture it draws of the madness of life. His philosophy deprecates covetousness, ambition, love, and religion; it takes a long step towards the surrender of life, by surrendering all in life that is ardent, on the ground that it is painful in the end and ignominious. To escape from it all is a great deliverance. And since genius must be ardent about something, Lucretius pours out his enthusiasm on Epicurus, who brought this deliverance and was the savior of mankind. Yet this was only a beginning of salvation, and the same principles carried further would have delivered us from the Epicurean life and what it retained that was Greek and naturalistic: science, friendship, and the healthy pleasures of the body. Had it renounced these things also, Epicureanism would have become altogether ascetic, a thorough system of mortification, or the pursuit of death. To those who sincerely pursue death, death is no evil, but the highest good. No need in that case of elaborate arguments to prove that death should not be feared, because it is nothing; for in spite of being nothing–or rather because it is nothing–death can be loved by a fatigued and disillusioned spirit, just as in spite of being nothing–or rather because it is nothing–it must be hated and feared by every vigorous animal.

One more point, and I have done with this subject. Ancient culture was rhetorical. It abounded in ideas that are verbally plausible, and pass muster in a public speech, but that, if we stop to criticize them, prove at once to be inexcusably false. One of these rhetorical fallacies is the maxim that men cannot live for what they cannot witness. What does it matter to you, we may say in debate, what happened before you were born, or what may go on after you are buried? And the orator who puts such a challenge may carry the audience with him, and raise a laugh at the expense of human sincerity. Yet the very men who applaud are proud of their ancestors, care for the future of their children, and are very much interested in securing legally the execution of their last will and testament. What may go on after their death concerns them deeply, not because they expect to watch the event from hell or heaven, but because they are interested ideally in what that event shall be, although they are never to witness it. Lucretius himself, in his sympathy with nature, in his zeal for human enlightenment, in his tears for Iphigenia, long since dead, is not moved by the hope of observing, or the memory of having observed, what excites his

emotion. He forgets himself. He sees the whole universe spread out in its true movement and proportions; he sees mankind freed from the incubus of superstition, and from the havoc of passion. The vision kindles his enthusiasm, exalts his imagination, and swells his verse into unmistakable earnestness.

If we follow Lucretius, therefore, in narrowing the sum of our personal fortunes to one brief and partial glimpse of earth, we must not suppose that we need narrow at all the sphere of our moral interests. On the contrary, just in proportion as we despise superstitious terrors and sentimental hopes, and as our imagination becomes self-forgetful, we shall strengthen the direct and primitive concern which we feel in the world and in what may go on there, before us, after us, or beyond our ken. If, like Lucretius and every philosophical poet, we range over all time and all existence, we shall forget our own persons, as he did, and even wish them to be forgotten, if only the things we care for may subsist or arise. He who truly loves God, says Spinoza, cannot wish that God should love him in return. One who lives the life of the universe cannot be much concerned for his own. After all, the life of the universe is but the locus and extension of ours. The atoms that have once served to produce life remain fit to reproduce it; and although the body they might animate later would be a new one, and would have a somewhat different career, it would not, according to Lucretius, be of a totally new species; perhaps not more unlike ourselves than we are unlike one another, or than each of us is unlike himself at the various stages of his life.

The soul of nature, in the elements of it, is then, according to Lucretius, actually immortal; only the human individuality, the chance composition of those elements, is transitory; so that, if a man could care for what happens to other men, for what befell him when young or what may overtake him when old, he might perfectly well care, on the same imaginative principle, for what may go on in the world forever. The finitude and injustice of his personal life would be broken down; the illusion of selfishness would be dissipated; and he might say to himself, I have imagination, and nothing that is real is alien to me.

The word nature has many senses; but if we preserve the one which etymology justifies, and which is the most philosophical as well, nature should mean the principle of birth or genesis, the universal mother, the great cause, or system of causes, that brings phenomena to light. If we take the word nature in this sense, it may be said that Lucretius, more than any other man, is the poet of nature. Of course, being an ancient, he is not particularly a poet of landscape. He runs deeper than that; he is a

poet of the source of landscape, a poet of matter. A poet of landscape might try to suggest, by well-chosen words, the sensations of light, movement, and form which nature arouses in us; but in this attempt he would encounter the insuperable difficulty which Lessing long ago pointed out, and warned poets of: I mean the unfitness of language to render what is spatial and material; its fitness to render only what, like language itself, is bodiless and flowing–action, feeling, and thought.

It is noticeable, accordingly, that poets who are fascinated by pure sense and seek to write poems about it are called not impressionists, but symbolists; for in trying to render some absolute sensation they render rather the field of association in which that sensation lies, or the emotions and half-thoughts that shoot and play about it in their fancy. They become–against their will, perhaps–psychological poets, ringers of mental chimes, and listeners for the chance overtones of consciousness. Hence we call them symbolists, mixing perhaps some shade of disparagement in the term, as if they were symbolists of an empty, supersubtle, or fatuous sort. For they play with things luxuriously, making them symbols for their thoughts, instead of mending their thoughts intelligently, to render them symbols for things.

A poet might be a symbolist in another sense–if he broke up nature, the object suggested by landscape to the mind, and reverted to the elements of landscape, not in order to associate these sensations lazily together, but in order to build out of them in fancy a different nature, a better world, than that which they reveal to reason. The elements of landscape, chosen, emphasized, and recombined for this purpose, would then be symbols for the ideal world they were made to suggest, and for the ideal life that might be led in that paradise. Shelley is a symbolic landscape poet in this sense. To Shelley, as Francis Thompson has said, nature was a toyshop; his fancy took the materials of the landscape and wove them into a gossamer world, a bright ethereal habitation for newborn irresponsible spirits. Shelley was the musician of landscape; he traced out its unrealized suggestions; transformed the things he saw into the things he would fain have seen. In this idealization it was spirit that guided him, the bent of his wild and exquisite imagination, and he fancied sometimes that the grosser landscapes of earth were likewise the work of some half-spiritual stress, of some restlessly dreaming power. In this sense, earthly landscape seemed to him the symbol of the earth spirit, as the starlit crystal landscapes of his verse, with their pensive flowers, were symbols in which his own fevered spirit was expressed, images in which his passion rested.

Another sort of landscape poetry is to be found in Wordsworth, for

whom the title of poet of nature might perhaps be claimed. To him the landscape is an influence. What he renders, beyond such pictorial touches as language is capable of, is the moral inspiration which the scene brings to him. This moral inspiration is not drawn at all from the real processes of nature which every landscape manifests in some aspect and for one moment. Such would have been the method of Lucretius; he would have passed imaginatively from the landscape to the sources of the landscape; he would have disclosed the poetry of matter, not of spirit. Wordsworth, on the contrary, dwells on adventitious human matters. He is no poet of genesis, evolution, and natural force in its myriad manifestations. Only a part of the cosmic process engages his interest, or touches his soul—the strengthening or chastening of human purposes by the influences of landscape. These influences are very real; for as food or wine keeps the animal heart beating, or quickens it, so large spaces of calm sky, or mountains, or dells, or solitary stretches of water, expand the breast, disperse the obsessions that cramp a man's daily existence, and even if he be less contemplative and less virtuous than Wordsworth, make him, for the moment, a friend to all things, and a friend to himself.

Yet these influences are vague and for the most part fleeting. Wordsworth would hardly have felt them so distinctly and so constantly had he not found a further link to bind landscape to moral sentiment. Such a link exists. The landscape is the scene of human life. Every spot, every season, is associated with the sort of existence which falls to men in that environment. Landscape for Wordsworth's age and in his country was seldom without figures. At least, some visible trace of man guided the poet and set the key for his moral meditation. Country life was no less dear to Wordsworth than landscape was; it fitted into every picture; and while the march of things, as Lucretius conceived it, was not present to Wordsworth's imagination, the revolutions of society—the French Revolution, for instance—were constantly in his thoughts. Insofar as he was a poet of human life, Wordsworth was truly a poet of nature. Insofar, however, as he was a poet of landscape, he was still fundamentally a poet of human life, or merely of his personal experience. When he talked of nature he was generally moralizing, and altogether subject to the pathetic fallacy; but when he talked of man, or of himself, he was unfolding a part of nature, the upright human heart, and studying it in its truth.

Lucretius, a poet of universal nature, studied everything in its truth. Even moral life, though he felt it much more narrowly and coldly than Wordsworth did, was better understood and better sung by him for being seen in its natural setting. It is a fault of idealists to misrepresent idealism,

because they do not view it as a part of the world. Idealism *is* a part of the world, a small and dependent part of it. It is a small and dependent part even in the life of men. This fact is nothing against idealism taken as a moral energy, as a faculty of idealization and a habit of living in the familiar presence of an image of what would, in everything, be best. But it is the ruin of idealism taken as a view of the central and universal power in the world. For this reason Lucretius, who sees human life and human idealism in their natural setting, has a saner and maturer view of both than has Wordsworth, for all his greater refinement. Nature, for the Latin poet, is really nature. He loves and fears her, as she deserves to be loved and feared by her creatures. Whether it be a wind blowing, a torrent rushing, a lamb bleating, the magic of love, genius achieving its purpose, or a war, or a pestilence, Lucretius sees everything in its causes, and in its total career. One breath of lavish creation, one iron law of change, runs through the whole, making all things kin in their inmost elements and in their last end. Here is the touch of nature indeed, her largeness and eternity. Here is the true echo of the life of matter.

Any comprehensive picture of nature and destiny, if the picture be credited, must arouse emotion, and in a reflective and vivid mind must inspire poetry–for what is poetry but emotion, fixing and coloring the objects from which it springs? The sublime poem of Lucretius, expounding the least poetical of philosophies, proves this point beyond a doubt. Yet Lucretius was far from exhausting the inspiration which a poet might draw from materialism. In the philosophy of Epicurus, even, which had but a sickly hold on materialism, there were two strains which Lucretius did not take up, and which are naturally rich in poetry, the strain of piety and the strain of friendship. It is usual and, in one sense, legitimate to speak of the Epicureans as atheists, since they denied providence and any government of God in the world. Yet they admitted the existence of gods, living in the quiet spaces between those celestial whirlpools which form the various worlds. To these gods they attributed the human form, and the serene life to which Epicurus aspired. Epicurus himself was so sincere in this belief, and so much affected by it, that he used to frequent the temples, keep the feasts of the gods, and often spend hours before their images in contemplation and prayer.

In this, as in much else, Epicurus was carrying out to its logical conclusion the rational and reforming essence of Hellenism. In Greek religion, as in all other religions, there was a background of vulgar superstitions. Survivals and revivals of totem worship, taboo, magic, ritual barter, and objectified rhetoric are to be found in it to the very end; yet if we consider

in Greek religion its characteristic tendency, and what rendered it distinctively Greek, we see that it was its unprecedented ideality, disinterestedness, and aestheticism. To the Greek, insofar as he was a Greek, religion was an aspiration to grow like the gods by invoking their companionship, rehearsing their story, feeling vicariously the glow of their splendid prerogatives, and placing them, in the form of beautiful and very human statues, constantly before his eyes. This sympathetic interest in the immortals took the place, in the typical Greek mind, of any vivid hope of human immortality; perhaps it made such a hope seem superfluous and inappropriate. Mortality belonged to man, as immortality to the gods; and the one was the complement of the other. Imagine a poet who, to the freedom and simplicity of Homer, should have added the more reverent idealism of a later age; and what an inexhaustible fund of poetry might he not have found in this conception of the immortals leading a human life, without its sordid contrarieties and limitations, eternally young, and frank, and different!

Hints of such poetry are to be found in Plato, myths that present the ideal suggestions of human life in pictures. These he sometimes leaves general and pale, calling them ideas; but at other times he embodies them in deities, or in detailed imaginary constructions, like that of his *Republic*. This Platonic habit of mind might have been carried further by some franker and less reactionary poet than Plato was, or tended to become, as the years turned his wine into vinegar. But the whole world was then getting sour. Imagination flagged, or was diverted from the Greek into the Hebrew channel. Nevertheless, the hymns of modern poets to the ancient gods, and the irrepressible echoes of classic mythology in our literature, show how easy it would have been for the later ancients themselves, had they chosen, to make immortal poetry out of their dying superstitions. The denials of Epicurus do not exclude this ideal use of religion; on the contrary, by excluding all the other uses of it—the commercial, the mock scientific, and the selfish—they leave the moral interpretative aspect of religion standing alone, ready to the poet's hand, if any poet could be found pure and fertile enough to catch and to render it. Rationalized paganism might have had its Dante, a Dante who should have been the pupil not of Virgil and Aquinas, but of Homer and Plato. Lucretius was too literal, positivistic, and insistent for such a delicate task. He was a Roman. Moral mythology and ideal piety, though his philosophy had room for them, formed no part of his poetry.

What the other neglected theme, friendship, might have supplied, we may see in the tone of another Epicurean, the poet Horace. Friendship

was highly honored in all ancient states; and the Epicurean philosophy, in banishing so many traditional forms of sentiment, could only intensify the emphasis on friendship. It taught men that they were an accident in the universe, comrades afloat on the same raft together with no fate not common to them all, and no possible helpers but one another. Lucretius does speak, in a passage to which I have already referred,[8] about the hope of sweet friendship that supports him in his labors; and elsewhere [9] he repeats the Epicurean idyl about picnicking together on the green grass by a flowing brook; but the little word "together" is all he vouchsafes us to mark what must be the chief ingredient in such rural happiness.

Horace, usually so much slighter than Lucretius, is less cursory here. Not only does he strike much oftener the note of friendship, but his whole mind and temper breathe of friendliness and expected agreement. There is, in the very charm and artifice of his lines, a sort of confidential joy in tasting with the kindred few the sweet or pungent savor of human things. To be brief and gently ironical is to assume mutual intelligence; and to assume mutual intelligence is to believe in friendship. In Lucretius, on the other hand, zeal is mightier than sympathy, and scorn mightier than humor. Perhaps it would be asking too much of his uncompromising fervor that he should have unbent now and then and shown us in some detail what those pleasures of life may be which are without care and fear. Yet, if it were impossible for him not to be always serious and austere, he might at least have noted the melancholy of friendship–for friendship, where nature has made minds isolated and bodies mortal, is rich also in melancholy. This again we may find in Horace, where once or twice he lets the "something bitter" bubble up from the heart even of this flower, when he feels a vague need that survives satiety, and yearns perversely for the impossible.[10] Poor Epicureans, when they could not learn, like their master, to be saints!

So far the decadent materialism of Epicurus might have carried a poet; but a materialist in our days might find many other poetic themes to weave into his system. To the picture which Lucretius sketches of primitive civilization, we might add the whole history of mankind. To a consistent and vigorous materialism all personal and national dramas, with the beauties of all the arts, are no less natural and interesting than are flowers or animal bodies. The moral pageantry of this world, surveyed scientifically, is calculated wonderfully to strengthen and refine the philosophy of

8. Cf. page 375.
9. Lucretius, II. 29–33. [Cf. *Great Books of the Western World* (Ed.).]
10. Horace, *Odes*, IV. 1.

abstention suggested to Epicurus by the flux of material things and by the illusions of vulgar passion. Lucretius studies superstition, but only as an enemy; and the naturalistic poet should be the enemy of nothing. His animus blinds him to half the object, to its more beautiful half, and makes us distrust his version of the meaner half he is aware of. Seen in its totality, and surrounded by all the other products of human imagination, superstition is not only moving in itself, a capital subject for tragedy and for comedy, but it reinforces the materialistic way of thinking, and shows that it may be extended to the most complex and emotional spheres of existence. At the same time, a naturalism extended impartially over moral facts brings home a lesson of tolerance, scepticism, and independence which, without contradicting Epicurean principles, would very much enlarge and transform Epicurean sentiment. History would have opened to the Epicurean poet a new dimension of nature and a more varied spectacle of folly. His imagination would have been enriched and his maxims fortified.

The emotions which Lucretius associated with his atoms and void, with his religious denials and his abstentions from action, are emotions necessarily involved in life. They will exist in any case, though not necessarily associated with the doctrines by which this poet sought to clarify them. They will remain standing, whatever mechanism we put in the place of that which he believed in—that is, if we are serious, and not trying to escape from the facts rather than to explain them. If the ideas embodied in a philosophy represent a comprehensive survey of the facts, and a mature sentiment in the presence of them, any new ideas adopted instead will have to acquire the same values, and nothing will be changed morally except the language or euphony of the mind.

Of course one theory of the world must be true and the rest false, at least if the categories of any theory are applicable to reality; but the true theory like the false resides in imagination, and the truth of it which the poet grasps is its truth to life. If there are no atoms, at least there must be habits of nature, or laws of evolution, or dialectics of progress, or decrees of providence, or intrusions of chance; and before these equally external and groundless powers we must bow, as Lucretius bowed to his atoms. It will always be important and inevitable to recognize *something* external, something that generates or surrounds us; and perhaps the only difference between materialism and other systems in this respect is that materialism has studied more scrupulously the detail and method of our dependence.

Similarly, even if Lucretius were wrong, and the soul is immortal, it is

nevertheless steadily changing its interests and its possessions. Our lives are mortal if our soul is not; and the sentiment which reconciled Lucretius to death is as much needed if we are to face many deaths, as if we are to face only one. The gradual losing of what we have been and are, Emerson says:

> This losing is true dying;
> This is lordly man's down-lying,
> This his slow but sure reclining,
> Star by star his world resigning.

The maxim of Lucretius, that nothing arises save by the death of something else, meets us still in our crawling immortality. And his art of accepting and enjoying what the conditions of our being afford also has a perennial application. Dante, the poet of faith, will tell us that we must find our peace in the will that gives us our limited portion. Goethe, the poet of romantic experience, will tell us that we must renounce, renounce perpetually. Thus wisdom clothes the same moral truth in many cosmic parables. The doctrines of philosophers disagree where they are literal and arbitrary—mere guesses about the unknown; but they agree or complete one another where they are expressive or symbolic, thoughts wrung by experience from the hearts of poets. Then all philosophies alike are ways of meeting and recording the same flux of images, the same vicissitudes of good and evil, which will visit all generations, while man is man.

Goethe's Faust

In approaching the third of our philosophical poets, there is a scruple that may cross the mind. Lucretius was undoubtedly a philosophical poet; his whole poem is devoted to expounding and defending a system of philosophy. In Dante the case is almost as plain. The *Divine Comedy* is a moral and personal fable; yet not only are many passages explicitly philosophical, but the whole is inspired and controlled by the most definite of religious systems and of moral codes. Dante, too, is unmistakably a philosophical poet. But was Goethe a philosopher? And is *Faust* a philosophical poem?

If we say so, it must be by giving a certain latitude to our terms. Goethe was the wisest of mankind; too wise, perhaps, to be a philosopher in the technical sense, or to try to harness this wild world in a brain-spun terminology. It is true that he was all his life a follower of Spinoza, and that he may be termed, without hesitation, a naturalist in philosophy and a pantheist. His adherence to the general attitude of Spinoza, however, did not exclude a great plasticity and freedom in his own views, even on the most fundamental points. Thus Goethe did not admit the mechanical interpretation of nature advocated by Spinoza. He also assigned, at least to privileged souls like his own, a more personal sort of immortality than Spinoza allowed. Moreover, he harbored a generous sympathy with the dramatic explanations of nature and history current in the Germany of his day. Yet such transcendental idealism, making the world the expression of a spiritual endeavor, was a total reversal of that conviction, so profound in Spinoza, that all moral energies are resident in particular creatures, themselves sparks in an absolutely infinite and purposeless world. In a word, Goethe was not a systematic philosopher. His feeling for the march of things and for the significance of great personages and great ideas was indeed philosophical, although more romantic than scientific. His thoughts upon life were fresh and miscellaneous. They voiced the genius and learning of his age. They did not express a firm personal attitude, radical

and unified, and transmissible to other times and persons. For philosophers, after all, have this advantage over men of letters, that their minds, being more organic, can more easily propagate themselves. They scatter less influence, but more seeds.

If from Goethe we turn to *Faust*–and it is as the author of *Faust* only that we shall consider him–the situation is not less ambiguous. In the play, as the young Goethe first wrote it, philosophy appeared in the first line–*Hab nun ach die Philosophey* [I have (studied), alas, philosophy]; but it appeared there, and throughout the piece, merely as a human experience, a passion or an illusion, a fund of images or an ambitious art. Later, it is true, under the spell of fashion and of Schiller, Goethe surrounded his original scenes with others, like the prologue in heaven, or the apotheosis of Faust, in which a philosophy of life was indicated; namely, that he who strives strays, yet in that straying finds his salvation. This idea left standing all that satirical and Mephistophelian wisdom with which the whole poem abounds, the later parts no less than the earlier. Frankly, it was a moral that adorned the tale, without having been the seed of it, and without even expressing fairly the spirit which it breathes. *Faust* remained an essentially romantic poem, written to give vent to a pregnant and vivid genius, to touch the heart, to bewilder the mind with a carnival of images, to amuse, to thrill, to humanize; and, if we must speak of philosophy, there were many express maxims in the poem, and many insights, half betrayed, that exceeded in philosophic value the belated and official moral which the author affixed to it, and which he himself warned us not to take too seriously.

Faust is, then, no philosophical poem, after an open or deliberate fashion; and yet it offers a solution to the moral problem of existence as truly as do the poems of Lucretius and Dante. Heard philosophies are sweet, but those unheard may be sweeter. They may be more unmixed and more profound for being adopted unconsciously, for being lived rather than taught. This is not merely to say what might be said of every work of art and of every natural object, that it could be made the starting point for a chain of inferences that should reveal the whole universe, like the flower in the crannied wall. It is to say, rather, that the vital straining towards an ideal, definite but latent, when it dominates a whole life, may express that ideal more fully than could the best-chosen words.

Now *Faust* is the foam on the top of two great waves of human aspiration, merging and heaping themselves up together–the wave of romanticism rising from the depths of northern traditions and genius, and the wave of a new paganism coming from Greece over Italy. These are not

philosophies to be read into *Faust* by the critic; they are passions seething in the drama. It is the drama of a philosophical adventure; a rebellion against convention; a flight to nature, to tenderness, to beauty; and then a return to convention again, with a feeling that nature, tenderness, and beauty, unless found there, will not be found at all. Goethe never depicts, as Dante does, the object his hero is pursuing; he is satisfied with depicting the pursuit. Like Lessing, in his famous apologue, he prefers the pursuit of the ideal to the ideal itself; perhaps, as in the case of Lessing, because the hope of realizing the ideal, and the interest in realizing it, were beginning to forsake him.

The case is somewhat as that of Dante would have been if, instead of recognizing and loving Beatrice at first sight and rising into a vision of the eternal world, ready-made and perfectly ordered, Dante had passed from love to love, from *donna gentile* to *donna gentile*, always longing for the eyes of Beatrice without ever meeting them. The *Divine Comedy* would then have been only human, yet it might have suggested and required the very consummation that the *Divine Comedy* depicts; and without expressing this consummation, our human comedy might have furnished materials and momentum for it, such that, if ever that consummation came to be expressed, it would be more deeply felt and more adequately understood. Dante gives us a philosophical goal, and we have to recall and retrace the journey; Goethe gives us a philosophic journey, and we have to divine the goal.

Goethe is a romantic poet; he is a novelist in verse. He is a philosopher of experience as it comes to the individual; the philosopher of life, as action, memory, or soliloquy may put life before each of us in turn. Now the zest of romanticism consists in taking what you know is an independent and ancient world as if it were material for your private emotions. The savage or the animal, who should not be aware of nature or history at all, could not be romantic about them, nor about himself. He would be blandly idiotic, and take everything quite unsuspectingly for what it was in him. The romanticist, then, should be a civilized man, so that his primitiveness and egotism may have something paradoxical and conscious about them; and so that his life may contain a rich experience, and his reflection may play with all varieties of sentiment and thought. At the same time, in his inmost genius, he should be a barbarian, a child, a transcendentalist, so that his life may seem to him absolutely fresh, self-determined, unforeseen, and unforeseeable. It is part of his inspiration to believe that he creates a new heaven and a new earth with each revolution in his moods or in his purposes. He ignores, or seeks to ignore,

all the conditions of life, until perhaps by living he personally discovers them. Like Faust, he flouts science, and is minded to make trial of magic, which renders a man's will master of the universe in which he seems to live. He disowns all authority, save that mysteriously exercised over him by his deep faith in himself. He is always honest and brave; but he is always different, and absolves himself from his past as soon as he has outgrown or forgotten it. He is inclined to be wayward and foolhardy, justifying himself on the ground that all experience is interesting, that the springs of it are inexhaustible and always pure, and that the future of his soul is infinite. In the romantic hero the civilized man and the barbarian must be combined; he should be the heir to all civilization, and, nevertheless, he should take life arrogantly and egotistically, as if it were an absolute personal experiment.

This singular combination was strikingly exemplified in Doctor Johannes Faustus, a figure half historical, half legendary, familiar to Goethe in his boyhood in puppet shows and chapbooks. An adventurer in the romantic as well as in the vulgar sense of the word, somewhat like Paracelsus or Giordano Bruno, Doctor Faustus had felt the mystery of nature, had scorned authority, had credited magic, had lived by imposture, and had fled from the police. His blasphemous boasts and rascally conduct, together with his magic arts, had made him even in his lifetime a scandalous and interesting personage. He was scarcely dead when legends gathered about his name. It was published abroad that he had sold his soul to the devil, in exchange for twenty-four years of wild pleasures upon earth.

This legend purported to offer a terrible and edifying example, a warning to all Christians to avoid the snares of science, of pleasure, and of ambition. These things had sent Doctor Faustus into hell-fire; his corpse, found face downward, could not be turned over upon its back. Nevertheless, we may suspect that even at the beginning people recognized in Doctor Faustus a braver brother, a somewhat enviable reprobate who had dared to relish the good things of this life above the sad joys vaguely promised for the other. All that the Renaissance valued was here represented as in the devil's gift; and the man in the street might well doubt whether it was religion or worldly life that was thereby made the more unlovely. Doubtless the Lutheran authors of the first chapbook felt, and felt rightly, that those fine things which tempted Faustus were unevangelical, pagan, and popish; yet they could not cease altogether to admire and even to covet them, especially when the first ardors of the Old Christian revival had had time to cool.

Marlowe, who wrote only a few years later, made a beginning in the

rehabilitation of the hero. His Faustus is still damned, but he is transformed into the sort of personage that Aristotle approves of for the hero of tragedy, essentially human and noble, but led astray by some excusable vice or error. Marlowe's public would see in Doctor Faustus a man and a Christian like themselves, carried a bit too far by ambition and the love of pleasure. He is no radical unbeliever, no natural mate for the devil, conscienceless and heathen, like the typical villain of the Renaissance. On the contrary, he has become a good Protestant, and holds manfully to all those parts of the creed which express his spontaneous affections. A good angel is often overheard whispering in his ear; and if the bad angel finally prevails, it is in spite of continual remorse and hesitation on the Doctor's part. This excellent Faustus is damned by accident or by predestination; he is browbeaten by the devil and forbidden to repent when he has really repented. The terror of the conclusion is thereby heightened; we see an essentially good man, because in a moment of infatuation he had signed away his soul, driven against his will to despair and damnation. The alternative of a happy solution lies almost at hand; and it is only a lingering taste for the lurid and the horrible, ingrained in this sort of melodrama, that sends him shrieking to hell.

What makes Marlowe's conclusion the more violent and the more unphilosophical is the fact that, to anyone not dominated by convention, the good angel, in the dialogue, seems to have so much the worse of the argument. All he has to offer is sour admonition and external warnings:

> O Faustus, lay that damnèd book aside,
> And gaze not on it lest it tempt thy soul,
> And heap God's heavy wrath upon thy head.
> Read, read, the Scriptures; that is blasphemy. . . .
> Sweet Faustus, think of heaven, and heavenly things.

To which the evil angel replies:

> No, Faustus, think of honour and of wealth.

And in another place:

> Go forward, Faustus, in that famous art,
> Wherein all nature's treasure is contained.
> Be them on earth as Jove is in the sky,
> Lord and commander of these elements.

There can be no doubt that the devil here represents the natural ideal of Faustus, or of any child of the Renaissance; he appeals to the vague but healthy ambitions of a young soul, that would make trial of the world. In

other words, this devil represents the true good, and it is no wonder if the honest Faustus cannot resist his suggestions. We like him for his love of life, for his trust in nature, for his enthusiasm for beauty. He speaks for us all when he cries:

> Was this the face that launched a thousand ships
> And burnt the topless towers of Ilium?

Even his irreverent pranks, being directed against the pope, endear him the more to an anti-clerical public; and he appeals to courtiers and cavaliers by his lofty poetical scorn for such crabbed professions as the law, medicine, or theology. In a word, Marlowe's Faustus is a martyr to everything that the Renaissance prized,—power, curious knowledge, enterprise, wealth, and beauty.

How thoroughly Marlowe and Goethe are on the way towards reversing the Christian philosophy of life may be seen if we compare *Faust* for a moment (as, in other respects, has often been done) with *The Wonder-working Magician* of Calderón. This earlier hero, St. Cyprian of Antioch, is like Faust in being a scholar, signing away his soul to the devil, practising magic, embracing the ghost of beauty, and being ultimately saved. Here the analogy ends. Cyprian, far from being disgusted with all theory, and particularly with theology, is a pagan philosopher eagerly seeking God, and working his way, with full faith in his method, toward Christian orthodoxy. He floors the devil in scholastic argument about the unity of God, his power, wisdom, and goodness. He falls in love, and sells his soul merely in the hope of satisfying his passion. He studies magic chiefly for the same reason; but magic cannot overrule the free will of the Christian lady he loves (a modern and very Spanish one, though supposed to adorn ancient Antioch). The devil can supply only a false phantasm of her person, and as Cyprian approaches her and lifts her veil, he finds a hideous death's-head beneath; for God can work miracles to cap those of any magician, and can beat the devil at his own game. Thunderstruck at this portent, Cyprian becomes a Christian. Half-naked, ecstatic, taken for a madman, he bears witness loudly and persistently to the power, wisdom, and goodness of the one true God; and, since the persecution of Decius is then going on, he is hurried away to martyrdom. His lady, sentenced also for the same cause, encourages him by her heroic attitude and words. Their earthly passion is dead; but their souls are united in death and in immortality.

In this drama we see magic checkmated by miracles, doubt yielding to faith, purity resisting temptation, passion transformed into zeal, and all

the glories of the world collapsing before disillusion and asceticism. These glories are nothing, the poet tells us, but dust, ashes, smoke, and air.

The contrast with Goethe's *Faust* could not be more complete. Both poets take the greatest liberties with their chronology, yet the spirit of their dramas is remarkably true to the respective ages in which they are supposed to occur. Calderón glorifies the movement from paganism to Christianity. The philosophy in which that movement culminated—Catholic orthodoxy—still dominates the poet's mind, not in a perfunctory way, but so as to kindle his imagination, and render his personages sublime and his verses rapturous. Goethe's *Faust*, on the contrary, glorifies the return from Christianity to paganism. It shows the spirit of the Renaissance liberating the soul, and bursting the bonds of traditional faith and traditional morals. This spirit, after manifesting itself brilliantly at the time of the historical Faust, had seemed to be smothered in the great world during the seventeenth century. Men's characters and laws had reaffirmed their old allegiance to Christianity, and the Renaissance survived only abstractly, in scholarship or the fine arts, to which it continued to lend a certain classic or pseudoclassic elegance. In Goethe's time, however, a second Renaissance was taking place in the souls of men. The love of life, primal and adventurous, was gathering head in many an individual. In the romantic movement and in the French Revolution, this love of life freed itself from the politic compromises and conventions that had been stifling it for two hundred years. Goethe's hero embodies this second, romantic emancipation of the mind, too long an unwilling pupil of Christian tradition. He cries for air, for nature, for all experience. Cyprian, on the other hand, an unwilling pupil of paganism, had yearned for truth, for solitude, and for heaven.

Such was the legend that, to the great good fortune of mankind, fascinated the young Goethe, and took root in his fancy. Around it gathered the experiences and insights of sixty well-filled years: *Faust* became the poetical autobiography and the philosophic testament of Goethe. He stuffed it with every enthusiasm that diversified his own life, from the great alternative of romantic or classical art, down to the controversy between Neptunism and Vulcanism in geology, and to his fatherly admiration for Lord Byron. Yet in spite of the liberties he took with the legend, and the personal turn he gave it, nothing in its historical associations escaped him. His life in Frankfurt and in Strasbourg had made the medieval scene familiar to his fancy; Herder had communicated to him an imaginative cult for all that was national and characteristic in art and manners; the spell of Gothic architecture had fallen on him; and he had

learned to feel in Shakespeare the infinite strength of suggestion in details, in multitudinous glimpses, in lifelike medleys of sadness and mirth, in a humble realism in externals, amid lyric and metaphysical outpourings of the passions. The sense for classic beauty which had inspired Marlowe with immortal lines, and was later to inspire his own *Helena*, was as yet dormant; but instead he had caught the humanitarian craze, then prevalent, for defending and idealizing the victims of law and society, among others, the poor girl who, to escape disgrace, did away with her newborn child. Such a victim of a selfish seducer and a Pharisaical public was to add a desirable touch of femininity and pathos to the story of Faust: Gretchen was to take the place, at least for the nonce, of the coveted Helen.

This Gretchen was to be no common creature, but one endowed with all the innocence, sweetness, intelligence, fire, and fortitude which Goethe was finding, or thought he was finding, in his own Gretchens, Kätchens, and Frederickes. For the young Goethe, though very learned, was no mere student of books; to his human competence and power to succeed, he joined the gusts of feeling, the irresponsible raptures, the sudden sorrows, of a genuine poet. He was a true lover, and a wayward one. He could delve into magic with awe, in a Faust-like spirit of adventure; he could burn offerings in his attic to the rising sun; he could plunge into Christian mysticism; and there could well up, on occasion, from the deep store of his unconscious mind, floods of words, of images, and of tears. He was a genius, if ever there was one; and this genius, in all its freshness, was poured into the composition of *Faust*–the most kindred of themes, the most picturesque and magical of romances.

In Goethe's first version of the poem, before the story of Gretchen, we find the studious Faust, as in Marlowe, soliloquizing on the vanity of the sciences. They grasp nothing of the genuine truth; they are verbal shams. They have not even brought Faust fame or riches. Perhaps magic might do better. The air was full of spirits; could they be summoned to our aid, possibly the secrets of nature might be unlocked. We might reach true science, and through it undreamt-of power over the material world. For Nature, according to Goethe, really has secrets. She is not all open to eventual inspection; she is no mere mechanism of minute parts and statable laws. Our last view of her, like our first glimpse, must be interpreted; from the sum of her manifestations we must divine her soul. Therefore only a poetic and rhetorical art, like magic, has any chance of unveiling her, and of bringing us face to face with the truth.

In this invocation of spirits, as Goethe's Faust makes it, there is no

question of selling, or even of risking, the soul. This Faust, unlike Marlowe's, has no faith and no fear. From the point of view of the church he is damned already as an unbeliever; but, as an unbeliever, he is looking for salvation in another quarter. Like the bolder spirits of the Renaissance, he is hoping to find in universal nature, infinite, placid, noncensorious, an escape from the prison house of Christian doctrine and Christian law. His magic arts are the sacrament that will initiate him into his new religion, the religion of nature. He turns to nature also in another sense, more characteristic of the age of Goethe than of that of Faust. He longs for grandiose solitudes. He feels that moonlight, caves, mountains, driving clouds would be his best medicine and his best counselors. The souls of Rousseau, Byron, and Shelley are preincarnate in this Faust, the epitome of all romantic rebellions. They coexist there with the souls of Paracelsus and Giordano Bruno. The wild aspects of nature, he thinks, will melt and renew his heart, while magic reveals the mysteries of cosmic law and helps him to exploit them.

Full of these hopes, Faust opens his book of magic at the sign of the Macrocosm: it shows him the mechanism of the world, all forces and events playing into one another and forming an infinite chain. The spectacle entrances him; he seems to have attained one of his dearest ambitions. But here he comes at once upon the other half, or, as Hegel would call it, the other moment, of the romantic life. Every romantic ideal, once realized, disenchants. No matter what we attain, our dissatisfaction must be perpetual. Thus the vision of the universe, which Faust now has before him, is, he remembers, only a vision; it is a theory or conception. It is not a rendering of the inner life of the world as Shakespeare, for instance, feels and renders it. Experience, as it comes to him who lives and works, is not given by that theoretical vision; in science experience is turned into so many reviewed events, the passage of so much substance through so many forms. But Faust does not want an image or description of reality; he yearns to enact and to become the reality itself.

In this new search, he fixes his eye on the sign of the Earth-Spirit, which seems more propitious to his present wish. This sign is the key to all experience. All experience tempts Faust; he shrinks from nothing that any mortal may have endured; he is ready to undertake everything that any mortal may have done. In all men he would live; and with the last man he will be content to die. So mighty is his yearning for experience that the Earth-Spirit is softened and appears at his bidding. In a red flame he sees its monstrous visage, and his enthusiasm is turned to horror. Outspread before him is the furious, indiscriminate cataract of life, the merciless flux,

the infinite variety, the absolute inconstancy of it. This general life is not for any individual to rehearse; it bursts all bounds of personality. Each man may assimilate that part only which falls within his understanding, only that aspect which things wear from his particular angle, and to his particular interests. *Du gleichst*, the Earth-Spirit cries to him–*du gleichst dem Geist den du begreifst, nicht mir* [You resemble the spirit you comprehend, not me].

This saying–that the life possible and good for man is the life of reason, not the life of nature–is a hard one to the romantic, unintellectual, insatiable Faust. He thinks, like many another philosopher of feeling, that since his is a part of the sum of experience, the whole of experience should be akin to his. But in fact the opposite is far nearer the truth. Man is constituted by his limitations, by his station contrasted with all other stations, and his purposes chosen from amongst all other purposes. Any great scope he can attain must be due to his powers of representation. His understanding may render him universal; his life never can. Faust, as he hears this sentence from the departing Earth-Spirit, collapses under it. He feels impotent to gainsay what the tumult of the world is thundering at him, but he will not accept on authority so unwelcome and chastening a truth. All his long experience to come will scarcely suffice to convince him of it.

These are the chief philosophical ideas that appear in the two earlier versions of Goethe's *Faust*–the *Urfaust* and the *Fragment*. What Mephistopheles says to the young student is only a clever expansion of what Faust had said in his first monologue about the vanity of science and of the learned professions. Mephistopheles, too, finds theory ashen, and the tree of life green and full of golden fruit; only, having more experience than Faust of the second disenchanting moment in the romantic dialectic, he foresees that this golden fruit also will turn to ashes in the mouth, as it did in the garden of Eden. Science is folly, but life is no better; for after all is not science a part of life?

When we turn to the first part in its final shape, or to the entire drama, we find many changes and additions that seem to transform the romantic picture of the opening scene, and to offer us a rounded philosophy. The changes, however, are more in expression than in ultimate substance, and the additions are chiefly new illustrations of the ancient theme. Critics who study the *Entstehungsgeschichte* [story of the Genesis] of works of art help us to analyze them more intelligently and reproduce more accurately what, at various times, may have been the intention of their authors. Yet these bits of information would be dearly bought if we were distracted

by them from what gives poetic value and individual character to the result—its total idiosyncrasy, its place in the moral world. The place in the moral world of Goethe's *Faust* as a whole is just the place which the opening scene gave it in the beginning. It fills more space, it touches more historical and poetic matters; but its center is the old center, and its result the old result. It remains romantic in its pictures and in its philosophy.

The first addition that promises to throw new light on the idea of the drama is the *Prologue in Heaven*. In imitation of *The Book of Job*, we find the morning stars—the three archangels—singing together; and then follows a very agreeable and humorous conversation between the Lord and Mephistopheles. The scene is in the style of medieval religious plays, and this circumstance might lead us to suppose that the point at issue was the salvation of Faust's soul. But that, in the literal sense, is far from being the case. As in *Job*, the question is what sentiments the tempted mortal will maintain during this life, not what fate will afterwards overtake his disembodied spirit. Dead men, Mephistopheles observes, do not interest him. He is not a devil from a subterranean hell, concerned, out of pique or ambition, to increase the population of tortured shades in that fabulous region. He dwells in the atmosphere of earth; he knows nothing of the suns or the worlds—the life of man is his element. He remains—what he was in the first versions of the play—a part of the Earth-Spirit, one of its embodiments. His particular office, as we shall see presently, is to precipitate that continual destruction which is involved in the continual renewal of life. He finds it very foolish of Faust to demand everything and be satisfied with nothing; and his wager is that Faust may be brought to demand nothing and be satisfied with what chance throws in his way, that he shall lick the dust, and lick it with pleasure, that he shall renounce the dignity of willing what is not and cannot be, and crawl about, like the serpent, basking in the comforts of the moment.

Against this, the Lord pronounces Faust to be his servant—the servant, that is, of an ideal—and declares that whoever strives after an ideal must needs go astray; yet in his necessary errors, the good man never misses the right road. In other words, to have an ideal to strive for, and, like Faust, never to be satisfied, is itself the salvation of man. Faust does not yet know this. He half believes there is some concrete and ultimate good beyond, and so is bitter and violent in his dissatisfaction; but in due season he will come to clearness on this subject, and understand that only he deserves freedom and life who must daily win them afresh. Mephistopheles himself, with his mockeries and seductions, helps to keep the world moving and men wide awake. Imperfection is all that is possible in the world of action;

but the angels may gather up and fix in thought the perfect forms approached or suggested by existence.

In the two earlier versions of *Faust*, Mephistopheles appears without introduction; we find him amusing himself by giving ambiguous advice to an innocent scholar, and accompanying Faust in his wanderings. His mocking tone and miraculous powers mark him at once as the devil of the legend; but several passages prove that he is a deputy of the Earth-Spirit evoked by Faust in the beginning. That he should be both devil and world-demon ought not to surprise the learned. The devils of popular medieval religion were not cut out of whole cloth: they were simply the Neoplatonic demons of the air, together with the gods of Olympus and the more ancient chthonian deities, blackened by sectarian zeal, and degraded by a coarse and timid imagination. Many of these pagan sprites, indeed, had been originally impish and mischievous, since not all the aspects of nature are lovely or propitious, nor all the dreams of men. But as a whole they were without malice in their irresponsible, elemental life—winged powers darting through space between the earth and the moon. They were not dwellers in a subterranean hell; they were not tormentors nor tormented. Often they swarmed and sang blithely, as they do in *Faust* and even in the *Wonder-working Magician;* and if at other times they croaked or hooted, it was like frogs and owls, less lovely creatures than hummingbirds, but not less natural.

One of these less amiable spirits of the atmosphere, especially of its ambient fire, is the Mephistopheles of Goethe. Why he delighted in evil rather than in good he himself explains in a profound and ingenious fashion. Darkness or nothingness, he says, existed alone before the birth of light. Nothingness or darkness still remains the fundamental and, to his mind, the better part of that mixture of being and privation which we call existence. Nothing that exists can be preserved, nor does it deserve to be; therefore it would have been better if nothing had ever existed. To deny the value of whatever is, and to wish to destroy it, according to him, is the only rational ambition; he is the spirit that denies continually, he is the everlasting No. This spirit—which we might compare with the Mars of Lucretius—has great power in the world; every change, in one of its aspects, expresses it, since in one of its aspects, every change is the destruction of something. This spirit is always willing evil, for it wills death, with all the folly, crime, and despair that minister to death. But in willing evil, it is always accomplishing good; for these evils make for nothingness, and nothingness is the true good. The famous couplet—

Ein Teil von jener Kraft
Die stets das Böse will, und stets das Gute schafft–

[A part of that force which always wants evil and always creates good]

is far from expressing the Hegelian commonplace with which it is usually identified. It does not mean that destruction serves a good purpose after all because it clears the way for "something higher." Mephistopheles is not one of those philosophers who think change and evolution a good in themselves. He does not admit that his activity, while aiming at evil, contributes unintentionally to the good. It contributes to the good intentionally, because the evil it does is, in his opinion, less than the evil it cures. He is the cruel surgeon to the disease of life.

If he admitted the other interpretation, he would be *ipso facto* converted to the view of the Lord in the *Prologue*. His naughtiness would become, in his own eyes, a needful service in the cause of life–a condition of life being really vital and worth living. He might then continue his sly operations and biting witticisms, without one drop more of kindness, and yet be sanctioned in everything by the Absolute, and adopt the smile and halo of the optimist. He would have perceived that he was the spice of life, the yeast and red pepper of the world, necessary to the perfect savor of the providential concoction. As it is, Mephistopheles is far more modest. He says that he wills evil, because what he wills is contrary to what his victims will; he is the great contradictor, the blaster of young hopes. Yet he does good, because these young hopes, if let alone, would lead to misery and absurdity. His contradiction nips the folly of living in the bud. To be sure, as he goes on to acknowledge, the destructive power never wins a decisive victory. While everything falls successively beneath his sickle, the seeds of life are being scattered perpetually behind his back. The Lucretian Venus has her innings, as well as the Lucretian Mars. The eternal seesaw, the ancient flux, continues without end and without abatement.

Thus Mephistopheles has a philosophy, and is justified and consistent in his own eyes; yet in the course of the drama he wears various masks and has various moods. All he says and does cannot be made altogether compatible with the essence of his mind, as Goethe finally conceived it. The dramatic figure of Mephistopheles had been fixed long before in its graphic characteristics. Mephistopheles, for instance, is extremely old; he feels older than the universe. There is nothing new for him; he has no illusions. His feeling for anyone he sees is choked, as happens to old people, by his feelings for the infinite number of persons he remembers.

He is heartless, because he is impersonal and universal. He is altogether inhuman; he has not the shames nor the tastes of man. He often assumes the form of a dog—it is his favorite mask in this earthly carnival. He is not averse to the witches' kitchen, with its senseless din and obscenity. He puts up good-naturedly with the grotesque etiquette of the spirit world, observes all the rules about signing contracts in blood, knocking thrice, and respecting pentagrams. Why should he not? Dogs and demons of the air are forms of the Earth-Spirit as much as man; man has no special dignity that Mephistopheles should respect. Man's morality is one of the moralities, his conventions are not less absurd than the conventions of other monkeys. Mephistopheles has no prejudice against the snake; he understands and he despises his cousin, the snake, also. He understands and he despises himself; he has had time to know himself thoroughly.

His understanding, however, is not impartial, because he is the advocate of death; he cannot sympathize with the other half of the Earth-Spirit, which he does not represent—the creative, propulsive, enamoured side, the side that worships the ideal, the love that makes the world go round. What enchants an ingenuous soul can only amuse Mephistopheles; what torments it gives him a sardonic satisfaction. Thus he comes to be in fact a sour and mocking devil. At other times, when he opposes the silliness and romanticism of Faust, he seems to be the spokesman of all experience and reason; as when he warns Faust that to be at all you must be something in particular. Yet even this he says by way of checking and denying Faust's passion for the infinite. The soberest truth, when unwelcome, may seem to the sentimental as diabolical as the most cynical lie; so that in spite of the very unequal justness of his various sentiments, Mephistopheles retains his dramatic unity. We recognize his tone and, under whatever mask, we think him a villain and find him delightful.

Such is the spirit, and such are the conditions, in which Faust undertakes his adventures. He thirsts for all experience, including all experience of evil; he fears no hell; and he hopes for no happiness. He trusts in magic; that is, he believes, or is willing to make believe, that apart from any settled conditions laid down by nature or God, personal will can evoke the experience it covets by its sheer force and assurance. His bond with Mephistopheles is an expression of this romantic faith. It is no bargain to buy pleasures on earth at the cost of torments hereafter; for neither Goethe, nor Faust, nor Mephistopheles believes that such pleasures are worth having, or such torments possible.

The first taste Faust gets of the world is in Auerbach's cellar, and he finds it at once unpalatable. His mature and disdainful mind cannot be

amused by the sodden merriment he sees there. He is without that simplicity and heartiness which might find even drunken gaiety attractive; to put up with such follies, one must know nothing, like Brander, or everything, like Mephistopheles. Faust still feels the "pathos of distance"; he is acutely conscious of something incomparably noble just out of reach. In the witches' kitchen, which he next visits, pleasure is still more ugly and shallow; here the din is even more nonsensical, and the fancy more obscene. Yet Faust comes forth with two points gained in his romantic rehabilitation; he has taken the elixir of youth and he has seen the image of Helen in a mirror. He is henceforth in love with ideal beauty, and being young again, he is able to find ideal beauty in the first woman he sees.

The great episode of Gretchen follows; and when he leaves her (after the duel with her brother) to view the wild revels of the Walpurgisnacht, his youth for a moment catches the contagion of that orgy. His love of ideal beauty, which remains unsatisfied, saves him, however, from any lasting illusion. He sees a little red mouse running out of the mouth of a nymph he is pursuing, and his momentary inclination turns to aversion. When he goes back to Gretchen in her prison, it is too late for him to do more than recognize the ruin he has brought about–Gretchen dishonored, her mother poisoned, her brother killed, her child drowned by her in a pond, and she herself about to be executed. Gretchen, who is the only true Christian in this poem, refuses to be rescued, because she wishes to offer her voluntary death in propitiation for her grave, though almost involuntary, offences.

This is the end of Faust's career through the world of private interests–the little world–and we may well ask what has been the fruit of his experiments so far. What strength or experience has he amassed for his further adventures? The answer is to be found in the first scene of the second part, where Goethe reaches his highest potency as a poet and as a philosopher. We are transported to a remote, magnificent, virgin country. It is evening, and Faust is lying, weary but restless, on a flowering hillside. Kindly spirits of nature are hovering above his head. Ariel, their leader, bids them bring solace to the troubled hero. It is enough he was unfortunate–they make no question whether he was a saint or a sinner. The spirits in chorus then sing four lovely stanzas, one for each watch of the night. The first invokes peace, forgetfulness, surrender to the healing influence of sleep. Pity and remorse, they seem to say, in the words of Spinoza, are evil and vain; failure is incidental; error is innocent. Nature has no memory; forgive yourself, and you are forgiven. The song of the second watch merges the unhappy soul again in the infinite incorruptible

substance of nature. The stars, great or little, twinkling or pure, fill the sky with their ordered peace, and the sea with their trembling reflection. In this universal circulation there is no private will, no permanent division. In the next watch we find the plastic stress of nature beginning to reassert itself; seeds swell, sap mounts up the thawing branches, buds grow full; everything recovers a fresh individuality and a tender, untried will. Finally, the song of the fourth watch bids the flowers open their petals and Faust his eyes. Forces renewed in repose should tempt a new career. Nature is open to the brave, to the intelligent; all may be noble, who dare to be so.

Soothed by these ministrations, Faust awakes full of new strength and ambition. He watches with rapture the sunlight touch the mountaintops and creep down gradually into the valleys. When it reaches him, he turns to look directly at the sun; but he is dazzled. He seems to remember the Earth-Spirit that had once allured and then rejected him. We wish, he says, to kindle our torch of life, and we produce a conflagration, a monstrous medley of joy and sorrow, love and hate. Let us turn our backs upon the sun, upon infinite force and infinite existence. Fitter for our eyes the waterfall over against it, the torrent of human affairs, broken into a myriad rills. Upon the mists that rise from it the sunlight paints a rainbow, always vanishing, but always restored. This is the true image of rational human achievement. We have our life in the iridescence of the world. Or, as Shelley has said it for us–

> Life, like a dome of many-coloured glass,
> Stains the white radiance of eternity,
> Until death tramples it to fragments.

This death, however, is itself unstable. The Lucretian Venus, by reshaping our senses and instincts, builds that colored dome once more. The rainbow is renewed, as the mists rise again or the wind dies down, and creation is glorious as on the first day.

This is Goethe's theory of rejuvenation and immortality. It is thoroughly naturalistic. There is a life after death, but only for such souls as have enough scope to identify themselves with those forms which nature, in her uncertain oscillations, always tends to reproduce. A deep mind has deep roots in nature–it will bloom many times over. But what a deep mind carries over into its next incarnation–perhaps in some remote sphere–is not its conventional merits and demerits, its load of remorse, or its sordid memories. These are washed away in its new baptism. What remains is only what was deep in that deep mind, so deep that new situations may again imply and admit it.

When, after the scene with the Earth-Spirit, Faust thought of suicide, he regarded it as a means to escape from oppressive conditions and to begin a fresh life under conditions wholly different and unknown. It was as if a man in middle life, disgusted with his profession, should abandon it to take up another. Such a resolution is serious. It expresses a great dissatisfaction with things as they stand, but it also expresses a great hope. Death, for Faust, is an adventure, like any other; and if, contrary to his presumption, this adventure should prove the last, that, too, is a risk he is willing to run. Accordingly, as he lifted the poison to his lips, he drank to the dawn, to a new springtime of existence. It was by no means the saddest nor the weakest moment of his life.

Although the sound of an Easter hymn checked him, bringing sentimental memories of a religion in which he no longer believed, the transformation scene he looked for was only postponed. There is not much difference between dying as he had thought to die and living as he was about to live. Venomous essences, artificially brewed, were hardly necessary to bring him to a new life; the adventures he was entering upon were suicidal enough, for he was to strive without hope of attainment, and to proceed by passionate willfulness or magic, without accepting the discipline of art or reason. Now, at the close of the first part, he has drained this poisoned life to the dregs, and the fever into which he falls carries him of itself into a new existence. He is not grown better or more reasonable; he is simply starting afresh, like a new day or a new person. He retains, however, the fundamental part of his character; his will remains wayward, but indomitable, and his achievements remain fruitless. Only he will henceforth be romantic on a broader stage, that of history and civilization; and his magic will summon before him illusions somewhat more intellectual, counterfeits of beauty and of power. His old loves have blown over, like the storms of a bygone year; and with only a dreamlike memory of his past errors, he goes forth to meet a new day.

Among the allurements which, in the old legend, prompted Faust to sell his soul to the devil, one was the beauty of woman. The poor recluse, grown gray among his parchments, had never noticed real women, or had not found them beautiful. Pedantic child that he was, when he thought of the beauty of woman, he thought only of Helen of Troy. And Helen, to the Faust of the legend, was simply what Venus might be to Tannhäuser—a woman more ravishing than other ravishing women. She was the supreme instance of a vulgar thing. The young Goethe, however, who was a poet and a true German, and loved with his soul, was not attracted by this ideal. He gave his Faust a tenderer love—a love of the heart as well as of the senses. Later, also, when Goethe took up the old legend again in a

more antiquarian spirit, and restored Helen to her place in it, he transformed her from a symbol of feminine beauty alone into a symbol for all beauty, and especially for the highest beauty, that of Hellas. The second love of Faust is the passion for classicism.

This passion in a romantic age is not so paradoxical as it may sound. Winckelmann and the philologians were restoring something ancient. It was the romantic passion for all experience—for the faded experience of the ancients also—that made, for them, the poetry and the charm of antiquity. How dignified everything was in those heroic days! How noble, serene, and abstracted! How pure the blind eyes of statues, how chaste the white folds of the marble drapery! Greece was a remote, fascinating vision, the most romantic thing in the history of mankind. The sad, delicious emotion one felt before a ruined temple was as sentimental as anything one could feel before a ruined castle, but more elegant and more choice. It was sentimentality in marble. The heroes of the *Iliad* were idealized in the same way as the savages of Rousseau were idealized, or as the robbers of Schiller.

The romantic classicism of the Napoleonic era lies between the polite classicism of the French seventeenth century and the archaeological classicism of our present Grecians. French classicism had been quite indifferent to the picturesque aspects of ancient life; it could tolerate on the stage an Achilles in a periwig and laces. What the French tragedians had adopted from the ancients was something inward, a standard of character and motive, or a criterion of taste. They studied harmony and restraint, not because these had been Greek qualities, but because they were qualities essentially reasonable and beautiful, naturally belonging, even in modern times, to a cultivated society and a cultivated poet. Again, the admiration for Greece which is common in our time among people of judgement differs from that of Goethe and his age; for if we admire the artistic expression of ancient life in poetry or sculpture, we know that these manifestations were made possible by a long political and moral discipline, and that, in spite of that discipline, ancient art remained very mixed, and often grotesque and impure.

For Goethe, however, as for Byron, Greece was less a past civilization, to be studied scientifically, than a living idea, a summons to new forms of art and of sentiment. Goethe was never so romantic as when he was classical. His distichs are like theatrical gestures; he feels the sweep of his toga as he rounds them off. His Iphigenia is a sentimental dream—*verflucht human* [accursedly humane], as he himself came to feel; and his Helena is an evocation of magic, magical not merely by accident and in

the story, but essentially so, in her ghostly semiconsciousness and glassy beauty. The apparent incongruities of the scenes in which she appears, surrounded by German knights in the court of a feudal castle, are not real incongruities. For this Helen is not a thing of the past; she is the present dream and affectation of things classical in a romantic era. Faust and his vassals offer Helen the most chivalrous and exaggerated homage; they introduce her, as a play queen, into their society. Faust retires with her to Arcadia—the land of intentional and midsummer idleness. Here a son, Euphorion, is born to them, a young genius, classic in aspect, but wildly romantic and ungovernable in temper. He scales the highest peaks, pursues by preference the nymphs that flee from him, loves violence and unreason, and finally, thinking to fly, falls headlong, like Icarus, and perishes. His last words call his mother after him, and she follows, leaving her veil and mantle behind, as Euphorion had left his lyre. On the mantle of Helen, which swells into a cloud, Faust is borne back again to his native Germany; its virtue, as he learns, is to lift him above all commonness.

This long allegory is charming enough, as a series of pictures and melodies, to leave the reader content not to interpret it; yet the intention of the poet is clear, if we care to disentangle it. By going down into the bowels of nature, where the earth goddesses dwell, who are the first mothers of all life and of all civilizations alike, we may gather intelligence to comprehend even the most alien existence. Greece, after such a reversion to the elemental, will appear to us in her unmatched simplicity and beauty. The vision will be granted us, although the object we see belongs to a distant past; and if our enthusiasm, like that of Faust, is passionate and indomitable, we may actually persuade the Queen of the Dead to yield up Helen that we may wed her. Our scholarship and philosophy, our faithful imitation of Greek art and literature, may actually render the Greek scene familiar to us. Yet the setting of this recovered genius will still be modern; it will become half modern itself; we shall have to teach Helen to rhyme. The product of this hybrid inspiration will be a romantic soul in the garb of classicism, a lovely wild thing, fated to die young. When this enthusiasm has dashed itself against the hard conditions of life, the beauty of Greece, that was its mother, will also pale before our eyes. We shall be, perforce, content to let it return to the realm of irrevocable past things. Only its garment, the monuments of its art and thought, will remain to raise us, if we have loved them, above all vulgarity in taste and in moral allegiance.

It is an evidence of Goethe's great wisdom that he felt that romantic classicism must be subordinated or abandoned; that Helen must evapo-

rate, while Faust returned to Germany and to the feeling that after all Gretchen was his true love. At the same time the issue of this wonderful episode is a little disappointing. At the beginning, the vision of Helen in a mirror had inspired Faust with renewed enthusiasm. The sight of her again, in the magic play, had altogether enraptured and overwhelmed him; and this inspiration had come just when, after the death of Gretchen, he had resolved to pursue not all experience, as at first, but rather the best experience—a hint that the transformations of Faust's will were expected somehow to constitute a real progress. There was, indeed, among mortals such an infinite need of this incomparable and symbolic Helen, that it could move the very guardians of the dead to mercy and to tears. When we remember all this, we have some reason to expect that a great and permanent improvement in the life and heart of our hero should follow on his obtaining so rare a boon. But to live within Arcadia Helen was not needed; any Phyllis would have served.

Helen, to be sure, leaves some relics behind, by which we may understand that the influence of Greek history, literature, and sculpture may still avail to cultivate the mind and give it an air of distinction. Perhaps in the commonwealth he is about to found, Faust would wish to establish not only dikes and freedom, but also professorships of Greek and archaeological museums. And the lyre of Euphorion, which is also left us, may signify that poems like Byron's *Isle of Greece*, Keats's *Grecian Urn*, *Die Götter Griechenlands* of Schiller, and Goethe's own classical pieces will continue to enrich European literature. This is something, but not enough to lift Faust's immense enthusiasm for Helen above a crass illusion. That dream of a perfect beauty to be achieved, of a perfect life to be lived according to nature and reason, would have ended in a little scholarship and a little pedantry. Faust would have won Helen in order to hand her over to Wagner.

Helen was queen of Sparta; and although of course the Doric Sparta of Lycurgus was something much later, and had nothing to do with the Sparta of Homer, yet taken symbolically it is the happiest accident that Helen, the type of Greek perfection in beauty, should have been queen of Sparta, the type of Greek perfection in discipline. A Faust that had truly deserved and understood Helen would have built her a Hellenic city; he would have become himself an [*anax andron*], a master of men, one of those poets in things, those shapers of well-bred generations and wise laws, of which Plato speaks, contrasting them with Homer and other poets in words only. For the beauty of mind and body that fascinates the romantic classicist, and which inspired the ancient poets themselves, was

not a product of idleness and sentimentality, nor of material and forced activity; it was a product of orderly war, religion, gymnastics, and deliberate self-government.

The next turn in Faust's fortunes actually finds him a trader, a statesman, an empire builder; and if such a rolling stone could gather any moss, we should expect to see here, if anywhere, the fruits of that "aesthetic education of mankind" which Helen represented. We should expect Faust, who had lain in the lap of absolute beauty, to understand its nature. We should expect him, in eager search after perfection, to establish his state on the distinction between the better and the worse—a distinction never to be abolished or obscured for one who has loved beauty. In other words, he might have established a moral society, founding it on great renunciations and on enlightened heroisms, so that the highest beauty might really come down and dwell within that city. But we find nothing of the sort. Faust founds his kingdom because he must do something; and his only ideal of what he hopes to secure for his subjects is that they shall always have something to do. Thus the will to live, in Faust, is not in the least educated by his experience. It changes its objects because it must; the passions of youth yield to those of age; and among all the illusions of his life the most fatuous is the illusion of progress.

It is characteristic of the absolute romantic spirit that when it has finished with something it must invent a new interest. It beats the bush for fresh game; it is always on the verge of being utterly bored. So now that Helen is flown, Mephistopheles must come to the rescue, like an amiable nurse, and propose all sorts of pastimes. Frankfurt, Leipzig, Paris, Versailles are described, with the entertainments that life there might afford; but Faust, who was always *difficile,* has been rendered more so by his recent splendid adventures. However, a new impulse suddenly arises in his breast. From the mountaintop to which Helen's mantle has borne him, he can see the German Ocean, with its tides daily covering great stretches of the flat shore, and rendering them brackish and uninhabitable. It would be a fine thing to reclaim those wastes, to plant there a prosperous population. After Greece, Faust has a vision of Holland.

This last ambition of Faust's is as romantic as the others. He feels the prompting towards political art, as he had felt the prompting towards love or beauty. The notion of transforming things by his will, of leaving for ages his mark upon nature and upon human society, fascinates him; but this passion for activity and power, which some simple-minded commentators dignify with the name of altruism and of living for others, has no steady purpose or standard about it. Goethe is especially lavish in details

to prove this point. Magic, the exercise of an unteachable will, is still Faust's instrument. Mephistopheles, by various arts of illusion, secures the triumph of the emperor in a desperate war which he is carrying on against a justifiable insurrection. As a reward for the aid rendered, Faust receives the shore marches in fief. The necessary dikes and canals are built by magic; the spirits that Mephistopheles commands dig and build them with strange incantations. The commerce that springs up is also illegitimate: piracy is involved in it.

Nor is this all. On some sand dunes that diversified the original beach, an old man and his wife, Philemon and Baucis, lived before the advent of Faust and his improvements. On the hillock, besides their cottage, there stood a small chapel, with a bell which disturbed Faust in his newly built palace, partly by its importunate sound, partly by its Christian suggestions, and partly by reminding him that he was not master of the country altogether, and that something existed in it not the product of his magical will. The old people would not sell out; and in a fit of impatience Faust orders that they should be evicted by force, and transferred to a better dwelling elsewhere. Mephistopheles and his minions execute these orders somewhat roughly: the cottage and chapel are set on fire, and Philemon and Baucis are consumed in the flames, or buried in the ruins.

Faust regrets this accident; but it is one of those inevitable developments of action which a brave man must face, and forget as soon as possible. He had regretted in the same way the unhappiness of Gretchen, and, presumably, the death of Euphorion; but such is romantic life. His will, though shaken, is not extinguished by such misadventures. He would continue, if life could last, doing things that, in some respect, he would be obliged to regret: but he would banish that regret easily, in the pursuit of some new interest, and, on the whole, he would not regret having been obliged to regret them. Otherwise, he would not have shared the whole experience of mankind, but missed the important experience of self-accusation and of self-recovery.

It is impossible to suppose that the citizens he is establishing behind leaky dikes, so that they may always have something to keep them busy, would have given him unmixed satisfaction if he could really have foreseen their career in its concrete details. Holland is an interesting country, but hardly a spectacle which would long entrance an idealist like Faust, so exacting that he has found the arts and sciences wholly vain, domesticity impossible and kitchens and beer cellars beneath consideration. The career of Faust himself had been far more free and active than

that of his industrious burghers could ever hope to be. His interest in establishing them is a masterful, irresponsible interest. It is one more arbitrary passion, one more selfish illusion. As he had no conscience in his love, and sought and secured nobody's happiness, so he has no conscience in his ambition and in his political architecture; but if only his will is done, he does not ask whether, judged by its fruits, it will be worth doing. As his immense dejection at the beginning, when he was a doctor in his laboratory, was not founded on any real misfortune, but on restlessness and a vague infinite ambition, so his ultimate satisfaction in his work is not founded on any good done, but on a passionate wilfulness. He calls the thing he wants for others good, because he now wants to bestow it on them, not because they naturally want it for themselves. Incapable of sympathy, he has a momentary pleasure in policy; and in the last and "highest" expression of his will, in his statesmanship and supposed public spirit, he remains romantic and, if need be, aggressive and criminal.

Meantime, his end is approaching. The smoke from that poor little conflagration turns into shadowy shapes of want, guilt, care, and death, which come and hover about him. Want is kept off by his wealth, and guilt is transcended by his romantic courage. But care slips through the keyhole, breathes upon him, and blinds him; while death, though he does not see it, follows close upon his heels. Nevertheless, the old man—Faust is in his hundredth year—is undaunted, and all his thoughts are intent on the future, on the work to which he has set his hand. He orders the digging to proceed on the canals he is building; but the spirits that seem to obey him are getting out of hand, and dig his grave instead.

When he feels death upon him, Faust has one of his most splendid moments of self-assertion. He has stormed through the world, he says, taking with equal thanks the buffets and rewards of fortune; and the last word of wisdom he has learned is that no man deserves life or freedom who does not daily win them anew. He will leave the dikes he has thrown up against the sea to protect the nation he has established; a symbol that their health and freedom must consist in perpetual striving against an indomitable foe. The thought of many generations living in that wholesome danger and labor fills him with satisfaction; he could almost say to this moment, in which that prospect opens before his mind's eye, "Stay, thou art so fair." And with these words—a last challenge and mock surrender to Mephistopheles—he sinks into the grave open at his feet.

Who has won the wager? Faust has almost, though not quite, pronounced the words which were to give Mephistopheles the victory; but

the sense of them is new, and Mephistopheles has not succeeded in making Faust surrender his will to will, his indefinite idealism. Since what satisfies Faust is merely the consciousness that this will to will is to be maintained, and that neither he, nor the colonists he has brought into being, will ever lick the dust, and take comfort, without any further aspiration, in the chance pleasures of the moment. Faust has maintained his enthusiasm for a stormy, difficult, and endless life. He has been true to his romantic philosophy.

He is therefore saved, in the sense in which salvation is defined in the *Prologue in Heaven,* and presently again in the song of the angels that receive his soul when they say: "Whosoever is unflagging in his striving forever, him we can redeem." This salvation does not hang on any improvement in Faust's character–he was sinful to the end, and had been God's unwitting servant from the very beginning–nor does it lie in any revolution in his fortunes, as if in heaven he were to be differently employed than on earth. He is going to teach life to the souls of young boys who have died too soon to have had in their own persons any experience of Rathskellers, Gretchens, Helens, and Walpurgisnachts. Teaching (though not exactly in these subjects) had been Doctor Faustus' original profession; and the weariness of it was what had driven him to magic and almost to suicide, until he had escaped into the great world of adventure outside. Certainly, with his new pupils he will not be more content; his romantic restlessness will not forsake him in heaven. Some fine day he will throw his celestial schoolbooks out of the window, and with his pupils after him, go forth to taste life in some windier region of the clouds.

No, Faust is not saved in the sense of being sanctified or brought to a final, eternal state of bliss. The only improvement in his nature has been that he has passed, at the beginning of the second part, from private to public activities. If, at the end of this part, he expresses a wish to abandon magic and to live like a man among men, in the bosom of real nature, that wish remains merely Platonic. It is a thought that visited Goethe often during his long career, that it is the part of wisdom to accept life under natural conditions rather than to pretend to evoke the conditions of life out of the will to live. This thought, were it held steadfastly, would constitute an advance from transcendentalism to naturalism. But the spirit of nature is itself romantic. It lives spontaneously, bravely, without premeditation, and for the sake of living rather than of enjoying or attaining anything final. And under natural conditions, the vicissitudes of an endless life would be many; and there could be no question of an ultimate goal, nor even of an endless progress in any particular direction. The veering of

life is part of its vitality—it is essential to romantic irony and to romantic pluck.

The secret of what is serious in the moral of *Faust* is to be looked for in Spinoza—the source of what is serious in the philosophy of Goethe. Spinoza has an admirable doctrine, or rather insight, which he calls seeing things under the form of eternity. This faculty is fundamental in the human mind; ordinary perception and memory are cases of it. Therefore, when we use it to deal with ultimate issues, we are not alienated from experience, but, on the contrary, endowed with experience and with its fruits. A thing is seen under the form of eternity when all its parts or stages are conceived in their true relations, and thereby conceived together. The complete biography of Caesar is Caesar seen under the form of eternity. Now the complete biography of Faust, Faust seen under the form of eternity, shows forth his salvation. God and Faust himself, in his last moment of insight, see that to have led such a life, in such a spirit, *was* to be saved; it was to be the sort of man a man should be. The blots on that life were helpful and necessary blots; the passions of it were necessary and creative passions. To have felt such perpetual dissatisfaction is truly satisfactory; such desire for universal experience is the right experience. You are saved in that you lived well; saved not after you have stopped living well, but during the whole process. Your destiny has been to be the servant of God. That God and your own conscience should pronounce this sentence is your true salvation. Your worthiness is thereby established under the form of eternity.

The play, in its philosophic development, ends here; but Goethe added several more details and scenes, with that abundance, that love, of symbolic pictures and poetic epigrams which characterizes the whole second part. As Faust expires, or rather before he does so, Mephistopheles posts one of his little demons at each aperture of the hero's body, lest the soul should slip out without being caught. At the same time a bevy of angels descends, scattering the red roses of love and singing its praises. These roses, if they touch Mephistopheles and his demons, turn to balls of fire; and although fire is their familiar element, they are scorched and scared away. The angels are thus enabled to catch the soul of Faust at their leisure, and bear it away triumphantly.

It goes without saying that this fight of little boys over a fluttering butterfly cannot be what really determines the issue of the wager and the salvation of Faust; but Goethe, in his conversations with Eckermann, justifies this intervention of a sort of mechanical accident, by the analogy of Christian doctrine. Grace is needed, besides virtue; and the intercession

of Gretchen and the Virgin Mary, like that of the Virgin Mary, Lucia, and Beatrice, in Dante's case, and the stratagem of the balls of fire, all stand for this external condition of salvation.

This intervention of grace is, at bottom, only a new symbol for the essential justification, under the form of eternity, of what is imperfect and insufficient in time. The checkered and willful life of Faust is not righteous in any of its parts; yet righteousness is imputed to it as a whole; divine love accepts it as sufficient; speculative reason declares that to be the best possible life which, to humdrum understanding, seems a series of faults and of failures. If the foretaste of his new Holland fills, from a distance, the dying Faust with satisfaction, how much more must the wonderful career of Faust himself deserve to be accepted and envied, and proclaimed to be its own excuse for being! The faults of Faust in time are not counted against him in eternity. His crimes and follies were blessings in disguise. Did they not render his life interesting and fit to make a poem of? Was it not by falling into them, and rising out of them, that Faust was Faust at all? This insight is the higher reason, the divine love, supervening to save him. What ought to be imperfect in time is, because of its very imperfection there, perfect when viewed under the form of eternity. To live, to live just as we do, that–if we could only realize it–is the purpose and the crown of living. We must seek improvement; we must be dissatisfied with ourselves; that is the appointed attitude, the histrionic pose, that is to keep the ball rolling. But while we feel this dissatisfaction we are perfectly satisfactory, and while we play our game and constantly lose it, we are winning the game for God.

Even this scene, however, did not satisfy the prolific fancy of the poet, and he added a final one–the apotheosis or *Himmelfahrt* [ascension] of Faust. In the Campo Santo at Pisa Goethe had seen a fresco representing various anchorites dwelling on the flanks of some sacred mountain–Sinai, Carmel, or Athos–each in his little cave or hermitage; and above them, in the large space of sky, flights of angels were seen rising towards the Madonna. Through such a landscape the poet now shows us the soul of Faust carried slowly upwards.

This scene has been regarded as inspired by Catholic ideas, whereas the *Prologue in Heaven* was Biblical and Protestant; and Goethe himself says that his "poetic intention" could best be rendered by images borrowed from the tradition of the medieval church. But in truth there is nothing Catholic about the scene, except the names or titles of the personages. What they say is all sentimental landscape painting or vague mysticism, such as might go with any somewhat nebulous piety; and much is actually

borrowed from Swedenborg. What is Swedenborgian, however—such as the notion of heavenly instruction, passage from sphere to sphere, and looking through other people's eyes—is in turn a mere form of expression. The "poetic intention" of the author is, as we have seen, altogether Spinozitic. Undoubtedly he conceives that the soul of Faust is to pass, in another world, through some new series of experiences. But that destiny is not his salvation; it is the continuance of his trial. The famous chorus at the very end repeats, with an interesting variation, the same contrast we have seen before between the point of view of time and that of eternity. Everything transitory, says the mystic chorus, is only an image; here (that is, under the form of eternity) the insufficient is turned into something actual and complete; and what seemed in experience an endless pursuit becomes to speculation a perfect fulfillment. The ideal of something infinitely attractive and essentially inexhaustible—the eternal feminine, as Goethe calls it—draws life on from stage to stage.

Gretchen and Helen had been symbols of this ideal; Goethe's green old age had felt, to the very last, the charm of woman, the sweetness and the sorrow of loving what he could not hope to possess, and what, in its ideal perfection, necessarily eludes possession. He had reconciled himself, not without tears, to this desire without hope, and, like Piccarda in the *Paradiso*, he had blessed the hand that gave the passion and denied the happiness. Thus, in dreaming of one satisfaction and renouncing it, he had found a satisfaction of another kind. *Faust* ends on the same philosophical level on which it began—the level of romanticism. The worth of life lies in pursuit, not in attainment; therefore, everything is worth pursuing, and nothing brings satisfaction—save this endless destiny itself.

Such is the official moral of *Faust*, and what we may call its general philosophy. But, as we saw just now, this moral is only an afterthought, and is far from exhausting the philosophic ideas which the poem contains. Here is a scheme for experience; but experience, in filling it out, opens up many vistas; and some of these reveal deeper and higher things than experience itself. The path of the pilgrim and the inns he stops at are neither the whole landscape he sees as he travels, nor the true shrine he is making for. And the incidental philosophy or philosophies of Goethe's *Faust* are, to my mind, often better than its ultimate philosophy. The first scene of the second part, for instance, is better, poetically and philosophically, than the last. It shows a deeper sense for the realities of nature and of the soul, and it is more sincere. Goethe there is interpreting nature with Spinoza; he is not dreaming with Swedenborg, nor talking equivocal paradoxes with Hegel.

In fact, the great merit of the romantic attitude in poetry, and of the transcendental method in philosophy, is that they put us back at the beginning of our experience. They disintegrate convention, which is often cumbrous and confused, and restore us to ourselves, to immediate perception and primordial will. That, as it would seem, is the true and inevitable starting point. Had we not been born, had we not peeped into this world, each out of his personal eggshell, this world might indeed have existed without us, as a thousand undiscoverable worlds may now exist; but for us it would not have existed. This obvious truth would not need to be insisted on but for two reasons: one that conventional knowledge, such as our notions of science and morality afford, is often top-heavy; asserts and imposes on us much more than our experience warrants—our experience, which is our only approach to reality. The other reason is the reverse or counterpart of this; for conventional knowledge often ignores and seems to suppress parts of experience no less actual and important for us as those parts on which the conventional knowledge itself is reared. The public world is too narrow for the soul, as well as too mythical and fabulous. Hence the double critical labor and reawakening which romantic reflection is good for—to cut off the dead branches and feed the starving shoots. This philosophy, as Kant said, is a cathartic: it is purgative and liberating; it is intended to make us start afresh and start right.

It follows that one who has no sympathy with such a philosophy is a comparatively conventional person. He has a secondhand mind. Faust has a firsthand mind, a truly free, sincere, courageous soul. It follows also, however, that one who has no philosophy but this has no wisdom; he can say nothing that is worth carrying away; everything in him is attitude and nothing is achievement. Faust, and especially Mephistopheles, do have other philosophies on top of their transcendentalism; for this is only a method, to be used in reaching conclusions that shall be critically safeguarded and empirically grounded. Such outlooks, such vistas into nature, are scattered liberally through the pages of *Faust*. Words of wisdom diversify this career of folly, as exquisite scenes fill this tortuous and overloaded drama. The mind has become free and sincere, but it has remained bewildered.

The literary merits of Goethe's *Faust* correspond accurately with its philosophical excellences. In the prologue in the theater Goethe himself has described them; much scenery, much wisdom, some folly, great wealth of incident and characterization; and behind, the soul of a poet singing with all sincerity and fervor the visions of his life. Here is profundity, inwardness, honesty, waywardness; here are the most touching accents of

nature, and the most varied assortment of curious lore and grotesque fancies. This work, says Goethe (in a quatrain intended as an epilogue, but not ultimately inserted in the play)—this work is like human life: it has a beginning, it has an end; but it has no totality, it is not one whole. How, indeed, should we draw the sum of an infinite experience that is without conditions to determine it, and without goals in which it terminates? Evidently all a poet of pure experience can do is to represent some snatches of it, more or less prolonged; and the more prolonged the experience represented is the more it will be a collection of snatches, and the less the last part of it will have to do with the beginning. Any character which we may attribute to the whole of what we have surveyed would fail to dominate it, if that whole had been larger, and if we had had memory or foresight enough to include other parts of experience differing altogether in kind from the episodes we happen to have lived through. To be miscellaneous, to be indefinite, to be unfinished, is essential to the romantic life. May we not say that it is essential to all life, in its immediacy; and that only in reference to what is not life—to objects, ideals, and unanimities that cannot be experienced but may only be conceived—can life become rational and truly progressive? Herein we may see the radical and inalienable excellence of romanticism; its sincerity, freedom, richness, and infinity. Herein, too, we may see its limitations, in that it cannot fix or trust any of its ideals, and blindly believes the universe to be as wayward as itself, so that nature and art are always slipping through its fingers. It is obstinately empirical, and will never learn anything from experience.

The foregoing consists of Chapters I and III from Santayana's THREE PHILOSOPHICAL POETS.

Henry Adams [1]

1838–1918

In his *Letter to American Teachers of History* Henry Adams records his dark vision of mankind at the mercy of the law of entropy—the gradual running down of the universe. In Adams' time—roughly the early twentieth century—science could offer no alternative to this process, nor, in his opinion, could any other discipline. Hence his interest in the thirteenth century, when an alternative existed in men's conception of themselves as part not only of a natural order but also of a divine one that, being eternal, cannot pass away. These two orders were reconciled by medieval theology, of which Adams treats in this discussion of St. Thomas Aquinas, whose *Summa Theologica* is the great medieval statement.

Actually the discussion, which is taken from a longer work by Adams called *Mont-Saint-Michel and Chartres* (1913), is as much about buildings as it is about books. For Adams' approach to St. Thomas is through the architecture of the Gothic cathedrals, which were constructed in the same age that conceived the *Summa* and which are looked upon by Adams as products of the same general effort.

The effort was to see the whole universe in relation to God and to understand the law by which the universe is governed. But it was also to determine the place of man under that law. Indeed, the relation between man and God was the heart of the medieval structure. This relation was asserted first in the eleventh century by force, Adams says earlier in his book, and the symbol of that is the fortress church of Mont-Saint-Michel. It was developed in the twelfth century as a matter of faith, and the symbol of that is the Cathedral of

[1] For a biography of Henry Adams see Vol. 6, pp. 318–319, in this set.

Chartres. Then at last, as Adams here points out, came the thirteenth-century attempt of St. Thomas to treat the relation in terms of reason—to climb heaven with the mind.

While the attempt perhaps was bound to fail, it was, Adams suggests, a magnificent intellectual flight. Its symbol is the thirteenth-century Cathedral of Beauvais, which like the *Summa* was never finished. Only the choir of Beauvais stands, but its columns rise in one unbroken dizzy sweep to the highest vaulted roof ever reached.

St. Thomas Aquinas

Long before St. Francis' death, in 1226, the French mystics had exhausted their energies and the *siècle* had taken new heart. Society could not remain forever balancing between thought and act. A few gifted natures could absorb themselves in the absolute, but the rest lived for the day, and needed shelter and safety. So the Church bent again to its task, and bade the Spaniard Dominic arm new levies with the best weapons of science, and flaunt the name of Aristotle on the Church banners along with that of St. Augustine. The year 1215, which happened to be the date of Magna Carta and other easily fixed events, like the birth of St. Louis, may serve to mark the triumph of the schools. The pointed arch reveled at Rheims and the Gothic architects reached perfection at Amiens just as Francis died at Assisi and Thomas was born at Aquino. The Franciscan Order itself was swept with the stream that Francis tried to dam, and the great Franciscan schoolman, Alexander Hales, in 1222, four years before the death of Francis, joined the order and began lecturing as though Francis himself had lived only to teach scholastic philosophy.

The rival Dominican champion, Albertus Magnus, began his career a little later, in 1228. Born of the noble Swabian family of Bollstädt, in 1193, he drifted, like other schoolmen, to Paris, and the Rue Maître Albert, opposite Notre Dame, still records his fame as a teacher there. Thence he passed to a school established by the order at Cologne, where he was lecturing with great authority in 1243 when the general superior of the order brought up from Italy a young man of the highest promise to be trained as his assistant.

Thomas, the new pupil, was born under the shadow of Monte Cassino in 1226 or 1227. His father, the Count of Aquino, claimed descent from the imperial line of Swabia; his mother, from the Norman princes of Sicily; so that in him the two most energetic strains in Europe met. His social rank was royal, and the order set the highest value on it. He took the vows in 1243, and went north at once to help Albertus at Cologne. In 1245, the

order sent Albertus back to Paris, and Thomas with him. There he remained till 1248 when he was ordered to Cologne as assistant lecturer, and only four years afterwards, at twenty-five years old, he was made full professor at Paris. His industry and activity never rested till his death in 1274, not yet fifty years old, when he bequeathed to the Church a mass of manuscript that tourists will never know enough to estimate except by weight. His complete works, repeatedly printed, fill between twenty and thirty quarto volumes. For so famous a doctor, this is almost meagre. Unfortunately his greatest work, the *Summa Theologica*, is unfinished–like Beauvais Cathedral.

Perhaps Thomas' success was partly due to his memory which is said to have been phenomenal; for, in an age when cyclopedias were unknown, a cyclopedic memory must have counted for half the battle in these scholastic disputes where authority could be met only by authority; but in this case, memory was supported by mind. Outwardly Thomas was heavy and slow in manner, if it is true that his companions called him "the big dumb ox of Sicily"; and in fashionable or court circles he did not enjoy reputation for acute sense of humor. St. Louis' household offers a picture not wholly clerical, least of all among the King's brothers and sons; and perhaps the dinner table was not much more used then than now to abrupt interjections of theology into the talk about hunting and hounds; but however it happened, Thomas one day surprised the company by solemnly announcing–"I have a decisive argument against the Manichaeans!" No wit or humor could be more to the point–between two saints that were to be–than a decisive argument against enemies of Christ, and one greatly regrets that the rest of the conversation was not reported, unless, indeed, it is somewhere in the twenty-eight quarto volumes; but it probably lacked humor for courtiers.

The twenty-eight quarto volumes must be closed books for us. None but Dominicans have a right to interpret them. No Franciscan–or even Jesuit–understands St. Thomas exactly or explains him with authority. For summer tourists to handle these intricate problems in a theological spirit would be altogether absurd; but, for us, these great theologians were also architects who undertook to build a Church Intellectual, corresponding bit by bit to the Church Administrative, both expressing–and expressed by–the Church Architectural. Alexander Hales, Albert the Great, Thomas Aquinas, Duns Scotus, and the rest, were artists; and if St. Thomas happens to stand at their head as type, it is not because we choose him or understand him better than his rivals, but because his order chose him rather than his master Albert to impose as authority on the Church;

and because Pope John XXII canonized him on the ground that his decisions were miracles; and because the Council of Trent placed his *Summa* among the sacred books on their table; and because Innocent VI said that his doctrine alone was sure; and finally, because Leo XIII very lately made a point of declaring that, on the wings of St. Thomas' genius, human reason has reached the most sublime height it can probably ever attain.

Although the Franciscans, and, later, the Jesuits, have not always shown as much admiration as the Dominicans for the genius of St. Thomas, and the mystics have never shown any admiration whatever for the philosophy of the schools, the authority of Leo XIII is final, at least on one point and the only one that concerns us. St. Thomas is still alive and overshadows as many schools as he ever did; at all events, as many as the Church maintains. He has outlived Descartes and Leibnitz and a dozen other schools of philosophy more or less serious in their day. He has mostly outlived Hume, Voltaire, and the militant skeptics. His method is typical and classic; his sentences, when interpreted by the Church, seem, even to an untrained mind, intelligible and consistent; his Church Intellectual remains practically unchanged, and, like the Cathedral of Beauvais, erect, although the storms of six or seven centuries have prostrated, over and over again, every other social or political or juristic shelter. Compared with it, all modern systems are complex and chaotic, crowded with self-contradictions, anomalies, impracticable functions and outworn inheritances; but beyond all their practical shortcomings is their fragmentary character. An economic civilization troubles itself about the universe much as a hive of honeybees troubles about the ocean, only as a region to be avoided. The hive of St. Thomas sheltered God and man, mind and matter, the universe and the atom, the one and the multiple, within the walls of an harmonious home.

Theologians, like architects, were supposed to receive their Church complete in all its lines; they were modern judges who interpreted the law, but never invented it. St. Thomas merely selected between disputed opinions, but he allowed himself to wander very far afield, indeed, in search of opinions to dispute. The field embraced all that existed, or might have existed, or could never exist. The immense structure rested on Aristotle and St. Augustine at the last, but as a work of art it stood alone, like Rheims or Amiens Cathedral, as though it had no antecedents. Then, although, like Rheims, its style was never meant to suit modern housekeeping and is ill seen by the École des Beaux Arts, it reveals itself in its great mass and intelligence as a work of extraordinary genius; a system as

admirably proportioned as any cathedral and as complete; a success not universal either in art or science.

St. Thomas' architecture, like any other work of art, is best studied by itself as though he created it outright; otherwise a tourist would never get beyond its threshold. Beginning with the foundation which is God and God's active presence in His Church, Thomas next built God into the walls and towers of His Church, in the Trinity and its creation of mind and matter in time and space; then finally he filled the Church by uniting mind and matter in man, or man's soul, giving to humanity a free will that rose, like the flèche, to heaven. The foundation—the structure—the congregation—are enough for students of art; his ideas of law, ethics, and politics; his vocabulary, his syllogisms, his arrangement are, like the drawings of Villard de Honnecourt's sketchbook, curious but not vital. After the eleventh-century Romanesque Church of St. Michael came the twelfth-century Transition Church of the Virgin, and all merged and ended at last in the thirteenth-century Gothic Cathedral of the Trinity. One wants to see the end.

The foundation of the Christian Church should be—as the simple deist might suppose—always the same, but St. Thomas knew better. His foundation was Norman, not French; it spoke the practical architect who knew the mathematics of his art, and who saw that the foundation laid by St. Bernard, St. Victor, St. Francis, the whole mystical, semimystical, Cartesian, Spinozan foundation, past or future, could not bear the weight of the structure to be put on it. Thomas began by sweeping the ground clear of them. God must be a concrete thing, not a human thought. God must be proved by the senses like any other concrete thing; *nihil est in intellectu quin prius fuerit in sensu* [there is nothing in the mind which was not first in the senses]; even if Aristotle had not affirmed the law, Thomas would have discovered it. He admitted at once that God could not be taken for granted.

The admission, as every boy student of the Latin Quarter knew, was exceedingly bold and dangerous. The greatest logicians commonly shrank from proving unity by multiplicity. Thomas was one of the greatest logicians that ever lived; the question had always been at the bottom of theology; he deliberately challenged what every one knew to be an extreme peril. If his foundation failed, his Church fell. Many critics have thought that he saw dangers four hundred years ahead. The time came, about 1650–1700, when Descartes, deserting St. Thomas, started afresh with the idea of God as concept, and at once found himself charged with a deity that contained the universe; nor did the Cartesians—until Spinoza

made it clear—seem able or willing to see that the Church could not accept this deity because the Church required a God who caused the universe. The two deities destroyed each other. One was passive; the other active. Thomas warned Descartes of a logical quicksand which must necessarily swallow up any Church, and which Spinoza explored to the bottom. Thomas said truly that every true cause must be proved as a cause, not merely as a sequence; otherwise they must end in a universal energy or substance without causality—a source.

Whatever God might be to others, to His Church he could not be a sequence or a source. That point had been admitted by William of Champeaux, and made the division between Christians and infidels. On the other hand, if God must be proved as a true cause in order to warrant the Church or the State in requiring men to worship Him as Creator, the student became the more curious—if a churchman, the more anxious—to be assured that Thomas succeeded in his proof, especially since he did not satisfy Descartes and still less Pascal. That the mystics should be dissatisfied was natural enough, since they were committed to the contrary view, but that Descartes should desert was a serious blow which threw the French Church into consternation from which it never quite recovered.

"I see motion," said Thomas: "I infer a motor!" This reasoning, which may be fifty thousand years old, is as strong as ever it was; stronger than some more modern inferences of science; but the average mechanic stated it differently. "I see motion," he admitted: "I infer energy. I see motion everywhere; I infer energy everywhere." St. Thomas barred this door to materialism by adding: "I see motion; I cannot infer an infinite series of motors: I can only infer, somewhere at the end of the series, an intelligent, fixed motor." The average modern mechanic might not dissent but would certainly hesitate. "No doubt!" he might say; "we can conduct our works as well on that as on any other theory, or as we could on no theory at all; but, if you offer it as proof, we can only say that we have not yet reduced all motion to one source or all energies to one law, much less to one act of creation, although we have tried our best." The result of some centuries of experiment tended to raise rather than silence doubt, although, even in his own day, Thomas would have been scandalized beyond the resources of his Latin had St. Bonaventure met him at St. Louis' dinner table and complimented him, in the King's hearing, on having proved, beyond all Franciscan cavils, that the Church Intellectual had necessarily but one first cause and creator—himself.

The Church Intellectual, like the Church Architectural, implied not one architect, but myriads, and not one fixed, intelligent architect at the end of

the series, but a vanishing vista without a beginning at any definite moment; and if Thomas pressed his argument, the twentieth-century mechanic who should attend his conferences at the Sorbonne would be apt to say so. "What is the use of trying to argue me into it? Your inference may be sound logic, but is not proof. Actually we know less about it than you did. All we know is the thing we handle, and we cannot handle your fixed, intelligent prime motor. To your old ideas of form we have added what we call force, and we are rather further than ever from reducing the complex to unity. In fact, if you are aiming to convince me, I will tell you flatly that I know only the multiple, and have no use for unity at all."

In the thirteenth century men did not depend so much as now on actual experiment, but the nominalist said in effect the same thing. Unity to him was a pure concept, and anyone who thought it real would believe that a triangle was alive and could walk on its legs. Without proving unity, philosophers saw no way to prove God. They could only fall back on an attempt to prove that the concept of unity proved itself, and this phantasm drove the Cartesians to drop Thomas' argument and assert that "the mere fact of having within us the idea of a thing more perfect than ourselves, proves the real existence of that thing." Four hundred years earlier St. Thomas had replied in advance that Descartes wanted to prove altogether too much, and Spinoza showed mathematically that St. Thomas had been in the right. The finest religious mind of the time–Pascal–admitted it and gave up the struggle, like the mystics of St. Victor.

Thus some of the greatest priests and professors of the Church, including Duns Scotus himself, seemed not wholly satisfied that Thomas' proof was complete, but most of them admitted that it was the safest among possible foundations, and that it showed, as architecture, the Norman temper of courage and caution. The Norman was ready to run great risks, but he would rather grasp too little than too much; he narrowed the spacing of his piers rather than spread them too wide for safe vaulting. Between Norman blood and Breton blood was a singular gap, as Renan and every other Breton has delighted to point out. Both Abelard and Descartes were Breton. The Breton seized more than he could hold; the Norman took less than he would have liked.

God, then, is proved. What the schools called form, what science calls energy, and what the intermediate period called the evidence of design made the foundation of St. Thomas' cathedral. God is an intelligent, fixed prime motor–not a concept, or proved by concepts–a concrete fact, proved by the senses of sight and touch. On that foundation Thomas built. The walls and vaults of his Church were more complex than the founda-

tion; especially the towers were troublesome. Dogma, the vital purpose of the Church, required support. The most weighty dogma, the central tower of the Norman cathedral, was the Trinity, and between the Breton solution which was too heavy, and the French solution which was too light, the Norman Thomas found a way. Remembering how vehemently the French Church, under St. Bernard, had protected the Trinity from all interference whatever, one turns anxiously to see what Thomas said about it; and unless one misunderstands him—as is very likely, indeed, to be the case, since no one may even profess to understand the Trinity—Thomas treated it as simply as he could. "God, being conscious of Himself, thinks Himself; his thought is Himself, his own reflection in the verb—the so-called Son." *Est in Deo intelligente seipsum Verbum Dei quasi Deus intellectus*. The idea was not new, and as ideas went it was hardly a mystery; but the next step was naïve: God, as a double consciousness, loves Himself, and realizes Himself in the Holy Ghost. The third side of the triangle is love or grace.

Many theologians have found fault with this treatment of the subject, which seemed open to every objection that had been made to Abelard, Gilbert de la Porrée, or a thousand other logicians. They commonly asked why Thomas stopped the Deity's self-realizations at love, or inside the triangle, since these realizations were real, not symbolic, and the square was at least as real as any other combination of line. Thomas replied that knowledge and will—the verb and the Holy Ghost—were alone essential. The reply did not suit every one, even among doctors, but since St. Thomas rested on this simple assertion, it is no concern of ours to argue the theology. Only as art, one can afford to say that the form is more architectural than religious; it would surely have been suspicious to St. Bernard. Mystery there was none, and logic little. The concept of the Holy Ghost was childlike; for a pupil of Aristotle it was inadmissible, since it led to nothing and helped no step toward the universe.

Admitting, if necessary, the criticism, Thomas need not admit the blame, if blame there were. Every theologian was obliged to stop the pursuit of logic by force, before it dragged him into paganism and pantheism. Theology begins with the universal—God—who must be a reality, not a symbol; but it is forced to limit the process of God's realizations somewhere, or the priest soon becomes a worshiper of God in sticks and stones. Theologists had commonly chosen, from time immemorial, to stop at the Trinity; within the triangle they were wholly realist; but they could not admit that God went on to realize Himself in the square and circle, or that the third member of the Trinity contained multiplicity, because the

Trinity was a restless weight on the Church piers, which, like the central tower, constantly tended to fall, and needed to be lightened. Thomas gave it the lightest form possible, and there fixed it.

Then came his great tour de force, the vaulting of his broad nave; and, if ignorance is allowed an opinion, even a lost soul may admire the grand simplicity of Thomas' scheme. He swept away the horizontal lines altogether, leaving them barely as a part of decoration. The whole weight of his arches fell, as in the latest Gothic, where the eye sees nothing to break the sheer spring of the nervures, from the rosette on the keystone a hundred feet above down to the church floor. In Thomas' creation nothing intervened between God and his world; secondary causes became ornaments; only two forces, God and man, stood in the Church.

The chapter of Creation is so serious, and Thomas' creation, like every other, is open to so much debate, that no student can allow another to explain it; and certainly no man whatever, either saint or skeptic, can ever yet have understood Creation aright unless divinely inspired; but whatever Thomas' theory was as he meant it, he seems to be understood as holding that every created individual–animal, vegetable, or mineral–was a special, divine act. Whatever has form is created, and whatever is created takes form directly from the will of God, which is also his act. The intermediate universals–the secondary causes–vanish as causes; they are, at most, sequences or relations; all merge in one universal act of will; instantaneous, infinite, eternal.

St. Thomas saw God, much as Milton saw him, resplendent in

> That glorious form, that light unsufferable,
> And that far-beaming blaze of Majesty,
> Wherewith he wont, at Heaven's high council table,
> To sit the midst of Trinal Unity;

except that, in Thomas' thought, the council table was a worktable, because God did not take counsel; He was an act. The Trinity was an infinite possibility of will; nothing within but

> The baby image of the giant mass
> Of things to come at large.

Neither time nor space, neither matter nor mind, not even force existed, nor could any intelligence conceive how, even though they should exist, they could be united in the lowest association. A crystal was as miraculous as Socrates. Only abstract force, or what the schoolmen called form, existed undeveloped from eternity, like the abstract line in mathematics.

Fifty or a hundred years before St. Thomas settled the Church dogma,

a monk of Citeaux or some other abbey, a certain Alain of Lille, had written a Latin poem, as abstruse an allegory as the best, which had the merit of painting the scene of man's creation as far as concerned the mechanical process much as Thomas seems to have seen it. M. Hauréau has printed an extract. Alain conceded to the weakness of human thought, that God was working in time and space, or rather on His throne in heaven, when Nature, proposing to create a new and improved man, sent Reason and Prudence up to ask Him for a soul to fit the new body. Having passed through various adventures and much scholastic instruction, the messenger Prudence arrived, after having dropped her dangerous friend Reason by the way. The request was respectfully presented to God, and favorably received. God promised the soul, and at once sent His servant Noys–Thought–to the storehouse of ideas, to choose it:

Ipse Deus rem prosequitur, producit in actum	God Himself pursues the task, and sets in act
Quod pepigit. Vocat ergo Noym quae praepaert illi	What He promised. So he calls Noys to seek
Numinis exemplar, humanae mentis Idaeam,	A copy of His will, Idea of the human mind,
Ad cujus formam formetur spiritus omni	To whose form the spirit should be shaped,
Munere virtutum dives, qui, nube caducae	Rich in every virtue, which, veiled in garb
Carnis odumbratus veletur corporis umbra.	Of frail flesh, is to be hidden in a shade of body,
Tunc Noys ad regis praeceptum singula rerum	Then Noys, at the King's order, turning one by one
Vestigans exempla, novam perquirit Idaeam.	Each sample, seeks the new Idea.
Inter tot species, speciem vix invenit illam	Among so many images she hardly finds that
Quam petit; offertur tandem quaesita petenti.	Which she seeks; at last the sought one appears.
Hanc formam Noys ipsa Deo praesentat ut ejus	This form Noys herself brings to God for Him
Formet ad exemplar animam. Tunc ille sigillum	To form a soul to its pattern. He takes the seal,
Sumit, ad ipsius formae vestigia formam	And gives form to the soul after the model
Dans animae, vultum qualem deposcit Idaea	Of the form itself, stamping on the sample
Imprimit exemplo; totas usurpat imago	The figure such as the Idea requires. The seal
Exemplaris opes, loquiturque figura sigillum.	Covers the whole field, and the impression expresses the stamp.

The translation is probably full of mistakes; indeed, one is permitted to doubt whether Alain himself accurately understood the process; but in

substance he meant that God contained a storehouse of ideas, and stamped each creation with one of these forms. The poets used a variety of figures to help out their logic, but that of the potter and his pot was one of the most common. Omar Khayyam was using it at the same time with Alain of Lille, but with a difference: for his pot seems to have been matter alone, and his soul was the wine it received from God; while Alain's soul seems to have been the form and not the contents of the pot.

The figure matters little. In any case God's act was the union of mind with matter by the same act or will which created both. No intermediate cause or condition intervened; no secondary influence had anything whatever to do with the result. Time had nothing to do with it. Every individual that has existed or shall exist was created by the same instantaneous act, for all time. "When the question regards the universal agent who produces beings *and* time, we cannot consider him as acting *now* and *before*, according to the succession of time." God emanated time, force, matter, mind, as He might emanate gravitation, not as a part of His substance but as an energy of His will, and maintains them in their activity by the same act, not by a new one. Every individual is a part of the direct act; not a secondary outcome. The soul has no father or mother. Of all errors one of the most serious is to suppose that the soul descends by generation. "Having life and action of its own, it subsists without the body; . . . it must therefore be produced directly, and since it is not a material substance, it cannot be produced by way of generation; it must necessarily be created by God. Consequently to suppose that the intelligence [or intelligent soul] is the effect of generation is to suppose that it is not a pure and simple substance but corruptible like the body. It is therefore heresy to say that this soul is transmitted by generation." What is true of the soul should be true of all other form, since no form is a material substance. The utmost possible relation between any two individuals is that God may have used the same stamp or mold for a series of creations, and especially for the less spiritual: "God is the first model for all things. One may also say that, among His creatures some serve as types or models for others because there are some which are made in the image of others"; but generation means sequence, not cause. The only true cause is God. Creation is His sole act, in which no second cause can share. "Creation is more perfect and loftier than generation, because it aims at producing the whole substance of the being, though it starts from absolute nothing."

Thomas Aquinas, when he pleased, was singularly lucid, and on this point he was particularly positive. The architect insisted on the controlling

idea of his structure. The Church was God, and its lines excluded interference. God and the Church embraced all the converging lines of the universe, and the universe showed none but lines that converged. Between God and man, nothing whatever intervened. The individual was a compound of form, or soul, and matter; but both were always created together, by the same act, out of nothing. *Simpliciter fatendum est animas simul cum corporibus creari et infundi*. It must be distinctly understood that souls were not created before bodies, but that they were created at the same time as the bodies they animate. Nothing whatever preceded this union of two substances which did not exist: *Creatio est productio alicujus rei secundum suam totam substantiam, nullo praesupposito, quod sit vel increatum vel ab aliquo creatum*. Language can go no further in exclusion of every possible preceding, secondary, or subsequent cause, *Productio universalis entis a Deo non est motus nec mutatio, sed est quaedam simplex emanatio*. The whole universe is, so to speak, a simple emanation from God.

The famous junction, then, is made–that celebrated fusion of the universal with the individual, of unity with multiplicity, of God and nature, which had broken the neck of every philosophy ever invented; which had ruined William of Champeaux and was to ruin Descartes; this evolution of the finite from the infinite was accomplished. The supreme triumph was as easily effected by Thomas Aquinas as it was to be again effected, four hundred years later, by Spinoza. He had merely to assert the fact: "It is so! it cannot be otherwise!" "For the thousandth and hundred-thousandth time; what is the use of discussing this prime motor, this Spinozan substance, any longer? We know it is there!" that–as Professor Haeckel very justly repeats for the millionth time–is enough.

One point, however, remained undetermined. The Prime Motor and His action stood fixed, and no one wished to disturb Him; but this was not the point that had disturbed William of Champeaux. Abelard's question still remained to be answered. How did Socrates differ from Plato–Judas from John–Thomas Aquinas from Professor Haeckel? Were they, in fact, two, or one? What made an individual? What was God's centimeter measure? The abstract form or soul which existed as a possibility in God, from all time–was it one or many? To the Church, this issue overshadowed all else, for, if humanity was one and not multiple, the Church, which dealt only with individuals, was lost. To the schools, also, the issue was vital, for, if the soul or form was already multiple from the first, unity was lost; the ultimate substance and prime motor itself became multiple; the whole issue was reopened.

To the consternation of the Church, and even of his own order, Thomas, following closely his masters, Albert and Aristotle, asserted that the soul was measured by matter. "Division occurs in substances in ratio of quantity, as Aristotle says in his *Physics*. And so dimensional quantity is a principle of individuation." The soul is a fluid absorbed by matter in proportion to the absorptive power of the matter. The soul is an energy existing in matter proportionately to the dimensional quantity of the matter. The soul is a wine, greater or less in quantity according to the size of the cup. In our report of the great debate of 1110, between Champeaux and Abelard, we have seen William persistently tempting Abelard to fall into this admission that matter made the man; that the universal equilateral triangle became an individual if it were shaped in metal, the matter giving it reality which mere form could not give; and Abelard evading the issue as though his life depended on it. In fact, had Abelard dared to follow Aristotle into what looked like an admission that Socrates and Plato were identical as form and differed only in weight, his life might have been the forfeit. How St. Thomas escaped is a question closely connected with the same inquiry about St. Francis of Assisi. A Church which embraced, with equal sympathy, and within a hundred years, the Virgin, St. Bernard, William of Champeaux and the School of St. Victor, Peter the Venerable, St. Francis of Assisi, St. Dominic, St. Thomas Aquinas, and St. Bonaventure was more liberal than any modern State can afford to be. Radical contradictions the State may perhaps tolerate, though hardly, but never embrace or profess. Such elasticity long ago vanished from human thought.

Yet only Dominicans believe that the Church adopted this law of individualization, or even assented to it. If M. Jourdain is right, Thomas was quickly obliged to give it another form: that, though all souls belonged to the same species, they differed in their aptitudes for uniting with particular bodies. "This soul is commensurate with this body, and not with that other one." The idea is double; for either the souls individualized themselves, and Thomas abandoned his doctrine of their instantaneous creation, with the bodies, out of nothing; or God individualized them in the act of creation, and matter had nothing to do with it. The difficulty is no concern of ours, but the great scholars who took upon themselves to explain it made it worse, until at last one gathers only that St. Thomas held one of three views: either the soul of humanity was individualized by God, or it individualized itself, or it was divided by ratio of quantity, that is, by matter. This amounts to saying that one knows nothing about it, which we knew before and may admit with

calmness; but Thomas Aquinas was not so happily placed, between the Church and the schools. Humanity had a form common to itself, which made it what it was. By some means this form was associated with matter; in fact, matter was only known as associated with form. If, then, God, by an instantaneous act, created matter and gave it form according to the dimensions of the matter, innocent ignorance might infer that there was, in the act of God, one world soul and one world matter, which He united in different proportions to make men and things. Such a doctrine was fatal to the Church. No greater heresy could be charged against the worst Arab or Jew, and Thomas was so well aware of his danger that he recoiled from it with a vehemence not at all in keeping with his supposed phlegm. With feverish eagerness to get clear of such companions, he denied and denounced, in all companies, in season and out of season, the idea that intellect was one and the same for all men, differing only with the quantity of matter it accompanied. He challenged the adherent of such a doctrine to battle; "let him take the pen if he dares!" No one dared, seeing that even Jews enjoyed a share of common sense and had seen some of their friends burn at the stake not very long before for such opinions, not even openly maintained; while uneducated people, who are perhaps incapable of receiving intellect at all, but for whose instruction and salvation the great work of St. Thomas and his scholars must chiefly exist, cannot do battle because they cannot understand Thomas' doctrine of matter and form which to them seems frank pantheism.

So it appeared to Duns Scotus also, if one may assert in the *Doctor Subtilis* any opinion without qualification. Duns began his career only about 1300, after Thomas' death, and stands, therefore, beyond our horizon; but he is still the pride of the Franciscan Order and stands second in authority to the great Dominican alone. In denying Thomas' doctrine that matter individualizes mind, Duns laid himself open to the worse charge of investing matter with a certain embryonic, independent, shadowy soul of its own. Scotus' system, compared with that of Thomas, tended toward liberty. Scotus held that the excess of power in Thomas' prime motor neutralized the power of his secondary causes, so that these appeared altogether superfluous. This is a point that ought to be left to the Church to decide, but there can be no harm in quoting, on the other hand, the authority of some of Scotus' critics within the Church, who have thought that his doctrine tended to deify matter and to keep open the road to Spinoza. Narrow and dangerous was the border line always between pantheism and materialism, and the chief interest of the schools was in finding fault with each other's paths.

The opinions in themselves need not disturb us, although the question is as open to dispute as ever it was and perhaps as much disputed; but the turn of Thomas' mind is worth study. A century or two later, his passion to be reasonable, scientific, architectural would have brought him within range of the Inquisition. Francis of Assisi was not more archaic and cave dweller than Thomas of Aquino was modern and scientific. In his effort to be logical he forced his Deity to be as logical as himself, which hardly suited Omnipotence. He hewed the Church dogmas into shape as though they were rough stones. About no dogma could mankind feel interest more acute than about that of immortality, which seemed to be the single point vitally necessary for any Church to prove and define as clearly as light itself. Thomas trimmed down the soul to half its legitimate claims as an immortal being by insisting that God created it from nothing in the same act or will by which He created the body and united the two in time and space. The soul existed as form for the body, and had no previous existence. Logic seemed to require that when the body died and dissolved, after the union which had lasted, at most, only an instant or two of eternity, the soul, which fitted that body and no other, should dissolve with it. In that case the Church dissolved, too, since it had no reason for existence except the soul. Thomas met the difficulty by suggesting that the body's form might take permanence from the matter to which it gave form. That matter should individualize mind was itself a violent wrench of logic, but that it should also give permanence—the one quality it did not possess—to this individual mind seemed to many learned doctors a scandal. Perhaps Thomas meant to leave the responsibility on the Church, where it belonged as a matter not of logic but of revealed truth. At all events, this treatment of mind and matter brought him into trouble which few modern logicians would suspect.

The human soul having become a person by contact with matter, and having gained eternal personality by the momentary union, was finished, and remains to this day for practical purposes unchanged; but the angels and devils, a world of realities then more real than man, were never united with matter, and therefore could not be persons. Thomas admitted and insisted that the angels, being immaterial—neither clothed in matter, nor stamped on it, nor mixed with it—were universals; that is, each was a species in himself, a class, or perhaps what would be now called an energy, with no other individuality than he gave himself.

The idea seems to modern science reasonable enough. Science has to deal, for example, with scores of chemical energies which it knows little about except that they always seem to be constant to the same conditions;

but every one knows that in the particular relation of mind to matter the battle is as furious as ever. The soul has always refused to live in peace with the body. The angels, too, were always in rebellion. They insisted on personality, and the devils even more obstinately than the angels. The dispute was—and is—far from trifling. Mind would rather ignore matter altogether. In the thirteenth century mind did, indeed, admit that matter was something—which it quite refuses to admit in the twentieth—but treated it as a nuisance to be abated. To the pure in spirit one argued in vain that spirit must compromise; that nature compromised; that God compromised; that man himself was nothing but a somewhat clumsy compromise. No argument served. Mind insisted on absolute despotism. Schoolmen as well as mystics would not believe that matter was what it seemed—if, indeed, it existed—unsubstantial, shifty, shadowy; changing with incredible swiftness into dust, gas, flame; vanishing in mysterious lines of force into space beyond hope of recovery; whirled about in eternity and infinity by that mind, form, energy, or thought which guides and rules and tyrannizes and is the universe. The Church wanted to be pure spirit; she regarded matter with antipathy as something foul, to be held at arms' length lest it should stain and corrupt the soul; the most she would willingly admit was that mind and matter might travel side by side, like a double-headed comet, on parallel lines that never met, with a pre-established harmony that existed only in the prime motor.

Thomas and his master Albert were almost alone in imposing on the Church the compromise so necessary for its equilibrium. The balance of matter against mind was the same necessity in the Church Intellectual as the balance of thrusts in the arch of the Gothic cathedral. Nowhere did Thomas show his architectural obstinacy quite so plainly as in thus taking matter under his protection. Nothing would induce him to compromise with the angels. He insisted on keeping man wholly apart, as a complex of energies in which matter shared equally with mind. The Church must rest firmly on both. The angels differed from other beings below them precisely because they were immaterial and impersonal. Such rigid logic outraged the spiritual Church. Perhaps Thomas' sudden death in 1274 alone saved him from the fate of Abelard, but it did not save his doctrine. Two years afterwards, in 1276, the French and English churches combined to condemn it. Étienne Tempier, Bishop of Paris, presided over the French Synod; Robert Kilwardby, of the Dominican Order, Archbishop of Canterbury, presided over the Council at Oxford. The synods were composed of schoolmen as well as churchmen, and seem to have been the result of a serious struggle for power between the Dominican and Franciscan Orders.

Apparently the Church compromised between them by condemning the errors of both. Some of these errors, springing from Alexander Hales and his Franciscan schools, were in effect the foundation of another Church. Some were expressly charged against Brother Thomas. *Contra fratrem Thomam* the councils forbade teaching that—*quia intelligentiae non habent materiam, Deus non potest plures ejusdem speciei facere; et quod materia non est in angelis* [because intelligences do not have matter, God cannot make more of the same sort; that the angels are not material]; further, the councils struck at the vital center of Thomas' system—*quod Deus non potest individua multiplicare sub una specie sine materia* [that God cannot multiply individual things under one species without matter]; and again in its broadest form—*quod formae non accipiunt divisionem nisi secundam materiam.* These condemnations made a great stir. Old Albertus Magnus, who was the real victim of attack, fought for himself and for Thomas. After a long and earnest effort, the Thomists rooted out opposition in the order, and carried their campaign to Rome. After fifty years of struggle, by use of every method known in Church politics, the Dominican Order, in 1323, caused John XXII to canonize Thomas and in effect affirm his doctrine.

The story shows how modern, how heterodox, how material, how altogether new and revolutionary the system of St. Thomas seemed at first even in the schools; but that was the affair of the Church and a matter of pure theology. We study only his art. Step by step, stone by stone, we see him build his church building like a stonemason, "with the care that the twelfth-century architects put into" their work, as Viollet-le-Duc saw some similar architect at Rouen, building the tower of St. Romain: "He has thrown over his work the grace and finesse, the study of detail, the sobriety in projections, the perfect harmony," which belongs to his school, and yet he was rigidly structural and Norman. The foundation showed it; the elevation, which is God, developed it; the vaulting, with its balance of thrusts in mind and matter, proved it; but he had still the hardest task in art, to model man.

The cathedral, then, is built, and God is built into it, but, thus far, God is there alone, filling it all, and maintains the equilibrium by balancing created matter separately against created mind. The proportions of the building are superb; nothing so lofty, so large in treatment, so true in scale, so eloquent of multiplicity in unity, has ever been conceived elsewhere; but it was the virtue or the fault of superb structures like Bourges and Amiens and the Church universal that they seemed to need man more than man needed them; they were made for crowds, for thousands and

tens of thousands of human beings; for the whole human race, on its knees, hungry for pardon and love. Chartres needed no crowd, for it was meant as a palace of the Virgin, and the Virgin filled it wholly; but the Trinity made their church for no other purpose than to accommodate man, and made man for no other purpose than to fill their church; if man failed to fill it, the church and the Trinity seemed equally failures. Empty, Bourges and Beauvais are cold; hardly as religious as a wayside cross; and yet, even empty, they are perhaps more religious than when filled with cattle and machines. St. Thomas needed to fill his Church with real men, and although he had created his own God for that special purpose, the task was, as every boy knew by heart, the most difficult that Omnipotence had dealt with.

God, as Descartes justly said, we know! but what is man? The schools answered: Man is a rational animal! So was apparently a dog, or a bee, or a beaver, none of which seemed to need churches. Modern science, with infinite effort, has discovered and announced that man is a bewildering complex of energies, which helps little to explain his relations with the ultimate substance or energy or prime motor whose existence both science and schoolmen admit; which science studies in laboratories and religion worships in churches. The man whom God created to fill His Church must be an energy independent of God; otherwise God filled His own Church with His own energy. Thus far, the God of St. Thomas was alone in His Church. The beings He had created out of nothing–Omar's pipkins of clay and shape–stood against the walls, waiting to receive the wine of life, a life of their own. Of that life, energy, will, or wine–whatever the poets or professors called it–God was the only cause, as He was also the immediate cause, and support. Thomas was emphatic on that point. God is the cause of energy as the sun is the cause of color: *prout sol dicitur causa manifestationis coloris*. He not only gives forms to his pipkins, or energies to his agents, but He also maintains those forms in being: *dat formas creaturis agentibus et eas tenet in esse*. He acts directly, not through secondary causes, on everything and every one: *Deus in omnibus intime operatur*. If, for an instant, God's action, which is also His will, were to stop, the universe would not merely fall to pieces, but would vanish, and must then be created anew from nothing: *Quia non habet radicem in aere, statim cessat lumen, cessante actione solis. Sic autem se habet omnis creatura ad Deum sicut aer ad solem illuminantem*. God radiates energy as the sun radiates light, and "the whole fabric of nature would return to nothing" if that radiation ceased even for an instant. Everything is created by one instantaneous, eternal, universal act of will, and by the same act is maintained in being.

Where, then–in what mysterious cave outside of creation–could man, and his free will, and his private world of responsibilities and duties, lie hidden? Unless man was a free agent in a world of his own beyond constraint, the Church was a fraud, and it helped little to add that the State was another. If God was the sole and immediate cause and support of everything in His creation, God was also the cause of its defects, and could not–being Justice and Goodness in essence–hold man responsible for His own omissions. Still less could the State or Church do it in His name.

Whatever truth lies in the charge that the schools discussed futile questions by faulty methods, one cannot decently deny that in this case the question was practical and the method vital. Theist or atheist, monist or anarchist must all admit that society and science are equally interested with theology in deciding whether the universe is one or many, a harmony or a discord. The Church and State asserted that it was a harmony, and that they were its representatives. They say so still. Their claim led to singular but unavoidable conclusions, with which society has struggled for seven hundred years, and is still struggling.

Freedom could not exist in nature, or even in God, after the single, unalterable act or will which created. The only possible free will was that of God before the act. Abelard with his rigid logic averred that God had no freedom; being Himself whatever is most perfect, He produced necessarily the most perfect possible world. Nothing seemed more logical, but if God acted necessarily, His world must also be of necessity the only possible product of His act, and the Church became an impertinence, since man proved only fatuity by attempting to interfere. Thomas dared not disturb the foundations of the Church, and therefore began by laying down the law that God–previous to His act–could choose, and had chosen, whatever scheme of creation He pleased, and that the harmony of the actual scheme proved His perfections. Thus he saved God's free will.

This philosophical apse would have closed the lines and finished the plan of his church choir had the universe not shown some divergencies or discords needing to be explained. The student of the Latin Quarter was then harder to convince than now that God was Infinite Love and His world a perfect harmony, when perfect love and harmony showed them, even in the Latin Quarter, and still more in revealed truth, a picture of suffering, sorrow, and death; plague, pestilence, and famine; inundations, droughts, and frosts; catastrophes world-wide and accidents in corners; cruelty, perversity, stupidity, uncertainty, insanity; virtue begetting vice; vice working for good; happiness without sense, selfishness without gain,

misery without cause, and horrors undefined. The students in public dared not ask, as Voltaire did, *avec son hideux sourire* [with his grotesque grin], whether the Lisbon earthquake was the final proof of God's infinite goodness, but in private they used the *argumentum ad personam divinam* [argument to the divine person] freely enough, and when the Church told them that evil did not exist, the ribalds laughed.

St. Augustine certainly tempted Satan when he fastened the Church to this doctrine that evil is only the privation of good, an *amissio boni;* and that good alone exists. The point was infinitely troublesome. Good was order, law, unity. Evil was disorder, anarchy, multiplicity. Which was truth? The Church had committed itself to the dogma that order and unity were the ultimate truth, and that the anarchist should be burned. She could do nothing else, and society supported her–still supports her; yet the Church, who was wiser than the State, had always seen that St. Augustine dealt with only half the question. She knew that evil might be an excess of good as well as absence of it; that good leads to evil, evil to good; and that, as Pascal says, "three degrees of polar elevation upset all jurisprudence; a meridian decides truth; fundamental laws change; rights have epochs. Pleasing Justice! bounded by a river or a mountain! truths on this side the Pyrenees! errors beyond!" Thomas conceded that God Himself, with the best intentions, might be the source of evil, and pleaded only that His action might in the end work benefits. He could offer no proof of it, but he could assume as probable a plan of good which became the more perfect for the very reason that it allowed great liberty in detail.

One hardly feels St. Thomas here in all his force. He offers suggestion rather than proof; apology–the weaker because of obvious effort to apologize–rather than defense, for infinite goodness, justice, and power; scoffers might add that he invented a new proof *ab defectu* [from the defect], or argument for proving the perfection of a machine by the number of its imperfections; but at all events, society has never done better by way of proving its right to enforce morals or unity of opinion. Unless it asserts law, it can only assert force. Rigid theology went much further. In God's providence, man was as nothing. With a proper sense of duty, every solar system should be content to suffer, if thereby the efficiency of the Milky Way were improved. Such theology shocked St. Thomas, who never wholly abandoned man in order to exalt God. He persistently brought God and man together, and if he erred, the Church rightly pardons him because he erred on the human side. Whenever the path lay through the valley of despair he called God to his aid, as though he felt the moral obligation of the Creator to help His creation.

At best the vision of God, sitting forever at His worktable, willing the existence of mankind exactly as it is, while conscious that, among these myriad arbitrary creations of His will, hardly one in a million could escape temporary misery or eternal damnation, was not the best possible background for a Church, as the Virgin and the Saviour frankly admitted by taking the foreground; but the Church was not responsible for it. Mankind could not admit an anarchical—a dual or a multiple—universe. The world was there, staring them in the face, with all its chaotic conditions, and society insisted on its unity in self-defense. Society still insists on treating it as unity, though no longer affecting logic. Society insists on its free will, although free will has never been explained to the satisfaction of any but those who much wish to be satisfied, and although the words in any common sense implied not unity but duality in creation. The Church had nothing to do with inventing this riddle—the oldest that fretted mankind. Apart from all theological interferences—fall of Adam or fault of Eve, Atonement, Justification, or Redemption—either the universe was one, or it was two, or it was many; either energy was one, seen only in powers of itself, or it was several; either God was harmony, or He was discord. With practical unanimity, mankind rejected the dual or multiple scheme; it insisted on unity. Thomas took the question as it was given him. The unity was full of defects; he did not deny them; but he claimed that they might be incidents, and that the admitted unity might even prove their beneficence. Granting this enormous concession, he still needed a means of bringing into the system one element which vehemently refused to be brought: that is, man himself, who insisted that the universe was a unit, but that he was a universe; that energy was one, but that he was another energy; that God was omnipotent, but that man was free. The contradiction had always existed, exists still, and always must exist, unless man either admits that he is a machine, or agrees that anarchy and chaos are the habit of nature, and law and order its accident. The agreement may become possible, but it was not possible in the thirteenth century nor is it now. St. Thomas' settlement could not be a simple one or final, except for practical use, but it served, and it holds good still.

No one ever seriously affirmed the literal freedom of will. Absolute liberty is absence of restraint; responsibility is restraint; therefore, the ideally free individual is responsible only to himself. This principle is the philosophical foundation of anarchism, and, for anything that science has yet proved, may be the philosophical foundation of the universe; but it is fatal to all society and is especially hostile to the State. Perhaps the

Church of the thirteenth century might have found a way to use even this principle for a good purpose; certainly, the influence of St. Bernard was sufficiently unsocial and that of St. Francis was sufficiently unselfish to conciliate even anarchists of the militant class; but St. Thomas was working for the Church and the State, not for the salvation of souls, and his chief object was to repress anarchy. The theory of absolute free will never entered his mind, more than the theory of material free will would enter the mind of an architect. The Church gave him no warrant for discussing the subject in such a sense. In fact, the Church never admitted free will, or used the word when it could be avoided. In Latin, the term used was *liberum arbitrium*–free choice–and in French to this day it remains in strictness *libre arbitre* still. From St. Augustine downwards the Church was never so unscientific as to admit of liberty beyond the faculty of choosing between paths, some leading through the Church and some not, but all leading to the next world; as a criminal might be allowed the liberty of choosing between the guillotine and the gallows, without infringing on the supremacy of the judge.

Thomas started from that point, already far from theoretic freedom. "We are masters of our acts," he began, "in the sense that we can choose such and such a thing; now, we have not to choose our end, but the means that relate to it, as Aristotle says." Unfortunately, even this trenchant amputation of man's free energies would not accord with fact or with logic. Experience proved that man's power of choice in action was very far from absolute, and logic seemed to require that every choice should have some predetermining cause which decided the will to act. Science affirmed that choice was not free–could not be free–without abandoning the unity of force and the foundation of law. Society insisted that its choice must be left free, whatever became of science or unity. St. Thomas was required to illustrate the theory of *liberum arbitrium* by choosing a path through these difficulties, where path there was obviously none.

Thomas' method for treating this problem was sure to be as scientific as the vaulting of a Gothic arch. Indeed, one follows it most easily by translating his school vocabulary into modern technical terms. With very slight straining of equivalents, Thomas might now be written thus:

By the term God is meant a prime motor which supplies all energy to the universe, and acts directly on man as well as on all other creatures, moving him as a mechanical motor might do; but man, being specially provided with an organism more complex than the organisms of other creatures, enjoys an exceptional capacity for reflex action–a power of reflection–which enables him within certain limits to choose between

paths; and this singular capacity is called free choice or free will. Of course, the reflection is not choice, and though a man's mind reflected as perfectly as the facets of a lighthouse lantern, it would never reach a choice without an energy which impels it to act.

Now let us read St. Thomas:

> Some kind of an agent is required to determine one's choice; that agent is reflection. Man reflects, then, in order to learn what choice to make between the two acts which offer themselves. But reflection is, in its turn, a faculty of doing opposite things, for we can reflect or not reflect; and we are no further forward than before. One cannot carry back this process infinitely, for in that case one would never decide. The fixed point is not in man, since we meet in him, as a being apart by himself, only the alternative faculties; we must, therefore, recur to the intervention of an exterior agent who shall impress on our will a movement capable of putting an end to its hesitations: That exterior agent is nothing else than God!

The scheme seems to differ little, and unwillingly, from a system of dynamics as modern as the dynamo. Even in the prime motor, from the moment of action, freedom of will vanished. Creation was not successive; it was one instantaneous thought and act, identical with the will, and was complete and unchangeable from end to end, including time as one of its functions. Thomas was as clear as possible on that point: "Supposing God wills anything in effect; He cannot will not to will it, because His will cannot change." He wills that some things shall be contingent and others necessary, but He wills in the same act that the contingency shall be necessary. "They are contingent because God has willed them to be so, and with this object has subjected them to causes which are so." In the same way He wills that His creation shall develop itself in time and space and sequence, but He creates these conditions as well as the events. He creates the whole, in one act, complete, unchangeable, and it is then unfolded like a rolling panorama, with its predetermined contingencies.

Man's free choice–*liberum arbitrium*–falls easily into place as a predetermined contingency. God is the first cause, and acts in all secondary causes directly; but while He acts mechanically on the rest of creation–as far as is known–He acts freely at one point, and this free action remains free as far as it extends on that line. Man's freedom derives from this source, but it is simply apparent, as far as he is a cause; it is a reflex action determined by a new agency of the first cause.

However abstruse these ideas may once have sounded, they are far from seeming difficult in comparison with modern theories of energy.

Indeed, measured by that standard, the only striking feature of St. Thomas' motor is its simplicity. Thomas' prime motor was very powerful, and its lines of energy were infinite. Among these infinite lines, a certain group ran to the human race, and, as long as the conduction was perfect, each man acted mechanically. In cases where the current, for any reason, was for a moment checked–that is to say, produced the effect of hesitation or reflection in the mind–the current accumulated until it acquired power to leap the obstacle. As St. Thomas expressed it, the Prime Motor, Who was nothing else than God, intervened to decide the channel of the current. The only difference between man and a vegetable was the reflex action of the complicated mirror which was called mind, and the mark of mind was reflective absorption or choice. The apparent freedom was an illusion arising from the extreme delicacy of the machine, but the motive power was in fact the same–that of God.

This exclusion of what men commonly called freedom was carried still further in the process of explaining dogma. Supposing the conduction to be insufficient for a given purpose; a purpose which shall require perfect conduction? Under ordinary circumstances, in ninety-nine cases out of a hundred, the conductor will be burned out, so to speak; condemned, and thrown away. This is the case with most human beings. Yet there are cases where the conductor is capable of receiving an increase of energy from the prime motor, which enables it to attain the object aimed at. In dogma, this store of reserved energy is technically called Grace. In the strict, theological sense of the word, as it is used by St. Thomas, the exact, literal meaning of Grace is "a motion which the Prime Motor, as a supernatural cause, produces in the soul, perfecting free will." It is a reserved energy, which comes to aid and reinforce the normal energy of the battery.

To religious minds this scientific inversion of solemn truths seems, and is, sacrilege; but Thomas' numerous critics in the Church have always brought precisely this charge against his doctrine, and are doing so still. They insist that he has reduced God to a mechanism and man to a passive conductor of force. He has left, they say, nothing but God in the universe. The terrible word which annihilates all other philosophical systems against which it is hurled, has been hurled freely against his for six hundred years and more, without visibly affecting the Church; and yet its propriety seems, to the vulgar, beyond reasonable cavil. To Father de Régnon, of the extremely learned and intelligent Society of Jesus, the difference between pantheism and Thomism reduces itself to this: "Pantheism, starting from the notion of an infinite substance which is the plenitude of being, concludes that there can exist no other beings than *the*

being; no other realities than the absolute reality. Thomism, starting from the efficacy of the first cause, tends to reduce more and more the efficacy of second causes, and to replace it by a passivity which receives without producing, which is determined without determining." To students of architecture, who know equally little about pantheism and about Thomism—or, indeed, for that matter, about architecture, too—the quality that rouses most surprise in Thomism is its astonishingly scientific method. The Franciscans and the Jesuits call it pantheism, but science, too, is pantheism, or has till very recently been wholly pantheistic. Avowedly science has aimed at nothing but the reduction of multiplicity to unity, and has excommunicated, as though it were itself a Church, anyone who doubted or disputed its object, its method, or its results. The effort is as evident and quite as laborious in modern science, starting as it does from multiplicity, as in Thomas Aquinas, who started from unity; and it is necessarily less successful, for its true aims, as far as it is science and not disguised religion, were equally attained by reaching infinite complexity; but the assertion or assumption of ultimate unity has characterized the law of energy as emphatically as it has characterized the definition of God in theology. If it is a reproach to St. Thomas, it is equally a reproach to Clerk Maxwell. In truth, it is what men most admire in both—the power of broad and lofty generalization.

Under any conceivable system the process of getting God and man under the same roof—of bringing two independent energies under the same control—required a painful effort, as science has much cause to know. No doubt, many good Christians and some heretics have been shocked at the tour de force by which they felt themselves suddenly seized, bound hand and foot, attached to each other, and dragged into the Church, without consent or consultation. To religious mystics, whose skepticism concerned chiefly themselves and their own existence, St. Thomas' man seemed hardly worth herding, at so much expense and trouble, into a Church where he was not eager to go. True religion felt the nearness of God without caring to see the mechanism. Mystics like St. Bernard, St. Francis, St. Bonaventure, or Pascal had a right to make this objection, since they got into the Church, so to speak, by breaking through the windows; but society at large accepted and retains St. Thomas' man much as St. Thomas delivered him to the Government; a two-sided being, free or unfree, responsible or irresponsible, an energy or a victim of energy, moved by choice or moved by compulsion, as the interests of society seemed for the moment to need. Certainly St. Thomas lavished no excess of liberty on the man he created, but still he was more

generous than the State has ever been. St. Thomas asked little from man, and gave much; even as much freedom of will as the State gave or now gives; he added immortality hereafter and eternal happiness under reasonable restraints; his God watched over man's temporal welfare far more anxiously than the State has ever done, and assigned him space in the Church which he never can have in the galleries of Parliament or Congress; more than all this, St. Thomas and his God placed man in the center of the universe, and made the sun and the stars for his uses. No statute law ever did as much for man, and no social reform ever will try to do it; yet man bitterly complained that he had not his rights, and even in the Church is still complaining, because St. Thomas set a limit, more or less vague, to what the man was obstinate in calling his freedom of will.

Thus St. Thomas completed his work, keeping his converging lines clear and pure throughout, and bringing them together, unbroken, in the curves that gave unity to his plan. His sense of scale and proportion was that of the great architects of his age. One might go on studying it for a lifetime. He showed no more hesitation in keeping his Deity in scale than in adjusting man to it. Strange as it sounds, although man thought himself hardly treated in respect to freedom, yet, if freedom meant superiority, man was in action much the superior of God, Whose freedom suffered, from St. Thomas, under restraints that man never would have tolerated. St. Thomas did not allow God even an undetermined will; He was pure Act, and as such He could not change. Man alone was allowed, in act, to change direction. What was more curious still, man might absolutely prove his freedom by refusing to move at all; if he did not like his life he could stop it, and habitually did so, or acquiesced in its being done for him; while God could not commit suicide or even cease for a single instant His continuous action. If man had the singular fancy of making himself absurd–a taste confined to himself but attested by evidence exceedingly strong–he could be as absurd as he liked; but God could not be absurd. St. Thomas did not allow the Deity the right to contradict Himself, which is one of man's chief pleasures. While man enjoyed what was, for his purposes, an unlimited freedom to be wicked–a privilege which, as both Church and State bitterly complained and still complain, he has outrageously abused–God was Goodness, and could be nothing else. While man moved about his relatively spacious prison with a certain degree of ease, God, being everywhere, could not move. In one respect, at least, man's freedom seemed to be not relative but absolute, for his thought was an energy paying no regard to space or time or order or object or sense; but God's thought was His act and will at once; speaking

correctly, God could not think; He is. St. Thomas would not, or could not, admit that God was Necessity, as Abelard seems to have held, but he refused to tolerate the idea of a divine maniac, free from moral obligation to himself. The atmosphere of St. Louis surrounds the God of St. Thomas, and its pure ether shuts out the corruption and pollution to come–the Valois and Bourbons, the Occams and Hobbeses, the Tudors and the Medicis, of an enlightened Europe.

The theology turns always into art at the last, and ends in aspiration. The spire justifies the church. In St. Thomas' Church, man's free will was the aspiration to God, and he treated it as the architects of Chartres and Laon had treated their famous flèches. The square foundation tower, the expression of God's power in act–His Creation–rose to the level of the Church façade as a part of the normal unity of God's energy; and then, suddenly, without show of effort, without break, without logical violence, became a many-sided, voluntary, vanishing human soul, and neither Villard de Honnecourt nor Duns Scotus could distinguish where God's power ends and man's free will begins. All they saw was the soul vanishing into the skies. How it was done, one does not care to ask; in a result so exquisite, one has not the heart to find fault with *adresse* [skill].

About St. Thomas' theology we need not greatly disturb ourselves; it can matter now not much, whether he put more pantheism than the law allowed or more materialism than Duns Scotus approved–or less of either–into his universe, since the Church is still on the spot, responsible for its own doctrines; but his architecture is another matter. So scientific and structural a method was never an accident or the property of a single mind even with Aristotle to prompt it. Neither his Church nor the architect's church was a sketch, but a completely studied structure. Every relation of parts, every disturbance of equilibrium, every detail of construction was treated with infinite labor, as the result of two hundred years of experiment and discussion among thousands of men whose minds and whose instincts were acute, and who discussed little else. Science and art were one. Thomas Aquinas would probably have built a better cathedral at Beauvais than the actual architect who planned it; but it is quite likely that the architect might have saved Thomas some of his errors, as pointed out by the Councils of 1276. Both were great artists; perhaps in their professions, the greatest that ever lived; and both must have been great students beyond their practice. Both were subject to constant criticism from men and bodies of men whose minds were as acute and whose learning was as great as their own. If the Archbishop of Canterbury and the Bishop of Paris condemned Thomas, the Bernardines had, for nearly

two hundred years, condemned Beauvais in advance. Both the *Summa Theologica* and Beauvais Cathedral were excessively modern, scientific, and technical, marking the extreme points reached by Europe on the lines of scholastic science. This is all we need to know. If we like, we can go on to study, inch by inch, the slow decline of the art. The essence of it–the despotic central idea–was that of organic unity both in the thought and the building. From that time, the universe has steadily become more complex and less reducible to a central control. With as much obstinacy as though it were human, it has insisted on expanding its parts; with as much elusiveness as though it were feminine, it has evaded the attempt to impose on it a single will. Modern science, like modern art, tends, in practice, to drop the dogma of organic unity. Some of the medieval habit of mind survives, but even that is said to be yielding before the daily evidence of increasing and extending complexity. The fault, then, was not in man, if he no longer looked at science or art as an organic whole or as the expression of unity. Unity turned itself into complexity, multiplicity, variety, and even contradiction. All experience, human and divine, assured man in the thirteenth century that the lines of the universe converged. How was he to know that these lines ran in every conceivable and inconceivable direction, and that at least half of them seemed to diverge from any imaginable center of unity! Dimly conscious that his Trinity required in logic a fourth dimension, how was the schoolman to supply it, when even the mathematician of today can only infer its necessity? Naturally man tended to lose his sense of scale and relation. A straight line, or a combination of straight lines, may have still a sort of artistic unity, but what can be done in art with a series of negative symbols? Even if the negative were continuous, the artist might express at least a negation; but supposing that Omar's kinetic analogy of the ball and the players turned out to be a scientific formula! supposing that the highest scientific authority, in order to obtain any unity at all, had to resort to the Middle Ages for an imaginary demon to sort his atoms! how could art deal with such problems, and what wonder that art lost unity with philosophy and science! Art had to be confused in order to express confusion; but perhaps it was truest, so.

Some future summer, when you are older, and when I have left, like Omar, only the empty glass of my scholasticism for you to turn down, you can amuse yourself by going on with the story after the death of St. Louis, St. Thomas, and William of Lorris, and after the failure of Beauvais. The pathetic interest of the drama deepens with every new expression, but at least you can learn from it that your parents in the nineteenth century

were not to blame for losing the sense of unity in art. As early as the fourteenth century, signs of unsteadiness appeared, and, before the eighteenth century, unity became only a reminiscence. The old habit of centralizing a strain at one point, and then dividing and subdividing it, and distributing it on visible lines of support to a visible foundation, disappeared in architecture soon after 1500, but lingered in theology two centuries longer, and even, in very old-fashioned communities, far down to our own time; but its values were forgotten, and it survived chiefly as a stock jest against the clergy. The passage between the two epochs is as beautiful as the "Slave" of Michelangelo; but, to feel its beauty, you should see it from above, as it came from its radiant source. Truth, indeed, may not exist; science avers it to be only a relation; but what men took for truth stares one everywhere in the eye and begs for sympathy. The architects of the twelfth and thirteenth centuries took the Church and the universe for truths, and tried to express them in a structure which should be final. Knowing by an enormous experience precisely where the strains were to come, they enlarged their scale to the utmost point of material endurance, lightening the load and distributing the burden until the gutters and gargoyles that seem mere ornament, and the grotesques that seem rude absurdities, all do work either for the arch or for the eye; and every inch of material, up and down, from crypt to vault, from man to God, from the universe to the atom, had its task, giving support where support was needed, or weight where concentration was felt, but always with the condition of showing conspicuously to the eye the great lines which led to unity and the curves which controlled divergence; so that, from the cross on the flèche and the keystone of the vault, down through the ribbed nervures, the columns, the windows, to the foundation of the flying buttresses far beyond the walls, one idea controlled every line; and this is true of St. Thomas' Church as it is of Amiens Cathedral. The method was the same for both, and the result was an art marked by singular unity, which endured and served its purpose until man changed his attitude toward the universe. The trouble was not in the art or the method or the structure, but in the universe itself which presented different aspects as man moved. Granted a Church, St. Thomas' Church was the most expressive that man has made, and the great Gothic cathedrals were its most complete expression.

Perhaps the best proof of it is their apparent instability. Of all the elaborate symbolism which has been suggested for the Gothic cathedral, the most vital and most perfect may be that the slender nervure, the springing motion of the broken arch, the leap downwards of the flying

buttress—the visible effort to throw off a visible strain—never let us forget that faith alone supports it, and that, if faith fails, heaven is lost. The equilibrium is visibly delicate beyond the line of safety; danger lurks in every stone. The peril of the heavy tower, of the restless vault, of the vagrant buttress; the uncertainty of logic, the inequalities of the syllogism, the irregularities of the mental mirror—all these haunting nightmares of the Church are expressed as strongly by the Gothic cathedral as though it had been the cry of human suffering, and as no emotion had ever been expressed before or is likely to find expression again. The delight of its aspirations is flung up to the sky. The pathos of its self-distrust and anguish of doubt is buried in the earth as its last secret. You can read out of it whatever else pleases your youth and confidence; to me, this is all.

The foregoing consists of Chapter XVI
from Adams' MONT-SAINT-MICHEL AND CHARTRES.

Voltaire [1]

1694–1778

Voltaire apparently first conceived the idea of the *Philosophical Dictionary* while he was at the court of Frederick the Great during 1751–1753. He thought of it as "an account in alphabetical order of all that I ought to think about this world and the next." By the time he first published it in 1764 he had included many of the articles which he had originally written for the great French Encyclopedia of Diderot and d'Alembert. The selection offered here thus provides an opportunity to study one of the conceptions of philosophy for which the Encyclopedia is famous. It may well be looked upon as constituting a particular type of popular philosophy.

More is involved than writing clearly in a simple style that an educated reader can understand. This much is generally true of Plato, Berkeley, and of Bertrand Russell in our own day. Voltaire agrees with these writers in denying that philosophy has to develop a highly technical terminology such as is found, for example, in Aristotle, Aquinas, and Whitehead. Yet it cannot be claimed that Voltaire shares the same concept of philosophy which is found among the first group. He seldom raises the kind of difficult and puzzling problems that they deal with. It seems that the clarity at which Voltaire aims is as much a question of matter as of form.

Essays in Popular Philosophy is a title William James used for one of his works. The same title might be used for these pieces of Voltaire's. Both are agreed that the matters on which they write are too important to be left to the professionals alone. They concern all men and should be considered by all. Yet compared with the tenor of their work as a whole, this agreement stands out as an exception. In

[1] For a biography of Voltaire, see Vol. 2, pp. 237–238, in this set.

other respects it cannot be said that they share the same concept of philosophy.

Perhaps the briefest way of describing how Voltaire differs from all the philosophers who have been mentioned is to note that he is at once more literary and more political. The imaginative tales for which he is also famous he once described as "philosophical stories."[2] This interest in story also appears in the *Philosophical Dictionary*. It is seen, for example, in the article on truth, which is organized about the story of Pontius Pilate. Yet in this Voltaire is more than just a storyteller. He is obviously concerned to distinguish and analyze different meanings of truth.

Voltaire's political intent is apparent throughout. He is always attacking the establishment of church and state. The French Encyclopedia, for which Voltaire wrote many of the pieces in the *Philosophical Dictionary*, has been described as a weapon. It was written as much to form opinion as to provide information. It is widely credited with contributing to the events and the climate of opinion that resulted in the French Revolution. Thus for Voltaire philosophy is always practical. He would agree with Marx that it is a tool with which to change the world.

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[2] See *Micromégas*, Vol. 2, pp. 241–256, in this set.

The Philosophy of Common Sense
from *Philosophical Dictionary*

ARTS

That the Recent Birth of the Arts Does Not Prove the Recent Formation of the Globe.

All philosophers have thought matter eternal; but the arts appear to be new. Even the art of making bread is of recent origin. The first Romans ate pap; and those conquerors of so many nations had neither windmills nor watermills. This truth seems, at first sight, to contradict the doctrine of the antiquity of the globe as it now is, or to indicate that our earth has suffered terrible revolutions. Irruptions of barbarians can hardly annihilate arts which have become necessary. Suppose that an army of Negroes were to come upon us, like locusts, from the mountains of southern Africa, through Monomotapa, Monoemugi, etc., traversing Abyssinia, Nubia, Egypt, Syria, Asia Minor, and all Europe, ravaging and overturning everything in its way; there would still be a few bakers, tailors, shoemakers, and carpenters left; the necessary arts would revive; luxury alone would be annihilated. This was what happened at the fall of the Roman Empire; even the art of writing became very rare; nearly all those arts which contributed to render life agreeable were for a long time extinct. Now, we are inventing new ones every day.

From all this, no well-grounded inference can be drawn against the antiquity of the globe. For, supposing that a flood of barbarians had entirely swept away the arts of writing and making bread; supposing even that we had had bread, or pens, ink, and paper, only for ten years—the country which could exist for ten years without eating bread or writing down its thoughts could exist for an age, or a hundred thousand ages, without these resources.

It is quite clear that man and the other animals can very well subsist

without bakers, without romance-writers, and without divines, as witness America, and as witness also three-fourths of our own continent. The recent birth of the arts among us does not prove the recent formation of the globe, as was pretended by Epicurus, one of our predecessors in speculation, who supposed that the eternal atoms in their declination one day formed our earth by pure chance. Pomponatius used to say: *"Se il mondo non e eterno, per tutti santi e molto vecchio"*—"If this world be not eternal, by all the saints, it is very old."

ASTROLOGY

Astrology may rest on better foundations than magic. For if no one has ever seen either goblins, or lemurs, or goddesses, or peris, or demons, or cacodemons, the predictions of astrologers have often been seen to succeed. If, of two astrologers consulted on the life of a child and on the weather, one says that the child will live to manhood, the other not; if one announces rain, and the other fine weather, it is clear that one of them will be a prophet.

The prime misfortune of the astrologers is that the sky has changed since the rules of the art were established. The sun, which at the equinox was in Aries in the time of the Argonauts, is today in Taurus; and the astrologers, to the great hurt of their art, today attribute to one house of the sun what belongs visibly to another. This, however, is not a conclusive argument against astrology. The masters of the art deceive themselves; but it is not demonstrated that the art cannot exist.

There is no absurdity in saying: Such and such a child is born in the waxing of the moon, during stormy weather, at the rising of such and such star; his constitution has been feeble, and his life unhappy and short, which is the ordinary lot of poor constitutions: whereas this child, on the contrary, was born when the moon was full, the sun strong, the weather calm, at the rising of such and such star; his constitution has been good, his life long and happy. If these observations had been repeated, if they had been found accurate, experience would have been able after some thousands of centuries to form an art which it would have been difficult to doubt. One would have thought, with some reason, that men are like trees and vegetables which must be planted and sown only in certain seasons. It would have been of no avail against the astrologers to say: My son was born at a fortunate time, and nevertheless died in his cradle. The astrologer would have replied: It often happens that trees planted in the proper

season perish; I answered to you for the stars, but I did not answer for the malformation you communicated to your child. Astrology operates only when no cause opposes itself to the good the stars can do.

One would have succeeded no better in discrediting the astrologer by saying: Of two children who were born in the same minute, one has been king, the other has been only churchwarden of his parish. For the astrologer could very well have defended himself by pointing out that the peasant made his fortune when he became churchwarden, as the prince when he became king.

And if one alleged that a bandit hanged by Sixtus V was born at the same time as Sixtus V himself, who from a pig-herd became Pope, the astrologers would say there had been a mistake of a few seconds, and that it is impossible, according to the rules, for the same star to bestow the triple crown and the gallows. Only because a host of experiences belied predictions, did men at last perceive that the art is illusory; but, before being undeceived, they were long credulous.

One of the most famous mathematicians in Europe, named Stoffler, who flourished in the fifteenth and sixteenth centuries, and who worked for a long time on the calendar reform which was proposed at the Council of Constance, foretold a universal flood for the year 1524. This flood was supposed to arrive in the month of February, and nothing was more plausible; for Saturn, Jupiter, and Mars were then in conjunction in the sign of Pisces. All the peoples of Europe, Asia and Africa, who heard of the prediction, were dismayed. Everyone expected the flood, rainbows to the contrary. Several contemporary authors record that the inhabitants of the maritime provinces of Germany hastened to sell their lands dirt-cheap to those who had the most money, and who were less credulous than they. Everyone provided himself with a boat to serve as an ark. A Toulouse doctor, named Auriol, had a great ark made for himself, his family, and his friends; the same precautions were taken throughout a large part of Italy. At last the month of February arrived, and not a drop of water fell. Never was there a drier month, and never were the astrologers more embarrassed. Nevertheless they were neither discouraged nor neglected, and almost all princes continued to consult them.

I have not the honour of being a prince; but the celebrated Count of Boulainvilliers, and an Italian named Colonna, who was highly thought of in Paris, both foretold that I should most certainly die at the age of thirty-two. I have been malicious enough to outwit them by nearly thirty years already, wherefore I humbly beg their pardon.

AUTHORITY

Wretched human beings, whether you wear green robes, turbans, black robes or surplices, cloaks and clerical bands, never seek to use authority where it is only a question of reason, unless you wish to be scoffed at throughout the centuries as the most impertinent of men, and to suffer public hatred as the most unjust.

You have been spoken to a hundred times of the insolent absurdity with which you condemned Galileo, and I speak to you for the hundred and first, and I hope you will keep the anniversary of that event for ever. Would that there might be graved on the door of your Holy Office: "Here seven cardinals, assisted by minor brethren, had the finest thinker of Italy thrown into prison at the age of seventy; made him fast on bread and water because he instructed the human race, and because they were ignorant."

In the same place there was pronounced a sentence in favour of Aristotle's categories, and the penalty of the galleys was learnedly and equitably decreed for anyone who should be sufficiently daring as to hold an opinion different from those of the Stagyrite, whose books were formerly burned by two councils.

Still later a faculty—which was possessed of no great faculties—issued a decree condemning innate ideas, and later a decree in favour of innate ideas, without the said faculty being informed by its beadles what an idea is.

In the neighbouring schools judicial proceedings were instituted against the circulation of the blood.

An action has been started against inoculation, and parties have been subpoenaed.

At the Customs of Thought twenty-one folio volumes were seized, in which it was treacherously and wickedly stated that triangles always have three angles; that a father is older than his son; that Rhea Silvia lost her virginity before giving birth to her child; and that flour is not an oak leaf.

On another occasion the action: *Utrum chimera bombinans in vacuo possit comedere secundas intentiones* [whether a chimera buzzing in a vacuum can feed on good intentions], came up for judgment; and it was decided in the affirmative.

The result was that everyone thought himself far superior to Archimedes, Euclid, Cicero, and Pliny, and strutted proudly about the University Quarter.

AUTHORS

Do you wish to be an author? Do you wish to make a book? Remember that it must be new and useful, or at least have great charm. Why from your provincial retreat should you slay me with another quarto, to teach me that a king ought to be just, and that Trajan was more virtuous than Caligula? You insist upon printing the sermons which have lulled your little obscure town to sleep, and you put all our histories under contributions to extract from them the life of a prince of whom you can say nothing new.

If you have written a history of your own time, doubt not but you will find some learned chronologist, or newspaper commentator, who will catch you up on a date, a Christian name, or a squadron which you have wrongly placed at the distance of three hundred paces from the place where it was really posted. Be grateful, and correct these important errors forthwith.

If an ignoramus, or an empty fool, pretend to criticize this thing or the other, you may properly confute him; but name him rarely, for fear of soiling your writings. If you are attacked on your style, never answer; your work alone should reply.

If you are said to be sick, content yourself that you are well, without wishing to prove to the people that you are in perfect health; and, above all, remember that the world cares very little whether you are well or ill.

A hundred authors compile to get their bread, and twenty fools extract, criticize, apologize, and satirize these compilations to get bread also, because they have no profession. All these people repair on Fridays to the lieutenant of the police at Paris to demand permission to sell their drugs. They have their audience immediately after the prostitutes, who pay no attention to them, because they know that they are poor customers.

They return with a tacit permission to sell and distribute throughout the kingdom their stories; their collection of bon mots; the life of the blessed Regis; the translation of a German poem; new discoveries on eels; a new copy of verses; a treatise on the origin of bells, or on the loves of the toads. A bookseller buys their productions for ten crowns; they give five of them to a corner pamphleteer, on condition that he will speak well of them in his sheet. The scribbler takes their money, and says all the ill he can of their books. The aggrieved parties go to complain to the Jew, who is keeping the wife of the journalist, and the scene closes by the critic being carried to Fort-Evêque; and these are they who call themselves authors!

These poor people are divided into two or three bands, and go begging like mendicant friars; but not having taken vows, their society lasts only for a few days, for they betray one another like priests who run after the same benefice, though they have no benefice to hope for. But they still call themselves authors!

The misfortune of these men is that their fathers did not make them learn a trade, which is a great fault of our modern system. Every man of the people who can bring up his son in a useful art, and does not do so, merits punishment. The son of a mason becomes a Jesuit at seventeen; he is chased from society at four-and-twenty, because the looseness of his habits has become too notorious. Behold him without bread! He turns journalist, he cultivates the lowest kind of literature, and is scorned even by the mob. And such as these, again, call themselves authors!

The only authors are they who have succeeded in a genuine art, be it epic poetry, tragedy, comedy, history, or philosophy, and who teach or delight mankind. The others, of whom we have spoken, are, among men of letters, like bats among the birds.

CONCATENATION OF EVENTS

It is said that the present is pregnant with the future. Events are linked to each other by an invincible fatality: Homer puts Destiny above even Jupiter. This master of gods and men declares roundly that he cannot stop his son Sarpedon dying at his appointed time. Sarpedon was born at the moment when he had to be born, and could not be born at another moment; he could not die otherwise than before Troy; he could not be buried elsewhere than in Lycia; he had at the appointed time to produce vegetables which had to be changed into the substance of a few Lycians; his heirs had to establish a new order in his states; this new order had to exert an influence over the neighbouring kingdoms; from it necessarily resulted a new arrangement of war and peace with the neighbours of the neighbours of Lycia: thus, step by step, the destiny of the whole world has been dependent on Sarpedon's death, which depended on Helen being carried off; and this carrying-off was necessarily linked to Hecuba's marriage, which when traced back to other events was linked to the origin of things.

If only one of these facts had been arranged differently, another universe would have resulted: but it was not possible for the present universe not to exist; therefore it was not possible for Jupiter to save his son's life, for all that he was Jupiter.

This system of necessity and fatality according to report has been invented in our time by Leibnitz, under the name of *self-sufficient reason.* It is, however, very ancient: that there is no effect without a cause, and that often the smallest cause produces the greatest effects, is not a recent idea.

Lord Bolingbroke avows that the little quarrels of Madame Marlborough and Madame Masham gave birth to his chance of making Queen Anne's private treaty with Louis XIV; this treaty led to the Peace of Utrecht; this Peace of Utrecht established Philip V on the throne of Spain. Philip V took Naples and Sicily from the house of Austria; the Spanish prince who is today King of Naples clearly owes his kingdom to my lady Masham: and he would not have had it, he would not perhaps even have been born, if the Duchess of Marlborough had been more complaisant towards the Queen of England. His existence at Naples depended on one foolishness more or less at the court of London.

Examine the position of all the peoples of the universe. They are established like this on a sequence of facts which appear to be connected with nothing and which are connected with everything. Everything is cog, pulley, cord, spring, in this vast machine.

It is likewise in the physical sphere. A wind which blows from the depths of Africa and the southern seas brings with it a portion of the African atmosphere, which falls in rain in the valleys of the Alps. These rains fertilize our lands, while our north wind in its turn sends our vapours among the Negroes. We do good to Guinea, and Guinea does good to us. The chain stretches from one end of the universe to the other.

But it seems to me that the truth of this principle is strangely abused. From it some people conclude that there is not a sole minute atom whose movement has not exerted its influence in the present arrangement of the world; that there is not a single minute accident, among either men or animals, which is not an essential link in the great chain of fate.

Let us understand each other: every effect clearly has its cause, going back from cause to cause in the abyss of eternity; but every cause has not its effect going forward to the end of the centuries. All events are produced by each other, I admit; if the past is delivered of the present, the present is delivered of the future; every being has a father, but every being does not always have children. Here it is precisely as with a genealogical tree: each house goes back, as we say, to Adam; but in the family there are many persons who have died without issue.

There is a genealogical tree of the events of this world. It is incontestable that the inhabitants of Gaul and Spain are descended from Gomer,

and the Russians from Magog, his younger brother: one finds this genealogy in so many fat books! On this basis one cannot deny that the Great Turk, who is also descended from Magog, was bound to be well beaten in 1769 by Catherine II, Empress of Russia. This adventure is clearly connected with other great adventures. But that Magog spat to right or left, near Mount Caucasus, and that he made two circles in a well or three, that he slept on the left side or on the right, are matters which, in my opinion, had little influence on present affairs.

One must conclude that everything is not complete in nature, as Newton has demonstrated, and that every movement is not communicated step by step, until it makes a circuit of the world, as he has demonstrated still further. Throw into water a body of like density: You calculate easily that after a short time the movement of this body, and the movement it has communicated to the water, will be destroyed. The movement disappears and is effaced. In the same way, the movement that Magog might have produced by spitting in a well cannot influence what is passing today in Moldavia and Walachia; therefore present events are not the children of *all* past events: they have their direct lines; but a thousand little collateral lines do not serve them at all. Once more, every being has a father, but every being does not have children.

DEMOCRACY

As a rule there is no comparison between the crimes of great men, who are always ambitious, and the crimes of the people, who always want, and can only want, liberty and equality. These two sentiments, Liberty and Equality, do not lead straight to calumny, rapine, assassination, poisoning, the devastation of one's neighbours' lands, etc. But ambitious might and the mania for power plunge men into all these crimes, whatever the time, whatever the place.

Popular government is in itself, therefore, less iniquitous, less abominable than despotic power.

The great vice of democracy is certainly not tyranny and cruelty. There have been mountain-dwelling republicans who were savage and ferocious; but it was not the republican spirit that made them so, it was nature.

The real vice of a civilized republic is expressed in the Turkish fable of the dragon with many heads and the dragon with many tails. The many heads injured one another, and the many tails obeyed a single head which sought to devour everything.

Democracy seems suitable only to a very little country, and one that is

happily situated. However small it may be, it will make many mistakes, because it will be composed of men. Discord will reign there as in a monastery; but there will be no St. Bartholomew, no Irish massacres, no Sicilian vespers, no Inquisition, no condemnation to the galleys for having taken some water from the sea without paying for it—unless one assumes that this republic is composed of devils in a corner of hell.

Which is better—runs the endless question—a republic or a monarchy? The dispute always resolves itself into an agreement that it is a very difficult business to govern men. The Jews had God Himself for their master, and see what has happened to them as a result: nearly always have they been oppressed and enslaved and even today they do not appear to cut a very pretty figure.

EQUALITY

It is clear that men, in the enjoyment of their natural faculties, are equal: they are equal when they perform animal functions, and when they exercise their understanding. The King of China, the Great Mogul, the Padishah of Turkey, cannot say to the least of men: "I forbid you to digest, to go to the privy, or to think." All the animals of each species are equal among themselves. Animals, by nature, have over us the advantage of independence. If a bull which is wooing a heifer is driven away with the blows of the horns by a stronger bull, it goes in search of another mistress in another field, and lives free. A cock, beaten by a cock, consoles itself in another poultry-house. It is not so with us. A little vizier exiles a bostanji to Lemnos: the vizier Azem exiles the little vizier to Tenedos: the padishah exiles the vizier Azem to Rhodes: the Janissaries put the padishah in prison, and elect another who will exile good Mussulmans as he chooses; people will still be very obliged to him if he limits his sacred authority to this small exercise.

If this world were what it seems it should be, if man could find everywhere in it an easy subsistence, and a climate suitable to his nature, it is clear that it would be impossible for one man to enslave another. If this globe were covered with wholesome fruits; if the air, which should contribute to our life, gave us no diseases and no premature deaths; if man had no need of lodging and bed other than those of the buck and the deer; then the Jenghiz Khans and the Tamerlanes would have no servants other than their children, who would be decent enough to help them in their old age.

In the natural state enjoyed by all untamed quadrupeds, birds and

reptiles, man would be as happy as they. Domination would then be a chimera, an absurdity of which no one would think; for why seek servants when you have no need of their service?

If it came into the head of some individual of tyrannous mind and brawny arm to enslave a neighbour less strong than he, the thing would be impossible; the oppressed would be on the Danube before the oppressor had taken his measures on the Volga.

All men then would be necessarily equal, if they were without needs. It is the poverty connected with our species which subordinates one man to another. It is not the inequality which is the real misfortune, it is the dependence. It matters very little that So-and-so calls himself "His Highness," and So-and-so "His Holiness"; but to serve the one or the other is hard.

A big family has cultivated fruitful soil; two little families nearby have thankless and rebellious fields; the two poor families have to serve the opulent family, or slaughter it. There is no difficulty in that. But one of the two indigent families offers its arms to the rich family in exchange for bread, while the other attacks and is defeated. The subservient family is the origin of the servants and the workmen; the beaten family is the origin of the slaves.

In our unhappy world it is impossible for men living in society not to be divided into two classes, the one the rich who command, the other the poor who serve; and these two classes are subdivided into a thousand, and these thousand still have different gradations.

When the lots are drawn you come to us and say: "I am a man like you. I have two hands and two feet, as much pride as you, nay more, a mind as disordered, at least, as inconsequent, as contradictory as yours. I am a citizen of San Marino, or of Ragusa, or Vaugirard: give me my share of the land. In our known hemisphere there are about fifty thousand million *arpents* to cultivate, some passable, some sterile. We are only about a thousand million featherless bipeds in this continent; that makes fifty *arpents* apiece: be just; give me my fifty *arpents*."

"Go and take them in the land of the Kaffirs," we answer, "or the Hottentots, or the Samoyeds; come to an amicable arrangement with them; here all the shares are taken. If you want to eat, be clothed, lodged, and warmed among us, work for us as your father did; serve us or amuse us, and you will be paid; otherwise you will be obliged to ask charity, which would be too degrading to your sublime nature, and would stop your being really the equal of kings, and even of country parsons, according to the pretensions of your noble pride."

All the poor are not unhappy. The majority were born in that state, and continual work keeps them from feeling their position too keenly; but when they do feel it, then one sees wars, like that of the popular party against the senate party in Rome, like those of the peasants in Germany, England, and France. All these wars finish sooner or later with the subjection of the people, because the powerful have money, and money is master of everything in a state. I say in a state, for it is not the same between nations. The nation which makes the best use of the sword will always subjugate the nation which has more gold and less courage.

All men are born with a sufficiently violent liking for domination, wealth, and pleasure, and with a strong taste for idleness; consequently, all men covet the money, the wives, or the daughters of other men; they wish to be their master, to subject them to all their caprices, and to do nothing, or at least to do only very agreeable things. You see clearly that with these fine inclinations it is as impossible for men to be equal as it is impossible for two preachers or two professors of theology not to be jealous of each other.

The human race, such as it is, cannot subsist unless there is an infinity of useful men who possess nothing at all; for it is certain that a man who is well off will not leave his own land to come to till yours, and if you have need of a pair of shoes, it is not the Secretary to the Privy Council who will make them for you. Equality, therefore, is at once the most natural thing and the most fantastic.

As men go to excess in everything when they can, this inequality has been exaggerated. It has been maintained in many countries that it was not permissible for a citizen to leave the country where chance has caused him to be born. The sense of this law is obviously: "This land is so bad and so badly governed, that we forbid any individual to leave it, for fear that everyone will leave it." Do better: make all your subjects wish to live in your country, and foreigners wish to come to it.

All men have the right in the bottom of their hearts to think themselves entirely equal to other men. It does not follow from this that the cardinal's cook should order his master to prepare him his dinner, but the cook can say: "I am a man like my master; like him I was born crying; like me he will die with the same pangs and the same ceremonies. Both of us perform the same animal functions. If the Turks take possession of Rome, and if then I am cardinal and my master cook, I shall take him into my service." This discourse is reasonable and just, but while waiting for the Great Turk to take possession of Rome, the cook must do his duty, or else all human society is disordered.

As regards a man who is neither a cardinal's cook, nor endowed with any other employment in the state; as regards a private person who is connected with nothing, but who is vexed at being received everywhere with an air of being patronized or scorned, who sees quite clearly that many monseigneurs have no more knowledge, wit, or virtue than he, and who at times is bored at waiting in their antechambers, what should he decide to do? Why, to take himself off.

FRIENDSHIP

Friendship is the marriage of souls, and this marriage is subject to divorce. It is a tacit contract between two sensitive and virtuous persons. I say sensitive, because a monk, a recluse, can be innocent of evil and still live without knowing the meaning of friendship. I say virtuous, because the wicked have only accomplices; voluptuaries have companions in debauch, self-seekers have partners, politicians attract partisans; the generality of idle men have attachments; princes have courtiers; while virtuous men alone have friends. Cethegus was the accomplice of Catiline, and Maecenas the courtier of Octavius; but Cicero was the friend of Atticus.

LAWS

Sheep live very placidly together, and they are considered very easygoing, because we do not see the prodigious quantity of animals they devour. It is possible, of course, that they eat them innocently and without knowing it, as we do when we eat a Sassenage cheese. The republic of the sheep is a faithful representation of the golden age.

A chicken-run is obviously the most perfect monarchic state. There is no king comparable to a cock. If he marches proudly in the midst of his people, it is not out of vanity. If an enemy approaches, he does not order his subjects to go forth to kill themselves for his sake, by virtue of his infallible wisdom and plenary power; he goes to battle himself, ranges his chickens behind him and fights to the death. If he is the victor, he himself sings the *Te Deum*. In civil life there is no one so gallant, so honest, so disinterested. The cock has all the virtues. If his royal beak holds a grain of corn, or a grub, he gives it to the first lady among his subjects who presents herself. Solomon in his harem did not even approach a barnyard cock.

If it is true that bees are governed by a queen to whom all her subjects make love, then the bees enjoy a still more perfect government.

Ants are considered to be excellent democrats. Democracy is above all the other states, because in a democracy everyone is equal, and each individual works for the good of all. The republic of the beavers is superior to even that of the ants, at least if we judge by their masonry work. As for the monkeys, they resemble strolling players rather than a civilized people; and they do not appear to be united under fixed, fundamental laws, as are the species previously mentioned.

We resemble the monkeys more than any other animal, by virtue of our gift of mimicry, the frivolity of our ideas, and the inconstancy which has never permitted us to establish uniform and durable laws.

When nature formed our species, she gave us certain instincts: self-esteem for our preservation, benevolence for the preservation of others, love which is common to all species, and the inexplicable gift of combining more ideas than all the animals together. Then, having given us our portion, she said to us: "Do as you can."

No country has a good code of laws. The reason for this is evident: the laws have been made according to the time, the place, the need, etc.

When the needs have changed, the laws which have remained have become ridiculous. Thus the law which forbade the eating of pig and the drinking of wine was very reasonable in Arabia, where pig and wine are injurious. But it is absurd at Constantinople.

The law which gives the whole estate to the eldest son is very good in times of anarchy and pillage. Then the eldest son is the captain of the castle which the brigands will attack sooner or later; the younger sons will be his chief officers, the husbandmen his soldiers. The only danger is that the younger son may assassinate or poison the Salian lord, his elder brother, in order to become in his turn the master of the hovel; but these cases are rare, because nature has so combined our instincts and our passions that our horror of assassinating our elder brother is stronger than our envy of his position. But this law, suitable for the owners of dungeons in Chilperic's time, is detestable when it is a question of sharing revenues in a city.

To the shame of mankind, it is well known that the laws which govern our games are the only ones which are completely just, clear, inviolable and enforced. Why is the Indian who gave us the rules of the game of chess willingly obeyed all over the world, and why are the popes' decretals, for example, today an object of horror and scorn? The reason is that the inventor of chess arranged everything with precision for the satisfaction of the players, while the popes, in their decretals, had nothing in view but their own interest. The Indian wished to exercise men's minds equally,

and give them pleasure; the popes wished to besot men's minds. Also, the essence of the game of chess has remained the same for five thousand years, it is common to all the inhabitants of the earth; and the decretals are known only at Spoletto, Orvieto, Loretto, where the shallowest lawyer secretly hates and despises them.

Full of all these reflections, I like to think that there is a natural law independent of all human conventions: the fruit of my work must belong to me; I must honour my father and my mother; I have no right over my fellow's life, and my fellow has none over mine, etc. But when I reflect that from the days of Chedorlaomer to those of Mentzel [1] everyone has gone about loyally killing and pillaging his neighbours, with a licence in his pocket, I am very sad.

I am told that there are laws among thieves, and also laws of war. I ask what are these laws of war. I learn that they mean hanging a brave officer who has stood fast in a bad post without cannon against a royal army; that they mean having a prisoner hanged, if the enemy has hanged one of yours; that they mean putting to fire and sword villages which have not made their required contributions on an appointed day, according to the orders of the gracious sovereign of the district. "Good," say I, "this is the *Spirit of the Laws*."

It seems to me that almost everyone has received from nature enough common sense to make laws, but that no one is just enough to make good laws.

MAN, GENERAL REFLECTION ON

It requires twenty years for man to rise from the vegetable state in which he is within his mother's womb, and from the pure animal state which is the lot of his early childhood, to the state when the maturity of reason begins to appear. It has required thirty centuries to learn a little about his structure. It would need eternity to learn something about his soul. It takes an instant to kill him.

MOUNTAIN

It is a very old, universal fable that tells of the mountain which, having frightened all the country-side by its outcry that it was in labour, was

1. Chedorlaomer was king of the Elamites, and contemporary with Abraham. See Genesis 14.
Mentzel was a famous chief of Austrian partisans in the war of 1741. At the head of five thousand men, he made Munich capitulate on February 13, 1742.

hissed by all present when it brought into the world a mere mouse. The people in the pit were not philosophers. Those who hissed should have admired. It was as remarkable for the mountain to give birth to a mouse, as for the mouse to give birth to a mountain. A rock which produces a rat is a very prodigious thing; and never has the world seen anything approaching this miracle. All the globes of the universe could not call a fly into existence. Where the vulgar laugh, the philosopher admires; and he laughs where the vulgar open their big, stupid eyes in astonishment.

NEW NOVELTIES

It seems that the first words of Ovid's *Metamorphoses, In nova fert animus* [the mind is carried away by novelty], are the motto of the human race. Nobody is moved by the wonderful spectacle of the sun which rises, or rather appears to rise, every day; everybody runs to see the tiniest meteor which flames for an instant in that accumulation of vapours, called the sky, which surrounds the earth.

An itinerant bookseller does not burden himself with a Virgil, with a Horace, but with a new book, even though it be detestable. He draws you aside and says to you: "Sir, do you want some books from Holland?"

From the beginning of time, women have complained that men have been unfaithful to them for the sake of novelty, for the sake of other women whose novelty was their only merit. Many ladies (it must be confessed, despite the infinite respect we have for them) have treated men as they complain they have themselves been treated; and the story of Gioconda is much older than Ariosto.

Perhaps this universal taste for novelty is one of nature's blessings. People cry to us: "Be content with what you have, desire nothing that is above your station, restrain your curiosity, curb your intellectual activity." These are excellent maxims, but if we had always followed them, we should still be eating acorns, we should still be sleeping in the open air, and we should not have had Corneille, Racine, Molière, Poussin, Lebrun, Lemoine, or Pigalle.

REASON

At the time when all France was mad over the Mississippi Bubble, and John Law was controller-general, there came to him a man who was always right, who always had reason on his side. Said he to Law, in the presence of a large crowd:

"Sir, you are the biggest madman, the biggest fool, or the biggest rogue who has yet appeared among us, and that is saying a great deal. This is how I prove it. You have imagined that a state's wealth can be increased ten-fold with paper, but as this paper can represent only the money that is representative of true wealth–the products of the land and industry–you should have begun by giving us ten times more corn, wine, cloth, canvas, etc. That is not enough, you must be sure of your market. But you make ten times as many notes as we have of silver and commodities, therefore you are ten times more extravagant, or more inept, or more of a rogue than all the comptrollers who have preceded you. Now this is how I prove the major term of my thesis."

But he had hardly started his major when he was led off to a lunatic asylum.

When he came out of the asylum, where he studied hard and strengthened his reason, he went to Rome, where he asked for a public audience with the Pope, on condition that he would not be interrupted in his harangue. And he spoke to the Pope in these terms: "Holy Father, you are an antichrist and this is how I prove it to Your Holiness. I call antichrist the man who does the contrary to what Christ did and commanded. Now Christ was poor, and you are very rich; he paid tribute, and you exact tribute; he submitted to the powers that were, and you have become a power yourself; he walked on foot, and you go to Castel Gandolfo in a sumptuous equipage; he ate whatever anyone was good enough to give him, and you want us to eat fish on Friday and Saturday, when we live far from sea and river; he forbade Simon Barjona to use a sword, and you have swords in your service, etc., etc., etc. Therefore in this sense Your Holiness is antichrist. In every other sense I hold you in great veneration, and I ask you for an indulgence *in articulo mortis* [at the moment of death]."

My man was put in the Castello St. Angelo.

When he came out of the Castello St. Angelo, he rushed to Venice, and asked to speak to the doge.

"Your Serenity," he said, "must be a very extravagant person to marry the sea every year: for, in the first place, one only marries the same person once; secondly, your marriage resembles Harlequin's which was half made, seeing that it lacked but the consent of the bride; thirdly, how do you know that other maritime powers will not one day declare you incapable of consummating the marriage?"

Having spoken, he was shut up in the Tower of St. Mark's.

When he came out of the Tower of St. Mark's, he went to Constanti-

nople, where he had an audience with the mufti, and spoke to him in these terms: "Your religion, although it has some good points, such as worship of a supreme Being, and the rule of being just and charitable, is otherwise nothing but a rehash of Judaism and a tedious collection of fairy tales. If the archangel Gabriel had brought the leaves of the Koran to Mohammed from some planet, all Arabia would have seen Gabriel come down; but nobody saw him. Therefore Mohammed was a brazen impostor who deceived imbeciles."

Hardly had he pronounced these words than he was run through with a sword. Nevertheless he had always been right, and had always had reason on his side.

SELF-LOVE

Nicole in his *Essais de Morale*—written on top of two or three thousand other volumes of ethics—says that "by means of the wheels and gibbets which people erect in common, the tyrannous thoughts and designs of each individual's self-love are repressed."

I shall not inquire whether or not people have gibbets in common, as they have meadows and woods in common, and a common purse, or if one represses ideas with wheels; but it seems very strange to me that Nicole should take highway robbery and assassination for self-love. One should distinguish shades of difference a little better. The man who said that Nero had his mother assassinated through self-love, and that Cartouche had an excess of self-love, would not be expressing himself very correctly. Self-love is not wickedness, it is a sentiment that is natural to all men; it is much nearer vanity than crime.

A beggar in the suburbs of Madrid was nobly begging charity. A passer-by said to him: "Are you not ashamed to practice this infamous calling when you are able to work?"

"Sir," answered the beggar, "I ask for money, not advice." And he turned on his heel with full Castilian dignity.

This gentleman was a proud beggar, his vanity was wounded by a trifle. He asked charity out of love for himself, and could not tolerate the reprimand out of further love for himself.

A missionary traveling in India met a fakir laden with chains, naked as a monkey, lying on his stomach, who was having himself whipped for the sins of his compatriots, the Indians, who gave him a few farthings.

"What self-denial!" said one of the spectators.

"Self-denial!" answered the fakir. "I have myself flogged in this world in

order to give this flogging back to you in the next world, when you will be horses and I a horseman."

Those who have said that love of ourselves is the basis of all our opinions and all our actions, have therefore been quite right in India, Spain, and all the habitable world: and as one does not write to prove to men that they have faces, it is not necessary to prove to them that they have self-love. Self-love is our instrument of preservation; it resembles the instrument which perpetuates the species. It is necessary, it is dear to us, it gives us pleasure, and it has to be hidden.

SOCRATES

One day, two citizens of Athens, returning from the temple of Mercury, perceived Socrates in the public square. One said to the other: "Is not that the rascal who says that one can be virtuous without going every day to offer up sheep and geese?" "Yes," said the other, "that is the sage who has no religion; that is the atheist who says there is only one God." Socrates approached them with his simple air, his daemon, and his irony, which Madame Dacier has so highly extolled. "My friends," said he to them, "one word, if you please: a man who prays to God, who adores Him, who seeks to resemble Him as much as human weakness can do, and who does all the good which lies in his power, what would you call him?" "A very religious soul," said they. "Very well; we may therefore adore the Supreme Being, and have a great deal of religion?" "Granted," said the two Athenians. "But do you believe," pursued Socrates, "that when the Divine Architect of the world arranged all the spheres which revolve above our heads, when He gave motion and life to so many different beings, He made use of the arm of Hercules, the lyre of Apollo, or the flute of Pan?" "It is not probable," said they. "But if it is not probable that He called in the aid of others to construct that which we see, it is not credible that He preserves it through others rather than through Himself. If Neptune were the absolute master of the sea, Juno of the air, Aeolus of the winds, Ceres of harvests–and if one desired a calm, when another wanted wind and rain–you see clearly, that the order of nature could not exist as it is. You will confess, that all depends upon Him who has made all. You attribute four white horses to the sun, and four black ones to the moon; but is it not more likely, that day and night are the effect of the motion given to the stars by their Master, than that they were produced by eight horses?" The two citizens looked at him, but answered nothing. In short, Socrates concluded by proving to them that they might have harvests without

giving money to the priests of Ceres; go to the chase without offering little silver statues to the temple of Diana; that Pomona gave not fruits; that Neptune gave not horses; and that they should thank the Sovereign who had made all.

His discourse was most exactly logical. Xenophon, his disciple, a man who knew the world, and who afterwards sacrificed to the wind, during the retreat of the ten thousand, took Socrates by the sleeve, and said to him: "Your discourse is admirable; you have spoken better than an oracle; and you are lost. One of these good people to whom you speak is a butcher, who sells sheep and geese for sacrifices; and the other a goldsmith, who profits by making little gods of silver and brass for women. They will accuse you of being a blasphemer, who would diminish their trade. They will depose against you to Melitus and Anitus, your enemies, who have resolved upon your ruin. Have a care of hemlock; your familiar spirit should have warned you not to say to a butcher and a goldsmith what you should say only to Plato and Xenophon."

Some time after, the enemies of Socrates caused him to be condemned by the council of five hundred. He had two hundred and twenty voices in his favour, by which it may be presumed that there were two hundred and twenty philosophers in this tribunal; but it shows that, in all companies, the number of philosophers is always the minority.

Socrates therefore drank hemlock, for having spoken in favour of the unity of God; and the Athenians afterward consecrated a temple to Socrates—to him who disputed against all temples dedicated to inferior beings.

TRUTH

"Pilate therefore said unto him, Art thou a king then? Jesus answered, Thou sayest that I am a king. To this end was I born, and for this cause came I into the world, that I should bear witness unto the truth. Everyone that is of the truth heareth my voice.

"Pilate saith unto Him, What is truth? And when he had said this he went out, etc."

It is a sad thing for the human race that Pilate went out without waiting for the answer; we should know what truth is. Pilate had very little curiosity. The accused led before him says he is king, that he was born to be king; and Pilate does not inquire how these things can be. He is supreme judge in Caesar's name, he has power of life and death; his duty is to probe the sense of these words. He ought to say: "Tell me what you

understand by being king. How were you born to be king and to bear witness to the truth? It is maintained that it is hard for truth to reach the ears of kings. I am a judge, and I have always had great trouble in finding it. While your enemies are howling against you outside, give me some information on the point; you will be doing me the greatest service that has ever been done a judge; and I much prefer to learn to recognize truth, than to accede to the Jews' clamourous demand to have you hanged."

Of course, we cannot dare to imagine what the author of all truth would have been able to reply to Pilate.

Would he have said: "Truth is an abstract word which most men use indifferently, in their books and judgments, for error and falsehood?" This definition would have been marvelously appropriate to all makers of systems. Similarly the word "wisdom" is often taken for folly, and "wit" for nonsense.

Humanly speaking, let us define truth, while waiting for a better definition, as *a statement of the facts as they are*.

I suppose that if one had given only six months to teaching Pilate the truths of logic, he would assuredly have made this conclusive syllogism: One must not take away a man's life for simply good morality. Well, the accused man has, even on the showing of his enemies, often preached excellent morality. Therefore he should not be punished with death.

He might have drawn this further argument. My duty is to disperse the riotous assemblage of a seditious people who demand a man's death, unreasonably and without legal form. Very well. This is the exact position of the Jews in this instance; therefore I must drive them away and break up their meeting.

We suppose that Pilate knew arithmetic; hence we will not speak of those forms of truth.

As regards mathematical truths, I think it would have taken at least three years before he could have learned higher geometry. The truths of physics combined with those of geometry would have demanded more than four years. We spend six, ordinarily, in studying theology; but I ask twelve for Pilate, seeing that he was pagan; on the ground that six years would not have been too much for eradicating all his old errors, and six years more would be required to fit him to receive a doctor's hood.

If Pilate had had a well-balanced mind, I should have asked only two years to teach him metaphysical truth; and as metaphysical truth is necessarily allied to moral truth, I flatter myself that in less than nine years he would have become a real scholar and a perfectly virtuous man.

I should then have said to Pilate: Historical truths are merely probabilities. If you fought at the battle of Philippi, that is for you a truth which you know by intuition, by perception. But for us who dwell near the Syrian desert, it is merely a very probable thing, which we know by hearsay. How much hearsay is necessary to form a conviction equal to that of a man who, having seen the thing, can flatter himself that he has a sort of certainty?

He who has heard the thing told by twelve thousand eyewitnesses, has only twelve thousand probabilities, equal to one strong probability, which is not equal to certainty. If you have the thing from only one of these witnesses, you know nothing; you should be skeptical. If the witness is dead, you should be still more skeptical, for you cannot enlighten yourself. If from several witnesses who are dead, you are in the same plight. If from those to whom the witnesses have spoken, your skepticism should increase still more.

From generation to generation skepticism increases, and probability diminishes; and soon probability is reduced to zero.

TYRANNY

One gives the name of tyrant to the sovereign who knows no laws but those of his caprice, who takes his subjects' property, and then mobilizes them to take the property of his neighbours. There are none of these tyrants in Europe.

One distinguishes between the tyranny of one man and that of many. The tyranny of one man is comparable to that of a body which has invaded the rights of other bodies, and which exercises despotism under cover of laws which it has itself corrupted. Nor are there any tyrants of this sort in Europe.

Under which tyranny would you like to live? Under neither, but if I had to choose, I should detest the tyranny of one man less than that of many. A despot always has his good moments; an assembly of despots never. If a tyrant does me an injustice, I can disarm him through his mistress, his confessor, or his page; but a company of solemn tyrants is inaccessible to all seductions. When it is not unjust, it is at the least harsh, and never does it bestow favours.

If I have only one despot, I am quit of him by drawing myself up against a wall when I see him pass, or by bowing low, or by striking the ground with my forehead, according to the custom of the country. But if there is a company of a hundred despots, I may have to repeat this

ceremony a hundred times a day, which in the long run can be very annoying if one's hams are not supple. If I have a farm in the neighbourhood of one of our nobles, I am wiped out. If I plead against a relation of the relations of one of our noblemen, I am ruined. What is to be done? I fear that in this world one must be either hammer or anvil; for it is indeed a lucky man who escapes these alternatives!

The foregoing consists of selected articles from Voltaire's PHILOSOPHICAL DICTIONARY, *translated by H. I. Woolf.*

John Stuart Mill [1]

1806–1873

John Stuart Mill worked hard for reform through political action. Yet he was convinced that "no great improvements in the lot of mankind are possible until a great change takes place in the fundamental constitution of their modes of thought." He lamented the lack of an accepted standard of the right and good in human action and the consequent want of certitude in moral and political matters. He knew but rejected the long tradition that Nature provides such a standard. In antiquity both Stoics and Epicureans, the most popular schools of philosophy, had proposed "Follow Nature" as their motto for moral action. In the doctrine of natural law, as found for example in Thomas Aquinas,[2] the concept of nature provides the basis for a highly elaborated system of morality and justice.

Mill presents his reasons for rejecting these traditions in the following essay, entitled *Nature*. Nature is one of the great and key ideas of human thought; it constitutes Chapter 60 in *The Great Ideas*.[3] From the wide range of meanings that the term has acquired, Mill concentrates upon two: "It either denotes the entire system of things . . . or it denotes things as they would be, apart from human intervention." In neither sense, Mill argues, does nature provide a standard for human action.

He claims that to follow nature is poor advice in any sense other than that the study and observation of nature is necessary as a prelude to intelligent action. He flatly denies that nature unmodified by man can offer anything that man should imitate. For the injunction "Follow Nature" he proposes to substitute "Control and Amend

[1] For a biography of John Stuart Mill, see Vol. 6, pp. 1–3, in this set.
[2] See *Great Books of the Western World.*
[3] See *Great Books of the Western World.*

Nature." In this, he sets himself against Thoreau and Wordsworth, who find in nature their greatest teacher; and also against Rousseau and Freud, who claim that the repression of man's natural inclinations is perhaps the greatest source of discontent.

The essay on nature is one of the *Three Essays on Religion*, published posthumously in 1874. It has important bearings on questions of religion, besides its rejection of natural law, which for Aquinas is a participation in the eternal law of God. It also questions whether the order and design of nature can afford evidence for the existence of a just and benevolent creator. Mill touches upon the problem of evil. This, as is known from Augustine's story of his conversion,[4] is often a stumbling block in man's search for God.

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[4] See his *Confessions* in *Great Books of the Western World.*

Nature

Nature, natural, and the group of words derived from them, or allied to them in etymology, have at all times filled a great place in the thoughts and taken a strong hold on the feelings of mankind. That they should have done so is not surprising when we consider what the words, in their primitive and most obvious signification, represent; but it is unfortunate that a set of terms which play so great a part in moral and metaphysical speculation should have acquired many meanings different from the primary one, yet sufficiently allied to it to admit of confusion. The words have thus become entangled in so many foreign associations, mostly of a very powerful and tenacious character, that they have come to excite, and to be the symbols of, feelings which their original meaning will by no means justify; and which have made them one of the most copious sources of false taste, false philosophy, false morality, and even bad law.

The most important application of the Socratic *elenchus*, as exhibited and improved by Plato, consists in dissecting large abstractions of this description, fixing down to a precise definition the meaning which as popularly used they merely shadow forth, and questioning and testing the common maxims and opinions in which they bear a part. It is to be regretted that among the instructive specimens of this kind of investigation which Plato has left, and to which subsequent times have been so much indebted for whatever intellectual clearness they have attained, he has not enriched posterity with a dialogue *Of Nature*. If the idea denoted by the word had been subjected to his searching analysis, and the popular commonplaces in which it figures had been submitted to the ordeal of his powerful dialectics, his successors probably would not have rushed, as they speedily did, into modes of thinking and reasoning of which the fallacious use of that word formed the corner-stone—a kind of fallacy from which he was himself singularly free.

According to the Platonic method, which is still the best type of such investigations, the first thing to be done with so vague a term is to

ascertain precisely what it means. It is also a rule of the same method, that the meaning of an abstraction is best sought for in the concrete—of a universal in the particular. Adopting this course with the word nature, the first question must be, what is meant by the "nature" of a particular object—as of fire, of water, or of some individual plant or animal? Evidently the ensemble or aggregate of its powers or properties: the modes in which it acts on other things (counting among those things the senses of the observer) and the modes in which other things act upon it; to which, in the case of a sentient being, must be added its own capacities of feeling or being conscious. The nature of the thing means all this, means its entire capacity of exhibiting phenomena. And since the phenomena which a thing exhibits, however much they vary in different circumstances, are always the same in the same circumstances, they admit of being described in general forms of words, which are called the *laws* of the thing's nature. Thus it is a law of the nature of water that, under the mean pressure of the atmosphere at the level of the sea, it boils at 212° Fahrenheit.

As the nature of any given thing is the aggregate of its powers and properties, so nature in the abstract is the aggregate of the powers and properties of all things. Nature means the sum of all phenomena together with the causes which produce them, including not only all that happens but all that is capable of happening, the unused capabilities of causes being as much a part of the idea of nature as those which take effect. Since all phenomena which have been sufficiently examined are found to take place with regularity, each having certain fixed conditions, positive and negative, on the occurrence of which it invariably happens, mankind have been able to ascertain, either by direct observation or by reasoning processes grounded on it, the conditions of the occurrence of many phenomena; and the progress of science mainly consists in ascertaining those conditions. When discovered, they can be expressed in general propositions, which are called laws of the particular phenomenon and also, more generally, laws of nature. Thus the truth that all material objects tend toward one another with a force directly as their masses and inversely as the square of their distance is a law of nature. The proposition that air and food are necessary to animal life, if it be, as we have good reason to believe, true without exception, is also a law of nature, though the phenomenon of which it is the law is special and not, like gravitation, universal.

Nature, then, in this its simplest acceptation, is a collective name for all facts, actual and possible, or (to speak more accurately) a name for the mode, partly known to us and partly unknown, in which all things take

place. For the word suggests not so much the multitudinous detail of the phenomena as the conception which might be formed of their manner of existence as a mental whole by a mind possessing a complete knowledge of them, to which conception it is the aim of science to raise itself by successive steps of generalization from experience.

Such, then, is a correct definition of the word nature. But this definition corresponds only to one of the senses of that ambiguous term. It is evidently inapplicable to some of the modes in which the word is familiarly employed. For example, it entirely conflicts with the common form of speech by which nature is opposed to art, and natural to artificial. For in the sense of the word nature which has just been defined, and which is the true scientific sense, art is as much nature as anything else; and everything which is artificial is natural—art has no independent powers of its own: art is but the employment of the powers of nature for an end. Phenomena produced by human agency, no less than those which as far as we are concerned are spontaneous, depend on the properties of the elementary forces, or of the elementary substances and their compounds. The united powers of the whole human race could not create a new property of matter in general, or of any one of its species. We can only take advantage for our purposes of the properties which we find. A ship floats by the same laws of specific gravity and equilibrium as a tree uprooted by the wind and blown into the water. The corn which men raise for food grows and produces its grain by the same laws of vegetation by which the wild rose and the mountain strawberry bring forth their flowers and fruit. A house stands and holds together by the natural properties, the weight and cohesion, of the materials which compose it. A steam-engine works by the natural expansive force of steam, exerting a pressure upon one part of a system of arrangements, which pressure, by the mechanical properties of the lever, is transferred from that to another part where it raises the weight or removes the obstacle brought into connection with it. In these and all other artificial operations the office of man is, as has often been remarked, a very limited one; it consists in moving things into certain places. We move objects, and by doing this bring some things into contact which were separate, or separate others which were in contact; and, by this simple change of place, natural forces previously dormant are called into action and produce the desired effect. Even the volition which designs, the intelligence which contrives, and the muscular force which executes these movements are themselves powers of nature.

It thus appears that we must recognize at least two principal meanings

in the word nature. In one sense, it means all the powers existing in either the outer or the inner world and everything which takes place by means of those powers. In another sense it means not everything which happens but only what takes place without the agency, or without the voluntary and intentional agency, of man. This distinction is far from exhausting the ambiguities of the word; but it is the key to most of those on which important consequences depend.

Such, then, being the two principal senses of the word nature, in which of these is it taken, or is it taken in either, when the word and its derivatives are used to convey ideas of commendation, approval, and even moral obligation?

It has conveyed such ideas in all ages. *Naturam sequi* [Follow nature] was the fundamental principle of morals in many of the most admired schools of philosophy. Among the ancients, especially in the declining period of ancient intellect and thought, it was the test to which all ethical doctrines were brought. The Stoics and the Epicureans, however irreconcilable in the rest of their systems, agreed in holding themselves bound to prove that their respective maxims of conduct were the dictates of nature. Under their influence the Roman jurists, when attempting to systematize jurisprudence, placed in the front of their exposition a certain *jus naturae, quod natura,* as Justinian declares in the *Institutes, omnia animalia docuit* [what nature taught to all animals]; and as the modern systematic writers, not only on law but on moral philosophy, have generally taken the Roman jurists for their models, treatises on the so-called law of nature have abounded; and references to this law as a supreme rule and ultimate standard have pervaded literature. The writers on international law have done more than any others to give currency to this style of ethical speculation, inasmuch as, having no positive law to write about and yet being anxious to invest the most approved opinions respecting international morality with as much as they could of the authority of law, they endeavored to find such an authority in nature's imaginary code. The Christian theology during the period of its greatest ascendancy opposed some, though not a complete, hindrance to the modes of thought which erected nature into the criterion of morals, inasmuch as, according to the creed of most denominations of Christians (though assuredly not of Christ), a man is by nature wicked. But this very doctrine, by the reaction which it provoked, has made the deistical moralists almost unanimous in proclaiming the divinity of nature and setting up its fancied dictates as an authoritative rule of action. A reference to that supposed standard is the predominant ingredient in the vein of thought and feeling

which was opened by Rousseau, and which has infiltrated itself most widely into the modern mind, not excepting that portion of it which calls itself Christian. The doctrines of Christianity have in every age been largely accommodated to the philosophy which happened to be prevalent, and the Christianity of our day has borrowed a considerable part of its colour and flavour from sentimental deism. At the present time it cannot be said that nature, or any other standard, is applied as it was wont to be to deduce rules of action with juridical precision, and with an attempt to make its application coextensive with all human agency. The people of this generation do not commonly apply principles with any such studious exactness, nor own such binding allegiance to any standard, but live in a kind of confusion of many standards–a condition not propitious to the formation of steady moral convictions but convenient enough to those whose moral opinions sit lightly on them, since it gives them a much wider range of arguments for defending the doctrine of the moment. But though perhaps no one could now be found who, like the institutional writers of former times, adopts the so-called law of nature as the foundation of ethics, and endeavours consistently to reason from it, the word and its cognates must still be counted among those which carry great weight in moral argumentation. That any mode of thinking, feeling, or acting is "according to nature" is usually accepted as a strong argument for its goodness. If it can be said with any plausibility that "nature enjoins" anything, the propriety of obeying the injunction is by most people considered to be made out; and conversely, the imputation of being contrary to nature is thought to bar the door against any pretension on the part of the thing so designated to be tolerated or excused, and the word "unnatural" has not ceased to be one of the most vituperative epithets in the language. Those who deal in these expressions may avoid making themselves responsible for any fundamental theorem respecting the standard of moral obligation, but they do not the less imply such a theorem, and one which must be the same in substance with that on which the more logical thinkers of a more laborious age grounded their systematic treatises on natural law.

Is it necessary to recognize in these forms of speech another distinct meaning of the word nature? Or can they be connected, by any rational bond of union, with either of the two meanings already treated of? At first it may seem that we have no option but to admit another ambiguity in the term. All inquiries are either into what is, or into what ought to be; science and history belonging to the first division, art, morals, and politics to the second. But the two senses of the word nature first pointed out agree in referring only to what is. In the first meaning, nature is a collective name

for everything which is. In the second, it is a name for everything which is of itself, without voluntary human intervention. But the employment of the word nature as a term of ethics seems to disclose a third meaning, in which nature does not stand for what is but for what ought to be, or for the rule or standard of what ought to be. A little consideration, however, will show that this is not a case of ambiguity; there is not here a third sense of the word. Those who set up nature as a standard of action do not intend a merely verbal proposition; they do not mean that the standard, whatever it be, should be *called* nature; they think they are giving some information as to what the standard of action really is. Those who say that we ought to act according to nature do not mean the mere identical proposition that we ought to do what we ought to do. They think that the word nature affords some external criterion of what we should do; and if they lay down as a rule for what ought to be a word which in its proper signification denotes what is, they do so because they have a notion, either clearly or confusedly, that what is constitutes the rule and standard of what ought to be.

The examination of this notion is the object of the present essay. It is proposed to inquire into the truth of the doctrines which make nature a test of right and wrong, good and evil, or which in any mode or degree attach merit or approval to following, imitating, or obeying nature. To this inquiry the foregoing discussion respecting the meaning of terms was an indispensable introduction. Language is, as it were, the atmosphere of philosophical investigation, which must be made transparent before anything can be seen through it in the true figure and position. In the present case it is necessary to guard against a further ambiguity, which, though abundantly obvious, has sometimes misled even sagacious minds, and of which it is well to take distinct note before proceeding further. No word is more commonly associated with the word nature than law; and this last word has distinctly two meanings, in one of which it denotes some definite portion of what is, in the other, of what ought to be. We speak of the law of gravitation, the three laws of motion, the law of definite proportions in chemical combination, the vital laws of organized beings. All these are portions of what is. We also speak of the criminal law, the civil law, the law of honour, the law of veracity, the law of justice—all of which are portions of what ought to be, or of somebody's suppositions, feelings, or commands respecting what ought to be. The first kind of laws, such as the laws of motion and of gravitation, are neither more nor less than the observed uniformities in the occurrence of phenomena: partly uniformities of antecedence and sequence, partly of con-

comitance. These are what in science, and even in ordinary parlance, are meant by laws of nature. Laws in the other sense are the laws of the land, the law of nations, or moral laws; among which, as already noticed, is dragged in by jurists and publicists something which they think proper to call the law of nature. Of the liability of these two meanings of the word to be confounded there can be no better example than the first chapter of Montesquieu, where he remarks that the material world has its laws, the inferior animals have their laws, and man has his laws; and calls attention to the much greater strictness with which the first two sets of laws are observed than the last; as if it were an inconsistency and a paradox that things always are what they are, but men not always what they ought to be. A similar confusion of ideas pervades the writings of Mr. George Combe, from whence it has overflowed into a large region of popular literature, and we are now continually reading injunctions to obey the physical laws of the universe as being obligatory in the same sense and manner as the moral. The conception which the ethical use of the word nature implies, of a close relation if not absolute identity between what is and what ought to be, certainly derives part of its hold on the mind from the custom of designating what is by the expression "laws of nature," while the same word law is also used, and even more familiarly and emphatically, to express what ought to be.

When it is asserted or implied that nature, or the laws of nature, should be conformed to, is the nature which is meant nature in the first sense of the term, meaning all which is—the powers and properties of all things? But in this signification there is no need of a recommendation to act according to nature, since it is what nobody can possibly help doing, and equally whether he acts well or ill. There is no mode of acting which is not conformable to nature in this sense of the term, and all modes of acting are so in exactly the same degree. Every action is the exertion of some natural power, and its effects of all sorts are so many phenomena of nature, produced by the powers and properties of some of the objects of nature, in exact obedience to some law or laws of nature. When I voluntarily use my organs to take in food, the act and its consequences take place according to laws of nature; if instead of food I swallow poison, the case is exactly the same. To bid people conform to the laws of nature when they have no power but what the laws of nature give them, when it is a physical impossibility for them to do the smallest thing otherwise than through some law of nature, is an absurdity. The thing they need to be told is what particular law of nature they should make use of in a particular case. When, for example, a person is crossing a river by a narrow

bridge to which there is no parapet, he will do well to regulate his proceedings by the laws of equilibrium in moving bodies, instead of conforming only to the law of gravitation and falling into the river.

Yet idle as it is to exhort people to do what they cannot avoid doing, and absurd as it is to prescribe as a rule of right conduct what agrees exactly as well with wrong, nevertheless a rational rule of conduct *may* be constructed out of the relation which it ought to bear to the laws of nature in this widest acceptation of the term. Man necessarily obeys the laws of nature, or, in other words, the properties of things, but he does not necessarily *guide* himself by them. Though all conduct is in conformity to laws of nature, all conduct is not grounded on knowledge of them and intelligently directed to the attainment of purposes by means of them. Though we cannot emancipate ourselves from the laws of nature as a whole, we can escape from any particular law of nature if we are able to withdraw ourselves from the circumstances in which it acts. Though we can do nothing except through laws of nature, we can use one law to counteract another. According to Bacon's maxim, we can obey nature in such a manner as to command it. Every alteration of circumstances alters more or less the laws of nature under which we act; and by every choice which we make, either of ends or of means, we place ourselves to a greater or less extent under one set of laws of nature instead of another. If, therefore, the useless precept to follow nature were changed into a precept to study nature—to know and take heed of the properties of the things we have to deal with, so far as these properties are capable of forwarding or obstructing any given purpose—we should have arrived at the first principle of all intelligent action, or rather at the definition of intelligent action itself. And a confused notion of this true principle is, I doubt not, in the minds of many of those who set up the unmeaning doctrine which superficially resembles it. They perceive that the essential difference between wise and foolish conduct consists in attending, or not attending, to the particular laws of nature on which some important result depends. And they think that a person who attends to a law of nature in order to shape his conduct by it may be said to obey it, while a person who practically disregards it and acts as if no such law existed may be said to disobey it; the circumstance being overlooked that what is thus called disobedience to a law of nature is obedience to some other or perhaps to the very law itself. For example, a person who goes into a powder-magazine either not knowing, or carelessly omitting to think of, the explosive force of gunpowder is likely to do some act which will cause him to be blown to atoms in obedience to the very law which he has disregarded.

But however much of its authority the *naturam sequi* doctrine may owe to its being confounded with the rational precept *naturam observare* [to observe nature], its favourers and promoters unquestionably intend much more by it than that precept. To acquire knowledge of the properties of things and make use of the knowledge for guidance is a rule of prudence for the adaptation of means to ends, for giving effect to our wishes and intentions, whatever they may be. But the maxim of obedience to nature, or conformity to nature, is held up not as a simply prudential but as an ethical maxim, and by those who talk of *jus naturae*, even as a law, fit to be administered by tribunals and enforced by sanctions. Right action must mean something more and other than merely intelligent action; yet no precept beyond this last can be connected with the word nature in the wider and more philosophical of its acceptations. We must try it, therefore, in the other sense, that in which nature stands distinguished from art and denotes, not the whole course of the phenomena which come under our observation, but only their spontaneous course.

Let us then consider whether we can attach any meaning to the supposed practical maxim of following nature in this second sense of the word, in which nature stands for that which takes place without human intervention. In nature as thus understood, is the spontaneous course of things when left to themselves the rule to be followed in endeavouring to adapt things to our use? But it is evident at once that the maxim, taken in this sense, is not merely, as it is in the other sense, superfluous and unmeaning, but palpably absurd and self-contradictory. For while human action cannot help conforming to nature in the one meaning of the term, the very aim and object of action is to alter and improve nature in the other meaning. If the natural course of things were perfectly right and satisfactory, to act at all would be a gratuitous meddling, which, as it could not make things better, must make them worse. Or if action at all could be justified, it would only be when in direct obedience to instincts, since these might perhaps be accounted part of the spontaneous order of nature; but to do anything with forethought and purpose would be a violation of that perfect order. If the artificial is not better than the natural, to what end are all the arts of life? To dig, to plough, to build, to wear clothes are direct infringements of the injunction to follow nature.

Accordingly it would be said by everyone, even of those most under the influence of the feelings which prompt the injunction, that to apply it to such cases as those just spoken of would be to push it too far. Everybody professes to approve and admire many great triumphs of art over nature: the junction by bridges of shores which Nature had made separate, the draining of Nature's marshes, the excavation of her wells, the dragging to

light of what she has buried at immense depths in the earth; the turning away of her thunderbolts by lightning-rods, of her inundations by embankments, of her ocean by breakwaters. But to commend these and similar feats is to acknowledge that the ways of Nature are to be conquered, not obeyed; that her powers are often toward man in the position of enemies, from whom he must wrest, by force and ingenuity, what little he can for his own use, and deserves to be applauded when that little is rather more than might be expected from his physical weakness in comparison to those gigantic powers. All praise of civilization, or art, or contrivance is so much dispraise of nature, an admission of imperfection which it is man's business and merit to be always endeavouring to correct or mitigate.

The consciousness that whatever man does to improve his condition is in so much a censure and a thwarting of the spontaneous order of nature has in all ages caused new and unprecedented attempts at improvement to be generally at first under a shade of religious suspicion as being in any case uncomplimentary, and very probably offensive, to the powerful beings (or, when polytheism gave place to monotheism, to the all-powerful Being) supposed to govern the various phenomena of the universe, and of whose will the course of nature was conceived to be the expression. Any attempt to mould natural phenomena to the convenience of mankind might easily appear an interference with the government of those superior beings; and though life could not have been maintained, much less made pleasant, without perpetual interferences of the kind, each new one was doubtless made with fear and trembling until experience had shown that it could be ventured on without drawing down the vengeance of the gods. The sagacity of priests showed them a way to reconcile the impunity of particular infringements with the maintenance of the general dread of encroaching on the divine administration. This was effected by representing each of the principal human inventions as the gift and favour of some god. The old religions also afforded many resources for consulting the gods and obtaining their express permission for what would otherwise have appeared a breach of their prerogative. When oracles had ceased, any religion which recognized a revelation afforded expedients for the same purpose. The Catholic religion had the resource of an infallible Church, authorized to declare what exertions of human spontaneity were permitted or forbidden; and in default of this the case was always open to argument from the Bible whether any particular practice had expressly or by implication been sanctioned. The notion remained that this liberty to control nature was conceded to man only by special indulgence, and as far as required by his necessities; and there was

always a tendency, though a diminishing one, to regard any attempt to exercise power over nature, beyond a certain degree and a certain admitted range, as an impious effort to usurp divine power and dare more than was permitted to man. The lines of Horace in which the familiar arts of shipbuilding and navigation are reprobated as *vetitum nefas* [impious and forbidden] indicate even in that sceptical age a still unexhausted vein of the old sentiment. The intensity of the corresponding feeling in the Middle Ages is not a precise parallel, on account of the superstition about dealing with evil spirits with which it was complicated; but the imputation of prying into the secrets of the Almighty long remained a powerful weapon of attack against unpopular inquirers into nature; and the charge of presumptuously attempting to defeat the designs of Providence still retains enough of its original force to be thrown in as a make-weight along with other objections when there is a desire to find fault with any new exertion of human forethought and contrivance. No one, indeed, asserts it to be the intention of the Creator that the spontaneous order of the creation should not be altered, or even that it should not be altered in any new way. But there still exists a vague notion that, though it is very proper to control this or the other natural phenomenon, the general scheme of nature is a model for us to imitate; that with more or less liberty in details we should on the whole be guided by the spirit and general conception of nature's own ways: that they are God's work, and as such perfect; that man cannot rival their unapproachable excellence, and can best show his skill and piety by attempting, in however imperfect a way, to reproduce their likeness; and that if not the whole, yet some particular parts of the spontaneous order of nature, selected according to the speaker's predilections, are in a peculiar sense manifestations of the Creator's will, a sort of finger-posts pointing out the direction which things in general, and therefore our voluntary actions, are intended to take. Feelings of this sort, though repressed on ordinary occasions by the contrary current of life, are ready to break out whenever custom is silent and the native promptings of the mind have nothing opposed to them but reason; and appeals are continually made to them by rhetoricians, with the effect, if not of convincing opponents, at least of making those who already hold the opinion which the rhetorician desires to recommend better satisfied with it. For in the present day it probably seldom happens that any one is persuaded to approve any course of action because it appears to him to bear an analogy to the divine government of the world, though the argument tells on him with great force, and is felt by him to be a great support, in behalf of anything which he is already inclined to approve.

If this notion of imitating the ways of Providence as manifested in nature is seldom expressed plainly and downrightly as a maxim of general application, it also is seldom directly contradicted. Those who find it on their path prefer to turn the obstacle rather than to attack it, being often themselves not free from the feeling, and in my case afraid of incurring the charge of impiety by saying anything which might be held to disparage the works of the Creator's power. They therefore, for the most part, rather endeavour to show that they have as much right to the religious argument as their opponents, and that, if the course they recommend seems to conflict with some part of the ways of Providence, there is some other part with which it agrees better than what is contended for on the other side. In this mode of dealing with the great *a priori* fallacies, the progress of improvement clears away particular errors while the causes of errors are still left standing and very little weakened by each conflict; yet by a long series of such partial victories precedents are accumulated to which an appeal may be made against these powerful prepossessions, and which afford a growing hope that the misplaced feeling, after having so often learned to recede, may some day be compelled to an unconditional surrender. For however offensive the proposition may appear to many religious persons, they should be willing to look in the face the undeniable fact that the order of nature, in so far as unmodified by man, is such as no Being whose attributes are justice and benevolence would have made with the intention that his rational creatures should follow it as an example. If made wholly by such a Being, and not partly by beings of very different qualities, it could only be as a designedly imperfect work which man, in his limited sphere, is to exercise justice and benevolence in amending. The best persons have always held it to be the essence of religion that the paramount duty of man upon earth is to amend himself; but all except monkish quietists have annexed to this in their inmost minds (though seldom willing to enunciate the obligation with the same clearness) the additional religious duty of amending the world, and not solely the human part of it but the material, the order of physical nature.

In considering this subject it is necessary to divest ourselves of certain preconceptions which may justly be called natural prejudices, being grounded on feelings which, in themselves natural and inevitable, intrude into matters with which they ought to have no concern. One of these feelings is the astonishment, rising into awe, which is inspired (even independently of all religious sentiment) by any of the greater natural phenomena. A hurricane, a mountain precipice, the desert, the ocean either agitated or at rest, the solar system and the great cosmic forces which hold it together, the boundless firmament and to an educated mind

any single star excite feelings which make all human enterprises and powers appear so insignificant that to a mind thus occupied it seems insufferable presumption in so puny a creature as man to look critically on things so far above him, or dare to measure himself against the grandeur of the universe. But a little interrogation of our own consciousness will suffice to convince us that what makes these phenomena so impressive is simply their vastness. The enormous extension in space and time, or the enormous power they exemplify, constitutes their sublimity–a feeling in all cases more allied to terror than to any moral emotion. And though the vast scale of these phenomena may well excite wonder, and sets at defiance all idea of rivalry, the feeling it inspires is of a totally different character from admiration of excellence. Those in whom awe produces admiration may be aesthetically developed, but they are morally uncultivated. It is one of the endowments of the imaginative part of our mental nature that conceptions of greatness and power, vividly realized, produce a feeling which, though in its higher degrees closely bordering on pain, we prefer to most of what are accounted pleasures. But we are equally capable of experiencing this feeling toward maleficent power; and we never experience it so strongly toward most of the powers of the universe as when we have most present to our consciousness a vivid sense of their capacity of inflicting evil. Because these natural powers have what we cannot imitate, enormous might, and overawe us by that one attribute, it would be a great error to infer that their other attributes are such as we ought to emulate, or that we should be justified in using our small powers after the example which Nature sets us with her vast forces.

For how stands the fact? That next to the greatness of these cosmic forces, the quality which most forcibly strikes everyone who does not avert his eyes from it is their perfect and absolute recklessness. They go straight to their end, without regarding what or whom they crush on the road. Optimists, in their attempts to prove that "whatever is is right," are obliged to maintain, not that Nature ever turns one step from her path to avoid trampling us into destruction, but that it would be very unreasonable in us to expect that she should. Pope's "Shall gravitation cease when you go by?" may be a just rebuke to anyone who should be so silly as to expect common human morality from nature. But if the question were between two men, instead of between a man and a natural phenomenon, that triumphant apostrophe would be thought a rare piece of impudence. A man who should persist in hurling stones or firing cannon when another man "goes by," and having killed him should urge a similar plea in exculpation, would very deservedly be found guilty of murder.

In sober truth, nearly all the things which men are hanged or impris-

oned for doing to one another are Nature's everyday performances. Killing, the most criminal act recognized by human laws, Nature does once to every being that lives, and in a large proportion of cases after protracted tortures such as only the greatest monsters whom we read of ever purposely inflicted on their living fellow creatures. If by an arbitrary reservation we refuse to account anything murder but what abridges a certain term supposed to be allotted to human life, Nature also does this to all but a small percentage of lives, and does it in all the modes, violent or insidious, in which the worst human beings take the lives of one another. Nature impales men, breaks them as if on the wheel, casts them to be devoured by wild beasts, burns them to death, crushes them with stones like the first Christian martyr, starves them with hunger, freezes them with cold, poisons them by the quick or slow venom of her exhalations, and has hundreds of other hideous deaths in reserve such as the ingenious cruelty of a Nabis or a Domitian never surpassed. All this Nature does with the most supercilious disregard both of mercy and of justice, emptying her shafts upon the best and noblest indifferently with the meanest and worst; upon those who are engaged in the highest and worthiest enterprises, and often as the direct consequence of the noblest acts; and it might almost be imagined as a punishment for them. She mows down those on whose existence hangs the well-being of a whole people, perhaps the prospects of the human race for generations to come, with as little compunction as those whose death is a relief to themselves or a blessing to those under their noxious influence. Such are Nature's dealings with life. Even when she does not intend to kill, she inflicts the same tortures in apparent wantonness. In the clumsy provision which she has made for that perpetual renewal of animal life, rendered necessary by the prompt termination she puts to it in every individual instance, no human being ever comes into the world but another human being is literally stretched on the rack for hours or days, not unfrequently issuing in death. Next to taking life (equal to it, according to a high authority) is taking the means by which we live; and Nature does this, too, on the largest scale and with the most callous indifference. A single hurricane destroys the hopes of a season; a flight of locusts, or an inundation, desolates a district; a trifling chemical change in an edible root starves a million of people. The waves of the sea, like banditti, seize and appropriate the wealth of the rich and the little all of the poor with the same accompaniments of stripping, wounding, and killing as their human antitypes. Everything, in short, which the worst men commit either against life or property is perpetrated on a larger scale by natural agents. Nature has *noyades*

more fatal than those of Carrier; her explosions of fire-damp are as destructive as human artillery; her plague and cholera far surpass the poison cups of the Borgias. Even the love of "order" which is thought to be a following of the ways of Nature is in fact a contradiction of them. All which people are accustomed to deprecate as "disorder" and its consequences is precisely a counterpart of Nature's ways. Anarchy and the reign of terror are overmatched in injustice, ruin, and death by a hurricane and a pestilence.

But, it is said, all these things are for wise and good ends. On this I must first remark that whether they are so or not is altogether beside the point. Supposing it is true that, contrary to appearances, these horrors when perpetrated by Nature promote good ends, still, as no one believes that good ends would be promoted by our following the example, the course of Nature cannot be a proper model for us to imitate. Either it is right that we should kill because Nature kills, torture because Nature tortures, ruin and devastate because Nature does the like, or we ought not to consider at all what Nature does, but what it is good to do. If there is such a thing as a *reductio ad absurdum*, this surely amounts to one. If it is a sufficient reason for doing one thing that Nature does it, why not another thing? If not all things, why any thing? The physical government of the world being full of the things which when done by men are deemed the greatest enormities, it cannot be religious or moral in us to guide our actions by the analogy of the course of nature. This proposition remains true whatever occult quality of producing good may reside in those facts of nature which to our perceptions are most noxious, and which no one considers it other than a crime to produce artificially.

But, in reality, no one consistently believes in any such occult quality. The phrases which ascribe perfection to the course of nature can only be considered as the exaggerations of poetic or devotional feeling, not intended to stand the test of a sober examination. No one, either religious or irreligious, believes that the hurtful agencies of nature, considered as a whole, promote good purposes in any other way than by inciting human rational creatures to rise up and struggle against them. If we believed that those agencies were appointed by a benevolent Providence as the means of accomplishing wise purposes which could not be compassed if they did not exist, then everything done by mankind which tends to chain up these natural agencies or to restrict their mischievous operation, from draining a pestilential marsh down to curing the toothache or putting up an umbrella, ought to be accounted impious; which assuredly nobody does account them, notwithstanding an undercurrent of sentiment setting in that direc-

tion which is occasionally perceptible. On the contrary, the improvements on which the civilized part of mankind most pride themselves consist in more successfully warding off those natural calamities which, if we really believed what most people profess to believe, we should cherish as medicines provided for our earthly state by infinite wisdom. Inasmuch, too, as each generation greatly surpasses its predecessors in the amount of natural evil which it succeeds in averting, our condition, if the theory were true, ought by this time to have become a terrible manifestation of some tremendous calamity against which the physical evils we have learned to overmaster had previously operated as a preservative. Anyone, however, who acted as if he supposed this to be the case would be more likely, I think, to be confined as a lunatic than reverenced as a saint.

It is undoubtedly a very common fact that good comes out of evil, and, when it does occur, it is far too agreeable not to find people eager to dilate on it. But in the first place, it is quite as often true of human crimes as of natural calamities. The fire of London, which is believed to have had so salutary an effect on the healthiness of the city, would have produced that effect just as much if it had been really the work of the *furor papisticus* so long commemorated on the monument. The deaths of those whom tyrants or persecutors have made martyrs in any noble cause have done a service to mankind which would not have been obtained if they had died by accident or disease. Yet whatever incidental and unexpected benefits may result from crimes, they are crimes nevertheless. In the second place, if good frequently comes out of evil, the converse fact, evil coming out of good, is equally common. Every event, public or private, which, regretted on its occurrence, was declared providential at a later period on account of some unforeseen good consequence, might be matched by some other event, deemed fortunate at the time, but which proved calamitous or fatal to those whom it appeared to benefit. Such conflicts between the beginning and the end, or between the event and the expectation, are not only as frequent but as often held up to notice in the painful cases as in the agreeable, but there is not the same inclination to generalize on them or at all events they are not regarded by the moderns (though they were by the ancients) as similarly an indication of the divine purposes: men satisfy themselves with moralizing on the imperfect nature of our foresight, the uncertainty of events, and the vanity of human expectations. The simple fact is, human interests are so complicated, and the effects of any incident whatever so multitudinous, that if it touches mankind at all its influence on them is, in the great majority of cases, both good and bad. If the greater number of personal misfortunes have their good side, hardly any

good fortune ever befell anyone which did not give either to the same or to some other person something to regret; and unhappily there are many misfortunes so overwhelming that their favourable side, if it exist, is entirely overshadowed and made insignificant, while the corresponding statement can seldom be made concerning blessings. The effects, too, of every cause depend so much on the circumstances which accidentally accompany it that many cases are sure to occur in which even the total result is markedly opposed to the predominant tendency; and thus not only evil has its good and good its evil side, but good often produces an overbalance of evil and evil an overbalance of good. This, however, is by no means the general tendency of either phenomenon. On the contrary, both good and evil naturally tend to fructify, each in its own kind, good producing good, and evil, evil. It is one of Nature's general rules and part of her habitual injustice that "to him that hath shall be given, but from him that hath not shall be taken even that which he hath." The ordinary and predominant tendency of good is toward more good. Health, strength, wealth, knowledge, virtue are not only good in themselves but facilitate and promote the acquisition of good, both of the same and of other kinds. The person who can learn easily is he who already knows much; it is the strong and not the sickly person who can do everything which most conduces to health; those who find it easy to gain money are not the poor but the rich; while health, strength, knowledge, talents are all means of acquiring riches, and riches are often an indispensable means of acquiring these. Again, *e converso* [conversely], whatever may be said of evil turning into good, the general tendency of evil is toward further evil. Bodily illness renders the body more susceptible of disease; it produces incapacity of exertion, sometimes debility of mind, and often the loss of means of subsistence. All severe pain, either bodily or mental, tends to increase the susceptibilities of pain forever after. Poverty is the parent of a thousand mental and moral evils. What is still worse, to be injured or oppressed, when habitual, lowers the whole tone of the character. One bad action leads to others, both in the agent himself, in the bystanders, and in the sufferers. All bad qualities are strengthened by habit, and all vices and follies tend to spread. Intellectual defects generate moral, and moral, intellectual; and every intellectual or moral defect generates others, and so on without end.

That much applauded class of authors, the writers on natural theology, have, I venture to think, entirely lost their way and missed the sole line of argument which could have made their speculations acceptable to anyone who can perceive when two propositions contradict one another. They

have exhausted the resources of sophistry to make it appear that all the suffering in the world exists to prevent greater—that misery exists for fear lest there should be misery: a thesis which, if ever so well maintained, could only avail to explain and justify the works of limited beings, compelled to labour under conditions independent of their own will, but could have no application to a Creator assumed to be omnipotent who, if he bends to a supposed necessity, himself makes the necessity which he bends to. If the maker of the world *can* all that he will, he wills misery, and there is no escape from the conclusion. The more consistent of those who have deemed themselves qualified to "vindicate the ways of God to man" have endeavoured to avoid the alternative by hardening their hearts and denying that misery is an evil. The goodness of God, they say, does not consist in willing the happiness of his creatures but their virtue; and the universe, if not a happy, is a just universe. But waiving the objections to this scheme of ethics, it does not at all get rid of the difficulty. If the Creator of mankind willed that they should all be virtuous, His designs are as completely baffled as if He had willed that they should all be happy; and the order of nature is constructed with even less regard to the requirements of justice than to those of benevolence. If the law of all creation were justice and the Creator omnipotent, then, in whatever amount suffering and happiness might be dispensed to the world, each person's share of them would be exactly proportioned to that person's good or evil deeds; no human being would have a worse lot than another without worse deserts; accident or favouritism would have no part in such a world, but every human life would be the playing out of a drama constructed like a perfect moral tale. No one is able to blind himself to the fact that the world we live in is totally different from this, insomuch that the necessity of redressing the balance has been deemed one of the strongest arguments for another life after death, which amounts to an admission that the order of things in this life is often an example of injustice, not justice. If it be said that God does not take sufficient account of pleasure and pain to make them the reward or punishment of the good or the wicked, but that virtue is itself the greatest good and vice the greatest evil, then these at least ought to be dispensed to all according to what they have done to deserve them; instead of which every kind of moral depravity is entailed upon multitudes by the fatality of their birth, through the fault of their parents, of society, or of uncontrollable circumstances, certainly through no fault of their own. Not even on the most distorted and contracted theory of good which ever was framed by religious or philosophical fanaticism can the government of nature be made to resemble the work of a being at once good and omnipotent.

The only admissible moral theory of Creation is that the Principle of Good *cannot* at once and altogether subdue the powers of evil, either physical or moral; could not place mankind in a world free from the necessity of an incessant struggle with the maleficent powers, or make them always victorious in that struggle, but could and did make them capable of carrying on the fight with vigour and with progressively increasing success. Of all the religious explanations of the order of nature, this alone is neither contradictory to itself nor to the facts for which it attempts to account. According to it, man's duty would consist, not in simply taking care of his own interests by obeying irresistible power, but in standing forward a not ineffectual auxiliary to a Being of perfect beneficence–a faith which seems much better adapted for nerving him to exertion than a vague and inconsistent reliance on an Author of Good who is supposed to be also the author of evil. And I venture to assert that such has really been, though often unconsciously, the faith of all who have drawn strength and support of any worthy kind from trust in a superintending Providence. There is no subject on which men's practical belief is more incorrectly indicated by the words they use to express it than religion. Many have derived a base confidence from imagining themselves to be favourites of an omnipotent but capricious and despotic Deity. But those who have been strengthened in goodness by relying on the sympathizing support of a powerful and good governor of the world have, I am satisfied, never really believed that governor to be, in the strict sense of the term, omnipotent. They have always saved his goodness at the expense of his power. They have believed, perhaps, that he could, if he willed, remove all the thorns from their individual path, but not without causing greater harm to someone else, or frustrating some purpose of greater importance to the general well-being. They have believed that he could do any one thing, but not any combination of things; that his government, like human government, was a system of adjustments and compromises; that the world is inevitably imperfect, contrary to his intention.[1] And since the exertion of all his power to make it as little imperfect as possible leaves it

1. This irresistible conviction comes out in the writings of religious philosophers in exact proportion to the general clearness of their understanding. It nowhere shines forth so distinctly as in Leibniz's famous *Théodicée*, so strangely mistaken for a system of optimism and, as such, satirized by Voltaire on grounds which do not even touch the author's argument. Leibniz does not maintain that this world is the best of all imaginable, but only of all possible, worlds; which, he argues, it cannot but be inasmuch as God, who is absolute goodness, has chosen it and not another. In every page of the work he tacitly assumes an abstract possibility and impossibility, independent of the divine power; and though his pious feelings make him continue to designate that power by the word Omnipotence, he so explains that term as to make it mean power extending to all that is within the limits of that abstract possibility.

no better than it is, they cannot but regard that power, though vastly beyond human estimate, yet as in itself not merely finite but extremely limited. They are bound, for example, to suppose that the best he could do for his human creatures was to make an immense majority of all who have yet existed be born (without any fault of their own) Patagonians, or Eskimos, or something nearly as brutal and degraded, but to give them capacities which, by being cultivated for very many centuries in toil and suffering and after many of the best specimens of the race have sacrificed their lives for the purpose, have at last enabled some chosen portions of the species to grow into something better, capable of being improved in centuries more into something really good, of which hitherto there are only to be found individual instances. It may be possible to believe with Plato that perfect goodness, limited and thwarted in every direction by the intractableness of the material, has done this because it could do no better. But that the same perfectly wise and good Being had absolute power over the material and made it, by voluntary choice, what it is—to admit this might have been supposed impossible to anyone who has the simplest notions of moral good and evil. Nor can any such person, whatever kind of religious phrases he may use, fail to believe that if nature and man are both the works of a Being of perfect goodness, that Being intended nature as a scheme to be amended, not imitated, by man.

But even though unable to believe that nature, as a whole, is a realization of the designs of perfect wisdom and benevolence, men do not willingly renounce the idea that some part of Nature, at least, must be intended as an exemplar or type; that on some portion or other of the Creator's works the image of the moral qualities which they are accustomed to ascribe to him must be impressed; that if not all which is, yet something which is, must not only be a faultless model of what ought to be, but must be intended to be our guide and standard in rectifying the rest. It does not suffice them to believe that what tends to good is to be imitated and perfected, and what tends to evil is to be corrected; they are anxious for some more definite indication of the Creator's designs, and, being persuaded that this must somewhere be met with in his works, undertake the dangerous responsibility of picking and choosing among them in quest of it—a choice which, except so far as directed by the general maxim that he intends all the good and none of the evil, must of necessity be perfectly arbitrary, and, if it leads to any conclusions other than such as can be deduced from that maxim, must be, exactly in that proportion, pernicious.

It has never been settled by any accredited doctrine what particular

departments of the order of nature shall be reputed to be designed for our moral instruction and guidance; and accordingly each person's individual predilections, or momentary convenience, have decided to what parts of the divine government the practical conclusions that he was desirous of establishing should be recommended to approval as being analogous. One such recommendation must be as fallacious as another, for it is impossible to decide that certain of the Creator's works are more truly expressions of his character than the rest; and the only selection which does not lead to immoral results is the selection of those which most conduce to the general good—in other words, of those which point to an end which, if the entire scheme is the expression of a single omnipotent and consistent will, is evidently not the end intended by it.

There is, however, one particular element in the construction of the world which, to minds on the look-out for special indication of the Creator's will, has appeared, not without plausibility, peculiarly fitted to afford them, viz., the active impulses of human and other animated beings. One can imagine such persons arguing that when the Author of Nature only made circumstances, he may not have meant to indicate the manner in which his rational creatures were to adjust themselves to those circumstances; but that when he implanted positive stimuli in the creatures themselves, stirring them up to a particular kind of action, it is impossible to doubt that he intended that sort of action to be practised by them. This reasoning, followed out consistently, would lead to the conclusion that the Deity intended, and approves, whatever human beings do; since all that they do being the consequence of some of the impulses with which their Creator must have endowed them, all must equally be considered as done in obedience to his will. As this practical conclusion was shrunk from, it was necessary to draw a distinction and to pronounce that not the whole but only parts of the active nature of mankind point to a special intention of the Creator in respect to their conduct. These parts, it seemed natural to suppose, must be those in which the Creator's hand is manifested rather than the man's own, and hence the frequent antithesis between man as God made him and man as he has made himself. Since what is done with deliberation seems more the man's own act, and he is held more completely responsible for it than for what he does from sudden impulse, the considerate part of human conduct is apt to be set down as man's share in the business and the inconsiderate as God's. The result is the vein of sentiment so common in the modern world (though unknown to the philosophic ancients) which exalts instinct at the expense of reason, an aberration rendered still more mischievous by the opinion commonly held

in conjunction with it that every, or almost every, feeling or impulse which acts promptly without waiting to ask questions is an instinct. Thus almost every variety of unreflecting and uncalculating impulse receives a kind of consecration except those which, though unreflecting at the moment, owe their origin to previous habits of reflection; these, being evidently not instinctive, do not meet with the favour accorded to the rest, so that all unreflecting impulses are invested with authority over reason except the only ones which are most probably right. I do not mean, of course, that this mode of judgment is even pretended to be consistently carried out; life could not go on if it were not admitted that impulses must be controlled, and that reason ought to govern our actions. The pretension is not to drive reason from the helm but rather to bind her by articles to steer only in a particular way. Instinct is not to govern, but reason is to practise some vague and unassignable amount of deference to instinct. Though the impression in favour of instinct as being a peculiar manifestation of the divine purposes has not been cast into the form of a consistent general theory, it remains a standing prejudice, capable of being stirred up into hostility to reason in any case in which the dictate of the rational faculty has not acquired the authority of prescription.

I shall not here enter into the difficult psychological question, what are or are not instincts; the subject would require a volume to itself. Without touching upon any disputed theoretical points, it is possible to judge how little worthy is the instinctive part of human nature to be held up as its chief excellence—as the part in which the hand of infinite goodness and wisdom is peculiarly visible. Allowing everything to be an instinct which anybody has ever asserted to be one, it remains true that nearly every respectable attribute of humanity is the result, not of instinct, but of a victory over instinct; and that there is hardly anything valuable in the natural man except capacities—a whole world of possibilities, all of them dependent upon eminently artificial discipline for being realized.

It is only in a highly artificialized condition of human nature that the notion grew up, or, I believe, ever could have grown up, that goodness was natural; because only after a long course of artificial education did good sentiments become so habitual, and so predominant over bad, as to arise unprompted when occasion called for them. In the times when mankind were nearer to their natural state, cultivated observers regarded the natural man as a sort of wild animal, distinguished chiefly by being craftier than the other beasts of the field; and all worth of character was deemed the result of a sort of taming, a phrase often applied by the ancient philosophers to the appropriate discipline of human beings. The

truth is that there is hardly a single point of excellence belonging to human character which is not decidedly repugnant to the untutored feelings of human nature.

If there be a virtue which more than any other we expect to find, and really do find, in an uncivilized state, it is the virtue of courage. Yet this is from first to last a victory achieved over one of the most powerful emotions of human nature. If there is any one feeling or attribute more natural than all others to human beings it is fear; and no greater proof can be given of the power of artificial discipline than the conquest which it has at all times and places shown itself capable of achieving over so mighty and so universal a sentiment. The widest difference no doubt exists between one human being and another in the facility or difficulty with which they acquire this virtue. There is hardly any department of human excellence in which difference of original temperament goes so far. But it may fairly be questioned if any human being is naturally courageous. Many are naturally pugnacious, or irascible, or enthusiastic, and these passions when strongly excited may render them insensible to fear. But take away the conflicting emotion, and fear reasserts its dominion; consistent courage is always the effect of cultivation. The courage which is occasionally, though by no means generally, found among tribes of savages is as much the result of education as that of the Spartans or Romans. In all such tribes there is a most emphatic direction of the public sentiment into every channel of expression through which honour can be paid to courage and cowardice held up to contempt and derision. It will perhaps be said that, as the expression of a sentiment implies the sentiment itself, the training of the young to courage presupposes an originally courageous people. It presupposes only what all good customs presuppose—that there must have been individuals better than the rest who set the customs going. Some individuals who, like other people, had fears to conquer must have had strength of mind and will to conquer them for themselves. These would obtain the influence belonging to heroes, for that which is at once astonishing and obviously useful never fails to be admired; and partly through this admiration, partly through the fear they themselves excite, they would obtain the power of legislators and could establish whatever customs they pleased.

Let us next consider a quality which forms the most visible and one of the most radical of the moral distinctions between human beings and most of the lower animals, that of which the absence, more than of anything else, renders men bestial—the quality of cleanliness. Can anything be more entirely artificial? Children, and the lower classes of most

countries, seem to be actually fond of dirt; the vast majority of the human race are indifferent to it; whole nations of otherwise civilized and cultivated human beings tolerate it in some of its worst forms, and only a very small minority are consistently offended by it. Indeed, the universal law of the subject appears to be that uncleanliness offends only those to whom it is unfamiliar, so that those who have lived in so artificial a state as to be unused to it in any form are the sole persons whom it disgusts in all forms. Of all virtues this is the most evidently not instinctive, but a triumph over instinct. Assuredly neither cleanliness nor the love of cleanliness is natural to man, but only the capacity of acquiring a love of cleanliness.

Our examples have thus far been taken from the personal or, as they are called by Bentham, the self-regarding virtues, because these, if any, might be supposed to be congenial even to the uncultivated mind. Of the social virtues it is almost superfluous to speak, so completely is it the verdict of all experience that selfishness is natural. By this I do not in any wise mean to deny that sympathy is natural also; I believe, on the contrary, that on that important fact rests the possibility of any cultivation of goodness and nobleness, and the hope of their ultimate entire ascendancy. But sympathetic characters, left uncultivated and given up to their sympathetic instincts, are as selfish as others. The difference is in the *kind* of selfishness: theirs is not solitary but sympathetic selfishness—*l'egoîsme à deux, à trois,* or *à quatre*—and they may be very amiable and delightful to those with whom they sympathize, and grossly unjust and unfeeling to the rest of the world. Indeed, the finer nervous organizations which are most capable of and most require sympathy have, from their fineness, so much stronger impulses of all sorts that they often furnish the most striking examples of selfishness, though of a less repulsive kind than that of colder natures. Whether there ever was a person in whom, apart from all teaching of instructors, friends, or books, and from all intentional self-modeling according to an ideal, natural benevolence was a more powerful attribute than selfishness in any of its forms may remain undecided. That such cases are extremely rare everyone must admit, and this is enough for the argument.

But (to speak no further of self-control for the benefit of others) the commonest self-control for one's own benefit—that power of sacrificing a present desire to a distant object or a general purpose which is indispensable for making the actions of the individual accord with his own notions of his individual good—even this is most unnatural to the undisciplined human being, as may be seen by the long apprenticeship which children serve to it, the very imperfect manner in which it is acquired by

persons born to power whose will is seldom resisted, and by all who have been early and much indulged; and the marked absence of the quality in savages, in soldiers and sailors, and in a somewhat less degree in nearly the whole of the poorer classes in this and many other countries. The principal difference on the point under consideration between this virtue and others is that, although, like them, it requires a course of teaching, it is more susceptible than most of them of being self-taught. The axiom is trite that self-control is only learned by experience; and this endowment is only thus much nearer to being natural than the others we have spoken of, inasmuch as personal experience, without external inculcation, has a certain tendency to engender it. Nature does not of herself bestow this, any more than other virtues; but Nature often administers the rewards and punishments which cultivate it, and which in other cases have to be created artificially for the express purpose.

Veracity might seem, of all virtues, to have the most plausible claim to being natural, since in the absence of motives to the contrary speech usually conforms to, or at least does not intentionally deviate from, fact. Accordingly this is the virtue with which writers like Rousseau delight in decorating savage life and setting it in advantageous contrast with the treachery and trickery of civilization. Unfortunately this is a mere fancy picture, contradicted by all the realities of savage life. Savages are always liars. They have not the faintest notion of truth as a virtue. They have a notion of not betraying to their hurt, as of not hurting in any other way, persons to whom they are bound by some special tie of obligation: their chief, their guest, perhaps, or their friend—these feelings of obligation being the taught morality of the savage state, growing out of its characteristic circumstances. But of any point of honour respecting truth for truth's sake they have not the remotest idea, no more than the whole East and the greater part of Europe; and, in the few countries which are sufficiently improved to have such a point of honour, it is confined to a small minority who alone, under any circumstances of real temptation, practise it.

From the general use of the expression "natural justice" it must be presumed that justice is a virtue generally thought to be directly implanted by nature. I believe, however, that the sentiment of justice is entirely of artificial origin, the idea of natural justice not preceding but following that of conventional justice. The farther we look back into the early modes of thinking of the human race, whether we consider ancient times (including those of the Old Testament) or the portions of mankind who are still in no more advanced a condition than that of ancient times, the more completely do we find men's notions of justice defined and

bounded by the express appointment of law. A man's just rights meant the rights which the law gave him; a just man was he who never infringed, or sought to infringe, the legal property or other legal rights of others. The notion of a higher justice, to which laws themselves are amenable and by which the conscience is bound without a positive prescription of law, is a later extension of the idea suggested by and following the analogy of legal justice, to which it maintains a parallel direction through all the shades and varieties of the sentiment, and from which it borrows nearly the whole of its phraseology. The very words *justus* and *justitia* are derived from *jus*, law. Courts of justice, administration of justice, always mean the tribunals.

If it be said that there must be the germs of all these virtues in human nature, otherwise mankind would be incapable of acquiring them, I am ready, with a certain amount of explanation, to admit the fact. But the weeds that dispute the ground with these beneficent germs are themselves not germs but rankly luxuriant growths and would, in all but some one case in a thousand, entirely stifle and destroy the former, were it not so strongly the interest of mankind to cherish the good germs in one another that they always do so in as far as their degree of intelligence (in this as in other respects still very imperfect) allows. It is through such fostering, commenced early and not counteracted by unfavourable influences, that, in some happily circumstanced specimens of the human race, the most elevated sentiments of which humanity is capable become a second nature, stronger than the first, and not so much subduing the original nature as merging it into itself. Even those gifted organizations which have attained the like excellence by self-culture owe it essentially to the same cause; for what self-culture would be possible without aid from the general sentiment of mankind delivered through books, and from the contemplation of exalted characters real or ideal? This artificially created or at least artificially perfected nature of the best and noblest human beings is the only nature which it is ever commendable to follow. It is almost superfluous to say that even this cannot be erected into a standard of conduct, since it is itself the fruit of a training and culture the choice of which, if rational and not accidental, must have been determined by a standard already chosen.

This brief survey is amply sufficient to prove that the duty of man is the same in respect to his own nature as in respect to the nature of all other things, namely, not to follow but to amend it. Some people, however, who do not attempt to deny that instinct ought to be subordinate to reason, pay deference to nature so far as to maintain that every natural inclination

must have some sphere of action granted to it, some opening left for its gratification. All natural wishes, they say, must have been implanted for a purpose; and this argument is carried so far that we often hear it maintained that every wish which it is supposed to be natural to entertain must have a corresponding provision in the order of the universe for its gratification; insomuch (for instance) that the desire of an indefinite prolongation of existence is believed by many to be in itself a sufficient proof of the reality of a future life.

I conceive that there is a radical absurdity in all these attempts to discover, in detail, what are the designs of Providence, in order when they are discovered to help Providence in bringing them about. Those who argue, from particular indications, that Providence intends this or that either believe that the Creator can do all that he will or that he cannot. If the first supposition is adopted—if Providence is omnipotent—Providence intends whatever happens, and the fact of its happening proves that Providence intended it. If so, everything which a human being can do is predestined by Providence and is a fulfillment of its designs. But if, as is the more religious theory, Providence intends not all which happens, but only what is good, then indeed man has it in his power, by his voluntary actions, to aid the intentions of Providence; but he can only learn those intentions by considering what tends to promote the general good, and not what man has a natural inclination to; for, limited as, on this showing, the divine power must be by inscrutable but insurmountable obstacles, who knows that man *could* have been created without desires which never are to be, and even which never ought to be, fulfilled? The inclinations with which man has been endowed, as well as any of the other contrivances which we observe in nature, may be the expression, not of the divine will, but of the fetters which impede its free action; and to take hints from these for the guidance of our own conduct may be falling into a trap laid by the enemy. The assumption that everything which infinite goodness can desire actually comes to pass in this universe, or at least that we must never say or suppose that it does not, is worthy only of those whose slavish fears make them offer the homage of lies to a Being who, they profess to think, is incapable of being deceived and holds all falsehood in abomination.

With regard to this particular hypothesis, that all natural impulses, all propensities sufficiently universal and sufficiently spontaneous to be capable of passing for instincts, must exist for good ends and ought to be only regulated, not repressed—this is of course true of the majority of them, for the species could not have continued to exist unless most of its

inclinations had been directed to things needful or useful for its preservation. But unless the instincts can be reduced to a very small number indeed, it must be allowed that we have also bad instincts which it should be the aim of education not simply to regulate but to extirpate, or rather (what can be done even to an instinct) to starve them by disuse. Those who are inclined to multiply the number of instincts usually include among them one which they call destructiveness, an instinct to destroy for destruction's sake. I can conceive no good reason for preserving this, no more than another propensity which if not an instinct is very like one, what has been called the instinct of domination, a delight in exercising despotism, in holding other beings in subjection to our will. The man who takes pleasure in the mere exertion of authority, apart from the purpose for which it is to be employed, is the last person in whose hands one would willingly entrust it. Again, there are persons who are cruel by character, or as the phrase is, naturally cruel, who have a real pleasure in inflicting or seeing the infliction of pain. This kind of cruelty is not mere hardheartedness, absence of pity or remorse; it is a positive thing, a particular kind of voluptuous excitement. The East and southern Europe have afforded, and probably still afford, abundant examples of this hateful propensity. I suppose it will be granted that this is not one of the natural inclinations which it would be wrong to suppress. The only question would be whether it is not a duty to suppress the man himself along with it.

But even if it were true that every one of the elementary impulses of human nature has its good side and may by a sufficient amount of artificial training be made more useful than hurtful, how little would this amount to when it must in any case be admitted that, without such training, all of them, even those which are necessary to our preservation, would fill the world with misery, making human life an exaggerated likeness of the odious scene of violence and tyranny which is exhibited by the rest of the animal kingdom, except in so far as tamed and disciplined by man. There, indeed, those who flatter themselves with the notion of reading the purposes of the Creator in His works ought in consistency to have seen grounds for inferences from which they have shrunk. If there are any marks at all of special design in creation, one of the things most evidently designed is that a large proportion of all animals should pass their existence in tormenting and devouring other animals. They have been lavishly fitted out with the instruments necessary for that purpose; their strongest instincts impel them to it, and many of them seem to have been constructed incapable of supporting themselves by any other food. If a tenth

part of the pains which have been expended in finding benevolent adaptations in all nature had been employed in collecting evidence to blacken the character of the Creator, what scope for comment would not have been found in the entire existence of the lower animals, divided with scarcely an exception into devourers and devoured, and a prey to a thousand ills from which they are denied the faculties necessary for protecting themselves! If we are not obliged to believe the animal creation to be the work of a demon it is because we need not suppose it to have been made by a Being of infinite power. But if imitation of the Creator's will as revealed in nature were applied as a rule of action in this case, the most atrocious enormities of the worst men would be more than justified by the apparent intention of Providence that throughout all animated nature the strong should prey upon the weak.

The preceding observations are far from having exhausted the almost infinite variety of modes and occasions in which the idea of conformity to nature is introduced as an element into the ethical appreciation of actions and dispositions. The same favourable prejudgment follows the word nature through the numerous acceptations in which it is employed as a distinctive term for certain parts of the constitution of humanity as contrasted with other parts. We have hitherto confined ourselves to one of these acceptations, in which it stands as a general designation for those parts of our mental and moral constitution which are supposed to be innate, in contradistinction to those which are acquired: as when nature is contrasted with education; or when a savage state, without laws, arts, or knowledge, is called a state of nature; or when the question is asked whether benevolence, or the moral sentiment, is natural or acquired; or whether some persons are poets or orators by nature and others not. But in another and a more lax sense, any manifestations by human beings are often termed natural when it is merely intended to say that they are not studied or designedly assumed in the particular case, as when a person is said to move or speak with natural grace, or when it is said that a person's natural manner or character is so and so, meaning that it is so when he does not attempt to control or disguise it. In a still looser acceptation, a person is said to be naturally that which he was until some special cause had acted upon him, or which it is supposed he would be if some such cause were withdrawn. Thus a person is said to be naturally dull but to have made himself intelligent by study and perseverance; to be naturally cheerful but soured by misfortune; naturally ambitious but kept down by want of opportunity. Finally, the word natural, applied to feelings or conduct, often seems to mean no more than that they are such as are

ordinarily found in human beings: as when it is said that a person acted on some particular occasion as it was natural to do; or that to be affected in a particular way by some sight, or sound, or thought, or incident in life is perfectly natural.

In all these senses of the term the quality called natural is very often confessedly a worse quality than the one contrasted with it; but whenever its being so is not too obvious to be questioned the idea seems to be entertained that by describing it as natural something has been said amounting to a considerable presumption in its favour. For my part I can perceive only one sense in which nature, or naturalness, in a human being are really terms of praise, and then the praise is only negative, namely, when used to denote the absence of affectation. Affectation may be defined the effort to appear what one is not, when the motive or the occasion is not such as either to excuse the attempt or to stamp it with the more odious name of hypocrisy. It must be added that the deception is often attempted to be practised on the deceiver himself as well as on others; he imitates the external signs of qualities which he would like to have, in hopes to persuade himself that he has them. Whether in the form of deception or of self-deception, or of something hovering between the two, affectation is very rightly accounted a reproach, and naturalness, understood as the reverse of affectation, a merit. But a more proper term by which to express this estimable quality would be sincerity, a term which has fallen from its original elevated meaning and popularly denotes only a subordinate branch of the cardinal virtue it once designated as a whole.

Sometimes also, in cases where the term affectation would be inappropriate, since the conduct or demeanor spoken of is really praiseworthy, people say in disparagement of the person concerned that such conduct or demeanor is not natural to him, and make uncomplimentary comparisons between him and some other person to whom it is natural, meaning that what in the one seemed excellent was the effect of temporary excitement, or of a great victory over himself, while in the other it is the result to be expected from the habitual character. This mode of speech is not open to censure, since nature is here simply a term for the person's ordinary disposition, and if he is praised it is not for being natural but for being naturally good.

Conformity to nature has no connection whatever with right and wrong. The idea can never be fitly introduced into ethical discussions at all, except occasionally and partially into the question of degrees of culpability. To illustrate this point let us consider the phrase by which the greatest intensity of condemnatory feeling is conveyed in connection with

the idea of nature–the word unnatural. That a thing is unnatural, in any precise meaning which can be attached to the word, is no argument for its being blamable, since the most criminal actions are, to a being like man, not more unnatural than most of the virtues. The acquisition of virtue has in all ages been accounted a work of labour and difficulty, while the *descensus Averni* on the contrary is of proverbial facility; and it assuredly requires in most persons a greater conquest over a greater number of natural inclinations to become eminently virtuous than transcendently vicious. But if an action or an inclination has been decided on other grounds to be blamable, it may be a circumstance in aggravation that it is unnatural, that is, repugnant to some strong feeling usually found in human beings; since the bad propensity, whatever it be, has afforded evidence of being both strong and deeply rooted by having overcome that repugnance. This presumption, of course, fails if the individual never had the repugnance, and the argument, therefore, is not fit to be urged unless the feeling which is violated by the act is not only justifiable and reasonable but is one which it is blamable to be without.

The corresponding plea in extenuation of a culpable act because it was natural, or because it was prompted by a natural feeling, never, I think, ought to be admitted. There is hardly a bad action ever perpetrated which is not perfectly natural, and the motives to which are not perfectly natural feelings. In the eye of reason, therefore, this is no excuse, but it is quite "natural" that it should be so in the eyes of the multitude because the meaning of the expression is that they have a fellow feeling with the offender. When they say that something which they cannot help admitting to be blamable is nevertheless natural, they mean that they can imagine the possibility of their being themselves tempted to commit it. Most people have a considerable amount of indulgence toward all acts of which they feel a possible source within themselves, reserving their rigour for those which, though perhaps really less bad, they cannot in any way understand how it is possible to commit. If an action convinces them (which it often does on very inadequate grounds) that the person who does it must be a being totally unlike themselves, they are seldom particular in examining the precise degree of blame due to it, or even if blame is properly due to it at all. They measure the degree of guilt by the strength of their antipathy; and hence differences of opinion, and even differences of tastes, have been objects of as intense moral abhorrence as the most atrocious crimes.

It will be useful to sum up in a few words the leading conclusions of this essay.

The word nature has two principal meanings: it either denotes the entire system of things, with the aggregate of all their properties, or it denotes things as they would be, apart from human intervention.

In the first of these senses, the doctrine that man ought to follow nature is unmeaning, since man has no power to do anything else than follow nature; all his actions are done through and in obedience to some one or many of nature's physical or mental laws.

In the other sense of the term, the doctrine that men ought to follow nature or, in other words, ought to make the spontaneous course of things the model of his voluntary actions is equally irrational and immoral: irrational, because all human action whatever consists in altering, and all useful action in improving, the spontaneous course of nature; immoral, because the course of natural phenomena being replete with everything which when committed by human beings is most worthy of abhorrence, any one who endeavoured in his actions to imitate the natural course of things would be universally seen and acknowledged to be the wickedest of men.

The scheme of nature regarded in its whole extent cannot have had, for its sole or even principal object, the good of human or other sentient beings. What good it brings to them is mostly the result of their own exertions. Whatsoever in nature gives indication of beneficent design proves this beneficence to be armed only with limited power; and the duty of man is to co-operate with the beneficent powers, not by imitating but by perpetually striving to amend the course of nature–and bringing that part of it over which we can exercise control more nearly into conformity with a high standard of justice and goodness.

Ralph Waldo Emerson [1]

1803–1882

It has been said that Plato had no doctrines. His thought was rich, complex and elusive, and above all irreducible to a system, to a set of easily comprehended propositions and theses. Plato was Emerson's master, and Emerson had no doctrines either. Emerson was far from being an Aristotle. Dante could never have said of Emerson, as he said of Aristotle, that he was "the master of those who know."

On the contrary, it can almost be said that Emerson did not *know* anything, in the systematic, scientific sense in which we use the word nowadays. Emerson was a kind of sage, a kind of lay preacher on moral and metaphysical matters; because of this, perhaps, he was widely read and was a person of unique force in his day. His books were in every American home, and he lectured all over the United States, so that his words were heard, as well as read, by a vast number of his countrymen. In his books and lectures he was most concerned with the infinitude of the human soul and the inexhaustible wonder of nature; in a sense these were his only subjects. They are great subjects, but it is doubtful if any man can be systematic about them. One cannot *know* infinity and wonder.

The early essay called *Nature* reveals his inability to make a system of his mind, which he later had the wisdom to allow the freedom it needed. Emerson is most interesting on what a true theory of nature would explain if it were found, such as the mysteries of language, sleep, madness, dreams, beasts, and sex. But Emerson does not claim to offer us a true theory of nature. He is content to consider the uses of nature so far as men are concerned, and even these are difficult to grasp.

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[1] For a biography of Ralph Waldo Emerson, see Vol. 6, pp. 146–148, in this set.

If Emerson's thought had any center, it was what came to be expressed in the essay *Self-reliance*, a term that for him seemed to describe the essential human virtue. Not that he meant to praise an unrestrained or ignorant egotism in anyone, least of all himself. "To believe your own thought, to believe that what is true for you in your private heart is true for all men–that is genius," the essay proclaims, but the private heart of which it speaks is the soul that all men share, and reliance upon this is obedience to the good that all men by their reason know. Nor did Emerson mean thereby to scorn the world, except as men rely instead on its example. For the world in his view is but the leavings–called variously by such names as society, opinion, tradition, and history–of genius which has gone before, and those who allow themselves to be ruled by that are content with the shadow of human possibility rather than the substance.

Emerson could not bring himself to reject the world, even though he often thought he should. The essay on Montaigne makes clear how much he loved that worldliest of men–loved him for his very matter-of-factness, his constant concern with everyday things. There was something inconsistent in Emerson's affection for such a man. True, the skeptic which Emerson admired in Montaigne had some of the quality of the self-reliant soul. He permitted nothing the world could say to dominate his intellect. But he achieved this mastery by giving full attention to what he heard, not by ignoring it.

The skeptic, Emerson says (and he was partly one himself), is a man who believes everything rather than nothing. He listens to the talk of other men and supposes that all of it may be true, which means that no part of it can be all the truth there is. Like self-reliance, skepticism as Emerson understands it is superior to the world, but the superiority is gained by experience in and of the world.

Whether to withdraw from the world or immerse himself in it was, for Emerson, the great problem. He could never decide which to do. And because the problem was never resolved within himself, his mind was essentially paradoxical. He said that inspiration was everything–but he was an omnivorous reader. He preached the virtues of self-communion–but he spent his time talking to other men. His essays praised the spirit–but at the same time they insisted on the importance of facts. And his style is alternately the haziest and the most pungent, often in the same paragraph, of any writer who ever lived. Throughout his life, Emerson sought company yet found it

distracting, sought privacy yet found it enervating. "Solitude is impracticable and society fatal," he once admitted. It was as near a resolution of his problem as he ever got.

Despite the haziness and the lack of systematic resolutions, Emerson is worth reading again and again. He is more than just worthwhile. Emerson's words are sometimes exalting. They make us jump. We are overwhelmed and changed in our very hearts by the suddenly seen truth of a sentence or even a phrase. They make us realize that system is not everything. They even suggest that the world cannot be systematized. In an age of science, there may be no more important insight than this.

Nature

The rounded world is fair to see,
Nine times folded in mystery:
Though baffled seers cannot impart
The secret of its laboring heart,
Throb thine with Nature's throbbing breast,
And all is clear from east to west.
Spirit that lurks each form within
Beckons to spirit of its kin;
Self-kindled every atom glows,
And hints the future which it owes.

here are days which occur in this climate, at almost any season of the year, wherein the world reaches its perfection; when the air, the heavenly bodies and the earth make a harmony, as if Nature would indulge her offspring; when, in these bleak upper sides of the planet, nothing is to desire that we have heard of the happiest latitudes, and we bask in the shining hours of Florida and Cuba; when everything that has life gives sign of satisfaction, and the cattle that lie on the ground seem to have great and tranquil thoughts. These halcyons may be looked for with a little more assurance in that pure October weather which we distinguish by the name of the Indian summer. The day, immeasurably long, sleeps over the broad hills and warm wide fields. To have lived through all its sunny hours seems longevity enough. The solitary places do not seem quite lonely. At the gates of the forest, the surprised man of the world is forced to leave his city estimates of great and small, wise and foolish. The knapsack of custom falls off his back with the first step he takes into these precincts. Here is sanctity which shames our religions, and reality which discredits our heroes. Here we find Nature to be the circumstance which dwarfs every other circumstance, and judges like a god all men that come to her. We have crept out of our close and crowded houses into the night and morning, and we see what majestic beauties daily wrap us in their

bosom. How willingly we would escape the barriers which render them comparatively impotent, escape the sophistication and second thought, and suffer nature to entrance us. The tempered light of the woods is like a perpetual morning, and is stimulating and heroic. The anciently reported spells of these places creep on us. The stems of pines, hemlocks and oaks almost gleam like iron on the excited eye. The incommunicable trees begin to persuade us to live with them, and quit our life of solemn trifles. Here no history, or church, or state is interpolated on the divine sky and the immortal year. How easily we might walk onward into the opening landscape, absorbed by new pictures and by thoughts fast succeeding each other, until by degrees the recollection of home was crowded out of the mind, all memory obliterated by the tyranny of the present, and we were led in triumph by Nature.

These enchantments are medicinal, they sober and heal us. These are plain pleasures, kindly and native to us. We come to our own, and make friends with matter, which the ambitious chatter of the schools would persuade us to despise. We never can part with it; the mind loves its old home: as water to our thirst, so is the rock, the ground, to our eyes and hands and feet. It is firm water; it is cold flame; what health, what affinity! Ever an old friend, ever like a dear friend and brother when we chat affectedly with strangers, comes in this honest face, and takes a grave liberty with us, and shames us out of our nonsense. Cities give not the human senses room enough. We go out daily and nightly to feed the eyes on the horizon, and require so much scope, just as we need water for our bath. There are all degrees of natural influence, from these quarantine powers of Nature, up to her dearest and gravest ministrations to the imagination and the soul. There is the bucket of cold water from the spring, the wood fire to which the chilled traveler rushes for safety—and there is the sublime moral of autumn and of noon. We nestle in Nature, and draw our living as parasites from her roots and grains, and we receive glances from the heavenly bodies, which call us to solitude and foretell the remotest future. The blue zenith is the point in which romance and reality meet. I think if we should be rapt away into all that and dream of heaven, and should converse with Gabriel and Uriel, the upper sky would be all that would remain of our furniture.

It seems as if the day was not wholly profane in which we have given heed to some natural object. The fall of snowflakes in a still air, preserving to each crystal its perfect form; the blowing of sleet over a wide sheet of water, and over plains; the waving rye field; the mimic waving of acres of houstonia, whose innumerable florets whiten and ripple before the eye;

the reflections of trees and flowers in glassy lakes; the musical, steaming, odorous south wind, which converts all trees to wind harps; the crackling and spurting of hemlock in the flames, or of pine logs, which yield glory to the walls and faces in the sitting room—these are the music and pictures of the most ancient religion. My house stands in low land, with limited outlook, and on the skirt of the village. But I go with my friend to the shore of our little river, and with one stroke of the paddle I leave the village politics and personalities, yes, and the world of villages and personalities, behind, and pass into a delicate realm of sunset and moonlight, too bright almost for spotted man to enter without novitiate and probation. We penetrate bodily this incredible beauty; we dip our hands in this painted element; our eyes are bathed in these lights and forms. A holiday, a *villeggiatura*, a royal revel, the proudest, most heart-rejoicing festival that valor and beauty, power and taste ever decked and enjoyed, establishes itself on the instant. These sunset clouds, these delicately emerging stars, with their private and ineffable glances, signify it and proffer it, I am taught the poorness of our invention, the ugliness of towns and palaces. Art and luxury have early learned that they must work as enhancement and sequel to this original beauty. I am overinstructed for my return. Henceforth I shall be hard to please. I cannot go back to toys. I am grown expensive and sophisticated. I can no longer live without elegance, but a countryman shall be my master of revels. He who knows the most, he who knows what sweets and virtues are in the ground, the waters, the plants, the heavens, and how to come at these enchantments, is the rich and royal man. Only as far as the masters of the world have called in nature to their aid, can they reach the height of magnificence. This is the meaning of their hanging gardens, villas, garden houses, islands, parks and preserves, to back their faulty personality with these strong accessories. I do not wonder that the landed interest should be invincible in the state with these dangerous auxiliaries. These bribe and invite; not kings, not palaces, not men, not women, but these tender and poetic stars, eloquent of secret promises. We heard what the rich man said, we knew of his villa, his grove, his wine and his company, but the provocation and point of the invitation came out of these beguiling stars. In their soft glances I see what men strove to realize in some Versailles, or Paphos, or Ctesiphon. Indeed, it is the magical lights of the horizon and the blue sky for the background which save all our works of art, which were otherwise baubles. When the rich tax the poor with servility and obsequiousness, they should consider the effect of men reputed to be the possessors of nature, on imaginative minds. Ah! if the rich were rich as the poor fancy

riches! A boy hears a military band play on the field at night, and he has kings and queens and famous chivalry palpably before him. He hears the echoes of a horn in a hill country, in the Notch Mountains, for example, which converts the mountains into an Aeolian harp—and this supernatural *tiralira* restores to him the Dorian mythology, Apollo, Diana, and all divine hunters and huntresses. Can a musical note be so lofty, so haughtily beautiful! To the poor young poet, thus fabulous is his picture of society; he is loyal; he respects the rich; they are rich for the sake of his imagination; how poor his fancy would be if they were not rich! That they have some high-fenced grove which they call a park; that they live in larger and better-garnished saloons than he has visited, and go in coaches, keeping only the society of the elegant, to watering places and to distant cities—these make the groundwork from which he has delineated estates of romance, compared with which their actual possessions are shanties and paddocks. The muse herself betrays her son, and enhances the gifts of wealth and well-born beauty by a radiation out of the air, and clouds, and forests that skirt the road—a certain haughty favor, as if from patrician genii to patricians, a kind of aristocracy in nature, a prince of the power of the air.

The moral sensibility which makes Edens and Tempes so easily may not be always found, but the material landscape is never far off. We can find these enchantments without visiting the Como Lake, or the Madeira Islands. We exaggerate the praises of local scenery. In every landscape the point of astonishment is the meeting of the sky and the earth, and that is seen from the first hillock as well as from the top of the Alleghenies. The stars at night stoop down over the brownest, homeliest common with all the spiritual magnificence which they shed on the Campagna, or on the marble deserts of Egypt. The uprolled clouds and the colors of morning and evening will transfigure maples and alders. The difference between landscape and landscape is small, but there is great difference in the beholders. There is nothing so wonderful in any particular landscape as the necessity of being beautiful under which every landscape lies. Nature cannot be surprised in undress. Beauty breaks in everywhere.

But it is very easy to outrun the sympathy of readers on this topic, which schoolmen called *natura naturata*, or nature passive. One can hardly speak directly of it without excess. It is as easy to broach in mixed companies what is called "the subject of religion." A susceptible person does not like to indulge his tastes in this kind without the apology of some trivial necessity: he goes to see a wood lot, or to look at the crops, or to fetch a plant or a mineral from a remote locality, or he carries a fowling

piece or a fishing rod. I suppose this shame must have a good reason. A dilettanteism in nature is barren and unworthy. The fop of fields is no better than his brother of Broadway. Men are naturally hunters and inquisitive of woodcraft, and I suppose that such a gazetteer as woodcutters and Indians should furnish facts for would take place in the most sumptuous drawing rooms of all the "Wreaths" and "Flora's chaplets" of the bookshops; yet ordinarily, whether we are too clumsy for so subtle a topic, or from whatever cause, as soon as men begin to write on nature, they fall into euphuism. Frivolity is a most unfit tribute to Pan, who ought to be represented in the mythology as the most continent of gods. I would not be frivolous before the admirable reserve and prudence of time, yet I cannot renounce the rights of returning often to this old topic. The multitude of false churches accredits the true religion. Literature, poetry, science are the homage of man to this unfathomed secret, concerning which no sane man can affect an indifference or incuriosity. Nature is loved by what is best in us. It is loved as the city of God, although, or rather because, there is no citizen. The sunset is unlike anything that is underneath it: it wants men. And the beauty of nature must always seem unreal and mocking, until the landscape has human figures that are as good as itself. If there were good men, there would never be this rapture in nature. If the king is in the palace, nobody looks at the walls. It is when he is gone, and the house is filled with grooms and gazers, that we turn from the people to find relief in the majestic men that are suggested by the pictures and the architecture. The critics who complain of the sickly separation of the beauty of nature from the thing to be done must consider that our hunting of the picturesque is inseparable from our protest against false society. Man is fallen; nature is erect, and serves as a differential thermometer, detecting the presence or absence of the divine sentiment in man. By fault of our dullness and selfishness we are looking up to nature, but when we are convalescent, nature will look up to us. We see the foaming brook with compunction: if our own life flowed with the right energy, we should shame the brook. The stream of zeal sparkles with real fire, and not with reflex rays of sun and moon. Nature may be as selfishly studied as trade. Astronomy to the selfish becomes astrology; psychology, mesmerism (with intent to show where our spoons are gone); and anatomy and physiology become phrenology and palmistry.

But taking timely warning, and leaving many things unsaid on this topic, let us not longer omit our homage to the efficient nature, *natura naturans*, the quick cause before which all forms flee as the driven snows; itself secret, its works driven before it in flocks and multitudes (as the

ancients represented nature by Proteus, a shepherd) and in undescribable variety. It publishes itself in creatures, reaching from particles and spiculae through transformation on transformation to the highest symmetries, arriving at consummate results without a shock or a leap. A little heat, that is a little motion, is all that differences the bald, dazzling white and deadly cold poles of the earth from the prolific tropical climates. All changes pass without violence, by reason of the two cardinal conditions of boundless space and boundless time. Geology has initiated us into the secularity of nature, and taught us to disuse our dame-school measures, and exchange our Mosaic and Ptolemaic schemes for her large style. We knew nothing rightly, for want of perspective. Now we learn what patient periods must round themselves before the rock is formed; then before the rock is broken, and the first lichen race has disintegrated the thinnest external plate into soil, and opened the door for the remote Flora, Fauna, Ceres, and Pomona to come in. How far off yet is the trilobite! how far the quadruped! how inconceivably remote is man! All duly arrive, and then race after race of men. It is a long way from granite to the oyster; farther yet to Plato and the preaching of the immortality of the soul. Yet all must come, as surely as the first atom has two sides.

Motion or change and identity or rest are the first and second secrets of Nature: motion and rest. The whole code of her laws may be written on the thumbnail, or the signet of a ring. The whirling bubble on the surface of a brook admits us to the secret of the mechanics of the sky. Every shell on the beach is a key to it. A little water made to rotate in a cup explains the formation of the simpler shells; the addition of matter from year to year arrives at last at the most complex forms; and yet so poor is Nature with all her craft that from the beginning to the end of the universe she has but one stuff–but one stuff with its two ends, to serve up all her dreamlike variety. Compound it how she will, star, sand, fire, water, tree, man, it is still one stuff, and betrays the same properties.

Nature is always consistent, though she feigns to contravene her own laws. She keeps her laws, and seems to transcend them. She arms and equips an animal to find its place and living in the earth, and at the same time she arms and equips another animal to destroy it. Space exists to divide creatures; but by clothing the sides of a bird with a few feathers she gives him a petty omnipresence. The direction is forever onward, but the artist still goes back for materials and begins again with the first elements on the most advanced stage; otherwise all goes to ruin. If we look at her work, we seem to catch a glance of a system in transition. Plants are the young of the world, vessels of health and vigor; but they

grope ever upward towards consciousness; the trees are imperfect men, and seem to bemoan their imprisonment, rooted in the ground. The animal is the novice and probationer of a more advanced order. The men, though young, having tasted the first drop from the cup of thought, are already dissipated; the maples and ferns are still uncorrupt; yet no doubt when they come to consciousness they too will curse and swear. Flowers so strictly belong to youth that we adult men soon come to feel that their beautiful generations concern not us: we have had our day; now let the children have theirs. The flowers jilt us, and we are old bachelors with our ridiculous tenderness.

Things are so strictly related that, according to the skill of the eye, from any one object the parts and properties of any other may be predicted. If we had eyes to see it, a bit of stone from the city wall would certify us of the necessity that man must exist, as readily as the city. That identity makes us all one, and reduces to nothing great intervals on our customary scale. We talk of deviations from natural life, as if artificial life were not also natural. The smoothest curled courtier in the boudoirs of a palace has an animal nature, rude and aboriginal as a white bear, omnipotent to its own ends, and is directly related, there amid essences and billets-doux, to Himalaya mountain chains and the axis of the globe. If we consider how much we are nature's, we need not be superstitious about towns, as if that terrific or benefic force did not find us there also, and fashion cities. Nature, who made the mason, made the house. We may easily hear too much of rural influences. The cool disengaged air of natural objects makes them enviable to us, chafed and irritable creatures with red faces, and we think we shall be as grand as they if we camp out and eat roots; but let us be men instead of woodchucks and the oak and the elm shall gladly serve us, though we sit in chairs of ivory on carpets of silk.

This guiding identity runs through all the surprises and contrasts of the piece, and characterizes every law. Man carries the world in his head, the whole astronomy and chemistry suspended in a thought. Because the history of nature is charactered in his brain, therefore is he the prophet and discoverer of her secrets. Every known fact in natural science was divined by the presentiment of somebody, before it was actually verified. A man does not tie his shoe without recognizing laws which bind the farthest regions of nature: moon, plant, gas, crystal are concrete geometry and numbers. Common sense knows its own, and recognizes the fact at first sight in chemical experiment. The common sense of Franklin, Dalton, Davy and Black is the same common sense which made the arrangements which now it discovers.

If the identity expresses organized rest, the counter action runs also into organization. The astronomers said, "Give us matter and a little motion and we will construct the universe. It is not enough that we should have matter, we must also have a single impulse, one shove to launch the mass and generate the harmony of the centrifugal and centripetal forces. Once heave the ball from the hand, and we can show how all this mighty order grew." "A very unreasonable postulate," said the metaphysicians, "and a plain begging of the question. Could you not prevail to know the genesis of projection, as well as the continuation of it?" Nature, meanwhile, had not waited for the discussion, but, right or wrong, bestowed the impulse, and the balls rolled. It was no great affair, a mere push, but the astronomers were right in making much of it, for there is no end to the consequences of the act. That famous aboriginal push propagates itself through all the balls of the system, and through every atom of every ball; through all the races of creatures, and through the history and performances of every individual. Exaggeration is in the course of things. Nature sends no creature, no man into the world without adding a small excess of his proper quality. Given the planet, it is still necessary to add the impulse; so to every creature nature added a little violence of direction in its proper path, a shove to put it on its way; in every instance a slight generosity, a drop too much. Without electricity the air would rot, and without this violence of direction which men and women have, without a spice of bigot and fanatic, no excitement, no efficiency. We aim above the mark to hit the mark. Every act hath some falsehood of exaggeration in it. And when now and then comes along some sad, sharp-eyed man, who sees how paltry a game is played, and refuses to play but blabs the secret, how then? Is the bird flown? O no, the wary Nature sends a new troop of fairer forms, of lordlier youths, with a little more excess of direction to hold them fast to their several aim; makes them a little wrong-headed in that direction in which they are rightest, and on goes the game again with new whirl, for a generation or two more. The child with his sweet pranks, the fool of his senses, commanded by every sight and sound, without any power to compare and rank his sensations, abandoned to a whistle or a painted chip, to a lead dragoon or a gingerbread dog, individualizing everything, generalizing nothing, delighted with every new thing, lies down at night overpowered by the fatigue which this day of continual pretty madness has incurred. But Nature has answered her purpose with the curly, dimpled lunatic. She has tasked every faculty, and has secured the symmetrical growth of the bodily frame by all these attitudes and exertions—an end of the first importance, which could not be trusted to

any care less perfect than her own. This glitter, this opaline luster plays round the top of every toy to his eye to insure his fidelity, and he is deceived to his good. We are made alive and kept alive by the same arts. Let the stoics say what they please, we do not eat for the good of living, but because the meat is savory and the appetite is keen. The vegetable life does not content itself with casting from the flower or the tree a single seed, but it fills the air and earth with a prodigality of seeds, that, if thousands perish, thousands may plant themselves; that hundreds may come up, that tens may live to maturity; that at least one may replace the parent. All things betray the same calculated profusion. The excess of fear with which the animal frame is hedged round, shrinking from cold, starting at sight of a snake or at a sudden noise, protects us, through a multitude of groundless alarms, from some one real danger at last. The lover seeks in marriage his private felicity and perfection, with no prospective end; and Nature hides in his happiness her own end, namely progeny, or the perpetuity of the race.

But the craft with which the world is made runs also into the mind and character of men. No man is quite sane; each has a vein of folly in his composition, a slight determination of blood to the head, to make sure of holding him hard to some one point which Nature had taken to heart. Great causes are never tried on their merits; but the cause is reduced to particulars to suit the size of the partisans, and the contention is ever hottest on minor matters. Not less remarkable is the overfaith of each man in the importance of what he has to do or say. The poet, the prophet, has a higher value for what he utters than any hearer, and therefore it gets spoken. The strong, self-complacent Luther declares with an emphasis not to be mistaken that "God himself cannot do without wise men." Jacob Behmen and George Fox betray their egotism in the pertinacity of their controversial tracts, and James Naylor once suffered himself to be worshipped as the Christ. Each prophet comes presently to identify himself with his thought, and to esteem his hat and shoes sacred. However this may discredit such persons with the judicious, it helps them with the people, as it gives heat, pungency and publicity to their words. A similar experience is not infrequent in private life. Each young and ardent person writes a diary, in which, when the hours of prayer and penitence arrive, he inscribes his soul. The pages thus written are to him burning and fragrant; he reads them on his knees by midnight and by the morning star; he wets them with his tears; they are sacred; too good for the world, and hardly yet to be shown to the dearest friend. This is the man-child that is born to the soul, and her life still circulates in the babe. The umbilical

cord has not yet been cut. After some time has elapsed, he begins to wish to admit his friend to this hallowed experience, and with hesitation, yet with firmness, exposes the pages to his eye. Will they not burn his eyes? The friend coldly turns them over, and passes from the writing to conversation, with easy transition, which strikes the other party with astonishment and vexation. He cannot suspect the writing itself. Days and nights of fervid life, of communion with angels of darkness and of light have engraved their shadowy characters on their tear-stained book. He suspects the intelligence or the heart of his friend. Is there then no friend? He cannot yet credit that one may have impressive experience and yet may not know how to put his private fact into literature: and perhaps the discovery that wisdom has other tongues and ministers than we, that though we should hold our peace the truth would not the less be spoken, might check injuriously the flames of our zeal. A man can only speak so long as he does not feel his speech to be partial and inadequate. It is partial, but he does not see it to be so while he utters it. As soon as he is released from the instinctive and particular and sees its partiality, he shuts his mouth in disgust. For no man can write anything who does not think that what he writes is for the time the history of the world; or do anything well who does not esteem his work to be of importance. My work may be of none, but I must not think it of none, or I shall not do it with impunity.

In like manner, there is throughout nature something mocking, something that leads us on and on, but arrives nowhere, keeps no faith with us. All promise outruns the performance. We live in a system of approximations. Every end is prospective of some other end, which is also temporary; a round and final success nowhere. We are encamped in nature, not domesticated. Hunger and thirst lead us on to eat and to drink; but bread and wine, mix and cook them how you will, leave us hungry and thirsty, after the stomach is full. It is the same with all our arts and performances. Our music, our poetry, our language itself are not satisfactions, but suggestions. The hunger for wealth, which reduces the planet to a garden, fools the eager pursuer. What is the end sought? Plainly to secure the ends of good sense and beauty from the intrusion of deformity or vulgarity of any kind. But what an operose method! What a train of means to secure a little conversation! This palace of brick and stone, these servants, this kitchen, these stables, horses and equipage, this bank stock and file of mortgages; trade to all the world, country house and cottage by the waterside, all for a little conversation, high, clear and spiritual! Could it not be had as well by beggars on the highway? No, all these things came from successive

efforts of these beggars to remove friction from the wheels of life, and give opportunity. Conversation, character were the avowed ends; wealth was good as it appeased the animal cravings, cured the smoky chimney, silenced the creaking door, brought friends together in a warm and quiet room, and kept the children and the dinner table in a different apartment. Thought, virtue, beauty were the ends; but it was known that men of thought and virtue sometimes had the headache, or wet feet, or could lose good time while the room was getting warm in winter days. Unluckily, in the exertions necessary to remove these inconveniences, the main attention has been diverted to this object; the old aims have been lost sight of, and to remove friction has come to be the end. That is the ridicule of rich men; and Boston, London, Vienna, and now the governments generally of the world, are cities and governments of the rich; and the masses are not men, but *poor* men, that is, men who would be rich; this is the ridicule of the class, that they arrive with pains and sweat and fury nowhere; when all is done, it is for nothing. They are like one who has interrupted the conversation of a company to make his speech, and now has forgotten what he went to say. The appearance strikes the eye everywhere of an aimless society, of aimless nations. Were the ends of nature so great and cogent as to exact this immense sacrifice of men?

Quite analogous to the deceits in life, there is, as might be expected, a similar effect on the eye from the face of external nature. There is in woods and waters a certain enticement and flattery, together with a failure to yield a present satisfaction. This disappointment is felt in every landscape. I have seen the softness and beauty of the summer clouds floating feathery overhead, enjoying, as it seemed, their height and privilege of motion, while yet they appeared not so much the drapery of this place and hour, as forelooking to some pavilions and gardens of festivity beyond. It is an odd jealousy, but the poet finds himself not near enough to his object. The pine tree, the river, the bank of flowers before him, does not seem to be nature. Nature is still elsewhere. This or this is but outskirt and a far-off reflection and echo of the triumph that has passed by and is now at its glancing splendor and heyday, perchance in the neighboring fields, or, if you stand in the field, then in the adjacent woods. The present object shall give you this sense of stillness that follows a pageant which has just gone by. What splendid distance, what recesses of ineffable pomp and loveliness in the sunset! But who can go where they are, or lay his hand or plant his foot thereon? Off they fall from the round world forever and ever. It is the same among the men and women as among the silent trees; always a referred existence, an absence, never a presence and

satisfaction. Is it that beauty can never be grasped? in persons and in landscape is equally inaccessible? The accepted and betrothed lover has lost the wildest charm of his maiden in her acceptance of him. She was heaven while he pursued her as a star: she cannot be heaven if she stoops to such a one as he.

What shall we say of this omnipresent appearance of that first projectile impulse, of this flattery and balking of so many well-meaning creatures? Must we not suppose somewhere in the universe a slight treachery and derision? Are we not engaged to a serious resentment of this use that is made of us? Are we tickled trout, and fools of nature? One look at the face of heaven and earth lays all petulance at rest, and soothes us to wiser convictions. To the intelligent, nature converts itself into a vast promise, and will not be rashly explained. Her secret is untold. Many and many an Oedipus arrives; he has the whole mystery teeming in his brain. Alas! the same sorcery has spoiled his skill; no syllable can he shape on his lips. Her mighty orbit vaults like the fresh rainbow into the deep, but no archangel's wing was yet strong enough to follow it and report of the return of the curve. But it also appears that our actions are seconded and disposed to greater conclusions than we designed. We are escorted on every hand through life by spiritual agents, and a beneficent purpose lies in wait for us. We cannot bandy words with Nature, or deal with her as we deal with persons. If we measure our individual forces against hers we may easily feel as if we were the sport of an insuperable destiny. But if, instead of identifying ourselves with the work, we feel that the soul of the workman streams through us, we shall find the peace of the morning dwelling first in our hearts, and the fathomless powers of gravity and chemistry, and, over them, of life, pre-existing within us in their highest form.

The uneasiness which the thought of our helplessness in the chain of causes occasions us results from looking too much at one condition of nature, namely, motion. But the drag is never taken from the wheel. Wherever the impulse exceeds, the rest or identity insinuates its compensation. All over the wide fields of earth grows the prunella or self-heal. After every foolish day we sleep off the fumes and furies of its hours; and though we are always engaged with particulars, and often enslaved to them, we bring with us to every experiment the innate universal laws These, while they exist in the mind as ideas, stand around us in nature forever embodied, a present sanity to expose and cure the insanity of men. Our servitude to particulars betrays us into a hundred foolish expectations. We anticipate a new era from the invention of a locomotive, or a balloon; the new engine brings with it the old checks. They say that by

electromagnetism your salad shall be grown from the seed while your fowl is roasting for dinner; it is a symbol of our modern aims and endeavors, of our condensation and acceleration of objects; but nothing is gained; nature cannot be cheated; man's life is but seventy salads long, grow they swift or grow they slow. In these checks and impossibilities, however, we find our advantage, not less than in the impulses. Let the victory fall where it will, we are on that side. And the knowledge that we traverse the whole scale of being, from the center to the poles of nature, and have some stake in every possibility, lends that sublime luster to death, which philosophy and religion have too outwardly and literally striven to express in the popular doctrine of the immortality of the soul. The reality is more excellent than the report. Here is no ruin, no discontinuity, no spent ball. The divine circulations never rest nor linger. Nature is the incarnation of a thought, and turns to a thought again, as ice becomes water and gas. The world is mind precipitated, and the volatile essence is forever escaping again into the state of free thought. Hence the virtue and pungency of the influence on the mind of natural objects, whether inorganic or organized. Man imprisoned, man crystallized, man vegetative, speaks to man impersonated. That power which does not respect quantity, which makes the whole and the particle its equal channel, delegates its smile to the morning, and distills its essence into every drop of rain. Every moment instructs, and every object; for wisdom is infused into every form. It has been poured into us as blood; it convulsed us as pain; it slid into us as pleasure; it enveloped us in dull, melancholy days, or in days of cheerful labor; we did not guess its essence until after a long time.

Self-Reliance

Ne te quæsiveris extra.[1]

Man is his own star; and the soul that can
Render an honest and a perfect man,
Commands all light, all influence, all fate;
Nothing to him falls early or too late.
Our acts our angels are, or good or ill,
Our fatal shadows that walk by us still.

Epilogue to Beaumont and Fletcher's
Honest Man's Fortune.

Cast the bantling on the rocks,
Suckle him with the she-wolf's teat,
Wintered with the hawk and fox,
Power and speed be hands and feet.

I read the other day some verses written by an eminent painter which were original and not conventional. The soul always hears an admonition in such lines, let the subject be what it may. The sentiment they instill is of more value than any thought they may contain. To believe your own thought, to believe that what is true for you in your private heart is true for all men—that is genius. Speak your latent conviction, and it shall be the universal sense; for the inmost in due time becomes the outmost, and our first thought is rendered back to us by the trumpets of the Last Judgment. Familiar as the voice of the mind is to each, the highest merit we ascribe to Moses, Plato and Milton is that they set at naught books and traditions, and spoke not what men, but what *they*, thought. A man should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages. Yet he dismisses without notice his thought,

1. "If you seek yourself, look not without."

because it is his. In every work of genius we recognize our own rejected thoughts; they come back to us with a certain alienated majesty. Great works of art have no more affecting lesson for us than this. They teach us to abide by our spontaneous impression with good-humored inflexibility than most when the whole cry of voices is on the other side. Else tomorrow a stranger will say with masterly good sense precisely what we have thought and felt all the time, and we shall be forced to take with shame our own opinion from another.

There is a time in every man's education when he arrives at the conviction that envy is ignorance; that imitation is suicide; that he must take himself for better for worse as his portion; that though the wide universe is full of good, no kernel of nourishing corn can come to him but through his toil bestowed on that plot of ground which is given to him to till. The power which resides in him is new in nature, and none but he knows what that is which he can do, nor does he know until he has tried. Not for nothing one face, one character, one fact, makes much impression on him, and another none. This sculpture in the memory is not without pre-established harmony. The eye was placed where one ray should fall, that it might testify of that particular ray. We but half express ourselves, and are ashamed of that divine idea which each of us represents. It may be safely trusted as proportionate and of good issues, so it be faithfully imparted, but God will not have his work made manifest by cowards. A man is relieved and gay when he has put his heart into his work and done his best; but what he has said or done otherwise shall give him no peace. It is a deliverance which does not deliver. In the attempt his genius deserts him; no muse befriends; no invention, no hope.

Trust thyself: every heart vibrates to that iron string. Accept the place the divine providence has found for you, the society of your contemporaries, the connection of events. Great men have always done so, and confided themselves childlike to the genius of their age, betraying their perception that the absolutely trustworthy was seated at their heart, working through their hands, predominating in all their being. And we are now men, and must accept in the highest mind the same transcendent destiny; and not minors and invalids in a protected corner, not cowards fleeing before a revolution, but guides, redeemers and benefactors, obeying the Almighty effort and advancing on chaos and the dark.

What pretty oracles nature yields us on this text in the face and behavior of children, babes, and even brutes! That divided and rebel mind, that distrust of a sentiment because our arithmetic has computed the strength and means opposed to our purpose, these have not. Their mind being

whole, their eye is as yet unconquered; and when we look in their faces we are disconcerted. Infancy conforms to nobody; all conform to it; so that one babe commonly makes four or five out of the adults who prattle and play to it. So God has armed youth and puberty and manhood no less with its own piquancy and charm, and made it enviable and gracious and its claims not to be put by, if it will stand by itself. Do not think the youth has no force, because he cannot speak to you and me. Hark! in the next room his voice is sufficiently clear and emphatic. It seems he knows how to speak to his contemporaries. Bashful or bold then, he will know how to make us seniors very unnecessary.

The nonchalance of boys who are sure of a dinner, and would disdain as much as a lord to do or say aught to conciliate one, is the healthy attitude of human nature. A boy is in the parlor what the pit is in the playhouse; independent, irresponsible, looking out from his corner on such people and facts as pass by, he tries and sentences them on their merits, in the swift, summary way of boys, as good, bad, interesting, silly, eloquent, troublesome. He cumbers himself never about consequences, about interests; he gives an independent, genuine verdict. You must court him; he does not court you. But the man is as it were clapped into jail by his consciousness. As soon as he has once acted or spoken with éclat he is a committed person, watched by the sympathy or the hatred of hundreds, whose affections must now enter into his account. There is no Lethe for this. Ah, that he could pass again into his neutrality! Who can thus avoid all pledges and, having observed, observe again from the same unaffected, unbiased, unbribable, unaffrighted innocence must always be formidable. He would utter opinions on all passing affairs, which being seen to be not private but necessary, would sink like darts into the ear of men and put them in fear.

These are the voices which we hear in solitude, but they grow faint and inaudible as we enter into the world. Society everywhere is in conspiracy against the manhood of every one of its members. Society is a joint-stock company, in which the members agree, for the better securing of his bread to each shareholder, to surrender the liberty and culture of the eater. The virtue in most request is conformity. Self-reliance is its aversion. It loves not realities and creators, but names and customs.

Whoso would be a man must be a nonconformist. He who would gather immortal palms must not be hindered by the name of goodness, but must explore if it be goodness. Nothing is at last sacred but the integrity of your own mind. Absolve you to yourself, and you shall have the suffrage of the world. I remember an answer which when quite young I was prompted to

make to a valued adviser who was wont to importune me with the dear old doctrines of the church. On my saying, "What have I to do with the sacredness of traditions, if I live wholly from within?" my friend suggested– "But these impulses may be from below, not from above." I replied, "They do not seem to me to be such; but if I am the Devil's child, I will live then from the Devil." No law can be sacred to me but that of my nature. Good and bad are but names very readily transferable to that or this; the only right is what is after my constitution; the only wrong what is against it. A man is to carry himself in the presence of all opposition as if everything were titular and ephemeral but he. I am ashamed to think how easily we capitulate to badges and names, to large societies and dead institutions. Every decent and well-spoken individual affects and sways me more than is right. I ought to go upright and vital, and speak the rude truth in all ways. If malice and vanity wear the coat of philanthropy, shall that pass? If an angry bigot assumes this bountiful cause of Abolition, and comes to me with his last news from Barbados, why should I not say to him, "Go love thy infant; love thy wood chopper; be good natured and modest; have that grace; and never varnish your hard, uncharitable ambition with this incredible tenderness for black folk a thousand miles off. Thy love afar is spite at home." Rough and graceless would be such greeting, but truth is handsomer than the affectation of love. Your goodness must have some edge to it–else it is none. The doctrine of hatred must be preached, as the counteraction of the doctrine of love, when that pules and whines. I shun father and mother and wife and brother when my genius calls me. I would write on the lintels of the doorpost, *Whim.* I hope it is somewhat better than whim at last, but we cannot spend the day in explanation. Expect me not to show cause why I seek or why I exclude company. Then again, do not tell me, as a good man did today, of my obligation to put all poor men in good situations. Are they *my* poor? I tell thee, thou foolish philanthropist, that I grudge the dollar, the dime, the cent I give to such men as do not belong to me and to whom I do not belong. There is a class of persons to whom by all spiritual affinity I am bought and sold; for them I will go to prison if need be; but your miscellaneous popular charities; the education at college of fools; the building of meetinghouses to the vain end to which many now stand; alms to sots, and the thousandfold relief societies; though I confess with shame I sometimes succumb and give the dollar, it is a wicked dollar, which by and by I shall have the manhood to withhold.

Virtues are, in the popular estimate, rather the exception than the rule. There is the man *and* his virtues. Men do what is called a good action, as

some piece of courage or charity, much as they would pay a fine in expiation of daily nonappearance on parade. Their works are done as an apology or extenuation of their living in the world—as invalids and the insane pay a high board. Their virtues are penances. I do not wish to expiate, but to live. My life is for itself and not for a spectacle. I much prefer that it should be of a lower strain, so it be genuine and equal, than that it should be glittering and unsteady. I wish it to be sound and sweet, and not to need diet and bleeding. I ask primary evidence that you are a man, and refuse this appeal from the man to his actions. I know that for myself it makes no difference whether I do or forbear those actions which are reckoned excellent. I cannot consent to pay for a privilege where I have intrinsic right. Few and mean as my gifts may be, I actually am, and do not need for my own assurance or the assurance of my fellows any secondary testimony.

What I must do is all that concerns me, not what the people think. This rule, equally arduous in actual and in intellectual life, may serve for the whole distinction between greatness and meanness. It is the harder because you will always find those who think they know what is your duty better than you know it. It is easy in the world to live after the world's opinion; it is easy in solitude to live after our own; but the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude.

The objection to conforming to usages that have become dead to you is that it scatters your force. It loses your time and blurs the impression of your character. If you maintain a dead church, contribute to a dead Bible society, vote with a great party either for the government or against it, spread your table like base housekeepers—under all these screens I have difficulty to detect the precise man you are: and of course so much force is withdrawn from your proper life. But do your work, and I shall know you. Do your work, and you shall reinforce yourself. A man must consider what a blindman's buff is this game of conformity. If I know your sect I anticipate your argument. I hear a preacher announce for his text and topic the expediency of one of the institutions of his church. Do I not know beforehand that not possibly can he say a new and spontaneous word? Do I not know that with all this ostentation of examining the grounds of the institution he will do no such thing? Do I not know that he is pledged to himself not to look but at one side, the permitted side, not as a man, but as a parish minister? He is a retained attorney, and these airs of the bench are the emptiest affectation. Well, most men have bound their eyes with one or another handkerchief, and attached themselves to some

one of these communities of opinion. This conformity makes them not false in a few particulars, authors of a few lies, but false in all particulars. Their every truth is not quite true. Their two is not the real two, their four not the real four; so that every word they say chagrins us and we know not where to begin to set them right. Meantime nature is not slow to equip us in the prison uniform of the party to which we adhere. We come to wear one cut of face and figure, and acquire by degrees the gentlest asinine expression. There is a mortifying experience in particular, which does not fail to wreak itself also in the general history; I mean "the foolish face of praise," the forced smile which we put on in company where we do not feel at ease, in answer to conversation which does not interest us. The muscles, not spontaneously moved but moved by a low usurping willfulness, grow tight about the outline of the face, with the most disagreeable sensation.

For nonconformity the world whips you with its displeasure. And therefore a man must know how to estimate a sour face. The bystanders look askance on him in the public street or in the friend's parlor. If this aversion had its origin in contempt and resistance like his own he might well go home with a sad countenance; but the sour faces of the multitude, like their sweet faces, have no deep cause, but are put on and off as the wind blows and a newspaper directs. Yet is the discontent of the multitude more formidable than that of the senate and the college. It is easy enough for a firm man who knows the world to brook the rage of the cultivated classes. Their rage is decorous and prudent, for they are timid, as being very vulnerable themselves. But when to their feminine rage the indignation of the people is added, when the ignorant and the poor are aroused, when the unintelligent brute force that lies at the bottom of society is made to growl and mow, it needs the habit of magnanimity and religion to treat it godlike as a trifle of no concernment.

The other terror that scares us from self-trust is our consistency; a reverence for our past act or word because the eyes of others have no other data for computing our orbit than our past acts, and we are loath to disappoint them.

But why should you keep your head over your shoulder? Why drag about this corpse of your memory, lest you contradict somewhat you have stated in this or that public place? Suppose you should contradict yourself; what then? It seems to be a rule of wisdom never to rely on your memory alone, scarcely even in acts of pure memory, but to bring the past for judgment into the thousand-eyed present, and live ever in a new day. In your metaphysics you have denied personality to the Deity, yet when the

devout motions of the soul come, yield to them heart and life, though they should clothe God with shape and color. Leave your theory, as Joseph his coat in the hand of the harlot, and flee.

A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines. With consistency a great soul has simply nothing to do. He may as well concern himself with his shadow on the wall. Speak what you think now in hard words and tomorrow speak what tomorrow thinks in hard words again, though it contradict everything you said today.–"Ah, so you shall be sure to be misunderstood."–Is it so bad then to be misunderstood? Pythagoras was misunderstood, and Socrates, and Jesus, and Luther, and Copernicus, and Galileo, and Newton, and every pure and wise spirit that ever took flesh. To be great is to be misunderstood.

I suppose no man can violate his nature. All the sallies of his will are rounded in by the law of his being, as the inequalities of Andes and Himalaya are insignificant in the curve of the sphere. Nor does it matter how you gauge and try him. A character is like an acrostic or Alexandrian stanza; read it forward, backward, or across, it still spells the same thing. In this pleasing contrite wood life which God allows me, let me record day by day my honest thought without prospect or retrospect, and, I cannot doubt, it will be found symmetrical, though I mean it not and see it not. My book should smell of pines and resound with the hum of insects. The swallow over my window should interweave that thread or straw he carries in his bill into my web also. We pass for what we are. Character teaches above our wills. Men imagine that they communicate their virtue or vice only by overt actions, and do not see that virtue or vice emit a breath every moment.

There will be an agreement in whatever variety of actions, so they be each honest and natural in their hour. For of one will, the actions will be harmonious, however unlike they seem. These varieties are lost sight of at a little distance, at a little height of thought. One tendency unites them all. The voyage of the best ship is a zigzag line of a hundred tacks. See the line from a sufficient distance, and it straightens itself to the average tendency. Your genuine action will explain itself and will explain your other genuine actions. Your conformity explains nothing. Act singly, and what you have already done singly will justify you now. Greatness appeals to the future. If I can be firm enough today to do right and scorn eyes, I must have done so much right before as to defend me now. Be it how it will, do right now. Always scorn appearances and you always may. The force of character is cumulative. All the foregone days of virtue work their

health into this. What makes the majesty of the heroes of the senate and the field, which so fills the imagination? The consciousness of a train of great days and victories behind. They shed a united light on the advancing actor. He is attended as by a visible escort of angels. That is it which throws thunder into Chatham's voice, and dignity into Washington's port, and America into Adams' eye. Honor is venerable to us because it is no ephemera. It is always ancient virtue. We worship it today because it is not of today. We love it and pay it homage because it is not a trap for our love and homage, but is self-dependent, self-derived, and therefore of an old immaculate pedigree, even if shown in a young person.

I hope in these days we have heard the last of conformity and consistency. Let the words be gazetted and ridiculous henceforward. Instead of the gong for dinner, let us hear a whistle from the Spartan fife. Let us never bow and apologize more. A great man is coming to eat at my house. I do not wish to please him; I wish that he should wish to please me. I will stand here for humanity, and though I would make it kind, I would make it true. Let us affront and reprimand the smooth mediocrity and squalid contentment of the times, and hurl in the face of custom and trade and office, the fact which is the upshot of all history, that there is a great responsible thinker and actor working wherever a man works; that a true man belongs to no other time or place, but is the center of things. Where he is, there is nature. He measures you and all men and all events. Ordinarily, everybody in society reminds us of somewhat else, or of some other person. Character, reality, reminds you of nothing else; it takes place of the whole creation. The man must be so much that he must make all circumstances indifferent. Every true man is a cause, a country, and an age; requires infinite spaces and numbers and time fully to accomplish his design; and posterity seem to follow his steps as a train of clients. A man Caesar is born, and for ages after we have a Roman Empire. Christ is born, and millions of minds so grow and cleave to his genius that he is confounded with virtue and the possible of man. An institution is the lengthened shadow of one man; as, Monachism, of the Hermit Antony; the Reformation, of Luther; Quakerism, of Fox; Methodism, of Wesley; Abolition, of Clarkson. Scipio, Milton called "the height of Rome"; and all history resolves itself very easily into the biography of a few stout and earnest persons.

Let a man then know his worth, and keep things under his feet. Let him not peep or steal, or skulk up and down with the air of a charity boy, a bastard, or an interloper in the world which exists for him. But the man in the street, finding no worth in himself which corresponds to the force

which built a tower or sculptured a marble god, feels poor when he looks on these. To him a palace, a statue, or a costly book have an alien and forbidding air, much like a gay equipage, and seem to say like that, "Who are you, Sir?" Yet they all are his, suitors for his notice, petitioners to his faculties that they will come out and take possession. The picture waits for my verdict; it is not to command me, but I am to settle its claims to praise. That popular fable of the sot who was picked up dead-drunk in the street, carried to the duke's house, washed and dressed and laid in the duke's bed, and, on his waking, treated with all obsequious ceremony like the duke, and assured that he had been insane owes its popularity to the fact that it symbolizes so well the state of man, who is in the world a sort of sot, but now and then wakes up, exercises his reason and finds himself a true prince.

Our reading is mendicant and sycophantic. In history our imagination plays us false. Kingdom and lordship, power and estate, are a gaudier vocabulary than private John and Edward in a small house and common day's work; but the things of life are the same to both; the sum total of both is the same. Why all this deference to Alfred and Scanderbeg and Gustavus? Suppose they were virtuous; did they wear out virtue? As great a stake depends on your private act today as followed their public and renowned steps. When private men shall act with original views, the luster will be transferred from the actions of kings to those of gentlemen.

The world has been instructed by its kings, who have so magnetized the eyes of nations. It has been taught by this colossal symbol the mutual reverence that is due from man to man. The joyful loyalty with which men have everywhere suffered the king, the noble, or the great proprietor to walk among them by a law of his own, make his own scale of men and things and reverse theirs, pay for benefits not with money but with honor, and represent the law in his person was the hieroglyphic by which they obscurely signified their consciousness of their own right and comeliness, the right of every man.

The magnetism which all original action exerts is explained when we inquire the reason of self-trust. Who is the trustee? What is the aboriginal self, on which a universal reliance may be grounded? What is the nature and power of that science-baffling star, without parallax, without calculable elements, which shoots a ray of beauty even into trivial and impure actions, if the least mark of independence appear? The inquiry leads us to that source, at once the essence of genius, of virtue, and of life, which we call spontaneity or instinct. We denote this primary wisdom as intuition, while all later teachings are tuitions. In that deep force, the last fact

behind which analysis cannot go, all things find their common origin. For the sense of being which in calm hours rises, we know not how, in the soul is not diverse from things, from space, from light, from time, from man, but one with them and proceeds obviously from the same source whence their life and being also proceed. We first share the life by which things exist and afterwards see them as appearances in nature and forget that we have shared their cause. Here is the fountain of action and of thought. Here are the lungs of that inspiration which giveth man wisdom and which cannot be denied without impiety and atheism. We lie in the lap of immense intelligence, which makes us receivers of its truth and organs of its activity. When we discern justice, when we discern truth, we do nothing of ourselves, but allow a passage to its beams. If we ask whence this comes, if we seek to pry into the soul that causes, all philosophy is at fault. Its presence or its absence is all we can affirm. Every man discriminates between the voluntary acts of his mind and his involuntary perceptions, and knows that to his involuntary perceptions a perfect faith is due. He may err in the expression of them, but he knows that these things are so, like day and night, not to be disputed. My willful actions and acquisitions are but roving; the idlest reverie, the faintest native emotion command my curiosity and respect. Thoughtless people contradict as readily the statement of perceptions as of opinions, or rather much more readily; for they do not distinguish between perception and notion. They fancy that I choose to see this or that thing. But perception is not whimsical, but fatal. If I see a trait, my children will see it after me, and in course of time all mankind—although it may chance that no one has seen it before me. For my perception of it is as much a fact as the sun.

The relations of the soul to the divine spirit are so pure that it is profane to seek to interpose helps. It must be that when God speaketh he should communicate, not one thing, but all things; should fill the world with his voice; should scatter forth light, nature, time, souls, from the center of the present thought; and new date and new create the whole. Whenever a mind is simple and receives a divine wisdom, old things pass away—means, teachers, texts, temples fall; it lives now, and absorbs past and future into the present hour. All things are made sacred by relation to it—one as much as another. All things are dissolved to their center by their cause, and in the universal miracle petty and particular miracles disappear. If therefore a man claims to know and speak of God and carries you backward to the phraseology of some old moldered nation in another country, in another world, believe him not. Is the acorn better than the oak which is its fullness and completion? Is the parent better than the child into whom he

has cast his ripened being? Whence then this worship of the past? The centuries are conspirators against the sanity and authority of the soul. Time and space are but physiological colors which the eye makes, but the soul is light: where it is, is day; where it was, is night; and history is an impertinence and an injury if it be anything more than a cheerful apologue or parable of my being and becoming.

Man is timid and apologetic; he is no longer upright; he dares not say "I think," "I am," but quotes some saint or sage. He is ashamed before the blade of grass or the blowing rose. These roses under my window make no reference to former roses or to better ones; they are for what they are; they exist with God today. There is no time to them. There is simply the rose; it is perfect in every moment of its existence. Before a leaf bud has burst, its whole life acts; in the full-blown flower there is no more; in the leafless root there is no less. Its nature is satisfied and it satisfies nature in all moments alike. But man postpones or remembers; he does not live in the present, but with reverted eye laments the past, or, heedless of the riches that surround him, stands on tiptoe to foresee the future. He cannot be happy and strong until he too lives with nature in the present, above time.

This should be plain enough. Yet see what strong intellects dare not yet hear God himself unless he speak the phraseology of I know not what David, or Jeremiah, or Paul. We shall not always set so great a price on a few texts, on a few lives. We are like children who repeat by rote the sentences of grandames and tutors, and, as they grow older, of the men of talents and character they chance to see–painfully recollecting the exact words they spoke; afterwards, when they come into the point of view which those had who uttered these sayings, they understand them and are willing to let the words go; for at any time they can use words as good when occasion comes. If we live truly, we shall see truly. It is as easy for the strong man to be strong as it is for the weak to be weak. When we have new perception, we shall gladly disburden the memory of its hoarded treasures as old rubbish. When a man lives with God, his voice shall be as sweet as the murmur of the brook and the rustle of the corn.

And now at last the highest truth on this subject remains unsaid; probably cannot be said; for all that we say is the far-off remembering of the intuition. That thought by what I can now nearest approach to say it is this: When good is near you, when you have life in yourself, it is not by any known or accustomed way; you shall not discern the footprints of any other; you shall not see the face of man; you shall not hear any name; the way, the thought, the good shall be wholly strange and new. It shall

exclude example and experience. You take the way from man, not to man. All persons that ever existed are its forgotten ministers. Fear and hope are alike beneath it. There is somewhat low even in hope. In the hour of vision there is nothing that can be called gratitude, nor properly joy. The soul raised over passion beholds identity and eternal causation, perceives the self-existence of Truth and Right, and calms itself with knowing that all things go well. Vast spaces of nature, the Atlantic Ocean, the South Sea; long intervals of time, years, centuries, are of no account. This which I think and feel underlay every former state of life and circumstances, as it does underlie my present, and what is called life and what is called death.

Life only avails, not the having lived. Power ceases in the instant of repose; it resides in the moment of transition from a past to a new state, in the shooting of the gulf, in the darting to an aim. This one fact the world hates; that the soul *becomes;* for that forever degrades the past, turns all riches to poverty, all reputation to a shame, confounds the saint with the rogue, shoves Jesus and Judas equally aside. Why then do we prate of self-reliance? Inasmuch as the soul is present there will be power not confident but agent. To talk of reliance is a poor external way of speaking. Speak rather of that which relies because it works and is. Who has more obedience than I masters me, though he should not raise his finger. Round him I must revolve by the gravitation of spirits. We fancy it rhetoric when we speak of eminent virtue. We do not yet see that virtue is height, and that a man or a company of men, plastic and permeable to principles, by the law of nature must overpower and ride all cities, nations, kings, rich men, poets who are not.

This is the ultimate fact which we so quickly reach on this, as on every topic, the resolution of all into the ever-blessed One. Self-existence is the attribute of the Supreme Cause, and it constitutes the measure of good by the degree in which it enters into all lower forms. All things real are so by so much virtue as they contain. Commerce, husbandry, hunting, whaling, war, eloquence, personal weight are somewhat, and engage my respect as examples of its presence and impure action. I see the same law working in nature for conservation and growth. Power is, in nature, the essential measure of right. Nature suffers nothing to remain in her kingdoms which cannot help itself. The genesis and maturation of a planet, its poise and orbit, the bended tree recovering itself from the strong wind, the vital resources of every animal and vegetable are demonstrations of the self-sufficing and therefore self-relying soul.

Thus all concentrates: let us not rove; let us sit at home with the cause. Let us stun and astonish the intruding rabble of men and books and institutions by a simple declaration of the divine fact. Bid the invaders take the shoes from off their feet, for God is here within. Let our simplicity judge them, and our docility to our own law demonstrate the poverty of nature and fortune beside our native riches.

But now we are a mob. Man does not stand in awe of man, nor is his genius admonished to stay at home, to put itself in communication with the internal ocean, but it goes abroad to beg a cup of water of the urns of other men. We must go alone. I like the silent church before the service begins, better than any preaching. How far off, how cool, how chaste the persons look, begirt each one with a precinct or sanctuary! So let us always sit. Why should we assume the faults of our friend, or wife, or father, or child, because they sit around our hearth, or are said to have the same blood? All men have my blood and I all men's. Not for that will I adopt their petulance or folly, even to the extent of being ashamed of it. But your isolation must not be mechanical, but spiritual, that is, must be elevation. At times the whole world seems to be in conspiracy to importune you with emphatic trifles. Friend, client, child, sickness, fear, want, charity, all knock at once at thy closet door and say—"Come out unto us." But keep thy state; come not into their confusion. The power men possess to annoy me I give them by a weak curiosity. No man can come near me but through my act. "What we love that we have, but by desire we bereave ourselves of the love."

If we cannot at once rise to the sanctities of obedience and faith, let us at least resist our temptations; let us enter into the state of war and wake Thor and Woden, courage and constancy, in our Saxon breasts. This is to be done in our smooth times by speaking the truth. Check this lying hospitality and lying affection. Live no longer to the expectation of these deceived and deceiving people with whom we converse. Say to them, "O father, O mother, O wife, O brother, O friend, I have lived with you after appearances hitherto. Henceforward I am the truth's. Be it known unto you that henceforward I obey no law less than the eternal law. I will have no covenants but proximities. I shall endeavor to nourish my parents, to support my family, to be the chaste husband of one wife—but these relations I must fill after a new and unprecedented way. I appeal from your customs. I must be myself. I cannot break myself any longer for you, or you. If you can love me for what I am, we shall be the happier. If you cannot, I will still seek to deserve that you should. I will not hide my

tastes or aversions. I will so trust that what is deep is holy that I will do strongly before the sun and moon whatever inly rejoices me and the heart appoints. If you are noble, I will love you; if you are not, I will not hurt you and myself by hypocritical attentions. If you are true, but not in the same truth with me, cleave to your companions; I will seek my own. I do this not selfishly but humbly and truly. It is alike your interest, and mine, and all men's, however long we have dwelt in lies, to live in truth. Does this sound harsh today? You will soon love what is dictated by your nature as well as mine, and if we follow the truth it will bring us out safe at last." But so may you give these friends pain. Yes, but I cannot sell my liberty and my power to save their sensibility. Besides, all persons have their moments of reason, when they look out into the region of absolute truth; then will they justify me and do the same thing.

The populace think that your rejection of popular standards is a rejection of all standard, and mere antinomianism; and the bold sensualist will use the name of philosophy to gild his crimes. But the law of consciousness abides. There are two confessionals, in one or the other of which we must be shriven. You may fulfill your round of duties by clearing yourself in the direct, or in the reflex way. Consider whether you have satisfied your relations to father, mother, cousin, neighbor, town, cat and dog–whether any of these can upbraid you. But I may also neglect this reflex standard and absolve me to myself. I have my own stern claims and perfect circle. It denies the name of duty to many offices that are called duties. But if I can discharge its debts it enables me to dispense with the popular code. If anyone imagines that this law is lax, let him keep its commandment one day.

And truly it demands something godlike in him who has cast off the common motives of humanity and has ventured to trust himself for a taskmaster. High be his heart, faithful his will, clear his sight, that he may in good earnest be doctrine, society, law to himself, that a simple purpose may be to him as strong as iron necessity is to others!

If any man consider the present aspects of what is called by distinction society, he will see the need of these ethics. The sinew and heart of man seem to be drawn out, and we are become timorous, desponding whimperers. We are afraid of truth, afraid of fortune, afraid of death, and afraid of each other. Our age yields no great and perfect persons. We want men and women who shall renovate life and our social state, but we see that most natures are insolvent, cannot satisfy their own wants, have an ambition out of all proportion to their practical force and do lean and beg day

and night continually. Our housekeeping is mendicant, our arts, our occupations, our marriages, our religion we have not chosen, but society has chosen for us. We are parlor soldiers. We shun the rugged battle of fate, where strength is born.

If our young men miscarry in their first enterprises they lose all heart. If the young merchant fails, men say he is ruined. If the finest genius studies at one of our colleges and is not installed in an office within one year afterwards in the cities or suburbs of Boston or New York, it seems to his friends and to himself that he is right in being disheartened and in complaining the rest of his life. A sturdy lad from New Hampshire or Vermont who in turn tries all the professions, who teams it, farms it, peddles, keeps a school, preaches, edits a newspaper, goes to Congress, buys a township, and so forth, in successive years, and always like a cat falls on his feet, is worth a hundred of these city dolls. He walks abreast with his days and feels no shame in not "studying a profession," for he does not postpone his life, but lives already. He has not one chance, but a hundred chances. Let a Stoic open the resources of man and tell men they are not leaning willows, but can and must detach themselves; that with the exercise of self-trust, new powers shall appear; that a man is the word made flesh, born to shed healing to the nations; that he should be ashamed of our compassion, and that the moment he acts from himself, tossing the laws, the books, idolatries and customs out of the window, we pity him no more but thank and revere him; and that teacher shall restore the life of man to splendor and make his name dear to all history.

It is easy to see that a greater self-reliance must work a revolution in all the offices and relations of men; in their religion; in their education; in their pursuits; their modes of living; their association; in their property; in their speculative views.

In what prayers do men allow themselves! That which they call a holy office is not so much as brave and manly. Prayer looks abroad and asks for some foreign addition to come through some foreign virtue, and loses itself in endless mazes of natural and supernatural, and mediatorial and miraculous. Prayer that craves a particular commodity, anything less than all good, is vicious. Prayer is the contemplation of the facts of life from the highest point of view. It is the soliloquy of a beholding and jubilant soul. It is the spirit of God pronouncing his works good. But prayer as a means to effect a private end is meanness and theft. It supposes dualism and not unity in nature and consciousness. As soon as the man is at one with God, he will not beg. He will then see prayer in all action. The prayer of the

farmer kneeling in his field to weed it, the prayer of the rower kneeling with the stroke of his oar are true prayers heard throughout nature, though for cheap ends. Caratach, in Fletcher's *Bonduca,* when admonished to inquire the mind of the god Audate, replies–

> His hidden meaning lies in our endeavors;
> Our valors are our best gods.

Another sort of false prayers are our regrets. Discontent is the want of self-reliance: it is infirmity of will. Regret calamities if you can thereby help the sufferer; if not, attend your own work and already the evil begins to be repaired. Our sympathy is just as base. We come to them who weep foolishly and sit down and cry for company, instead of imparting to them truth and health in rough electric shocks, putting them once more in communication with their own reason. The secret of fortune is joy in our hands. Welcome evermore to gods and men is the self-helping man. For him all doors are flung wide; him all tongues greet, all honors crown, all eyes follow with desire. Our love goes out to him and embraces him because he did not need it. We solicitously and apologetically caress and celebrate him because he held on his way and scorned our disapprobation. The gods love him because men hated him. "To the persevering mortal," said Zoroaster, "the blessed Immortals are swift."

As men's prayers are a disease of the will, so are their creeds a disease of the intellect. They say with those foolish Israelites, "Let not God speak to us, lest we die. Speak thou, speak any man with us, and we will obey." Everywhere I am hindered of meeting God in my brother, because he has shut his own temple doors and recites fables merely of his brother's, or his brother's brother's God. Every new mind is a new classification. If it prove a mind of uncommon activity and power, a Locke, a Lavoisier, a Hutton, a Bentham, a Fourier, it imposes its classification on other men, and lo! a new system. In proportion to the depth of the thought, and so to the number of the objects it touches and brings within reach of the pupil, is his complacency. But chiefly is this apparent in creeds and churches, which are also classifications of some powerful mind acting on the elemental thought of duty and man's relation to the Highest. Such is Calvinism, Quakerism, Swedenborgism. The pupil takes the same delight in subordinating everything to the new terminology as a girl who has just learned botany in seeing a new earth and new seasons thereby. It will happen for a time that the pupil will find his intellectual power has grown by the study of his master's mind. But in all unbalanced minds the classification is idolized, passes for the end and not for a speedily exhaustible means, so

that the walls of the system blend to their eye in the remote horizon with the walls of the universe; the luminaries of heaven seem to them hung on the arch their master built. They cannot imagine how you aliens have any right to see—how you can see: "It must be somehow that you stole the light from us." They do not yet perceive that light, unsystematic, indomitable, will break into any cabin, even into theirs. Let them chirp awhile and call it their own. If they are honest and do well, presently their neat new pinfold will be too strait and low, will crack, will lean, will rot and vanish, and the immortal light, all young and joyful, million orbed, million colored, will beam over the universe as on the first morning.

It is for want of self-culture that the superstition of traveling, whose idols are Italy, England, Egypt, retains its fascination for all educated Americans. They who made England, Italy, or Greece venerable in the imagination did so by sticking fast where they were, like an axis of the earth. In manly hours we feel that duty is our place. The soul is no traveler; the wise man stays at home, and when his necessities, his duties on any occasion call him from his house, or into foreign lands, he is at home still and shall make men sensible by the expression of his countenance that he goes, the missionary of wisdom and virtue, and visits cities and men like a sovereign and not like an interloper or a valet.

I have no churlish objection to the circumnavigation of the globe for the purposes of art, of study, and benevolence, so that the man is first domesticated, or does not go abroad with the hope of finding somewhat greater than he knows. He who travels to be amused, or to get somewhat which he does not carry, travels away from himself, and grows old even in youth among old things. In Thebes, in Palmyra, his will and mind have become old and dilapidated as they. He carries ruins to ruins.

Traveling is a fool's paradise. Our first journeys discover to us the indifference of places. At home I dream that at Naples, at Rome, I can be intoxicated with beauty and lose my sadness. I pack my trunk, embrace my friends, embark on the sea and at last wake up in Naples, and there beside me is the stern fact, the sad self, unrelenting, identical, that I fled from. I seek the Vatican and the palaces. I affect to be intoxicated with sights and suggestions, but I am not intoxicated. My giant goes with me wherever I go.

But the rage of traveling is a symptom of a deeper unsoundness affecting the whole intellectual action. The intellect is vagabond, and our system of education fosters restlessness. Our minds travel when our bodies are forced to stay at home. We imitate; and what is imitation but the

traveling of the mind? Our houses are built with foreign taste; our shelves are garnished with foreign ornaments; our opinions, our tastes, our faculties lean, and follow the past and the distant. The soul created the arts wherever they have flourished. It was in his own mind that the artist sought his model. It was an application of his own thought to the thing to be done and the conditions to be observed. And why need we copy the Doric or the Gothic model? Beauty, convenience, grandeur of thought and quaint expression are as near to us as to any, and if the American artist will study with hope and love the precise thing to be done by him, considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all these will find themselves fitted, and taste and sentiment will be satisfied also.

Insist on yourself; never imitate. Your own gift you can present every moment with the cumulative force of a whole life's cultivation; but of the adopted talent of another you have only an extemporaneous half possession. That which each can do best, none but his Maker can teach him. No man yet knows what it is, nor can, till that person has exhibited it. Where is the master who could have taught Shakespeare? Where is the master who could have instructed Franklin, or Washington, or Bacon, or Newton? Every great man is a unique. The Scipionism of Scipio is precisely that part he could not borrow. Shakespeare will never be made by the study of Shakespeare. Do that which is assigned you, and you cannot hope too much or dare too much. There is at this moment for you an utterance brave and grand as that of the colossal chisel of Phidias, or trowel of the Egyptians, or the pen of Moses or Dante, but different from all these. Not possibly will the soul, all rich, all eloquent, with thousand-cloven tongue, deign to repeat itself; but if you can hear what these patriarchs say, surely you can reply to them in the same pitch of voice; for the ear and the tongue are two organs of one nature. Abide in the simple and noble regions of thy life, obey thy heart, and thou shalt reproduce the foreworld again.

As our religion, our education, our art look abroad, so does our spirit of society. All men plume themselves on the improvement of society, and no man improves.

Society never advances. It recedes as fast on one side as it gains on the other. It undergoes continual changes: it is barbarous, it is civilized, it is Christianized, it is rich, it is scientific; but this change is not amelioration. For everything that is given something is taken. Society acquires new arts and loses old instincts. What a contrast between the well-clad, reading,

writing, thinking American, with a watch, a pencil and a bill of exchange in his pocket, and the naked New Zealander, whose property is a club, a spear, a mat and an undivided twentieth of a shed to sleep under! But compare the health of the two men and you shall see that the white man has lost his aboriginal strength. If the traveler tell us truly, strike the savage with a broadaxe and in a day or two the flesh shall unite and heal as if you struck the blow into soft pitch, and the same blow shall send the white to his grave.

The civilized man has built a coach, but has lost the use of his feet. He is supported on crutches, but lacks so much support of muscle. He has a fine Geneva watch, but he fails of the skill to tell the hour by the sun. A Greenwich nautical almanac he has, and so being sure of the information when he wants it, the man in the street does not know a star in the sky. The solstice he does not observe; the equinox he knows as little; and the whole bright calendar of the year is without a dial in his mind. His notebooks impair his memory; his libraries overload his wit; the insurance office increases the number of accidents; and it may be a question whether machinery does not encumber; whether we have not lost by refinement some energy, by a Christianity, entrenched in establishments and forms, some vigor of wild virtue. For every Stoic was a Stoic; but in Christendom where is the Christian?

There is no more deviation in the moral standard than in the standard of height or bulk. No greater men are now than ever were. A singular equality may be observed between the great men of the first and of the last ages; nor can all the science, art, religion, and philosophy of the nineteenth century avail to educate greater men than Plutarch's heroes, three or four and twenty centuries ago. Not in time is the race progressive. Phocion, Socrates, Anaxagoras, Diogenes are great men, but they leave no class. He who is really of their class will not be called by their name, but will be his own man, and in his turn the founder of a sect. The arts and inventions of each period are only its costume and do not invigorate men. The harm of the improved machinery may compensate its good. Hudson and Behring accomplished so much in their fishing boats as to astonish Parry and Franklin, whose equipment exhausted the resources of science and art. Galileo, with an opera glass, discovered a more splendid series of celestial phenomena than anyone since. Columbus found the New World in an undecked boat. It is curious to see the periodical disuse and perishing of means and machinery which were introduced with loud laudation a few years or centuries before. The great genius returns to essential man. We reckoned the improvements of the art of war among the triumphs of

science, and yet Napoleon conquered Europe by the bivouac, which consisted of falling back on naked valor and disencumbering it of all aids. The Emperor held it impossible to make a perfect army, says Las Cases, "without abolishing our arms, magazines, commissaries and carriages, until, in imitation of the Roman custom, the soldier should receive his supply of corn, grind it in his hand mill and bake his bread himself."

Society is a wave. The wave moves onward, but the water of which it is composed does not. The same particle does not rise from the valley to the ridge. Its unity is only phenomenal. The persons who make up a nation today next year die, and their experience dies with them.

And so the reliance on property, including the reliance on governments which protect it, is the want of self-reliance. Men have looked away from themselves and at things so long that they have come to esteem the religious, learned and civil institutions as guards of property, and they deprecate assaults on these, because they feel them to be assaults on property. They measure their esteem of each other by what each has, and not by what each is. But a cultivated man becomes ashamed of his property, out of new respect for his nature. Especially he hates what he has if he see that it is accidental–came to him by inheritance, or gift, or crime; then he feels that it is not having; it does not belong to him, has no root in him and merely lies there because no revolution or no robber takes it away. But that which a man is does always by necessity acquire; and what the man acquires is living property, which does not wait the beck of rulers, or mobs, or revolutions, or fire, or storm, or bankruptcies, but perpetually renews itself wherever the man breathes. "Thy lot or portion of life," said the Caliph Ali, "is seeking after thee; therefore be at rest from seeking after it." Our dependence on these foreign goods leads us to our slavish respect for numbers. The political parties meet in numerous conventions; the greater the concourse and with each new uproar of announcement, The delegation from Essex! The Democrats from New Hampshire! The Whigs of Maine! the young patriot feels himself stronger than before by a new thousand of eyes and arms. In like manner the reformers summon conventions and vote and resolve in multitude. Not so, O friends! will the God deign to enter and inhabit you, but by a method precisely the reverse. It is only as a man puts off all foreign support and stands alone that I see him to be strong and to prevail. He is weaker by every recruit to his banner. Is not a man better than a town? Ask nothing of men, and, in the endless mutation, thou only firm column must presently appear the upholder of all that surrounds thee. He who knows that power is inborn, that he is weak because he has looked for good out of him and

elsewhere, and, so perceiving, throws himself unhesitatingly on his thought, instantly rights himself, stands in the erect position, commands his limbs, works miracles; just as a man who stands on his feet is stronger than a man who stands on his head.

So use all that is called Fortune. Most men gamble with her, and gain all, and lose all, as her wheel rolls. But do thou leave as unlawful these winnings, and deal with Cause and Effect, the chancellors of God. In the Will work and acquire, and thou hast chained the wheel of Chance, and shall sit hereafter out of fear from her rotations. A political victory, a rise of rents, the recovery of your sick, or the return of your absent, friend, or some other favorable event raises your spirits, and you think good days are preparing for you. Do not believe it. Nothing can bring you peace but yourself. Nothing can bring you peace but the triumph of principles.

Montaigne; or, the Skeptic

Every fact is related on one side to sensation, and, on the other, to morals. The game of thought is, on the appearance of one of these two sides, to find the other: given the upper, to find the under side. Nothing so thin, but has these two faces; and, when the observer has seen the obverse, he turns it over to see the reverse. Life is a pitching of this penny—heads or tails. We never tire of this game, because there is still a slight shudder of astonishment at the exhibition of the other face, at the contrast of the two faces. A man is flushed with success, and bethinks himself what this good luck signifies. He drives his bargain in the street; but it occurs that he also is bought and sold. He sees the beauty of a human face, and searches the cause of that beauty, which must be more beautiful. He builds his fortunes, maintains the laws, cherishes his children; but he asks himself, why? And whereto? This head and this tail are called, in the language of philosophy, infinite and finite; relative and absolute; apparent and real; and many fine names beside.

Each man is born with a predisposition to one or the other of these sides of nature; and it will easily happen that men will be found devoted to one or the other. One class has the perception of difference, and is conversant with facts and surfaces; cities and persons; and the bringing certain things to pass—the men of talent and action. Another class has the perception of identity, and are men of faith and philosophy, men of genius.

Each of these riders drives too fast. Plotinus believes only in philosophers; Fénelon in saints; Pindar and Byron in poets. Read the haughty language in which Plato and the Platonists speak of all men who are not devoted to their own shining abstractions: other men are rats and mice. The literary class is usually proud and exclusive. The correspondence of Pope and Swift describes mankind around them as monsters; and that of Goethe and Schiller, in our own time, is scarcely more kind.

It is easy to see how this arrogance comes. The genius is a genius by the

first look he casts on any object. Is his eye creative? Does he not rest in angles and colors, but beholds the design—he will presently undervalue the actual object. In powerful moments, his thought has dissolved the works of art and nature into their causes, so that the works appear heavy and faulty. He has a conception of beauty which the sculptor cannot embody. Picture, statue, temple, railroad, steam engine existed first in an artist's mind, without flaw, mistake, or friction, which impair the executed models. So did the church, the state, college, court, social circle, and all the institutions. It is not strange that these men, remembering what they have seen and hoped of ideas, should affirm disdainfully the superiority of ideas. Having at some time seen that the happy soul will carry all the arts in power, they say, Why cumber ourselves with superfluous realizations? and, like dreaming beggars, they assume to speak and act as if these values were already substantiated.

On the other part, the men of toil and trade and luxury—the animal world, including the animal in the philosopher and poet also—and the practical world, including the painful drudgeries which are never excused to philosopher or poet any more than to the rest—weigh heavily on the other side. The trade in our streets believes in no metaphysical causes, thinks nothing of the force which necessitated traders and a trading planet to exist: no; but sticks to cotton, sugar, wool, and salt. The ward meetings, on election days, are not softened by any misgiving of the value of these ballotings. Hot life is streaming in a single direction. To the men of this world, to the animal strength and spirits, to the men of practical power, while immersed in it, the man of ideas appears out of his reason. They alone have reason.

Things always bring their own philosophy with them, that is, prudence. No man acquires property without acquiring with it a little arithmetic, also. In England, the richest country that ever existed, property stands for more, compared with personal ability, than in any other. After dinner, a man believes less, denies more: verities have lost some charm. After dinner, arithmetic is the only science: ideas are disturbing, incendiary, follies of young men, repudiated by the solid portion of society; and a man comes to be valued by his athletic and animal qualities. Spence relates that Mr. Pope was with Sir Godfrey Kneller, one day, when his nephew, a Guinea trader, came in. "Nephew," said Sir Godfrey, "you have the honor of seeing the two greatest men in the world." "I don't know how great men you may be," said the Guinea man, "but I don't like your looks. I have often bought a man much better than both of you, all muscles and bones, for ten guineas." Thus, the men of the senses revenge themselves on the professors, and repay scorn for scorn. The first had

leaped to conclusions not yet ripe, and say more than is true; the others make themselves merry with the philosopher, and weigh man by the pound. They believe that mustard bites the tongue, that pepper is hot, friction matches are incendiary, revolvers to be avoided, and suspenders hold up pantaloons; that there is much sentiment in a chest of tea; and a man will be eloquent if you give him good wine. Are you tender and scrupulous–you must eat more mince pie. They hold that Luther had milk in him when he said,

> *Wer nicht liebt Wein, Weib, und Gesang,*
> *Der bleibt ein Narr sein Leben lang;*
>
> [He who loves not wine, women, and song,
> Stays a fool his whole life long.]

and when he advised a young scholar perplexed with foreordination and free will to get well drunk. "The nerves," says Cabanis, "they are the man." My neighbor, a jolly farmer, in the tavern barroom, thinks that the use of money is sure and speedy spending. "For his part," he says, "he puts his down his neck, and gets the good of it."

The inconvenience of this way of thinking is that it runs into indifferentism, and then into disgust. Life is eating us up. We shall be fables presently. Keep cool: it will be all one a hundred years hence. Life's well enough; but we shall be glad to get out of it, and they will all be glad to have us. Why should we fret and drudge? Our meat will taste tomorrow as it did yesterday, and we may at last have had enough of it. "Ah," said my languid gentleman at Oxford, "there's nothing new or true–and no matter."

With a little more bitterness, the cynic moans: our life is like an ass led to market by a bundle of hay being carried before him: he sees nothing but the bundle of hay. "There is so much trouble in coming into the world," said Lord Bolingbroke, "and so much more, as well as meanness, in going out of it, that 'tis hardly worthwhile to be here at all." I knew a philosopher of this kidney, who was accustomed briefly to sum up his experience of human nature in saying, "Mankind is a damned rascal": and the natural corollary is pretty sure to follow–"The world lives by humbug, and so will I."

The abstractionist and the materialist thus mutually exasperating each other, and the scoffer expressing the worst of materialism, there arises a third party to occupy the middle ground between these two, the skeptic, namely. He finds both wrong by being in extremes. He labors to plant his feet, to be the beam of the balance. He will not go beyond his card. He

sees the one-sidedness of these men of the street; he will not be a Gibeonite; he stands for the intellectual faculties, a cool head, and whatever serves to keep it cool: no unadvised industry, no unrewarded self-devotion, no loss of the brains in toil. Am I an ox, or a dray? You are both in extremes, he says. You that will have all solid, and a world of pig lead, deceive yourselves grossly. You believe yourselves rooted and grounded on adamant; and yet, if we uncover the last facts of our knowledge, you are spinning like bubbles in a river, you know not whither or whence, and you are bottomed and capped and wrapped in delusions.

Neither will he be betrayed to a book, and wrapped in a gown. The studious class are their own victims: they are thin and pale, their feet are cold, their heads are hot, the night is without sleep, the day a fear of interruption—pallor, squalor, hunger, and egotism. If you come near them, and see what conceits they entertain—they are abstractionists, and spend their days and nights in dreaming some dream; in expecting the homage of society to some precious scheme built on a truth, but destitute of proportion in its presentment, of justness in its application, and of all energy of will in the schemer to embody and vitalize it.

But I see plainly, he says, that I cannot see. I know that human strength is not in extremes, but in avoiding extremes. I, at least, will shun the weakness of philosophizing beyond my depth. What is the use of pretending to powers we have not? What is the use of pretending to assurances we have not, respecting the other life? Why exaggerate the power of virtue? Why be an angel before your time? These strings, wound up too high, will snap. If there is a wish for immortality, and no evidence, why not say just that? If there are conflicting evidences, why not state them? If there is not ground for a candid thinker to make up his mind, yea or nay—why not suspend the judgment? I weary of these dogmatizers. I tire of these hacks of routine, who deny the dogmas. I neither affirm nor deny. I stand here to try the case. I am here to consider [*skeptein*], to consider how it is. I will try to keep the balance true. Of what use to take the chair, and glibly rattle off theories of society, religion, and nature, when I know that practical objections lie in the way, insurmountable by me and by my mates? Why so talkative in public when each of my neighbors can pin me to my seat by arguments I cannot refute? Why pretend that life is so simple a game, when we know how subtle and elusive the Proteus is? Why think to shut up all things in your narrow coop, when we know there are not one or two only, but ten, twenty, a thousand things, and unlike? Why fancy that you have all the truth in your keeping? There is much to say on all sides.

Who shall forbid a wise skepticism, seeing that there is no practical question on which anything more than an approximate solution can be had? Is not marriage an open question, when it is alleged, from the beginning of the world, that such as are in the institution wish to get out, and such as are out wish to get in? And the reply of Socrates, to him who asked whether he should choose a wife, still remains reasonable, "that, whether he should choose one or not, he would repent it." Is not the state a question? All society is divided in opinion on the subject of the state. Nobody loves it; great numbers dislike it, and suffer concientious scruples to allegiance: and the only defense set up is the fear of doing worse in disorganizing. Is it otherwise with the church? Or, to put any of the questions which touch mankind nearest–shall the young man aim at a leading part in law, in politics, in trade? It will not be pretended that a success in either of these kinds is quite coincident with what is best and inmost in his mind. Shall he, then, cutting the stays that hold him fast to the social state, put out to sea with no guidance but his genius? There is much to say on both sides. Remember the open question between the present order of "competition," and the friends of "attractive and associated labor." The generous minds embrace the proposition of labor shared by all; it is the only honesty; nothing else is safe. It is from the poor man's hut alone that strength and virtue come; and yet, on the other side, it is alleged that labor impairs the form, and breaks the spirit of man, and the laborers cry unanimously, "We have no thoughts." Culture, how indispensable! I cannot forgive you the want of accomplishments: and yet, culture will instantly destroy that chiefest beauty of spontaneousness. Excellent is culture for a savage; but once let him read in the book, and he is no longer able not to think of Plutarch's heroes. In short, since true fortitude of understanding consists "in not letting what we know be embarrassed by what we do not know," we ought to secure those advantages which we can command, and not risk them by clutching after the airy and unattainable. Come, no chimeras! Let us go abroad; let us mix in affairs; let us learn, and get, and have, and climb. "Men are a sort of moving plants, and, like trees, receive a great part of their nourishment from the air. If they keep too much at home, they pine." Let us have a robust, manly life; let us know what we know, for certain; what we have, let it be solid, and seasonable, and our own. A world in the hand is worth two in the bush. Let us have to do with real men and women, and not with skipping ghosts.

This, then, is the right ground of the skeptic–this of consideration, of self-containing; not at all of unbelief; not at all of universal denying, nor of

universal doubting–doubting even that he doubts; least of all, of scoffing and profligate jeering at all that is stable and good. These are no more his moods than are those of religion and philosophy. He is the considerer, the prudent, taking in sail, counting stock, husbanding his means, believing that a man has too many enemies than that he can afford to be his own; that we cannot give ourselves too many advantages, in this unequal conflict, with powers so vast and unweariable ranged on one side, and this little, conceited, vulnerable popinjay that a man is, bobbing up and down into every danger, on the other. It is a position taken up for better defense, as of more safety, and one that can be maintained; and it is one of more opportunity and range, as, when we build a house, the rule is to set it not too high nor too low, under the wind, but out of the dirt.

The philosophy we want is one of fluxions and mobility. The Spartan and Stoic schemes are too stark and stiff for our occasion. A theory of St. John, and of nonresistance, seems, on the other hand, too thin and aerial. We want some coat woven of elastic steel, stout as the first, and limber as the second. We want a ship in these billows we inhabit. An angular, dogmatic house would be rent to chips and splinters in this storm of many elements. No, it must be tight, and fit to the form of man, to live at all; as a shell is the architecture of a house founded on the sea. The soul of man must be the type of our scheme, just as the body of man is the type after which a dwelling house is built. Adaptiveness is the peculiarity of human nature. We are golden averages, volitant stabilities, compensated or periodic errors, houses founded on the sea. The wise skeptic wishes to have a near view of the best game, and the chief players; what is best in the planet; art and nature, places and events, but mainly men. Everything that is excellent in mankind–a form of grace, an arm of iron, lips of persuasion, a brain of resources, everyone skillful to play and win–he will see and judge.

The terms of admission to this spectacle are that he have a certain solid and intelligible way of living of his own; some method of answering the inevitable needs of human life; proof that he had played with skill and success; that he has evinced the temper, stoutness, and the range of qualities which, among his contemporaries and countrymen, entitle him to fellowship and trust. For, the secrets of life are not shown except to sympathy and likeness. Men do not confide themselves to boys, or coxcombs, or pedants, but to their peers. Some wise limitation, as the modern phrase is; some condition between the extremes, and having itself a positive quality; some stark and sufficient man, who is not salt or sugar, but sufficiently related to the world to do justice to Paris or London, and,

at the same time, a vigorous and original thinker, whom cities cannot overawe, but who uses them, is the fit person to occupy this ground of speculation.

These qualities meet in the character of Montaigne. And yet, since the personal regard which I entertain for Montaigne may be unduly great, I will, under the shield of this prince of egotists, offer, as an apology for electing him as the representative of skepticism, a word or two to explain how my love began and grew for this admirable gossip.

A single odd volume of Cotton's translation of the Essays remained to me from my father's library, when a boy. It lay long neglected, until, after many years, when I was newly escaped from college, I read the book, and procured the remaining volumes. I remember the delight and wonder in which I lived with it. It seemed to me as if I had myself written the book, in some former life, so sincerely it spoke to my thought and experience. It happened, when in Paris, in 1833, that, in the cemetery of Père le Chaise, I came to a tomb of Auguste Collignon, who died in 1830, aged sixty-eight years, and who, said the monument, "lived to do right, and had formed himself to virtue on the Essays of Montaigne." Some years later, I became acquainted with an accomplished English poet, John Sterling; and, in prosecuting my correspondence, I found that, from a love of Montaigne, he had made a pilgrimage to his château, still standing near Castellan, in Perigord, and, after two hundred and fifty years, had copied from the walls of his library the inscriptions which Montaigne had written there. That journal of Mr. Sterling's, published in the *Westminster Review*, Mr. Hazlitt has reprinted in the *Prolegomena* to his edition of the *Essays*. I heard with pleasure that one of the newly discovered autographs of William Shakespeare was in a copy of Florio's translation of Montaigne. It is the only book which we certainly know to have been in the poet's library. And, oddly enough, the duplicate copy of Florio, which the British Museum purchased, with a view of protecting the Shakespeare autograph (as I was informed in the Museum), turned out to have the autograph of Ben Jonson in the flyleaf. Leigh Hunt relates of Lord Byron that Montaigne was the only great writer of past times whom he read with avowed satisfaction. Other coincidences, not needful to be mentioned here, concurred to make this old Gascon still new and immortal for me.

In 1571, on the death of his father, Montaigne, then thirty-eight years old, retired from the practice of law, at Bordeaux, and settled himself on his estate. Though he had been a man of pleasure, and sometimes a courtier, his studious habits now grew on him, and he loved the compass, staidness, and independence of the country gentleman's life. He took up

his economy in good earnest, and made his farms yield the most. Downright and plain-dealing, and abhorring to be deceived or to deceive, he was esteemed in the country for his sense and probity. In the civil wars of the League, which converted every house into a fort, Montaigne kept his gates open, and his house without defense. All parties freely came and went, his courage and honor being universally esteemed. The neighboring lords and gentry brought jewels and papers to him for safe keeping. Gibbon reckons, in these bigoted times, but two men of liberality in France–Henry IV and Montaigne.

Montaigne is the frankest and honestest of all writers. His French freedom runs into grossness; but he has anticipated all censure by the bounty of his own confessions. In his times, books were written to one sex only, and almost all were written in Latin; so that, in a humorist, a certain nakedness of statement was permitted, which our manners, of a literature addressed equally to both sexes, do not allow. But though a biblical plainness, coupled with a most uncanonical levity, may shut his pages to many sensitive readers, yet the offense is superficial. He parades it; he makes the most of it; nobody can think or say worse of him than he does. He pretends to most of the vices; and, if there be any virtue in him, he says, it got in by stealth. There is no man, in his opinion, who has not deserved hanging five or six times; and he pretends no exception in his own behalf. "Five or six as ridiculous stories," too, he says, "can be told of me, as of any man living." But with all this really superfluous frankness, the opinion of an invincible probity grows into every reader's mind.

"When I the most strictly and religiously confess myself, I find that the best virtue I have has in it some tincture of vice; and I am afraid that Plato, in his purest virtue (I, who am as sincere and perfect a lover of virtue of that stamp as any other whatever), if he had listened, and laid his ear close to himself, would have heard some jarring sound of human mixture, but faint and remote, and only to be perceived by himself."

Here is an impatience and fastidiousness at color or pretense of any kind. He has been in courts so long as to have conceived a furious disgust at appearances; he will indulge himself with a little cursing and swearing; he will talk with sailors and gypsies, use flash and street ballads: he has stayed indoors till he is deadly sick; he will to the open air, though it rain bullets. He has seen too much of gentlemen of the long robe, until he wishes for cannibals; and is so nervous, by factitious life, that he thinks the more barbarous man is, the better he is. He likes his saddle. You may read theology, and grammar, and metaphysics elsewhere. Whatever you get here shall smack of the earth and of real life, sweet, or smart, or

stinging. He makes no hesitation to entertain you with the records of his disease; and his journey to Italy is quite full of that matter. He took and kept this position of equilibrium. Over his name, he drew an emblematic pair of scales, and wrote *Que sçais je?* under it. As I look at his effigy opposite the title page, I seem to hear him say, "You may play old Poz, if you will; you may rail and exaggerate–I stand here for truth, and will not, for all the states, and churches, and revenues, and personal reputations of Europe, overstate the dry fact, as I see it; I will rather mumble and prose about what I certainly know–my house and barns; my father, my wife, and my tenants; my old lean bald pate; my knives and forks; what meats I eat, and what drinks I prefer; and a hundred straws just as ridiculous–than I will write, with a fine crow-quill, a fine romance. I like gray days, and autumn and winter weather. I am gray and autumnal myself, and think an undress, and old shoes that do not pinch my feet, and old friends who do not constrain me, and plain topics where I do not need to strain myself and pump my brains the most suitable. Our condition as men is risky and ticklish enough. One cannot be sure of himself and his fortune an hour, but he may be whisked off into some pitiable or ridiculous plight. Why should I vapor and play the philosopher, instead of ballasting, the best I can, this dancing balloon? So, at least, I live within compass, keep myself ready for action, and can shoot the gulf, at last, with decency. If there be anything farcical in such a life, the blame is not mine: let it lie at fate's and nature's door."

The *Essays*, therefore, are an entertaining soliloquy on every random topic that comes into his head, treating everything without ceremony, yet with masculine sense. There have been men with deeper insight; but, one would say, never a man with such abundance of thoughts; he is never dull, never insincere, and has the genius to make the reader care for all that he cares for.

The sincerity and marrow of the man reaches to his sentences. I know not anywhere the book that seems less written. It is the language of conversation transferred to a book. Cut these words, and they would bleed; they are vascular and alive. One has the same pleasure in it that we have in listening to the necessary speech of men about their work, when any unusual circumstance gives momentary importance to the dialogue. For blacksmiths and teamsters do not trip in their speech; it is a shower of bullets. It is Cambridge men who correct themselves, and begin again at every half sentence, and, moreover, will pun, and refine too much, and swerve from the matter to the expression. Montaigne talks with shrewdness, knows the world, and books, and himself, and uses the positive

degree: never shrieks, or protests, or prays; no weakness, no convulsion, no superlative; does not wish to jump out of his skin, or play any antics, or annihilate space or time; but is stout and solid; tastes every moment of the day; like pain, because it makes him feel himself, and realize things, as we pinch ourselves to know that we are awake. He keeps the plain; he rarely mounts or sinks; likes to feel solid ground, and the stones underneath. His writing has no enthusiasms, no aspiration; contented, self-respecting, and keeping the middle of the road. There is but one exception—in his love for Socrates. In speaking of him, for once his cheek flushes, and his style rises to passion.

Montaigne died of a quinsy, at the age of sixty, in 1592. When he came to die, he caused the mass to be celebrated in his chamber. At the age of thirty-three, he had been married. "But," he says, "might I have had my own will, I would not have married Wisdom herself, if she would have me: but 'tis to much purpose to evade it, the common custom and use of life will have it so. Most of my actions are guided by example, not choice." In the hour of death, he gave the same weight to custom. *Que sçais je?* What do I know?

This book of Montaigne the world has endorsed, by translating it into all tongues, and printing seventy-five editions of it in Europe: and that, too, a circulation somewhat chosen, namely, among courtiers, soldiers, princes, men of the world, and men of wit and generosity.

Shall we say that Montaigne has spoken wisely, and given the right and permanent expression of the human mind, on the conduct of life?

We are natural believers. Truth, or the connection between cause and effect, alone interests us. We are persuaded that a thread runs through all things: all worlds are strung on it, as beads, and men, and events, and life come to us only because of that thread; they pass and repass only that we may know the direction and continuity of that line. A book or statement which goes to show that there is no line, but random and chaos, a calamity out of nothing, a prosperity and no account of it, a hero born from a fool, a fool from a hero—dispirits us. Seen or unseen, we believe the tie exists. Talent makes counterfeit ties; genius finds the real ones. We hearken to the man of science, because we anticipate the sequence in natural phenomena which he uncovers. We love whatever affirms, connects, preserves; and dislike what scatters or pulls down. One man appears whose nature is to all men's eyes conserving and constructive: his presence supposes a well-ordered society, agriculture, trade, large institutions, and empire. If these did not exist, they would begin to exist through his endeavors. Therefore, he cheers and comforts men, who feel all this in him

very readily. The nonconformist and the rebel say all manner of unanswerable things against the existing republic, but discover to our sense no plan of house or state of their own. Therefore, though the town, and state, and way of living which our counselor contemplated might be a very modest or musty prosperity, yet men rightly go for him, and reject the reformer, so long as he comes only with ax and crowbar.

But though we are natural conservers and causationists, and reject a sour, dumpish unbelief, the skeptical class, which Montaigne represents, has reason, and every man, at some time, belongs to it. Every superior mind will pass through this domain of equilibration–I should rather say, will know how to avail himself of the checks and balances in nature, as a natural weapon against the exaggeration and formalism of bigots and blockheads.

Skepticism is the attitude assumed by the student in relation to the particulars which society adores, but which he sees to be reverend only in their tendency and spirit. The ground occupied by the skeptic is the vestibule of the temple. Society does not like to have any breath of question blown on the existing order. But the interrogation of custom at all points is an inevitable stage in the growth of every superior mind, and is the evidence of its perception of the flowing power which remains itself in all changes.

The superior mind will find itself equally at odds with the evils of society, and with the projects that are offered to relieve them. The wise skeptic is a bad citizen; no conservative; he sees the selfishness of property, and the drowsiness of institutions. But neither is he fit to work with any democratic party that ever was constituted; for parties wish every one committed, and he penetrates the popular patriotism. His politics are those of the "Soul's Errand" of Sir Walter Raleigh; or of Krishna, in the Bhagavat, "There is none who is worthy of my love or hatred"; while he sentences law, physic, divinity, commerce, and custom. He is a reformer; yet he is no better member of the philanthropic association. It turns out that he is not the champion of the operative, the pauper, the prisoner, the slave. It stands in his mind that our life in this world is not of quite so easy interpretation as churches and schoolbooks say. He does not wish to take ground against these benevolences, to play the part of devil's attorney, and blazon every doubt and sneer that darkens the sun for him. But he says, "There are doubts."

I mean to use the occasion, and celebrate the calendar day of our St. Michael de Montaigne, by counting and describing these doubts or negations. I wish to ferret them out of their holes, and sun them a little. We

must do with them as the police do with old rogues who are shown up to the public at the marshal's office. They will never be so formidable when once they have been identified and registered. But I mean honestly by them–that justice shall be done to their terrors. I shall not take Sunday objections, made up on purpose to be put down. I shall take the worst I can find, whether I can dispose of them, or they of me.

I do not press the skepticism of the materialist. I know the quadruped opinion will not prevail. 'Tis of no importance what bats and oxen think. The first dangerous symptom I report is the levity of intellect, as if it were fatal to earnestness to know much. Knowledge is the knowing that we cannot know. The dull pray; the geniuses are light mockers. How respectable is earnestness on every platform! but intellect kills it. Nay, San Carlo, my subtle and admirable friend, one of the most penetrating of men, finds that all direct ascension, even of lofty piety, leads to this ghastly insight, and sends back the votary orphaned. My astonishing San Carlo thought the lawgivers and saints infected. They found the ark empty; saw, and would not tell; and tried to choke off their approaching followers, by saying, "Action, action, my dear fellows, is for you!" Bad as was to me this detection by San Carlo, this frost in July, this blow from a bride, there was still a worse, namely, the cloy or satiety of the saints. In the mount of vision, ere they have yet risen from their knees, they say, "We discover that this our homage and beatitude is partial and deformed: we must fly for relief to the suspected and reviled Intellect, to the Understanding, the Mephistopheles, to the gymnastics of talent."

This is hobgoblin the first; and, though it has been the subject of much elegy, in our nineteenth century, from Byron, Goethe, and other poets of less fame, not to mention many distinguished private observers, I confess it is not very affecting to my imagination; for it seems to concern the shattering of babyhouses and crockery shops. What flutters the church of Rome, or of England, or of Geneva, or of Boston may yet be very far from touching any principle of faith. I think that the intellect and moral sentiment are unanimous; and that, though philosophy extirpates bugbears, yet it supplies the natural checks of vice, and polarity to the soul. I think that the wiser a man is, the more stupendous he finds the natural and moral economy, and lifts himself to a more absolute reliance.

There is the power of moods, each setting at nought all but its own tissue of facts and beliefs. There is the power of complexions, obviously modifying the dispositions and sentiments. The beliefs and unbeliefs appear to be structural; and, as soon as each man attains the poise and vivacity which allow the whole machinery to play, he will not need

extreme examples, but will rapidly alternate all opinions in his own life. Our life is March weather, savage and serene in one hour. We go forth austere, dedicated, believing in the iron links of Destiny, and will not turn on our heel to save our life; but a book, or a bust, or only the sound of a name, shoots a spark through the nerves, and we suddenly believe in will: my finger ring shall be the seal of Solomon; fate is for imbeciles; all is possible to the resolved mind. Presently, a new experience gives a new turn to our thoughts: common sense resumes its tyranny; we say, "Well, the army, after all, is the gate to fame, manners, and poetry; and, look you—on the whole, selfishness plants best, prunes best, makes the best commerce, and the best citizen." Are the opinions of a man on right and wrong, on fate and causation, at the mercy of a broken sleep or an indigestion? Is his belief in God and Duty no deeper than a stomach evidence? And what guarantee for the permanence of his opinions? I like not the French celerity—a new church and state once a week. This is the second negation; and I shall let it pass for what it will. As far as it asserts rotation of states of mind, I suppose it suggests its own remedy, namely, in the record of larger periods. What is the mean of many states; of all the states? Does the general voice of ages affirm any principle, or is no community of sentiment discoverable in distant times and places? And when it shows the power of self-interest, I accept that as part of the divine law, and must reconcile it with aspiration the best I can.

The word Fate, or Destiny, expresses the sense of mankind, in all ages—that the laws of the world do not always befriend, but often hurt and crush us. Fate, in the shape of *Kinde* or nature, grows over us like grass. We paint Time with a scythe; Love and Fortune, blind; and Destiny, deaf. We have too little power of resistance against this ferocity which champs us up. What front can we make against these unavoidable, victorious, maleficent forces? What can I do against the influence of race, in my history? What can I do against hereditary and constitutional habits, against scrofula, lymph, impotence? against climate, against barbarism, in my country? I can reason down or deny everything, except this perpetual Belly; feed he must and will, and I cannot make him respectable.

But the main resistance which the affirmative impulse finds, and one including all others, is in the doctrine of the illusionists. There is a painful rumor in circulation that we have been practiced upon in all the principal performances of life, and free agency is the emptiest name. We have been sopped and drugged with the air, with food, with woman, with children, with sciences, with events, which leave us exactly where they found us.

The mathematics, 'tis complained, leave the mind where they find it; so do all sciences; and so do all events and actions. I find a man who has passed through all the sciences, the churl he was; and, through all the offices, learned, civil, and social, can detect the child. We are not the less necessitated to dedicate life to them. In fact, we may come to accept it as the fixed rule and theory of our state of education that God is a substance, and his method is illusion. The eastern sages owned the goddess Yoganidra, the great illusory energy of Vishnu, by whom, as utter ignorance, the whole world is beguiled.

Or shall I state it thus?–The astonishment of life is the absence of any appearance of reconciliation between the theory and practice of life. Reason, the prized reality, the law, is apprehended, now and then, for a serene and profound moment, amidst the hubbub of cares and works which have no direct bearing on it; is then lost, for months or years, and again found, for an interval, to be lost again. If we compute it in time, we may, in fifty years, have half a dozen reasonable hours. But what are these cares and works the better? A method in the world we do not see, but this parallelism of great and little, which never react on each other, nor discover the smallest tendency to converge. Experiences, fortunes, governings, readings, writings are nothing to the purpose; as when a man comes into the room, it does not appear whether he has been fed on yams or buffalo–he has contrived to get so much bone and fiber as he wants, out of rice or out of snow. So vast is the disproportion between the sky of law and the pismire of performance under it that whether he is a man of worth or a sot is not so great a matter as we say. Shall I add, as one juggle of this enchantment, the stunning nonintercourse law which makes co-operation impossible? The young spirit pants to enter society. But all the ways of culture and greatness lead to solitary imprisonment. He has been often balked. He did not expect a sympathy with his thought from the village, but he went with it to the chosen and intelligent, and found no entertainment for it, but mere misapprehension, distaste, and scoffing. Men are strangely mistimed and misapplied; and the excellence of each is an inflamed individualism which separates him more.

There are these, and more than these diseases of thought, which our ordinary teachers do not attempt to remove. Now shall we, because a good nature inclines us to virtue's side, say, There are no doubts,–and lie for the right? Is life to be led in a brave or in a cowardly manner? and is not the satisfaction of the doubts essential to all manliness? Is the name of virtue to be a barrier to that which is virtue? Can you not believe that a man of earnest and burly habit may find small good in tea, essays, and

catechism, and want a rougher instruction, want men, labor, trade, farming, war, hunger, plenty, love, hatred, doubt, and terror to make things plain to him, and has he not a right to insist on being convinced in his own way? When he is convinced, he will be worth the pains.

Belief consists in accepting the affirmations of the soul; unbelief, in denying them. Some minds are incapable of skepticism. The doubts they profess to entertain are rather a civility or accommodation to the common discourse of their company. They may well give themselves leave to speculate, for they are secure of a return. Once admitted to the heaven of thought, they see no relapse into night, but infinite invitation on the other side. Heaven is within heaven, and sky over sky, and they are encompassed with divinities. Others there are, to whom the heaven is brass, and it shuts down to the surface of the earth. It is a question of temperament, or of more or less immersion in nature. The last class must needs have a reflex or parasite faith; not a sight of realities, but an instinctive reliance on the seers and believers of realities. The manners and thoughts of believers astonish them, and convince them that these have seen something which is hid from themselves. But their sensual habit would fix the believer to his last position, while he as inevitably advances; and presently the unbeliever, for love of belief, burns the believer.

Great believers are always reckoned infidels, impracticable, fantastic, atheistic, and really men of no account. The spiritualist finds himself driven to express his faith by a series of skepticisms. Charitable souls come with their projects, and ask his co-operation. How can he hesitate? It is the rule of mere comity and courtesy to agree where you can, and to turn your sentence with something auspicious, and not freezing and sinister. But he is forced to say, "Oh, these things will be as they must be: what can you do? These particular griefs and crimes are the foliage and fruit of such trees as we see growing. It is vain to complain of the leaf or the berry: cut it off; it will bear another just as bad. You must begin your cure lower down." The generosities of the day prove an intractable element for him. The people's questions are not his; their methods are not his; and, against all the dictates of good nature, he is driven to say he has no pleasure in them.

Even the doctrines dear to the hope of man, of the divine Providence, and of the immortality of the soul, his neighbors cannot put the statement so that he shall affirm it. But he denies out of more faith, and not less. He denies out of honesty. He had rather stand charged with the imbecility of skepticism than with untruth. I believe, he says, in the moral design of the universe; it exists hospitably for the weal of souls; but your dogmas seem

to me caricatures: why should I make believe them? Will any say, this is cold and infidel? The wise and magnanimous will not say so. They will exult in his farsighted good will, that can abandon to the adversary all the ground of tradition and common belief, without losing a jot of strength. It sees to the end of all transgression. George Fox saw "that there was an ocean of darkness and death; but withal, an infinite ocean of light and love which flowed over that of darkness."

The final solution in which skepticism is lost is in the moral sentiment, which never forfeits its supremacy. All moods may be safely tried, and their weight allowed to all objections: the moral sentiment as easily outweighs them all, as any one. This is the drop which balances the sea. I play with the miscellany of facts, and take those superficial views which we call skepticism; but I know that they will presently appear to me in that order which makes skepticism impossible. A man of thought must feel the thought that is parent of the universe: that the masses of nature do undulate and flow.

This faith avails to the whole emergency of life and objects. The world is saturated with deity and with law. He is content with just and unjust, with sots and fools, with the triumph of folly and fraud. He can behold with serenity the yawning gulf between the ambition of man and his power of performance, between the demand and supply of power, which makes the tragedy of all souls.

Charles Fourier announced that "the attractions of man are proportioned to his destinies"; in other words, that every desire predicts its own satisfaction. Yet, all experience exhibits the reverse of this; the incompetency of power is the universal grief of young and ardent minds. They accuse the divine providence of a certain parsimony. It has shown the heaven and earth to every child, and filled him with a desire for the whole; a desire raging, infinite; a hunger, as of space to be filled with planets; a cry of famine, as of devils for souls. Then for the satisfaction—to each man is administered a single drop, a bead of dew of vital power, *per day*—a cup as large as space, and one drop of the water of life in it. Each man woke in the morning, with an appetite that could eat the solar system like a cake; a spirit for action and passion without bounds; he could lay his hand on the morning star; he could try conclusions with gravitation or chemistry; but, on the first motion to prove his strength, hands, feet, senses gave way, and would not serve him. He was an emperor deserted by his states, and left to whistle by himself, or thrust into a mob of emperors, all whistling; and still the sirens sang, "The attractions are proportioned to the destinies." In every house, in the heart of each maiden,

and of each boy, in the soul of the soaring saint, this chasm is found– between the largest promise of ideal power, and the shabby experience.

The expansive nature of truth comes to our succor, elastic, not to be surrounded. Man helps himself by larger generalizations. The lesson of life is practically to generalize; to believe what the years and the centuries say against the hours; to resist the usurpation of particulars; to penetrate to their catholic sense. Things seem to say one thing, and say the reverse. The appearance is immoral; the result is moral. Things seem to tend downwards, to justify despondency, to promote rogues, to defeat the just; and, by knaves, as by martyrs, the just cause is carried forward. Although knaves win in every political struggle, although society seems to be delivered over from the hands of one set of criminals into the hands of another set of criminals, as fast as the government is changed, and the march of civilization is a train of felonies, yet, general ends are somehow answered. We see, now, events forced on, which seem to retard or retrograde the civility of ages. But the world spirit is a good swimmer, and storms and waves cannot drown him. He snaps his finger at laws: and so, throughout history, heaven seems to affect low and poor means. Through the years and the centuries, through evil agents, through toys and atoms, a great and beneficent tendency irresistibly streams.

Let a man learn to look for the permanent in the mutable and fleeting; let him learn to bear the disappearance of things he was wont to reverence, without losing his reverence; let him learn that he is here, not to work, but to be worked upon; and that, though abyss open under abyss, and opinion displace opinion, all are at last contained in the Eternal Cause–

> If my bark sink, 'tis to another sea.

William Hazlitt [1]

1778–1830

Like any other good writer, Hazlitt often tells us things we know but did not know we knew. His *On the Feeling of Immortality in Youth* provides some excellent examples. We are all young or have been. Thus we are all capable of judging the truth of the feelings he describes, though perhaps in different and limited ways. Hazlitt's subject is not youth in itself but youth in the light of its opposite age, and seen from that viewpoint. Youth, as he says, can hardly imagine age; and age, though it has its own youth to remember, will more often than not gild that youth out of all resemblance to itself.

Hazlitt begins with an aphorism of his brother's: "No young man believes he shall ever die." Though we think of exceptions at once–Keats dying of tuberculosis, a young infantryman who has done too much fighting–we are struck with its general truth of feeling. We see how it makes a keynote for the whole essay. Moreover, we are reminded of that saying of Marlow's, in Conrad's *Youth*,[2] that he had felt as if he "could last for ever, outlast the sea, the earth, and all men. . . ." It is the same feeling. "Youth" is an abstract noun; "being young" is the thing itself. Conrad creates a sequence of events that will symbolize this feeling; Hazlitt generalizes, but so warmly that he too manages to give us the sense of the thing itself.

And how well he does it, with what a wealth of example! In youth, he says, "we are rocked in the cradle of our desires, and hushed into fancied security by the roar of the universe around us," so that we have "no room for the thoughts of death." Death–and how truly that poet's phrase catches the feeling–is no more than a "dim shadow lingering for us in the distance." We are alive and young.

[1] For a biography of William Hazlitt, see Vol. 5, pp. 260–262, in this set.
[2] See Vol. 2, pp. 210–236, in this set.

That is enough for us. To be young is to be the citizen of a universal and immortal country, in which every man in his youth—everyone who has ever been young or will be—is our contemporary. For the romantic, and Hazlitt was that, the rest of life is a long exile from that country.

Hazlitt was well acquainted with the Elizabethans, and there is a touch of Elizabethan eagerness and splendor about the passage that begins: "To see the golden sun. . . ." It turns dark as it confronts the paradox of death in the midst of this brightness. He tells us about his own youth, how it caught fire in the ardor of the French Revolution, the common hope of liberty for all men. But when that hope "set once more in the night of despotism," he felt that his youth was ended and turned back to the past.

If we are young, or if we remember our own early years with some exactness, we may perhaps feel that Hazlitt idealizes youth a little. Did he forget its troubles? Did he forget that to be young is often to be anxious, to be confused about which way we are going, to attempt things we do not quite understand, things we are not quite sure we can do? Did he forget that when we are young the world is very big and very strong, that it is sometimes hostile or indifferent to the best and truest of our wishes?

On the Feeling of Immortality in Youth

No young man believes he shall ever die. It was a saying of my brother's, and a fine one. There is a feeling of eternity in youth which makes us amends for everything. To be young is to be as one of the immortals. One half of time indeed is spent—the other half remains in store for use with all its countless treasures, for there is no line drawn, and we see no limit to our hopes and wishes. We make the coming age our own—

> The vast, the unbounded prospect lies before us.

Death, old age are words without a meaning, a dream, a fiction, with which we have nothing to do. Others may have undergone, or may still undergo them—we "bear a charmed life," which laughs to scorn all such idle fancies. As, in setting out on a delightful journey, we strain our eager sight forward,

> Bidding the lovely scenes at distance hail,

and see no end to prospect after prospect, new objects presenting themselves as we advance, so in the outset of life we see no end to our desires nor to the opportunities of gratifying them. We have as yet found no obstacle, no disposition to flag, and it seems that we can go on so for ever. We look round in a new world, full of life and motion, and ceaseless progress, and feel in ourselves all the vigour and spirit to keep pace with it, and do not foresee from any present signs how we shall be left behind in the race, decline into old age, and drop into the grave. It is the simplicity and, as it were, abstractedness of our feelings in youth that (so to speak) identifies us with nature and (our experience being weak and our passions strong) makes us fancy ourselves immortal like it. Our short-lived connection with being, we fondly flatter ourselves, is an indis-

soluble and lasting union. As infants smile and sleep, we are rocked in the cradle of our desires, and hushed into fancied security by the roar of the universe around us—we quaff the cup of life with eager thirst without draining it, and joy and hope seem ever mantling to the brim—objects press around us, filling the mind with their magnitude and with the throng of desires that wait upon them, so that there is no room for the thoughts of death. We are too much dazzled by the gorgeousness and novelty of the bright waking dream about us to discern the dim shadow lingering for us in the distance. Nor would the hold that life has taken of us permit us to detach our thoughts that way, even if we could. We are too much absorbed in present objects and pursuits. While the spirit of youth remains unimpaired, ere "the wine of life is drunk," we are like people intoxicated or in a fever, who are hurried away by the violence of their own sensations: it is only as present objects begin to pall upon the sense, as we have been disappointed in our favourite pursuits, cut off from our closest ties, that we by degrees become weaned from the world, that passion loosens its hold upon futurity, and that we begin to contemplate as in a glass darkly the possibility of parting with it for good. Till then, the example of others has no effect upon us. Casualties we avoid; the slow approaches of age we play at hide-and-seek with. Like the foolish fat scullion in Sterne, who hears that Master Bobby is dead, our only reflection is, "So am not I!" The idea of death, instead of staggering our confidence, only seems to strengthen and enhance our sense of the possession and enjoyment of life. Others may fall around us like leaves, or be mowed down by the scythe of Time like grass: these are but metaphors to the unreflecting, buoyant ears and overweening presumption of youth. It is not till we see the flowers of love, hope, and joy withering around us that we give up the flattering delusions that before led us on, and that the emptiness and dreariness of the prospect before us reconciles us hypothetically to the silence of the grave.

Life is indeed a strange gift, and its privileges are most mysterious. No wonder when it is first granted to us that our gratitude, our admiration, and our delight should prevent us from reflecting on our own nothingness, or from thinking it will ever be recalled. Our first and strongest impressions are borrowed from the mighty scene that is opened to us, and we unconsciously transfer its durability as well as its splendour to ourselves. So newly found, we cannot think of parting with it yet, or at least put off that consideration *sine die*. Like a rustic at a fair, we are full of amazement and rapture, and have no thought of going home, or that it will soon be night. We know our existence only by ourselves,

and confound our knowledge with the objects of it. We and nature are therefore one. Otherwise the illusion, the "feast of reason and the flow of soul," to which we are invited, is a mockery and a cruel insult. We do not go from a play till the last act is ended, and the lights are about to be extinguished. But the fairy face of Nature still shines on: shall we be called away before the curtain falls, or ere we have scarce had a glimpse of what is going on? Like children, our stepmother Nature holds us up to see the raree-show of the universe, and then, as if we were a burden to her to support, lets us fall down again. Yet what brave sublunary things does not this pageant present, like a ball or fête of the universe!

To see the golden sun, the azure sky, the outstretched ocean; to walk upon the green earth, and be lord of a thousand creatures; to look down yawning precipices or over distant sunny vales; to see the world spread out under one's feet on a map; to bring the stars near; to view the smallest insects through a microscope; to read history, and consider the revolutions of empire and the successions of generations; to hear of the glory of Tyre, of Sidon, of Babylon, and of Susa, and to say all these were before me and are now nothing; to say I exist in such a point of time, and in such a point of space; to be a spectator and a part of its ever moving scene; to witness the change of season, of spring and autumn, of winter and summer; to feel hot and cold, pleasure and pain, beauty and deformity, right and wrong; to be sensible to the accidents of nature; to consider the mighty world of eye and ear; to listen to the stock-dove's notes amid the forest deep; to journey over moor and mountain; to hear the midnight sainted choir; to visit lighted halls, or the cathedral's gloom, or sit in crowded theatres and see life itself mocked; to study the works of art and refine the sense of beauty to agony; to worship fame, and to dream of immortality; to look upon the Vatican, and to read Shakespeare; to gather up the wisdom of the ancients, and to pry into the future; to listen to the trump of war, the shout of victory; to question history as to the movements of the human heart; to seek for truth; to plead the cause of humanity; to overlook the world as if Time and Nature poured their treasures at our feet—to be and to do all this, and then in a moment to be nothing—to have it all snatched from us as by a juggler's trick, or a phantasmagoria! There is something in this transition from all to nothing that shocks us and damps the enthusiasm of youth new flushed with hope and pleasure, and we cast the comfortless thought as far from us as we can. In the first enjoyment of the estate of life we discard the fear of debts and duns, and never think of the final payment of our great debt to nature. Art we know is long; life, we flatter

ourselves, should be so too. We see no end of the difficulties and delays we have to encounter: perfection is slow of attainment, and we must have time to accomplish it in. The fame of the great names we look up to is immortal: and shall not we who contemplate it imbibe a portion of ethereal fire, the *divinae particula aurae*, which nothing can extinguish? A wrinkle in Rembrandt or in nature takes whole days to resolve itself into its component parts, its softenings and its sharpnesses; we refine upon our perfections, and unfold the intricacies of nature. What a prospect for the future! What a task have we not begun! And shall we be arrested in the middle of it? We do not count our time thus employed lost, or our pains thrown away; we do not flag or grow tired, but gain new vigour at our endless task. Shall Time, then, grudge us to finish what we have begun, and have formed a compact with Nature to do? Why not fill up the blank that is left us in this manner? I have looked for hours at a Rembrandt without being conscious of the flight of time, but with ever new wonder and delight, have thought that not only my own but another existence I could pass in the same manner. This rarefied, refined existence seemed to have no end, nor stint, nor principle of decay in it. The print would remain long after I who looked on it had become the prey of worms. The thing seems in itself out of all reason: health, strength, appetite are opposed to the idea of death, and we are not ready to credit it till we have found our illusions vanished, and our hopes grown cold. Objects in youth, from novelty, etc., are stamped upon the brain with such force and integrity that one thinks nothing can remove or obliterate them. They are riveted there, and appear to us as an element of our nature. It must be a mere violence that destroys them, not a natural decay. In the very strength of this persuasion we seem to enjoy an age by anticipation. We melt down years into a single moment of intense sympathy, and by anticipating the fruits defy the ravages of time. If, then, a single moment of our lives is worth years, shall we set any limits to its total value and extent? Again, does it not happen that so secure do we think ourselves of an indefinite period of existence that at times, when left to ourselves, and impatient of novelty, we feel annoyed at what seems to us the slow and creeping progress of time, and argue that if it always moves at this tedious snail's pace it will never come to an end? How ready are we to sacrifice any space of time which separates us from a favourite object, little thinking that before long we shall find it moves too fast?

For my part, I started in life with the French Revolution, and I have lived, alas! to see the end of it. But I did not foresee this result. My sun arose with the first dawn of liberty, and I did not think how soon both

must set. The new impulse to ardour given to men's minds imparted a congenial warmth and glow to mine; we were strong to run a race together, and I little dreamed that long before mine was set, the sun of liberty would turn to blood, or set once more in the night of despotism. Since then, I confess, I have no longer felt myself young, for with that my hopes fell.

I have since turned my thoughts to gathering up some of the fragments of my early recollections, and putting them into a form to which I might occasionally revert. The future was barred to my progress, and I turned for consolation and encouragement to the past. It is thus that, while we find our personal and substantial identity vanishing from us, we strive to gain a reflected and vicarious one in our thoughts: we do not like to perish wholly, and wish to bequeath our names, at least, to posterity. As long as we can make our cherished thoughts and nearest interests live in the minds of others, we do not appear to have retired altogether from the stage. We still occupy the breasts of others, and exert an influence and power over them, and it is only our bodies that are reduced to dust and powder. Our favourite speculations still find encouragement, and we make as great a figure in the eye of the world, or perhaps a greater than in our lifetime. The demands of our self-love are thus satisfied, and these are the most imperious and unremitting. Besides, if by our intellectual superiority we survive ourselves in this world, by our virtues and faith we may attain an interest in another, and a higher state of being, and may thus be recipients at the same time of men and of angels.

> E'en from the tomb the voice of Nature cries,
> E'en in our ashes live their wonted fires.

As we grow old, our sense of the value of time becomes vivid. Nothing else, indeed, seems of any consequence. We can never cease wondering that that which has ever been should cease to be. We find many things remain the same: why then should there be change in us. This adds a convulsive grasp of whatever is, a sense of fallacious hollowness in all we see. Instead of the full, pulpy feeling of youth tasting existence and every object in it, all is flat and vapid–a whited sepulchre, fair without but full of ravening and all uncleanness within. The world is a witch that puts us off with false shows and appearances. The simplicity of youth, the confiding expectation, the boundless raptures are gone: we only think of getting out of it as well as we can, and without any great mischance or annoyance. The flush of illusion, even the complacent retrospect of past joys and hopes, is over: if we can slip out of life without indignity, can escape with

little bodily infirmity, and frame our minds to the calm and respectable composure of still life before we return to absolute nothingness, it is as much as we can expect. We do not die wholly at our deaths: we have mouldered away gradually long before. Faculty after faculty, interest after interest, attachment after attachment disappear: we are torn from ourselves while living, year after year sees us no longer the same, and death only consigns the last fragment of what we were to the grave. That we should wear out by slow stages, and dwindle at last into nothing, is not wonderful, when even in our prime our strongest impressions leave little trace but for the moment, and we are the creatures of petty circumstance. How little effect is made on us in our best days by the books we have read, the scenes we have witnessed, the sensations we have gone through! Think only of the feelings we experience in reading a fine romance (one of Sir Walter's, for instance); what beauty, what sublimity, what interest, what heart-rending emotions! You would suppose the feelings you then experienced would last for ever, or subdue the mind to their own harmony and tone: while we are reading it seems as if nothing could ever put us out of our way, or trouble us—the first splash of mud that we get on entering the street, the first twopence we are cheated out of, the feeling vanishes clean out of our minds, and we become the prey of petty and annoying circumstance. The mind soars to the lofty; it is at home in the groveling, the disagreeable, and the little. And yet we wonder that age should be feeble and querulous—that the freshness of youth should fade away. Both worlds would hardly satisfy the extravagance of our desires and of our presumption.

Sir Thomas Browne

1605–1682

Sir Thomas Browne was one of those amateurs in the arts who end up outdoing the professionals. He was born in London on October 19, 1605. His father, a Cheapside cloth merchant, died when Thomas was eight. His mother then married Sir Thomas Sutton. Young Browne was educated at Winchester and at Oxford, where he took a B.A. in 1626 and an M.A. in 1629. He visited Ireland and later studied medicine at the University of Montpellier, at Padua, and finally in Leiden, where he took his M.D. in 1633.

He settled in Norwich, England. There he developed a large practice and lived for the rest of his life. His friend Whitefoot says that "his complexion and hair was [*sic*] answerable to his name; his stature was moderate, and habit of body neither fat nor lean," but fleshy. His first book, *Religio Medici* (*The Religion of a Doctor*), was published without his consent. Brought out in an authorized edition, it at once became popular and remained so. It is still his most famous work. A second book, *Pseudodoxia Epidemica* (*Common Errors*), was a large and fascinating compilation of popular superstitions. This, too, was very popular. In it Browne confutes scores of false notions that some educated persons even today do not question.

Browne was a Royalist in his sympathies, yet he lived through the English Civil War without suffering any persecutions. He never let public disturbances deflect him from his practice and from his antiquarian researches. He married in 1641 and had twelve children. In 1671 he was knighted. The circumstances are worth recounting. The King, Charles II, was to make a royal visit to Norwich, and let it be known that one citizen of the town would be knighted. The choice would ordinarily have fallen upon the mayor. But the latter, a

remarkably generous man, deferred to Browne, on the grounds that he was the town's most illustrious citizen.

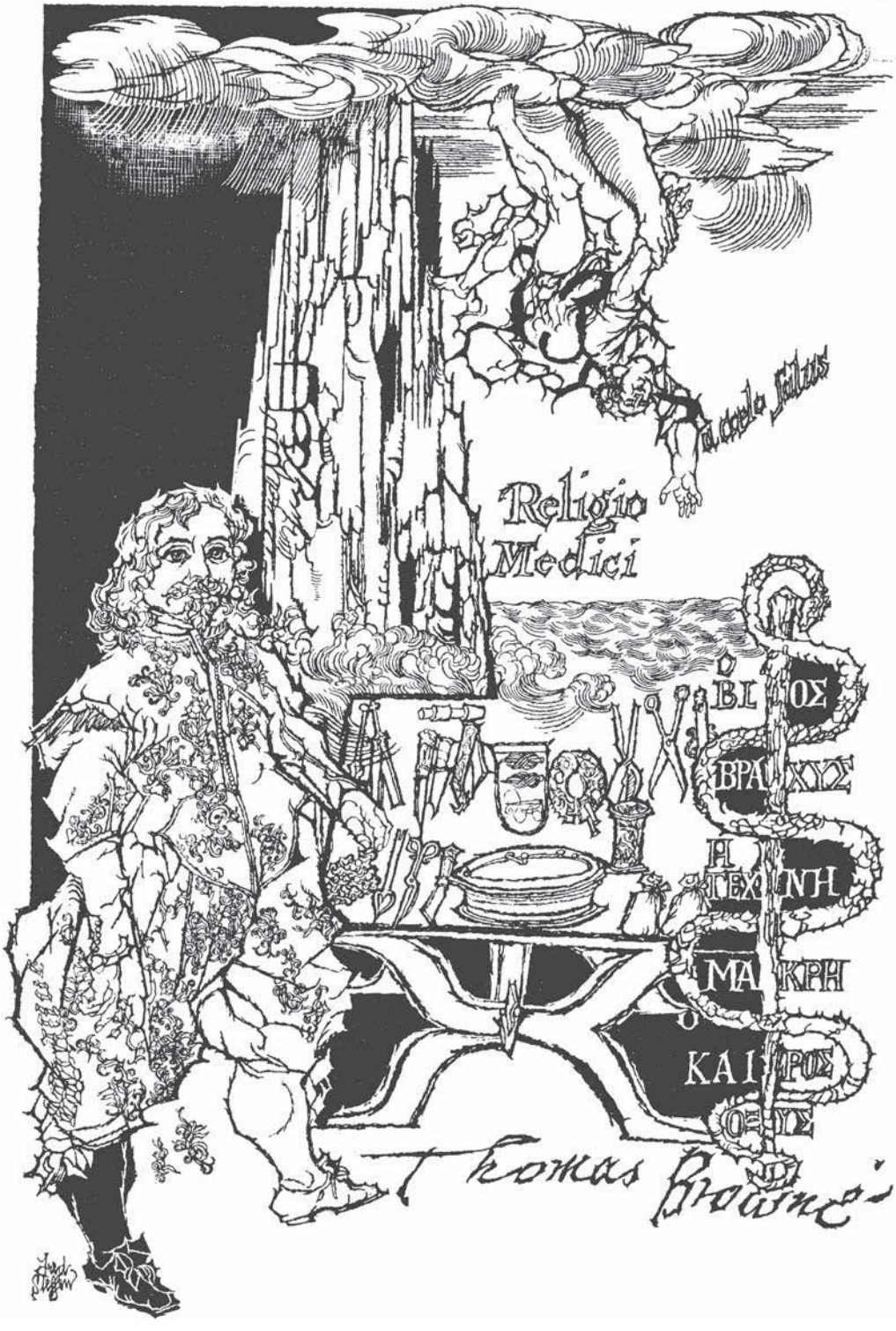
In 1664 Browne testified at the trial of two women charged as witches. He was a deeply religious man who, like most of his contemporaries, believed in a personal Satan and in witches as Satan's agents. The accusation that his testimony was the decisive factor in their condemnation, though still sometimes made, has several times been proved to be unfounded. He died in Norwich in 1682, at the age of seventy-seven.

Our selection is the famous fifth and last chapter of *Hydriotaphia: Urne-buriall, or, A Discourse of the Sepulchrall Urnes lately found in Norfolk.* Taking as his starting place some ancient funeral urns dug up in Norfolk, in which human remains were found but no sign of the names of their originals, Browne meditates grandly on the theme of death and plays variations on such other related themes as methods of burial in other countries and ages, and the means whereby a man may hope to preserve the memory of himself–and the folly of trying to do so.

Try this experiment. Read the selection through as if it were something in a foreign language that you could pronounce but understood very little of. This is prose that is meant to be read aloud; indeed, its closest relatives are the sermons of such contemporaries of Browne as Donne, Andrewes, and Jeremy Taylor. Browne lived in an age of great and fashionable preachers.

Can you catch the noble rolling of that prose in such phrases as "the iniquity of oblivion blindly scattereth her poppy" or "the famous nations of the dead"? Browne was an organist of language. But he did not keep his work under the control of a formal musical logic. He was more like an organist in an empty church, improvising without self-consciousness on some great theme, turning it this way and that, calling up references from all the music of the past.

Notes from the artist: "Browne is shown standing by a table of medical and surgical instruments of his time. The Greek inscription on the Aesculapian wand reads 'Life is short; art is long; experience difficult.' The background is from the title page of an early edition of Religio Medici.*"*


Religio
Medici
Thomas Browne

But you do not understand all that you have read? Even a very learned man might be hard put to it to catch all the Greek and Latin and other allusions the first time. Browne was a prodigious reader, and he had a prodigious memory. Learning was fashionable in his time. Among other things, it was a kind of game. There might even be a certain one-upmanship in producing a Latin tag from a source no one else could guess. Even so, it is easy enough to look up "diuturnity" and find that it means the quality of being long lasting, or that "ossuaries" are receptacles for the bones of the dead. We discover that Jerome Cardan was a famous sixteenth-century physician, and that Herostratus was a man who burned the temple of Diana on the night Alexander the Great was born, hoping that this act would cause his name to be remembered. You can go on and on. *Urn-Burial* is a scholar's paradise.

There are better things to do with Browne than to look up his references. The best thing is to read him—over and over. When this is done, whole sentences and passages begin to come alive. Some mystery remains. Like any good poet, Browne reserves the right to be difficult. He knows that all men's minds do not work in the same way, nor do they have the same emotional references. Beyond simple things, in some obscurity, the true emotional depths may lie. Far from depressing us, this great meditation on death has the effect of coloring the simplest death with glory.

That is the real point of the selection. Browne was a fervent Christian. For him, death was but the entry into a better life, and the true Christian should not wish to perpetuate his earthly existence. "To subsist in lasting monuments," he writes, in one of the most famous passages in all English prose, "to live in their productions, to exist in their names . . . was large satisfaction unto old expectations. . . . But all this is nothing in the metaphysics of true belief. To live indeed is to be again ourselves, which being not only a hope, but an evidence, in noble believers, 'tis all one to lie in St. Innocent's churchyard as in the sands of Egypt; ready to be anything, in the ecstasy of being ever, and as content with six foot as the *moles* of Adrianus."

Immortality from *Urn-Burial*

Now since these dead bones have already outlasted the living ones of Methuselah, and in a yard underground, and thin walls of clay, outworn all the strong and specious buildings above it, and quietly rested under the drums and tramplings of three conquests, what prince can promise such diuturnity unto his relics, or might not gladly say,

"Sic ego componi versus in ossa velim"?

[Thus turned to stone should I wish to be]

Time, which antiquates antiquities, and hath an art to make dust of all things, hath yet spared these minor monuments.

In vain we hope to be known by open and visible conservatories, when to be unknown was the means of their continuation, and obscurity their protection. If they died by violent hands and were thrust into their urns, these bones become considerable, and some old philosophers would honour them, whose souls they conceived most pure which were thus snatched from their bodies, and to retain a stronger propension unto them; whereas they weariedly left a languishing corpse, and with faint desires of reunion. If they fell by long and aged decay, yet, wrapt up in the bundle of time, they fall into indistinction and make but one blot with infants. If we begin to die when we live, and long life be but a prolongation of death, our life is a sad composition; we live with death, and die not in a moment. How many pulses made up the life of Methuselah were work for Archimedes: common counters sum up the life of Moses his man. Our days become considerable, like petty sums, by minute accumulations, where numerous fractions make up but small round numbers; and our days of a span long make not one little finger.

If the nearness of our last necessity brought a nearer conformity into it, there were a happiness in hoary hairs and no calamity in half senses. But the long habit of living indisposeth us for dying; when avarice makes us

the sport of death, when even David grew politicly cruel, and Solomon could hardly be said to be the wisest of men. But many are too early old, and before the date of age. Adversity stretcheth our days, misery makes Alcmena's nights, and time hath no wings unto it. But the most tedious being is that which can unwish itself, content to be nothing or never to have been, which was beyond the malcontent of Job, who cursed not the day of his life but his nativity, content to have so far been as to have a title to future being, although he had lived here but in a hidden state of life, and, as it were, an abortion.

What song the Sirens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions, are not beyond all conjecture. What time the persons of these ossuaries entered the famous nations of the dead, and slept with princes and counsellors, might admit a wide solution. But who were the proprietaries of these bones, or what bodies these ashes made up, were a question above antiquarianism; not to be resolved by man, nor easily perhaps by spirits, except we consult the provincial guardians or tutelary observators. Had they made as good provision for their names as they have done for their relics, they had not so grossly erred in the art of perpetuation. But to subsist in bones, and be but pyramidally extant, is a fallacy in duration. Vain ashes, which in the oblivion of names, persons, times, and sexes have found unto themselves a fruitless continuation, and only arise unto late posterity as emblems of mortal vanities, antidotes against pride, vainglory, and madding vices! Pagan vainglories, which thought the world might last for ever, had encouragement for ambition; and, finding no *Atropos* unto the immortality of their names, were never dampt with the necessity of oblivion. Even old ambitions had the advantage of ours, in the attempts of their vainglories, who, acting early and before the probable meridian of time, have by this time found great accomplishment of their designs, whereby the ancient heroes have already outlasted their monuments and mechanical preservations. But in this latter scene of time we cannot expect such mummies unto our memories, when ambition may fear the prophecy of Elias, and Charles V can never hope to live within two Methuselahs of Hector.

And, therefore, restless inquietude for the diuturnity of our memories unto present considerations seems a vanity almost out of date and superannuated piece of folly. We cannot hope to live so long in our names as some have done in their persons. One face of Janus holds no proportion unto the other. 'Tis too late to be ambitious. The great mutations of the world are acted, or time may be too short for our designs. To extend our memories by monuments whose death we daily pray for, and whose duration we cannot hope without injury to our expectations in the advent

of the Last Day, were a contradiction to our beliefs. We whose generations are ordained in this setting part of time are providentially taken off from such imaginations, and, being necessitated to eye the remaining particle of futurity, are naturally constituted unto thoughts of the next world, and cannot excusably decline the consideration of that duration which maketh pyramids pillars of snow and all that's past a moment.

Circles and right lines limit and close all bodies, and the mortal right-lined circle must conclude and shut up all. There is no antidote against the opium of time, which temporally considereth all things: our fathers find their graves in our short memories, and sadly tell us how we may be buried in our survivors. Gravestones tell truth scarce forty years. Generations pass while some trees stand, and old families last not three oaks. To be read by bare inscriptions like many in Gruter, to hope for eternity by enigmatical epithets or first letters of our names, to be studied by antiquaries, who we were, and have new names given us like many of the mummies, are cold consolations unto the students of perpetuity, even by everlasting languages.

To be content that times to come should only know there was such a man, not caring whether they knew more of him, was a frigid ambition in Cardan, disparaging his horoscopal inclination and judgment of himself. Who cares to subsist like Hippocrates' patients, or Achilles' horses in Homer, under naked nominations, without deserts and noble acts, which are the balsam of our memories, the entelecheia and soul of our subsistences? To be nameless in worthy deeds exceeds an infamous history. The Canaanitish woman lives more happily without a name than Herodias with one. And who had not rather have been the good thief than Pilate?

But the iniquity of oblivion blindly scattereth her poppy, and deals with the memory of men without distinction to merit of perpetuity. Who can but pity the founder of the pyramids? Herostratus lives that burnt the temple of Diana; he is almost lost that built it. Time hath spared the epitaph of Adrian's horse, confounded that of himself. In vain we compute our felicities by the advantage of our good names, since bad have equal durations and Thersites is like to live as long as Agamemnon. Who knows whether the best of men be known, or whether there be not more remarkable persons forgot than any that stand remembered in the known account of time? Without the favour of the everlasting register, the first man had been as unknown as the last, and Methuselah's long life had been his only chronicle.

Oblivion is not to be hired. The greater part must be content to be as though they had not been, to be found in the register of God, not in the record of man. Twenty-seven names make up the first story before the

Flood, and the recorded names ever since contain not one living century. The number of the dead long exceedeth all that shall live. The night of time far surpasseth the day, and who knows when was the equinox? Every hour adds unto that current arithmetic, which scarce stands one moment. And since death must be the *Lucina* of life, and even pagans could doubt whether thus to live were to die; since our longest sun sets at right descensions and makes but winter arches, and therefore it cannot be long before we lie down in darkness and have our light in ashes; since the brother of death daily haunts us with dying mementos, and time, that grows old in itself, bids us hope no long duration, diuturnity is a dream and folly of expectation.

Darkness and light divide the course of time, and oblivion shares with memory a great part even of our living beings; we slightly remember our felicities, and the smartest strokes of affliction leave but short smart upon us. Sense endureth no extremities, and sorrows destroy us or themselves. To weep into stones are fables. Afflictions induce callosities; miseries are slippery, or fall like snow upon us, which notwithstanding is no unhappy stupidity. To be ignorant of evils to come and forgetful of evils past is a merciful provision in nature, whereby we digest the mixture of our few and evil days, and, our delivered senses not relapsing into cutting remembrances, our sorrows are not kept raw by the edge of repetitions. A great part of antiquity contented their hopes of subsistency with a transmigration of their souls—a good way to continue their memories, while, having the advantage of plural successions, they could not but act something remarkable in such variety of beings, and, enjoying the fame of their passed selves, make accumulation of glory unto their last durations. Others, rather than be lost in the uncomfortable night of nothing, were content to recede into the common being and make one particle of the public soul of all things, which was no more than to return into their unknown and divine original again. Egyptian ingenuity was more unsatisfied, contriving their bodies in sweet consistencies, to attend the return of their souls. But all was vanity, feeding the wind, and folly. The Egyptian mummies, which Cambyses or time hath spared, avarice now consumeth. Mummy is become merchandise, Mizraim cures wounds, and Pharaoh is sold for balsams.

In vain do individuals hope for immortality or any patent from oblivion, in preservations below the moon; men have been deceived even in their flatteries, above the sun, and studied conceits to perpetuate their names in heaven. The various cosmography of that part hath already varied the names of contrived constellations; Nimrod is lost in Orion, and Osiris in the Dog-star. While we look for incorruption in the heavens, we find they

are but like the earth—durable in their main bodies, alterable in their parts; whereof, beside comets and new stars, perspectives begin to tell tales, and the spots that wander about the sun, with Phaeton's favour, would make clear conviction.

There is nothing strictly immortal but immortality. Whatever hath no beginning may be confident of no end; which is the peculiar of that necessary essence that cannot destroy itself, and the highest strain of omnipotency, to be so powerfully constituted as not to suffer even from the power of itself: all others have a dependent being and within the reach of destruction. But the sufficiency of Christian immortality frustrates all earthly glory, and the quality of either state, after death, makes a folly of posthumous memory. God, who can only destroy our souls and hath assured our resurrection, either of our bodies or names hath directly promised no duration. Wherein there is so much of chance that the boldest expectants have found unhappy frustration; and to hold long subsistence seems but a scape in oblivion. But man is a noble animal, splendid in ashes and pompous in the grave, solemnizing nativities and deaths with equal lustre, nor omitting ceremonies of bravery in the infamy of his nature.

Life is a pure flame, and we live by an invisible sun within us. A small fire sufficeth for life; great flames seemed too little after death, while men vainly affected precious pyres and to burn like Sardanapalus: but the wisdom of funeral laws found the folly of prodigal blazes, and reduced undoing fires unto the rule of sober obsequies, wherein few could be so mean as not to provide wood, pitch, a mourner, and an urn.

Five languages secured not the epitaph of Gordianus. The man of God lives longer without a tomb than any by one, invisibly interred by angels and adjudged to obscurity, though not without some marks directing human discovery. Enoch and Elias, without either tomb or burial, in an anomalous state of being, are the great examples of perpetuity, in their long and living memory, in strict account being still on this side death and having a late part yet to act upon this stage of earth. If in the decretory term of the world we shall not all die but be changed, according to received translation, the Last Day will make but few graves; at least, quick resurrections will anticipate lasting sepultures. Some graves will be opened before they be quite closed, and Lazarus be no wonder. When many that feared to die shall groan that they can die but once, the dismal state is the second and living death, when life puts despair on the damned, when men shall wish the coverings of mountains, not of monuments, and annihilations shall be courted.

While some have studied monuments, others have studiously declined

them, and some have been so vainly boisterous that they durst not acknowledge their graves; wherein Alaricus seems most subtle, who had a river turned to hide his bones at the bottom. Even Sylla, that thought himself safe in his urn, could not prevent revenging tongues, and stones thrown at his monument. Happy are they whom privacy makes innocent, who deal so with men in this world that they are not afraid to meet them in the next, who, when they die, make no commotion among the dead, and are not touched with that poetical taunt of Isaiah.

Pyramids, arches, obelisks were but the irregularities of vainglory, and wild enormities of ancient magnanimity. But the most magnanimous resolution rests in the Christian religion, which trampleth upon pride and sits on the neck of ambition, humbly pursuing that infallible perpetuity unto which all others must diminish their diameters and be poorly seen in angles of contingency.

Pious spirits who passed their days in raptures of futurity made little more of this world than the world that was before it, while they lay obscure in the chaos of pre-ordination and night of their fore-beings. And if any have been so happy as truly to understand Christian annihilation, ecstasies, exolution, liquefaction, transformation, the kiss of the spouse, gustation of God, and ingression into the divine shadow, they have already had a handsome anticipation of heaven; the glory of the world is surely over, and the earth in ashes unto them.

To subsist in lasting monuments, to live in their productions, to exist in their names and predicament of chimaeras, was large satisfaction unto old expectations, and made one part of their Elysiums. But all this is nothing in the metaphysics of true belief. To live indeed is to be again ourselves, which being not only a hope, but an evidence, in noble believers, 'tis all one to lie in St. Innocent's churchyard as in the sands of Egypt; ready to be anything, in the ecstasy of being ever, and as content with six foot as the moles of Adrianus.

. . . tabesne cadavera solvat,
An rogus, haud refert.

[It matters not whether putrefaction or the pyre destroys our bodies.]
Lucan

The foregoing is Chapter V
of Sir Thomas Browne's HYDRIOTAPHIA: URN-BURIAL.